Digitized by the Internet Archive
in 2009 with funding from
University of Toronto

http://www.archive.org/details/1881britishmedical02brit

THE

BRITISH MEDICAL JOURNAL:

BEING THE

JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED FOR THE ASSOCIATION BY

ERNEST HART.

VOLUME II FOR 1881.

JULY TO DECEMBER.

298480
5 4 34

London:

PRINTED AND PUBLISHED BY THE BRITISH MEDICAL ASSOCIATION, AT THEIR OFFICE, 161a, STRAND.

MDCCCLXXXI.

R
31
B93
1881
v.2
cop.2

INDEX TO VOLUME II FOR 1881.

A.

Abdomen, abscess of after enteric fever, Dr. R. B. Low on, 122; letter on, 348; abscess of after ovariotomy, Dr. W. Henderson on, 157; intraperitoneal treatment of tumours of, 549; varicose veins of wall of, 597; Dr. Marion Sims on treatment of wounds of, 925, 971; Dr. J. J. Gorham on bullet-wound of, 1050; laceration of by a cow, 1066
Abdominal section an aid to pathological investigation, 759; cases of, 859
Abdul-Aziz, Ex-Sultan, the death of, 51
Abercrombie, Dr. J., diphtheritic paralysis and albuminuria, 522
Aberdeen, special correspondence from, 759, 999
Abortion in connection with inflammation of uterus, Dr. J. H. Bennet on, 39
Abscess, abdominal, after enteric fever, Dr. R. B. Low on, 122; letter on, 348; of abdomen after ovariotomy, Dr. W. Henderson on, 157; in head of tibia, 744; of brain, 757; of breast treated with carbolic and eucalyptus gauze, 778; of liver, surgical treatment of, 779; of orbit, 1019; of cerebellum, *ib.*; Cold, Dr. Lannelongue on, *rev.*, 1059
Abscesses, treatment of, 382
Absinthe, nature of, 640
Absorption of inflammatory products, remedies promoting, 527
Academy of Medicine, New York, resolutions regarding Mr. Spencer Wells, 129
——— of Medicine, Paris, prizes of, 328, 413; bequest to, 1058
——— Royal, of Medicine in Brussels, prizes, 92, 762
——— of Sciences in Turin, prizes of, 677
Acland, Dr. H. W., international conditions of admissibility to practice, 632
Aconitine, toxic power of different varieties of, 523
Action by homœopaths against a medical paper, 18; for libel on Countess of Lonsdale, 20; for alleged malapraxis, 21, 108, 995; for recovery of fees, 23, 674, 869, 909; against BRITISH MEDICAL JOURNAL, withdrawal of, 125
Adam, Mr. G. R., treatment of anasarca, 137
Adams, Mr. J. E., uniocular diplopia, 667; pyæmic ophthalmitis, *ib.*
Addison's disease, pathology of, 323; Mr. H. E. Wright on a case of, 1052
Adenoid vegetations in pharynx, 593
Adeno-lipoma of mammary gland, 778
Adenoma, calcified, of scalp, 939; sebaceous, of scalp, *ib.*
Admiralty Islands, skulls of natives of, 560
Adulteration of butter-milk, 131; in county Antrim, 132; of milk, 327; report of Local Government Board on, 369; of butter, 407, 865, 1003; of food and drink, law against in New York, 534; of food, prevention of, 632; of coffee, 865
Advertisements, medical, 109, 144, 506, 923; of death, charges for, 691
Afghanistan, proposed memorial of medical officers dead in, 169; deaths in, 1038
Africa, South, leucoderma in, 68; war in, 97, 416, 488; proposed memorial of medical officers dead in, 169
After-birth, treatment during period of, 261
Air, new purifier of, 572; of London, action of on public buildings, 648; disinfection of, 694
Alaska Indian doctor, 172
Albissima paint, 409
Albuminuria, and eczema, in relation to gout, 360; absent in chronic Bright's disease, 361; diphtheritic, 522; in infants, Dr. J. M. Booth on, 626; Dr. J. R. Morison on, 777. *See* Bright's disease
Alcohol, Dr. L. Shapter on use of in relation to public health, 44; Dr. Andrew Clark on, 90; resolution of State Medical Society of Nebraska, 618; in urine, Dr. Carrington on, 935; Dr. Kirk on, 978
Alcoholism, acute, simulating hydrophobia, 256
Alderson, Dr. F. H., induction of premature labour at eighth month, 687
Alford, Mr. Stephen, death of, 53; resolution of Metropolitan Counties Branch on, 183
Algiers, naming of a street in, 18
Alimentary canal, passage of a penny through, 193
Alimentation, rectal, 475
Alkaloids, cadaveric, 165, 988
Allan, Dr. James, fibroma loose in peritoneal cavity, 81
Allbutt, Dr. Clifford, origin and cure of scrofulous neck, 359; idiopathic anæmia with retinal hæmorrhage, 627
Allen's small spray-apparatus, 635; hospital bath, 903
Allinson, Mr. T. R., an anæsthetic car, 110
Almonds, bitter, poisoning by oil of, 12, 19
Alopecia areata, causes of, 551
Altitudes, high, Dr. C. T. Williams on treatment of phthisis at, 364, 975
Alveoli of teeth, premature wasting of, 564
Amblyopia, central, in diabetes, 84
Amblyopic ataxy, 937
Ambulance Association. *See* Association
——— classes in Glasgow, 995, 1031
——— department, volunteer, at Royal review, 341
——— station of Metropolitan Asylums Board, 567
——— system, in New York, Dr. B. Howard on, 72; for London, remarks on, 88, 879, 910, 1027; letter on, 187; and volunteer corps, 1045
America, medical practitioners in United States of, 851
Amputation, intra-uterine, Dr. R. J. Anderson on, 78; of leg by Mr. Whitehead's method, 879; at hip-joint, 915
Amyot, Mr. T. E., lawful poisoning, 691
Anæmia, progressive, retinal changes in, 268; idiopathic, with retinal hæmorrhage, 627
Anæsthesia, local, 707
Anæsthetic car, 110
Anæsthetics, use of at Dental Hospital of London, 563; letter on deaths attributed to, 581; Committee on action of, 956; M. Paul Bert on, 1033
Analgesia, hysterical, in children, Dr. T. Barlow on, 892; death after, 1065
Analyst, public, for Cork, 914
Anasarca, treatment of, 137
Anatomy, morbid, text-books of, 424; section of in International Medical Congress, *see* Congress; British and Continental Schools of, 562; use of living model in teaching of, *ib.*; teaching of in school of Royal College of Surgeons in Ireland, 1024
Anderson, Dr. McCall, local treatment of diphtheria, 124
——— Dr. R. J., case of intra-uterine amputation, 78
Anencephalous fœtus, 708
Aneurysm by anastomosis, of face and orbit, 598
——— of aorta, thoracic, treated by rest and medicine, 18; projecting into pulmonary artery and right ventricle, Dr. Rickards on, 154; rupture of into bronchus, 669; with secondary pouch, 817; large, 1020
——— of cerebral arteries as a cause of hæmorrhage, 546
——— of hepatic artery, 1066
——— of innominate artery, ligature of carotid and subclavian arteries for, 780
——— intracranial, and optic neuritis, 940
——— of popliteal artery, ligature and amputation for, 855
——— of pulmonary artery, Dr. Rickards on, 155
Ankylosis of knee after Ogston's operation, 1015; of atlas and occipital bone, 1019
Angelucci, Dr., etiology of scales in diseases of skin, 550
Angove, Mr. W. T., treatment of bleeding from nose, 1005
Animals, tubercular disease, communication of, 631
Annandale, Mr. T., case of conservative surgery, 930
Anningson, Dr. B., etiology of zymotic diseases, 819; perforating ulcer of stomach, 982
Anniss, Inspector, evidence on Contagious Diseases Acts, 26
Anniversary, a remarkable, 825
Antagonism, physiological, nature and limits of, 525
Anthracite, grates and stoves for burning, 946
Anthropometry, Italian translation of Mr. C. Roberts's Manual of, 1030
Antidote bag, Martindale's, 607
Antipyretic medicines, action and uses of, 407; treatment, 480
Antiseptic incision and drainage in empyema, 371
——— inhalations, 802, 1045. *See* Phthisis
——— methods in ophthalmic surgery, 593
——— midwifery, 401
——— osteotomy, 420
——— ovariotomy, 171, 232, 879
——— soap, 171
Antiseptic surgery, Mr. Bartleet on, 370; in Calcutta, 912; Dr. W. Main on, 1013
——— treatment of phthisis, Dr. W. Williams on, 120; Dr. J. C. Murray on, 121; Dr. Batterbury on, 665; Dr. McAldowie on, 666; Dr. Cosgrave on, 704; Dr. G. H. Mackenzie on, 813; Dr. Saundby on, 1011
——— treatment of wounds in war, 556; in excision of knee, 961
——— trocar, 390
Antivaccination, effect of, 487; letter on, 1077
Antivaccinator, prosecution of an, 843
Antivivisectionists, meetings of, 20, 866; letters from, 846; in the pulpit, 1005
Aorta, thoracic, aneurysm of treated by rest and medicine, 18; communication of with pulmonary artery, Dr. E. Rickards on, 71; projecting into pulmonary artery and right ventricle, Dr. Rickards on, 154; rupture of into bronchus, 669; with secondary pouch, 817; large, 1020
——— narrowing of orifice of, 817; and pulmonary artery, transposition of, 900
Aphasia following injuries to head, 705, 706
Apothecaries' Hall of Ireland, office-bearers, 346; regulations for licence, 440
Apothecaries' Society, pass-lists, licence, 65, 106, 141, 191, 246, 307, 346, 381, 421, 468, 502, 540, 577, 616, 651, 689, 724, 800, 842, 883, 920, 963, 1002, 1042, 1073; primary examinations, 191, 246, 307, 346, 381, 421, 468, 540, 577, 616, 651, 724, 800, 842, 883, 920, 962, 1002, 1042; preliminary examination, 540; prizes in botany, 65; regulations for licence, 430; prizes in materia medica and pharmaceutical chemistry, 673
Appeals, 383, 765
Archer, Mr. W. G., political canvassing for hospital appointments, 1034
Arkövy, Dr., devitalisation of tooth-pulp, 563
Arlt, Dr. von, 787
Army, British, medical department of, appointments and changes in, 64, 380; remarks on medical corps for, 103, 104; statistics of, 104, 189; pay in, 104, 835; promotion and retirement in, 189; organisation of, 189, 516; letters on, 189, 919; successful candidates at examinations, 306; appointment of principal medical officer at Gibraltar, 343; deaths, 380, 936; training of subordinates for, 558; dental surgery in, 563; opening of medical school, 638; military titles for officers of, 688; regulations for admission to, 798; letter on regulations, 834; Report of Medical Department for 1879, *rev.*, 860; in an emergency, 876, 1001; roster of service in, 919, 1001; directorship of, 1038
——— hospital corps, presentation of medals to, 98; proceedings in Parliament regarding, 140; letter on, 246
——— Indian, medical department of, honorary physicians and surgeons, 103; deaths, 103; remarks on medical service of, 126, 919, 1025; successful candidates at examinations, 306; defence fund, 413; promotions, 420; the proposed memorial to medical officers, 424; regulations for admission to, 460; want of bearer-companies in, 489; reorganisation of, 490; letters on, 577, 688, 835
——— United States, medical library of, 1029
Arsenic, clonic spasms of neck treated by, 937
Arsenical green paper, 194; paste, poisoning by, 1056
Art in a Parisian hospital, 535
Arteries, cerebral, aneurysm of as a cause of hæmorrhage, 546; changes in peripheral resistance of, 589; carotid and subclavian, ligature of for innominate aneurysm, 780
Artery, brachial, fibro-sarcoma near, 48
——— cerebral, middle, aneurysm of, 940
——— hepatic, aneurysm of, 1066
——— popliteal, aneurysm of, 855
——— pulmonary, communication of with aorta, Dr. E. Rickards on, 71; Dr. Rickards on aneurysm of, 155; and aorta, transposition of, 900; stenosis of valves of, 983
——— subclavian, fibroma near, 48
Arthritis deformans, 859
Artisans' Dwellings Acts, report of committee on, 675; working of, 868
Asclepias in dropsy, Mr. C. Spurway on, 978
Ashby, Dr. H., transposition of aorta and pulmonary artery, 900; intracranial aneurysm and optic neuritis, 940
Ask, Dr. C. J., antiseptic ovariotomy, 171

Assistants. *See* Medical Assistants
Association, British Medical, length of papers at annual meeting, 68, 135; programme of forty-ninth annual meeting, 98, 135, 179, 243; withdrawal of notice of action against, 125; proposed entertainment at Netley, 246; Mr. Barrow's presidential address, 249; Dr. Bristowe's address in Medicine, 256, 299; remarks on annual meeting, 290, 326; deputation to President of Local Government Board, 292; forty-ninth annual meeting, 295; election of President, *ib.*; address of retiring President, *ib.*; report of Council, *ib.*; election of treasurer, 297; vote of thanks to Mr. Husband, *ib.*; president of Council, 298; vote of thanks to Dr. A. Carpenter, *ib.*; place of meeting in 1882, and president-elect, 299; Mr. Jonathan Hutchinson's address in Surgery, 309, 332; Dr. Sinclair Coghill's address in Obstetric Medicine, 314, 334; vivisection, 332; supply of calf-lymph, 336; votes of thanks, *ib.*; dinner, *ib.*; *soirée* at Town Hall, 338; garden party, *ib.*; excursion, *ib.*; members present at annual meeting, 377; the addresses at, 409, 418; Middlemore Fund prize essay, 468; grants for scientific research, 681; final meeting of reception Committee at Ryde, 825; the jubilee meeting, 942; history of, 952; list of readers of addresses at annual meetings, 954; list of officers of sections, 955; programme for 1882, 967
——— General Council, proceedings, 341
——— Committee of Council, proceedings, 181, 341, 721; members elected, 298
——— Committee on Collective Investigation, letters on, 28, 63, 101, 1070; report of, 297, 997; secretary to, 720, 907; remarks on, 991
——— Committee on Legislation for Habitual Drunkards, report of, 179, 334
——— Committee on Medical Reform, report of, 239, 334
——— Committee on Parliamentary Bills, report of, 241, 331
——— Committee on Scientific Grants, report of, 240, 335
——— Section of Medicine, Dr. Long Fox's presidential address, 349; discussion on dilatation of the stomach, 471, 473; codeia in the treatment of diabetes, 474; rectal alimentation, 475; discussion on acute spinal paralysis, *ib.*; treatment of insanity, 476; discussion on jaundice, 477; new stethoscope, 479; antipyretic treatment, 480; subcutaneous emphysema from spontaneous rupture of lung, *ib.*
——— Section of Surgery, Mr. M. Coates's presidential address, 350; antiseptic trocar, 390; treatment of webbed fingers, *ib.*; treatment of stricture by stretching, *ib.*; immediate cure of inguinal hernia, *ib.*; excision of knee in early life, 391; antiseptic incision and drainage in empyema, *ib.*; novel treatment of synovitis, *ib.*; recent advances in pelvic surgery, *ib.*; early recognition and treatment of spinal cases, 392; lithotrity at one sitting, *ib.*; value of suspension in surgery, *ib.*; elastic cord tourniquet, 393; vote of thanks to president, *ib.*
——— Section of Obstetric Medicine: removal of ovaries for dysmenorrhœa and fibroid tumours, 393; adaptation of pessaries, *ib.*; exploration of interior of uterus in *post partum* illness, *ib.*; mechanical treatment of uterine displacements, 394; secondary *post partum* hæmorrhage, *ib.*; sterility, 395; hints on natural labour, *ib.*; prognosis of syphilis in women and children, *ib.*
——— Section of Public Medicine, Dr. A. Ransome's presidential address, 352; discussion on enteric fever and diphtheria, 510; prevention of enteric fever, *ib.*; discussion on animal vaccination, 512; pros and cons of vaccination, *ib.*; the Isle of Wight as a health-resort, 514; climate of the Undercliff, *ib.*; peculiar disease from milk-contamination, 515; organisation of Army Medical Department, 516; homes for convalescents from scarlatina, 517; compulsory notification of infectious diseases, *ib.*; tenement hospitals, *ib.*
——— Subsection of Otology, Dr. U. Pritchard's presidential address, 355, 396; relation of disease of nasal passages to aural affections, 396; study of aural surgery, *ib.*; treatment of purulent discharge from ear, *ib.*; ear-protector, 397; instruments, *ib.*
——— Bath and Bristol Branch: annual meeting, 186; vote of thanks to president, *ib.*; report of Council, *ib.*; president-elect, *ib.*; votes of thanks, *ib.*; dinner, *ib.*; ordinary meetings, 796, 959; new members, 796, 959; papers, 796; consultations with homœopathic practitioners, 959
——— Birmingham and Midland Counties Branch: annual meeting, 62; report of Council, *ib.*; president's address, *ib.*; vote of thanks, *ib.*; officers, *ib.*; Council of Branch, *ib.*; representatives in General Council, *ib.*; dinner, *ib.*; ordinary meetings, 757; communications, 757.—Pathological Section: hydrosalpinx, 859; arthritis deformans, *ib.*; fatty emboli, *ib.*; subastragaloid dislocation, *ib.*; removal of large gall-stone from intestine, *ib.*; tricuspid and mitral stenosis, *ib.*; nævus, 1019; ulcer of stomach, *ib.*; orbital abscess, *ib.*; slow pulse, *ib.*; cancer of stomach, *ib.*
Association, Border Counties Branch, spring meeting, 27; new members, *ib.*; representatives in General Council, *ib.*; communications, *ib.*; dinner, *ib.*
——— Cambridgeshire and Huntingdonshire Branch: annual meeting, 27; communications, *ib.*; representatives in General Council, *ib.*; dinner, *ib.*
——— Dublin Branch: death of President and President-elect, 794
——— East Anglian Branch: annual meeting, 61; communications, 61, 575; representatives in General Council, 61; luncheon and dinner, *ib.*; autumnal meeting, 685; discussion on syphilis, *ib.*
——— East York and North Lincoln Branch: half-yearly meeting, 575; communications, *ib.*
——— Edinburgh Branch: annual meeting, 61
——— Glasgow and West of Scotland Branch; annual meeting, 62; report of Council, *ib.*; president-elect, 63; visit to Gartnavel Asylum, *ib.*; dinner, *ib.*; resolutions of Council concerning report of Medical Reform Committee, 538
——— Lancashire and Cheshire Branch: annual meeting, 61; report of Council, *ib.*; annual meeting in 1882, *ib.*; office-bearers, *ib.*; members of Council, 62; assistant financial secretary, *ib.*; scheme for combined investigation, *ib.*; communications, *ib.*; dinner, 62, 721; special meeting on consultation with homœopathic practitioners, 538; ordinary meeting, 721; papers, *ib.*
——— Metropolitan Counties Branch: annual meeting, 182; report of Council, *ib.*; the late Mr. Alford, 183; treasurer's report, *ib.*; vote of thanks to the retiring president, *ib.*; president's address, *ib.*; dinner, *ib.*; resolutions of Council on death of Drs. Hayden and McClintock, 794.—East London and South Essex District: meetings, 796; the late Dr. Kingsford, 796; president's address, *ib.*; contagious pneumonia, *ib.*—North London District: meeting, 878; secretary, *ib.*; president's address, *ib.*; typhoid fever and diphtheria, *ib.*—South London District: meeting, 1033; place of meeting, *ib.*; cottage hospitals, *ib.*
——— Midland Branch: annual meeting, 185; officers and council, *ib.*; new members, *ib.*; papers, *ib.*; dinner, 186
——— North of England Branch: annual meeting, 245; president's address, *ib.*; votes of thanks, *ib.*; new members, *ib.*; report of Council, *ib.*; treasurer's account, *ib.*; alteration of laws, *ib.*; officers for 1881-82, *ib.*; representatives in the General Council, *ib.*; representatives in Parliamentary Bills Committee, *ib.*; dinner, *ib.*
——— North Wales Branch: annual meeting, 684; new members, *ib.*; report of Council, *ib.*; president-elect, *ib.*; members of Council, *ib.*; secretary and treasurer, *ib.*; vivisection, *ib.*; president's address, 685; papers, *ib.*; dinner, *ib.*
——— Northern Counties of Scotland Branch: annual meeting, 186; president's address, *ib.*; officers and council, *ib.*; next annual meeting, *ib.*; luncheon, *ib.*
——— Reading Branch: annual meeting, 649
——— Shropshire and Mid-Wales Branch: annual meeting, 342; vote of thanks to retiring president, *ib.*; vice-president, *ib.*; representatives in General Council, *ib.*; Branch Council, *ib.*; secretary, *ib.*; new members, *ib.*; papers, *ib.*; dinner, *ib.*
——— South-Eastern Branch; East Kent District: meetings, 574, 918; papers, 574, 918; dinner, 575, 918; sarcoma of left testicle, 900; malformation of fore-arm, *ib.*; intussusception, *ib.*; cherry-stone from vermiform appendix, *ib.*—West Kent District: next meeting, 1034; communications, *ib.*—East Surrey District: communications, 757; cottage hospitals and Mr. Napper, *ib.*; dinner, *ib.*—East Sussex District: meetings, 757, 1034; the late secretary, 737; address of chairman, *ib.*; papers, 758, 1034; superannuation of Poor-law medical officers, 758, 1034
——— South of Ireland Branch: annual meeting, 997; meetings, *ib.*; new members, *ib.*; officers and council, *ib.*; communications, *ib.*; fibroid polypus of uterus, 1019; abscess of cerebellum, *ib.*; double fracture of humerus, *ib.*; naso-pharyngeal polypus, *ib.*; necrosis of tibia, *ib.*
——— South Midland Branch: annual meeting, 62; papers, 62, 683; votes of thanks, 62; dinner, *ib.*; new member, 62, 684; autumnal meeting, 683; consultations with homœopaths, *ib.*; treasurer's report, *ib.*
——— South Wales and Monmouthshire Branch: annual meeting, 305; report of Council, *ib.*; officers and Council, *ib.*; vote of thanks and congratulation to Mr. Wathen, *ib.*; new members, 305, 682; president's address, 305; papers, 305, 682; alleged illegal practice, 305; dinner, 305, 682; autumnal meeting, 682; Medical Benevolent Fund, *ib.*
——— South-Western Branch: annual meeting, 184; president's address, *ib.*; new members, 184, 684; officers and council, 184; next annual meeting, *ib.*; quarterly meetings, *ib.*; Guy's Hospital, *ib.*; address by Mr. Mac Cormac, *ib.*; communications, 184, 684; dinner, 184; quarterly meeting, 684; by-law 12 of Association, *ib.*
——— Southern Branch: annual meeting, 100; address of retiring president, *ib.*; president's address, *ib.*; next annual meeting and president-elect, *ib.*; honorary secretary, *ib.*; votes of thanks, *ib.*; excursion, *ib.*; dinner, *ib.*—Dorset District: meeting, 758; officers, *ib.*; new members, *ib.*; communications, *ib.*; British Medical Benevolent Fund, *ib.*; dinner, *ib.*
Association, Staffordshire Branch: ordinary meetings, 182, 1034; communications, 182, 1034; annual meeting, 795; vote of thanks to retiring president, *ib.*; president's address, *ib.*; new members, 795, 1034; report of Council, 795; financial statement, *ib.*; next annual meeting, *ib.*; officers and council, *ib.*
——— Victoria Branch: ordinary meeting, 137; presentations to library, *ib.*; honorary members, *ib.*; water-supply, *ib.*; papers, *ib.*; address to Mr. Rudall, *ib.*; exhibition, 138; annual meeting, 685; report of Council, *ib.*; treasurer's report, 686; officers and Council, *ib.*; address of retiring president, *ib.*; vote of thanks, *ib.*
——— West Somerset Branch: annual meeting, 184; report of Council, *ib.*; place of meeting and president for 1882, 185; intermediate meetings, *ib.*; representatives in General Council, *ib.*; Council of Branch, *ib.*; secretary and treasurer, *ib.*; Medical Benevolent Fund, 185, 796; president's address, 185; discussions, 185, 796; vote of thanks, 185; surgical appliances, *ib.*; exhibition of patients, *ib.*; dinner, 185, 796; autumnal meeting, 796; Mr. Eaton, *ib.*; uterine injections, *ib.*
——— Worcestershire and Herefordshire Branch: annual meeting, 100; complaint against a member, *ib.*; officers and Council, *ib.*; annual subscriptions, *ib.*; new members, *ib.*; annual meeting of the Association in 1882, *ib.*; president's address, *ib.*; dinner, *ib.*
——— Yorkshire Branch: annual meeting, 245; president's address, *ib.*; report of Council, *ib.*; officers and Council, *ib.*; communications, 246; dinner, *ib.*; autumnal meeting, 795; correspondence, *ib.*; communications, *ib.*
Association, Ambulance, St. John's, proceedings of, 376, 907; lectures, 681, 830; dinner to Major Duncan, 807
——— American Medical, proposed journal of, 326
——— American Neurological, annual meeting, 276
——— British, for Advancement of Science, proposed invitation to Aberdeen, 293; scientific grants of, 566
——— Canada, Medical, annual meeting, 486
——— Dental, Eastern Counties, formation of, 652
——— Dublin University Biological, opening meeting, 876
——— Durham Medical Graduates', annual meeting, 53
——— Exeter Friendly Societies Medical, legal action concerning, 869
——— Forfarshire Medical, proceedings regarding infectious fevers, 173
——— Friendly Medical, and its medical officer, 694
——— of German Naturalists and Physicians, programme of annual meeting, 168
——— Glasgow, for providing trained nurses, annual meeting, 995
——— Irish Graduates', annual meeting, 376
——— Medical, new, in Berlin, 873
——— Medical Defence, British, 616
——— of Medical Officers of Health, Northern Counties, annual meeting, 247
——— of Medical Officers of Health, North-Western, meeting, 688; memorial, 919
——— of Medical Officers of Health, Yorkshire, 881
——— Medical Students' Christian, in Edinburgh, annual meeting, 830
——— Medico-Psychological, annual meeting, 232
——— Metropolitan Provident Dispensaries, letter on, 186; meeting, 188; proceedings of, 963; report of, 992
——— Poor Law Medical Officers' annual meeting, 373; meeting of Council, 761
——— St. Andrew's Graduates', anniversary meeting, 103
——— Sanitary Protection for Portsmouth, 466
——— Sanitary Protection, London, prospectus of, 674; proceedings of, 714, 724
——— Sanitary, of Scotland, annual meeting, 23
——— Science Defence, 878, 917, 1027
——— Social Science, questions in health department, 24; annual business meeting, 167; programme of annual meeting, 488; annual meeting, 613, 635; State supervision of hospitals, 645; hospital administration in Paris, 646; legislation for habitual drunkards, *ib.*
Asylum, Abbey, at Paisley, report on, 679
——— Argyll and Bute, proposed extension of, 679
——— Belfast District Lunatic, report of, 536
——— Birmingham Borough Lunatic, death at, 867, 909

Asylum, Cambridge County Lunatic, fatal quarrel at, 865
——— Chipping, at Nottingham, note on, 141
——— Cork District Lunatic, application of Dr. Barnes for good service pay, 417; report, 417; votes and funds for, 456; and alleged charges against Dr. Barnes, 734
——— Dundrum Criminal Lunatic, report on, 373
——— Lincoln Lunatic, appointment of superintendent, 42, 734
——— Glasgow District, opening of, 792
——— for Imbecile Children at Dalrymple, report of, 373
——— Kent County, report of, 373
——— Kilmarnock, new asylum, 141
——— Limerick, increase of patients in, 373
——— Londonderry, enlargement of, 321
——— Müller's Orphan, at Bristol, typhoid fever at, 417
——— Mullingar Lunatic, annual report of, 373
——— Murray's Royal, Perth, report of, 963
——— Waterford District Lunatic, report of, 321
Asylums, lunatic, in Victoria, 193; in Ireland, annual report, 174; tenure of office of superintendents of, 423; of England and Wales, number of lunatics in, 1881, in New Zealand, 1882
Asylums Board, Metropolitan, ambulance stations of, 567; chairman of, 917
Ataxy, amblyopic, 937
locomotor, treated by nerve-stretching, Dr. Bastian on, 1; Dr. J. Johnston on, 11; discussion on, 21; cases of, 57; Dr. Cassidy on, 1881, Dr. H. Payne on, 1054; unusual development of symptoms in, 82; rapidly developed unilateral, Dr. D. Drummond on, 156; M. Charcot on arthropathic affections of, 285; syphilis as a cause of, 321; disease of joints in, 789; little recognised phases of, 1881, 937; following small-pox, 1043
Atkins, Dr. T. G., necrosis of tibia, 1019
Atkinson, Dr. F. P., treatment of hay-fever, 81; calf-lymph, 110; treatment of diphtheria, 804
——— Dr. I. E., iodide of potassium as a cause of Bright's disease, 386
——— Dr. W. H., premature wasting of dental alveoli, 963
Atlas, Zoological, Mr. McAlpine's new, 1881
Atlas, ankylosis of with occipital bone, 1019
Atropin, action of on heart, 529, 907
Atthill, Dr. L., relation of anteflexion of the uterus to ovarian cyst, *ib.*
Audiometry, clinical observations on, by Dr. W. Pritchard on, 355, 396; resolution of Otological Subsection of Association on, 396, 1064
Auscultation and percussion, analytical study of, 363
Austin, Dr. J. A., suppression of urine in intestinal obstruction, 1
Australian Medical Gazette, 1028
Aveling, Dr. E. B., and the London Hospital, 866
——— Dr. J. H., testimonial to, 1

B

Baker, Mr. F. C., improved urinal, 1
Baker, Dr. F., on typhoid fever, 1881, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40,

Fr[illegible] Lethal, [illegible]
——— of nux vomica, action of, 924
——— of potassium, case to be treated with, 727
Promises in relation to travelling, Dr. Tilt on, [illegible]; Dr. L. Drummond on, 627; about, [illegible]
Pustule, pebble removed from by tracheotomy, [illegible]
Brookhouse, Dr. C. T., proposed subscription to Dr. Ferrier, 51
Brouardel, M., cadaveric alkaloids, 165
Brow[illegible] Mr. A. G. [illegible] compatible for leaving Swansea, 414
Mr. G., [illegible] of illegal practice [illegible] qualified practitioners, 655
Mr. G. D., [illegible] tation, [illegible]
Mr. Henry, [illegible]
——— Dr. Joseph, death of, 643; obituary notice of, 650
Brown-Séquard, Dr., localisation of disease in brain and [illegible], 92
Browne, Dr. Crichton, Dr. Beard's experiments in hypnotism, 78
——— Mr. Langley, ligature of carotid and subclavian arteries, 780
Mr. [illegible], [illegible], 1077
Brownhills, sanitary report of, 125
Bruce, Dr. W., [illegible] medical education, 175, 178
Bruce, Dr. W., [illegible] of
Brunton, Dr. T. Lauder, jaundice, 477
Bryan, Dr. J. M., new [illegible], 1[illegible]
Bryant, Mr. T., cyst containing oil removed [illegible] parotid region, 760
Bryl, Dr., death of, 1[illegible]
Bubo, sloughing, 57
Buchanan, Dr. G. (Glasgow), tracheotomy in diphtheria, 5[illegible]
——— Dr. G. (London), aids to epidemiological knowledge, [illegible]
Bucknill, Dr. J. C., testamentary incapacity, 566
——— Dr. S. E., obituary notice of, 1[illegible]
Bucquoy, M., washing out of the stomach, 126
Budd, Dr. R., presentation to, 541
Budin, M., peculiar disposition of ovum in twin pregnancy, 398
Budds, Dr. W. T., death of, 294
Buildings, public, action of London air on, 648
Bullfrog ointment, 764
Bunsen, Professor, fiftieth anniversary of doctorate, 704
Burdett, Mr. H. C., state supervision of hospitals, 645
Burial, of infants, irregular, 17; reform in, 827
Burial-grounds, disused, as recreation-grounds, 907
Burow, Dr., removal of laryngeal tumours, 592
Burq, Dr., influence of wind-instruments on pulmonary diseases, 138
Burroughs, Wellcome, and Co., Messrs., articles shown in sanitary exhibition, 178
Bursaries, medical, in University of Aberdeen, 612
Bury, Dr. J., bone-lesions in hereditary syphilis, 710; hereditary syphilis and tubercle, 940
Bury St. Edmund's, sanitary report of, 343
Busch, Dr. W., testimonial from German emperor, 568; obituary notice of, 1001
Butcher, Mr., accident to, 719
Butter, fine for selling adulterated, 407, 865, 1003; substitutes for, 57
Buttermilk, prosecution for adulteration of, 131
Buzzard, Dr. T., phases of tabes dorsalis, [illegible]; clonic spasms of neck and shoulder treated by liquor arsenicalis, 937; glaucoma cured by sulphate of eserine, 981
Byass, Dr., address to East Surrey District of South-Eastern Branch, 757
Byers, Dr., relation of chorea to rheumatism, 555
Byrne, Mr. J. J., rapid recurrence of measles, 1013

C.

Cabinets d'aisance, deficiency of in London, 68
Cæsarean section, Dr. A. Perigal on a case of, 79; and embryotomy, parallel between, 402
Cadavera, caryatides from, 22
Cadaveric alkaloids, 165
Cahalan, Mr. M. J., imperforate rectum, 803
Calabar bean in tetanus, Mr. J. T. Hague on, 703
Calculi, small, Dr. S. C. Duncan on detection of, 783
Calculus, discussion on recent advances in mode of removal of from bladder, 481; urethral, case of, 757; large vesical, in a female, 859
——— biliary. *See* Gall-stone
Calcutta, sanitary report of, 32, 217
Calf-lymph, letters on, 36, 110. *See* Vaccination, animal
California, medical legislation in, 31
Callus, formation of, 164
Cambridge, sanitary report of, 720
Cameron, Mr. A. H. F., plugging with solution of perchloride of iron, 383
——— Dr. C., micro-organisms and disease, 583, 1061
Campbell, Mr. E. M., education of boys, 194
——— Dr. H. F., rectal alimentation in nausea of pregnancy, 59
Canal-boats and small-pox, 129
Cancer, Dr. E. A. Purcell on, *rev.*, 125: origin of, 545
——— of breast, Dr. Semmola on treatment of, 356; cases of, 778, 1037
Cancer of cochlea of ear, 405
[illegible] of [illegible], 727; [illegible]
[illegible] of [illegible], 15; surgical treatment [illegible]
[illegible] of [illegible], 79
[illegible] of [illegible], 1[illegible]
[illegible] of tarsus removed [illegible], Mr. [illegible], 1
——— of uterus, microscopic sections of, 49
Cancerous ulcer of breast, 977; peritonitis, 982
Cannibalism, niceties of, 308
Cantharides, poisoning by, 109
Cantlie, Mr. J., presentation to, 727
Capsules, elastic gelatine, 873
Carbolic acid, local treatment of phthisis by, Mr. R. [illegible]; [illegible]; Mr. A. W. [illegible] in therapeutic [illegible] of vapour of, therapeutic and poisonous effects of, 1057. *See* Antiseptic
Carbonic oxide, death from, 1031
Card, a, 424
Cardiography, clinical, 362
[illegible] spine, Mr. W. Russell on early diagnosis of, 771
Carlisle, sanitary report of, 382
Carpenter, Dr. A., the International Medical Congress [illegible] sanitary [illegible] domestic health, 1007
——— Mr. R. H. S., unqualified practitioners, 655
Carrington, Dr., fracture of cervical spine, 668; alcohol in the urine, 935
Carte, Dr. A., death of, 573
Carter, Dr. A. H., Elements of Practical Medicine, [illegible]
——— Dr. H. V., blood-spirillum in relapsing fever, 547
——— Dr. T. A., Dupuytren's contraction of the fingers, 1014
Caryatides from cadavera, 22
Caseous accumulations in ear as a cause of tubercle, [illegible]
Caskie, Mr. W. A., dislocation of both humeri, 854
Cassells, Dr. J. P., etiology and removal of aural exostoses, 403
Cassidy, Dr., lunatic asylums, 141
Castle, Mr. H., lightning-stroke, 506
Casualties in peace and war, 612
Catheart, Dr. P. H. Mules on extraction of, [illegible] antiseptic method in extraction of, 593
Catarrh, nasal, letters on, 36, 110; pathology of, 592
Cathartics, saline, action of, 528
Catillon, M., deodorisation of iodoform, 829
Cattle, Dr. C. H., unusual cause of death in scarlet fever, 897
Cattle, protection of from charbon, 569
Caucasians, 790
Cavafy, Dr. J., sciatic nerve-stretching in locomotor ataxy, 928, 973
Ceccherelli, Dr. A., extirpation of the larynx, 571
Ceci, Dr., influence of hydrochlorate of quinine on malarial [illegible], 4[illegible]
Census of England and Wales, preliminary abstract of, 64
——— of Ireland, 24, 1032
——— of Scotland, interim report, 94
Centenarians, [illegible], 714, [illegible]
Cerebellum, tumour of with double optic neuritis, 668; congenital absence of half of, 744; abscess of, 1019
Certificates of causes of death. *See* Death
——— of attendance on ophthalmic surgery, 719
——— in lunacy, resolution of Southern Branch concerning, 758
Cetacea, Mr. Flower on the, 38
Ceylon, epidemic diseases in, 89; cinchona in, *ib.*; deaths from fever in, 907
Chailey rural district, sanitary report of, 98
Chamber of Deputies in France, medical members of, 486
Chancre, opinion on varieties of, 482; excision of, 483
Change of name, 656
Chantreuil, M., death of, 53
Chaplin, Mr. S., address to Surgical Society of Ireland, [illegible]
Charbon, protection of cattle against, 569
Charcot, M., affections of joints in locomotor ataxy, [illegible]
Charge against a workhouse medical officer, 24; of conspiracy to defraud, 773, 825, 947
Chavasse, Dr. T. F., treatment of curves of tibia, 158; injury to cervical portion of sympathetic nerve in removing a sarcoma, 974
Cheadle, Dr. W. B., two distinct forms of measles, 520
Cheltenham, sanitary report of, 64
Chemical Medicine, Dr. Thudichum's Annals of, *rev.*, 902
Chemists' assistants, 692
Cheron, M., action of alkaline bromides, 567
Cherry-stone in vermiform appendix, 900
Chest, ear of corn discharged through, 743
Chicken-pox, gangrenous eruptions in connection with, 7[illegible]
[illegible] inoculated [illegible] in a [illegible]; [illegible]; Mr. [illegible]; Mr. [illegible]; Mr. [illegible]
Childbirth, Dr. Coghill on accidents of, 318. *See* Labour
Children, Dr. Edis on hints for travelling in case of, [illegible]
[illegible]
liver oil for, 638; Dr. T. Barlow on hysterical analgesia in, 892; alleged discovery of bodies of, 907. [illegible] Russia, 981; epidemic disease among, in Berlin, 1029. *See* Infants
China, vaccination in, 166, 571; small-pox inoculation [illegible]
Chinoline, Schering's pure, 942
Chloral, poisoning by, 691; in labour, 727; duty on, [illegible]
Chlorate of potash, poisoning by, 23
Chloroform, [illegible], 4[illegible], 7[illegible], experiments of in United States, 628; in British Burmah, 825; in the Punjab, 754; quarantine against in Cyprus, 835; in Japan, [illegible]
Cholera, chicken, M. Pasteur on inoculation in relation to, 283, 300
Cholesterin, [illegible] in a case of double hæmorrhagic pleurisy, 745
Chorea, Dr. W. [illegible], hydrobromate of iron in, 383; subcutaneous nodules in subjects of, 554; relation to rheumatism, 555
Choroid, peculiar appearance of in hemeralopia, 84
Christie, Dr. James, etiology of dengue, 628
Christmas holidays in Edinburgh, 1031
Chromidrosis, 939
Churches, city, condition of, 75
Churton, Dr. T., herpes sciaticus, 740; hæmorrhagic pleurisy with formation of cholesterin, 745; poisoning by [illegible]
Cinchona in Ceylon, 89; in India, 382; in Jamaica, [illegible]; in Trinidad, 417
Circulation, action of duboisin on, 529; M. Marey on, *rev.*, 984; lecture on, 1030
Cirrhosis of liver in a child, 1015
Cities, foreign and colonial, health of, 34, 66, 107, 142, [illegible], 1074
Civilisation, effects of on teeth, 565
Clark, Dr. Andrew, on alcohol, 90
Clarke, Dr., and the Mountmellick Union, 132
——— Mr. H. S., poem by, 543
Clibborn, Dr. W., sweaty hands, 923; treatment of *post* [illegible]
Clinical teaching, Mr. J. Hutchinson on improvement of, [illegible] hospitals, 51
Clothing, infected, compensation for destruction of, 128
Clouston, Dr. T. S., teaching of psychiatric medicine, [illegible]
Club-foot, Mr. R. Davy on resection of tarsal arch in, [illegible]
Clubs, remuneration for medical attendance in, 193; and medical etiquette, 845
Coates, Mr. W. M., operation for removal of internal piles, 350, 390
Coats, Dr. J., aneurysm of larger cerebral arteries a cause of hæmorrhage, 546; extension of lymphosarcoma, *ib.*
Cobra poison, antidote to, 1065
Cochlea, cancer of, 405
Cod-liver [illegible] treatment of diabetes, 1[illegible]
Cod-liver oil, disadvantages of for children, 638
Coefficient or coincident, 728
Coffee, action of on stomach, 172
Coffin, Mr. W., irregularities of the teeth, 565
Coffins, discovery of in the city, 1028
Coghill, Dr. J. G. S., address in obstetric medicine, 314, 334; mechanical treatment of uterine displacements and flexions, 387; antiseptic treatment of lung-disease, 704; laceration of the cervix uteri, 759
Cohnheim, Dr., origin of tumours, 636
Coins, swallowing of, 383, 677
Colchicum autumnale as an antipyretic and antiphlogistic, 5[illegible]
Cole, Dr. Beverley, treatment of displacements and diseases of uterus, [illegible]; instruments, 857, 1[illegible]
Coleman, Mr. A., double wisdom tooth, 84; administration of anæsthetics in Dental Hospital of London, 563; erosion of the teeth, 565; Manual of Dental Surgery, [illegible]; preparation of nitrous oxide, 1[illegible]
Coles, Mr. Oakley, irregularities of the teeth and jaws, 565; Deformities of the Mouth, *rev.*, 747
College, Anderson's, Glasgow, annual meeting of trustees, 23; lectures, 458; note on, 459; scholarships and prizes, 460, 682; changes in, 464
——— Caius, the Thruston bequest, 674, 748
——— Carmichael, medical instruction at, 497 prizes, 648

College, Cleveland Medical, pretended agency in London, 1
——— Ferrier, National Scientific Schools, 1
——— Granville and Cairo, the Transvaal, 1
——— Kings, lectures, 911; fees, 911; notes, 449; scholarships and prizes, 449, 647; Sir John Lubbock's introductory address, 911
——— King and Queen's of Physicians in Ireland, resolutions concerning medical legislation, 911; pass-lists, 106, 725, 883; regulations for licences, 439; annual meeting, 680; proposed repeal of resolution, 911
——— Marischal, Aberdeen, alterations in, 911; museum exhibition at, 572
——— Medical, Birmingham, 911
——— Owens, fellowships at, 911; lectures, 911; notes on, 455; prizes, 911
——— of Physicians and Surgeons of New York, resignation of Dr. J. G. Thomas, 1
——— of Preceptors, examinations of, 911
——— Queen's, Belfast, medical instruction at, 498; reports of, 911; prizes, 683; deputation to the Secretary for Ireland, 911; scholarships, 911
——— Queen's, Birmingham, Ingleby lectures, 168; note on, 454; prizes, 454, 648; lectures, 455; dental teaching at, 457; Mr. Pemberton's introductory address, 604; annual report, 790
——— Queen's, Cork, report of, 911; medical instruction at, 498; prizes, 683; scholarships, 843
——— Queen's, Galway, annual report of, 911; medical instruction at, 911; prizes, 911
——— Royal Medical Benevolent, anniversary of foundation, 231; Christmas appeal of, 1064
——— Royal, of Physicians of Edinburgh, regulations for licence, 434; fellowship and membership, *ib.*; for certificate of qualification in Public Health, 494; annual meeting, 949
——— Royal, of Physicians of London, ordinary meetings, 175, 720; the Medical Acts Commission, 175; officers, 175; pass-lists, members, 246, 763; licentiates, 246, 763, 1073; regulations for membership, 427, 428, 429; Bradshaw lecture, 945; lectures in 1882-83, 947; extraordinary meeting, 911; proposed modification of examinations, 911; consultations with homœopaths, *ib.*
——— Royal, of Surgeons of Edinburgh, pass-lists, 42, 242; regulations for licence, 433; regulations for diploma in dental surgery, 495
——— Royal, of Surgeons of England, election of members of Council, 19, 59; additions to the Museum, 25; pass-lists, dental licence, 33, 763; primary examination for membership, 65, 106, 142, 800, 842; final examination for membership, 142, 800, 842, 843; fellowship, 963; meetings of Council, 96, 681, 959; election of examiners, 96, 681; questions at examinations, 100, 760, 842, 960; finance, 103; statistics of examinations, 175; Professor Flower on Museum of, 204; the preliminary examinations, 422, 617; regulations for fellowship, 427, 428, 429; for licentiateship, 428, 429; diploma in dental surgery, 495; election of trustee of Museum, 826; Jacksonian prize, 945
——— Royal, of Surgeons of Ireland, pass-lists, 381, 1073; new scheme of education and examination, 419, 463, 608, 615, 650; regulations for letters testimonial, 440; for fellowship, 441; for diploma in midwifery, 442; for licence in dental surgery, 495; resolution regarding certificates in clinical ophthalmology, 492; school of surgery for, prizes, 683; examiners in dental surgery, 911; members of Council, 911; teaching of anatomy, 911
——— Trinity, Dublin, physiological laboratory in, 306
——— University, appointments in, 911; lectures, 445; fees, 447; scholarships and prizes, 911, 947; Dr. Purser's introductory lecture, 911; *conversazione*, 614; dissections at, *ib.*
——— University, Bristol, medical school, fees, 447; lectures, 911; prizes, 911
——— University of Durham, fees, 447; lectures, 455; note on, 457; Dr. J. Murphy's introductory address, 911; prizes, 911
——— University, Liverpool, proposed site of, 367; Dr. O. Lodge's inaugural lecture, 911; lectures, 911; fees, 911; scholarships, 911
Colleges, Royal, of Physicians and Surgeons of Edinburgh, regulations for licence, 434
Colonies, irregular practice in, 194. *See* Medical Practice
Colour, Dr. Sharpe on Causes of among Races, *rev.* 710
Colour-Blindness, Mr. C. Roberts on Detection of, *rev.*, 1076
Comma-bacillus and Epithelial necrosis, 791, Koch's researches on cases of, 911
Conduit, Mr. T., 911
Conference, British Pharmaceutical, 533
Confidential communications to medical men, 1076
Congress, International Medical, proposed, 911; Papers read at, 911; proposed, 911; Dr. Virchow's presidential address, 911; the value of pathological experiments, 198; remarks on the Congress, 231, 234, 290; general meetings, 911; speech of Sir W. Jenner, 911; Committee, 911; speech of Sir J. R. Bennett, 911; speech of the Prince of Wales, *ib.*; meetings of Sections, *ib.*; foreign visitors, 238; Dr. Billings' address on medical literature, 262; Dr. Raynaud's address on scepticism in medicine, 268; Dr. Huxley's address on the connection of the biological sciences with medicine, 273; M. Pasteur on vaccination in relation to chicken-cholera and splenic fever, 283; M. Charcot on arthropathic affections in locomotor ataxy, 911; festivities, 303; resolutions of American delegates, 911; Mr. Paul's motive of, 911; opinions of, 533, 675, 906; medal of, 692; medicine at the, 911; proposed International Medical, 911; proposed, 911; Baroness Burdett Coutts' garden party, 945
Congress, Section of Anatomy: Mr. Flower's presidential address, 204; normal characters of human embryo, 560; the processus supracondyloideus humeri in man, *ib.*; causes determining form of bones, *ib.*; the situation of the stomach, *ib.*; deep origin of cranial nerves, *ib.*; minute structure of spinal cord, 561; mathematical law of construction of skull, 911; relation of nerve-supply to muscle-histology, *ib.*; elevation of the insensitive glottis by position, *ib.*; motor portion of trigeminal nerve, *ib.*; relations of nucleus tæniæformis with olfactory nerve, *ib.*; subcutaneous veins of the trunk, *ib.*; British and continental schools of anatomy, 562; use of the living model in teaching anatomy, *ib.*; the cerebral sinuses and their variations, *ib.*; development of the mammary gland, *ib.*; pelvic measurements, *ib.*
——— Section of Diseases of Children: Dr. West's presidential address, 216; hereditary syphilis as the cause of rickets, 406; spinal deformity and Sayre's method, 518; treatment of spinal curvature, *ib.*; abuses of the jacket-treatment of spinal disease, 519; two distinct forms of eruptive fever usually classed as measles, 520; rötheln or German measles, 520, 521; nature and mode of propagation of contagion of diphtheria, 521; diphtheritic paralysis and albuminuria, 522; tracheotomy in diphtheria, *ib.*; treatment of croup and diphtheria by introduction of tubes, 523; surgical treatment of empyema, *ib.*; subcutaneous nodules in cases of chorea and rheumatism, 554; relationship of chorea to rheumatism, 555; treatment of scrofulous inflammation of joints, *ib.*; excision of joints in childhood, *ib.*
——— Section of Diseases of the Ear: Mr. Dalby's presidential address, 402; modification of myringodectomy for sclerosis of the ear, 403; etiology and removal of aural exostoses, *ib.*; morbid growths of the ear and their treatment, *ib.*; physical diagnosis in deafness with healthy ears, 404; conditions of the eyes causing loss of hearing, *ib.*; functions of the Eustachian tube, *ib.*; cotton-pellet as an artificial drumhead, *ib.*; touch as a standard of comparison for hearing, *ib.*; paretic deafness, 405; caseous accumulations in the ear as a cause of tinnitus, 911; tinnitus in a peculiar form of middle-ear deafness, *ib.*; prevention of dumbness after loss of hearing, *ib.*; sonorous waves and the acoustic nerve, *ib.*
——— Section of Diseases of the Skin: Sir Erasmus Wilson's presidential address, 217; parasitic pityriasis circinata and maginata, 550; etiology of certain scales in diseases of the skin, *ib.*; balano-postho-mycosis, 551; papillary tumour of scalp, *ib.*; inflammation of sweat-glands following administration of pilocarpin, *ib.*; vaccinal skin-eruptions, *ib.*; causes of alopecia areata, *ib.*; lupus erythematosus, 552; influence of climate, race, etc., on parasitic diseases of the hairy scalp, 911; [illegible] or lymphadenia cutis, 553; eczematous prurigo or [illegible] skin, *ib.*; supposed neurotic excoriation, *ib.*; the sweat-secretion, 554; scleroderma diffusa, *ib.*; congenital abnormality in production of hair, *ib.*; dermato-therapeia, *ib.*
——— Section of Diseases of the Teeth: Mr. Saunders' presidential address, 218; replantation of teeth, 563; [illegible] disturbance, *ib.*; devitalisation of the pulp, *ib.*; dental [illegible] Hospital of London, *ib.*; premature wasting of the alveoli, 564; dental education, *ib.*; preservation of enamel, *ib.*; honeycombed teeth and dental convulsions, 911; [illegible] of civilisation on the teeth, *ib.*; irregularities of the teeth, 911; [illegible] use of gold for incisor teeth, *ib.*
[illegible]
[illegible]
pathology of nasal catarrh, *ib.*; adenoid vegetations in [illegible]
[illegible]
Dr. T. R. Fraser's introductory address, 227; action of antipyretic medicines on septicæmia and allied conditions, 407; tartrate of quinoline, 408; influence of hydrochlorate of quinine on malarial germs, *ib.*; toxic power of different varieties of aconitine, 523; a national pharmacopœia, *ib.*; nature and limits of physiological [illegible] colchicum as an antipyretic and antiphlogistic, *ib.*; action of medicines on the heart and blood-vessels, *ib.*; action of atropin and muscarin on the heart of the frog, 529; action of duboisin on the circulation, *ib.*; influence of sulphate of quinine on glycosuria, 530; bromide of ethyl, *ib.*; strychnia as an expectorant, *ib.*
——— Section of Medicine: Sir W. Gull's presidential address, 210; nerve-stretching in locomotor ataxy, 321; syphilis as a cause of locomotor ataxy, *ib.*; certain little recognised phases of tabes dorsalis, *ib.*; degeneration of the spinal cord in tabes dorsalis, 322; localisation of disease in the brain and spinal cord, *ib.*; epileptiform convulsions from cerebral disease, *ib.*; Jackson's epilepsy, 323; Addison's disease, *ib.*; the inferior cervical ganglion as a correlating nerve-centre, 324; bacteruria, 359; origin and cure of scrofulous neck, *ib.*; eczema and albuminuria in relation to gout, 360; examination of urine in Brights' disease, *ib.*; different forms of Bright's disease, *ib.*; diagnosis of [illegible] Bright's [illegible] without albuminuria, *ib.*; rheumatism, gout, and rheumatic gout, *ib.*; graphic representation of tendon-reflexes, 362; clinical cardiography, *ib.*; the biliary secretion in morbid states of the liver, 363; analytical study of auscultation and percussion, *ib.*; diagnostic value of aphonic pectoriloquy, 364; treatment of phthisis by residence at high altitudes, *ib.*
——— Section of Mental Diseases: papers read, 565, 566; cerebral localisation, 566; brains of criminals, *ib.*; mental stupor, *ib.*; testamentary incapacity, *ib.*
——— Section of Military Surgery and Medicine: Professor Longmore's presidential address, 224; antiseptic surgery in the field, 556; lessons of the Russo-Turkish campaign, *ib.*; antiseptic treatment of wounds in the field, *ib.*; influence of the Contagious Diseases Acts on the prevalence of venereal affections, 557; sunstroke among troops in tropical countries, 558; treatment of men wounded on board ships of war, *ib.*; training of subordinates for the medical department, *ib.*; wounds inflicted by bullet of Martini-Henry rifle, 559
——— Section of Obstetric Medicine: Dr. M'Clintock's presidential address, 214; improvements in construction and application of forceps, 397; curves of midwifery forceps, *ib.*; intermittent contractions of the pregnant uterus as a means of diagnosis, *ib.*; [illegible] peculiar disposition of ova in twin-pregnancy, *ib.*; oöphorectomy, *ib.*; exciting causes of hysteria and hystero-epilepsy, 399; curability of uterine displacements, *ib.*; influence of uterine disorders in production of sympathetic disturbances, *ib.*; improvement in uterine repositors, *ib.*; mechanical treatment of displacements and diseases of the uterus, *ib.*; total extirpation of uterus, *ib.*; treatment of puerperal hæmorrhage, 400; trismus and tetany of the uterus, 401; antiseptic mid[illegible] exhibited, *ib.*
[illegible] examination of an enucleated eye, *ib.*; relation of optic [illegible] in retina and optic nerve, 595; report of Committee on tests of vision, *ib.*; pathology of glaucoma, *ib.*; operative treatment of glaucoma, 596
[illegible] thelioma of the sebaceous glands, 545; origin of cancer, *ib.*; discussion on tubercle, *ib.*; relations of [illegible]

troductory address, 219; experience of the United States regarding cholera and yellow fever, 628; preven-

tation of contagion and infection, *ib.*; prevention of

spread of disease through influence of food, *ib.*; prevention of trichinosis, *ib.*; adulteration of food, *ib.*;

——— Section of Surgery: Mr. Erichsen's presidential address, 212; recent advances in method of extracting stone from the bladder, 481; modifications of syphilis in tuberculous, gouty, and other constitutions, 4[illegible]; opinions on varieties of chancre, 2[illegible]; excision of chancre, 483; prostatic disease treated by a silver tube introduced *per urethram*, *ib.*; India-rubber bandages, *ib.*; pathology and treatment of genu valgum, *ib.*; comparative value of early and late excisions in articular disease, 548; results of treatment in chronic disease of the knee-joint, *ib.*; intraperitoneal treatment of abdominal tumours, 549; diseased conditions of kidney admitting of surgical treatment, *ib.*; causes of failure in obtaining primary union in operation-wounds, 550

——— Demonstrations of living patients: Charcot's joint-disease, 596; lupus erythematosus, 597; true gout, *ib.*; scar-keloid of Alibert, *ib.*; osteitis deformans, *ib.*; varicose veins of abdominal wall, *ib.*; Eastern leprosy, *ib.*; leucoderma, *ib.*; plantar and palmar xeroderma, *ib.*; xanthelasma in a child, *ib.*; cross-legged progression, *ib.*; aneurysm by anastomosis in face and orbit, 598, tumour of groin and scrotum, *ib.*; dactylitis syphilitica, *ib.*

Congress, Sanitary, at Brighton, 750, 77[illegible]; in Germany, 4[illegible]

Conspiracy to defraud a railway company, charge of, 77[illegible]

Consulting staff of London hospitals, 465

Contagion and infection, 629

Contagious Diseases Acts, Select Committee on, 26, 58, 97, 134; evidence of Inspector Annis, 2[illegible]; of Rev. T. Tuffield, 58; of Dr. Barr, 59; of Rev. E. P. Grant, 97; of Rev. Dr. Wilkinson, *ib.*; of Mr. A. Stigand, 134; remarks on, 232; influence of in the army, 557; proposed application of in Bombay, 945

Contraction of pregnant uterus a means of diagnosis, [illegible]97

Convalescent home for children at Gilmerton, opening of, 55

——— home for children at Hayward's Heath, opening of, 167

——— home at Dublin, proposed, 9[illegible]

——— homes, remarks on, 16; for scarlet fever cases, 20, 825; at Dunoon, 679; report on Charity Organisation Society, 791

Convalescents, hospital, provision for, 20

Conversazione of Harveian Society of London, 19; at Guy's Hospital, 613; at University College, 614

Convulsions, epileptiform, from disease of brain, 322

——— infantile, horizontal teeth as an evidence of, 5[illegible]

——— puerperal, Dr. C. J. Needham on incision of cervix uteri in, 1[illegible]

Cook, Dr. J. W., heifer-lymph, 419

Cookery for invalids, 368

Coombs, Mr. S. W., the dry earth system, 1006

Corbett, Mr. D., interrupted second dentition a cause of reflex constitutional disturbance, 563

Cork, health of, 57, 331, 417, 574, 719, 876, 1032

Corn, ear of discharged through chest, 743

Corns, treatment of, 384, 582, 766

Coroner of Dunluce and Carey, 174; of Monaghan, 573, 756, 794; for University of Oxford, 865; for County Down, 951, 1032

Coroners, non-medical, inquests by, 466; questions on law of, 506, 1075; in Middlesex, accounts of, 763; power of to order disinterments, 922. *See* Inquests

Corpses, new method of disposal of, 22; dissemination of plague by, *ib.*

Cory, Dr. R., local treatment of diphtheria, 124

Cosgrave, Dr. L. M., respirator for anti-septics, 7[illegible]; alcoholic stimulants in Irish workhouses, 830

Cosmetics, lead-poisoning from, 231

Coto-bark in sweating of phthisis, 727

Cottage homes, Marston Green, 880

Cottage hospitals, proposed memorial to founder of, 673, 7[illegible]; Dr. Habershon on, 1[illegible]47

Cotton, Mr. C., the title of doctor, 845

Cotton-pellet as an artificial drumhead, 404

Cough, absence of in phthisis, 653

Counter-prescribing, 992

Country doctor, 581

County boards, 832

Cousins, Dr. J. W., antiseptic trocar, 390; ear-protector, [illegible]

Coutts, Mr. J. A., medical certificates for insurance companies, 965

Cow, laceration of abdomen by a, 1066

[illegible]

tions of, 852. *See* Vaccination

Cracking noise in lower jaw, 846

Cranium, dagger in, producing wound of brain, 484

Crawford, Earl of, stealing of body of, 999, 1030

Creighton, Dr. C., Bovine Tuberculosis in Man, *rev.*, 85; origin of disseminated tuberculosis, 545; communication of tubercular disease of animals to man, 631; micrococcus of tubercle, 1064

Cremation in Japan, 89; in Denmark, 172, 570; Society for, in Padua, 503; in Italy, 570; in Hungary, *ib.*; in France, 7[illegible]

Crime and delirium, 487

Criminals, brains of, 566

Critchett, Mr. Anderson, symblepharon treated by operation, 934

Crocker, Mr. James, the direct method with still-born children, 46

Croft, Mr. John, treatment of fractures and dislocations of leg by plaster-of-Paris splints, 13

Croly, Mr. H. G., vesical calculi, 1058; rodent ulcer, *ib.*

Crookshank, Mr. H., Aids for Sick-nursing, *rev.*, 635

Cross, Mr. F. R., antiseptic incision and drainage in empyema, 391; fatty degeneration of lower limb, 744

Cross-legged progression, 597

Croton-chloral, death from, 945

Croton-oil, Mr. W. Frazer on treatment of porrigo decalvans with, 80

Croup, tracheotomy in, 131; treatment of by introduction of tubes, 523; identity of with diphtheria, 618

Cruelty to Animals Act, Mr. Simon on, 222. *See* Experiments, and Vivisection

Cruveilhier's disease, 1058

Cullimore, Dr. H., distribution of hospitals, 844

Cunningham, Dr. D. J., nerve-supply and muscle-homology, 561

Curgenven, Mr., recurrent fibroid tumour of thigh, 855

Customs, health of officers of, 833

Cutts, Dr., address to Victoria Branch, 686

Cyanide of potassium, poisoning by, 326

Cyanotic infants, a succession of, 887

Cyprus, health of, 328, 488; quarantine in, 835

Cyst of omentum, 49[illegible] of ovary, ruptured, [illegible] Ovary

Cystic tumour of breast, 778

Cystitis, chronic, cystotomy for, 961

Cysts of labia minora, 708

Czar Alexander II, cause of death of, 54

D.

Da Costa, Dr. J. M., fluorides in medicine, 7[illegible]

Dactylitis syphilitica, 598

Dagger in cranium producing wound of brain without symptoms, 484

Daily News on the prosecution of Dr. Ferrier, 886

Dairies, registration of in Glasgow, 573

Dalby, Mr. W. B., address to section of Diseases of the Ear in International Medical Congress, 402

Daly, Dr., contagious pneumonia, 796

Daniell, Mr. G. W., prosecution for malapraxis, 108

Darke, Mr. E., calf-lymph, 36

Darwin, Mr. C., and the defence of science, 917

Davey, Dr. A. G., prevention of enteric fever, 509

Davy, Mr. R., India-rubber drainage-anchors, 80; resection of tarsal arch in club-foot, 698

Dayman, Mr. H., students and practitioners, 505

Dead a danger to the living, 765

Deafness with healthy condition of external and middle ears, 404; paretic, 405; of middle ear, difficulties attending forms of, *ib.*

Death, certification of causes of, 371, 867; certificates of, and life-assurance offices, 885, 965; sudden, 924

Death-rate of Aberdare, 1063; Accrington, 724; Barnsley, 761; Basford, 1040; Bath, 189; Beeston, 672; Belfast, 57, 373, 537, 644, 951, 996; Bingham, 70; Birmingham, 34, 357; Brandon and Byshottles, 117; Bristol, 190, 783; Brownhills, 125; Carlisle, 382; Chailey, 98; Cheltenham, 64; Columbia, 610; Cork, 57, 331, 417, 574, 719, 876, 1032; Darwen, 761; Denbigh, 538; Derby, 408; Drayton, 780; Dublin, 96, 417, 719; Ealing, 4[illegible]; East Dereham, 140; Edinburgh, 64, 3[illegible]; Evesham, 190; Exmouth, 761; foreign cities, 34, 66, 107, 142, 192, 307, 347, 382, 422, 469, 504, 541, 578, 616, 656, 690, 727, 764, 801, 843, 884, 921, 964, 1001, 1043, 1074; Glasgow, 7[illegible]; Gloucester, 190; Gloucestershire, 140; Halstead, 504; health resorts, 371; Hendon, 1071; Hexham, 281; Holsworthy, 247; Indian prisons, 50; Ireland, 24, 372, 681, 757; Kendal, 247; Leicester, 881; Liverpool, 577, 1071; London and large towns, 12, 34, 62, 66, 107, 143, 191, 342, [illegible]7, 382, 422, 465, 503, 578, 610, 653, 690, 727, 763, 801, [illegible]; Luton, [illegible]; Manchester, [illegible]; Merthyr Tydfil, 1[illegible]; Middlesex and Hertfordshire, [illegible]; Naples, [illegible], New York, 1[illegible]; New Zealand, [illegible], Newport, Mon., [illegible], Northampton, [illegible]; Oldham, [illegible]; Paisley, 986; Saltley, 143; Scotland, large towns in, 23, 56, [illegible]; Sheffield, [illegible]; Shoreditch, [illegible]; Southampton, [illegible]; Stockport, [illegible]; Sunderland, [illegible]; Swansea, [illegible]; Tenby, [illegible]; Tewkesbury, [illegible]; Thames Ditton, [illegible]; Torquay, 610; Tottenham, [illegible]; Tynemouth, [illegible]; Warrington, [illegible]; Wednesbury, 578; Whitby, 24; Whitechapel, 504; Wolverhampton, [illegible]; Worcester, [illegible]; influence of hot weather on, 127

Deaths in public institutions, 368, 826; virulent, 369, 868; from snakes and wild beasts, 787

Debove, Dr., compulsory feeding of phthisical patients, [illegible]

De Budberg, M., hay-fever, 18

De Chaumont, Dr., principles of prevention of diffusion [illegible]

[illegible] of the Month, Mr. Oakley Coles on, [illegible]

Delirium and crime, 487

Delivery, vaginal injections after, 796; during sleep, 871. *See* Labour

Demerara, district medical officers in, 1028

Dengue, etiology and prevention of, 628; history of, [illegible]

Denmark, cremation in, 172

Denne, Mr. H., administration of nitro-glycerine, [illegible]

Dent, Mr. C. T., pathology of acute periostitis, 14; Littré's strangulated hernia or partial enterocele, 745

Dental diplomas in France, 985

——— education, 564, 617

[illegible] Hospital of London, [illegible]; administration of anæsthetics at, 563

——— Hospital and College, National, 496

——— Register, 531

——— Students, Mr. Underwood's Surgery for, *rev.*, [illegible]

——— Surgery, regulations for diplomas in, 495; in the army, 563; Mr. Coleman's Manual of, *rev.*, 635; school of in Geneva, 751; progress of, 870; position of, 1[illegible]77

Dentition, second, interrupted, a cause of constitutional disturbance, 563

De Pietra Santa, Dr., hospital administration in Paris, 646; Vaccinator's Guide, *rev.*, 711

Derby, Earl of, speech at University College, Liverpool, 605

Derby, sanitary report of, 408

Dermatology, section of in International Medical Congress. *See* Congress

Dermato-therapœia, 554

Deville, M. Saint Clair, death of, 52

Diabetes, central amblyopia in, 84; codeia in treatment of, 474; and Bright's Disease, Dr. J. Tyson [illegible]; 781; Dr. Murrell on Bethesda water in, 849; letters on, 960, 1065

Diabetic coma and epithelial necrosis, 672; analyses of cases of, 710

Dialogue, instruction in sanitary science by means of, 343

Diarrhœa in London, [illegible]; zymotic, etiology of, 819; at Rangoon, 911

Dickson, Dr. W., report of health of Customs officers, [illegible]

Dictionary, Micrographic, Griffith and Henfrey's, *rev.*, [illegible]

Digestion, process of, 874, 950

Dinners, hospital, 611

Diphtheria, fungoid origin of, Dr. M. W. Taylor on, 6; Mr. A. W. M. Robson on, 142; local treatment of, 123, 591, 617, 654, 691, 729, 804; Dr. W. B. Mushet on iodine in, 159; complicating typhoid fever, 161; Dr W. Strange on origin and diffusion of, 507; discussions on etiology of, 510; propagation of contagion of, 521; paralysis and albuminuria in, 522; tracheotomy in, *ib.*, treatment of by introduction of tubes, 523; identity of with croup, 618; spurious, Dr. H. L. Snow on, 666; treatment of, 923; death of a medical student from, 165; in London, 486; in Portsmouth, 532; in Russia, 572

Diplopia, uniocular, 667

Direct method of artificial respiration for children, Mr. J. Crocker on, 46

Disease, simulated in a child, 746

Diseases, Dr. Ratagliati on classification and nomenclature of, 114; specific, Dr. Klebs on relations of micro-organisms to, 279; Dr. C. Cameron on, 583; discussion on, 547; dangerous to health, 1072

——— of children. *See* Children

——— epidemic, Dr. Ransome on systematic study of, 352; among children in Berlin, 1029

——— infectious, and schools, 533; principles of prevention of diffusion of, 629; importation of into Liverpool, 629; influence of milk in spreading, 631; spread of by food, 632; etiology of, 798

——— notification and registration of, in Ireland, 24, 537; in Bodmin, 89; in Bolton, 90; reso-

Iution of British Medical Association on, 331; remarks on, 366; discussion on, 517; letters on, 689, 910; Dr. J. W. Moore on, 735; Mr. W. H. Michael on, 737; in Edinburgh, 372, 1072; Dr. Ransome on, 2; proceedings of British Medical Association regarding, 95; in Liverpool, 961, 962; Mr. Yates's system of, 1120

Diseases of women. *See* Women

——— zymotic. *See* Zymotic

Disinfecting chamber for Limerick, 176; apparatus for Bergen, 1120

Disinfection of air, 572, 604

Disinterment, power of coroners to order, 922

Dislocation of foot, subastragaloid, 1120

——— of liver, 1043

——— of shoulder, reduction of, Mr. C. R. Illingworth on, 148; Dr. A. H. Hampton on, 711; Mr. W. Berry on, 776; Dr. C. C. Hicks on, 777; Ritter on, 886; paralysis of arm from, Mr. T. A. Mitchell on, 813; on both sides, Mr. W. A. Caskie on, 854

Dislocations of leg and foot, treatment by plaster-of-Paris splints, 13

Dispensary, Bandon, resignation of Dr. Toole, 644

——— Cork, election of medical officer, 537, 718

——— Gravesend and Milton, addition of children's ward to, 907

——— Western, Edinburgh, annual meeting, 791

Dispensaries, charitable, in Bengal, 676

Dispensing, practical, 544, 693

Dissecting-rooms in London, 614

Distoma hepaticum in man, Dr. W. E. Humble and Dr. W. V. Lush on, 75

Dixson, Mr. C., *petit mal* during vaccination, 1004

Dobson, Surgeon-major G. E., the annual meeting, 246

Dobson, Mr. N. C., removal of tumours from proximity of large arteries, 48; sarcoma of groin, 856

Doctor, the Alaska Indian, 172; *de jure*, 244

Doctors and lawyers, 728

Dodwell, the Rev. H., 865

Dolan, Mr. T. M., the Collective Investigation Committee, 101; Nature and Treatment of Rabies or Hydrophobia, 201, 581; experiments on animals, 411

Dolphin, Mr. Flower on the, 38

Dompeling, Dr. J. B., Translation of Mr. E. Hart's Truth about Vaccination, 1120

Donath, Dr. J., tartrate of quinoline, 408

Donations, 147, 148, 245, 341, 345, 417, 581, 674, 745, 1045, 1094, 1098

Donders, Dr., relation between apparent movement of objects and rotation of eyes, 667

Donkin, Dr. H., Dr. Beard and hypnotism, 305; paradoxical temperatures, 759

Donnett, Dr. J. S. L., confidential communications to medical men, 1075

Doran, Mr. A., hydroperitoneum traced to chronic ovaritis, 699

Douche, the hot vaginal, 320

Down, Dr. Langdon, sunstroke treated by bromide of potassium, 777

Downes, Mr. T. R. C., presentation to, 880

Drainage of houses, 583; of Margate, 1041

Drainage-anchors, India-rubber, Mr. R. Davy on, 80

Drainage-tubes, self-retaining, Mr. H. J. Pope on, 230

Drayton rural district, sanitary report of, 780

Dreschfeld, Dr. J., diabetic coma, 710

Drinking, excessive, death from, 1063

Drinks, cider, 1120

Dropsy, Mr. C. Spurway on asclepias in, 978

Drowning, resuscitation from, 804

Drugs, case of patent medicine by, 1120

Drugs and Domestic Medicine International Medical and Sanitary Exhibition, 177

Drummond, Dr. D., rapidly developed unilateral ataxy, 1120

Drunkards, habitual, report of Committee on restrictive legislation for, 179, 334; retreats for, 327; proceedings of British Medical Association regarding, 748

Drury, Dr. C. D. H., gonorrhœal injection syringe, 581

Dry earth system, 1120, 1127

Drysdale, Dr. C. R., prognosis of syphilis in women and children, 1120, operations as a varieties of chancre, 1120; inoculation of syphilis, 1120, sterility of prostitutes, 1120

Dublin, Health of, 1120, 1127; sanitary progress in, 1120; quarterly reports of Board of, 412, 1120; hospitals of, 581, 1120

Dublin, action of sea-salt on, 1120

Duckworth, Dr. D., case recorded by Alcott, 1120

Dudgeon, Dr., sphygmograph, 177

Dudley, Dr. J. P., Adamantine surgical lamp, 1120

Duelling, medical, in France, 1120

Duellists and suicides, 388, 391, 1120

Duffey, Dr. G. F., ovarian tumour, 940; cerebral hæmorrhage, 1094; removal of kidney, 1120

Dumas, Dr. Bonnet, Dr. Dumas's method to promote absorption of inflammatory products, 1120

Dunbar, Dr. A., model of a lying-in hospital, 1120

Dunbar, Dr. Clement, appointment at Dublin, 1120; albuminuria of adolescents, 776

Dumbness, prevention of, 405

Duncan, Dr. A., the Indian Medical Service, 424

——— Dr. J. M., shortness of umbilical cord a cause of obstruction in labour, 857; Russian translation of works of, 991

——— Mr. J., subcutaneous ligature of varix and varicocele, 37

——— Mr. John, death of, 331

——— Dr. S. C., detection of small [illegible], 1120

Dutton, Mr. T., attendance on and views of medical men, 1004

Dwarf, a, 760

Dwellings of the poor, 789; for labouring classes in Dublin, 915

Dynamite, Mr. A. D. H. Leadman on suicide by, 159; Dr. Hartigan on injury of hand by explosion of, 854

Dysentery, Tropical, and Chronic Diarrhœa, Sir J. Fayrer on, *rev.*, 781

Dysmenorrhœa, Dr. E. Malins on removal of ovaries for, 385, 393; relation of anteflexion of uterus to, 708

Dyspepsia, the tongue in, 617

E.

Eade, Dr. P., scorbutic spinal hæmorrhage, 812

Eales, Mr. H., miners' nystagmus, 159

Ealing, sanitary report of, 469, 882

Ear, Dr. E. Woakes on electricity in diseases of, 73; works on diseases of, 143; Dr. T. Barr on relations of diseases of nasal passages to affections of, 389, 396; treatment of purulent discharge from, 396; Dr. J. W. Cousins on a protector of, 397, 1050; Section of Diseases of in International Medical Congress, *see* Congress; morbid growths of, 403; middle, caseous accumulation in as a cause of tubercle, 405; noises in the, 582; malformations of in cases of congenital macrostoma, 780; instruments for treatment of disorders of, 782; hearing retained after loss of, 922, 965, 1076; Mr. R. Ellis on horny growth from, 1054

Ear-rings, 544, 1006

East Dereham, sanitary report of, 140, 356

Eastbourne, sanitation at, 412

Eaton, Mr., subscriptions to fund for, 470

Eau-de-Cologne as an intoxicant, 948

Ebstein, Dr., epithelial necrosis and diabetic coma, 672

Eclampsia in typhoid fever, 172

Eczema, palmarum, treatment of, 194, 248, 308; and albuminuria, in relation to gout, 360; pruriginous, 553; treatment of, 1045, 1076

Edinburgh, health of, 94, 492, 536, 914

Edis, Dr. A. M., hints for travelling in the case of children, 149; sterility, 395; influence of uterine disorder in production of sympathetic disturbances, 399; Diseases of Women, *rev.*, 635, 722; uterine polypi, 1120

Edmunds, Dr. J., an appeal, 383; attendance on families of medical men, 924

——— Dr. W., central amblyopia in diabetes, 84; perineuritis optica, 668; tubercular disease of iris, *ib.*

Education of boys, 144, 194, 248, 384

Eichhorst, Dr., Physical Methods of Research in Internal Disease, *rev.*, 748

Elbow-joints, excision of, 897, 1014

Electricity in cardiac disease, Dr. E. Woakes on, 711; death by, 1027

Electrocution, Dr. J. B. Mann on, 1120

Electrolysis, Dr. Semmola on treatment of cancer of [illegible], 1120

Electro-magnet for removing fragments of iron from eye, 1120

Elephant's milk, 59

Elliott, Dr. E., address to Southern Branch, 100

Ellis, Mr. R., horny growth from ear, 1054

Emboli, fatty, 859

Embryo, human, normal characters of, 560

Embryology, Comparative, Mr. F. M. Balfour's Treatise on, *rev.*, 1020

Embryotomy and the Cæsarean section, 402

Emigrants, improved berths for, 510

Emmert, Dr. C., frequency of diseases of eye at different periods of year, 1120

Emphysema, subcutaneous, from spontaneous rupture of lung, 480; in parturition, Mr. T. W. Hubbard on, 1120

Empyema, antiseptic incision and drainage in, 391; surgical treatment of, 523; Mr. E. Thompson on two cases of, 773; free incision in, 845; double, of right side, Mr. A. H. Bass on, 1120

Enamel of teeth, preservation of, 564

Encephalitis, interstitial, 1120

Encephalocele, cervical, 1120

Encysted cysticercus, 1120

Ennes, Dr., prevention of trichinosis, 632

Entozoon, Mr. W. Spencer on, 1120

Epidemic Prevention. *See* Disease

Epidemiological knowledge, aids to, 899

Epilepsy, severe attack of during excessive heat, 123; [illegible], 1120

Epistaxis, arrest of, Dr. J. K. Spender on, 776, 978, 1120, Mr. H. C. Howard on, 1120

Epithelial necrosis and diabetic coma, 672

Epithelioma, [illegible] of tongue simulating syphilitic disease, 1015

Erb, Dr. W., syphilis as a cause of locomotor ataxy, 1120

Ergotin in facial erysipelas, Mr. K. W. Millican on, 935

Erichsen, Mr. J. E., [illegible] International Medical Congress, 1120

Esmarch, Dr., the Ayrton-Perry [illegible], 1120

Erysipelas, facial, and enteric fever, Dr. Madden Meducation, 710; Mr. K. W. Millican on, 935

Eserine in glaucoma, 981

Esmarch, Dr., a morning with, 169; presentation to the Queen, 326

Ether, death during administration of, 327, 414

Ethyl, bromide of, 530

——— nitrate of, proposed purification of, 1120

Eulenburg, Dr., graphic representation of tendon-reflexes, 362

Eureka springs, 642

Eustache, Dr. G., embryotomy and the Cæsarean section, 402; the International Medical Congress, 906

Eustachian tube, functions of, 404

Evans and Wormull's folding stethoscope, 566

Evatt, Dr. G. H., organisation of the Army Medical Department, 516

Eve, Mr. F. S., tumours of striped muscle and sarcoma connected with kidney, 743; calcified adenoma of scalp, 932

Evesham, sanitary report of, 190; water-supply of, 412

Evidence, fees for, 581, 854

Evolution, spontaneous, 1006

Ewald, Dr., changes in peripheral resistance of arteries, 1120

Ewart, Dr. Joseph, hydrophobia, 807

Examination of the person, 965

Excision of chancres. *See* Chancre

——— of elbow-joint, 897, 1014

——— of joints, early and late, relative value of, 549

——— of knee in early life, Mr. W. Stokes on, 391, 920; discussion on, 517; Mr. C. Macnamara on, 1053; antiseptic treatment in, 961

——— of larynx, 571, 592

——— of os calcis and astragalus, 779

——— of scapula, 876, 915, 1056

——— of thyroid gland, 779

Exhibition, International Medical and Sanitary, 21; opening of, 133; beds and apparatus in, 133; surgical instruments in, 134; drugs, chemicals, etc., in, 135; diploma of, 292; closure of, 327; the awards at, 505, 506

——— Sanitary. *See* Sanitary

——— of smoke-preventing appliances, 908, 946, 971

Exmouth, sanitary report of, 761

Exophthalmos, unilateral, 982

Exostoses, aural, 403; multiple, Dr. G. E. Shuttleworth on, 1120, Mr. E. Nettleship on, 1120

Expectorant, strychnia as an, 530

Experiments, pathological, Dr. Virchow on, 198; Mr. Simon on, 220; on animals, Mr. Simon on, 221; Dr. J. R. [illegible], Mr. R. Owen on, 1120, Mr. [illegible], 1120, letter to [illegible], 1120

F.

[illegible] 114; masks [illegible] 109; aneurysm by anastomosis of, 598

[illegible]

Faculties of Paris, degrees granted by, 1063

[illegible]

[illegible] Dr. R. W. [illegible]

[illegible]

Falls, Dr. W. S., address to Southern Branch, 100

[illegible]

countries, 558; Tropical Dysentery and Chronic
on President Garfield, 716; for ophthalmic certificates, 719; for certificates of infectious disease, 804;
aminations, 886; action for recovery of, 909; questions on, 924, 965, 1045; letters on, 1005, 1078
of, 1058
Fendick, Mr. T. R., back-rest, 903
Fennings, Mr. A., fissured tongue, 348
Fenwick, Dr. B., disease of suprarenal capsules without bronzing of skin, 1016
Férgol, M., communication of syphilis by skin-grafting,
Ferrier, Dr., prosecution of, 752, 785, 836; comments of press on, 886; proposed subscription to, 796, 834; amblyopic ataxy, 937; vote of Harveian Society con-
Fever, enteric, Dr. R. B. Low on abdominal abscess
nificance of intestinal hæmorrhage in, 503; Dr. Strange on origin and diffusion of, 507; Dr. A. G. Davey on prevention of, 509; etiology of, 570, 650; and facial erysipelas, Dr. Madden Medlicott on,
continued fever resembling, 940; in South Africa, 97;
Müller Orphan Asylum
from infected milk
Tennessee
of, 1013, at Oldham,
gastric or typhoid
puerperal, in
case of, 532
relapsing, the blood-parasite
rheumatic
on, 932. *See* Rheumatism
splenic, M. Pasteur's vaccinations in relation to,
typhus, in Rutherglen, 56; in Limerick, 95; in Waterford, 174; in Dublin, 372; in Cork, 417; in Dundee, 467, 535; in Queenstown, 681, 875; in London,
yellow, in
825, 949; experience of in United State, 628; means of preventing spread of
Indies, 869; deaths of medical officers from, 949
Fevers, deaths from in Indian gaols, 51; hygiene of, proceedings of Forfarshire Medical Association, 173
Fibroid degeneration of the heart, 546
Fibroma in neighbourhood of subclavian artery, 48; loose in peritoneal cavity, Dr. J. Allan on, 81
Fibro-sarcoma in neighbourhood of brachial artery. 48
Field, Mr. G. P., introductory address at St. Mary's Hospital, 599, 611
Filaria sanguinis hominis, 668; Medinensis, 1016
Finger, restoration of extensor power of a, 1046; fracture of a, 1058
Fingers, malformation of, 159; webbed, Mr. A. T. Norton on operation for, 390, 931; Dupuytren's contraction of, Dr. Myrtle on, 894; Dr. T. A. Carter on, 1014; Mr. Reeves on, 1049
Finny, Dr. J. M., rheumatic fever with pericarditis, 93; pericarditis,
Fire grates, dom
Fire Home at Bournemouth
Firket, M., latent meningitis in pneumonia, 22
Firth, Mr. E., attendance for medical relief, 105; attendance on families of paupers, 502
Fitzgerald, Dr. C. E., unilateral exophthalmos, 982
Fleshy substance discharged from uterus, 194
Flinn, Dr. D. E., maté, 384
Flint, Dr. A., auscultation and percussion, 363; degree of LL.D. conferred on, 409
Florida water, Lanman and Kemp's, 635
Flour, whole meal and whitened, 92
Flower, Mr. W. H., lecture on the Cetacea, 38; address to Section of Anatomy in International Medical
Fluoric acid, use of in goître, 193
Fluorides in medicine,
Fokker, Dr., action and uses of antipyretic medicines, 407; relation of minute organisms to specific disease,
Food and Drugs Act, report on working of, 369
Food, spread of disease through influence of, 632;
Foot, Dr., introductory lecture at Meath Hospital, 831; case of hiccough, 983
of, 859
Football, fatal accidents from, 910
Forbes, Dr. Litton, ship-surgeons, 1035
Forceps, depression of child's head by, 49; mode of
of, *ib.*; axis-traction, 670; modification of Hodge's,
Forearm, congenital malformation of, 900
bodies in eye, 593
Foster, Dr. Michael, address in Section of Physiology in International Medical Congress, 587
Foulis, Dr. D., extirpation of the larynx, 562; death of,
Fowler, Mr. James, case of hydrophobia, 810
Fowler, Dr., aneurysm and rupture of aorta, 669; membranous band in left auricle, *ib.*
Fox, Mr. Dacre, removal of os calcis and astragalus,
relations of condition of heart and vessels to health of tissues, 349
Fracture of cervical spine, 668
of femur, longitudinal, 744; of neck of, 1058
of finger, 1058
of humerus, double, 1019
of metacarpal bone of thumb, 901
patella,
of skull, compound, with partial aphasia, 706;
of, 1020; compound, 1055
Fractures of leg and foot, plaster-of-Paris splints in, 13
France, practice in, 845; dental diplomas in, 985; medical ethics in, 1043
Francis, Surgeon-General C. R., inundations and their results, 581
François-Franck, M., mechanism of regulation of heart, 589
Fraser, Mr. A., testimonial to, 898
Dr. John, title of surgeon-major to volunteer surgeons, 343
Dr. J. Redd
in International Medical Congress, 227
Frazer, Mr. W., iodoform in treatment of diseases of the skin, 80; arsenic in paper, 194
Freer, Mr. E. L., treatment of curves of tibia by antiseptic osteotomy, 420
Frend, Mr. J. A., noises in the ears, 582
Freund, Dr. W., total extirpation of uterus, 399, 789
Fumigator, new mercurial, Mr. F. G. Hamilton on, 986
Fungoid origin of diphtheria, Dr. M. W. Taylor on, 6;
Fungus in tinea tonsurans, 66
Furnaces, utilisation of gas from,

G.

Galabin, Dr., microscopical sections of cancer of uterus, 49; membrane discharged in cervical endometritis, 708
Gallic acid, solvent for, 384
Gall-stones, iridin in, 694; large, 859, 1019
Galton, Captain D., abatement of smoke, 1026; accident to, 1063
Gamgee, Mr. Sampson, retirement from Queen's Hospital, 28; causes of failure of primary union in operation wounds, 550
Ganglion, treatment of by medicine, 966
Ganglion, inferior cervical, as a correlating nerve-centre, 324
Gangrenous eruptions in connection with chicken-pox
Gaols, Indian, excessive mortality in, 50
Garcia, Signor M., invention of the laryngoscope, 590
Garfield, President, the case of, 50, 86, 129, 163, 324,
711
physicians of, 1; letter on case of, 505; death of, 530; hospital in memory of, 610, 865, 866; Dr. F. H. Hamilton on case of, 610; *post mortem* examination of, 657; fees of medical attendants of, 716
Garnett, Dr. A. V. P., dislocation of liver, 1043
Garraway, Mr. E., treatment of diphtheria, 729
Garrod, Dr. A., eczema and albuminuria in relation to gout, 360
Garson, Dr. J. G., measurements of the pelvis, 562
Gas exhibition in Aberdeen, 579
Gaskell, Mr. W. H., action of atropin and muscarin on heart of frog, 529
Gastrostomy, cases of, 466, 709, 746, 817, 909, 945
Gauthier, M., poisons in saliva, 156; proteid alkaloids
fermentation,
Gay, Mr. John, recurrent mammary tumour, 669
Gelatine capsules, 873
Geldart, Mr. E., maté,

Genital tracts, reparative surgery of, 402
Genu valgum, discussion on pathology and treatment
Mr. H. A.
in, 935; bony ankylosis after Ogston's operation for,
Gerhardt, Dr., surgical treatment of empyema, 523; laryngoscopic signs of lesions of motor nerves of larynx, 591
Gibert, Dr., principles of prevention of disease, 629
Gibson, Mr. C., treatment of sea-sickness, 730
Dr. G.
the circulation,
Gihon, Dr. A. L., prevention of venereal disease, 630
Glands, sebaceous, calcified epithelioma of, 545
officer of health, 491; mortality returns, 913
Glassington, Mr. C. W., administration of nitro-glycerine, 543; recession of gums, 804
Glaucoma, pathology of, 595; treated by eserine, 981
Glomerular nephritis, diagnosis of, 361
Glottis, acute œdema of during pulmonary disease, Dr. Woakes on, 890
Gloucester, sanitary report of, 192
Gloucestershire, sanitary report of, 1040
Gluck and Zeller, Drs., prophylactic resection trachea, 172
Glycosuria, sulphate of quinine in, 530
Goats' milk, 862
Godart, Mr., presentation to, 836
Godson, Dr. Clement, depression of child's head by
Goître, fluoric acid in, 193
Gold miners, health of, 416
Golding-Bird, Mr. C. H., treatment of spinal curvature, 518; cancer of œsophagus, and gastrostomy, 817
Goltz, Dr., localisation of functions in cortex cerebri,
Gonorrhœa, injection-syringe for, 821
Gore, Mr. R. T., obituary notice of, 920
Gorham, Dr. J. J., bullet-wound of abdomen, 1050
Gould, Mr. A. P., congenital absence of half of cerebellum, 744; abscess in head of tibia, *ib.*
Gout, questions on, 144; eczema and albuminuria in re-
and rheumatism,
from case of, 938
rheumatic, 361
Gowers, Dr. W. R., acute spinal paralysis, 475; case of cerebral tumour, 987; optic neuritis in chorea, *ib.*; axial neuritis in spinal disease, 982; unilateral hemi-
Goyder's clinical stencil plates, 289
Graduation without education, 193
Graham, Mr. A. R., domestic fire-grates, 693
Grant, Rev. E. P., evidence on Contagious Diseases
Granville, Dr. J. Mortimer, hypnotism, 305
Gratuities for extra services during epidemic of small-pox, 541
Graves's disease, value of von Gräfe's sign of, 982
Graveyards in West
Gravimetry in the mortuary, Dr. J. P. Boileau on, 976
Grawitz, Dr., immunity following inoculation, 785
Mr. Thomas, death of
Greene, Dr. W. W., death of, 568
Greenfield, Dr. W. S., address on pathology, 695, 731
Greenhill, Dr. W. A., pension granted to, 991
Greenhow, Dr. E. H., Addison's disease, 323
Dr. T. M., obituary notice of, 799
Greenway, Mr. H., value of suspension in surgery, 392
Greenwood, Mr. M., small-pox and vaccination, 844
Gregory, Dr. G., railway accidents and some of their causes, 966
Grey
Grieve, Dr., etiology of general paralysis, 905
Griffin, Mr., fire-grate, 946
Griffith, Mr. R. C., obituary notice of, 501
Dr. S., address to North Wales Branch, 685
Griffith and Henfrey's Micrographic Dictionary, *rev.*, 635
Groin, and scrotum, tumour of, 598; sarcoma of, 856
Grossmann, Dr. K., ophthalmia neonatorum, 702
Groves, Dr. J., treatment of insanity, 476; the Isle of Wight as a health resort,
Growth of human body, 825
in hernia,
multiple, in iridectomy; in dental
Grubb, Mr. J. S., calf-lymph, 110
Guérin, Mr. J., new theory of monsters, 546
Guild of St. Luke, annual
Gull, Sir W., address to Section of Medicine in International Medical Congress, 210
Gums, recession of, 766, 804
Gunshot wound, Mr. T. W. Hubbard on case of, 813; of superior maxillary bone, Dr. G. St. George on, 895; of abdomen, Dr. M. Sims on treatment of, 925, 971; of abdomen, Dr. J. J. Gorham on, 1050; of President Garfield, *see* Garfield

H.

Habershon, Dr. S. O., cottage hospitals, 1047
Haddon, Dr. J., antipyretic treatment, 489; etiology of enteric fever, 650; etiology of infectious diseases, 77
Hæmophilia, tissues from case of, 93
Hæmorrhage at [illegible] sickness during pregnancy, Dr. J. H. Bennet on, 93; perchloride of iron in, 1
——— cerebral, aneurysm of cerebral arteries a cause of, 52, 1051
——— intestinal, in typhoid fever, prognostic significance of, 503
——— *per partum*, Dr. Coghill on, 17; plugging with solution of perchloride of iron, 342, 383; secondary, 394; discussion on treatment of, 400; Mr. C. W. Belt on, 400; Dr. J. Bassett on, 400; Mr. W. D. Sheldon, 400, letters on, 1027; Dr. W. Chapman on, 1027
——— ——— retinal, in idiopathic anæmia, 627
——— scorbutic spinal, Dr. Eade on, 812
Hague, Mr. J. T., effect of removal of the tonsils on the teeth, 193; Calabar bean in tetanus, 1051
Hahnemann, Dr. J. S. Bristowe on, 257
Hair, culture of, 109; congenital abnormality in production of, 554
Hales, the Rev. Stephen, Dr. Michael Foster on, 587
Halstead rural district, sanitary report of, 509
Hamilton, Mr. F. G., mercurial spray-producer and fumigator, 986
——— Dr. F. H., the case of the late President Garfield, 619
——— Mr. R., local treatment of phthisis by carbolic acid, 10
Hand, Dr. Hartigan on injury of by dynamite, 854
Hands, sweaty, 9
Hannay, Mr. J. B., prevention of hay-fever, 52
Harding, Mr. H., splinter of wood in tooth, 84
——— Mr. W. T., poisoning by steel pen nibs, 1051
Hardy, Mr. H. Nelson, consultation with homœopaths, 1051
Harley, Dr. George, vaccination, 512
Harmar, Mr. J. R., ulcer of the stomach, 1019
Harris, Mr. G. A., pilocarpin, 1006
Harrison, Mr. Reginald, treatment of stricture by stretching, 193, 1051; lithotomy with removal of tumour of prostate, 980; tapping the bladder in hypertrophied prostate, 1051
——— Mr. Robert, bacilli in typhoid fever, 348
Hart, Mr. Ernest, The Truth about Vaccination, Dutch translation of, *rev.*, 162; influence of milk in spreading zymotic diseases, 631; animal vaccination, 850
Hartigan, Dr. W., injury of hand by dynamite, 854
Hartley, Surgeon-major E. B., Victoria Cross awarded to, 638
Hartsill, Dr., intestinal hæmorrhage in typhoid fever, 503
Harvey, Dr. Reuben, death of, 1017
——— Dr. Willmore, meeting of admirers of statue, 52; Professor Owen's address at unveiling of statue of, 286; ceremony of unveiling of statue, 304; publication of report of ceremony, 826
Hassall, Dr. A. H., winter climate of San Remo, 659
Haward, Mr. J. W., introductory lecture at St. George's Hospital, 52
Hay, Dr. M., action of saline cathartics, 528
Hay-fever, 18; Dr. F. P. Atkinson on treatment of, 81; note on, 110; prevention of, 872
Hayden, Dr. T., illness of, 644; death of, 756; obituary notice of, 762; resolution of Council of Metropolitan Counties Branch concerning, 794; proposed memorial of, 975
Hayes, Dr. Isaac J., death of, 1037
——— Mr. P. J., radical cure of hydrocele, 52
Head, [illegible] Wounds of Brain and Skull
Heath, [illegible], Dr. A. Carpenter on, 1051
Heath, [illegible], Dr. J. Orton on the Local Government Act, 1051
Health [illegible], 52
Health of towns, [illegible] year's work of the Local Government Board, 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051
Hearn, Mr. [illegible] on the [illegible] of Sanitary Inspectors, 1051
Heart, Dr. E. Rickards on cases of disease and malformation of, 72, 113, 157; [illegible] between [illegible] and [illegible], 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; degeneration of, 546; mechanism of regulation of, 1051; [illegible] of Sanitary Inspectors, 1051; and mitral stenosis without symptoms, 859; mitral [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; [illegible] of Sanitary Inspectors, 1051; Dr. N. Macleod on rupture of, 1051
Heat, excessive, cerebral [illegible] of Sanitary Inspectors, 1051; deaths from in Cincinnati, 128
Heat, [illegible] of Sanitary Inspectors, 1051
Heat-waves in July, 52
Heath, Mr. C., odontoma of lower jaw, 669; injury to [illegible] followed by syphilis, 1051
Heifer-lymph, 379, 419. *See* Vaccination, animal
Helby, Mr., and the guardians of the Penrith Union, 64
Helensburgh, the sewage question at, 1051
Hemeralopia with peculiar appearances in choroid, 84
Hemiopia, unilateral, in spinal atrophy, 982
Hemiplegia, slight, from exposure to heat, 123
Hemming, Mr. W. D., obituary notice of, 1041
Henderson, Dr. F., the sewage question at Helensburgh, 1051
——— Dr. G. C., progress of zymotic micro-pathology, 899; ataxy after small-pox, 1043
——— Dr. W., [illegible] followed by [illegible] of abdominal wall, 157
Hendon, sanitary report of, 1071
Henley-on-Thames, government inquiry at, 412
Henninger, M., enemata of peptones, 544
Henty, Dr. G., typhoid fever and diphtheria, 878
Hepatotomy for hydatids, Mr. L. Tait on, 81
Hepburn, Mr. D., chronic suppuration of teeth, 84
Hering, Dr., dilatation of laryngeal stenosis by bougies, 1051
Herman, Dr. G. E., translucent sac discharged from uterus, 708; relation of anteflexion of uterus to dysmenorrhœa, 708, 1078
Hernia, strangulated, Mr. P. Swain on, 74; diaphragmatic, 171; inguinal, immediate cure of, 390; strangulated during menstrual period, Mr. Hourigan on, 854
Herring, Mr. J. F., hydrobromate of iron in chorea, 1051
Herschell, Mr. G. A., addition to binaural stethoscope, 1051
Hess, Dr. A., the morphia habit, 424
Hewitt, Dr. Graily, exciting causes of hysteria and hysteroepilepsy, 1051
Hexham, sanitary report of, 281
Hiccough, remedy for, 804; extraordinary case of, 983
Hickinbotham, Dr. J., placenta prævia with large myoma, 49
Hicks, Dr. C. C., manipulation of scapula in dislocation of shoulder, 772
——— Dr. J. Braxton, on secondary *post partum* hæmorrhage, 394; intermittent contractions of pregnant [illegible], 1051
Hill, Mr. Berkeley, removal of fibrous tumour of bladder, 980; linear rectotomy for syphilitic stricture, 1051
Hillairet, M., mycosis fungoides, 553
Hime, Dr. T. W., transfusion in profuse menorrhagia, 1051
Hinds, Dr. W., obituary notice of, 836
His, Dr., position of the ovary, 948
Histology, pathological, books on, 579
Hjaltelin, Dr. J., retirement of, 752
Hodgson, Mr. G. F., the relations of small-pox and cow-pox, 852
Hogan, Dr. J., vaccination shield, 409
Hogg, Mr. [illegible] Hospital, 1051
——— Dr. W. D., adulteration of food-supplies, 632
Hoggan, Dr. E., presentation to, 630
Holden, [illegible] 1051
Holland, Dr. [illegible] Journal, 1051
Holloway, Dr. [illegible] Journal, 1051
Holman, [illegible] 1051
——— Mr. R. L., botanical origin of tonga, 171
——— Mr. T., the Medical Act, Privileges, Duties, and Penalties, 1051
Holsworthy rural district, sanitary report of, 247
Holthouse, Mr. C., vivisection, 1077
Homburg, special correspondence from, 139; letter on, 1051
Home, the Firs, 31
——— for Incurables, Cork, fancy fair in aid of, 57
Homœopathy, action by [illegible] on medical practice, 1051; consultations with, Dr. Bristowe on, 260; Mr. J. [illegible] on, 1051; letter on, 1051; and Cheshire Branch, 538; resolution of South Midland Branch, 1051; [illegible] Branch, 1051; [illegible] Branch, 1051; [illegible]

address, 590; annual dinner, 614; [illegible] at, 614
Hospital, St. Thomas's, instruction of nurses in cooking, 268; school of nurses, 413; lectures, 445; fees, 447; note on, 451; [illegible] changes in, 404; appointments, 414; Dr. Bond's introductory address, 601; dissections at, 614; appointments at, 637
——— - Sheffield Public, medical officers of, 455
——— - Sir Patrick Dun's, the physicianship of, 56; resignation of, [illegible] appointment at, 760
——— - Skin and Lock, Birmingham, 28
——— for Skin Diseases, [illegible] annual meeting, 28
——— - Small-pox at Fulham, effect of [illegible] of, 7
——— Small-Pox at Stockwell, report of, 370, 544
——— South Devon and East Cornwall, new building, 231; donation to, 884; for South-East London, [illegible]
——— Stevenson, Dr., in bankruptcy, [illegible], withdrawal of corporation grant, 636
——— Swansea, visit of Prince and Princess of Wales to, [illegible], 52
——— - Tenon, puerperal fever in, 18
——— - Throat and Ear, Newcastle-on-Tyne, report of, 166
——— - University College, lectures, 445; fees, 447; note on, 451; changes in, 404; [illegible] at, 614
——— Victoria, Royal, at Netley, visit of Queen to, 367
——— West Bromwich district, annual report, 760
——— Westminster, lectures, 445; fees, 447, 448; note on, 452; scholarships and prizes, 452, 648; changes in, 404; Mr. Bond's introductory address, 603; dinner, 614; dissections at, *ib.*; endowment of scholarship, 761
——— for Women, Chelsea, annual report, 18
——— for Women, Cork, result of appeal in aid of, 23, 750; bazaar in aid of, 914
Hospital, new form of, 797
Hospital Saturday, contributions, 486; for Glasgow, 491
——— Sunday, Metropolitan, legacy to fund, 568; meeting of Council, 636; annual meeting, 1056
——— in Belfast, 875
——— in Birmingham, 721, 760
——— in Cumberland and Westmorland, 908
——— in Dublin, 793
Hospitals, abuse of, 765, 1004
——— beds and apparatus of, in Medical and Sanitary Exhibition, 133
——— convalescents from, provision for, 20
——— Cottage, proposed memorial to founder of, 673, 757, 824, 876; Dr. Habershon on, 1024, 1047
——— country, Mr. Rigden on, 185
——— distribution of, 844
——— of Dublin, corporation grants to, 718; board of superintendence of, 875
——— fever and small-pox, Stockwell, reports of, 367, 544; Royal Commission on, 632, 877. *See* Hospitals, Small-pox, *below*
——— Irish Union, clinical teaching in, 544
——— legal liability of, 696
——— of London, consulting staff of, 465
——— management of, letters on, 29, 654, 720; remarks on reform of, 57
——— mishaps at, 368, 788, 866
——— in New York, 693
——— of Paris, midwifery in, 54; administration of, 640
——— pocket money for, 643, 1004
——— rate-supported, gratuitous service to, 640
——— - sanitary condition of, 582
——— - small-pox, alleged spread of disease by, 61; provision of in London, 294; legal proceedings regarding, 486, 958; metropolitan, remarks on, 609
——— state supervision of, 645, 646
——— tenement, 517
Hotels, sanitary inspection of, 102, 187, 194, 248; in Rome, 130
Houel, Dr., death of, 760
Hourigan, Mr. W. P., strangulated hernia during menstrual period, 834
House-surgeon, modern, 671
Houses, overcrowded, 74; common dangers in, 130; report on drainage of, 503; of the poor, 828; rules for sanitation of, 881
Hovell, Mr. De Berdt, *post partum* hæmorrhage, 1077
——— Mr. T. M., tonsillotomes, 1045
Howard, Dr. B., elevation of the insensitive epiglottis by position, 521
——— Mr. H. C., immediate arrest of bleeding from the nose, 896
Howlett, Mr. E. H., pathology of hydrophobia, 940
Hubbard, Mr. T. W., severe gunshot-wound, 813; emphysema in parturition, 897; treatment of diphtheria, 923
Humble, Dr. W. E., and Lush, Dr. W. V., distoma hepaticum in man, 75
Humerus, supracondylar process of in man, 560; management of dislocations of, Mr. C. R. Illingworth on, 626; Dr. A. H. Bampton on, 740; Mr. W. Berry on, *ib.*; Dr. C. C. Hicks on, 776; letter on, 886; paralysis of arm from dislocation of, Mr. T. A. Mitchell on, 813; dislocation of on both sides, Mr. W. A. Caskie on, 854; double fracture of, 1019
Humphry, Dr. G. M., address at annual meeting of British Medical Association, 295; vivisection, 342, 865; causes of failure of primary union in operation wounds, 550
Hungary, new university in, 581
Husband, Dr. H. A., and the extra-academical school of medicine in Edinburgh, 491
Husband, liability of for medical attendance on wife, 23
Hutchinson, Mr. Jonathan, address in surgery, 309, 332; the British Medical Association and homœopathy, 539; gangrenous eruptions in connection with chicken-pox and vaccination, 707
Hüter, Dr., treatment of scrofulous inflammation of joints, 555
Huxley, Dr. T. H., connection of biological sciences with medicine, 273, 300
Hydatid of liver, Mr. L. Tait on hepatotomy for, 81
Hydrobromate of iron in chorea, 383
Hydrocele, Mr. P. J. Hayes on radical cure of, 936
Hydropathic establishment, new, 367
Hydroperitoneum traced to chronic ovaritis, Mr. A. Doran on, 699
Hydrophobia, simulated by acute alcoholism, 256; cases of, 506, 751, 814; prevention of diffusion of, 632; Dr. J. Ewart on pathology and prevention of, 807; Mr. J. Fowler on a case of, 810; Mr. J. Ruxton on a case of, 811, 1005; Mr. F. A. Southam on cases of, 814; Mr. Dolan on Nature and Treatment of, *rev.*, 861; letters on, 923, 1005, 1076; pathology of, 940; simulation of, 1020
Hydrosalpinx, and pyosalpinx, 859
Hygienic want in London, 68, 44
Hygiene on the ocean, 165
Hymen, unruptured, labour with, 110
Hypnotism, letters on, 305, 378
Hypodermic injection of quinine, 582, 654; in nævus, dangers in, 54
Hysteria, and hystero-epilepsy, exciting cause of, [illegible]

I.

Ichthyosis, 144
Idiocy, obstetrical aspects of, 316; and marriage, 730
Idiots, homes for, 694
Illingworth, Mr. C. R., manipulation of scapula in dislocation of shoulder, 626
Imbecile children, education of at Larbert, 793; Darenth Asylum for, 880
Impostor, a remarkable, 89
Incurables, home for in Cork, 57
Index Catalogue of Library of Surgeon-General's Office at Washington, *rev.*, 862
Index Medicus, 828
India, excessive mortality in prisons in, 50; sanitary administration in, 490; animal vaccination in, 1030
India-rubber bandages, 453
Inebriates, Dalrymple Home for, 130. *See* Drunkards
Infant, Bright's disease in an, Dr. Mackenzie Booth on, 626; Mr. J. R. Morison on, 777; paralysis of arm in from dislocation of humerus, 813. *See* Child
Infants, irregular burial of, 17; a cause of mortality of, 678; cyanotic, a succession of, 887; mortality of, 891. *See* Children
Infection, limitation of, 629; results of exposure to, 638; Dr. W. C. James on a source of, 704
Infectious diseases. *See* Diseases
Infirmary, Aberdeen Royal, note on, 457; medical officers, 458; clinical instruction at, 644
——— at Bolton, art exhibition in aid of, 465
——— Bristol Royal, Reports of, *rev.*, 162; appointments in, 434; prizes, 434, 648; medical officers, 435
——— Dundee Royal, donation to, 417
——— Edinburgh Royal, visit of Queen to, 371, 417; medical officers, 458; note on, 459; visit of Duke of Cambridge to, 467; legacies and donations to, 643
——— Eye, at Glasgow, note on, 459
——— Glamorgan and Monmouth, new, 843
——— Glasgow Royal, medical officers, 458; note on, 459; changes in, 464; appointments in, 843
——— Glasgow Western, medical officers, 458; note on, 459; appointments in, 884; annual meeting, 913
——— Leeds General, note on, 434; medical officers, 435
——— Liverpool Royal, medical officers, 435; note on, 436; appointments, 1003
——— Manchester Royal, medical officers, 435; note on, 436; financial condition of, 1000
——— for Marylebone, new, 52
——— Newcastle-on-Tyne, medical officers, 435; note on, 437; changes in, 464
——— Paisley, legacy to, 830
——— Salisbury, bequests to, 486
——— Sheffield, medical officers, 435
Inflammatory products, remedies promoting absorption of, 527; relation of tubercle to, 545
Inhalations in phthisis. *See* Phthisis
Injection, subcutaneous. *See* Hypodermic
Injections, vaginal, after delivery, 796; uterine, *ib.*
Inoculation, prophylactic, M. Pasteur's experiments on, 283, 380; for small-pox, by nostrils, 544; in China, 582; theory of immunity following, 785
Inquest, [illegible] in England and Wales, 369, 828, 1061
Insane, the, in workhouses, 1065. *See* Lunatics.
Insanity, treatment of, 476; African treatment of, 766.
Inspection [illegible]
Inspectors of [illegible]
Institution, Royal, lectures at, 930; Fullerian professor of Physiology, 950
Instrument [illegible] in medical and sanitary exhibition, 176
Institute, Brown, appointment of professor superintendent, 176
——— Midland, half-yearly meeting of, 724
——— - Sanitary, of Great Britain. *See* Sanitary
International conditions of admissibility to practice, 632
Intestine, Dr. J. A. Austin on suppression of urine in obstruction of, 158; laparo-enterotomy for obstruction of, 839
——— small, Mr. P. J. Lenihan on acute obstruction of, 854; removal of gall-stone from, 859; unusual cause of obstruction of, 1066
Intraperitoneal tumours, Mr. Spencer Wells on advancement in surgical treatment of, 358
Intussusception, case of, 900
Inundations, results of, 581
Invalids, cookery for, 368
Investment, a good, 724
Iodide of potassium as a cause of Bright's disease, 386
Iodine in diphtheria, Dr. W. B. Mushet on, 159
Iodoform in diseases of the skin, Dr. W. Frazer on, 80; removal of odour of, 144, 829
Ireland, quarterly reports of health of, 24, 418, 915; census of, 24, 1032; annual report of Local Government Board, 96; [illegible] disease in town districts, 372; sanitary works in, 644; sanitary condition of [illegible]
Irides, multiple growths in, 84
Iridin for gall-stones, 694
Iris, tubercular disease of, 668
Irwin, Dr. J. A., the position of ship-surgeons, 998
Iron, electro-magnet for removal of from eye, 84
——— hydrobromate of in chorea, 383
——— perchloride of, plugging with solution of, 343, 383; internal use of in hæmorrhage, 906
Ischium, necrosis of tuberosity of, 743
Itch, treatment of by balsam of Peru, 652

J.

Jackman, Mr. W. T., treatment of diphtheria, 729
Jackson, Dr. Hughlings, epileptiform convulsions from cerebral disease, 322; relation of apparent movement of objects and rotation of eyes, 667
Jacob, Dr. A. H., the scheme of the Irish College of Surgeons, 615; notification of infectious diseases, 919
Jacob's rodent ulcer, case of, 1058
Jacobi, Dr., nature and mode of propagation of contagion of diphtheria, 521, on Professor Virchow, 1020
Jalland, Mr. W., fracture of skull with aphasia, 706; compound fracture of skull, 1054
Jamaica, cultivation of cinchona in, 829
James, Dr. Prosser, local treatment of diphtheria, 124
——— Dr. W. Culver, a source of infection, 704; attendance on females of medical men, 1078
Jaundice, discussion on, 477
Jaw, lower, odontoma of, 669; cracking noise on movement of, 846; necrosis of, 1058
——— upper, Dr. St. George on gunshot wound of, 895
Jefferson, Dr. J. G., presentation to, 727
Jenner and Jesty, 68, 109
——— Sir William, speech at opening of International Medical Congress, 521
Jeston, Mr. T. W., army service of, 506
Jewett, Dr. G., poisoning by oil of tansy, 623
Jinzelberg, Mr. H., pepsine, 177
Johnson, Dr. G., address in Subsection of Diseases of the Throat in International Medical Congress, 212; diagnosis of glomerular nephritis, 361
——— Mr. G. S., frothing of urine, 812, 1054
Johnston, Dr. J., nerve-stretching in locomotor ataxy, 11
Joints, affection of in locomotor ataxy, 285, 596, 669; discussion on resection of, 548; treatment of scrofulous inflammation of, 555; excision of in childhood, *ib.*
Jokes, French, for German professors, 693, 765
Jollivet, Mr. A. B., medical practice in Mauritius, 348, 554
Jones, Mr. D. R., clinical thermometer, 1045
——— Dr. Handfield, spasmodic disorders of lower limbs, 4
——— Dr. H. W., obstetric aphorisms, 884
——— Dr. Macnaughton, fibrous polypus of uterus, 1019; abscess of cerebellum, *ib.*; double fracture of humerus, *ib.*; naso-pharyngeal polypus, *ib.*
——— Mr. O'Brien, letter from, 306
——— Mr. Thomas, gastrostomy, 709
——— Mr. Wharton, action of belladonna, 93
Journal, British Medical, history of, 953

Journal, proposed, of American Medical Association, 197; new Italian, 412
Jowes, Dr. T., spina bifida cured by subcutaneous ligature and excision, 1076

K.

Kabler, Mr., treatment during period of after-birth, 261
Kandahar sore, Mr. J. C. Lucas on, 160
Kane, Dr., chloral in labour, 727
Kaposi, Dr., lupus erythematosus, 552; naphthol in skin-diseases, 612
Kassowitz, Dr., rötheln or German measles, 520
Keen, Dr., use of the living model in teaching anatomy, 562
Keetley, Mr. C. B., Charcot's joint-disease, 1076; Index of Surgery, review, 776
Kelly, Dr. W. M., the dry-earth system, 1076
Keloid, undergoing involution, 597
Kendal, sanitary report of, 247
Kenny, Mr. J. E., imprisonment of, 718
Kerr, Mr. H., removal of large gall-stone from intestine, 557
Kerr, Dr. N., typhus fever in St. Marylebone, 796
Kershaw, Dr., presentation to, 632
Kidney, relation of syphilis to disease of, 223; diseased conditions of admitting surgical treatment, 549; extirpation of, 701, 741, 742; tumours of, treatment and sarcomatous tissue combined with, 741, 744; cancer of, 744, 1030
Kingsford, the late Dr. C. D., resolution on death of, 796
Kingsley, Dr. N., effect of civilisation on the teeth, 1076
Kinsey, Mr. A., prevention of dumbness after loss of hearing, 405
Kirby, Messrs., articles in International Medical and Sanitary Exhibition, 1076
Kirk, Sir John, 467
—— Dr. R., the frothing of urine, 978
Koch, Dr. E., relation of micro-organisms to specific diseases, 1076
Kocher, Dr., vesical lithotrity, 714
Knapp, Dr. H., the cotton-pellet as an artificial drum-membrane, 1076
Knee-joint, excision of in early life, Mr. W. Stokes on, 1076; Mr. C. Macnamara on, 1076; Reeves' treatment in chronic disease of, 548; arthritis deformans in, 859; excision of, 961; bony ankylosis of after Ogston's operation, 1076
Knighthood of Sir G. Birdwood, 465, 946; of Sir John Kirk, 465; of Sir W. Mac Cormac, 1076; of Sir Erasmus Wilson, 788, 946
Knock-knee. *See* Genu Valgum
Knott, Mr., the cerebral sinuses and their variations, 1076

Koch, Dr. P., mechanical treatment of laryngeal stenosis, 592
Kocher, Dr., result of treatment in chronic disease of knee, 548
Kohts, Dr., pathology of laryngeal phthisis, 1076
Kolpe, Dr., Medical Section, Moscow International Sanitary Exhibition, 1076

L

Labia minora, pendulous cysts of, 708
Laboratory physiological, in Edinburgh, 1076
Labour with unruptured hymen, 110; death from chloroform during, 196; treatment of uterine contraction during, 197; normal, Dr. Priestley Smith on, 687; Dr. Matheson on, 687; chloral in, 727; protracted, Mr. H. Meyer on, 1076; Dr. Duncan on, 1076; abuse of obstruction in, 857
Laboulbène, Dr., Congress at Paris, 1076
Lacher, Dr., compression-forceps, 171
Lactic acid in phthisis, 470
Ladell, Mr. W. J. S., rötheln, 193
Lady-students at hospitals, 1076
Laffan, Mr. T., clinical instruction in Irish county hospitals, 1076
Lambeth guardians and Dr. Lloyd, 486
Lakeman, Mr. J. B., factory certifying surgeons, 1046
Lancet, the, 1076
Land, Mr. W. J., 1076
Landon, Mr. A. J., proposed memorial of, 488, 728
Lange, Dr. F. W., 1076
Langenbeck, Dr., jubilee of, 1076
Langton, Mr., ankylosis of knee after Ogston's operation, 1076
Language, medical, 602
Laryngeal Mr. E. B., the Chair of Natural History in Edinburgh, 1026
Laryngectomy, 1076
Laryngitis, Dr. C. J. Nicholas on Pseudo-Membranous, 1076
Laryngoscope, invention of the, 590
Larynx, extirpation of, 551, 552; web in the, 590; laryngeal nerves of, 591; lesions of motor nerves of, 591; neuroses of sensation of, 591; mucous secretion of, 591; treatment of growths in, 592; mechanical treatment of stenosis of, *ib.*; Dr. E. Woakes on four cases of disease of, 889
Latham, Dr. P. W., salicylic acid in acute rheumatism, 934
Latrines and lavatories, public, 68, 144
Laudanum, poisoning by, 131
Laura, Dr., original of cranial nerves, 560
Lawson, Inspector-General R., influence of the Contagious Diseases Acts, 557; prevention of spread of yellow fever, 628
Lawyers and doctors, 728
Laxative, mild, 1077
Lazarewitch, Dr., curves of midwifery forceps, 397
Lead, poisoning by from cosmetics, 231; in manufacture of pottery, 911; poisoning by continous absorption of, 862
Leadman, Mr. A. H., suicide by dynamite, 159
Leber, Dr. T., foreign bodies in the eyeball, 593; relation of optic neuritis to intracranial disease, 594
Le Bond, Dr. A., amputation of neck of uterus for chronic metritis, 402
Lecturers, regulations of University of Edinburgh concerning, 1076
Lectures, clinical, on locomotor ataxy treated by nerve-stretching, Dr. H. C. Bastian, 1; clinical, on spasmodic disorders of lower limbs, Dr. Handfield Jones, 4; to medical practitioners in Berlin, Dr. Jenner, 28, 168; clinical, on subcutaneous ligature of varix and varicocele, Mr. J. Duncan, 37; on the Cetacea, Mr. W. H. Flower, 38; on health, in Glasgow, 173, 642, 679, 755, 792; Combe, on physiology, 329, 642, 679, 755, 792; on physiology, 329, 642, 679, 755, 792; Combe, on physiology, 329, 642, 679, 755, 792; introductory, at St. George's Hospital, Mr. J. W. Howard, 393; at King's College, Sir J. Lister, 393; at St. Mary's Hospital, Mr. C. P. Field, 393; at Middlesex Hospital, Dr. R. D. Powell, 601; at St. Thomas's Hospital, Dr. A. J. Bernays, *ib.*; at University College, Dr. G. V. Poore, 602; at Westminster Hospital, Mr. T. Bond, 603; at London School of Medicine for Women, Miss A. R. Barker, 604; at Queen's College, Birmingham, Mr. O. Pemberton, 604; at University College, Liverpool, Dr. O. Lodge, 605; at Sheffield School of Medicine, Mr. E. Skinner, 606; at Leeds School of Medicine, Mr. W. N. Price, 633; at University of Durham College of Medicine, Dr. J. Murphy, 634; Thomson, in natural science, 642, 1030, 1067; clinical, on pneumonia, Dr. A. T. H. Waters, 805; introductory, at Ledwich School of Medicine, Mr. W. Stoker, 831; at Meath Hospital, Dr. Foot, *ib.*; at Royal Institution, 930
Ledoulx, M., the tsetze fly, 93
Lee, Dr. B., normal axis of the foot, 93
—— Mr. H., prevention of diffusion of syphilis, 630
—— Dr. R., amendment of law of lunacy, 1076
Lefferts, Dr. G. M., paralysis of motor nerves of larynx, 591
Leg, and foot, treatment of fractures and dislocations of by plaster-of-Paris splints, 13
Legg, Dr., 1076
Legge, Dr. W., diseased tissues from stump of thigh, 1076

Legion of Honour, members of, 223
Legitimate sport, 948
Leicester, sanitary report of, 881
Leith, health of, 492
Lemonade, poisoning by, 91
Lenihan, Mr. P. J., acute obstruction of small intestine, 1076
Leonard, Mr. J. F., removal of thigh, 1076
Leprosy, Dr. the bacillus of, 1076; diseased state of the liver, 363
Leprosy, eastern, 597
Leschetizky, Dr., case of fungus of stomach, 560; situation of the stomach, 560, 828
Leucoderma in South Africa, 68; case of, 597
Leucoplakia buccalis, 552
Leven, M., action of tea and coffee on the stomach, 1076

Libel on Countess of Lonsdale, 20
Library, Bodleian, curator of, 763; of Surgeon-General's Office at Washington, 1076; Cambridge University, 1076
Life, increased duration of in England, 960, 999, 1005, 1076; Dr. Farr on, 1076; and syphilis, 424; companies, 922, 1069; fees for certificates, 1076; Dr. Duncan on, 37
Lilburne, Dr. J., antiseptic treatment of wounds in the field, 1076
Limb, lower, fatty degeneration of, 744
Limbs, Dr. H., 1076
Lister, Mr. J., operations by, 53; relation of minute organisms to health, 345; cases of mammary disease, 777
Literature, medical, Dr. J. S. Billings on, 262, 300
Lithgow, Dr. R. A. Douglas, Life and Poems of J. C. Prince, *rev.*, 821
Lithopædion, the, 49
Lithotomy, with calculi in prostate and scrotum, 53 median, 789; removal of tumour of prostate during, 1076
Lithotrity at one sitting, 392
Little, Dr. W. J., genu valgum, 483
Littlejohn, Dr. H. D., notification of infectious diseases, 1076
Liveing, Dr. R., causes of alopecia areata, 551
Liver-fluke in man, Drs. Humble and Lush on, 75
Liver, Mr. L. Tait on hepatotomy for hydatids of, 81; the biliary secretion in morbid states of, 363; surgical treatment of abscess of, 1076; cirrhosis and hæmorrhagic infarction of, 983; cirrhosis, 1076
Liverpool, sanitary report of, 577, 1071; special correspondence from, 879, 961
Lloyd, Dr., and the Lambeth guardians, 486
Mr. Jordan, subastragaloid dislocation, 859
Local Government Board, decision regarding destroyed clothing, 1076; appointment to, 1076; tenure of office by medical officers of health, 339. *See* Poor-law and Public Health.
Locomotor ataxy, treatment of, 1076
Localisation of cerebral functions, advantage of, 822
Lockhart, Mr. W., small-pox inoculation in China, 582
Lodge, Dr. O., introductory address at University College, Liverpool, 605
Loewenberg, Dr., adenoid vegetations, 593
London, corporation of, and the International Medical Congress, 25; hygienic want in, 68; water-supply of, 1076; sanitary, 1076; modern, sanitary condition and laws of, 858; health of, *see* Public Health
Long, Mr. F., solvent for gallic acid, 384
Longevity. *See* Centenarians
Longmore, Surgeon-General T., address in section of Military Medicine, Surgery, and Hygiene at International Medical Congress, 224; Surgeon-General Otis, 299; wounds by Martini-Henry bullets, 559; the Farmar and Sealey fund, 649; hearing without the auricle, 1076
Longtown rural district, sanitary report of, 541
Lonsdale, libel on Countess of, 20
Low, Dr. David, obituary notice of, 501
—— Dr. R. B., abdominal abscess after enteric fever, 122
Lowe, Mr. John, effects of bicycle on venous circulation, 1076
Dr. W. C., 1076
Lowndes, Mr. H., mode of using the forceps, 46; the Vienna School, 1076
Lowson, Dr. D., award of Albert medal to, 55
Lubbock, Sir J., introductory address at King's College, 1076
Lucae, Dr., deafness with healthy middle and external ear, 404
Lucas, Mr. J. C., Kandahar sore, 160; the opium traffic, 1076
—— Mr. R. C., vascular tumour of face, 14; compression, 1076; cross-legged progression, *ib.*; aneurysm by anastomosis of face and orbit, 598; tumour of groin and scrotum, 818; excision of both elbow-joints, 897, 1014
Lumbar, Mr. J. F., 1076
Lunacy, amendment of law of, 141, 163; assessments, 1076; Dr. W., 1076; *See* Insanity
Lunatics, accommodation for in Cork, 132; Dr. D. Bower on means for care and cure of, 152; in workhouses, 1076; Dr. W., 1076
Lund, Mr. E., chronic prostatic disease treated by a silver tube, 483
Lungs, antiseptic treatment of diseases of, Dr. J. C. Mackenzie, 218; Dr. H. W., 1076; Dr. C. H. W., 1076; Dr. W. H., 1076; Phthisis
Lupus, Mr. J. F., 1076
Lymphadenia cutis, 553
Lymphatic, Dr. H., 1076

M.

M'Adwie, Dr. A. M., [illegible]
M'Alpine, Mr. D., Zoological Atlas, [illegible]
McBride, Mr. P., [illegible]
McCarogher, Dr. J., obituary notice of, 882
[illegible]
360; illness of, 623; death of, 722; resolution of Metropolitan Counties Branch concerning, 794; resolution of Obstetrical Society on, 857
Mac Cormac, Dr. H., sanitation of contagion and infection, 629
——— Sir W., foreign orders conferred on, 128; knighthood of, 367, 946
McCrea, Mr. J. F., Victoria Cross awarded to, 19
Macdonald, Mr. A. D., lithic acid in phthisis, 470
——— [illegible]
[illegible]
Macewen, Dr. W., [illegible] valgum, 483; treatment of croup and diphtheria by introduction of tubes, 523
McGraith, Dr. J., local treatment of diphtheria, 691
McHardy, Mr. M. M., electro-magnet for removing [illegible]
McKendrick, Dr. J. G., on food, 995
Mackenzie, Dr. G. H., antiseptic treatment of lung-[illegible]
——— Dr. S., filaria sanguinia hominis, 668; case of excessively high temperature, 746; diagnosis of intracranial tumours, 757
McKesson and Robbins' pills, 178
[illegible]
private practice, 955
Maclagan, Dr. Douglas, hearing without the auricle, 905
Macleod, Dr. N., rupture of the heart, 1051
——— Mr. W. A., malformation of fingers and toes, [illegible]
MacMunn, Dr. C. A., bacillus malariæ, 935
Macnamara, Mr. C., early excision of knee-joint, 1053
McNaught, Dr. J., unqualified assistants, 1078
Macrostoma, congenital, with malformation of ears, [illegible]
McVail, Dr. J. C., ten years' surgery in the Kilmarnock [illegible]
Madden, Dr. T. M., prevention and treatment of *post partum* hæmorrhage, [illegible]
Madras, Mr. R. C., spasm of the bladder, 617
Magistrates, medical, 811, 926, 996, 1043
Magitôt, M., replantation of teeth, 563; honeycombed teeth as evidence of infantile convulsions, 564
Magnet, impacted needle extracted by, 424
Maguire and Sons, Messrs., common dangers in dwelling-houses, 130
Mahomed, Dr. F. A., chronic Bright's disease without [illegible] for hæmorrhage in typhoid fever, [illegible]
Mahon, Surgeon-major, Victoria Cross awarded to, 611
Maidstone, sanitary report of, 227
Main, Dr. W., antiseptic surgery, 1013
Malapraxis, prosecutions for, 88, 108, 995
Malarial germs, influence of hydrochlorate of quinine on, 408
——— poison, nature of the, 827; Dr. C. A. MacMunn on bacillus of, 935
Malformation of fingers and toes, Mr. W. A. Macleod on, 139; congenital, [illegible] of head, 1011
Malherbe, Dr. A., calcified epithelioma of sebaceous glands, 542; origin of [illegible]
Malins, Dr. E., removal of ovaries for dysmenorrhœa and fibroid tumours, 385, 393
Malmgren, Dr., poisoning by carbolic acid, 677; simulated disease in a child, 716
Mammary gland, development of, 562. *See* Breast
Manchester, special correspondence from, 1000
Man, physical maturity of, 918
Mandl, Dr., death of, 165
Mann, Dr. E. C., the opium habit, 716
——— Dr. J. D., electro-diagnosis, 78
——— Mr. R. M., the title of surgeon-major, 141
Mansell-Moullin, Dr., myxœdema, 49
Manufacturing districts, smoke in, 715, 754; fees in, [illegible]
Marcy, M. P. J., Circulation de la Sang, [illegible]
Margate, drainage of, 141
Markham, Dr. W. O., consultations with homœopaths, [illegible]
Marriage and idiocy, 730
Marsack, Mr. B., return of lost sense of smell, 144
Marsh, Mr. Howard, treatment of caries of spine in children, 769
Martin, M., trephining roots of teeth, 879
——— Dr. H. A., treatment of synovitis, 391; India-rubber bandages, 463
——— Dr. H. N., isolation of the mammalian heart, 571
——— Mr. James, varicella gangrænosa, 803
Martindale, Mr. W., articles shown in Medical and [illegible]
Masks for facial deformities, 109
Mason, Mr. Frederick, tumour at sclero-corneal junc-[illegible]
Masson, Dr. L. T., [illegible]
Mastoid cells, Mr. T. H. Pinder on suppuration of, 896
Maté, use of, 348
Materia Medica, Section of in International Medical [illegible]
Mauritius, irregular practice in, 91; medical practi-[illegible]
wound of, 825. *See* Jaw
Maxwell, Dr. J. L., the opium traffic, 29
Mayor, [illegible]
Meadows, Dr. A., Swedish order conferred on, 843
[illegible]
fever included under head of, 520; Mr. J. J. Byrne on rapid recurrence of, 1013; at Leeds, 1066
Meat, tinned, poisoning by, 56; unfit for food, 843
Medal, Albert, awarded to Dr. Lowson, 55; Graham, award of, 131; of International Medical Congress, 301; the Howard, subject of essay for, 675; the Blane, 905, 991
Medals, presentation of to Army Hospital Corps, 98; of British Medical Association, 954
Medical Acts, meetings of Commission on, 20, 89, 231, [illegible] of Physicians, 175
[illegible]
——— assistants, unqualified, practice by, 569, 992; [illegible] unqualified practitioners, 905
——— Benevolent Fund, proceedings of South Wales and Monmouthshire Branch, 684; of West Somerset [illegible]; [illegible] of, 956; donations to, 993
——— card, 424
——— Case-taking, Dr. Warner's Student's Guide to, [illegible]
——— certificates for insurance companies, 965
——— Council, meetings of Executive Committee, 166, 232; recommendations of, 425; change of ad[illegible]
——— Defence Committee, 752
[illegible]
——— duelling in France, 949
——— education, letter on, 67; Dr. Bruce on reform in, 170, 186; Dr. U. Pritchard on aural surgery as a [illegible]
——— ethics in France, 1043
——— [illegible]
——— Gazette, Australian, 1028
——— [illegible]
——— Institution, Liverpool, opening of session, 679
——— [illegible]
——— language, Dr. G. V. Poore on, 602, 611
——— legislation in Colorado, 19; in California, 31; in Maine, [illegible]
——— literature, Dr. J. S. Billings' address on, 262, 300
——— magistrates, 811, 926, 996, 1043
——— man, arrested under Irish Coercion Act, 718
——— mayors, [illegible]
——— men, attendance on sons of, 544; obligation of secrecy on, 570, 692, 1022, 1075; attendance on families of, 804, 846, 924, 1004, 1078; schools for daughters of, 922, 1044
——— mission and Zenana, 60
——— officers, district, in Demerara, 1025
——— officers to emigration steamships, 888
——— officers of health, deputation regarding tenure of office of, 292, 339; definition of duties of, 343; poor-law medical officers as, 576, 725; annual reports of, 1039. *See* Public Health
——— partnership, question concerning, 895
——— practice, alleged irregular, in the Mauritius, [illegible]; irregularity in [illegible], 144, 424; international conditions of admission to, 632; unqualified, [illegible]; in France, 845; irregular, 910
——— practitioner, unqualified, prosecution of a, 568
——— practitioners, lectures to, 21; unqualified, 424, 569, 581, 655, 729; number of in Prussian States, 825; in Belgium, *ib.*; in United States of America, 851; and preventive medicine, 888; unqualified, qualified assistants to, 965
——— qualifications, 67, 109
——— question in the Bend Or case, 22
——— reform, report of Committee of Association, 239, 334
——— Register, removal of names from, 144, 292; decision of a magistrate concerning, 715
——— relief, attendance for, 105
——— and sanitary exhibition. *See* Exhibition
——— school. *See* School
——— science, Mr. Pemberton on cultivation of, 604
——— sheriff, [illegible]
——— student of to day, 461, 505; early days of the, 462; the modern, 607
[illegible]
Dublin, 57; lady, as house-surgeons, 1000
——— study, compulsory periods of, Mr. J. Hutchinson on, 311; letters on, 419, 468, 543
——— substitutes, payment of, 330
[illegible]
Medicine, practice of, legislation in Colorado concerning, 19; M. [illegible] in [illegible]; Dr. T. H. Huxley on connection of biological sciences with, 273, 300; Dr. R. Owen on scientific status of, 281; specialism in, Dr. J. R. Reynolds on, 620; letter on, 666, 795; [illegible] time of Dr. Caius, 718; Practical, Dr. A. H. Carter's Elements of, *rev.*, 782; [illegible] Cyclopædia of, *rev.*, 820; [illegible] Dr. Thudichum, [illegible]
British Medical Association, *see* Association; Section of in International Medical Congress. *See* Con-[illegible]
France, 569; patent, revenue from, 884
[illegible] consumption
[illegible] dents of asylums and their tenure of office, 423; facial erysipelas and enteric fever, 700
Medulla oblongata and pons Varolii, Dr. W. J. Mickle on sudden death from hæmorrhage into, 150
[illegible]
in war, 550
Membrane discharge in cervical endometritis, 708
Memorial, the Harvey, *see* Harvey: of Surgeon-major Porter, 166; to Mr. Erichsen, 231, 826; of Mr. A. J. Landon, 488, 728; of Dr. Hayden, 875
Meningitis, latent, in pneumonia, 22
Meningocele in the adult, 652
Menorrhagia, profuse, Dr. T. W. Hime on transfusion [illegible]
Menstruation, extended, [illegible]
Mental Diseases, Section of in International Medical Congress. *See* Congress
Mercurial spray and fumigator, 986
Merthyr Tydfil, sanitary reports of, 347, 884, 1040
Merwenet, M., tracheotomy in croup, 131
Messenger, Margaret, case of, 752, 826
Meteorological observatory on Ben Nevis, 56; stations, new, 901
Metritis, chronic, amputation of neck of uterus for, 402
Meyer, Dr., adenoid vegetations in pharynx, 593
Meymott, Mr. H., local treatment of diphtheria, 691; protracted labour, 813
Michael, Mr. W. H., notification of infectious diseases, 737
Mickle, Dr. W. J., death from hæmorrhage into pons Varolii and medulla oblongata, 150
Micrococcus of [illegible]
Micro-organisms and disease, Dr. C. Cameron on, 583; in fresh urine, Dr. W. Roberts on, 623. *See* Organ-[illegible]
Micro-pathology, zymotic, progress of, 899
Microphyte of pemphigus, 871. *See* Bacillus
Middlesex and Hertfordshire, sanitary report of, 690
Midwife, charge of manslaughter against a, 991
Midwifery, Dr. D. M. Williams on 2,500 cases of, 9; in the Paris hospitals, 54; among paupers, fees for, 330 antiseptics in, 401. *See* Obstetric
Midwives as laundresses, 27
Mignen, M., case of severe injury by a cow, 1066
Military Surgery and Medicine, Section of in International Medical Congress. *See* Congress
Militia surgeons, forced retirement of, 1038
Milk, suspected poisoning by, in Glasgow, 94; infected, and typhoid fever, 293; adulteration of, 327; poisoning by in Aberdeen, [illegible]; infected, sore-throat from, 415; scarlatina from at Halifax, 485; infection of at the antipodes, 570; influence of in spreading [illegible]
Millard, Mr. W. W., small-pox inoculation in China, [illegible]
Mind for 1881, *rev.*, 1021
Miners, Mr. H. Eales on nystagmus of, 159
Miracles, modern, 943
Mischievous provision, [illegible]
Mitchell, Mr. T. A., paralysis of arm in an infant from dislocation of humerus, 813
Mittendorff, Dr. W. F., Diseases of the Eye and Ear, *rev.*, 711
Moinet, Dr. F. W., poisoning by eating cantharides plaster, 109
Monsters, 575, 1011
Moore, Dr. J. S., meningocele in the adult, 652
——— Dr. J. W., notification of infectious diseases, 734; stenosis of pulmonary valves, 983; gall-stones, 1019; aneurysm of aorta, 1020
——— Dr. Norman, primary cancer of kidney, 744; joints from a case of gout, 938
——— Mr. W. J., subcutaneous injection of quinine, 582
——— Dr. W. W., cases of acute anterior poliomyelitis, 111
Morat, Dr., vaso-dilator nerves, 590

Morgan, Mr. J. H., congenital macrostoma, 780
Morgue, in Paris, refrigerating apparatus in, 73
Morison, Mr. J. R., albuminuria in an infant, 777
Morphia, habitual abuse of, 323, 424; poisoning by, 1...
Morris, Mr. Malcolm, lupus erythematosus, 547
Mortality, relative, of white and coloured races, 17...; statistics of, 55..., 1077. *See* Death, and Life
Mortuaries, construction of, 68...; importance of, 21..., 776
Mortuary, Dr. Boileau on gravimetry in the, 677; for Whitechapel, 1040
Mound-builders, surgery among the, 574
Mountain-disease, 873
Mountmellick Union, resignation of Dr. Clarke, ..., 233
Mouth, Mr. Oakley Coles on Deformities of, *rev.*, 747
Movement of objects and rotation of eyes, relation between, 667
Muggeridge, Mr. H. H., hints on natural labour, ...
Mule, a fertile, 791
Mules, Dr. P. H., extraction of cataract, 43, 109; instruments and specimens, 84; retinal peri-arteritis, 961
Müller, Dr. F., Jackson's epilepsy and localisation of the arm-centre, 323
Mundé, Dr. P. F., curability of uterine displacements, 390
Murder, trial for in Aberdeen, 491
Murphy, Dr. James, introductory address at University of Durham College of Medicine, 634
——— Mr. Shirley, enteric fever, 1017
Murray, Dr. John, the case of President Garfield, 505
——— Dr. J. C., antiseptic treatment of lung diseases, 121
Murrell, Dr. W., the habitual use of opium, 29; Bethesda water in diabetes, ...; Wharton Jones's case of Poisoning, ..., ...
Muscæ volitantes, drawing of, 741
Muscarin, action of, on heart of frog, ...
Muscle, striped, microscopic appearance of, 590
Muscle-homology and nerve-supply, ..., ...
Museum, Army Medical, at Washington, ...; ——— of International Medical Congress, 17..., ...
——— of Royal College of Surgeons of England, Mr. Flower on, ...; election of trustee, ...
Museums for instruction, Mr. J. Hutchinson on, ...
Mushet, Dr. W. B., iodine in diphtheria, 159
Mycosis fungoides, 552
Myelitis, acute, ...
Myoma, large, complicating placenta prævia, 49
Myringodectomy for sclerosis of ear, 103
Myrtle, Dr. A. S., papers and speeches at annual meetings, 68; Dupuytren's contraction of the fingers, 704
Myxœdema, cases of, 1..., 1017

N.

Nævus, dangers in hypodermic injection of, ...; treatment of by cautery, 1019
Naphthol in skin-diseases, 612
Naples, sanitary statistics of, 582
Napper, Mr. A., proposed testimonial to, 673, 727, ..., 870
Narwhal, Mr. Flower on the, ...
Nasal catarrh. *See* Catarrh
——— passages, Dr. T. Barr on relation of diseases of to aural affections, 389, 396
Naso-pharyngeal polypus, ...
Navy, medical service of, letters on, 31, 65, 1072; Admiralty regulations for entry of candidates, 52, 141, 460; Greenwich hospital pension, 103; promotions and appointments, 141, 380, 1038; instructions to officers at Haslar, ...
Neale, Dr. R., local treatment of diphtheria, 124; case of hydrophobia, 506; his Medical Digest, 640, 804; hypodermic injection of quinine, 654
Neck, removal of tumours from anterior triangle of ...
Necrometer, Oughton's, Dr. Boileau on, 977
Necrosis of fibula, tubercular, ...; of skull, ...
Needle, impacted, extracted by magnet, 1...
Negro-dentition, ...
Nephritis, cases of, 741, ... *See* Kidney
Nerve-centres, and nervous wave, ...
——— olfactory, relation of to tri-facial and ...
——— optic, examination of in febrile ..., ...; inflammation of in cerebral disease, 594; vascular changes of ...; inflammation of, ...; ... with tubercle of cerebellum, 668; with intracranial aneurysm, ...
——— sympathetic, ...; ... of cerebrum; nerve-centres, ...; Dr. ... injury of cervical portion of, ...
——— trifacial, medical part of, ...
Nerves, cranial, degeneration of, ..., ..., motor, of larynx, laryngoscopic signs of lesions of, ...
Nerve-centre, correlating, inferior cervical ganglion as, ...
Nerve-stretching, in locomotor ataxy, Dr. H. C. Bastian on, 1; Dr. T. Johnston on, 11; discussion on, ...

cases of, 3...; Dr. Cavafy on, 9...; Dr. H. Payne on, 1...
Nerve supply and muscle-homology, 561, ...
Nervous system, Dr. Sinclair Coghill on researches on, ...
Netherlands, mortality in the, 727
Nettleship, Mr., central amblyopia in diabetes, 84
Neuritis, axial, in spinal disease, 982
——— optic, in cerebral disease, 594; with tubercle of cerebellum, 668; with intracranial aneurysm, 940
Neurotic excoriation, 553
New Moon, the, 656, 766
New York, health of, 1...; death-rate of, 121; law on adulteration of food and drugs, 534
New Zealand, lunatic asylums in, 1032
Newcastle-on-Tyne, sanitary report of, 1040
Newman, Dr. W., Surgical Cases, *rev.*, 86; application of plaster-of-Paris bandages, 893
Newth, Dr. A. H., treatment of curvature of bones, 544
Newton Abbott rural district, sanitary report of, 397
Nicholson, Dr. A., presentation to, 173
Nicotine, poisoning by, 727
Night-bells, luminous, 656
Night-calls, 598
Nitroglycerine, dose of, 384, 424, 470, 543
Nitrous oxide gas, administration of, 1056
Nixon, Dr. C. J., mitral stenosis, 900; pneumothorax, ...
——— Mr. F. A., removal of scapula with tumour, 1056
Nodules, subcutaneous, in chorea and rheumatism, 554, 1076
Nomenclature of diseases, Dr. Rabagliati on, 119; new, in obstetrics, 398
Nordenström, Dr., poisoning by carbolic acid, 677
Norman, Mr. C., presentation to, 12
Northampton, sanitary report of, 1074
Norton, Mr. A. T., treatment of webbed fingers, 590, ...
Nose, bleeding from. *See* Epistaxis
Nourse, Mr. W. E. C., prevention of hydrophobia, 923, 1076
Nucleus teniæformis, relation of to olfactory nerve, ...
Nuisances, inspectors of, 887
Nurse, alleged poisoning by a, 131
Nurses, St. Thomas's Hospital school for, 413; Glasgow Association for providing, 995; home and training school for in Belfast, 996; trained, at workhouse infirmaries, 1056
Nursing, Mr. H. Crookshank's Aids for, ..., ...; arrangements for in St. Bartholomew's Hospital, 958
Nymphomania cured by double oöphorectomy, 921
Nystagmus, miners, Mr. H. Faber on, ...

O.

Obesity, causes and cure of, 1023
Obituary, Dr. M. Ro..., ...; M. Ch..., ...; Mr. S. Alford, *ib.*; Dr. M. F. Ward, 105; Dr. O. Spiegelberg, 328; Mr. J. Luke, 367, 420; Dr. A. Billing, 466; Dr. F. W. A. Skae, 540; Mr. A. B. Stirling, 575; Dr. Milner Barry, 576; Dr. J. J. Brown, ...; Mr. J. Postgate, ...; Dr. G. A. M. Sampson, 679; Dr. A. H. McClintock, 722; M. Bouillaud, 753; Dr. D. Foulis, 755; Dr. T. Hayden, 762; Dr. T. H. Watts, *ib.*; Dr. W. Brewer, 789; Dr. T. M. Greenhow, 799; Mr. A. Macdougall, 800; Dr. W. Hinds, 836; Dr. J. McCarogher, 882; Mr. T. Green, 909; Dr. H. T. Wells, ...; Mr. R. F. Cane, ...; Dr. N. Pi..., 9...; Dr. W. Bo..., ...; Dr. S. E. Bu... nill, 1002; Mr. W. D. Hemming, 1041; Dr. W. P. Fu...lton, ..., Dr. R. Ow..., ..., Dr. R. J. Harvey, ...
Observatory, meteorological, on Ben Nevis, 56
Obstetric aphorisms, 834
... Ward Stone, ...
... Dr. McCarthy, address on, in International Medical Congress, 214; Dr. Coghill's address on, at meeting of British Medical Association, ... British Medical Association, ... International Medical Congress, ...
Occupations, dangers of, with rabies, ...
Odd Fellows, origin of, 654
Œsophagus, ...
Œsophagus, ... malignant stricture of, ..., ...
Ointment, bullfrog, 764
Old age, how to attain, 383
Oliver, Mr. ..., ... Cases of ... Lunatic Asylum, ...
Omsk, ...
Onsell, Dr. R., ...
Onsell, Dr. H. ..., ... by the ...
O'Neill, Mr. W., ... Hunterian ... Wall, ...
Ophthalmia, Dr. ..., ...; ... Dr. Rabagliati on, 119; new, in obstetrics, 398
Ophthalmia, vaccinal, ...; purulent, 66...; ... Dr. K. Grossmann on, 702; Dr. F. Barnes on, 740
Ophthalmic certificates in Dublin, 756, 996
——— Institution, Glasgow, report of, 792
Ophthalmitis, sympathetic, discussion on, 594; destructive, micro-organisms in, 1019
Ophthalmology, Section of in International Medical Congress, ... Congress, Mr. Bader ... in, ...
Ophthalmoscopic changes in cerebral and spinal disease, ...
Ophthalmoscopy, Clinical, Dr. De Wecker ..., ...
Opium, traffic in, 29, 194; trade in, in the United States, 93; habitual abuse of, 716
Oppolzer, Dr., anecdote of, 693
Optic nerve. *See* Nerve
——— neuritis. *See* Neuritis
Orbit, aneurysm by anastomosis in, 598; abscess of, ...
Ord, Dr. W. M., paralysis agitans, 936
Organisms, minute, Dr. E. Klebs on relation of to specific diseases, 279; relation of to unhealthy processes in wounds, 546; to specific diseases, 547; effect of on teeth, ... Mr. ...
Ormsby, Mr. L. H., new scheme of education of the Royal College of Surgeons of Ireland, 650
Os calcis, and astragalus, removal of, 779
Osteitis deformans, cases of, 597
Osteotomy, antiseptic, Mr. T. Chavasse on treatment of curves of tibia by, 158; Mr. E. D. Freer on, 420; mid-femoral, Mr. H. Keeves on, 935
Otis, the late Dr., remarks on, 29; memorial bust of, ...
Ovaries, Dr. Malins on removal of for dysmenorrhœa and fibroid tumours of uterus, 385, 393
Ovariotomy, Dr. W. Henderson on abscess of abdomen after, 157; antiseptic, 171, 232; suggestion regarding, ...; ... Mr. J. K. Th... ; ... 1055, ...
Ovaritis, chronic, Mr. Doran on hydroperitoneum traced to, 699
Ovary, tumour of, ... dermoid ... of the, 948
Owen, Mr. E., early recognition and treatment of spinal caries, 392
Dr. Lambard, necrosis of skull, 744; ... phied toe-nail, 817; stenosis of aortic orifice, *ib.*
Mr. Lloyd, orbital ..., ...
——— Dr. R., a third set of teeth, 170; the scientific status of medicine, ...; address at unveiling statue of Harvey, ...
Ozæna, nature and treatment of, 593

P.

Pa... ... of ...
Pa...ley, Mr. G., the Pa... ... Wa... at Swansea, 798
Page, Dr. David, prevention of scarlet fever, 629
Mr. H. W., ...
Page's patent vaporiser, 565
Paget, Sir James, address in ... Medical Congress, 195; health of, 907, 945; experiments on ...
Paint, albissima, 409; luminous, 656, 693, 924
Pa...on, Dr. M. V., ... trac...
Pa...get, Dr. A., ...
Pa...
Pa...
Pa... ... ... Mr. J. V. M... ... Wo... ... ...
Pa...
Pa... ...
Pa... ...
Pa... ... ... Pa... ... Hea... ...
Parker, Mr. Robert, ventilating shaft for sewers, 1018
Mr. R..., ...
Mr. W. D..., ...
officers of health, 725
Parkes museum, lectures at, 465
Pa...
Pa... M...
Pa... ... M...
Pa...
Pa... M...
Pa... ... ...
Pa... ... M...
Pa... M...

[illegible]; relation of [illegible] to [illegible]
Patella, fractured, united by suture, 53; united by bone, [illegible]; [illegible]
Patent medicines, sale of in France, 569; revenue from, [illegible]
[illegible]
Pathology, Section of in International Medical Congress, [illegible]
[illegible]
Paul, Dr. [illegible]
[illegible]
Peaty, Dr. F. W. [illegible]
Pecz, Dr. [illegible], [illegible] and diphtheria, [illegible]
Pectoriloquy, aphonic, 364
Pelvis, fasciæ of, 320, 387; recent advances in surgery [illegible]
Penberthy, Mr. O., [illegible] at Queen's College, Birmingham, 604, 611
[illegible]
[illegible]
Pennies out of place, 677
Penny, passage of a, through alimentary canal, 193
Pension, Greenwich Hospital, 103; civil list, 991
[illegible]
Peptones, enemata of, 544
Peptoniser, Gerrard's, 1021
Percussion and auscultation, analytical study of, 363
Peri-arteritis, retinal, 981
Pericarditis, case of, 1038
Pericardium, thickening of, 745, 1015; calcareous, Dr. E. Rickards on, 772
Perigal, Dr. A., Cæsarean section, 79
Perineuritis optica, 668
[illegible], pathology of, 14
Peritoneal cavity, Dr. J. Allan on fibroma loose in, 81
[illegible]
[illegible], Mr. [illegible], Dr. L. [illegible], [illegible]
Pessaries, adaptation of, 393
Pharmaceutical Conference, British, 533
Pharmacology, Dr. T. R. Fraser on the Vaccination Act in relation to, 229
Pharmacopœia, International, resolutions on, 326; discussion on, 523
Pharynx, neuroses of sensation of, 591; adenoid vegetation in, 593
Phillimore, Dr. W. P., [illegible] notice of, 141
Phillips, Mr. W. F., report of the Collective Investigation Committee, 63; general practitioners and preventive medicine, 888; ship-surgeons, 1035
Philpot, Mr. H. J., petit mal during vaccination, 67; treatment of diabetes, 966
Phlegmasia dolens, case of, 900
Phthisis, Mr. R. Hamilton on local treatment of by carbolic acid, 1; Mr. S. W. Hope on inhalations in, 81; Dr. W. Williams on antiseptic treatment of, 120; Dr. McAldowie on inhalation of terebene in, 666; letter on inhalation in, 802; Dr. Saundby on antiseptic inhalation in, 1011; influence of wind-instruments on, [illegible]; pregnancy in subjects of, [illegible]; treatment of by residence at high altitudes, Dr. C. T. Williams on, 364, 975; note on, 572; lactic acid in, 470; laryngeal, 591; without cough, 653; coto-bark in sweating of, 727; compulsory feeding in, 1003
Physeteridæ, Mr. W. H. Flower on the, 39
Physical education, 384
Physiological antagonism, nature and limits of, 525
——— instruments and methods of research, 589
——— laboratory in London, [illegible]
——— station, new, in France, 826
Physiologists, English, in America, 571
Physiology, Combe lectures on, *see* Lectures; Section of in International Medical Congress, *see* Congress
Pierce, Dr. Evan, presentation to, 541
Piles, internal, Dr. W. M. Coates on operation for, 350
Pilgrim ships, doctors to, 692
Pills, coating of, 169, 178; Mc Kesson and Robbins', 178; and granules, soluble, 1060
Pilocarpin, action of, 526; inflammation of sweat-glands following prolonged administration of, 551; solution of, 692, 766, 1006; in skin-diseases, 886
Pilules, plastic, 178
Pinder, Mr. E., effect of removal of tonsils on testes, [illegible]
——— Mr. T. H., instruments for treatment of diseases of ear, 783; suppuration of mastoid cells, 896
Pirogoff, Dr., death of, 947
Pitts, Mr. R., [illegible] causing pressure on [illegible]
Pityriasis circinata and marginata, 550
Placenta, prævia, with large myoma, 49; treatment of, [illegible]
Plague, dissemination of by corpses, 22; cessation of, 81; Siberian, in Russia, 411; on shore of Black Sea, [illegible]
Plaster-of-Paris bandages, Dr. W. Newman on application of, 893
Platt, Mr. W. H., volunteer surgeons, 246
Pleural effusion, latent, Mr. E. Thompson on, 773
Pleurisy, double hæmorrhagic, with formation of [illegible] terine, 745
Pleuro-pneumonia in cattle in [illegible]
Pleurodynia, Dr. J. E., [illegible] with [illegible]
Plugge, Dr., toxic power of different varieties of aconitine, 523
Pneumatic treatment of lung [illegible]
Pneumonia, latent meningitis in, 22; contagious, 796; Dr. A. T. H. Waters on, 805
Pneumothorax, case of, 941
Pocket-money for hospitals, 843, 1004
Pocock, Dr. F. E., the Brussels degree, 965, 998
[illegible]
Poisoning by arsenic, 194, 1056
——— by bitter almonds, 12, 19
——— by [illegible]
——— by [illegible]
——— by chlorate of potash, 23
——— by cyanide of potassium, [illegible]
——— by lead, [illegible]
——— ; in manufacture of pottery, [illegible]
Dr. Churton on, 1013
——— by lemonade, 91
——— by [illegible]
——— by [illegible]
——— by [illegible]
——— by rabbits, 467, 643
——— by tobacco, [illegible]
——— What to do in Cases of, Dr. Murrell on, *rev.*, [illegible]
Poisons, sale of, proceedings of British Medical Association, [illegible]
Poliomyelitis, acute anterior, Dr. W. W. Moore on, 111
Political canvassing for hospital appointments, 994, [illegible]
Politzer, Dr. A., articles shown in Medical and Sanitary Exhibition, [illegible]
Pollock, Dr. J. [illegible]
Polypitome, 783
Polypus, fibrous, of uterus, [illegible]
Uterus; naso-pharyngeal, 1019
Poncet, Dr., histological examination of an enucleated eye, [illegible]
Pooley, Mr. C., [illegible]
Poor, habitations of the, 828
Poor-law: Cardiff Union Workhouse, 32; superannuation of officers, 63, 503; the Plomesgate guardians and the medical officer of Aldeburgh, 64; attendance in labour, 105; annual meeting of Medical Officers' Association, 373; certificates of lunacy, 411, 724, 761, 885; residence of medical officers, 576, 761; lunatics and idiots in workhouses, 751, 1065; meeting of Council of Medical Officers' Association, 761; medical relief in the Penistone Union, 799; duties of medical officers, 1001; medical relief in Hartismere Union, [illegible]
——— Ireland: Limerick Workhouse, 57; Belfast Workhouse, 95, 1032; accommodation for lunatics in Cork Workhouse, [illegible]; Mountmellick Union, medical officer of, 132, 233; payment of medical substitutes, 330; midwifery fees, 330; lunatics in workhouses, *ib.*; the Midleton Union and Dr. Ryan, 417, 574, 725; stimulants in Belfast Workhouse, 492, 536; Kilmallock Union, 793; superannuation of medical officers, 793; 850; stimulants in workhouses, 830; North Dublin Union Workhouse, 831; salaries of medical officers of Cork Workhouse, 951
Poore, Dr. G. V., web in the larynx, 590; introductory lecture at University College, 602, 611
Pork, [illegible] in [illegible]
Porrigo decalvans, Mr. W. Frazer on croton-oil in, 80
Porro's operation, unpremeditated, 370; cases of, 714, [illegible]
Port, Dr. D., antiseptic treatment of wounds in the field, 550
Porter, Surgeon-Major J., memorial of, 166
Post mortem examinations in prisons, 54, 110, 308; the first in America, 568; fees for, 886
Postgate, Mr. John, obituary notice of, 651
Pottersbury rural district, sanitary report of, 343
Powell, Dr. H. H., Cleveland Medical College, 101
——— Dr. R. D., introductory lecture at Middlesex Hospital, 601; aneurysm of aorta with secondary pouch, 817
Pregnancy, Dr. H. Bennet on hæmorrhage and excessive sickness during, 39; belladonna in sickness of, 67; deleterious effect of on phthisis, 316; with epithelioma of cervix uteri, 946
Prescribing without seeing, 293
Presentation to Mr. C. Norman, 12; to Mr. Spence, 173; to Dr. F. J. Lynch, 233; to Dr. Madden Medlicott, 417; to Dr. Evan Pierce, 541; to Dr. R. Budd, *ib.*; to Dr. H. B. Brew, *ib.*; to Mr. S. Berry, *ib.*; to Dr. Kershaw, 652; to Dr. E. Hoggan, [illegible]; to Mr. C. [illegible]; to Dr. J. G. Jefferson, *ib.*; to Mr. John Steel, 763; to Mr. T. Godart, 836; to Mr. T. R. C. Downes, 880, to Mr. A. Fraser, 898; to Mr. C. Pooley, 980; to Dr. W. T. Boreham, 1043; to Dr. E. Sheppard, 1072
Presidents of British Medical Association, 952
Pr[illegible]
Pr[illegible]
[illegible] of, *rev.*, 821
[illegible]
Prison, General, for Scotland, females convicts in, 755
Pritchard, Dr. U., aural surgery as a branch of medical education, 355, 396; antivivisectionists, 846
Prizes, Warren triennial, 12; of French Temperance Society, 139; Boylston medical, subjects of, 168; of French Academy of Medicine, 328, 413; of Governm[illegible] of France, [illegible] of Medical Faculty of University of Berlin, 411; at St. Bartholomew's Hospital, 443, 646; at Charing Cross Hospital, 443, 646; at St. George's Hospital, 448, 647; at Guy's Hospital, 448, 647; at King's College, 449, 647; at the [illegible] Hospital, [illegible]; at St. Mary's Hospital, [illegible]; at Middlesex Hospital, [illegible]; at St. [illegible] Hospital, [illegible]; at [illegible] College, [illegible]; at Westminster Hospital, [illegible]; at Queen's College, Birmingham, 454, 648; in Bristol Medical School, 454, 648; at Leeds School of Medicine, 456, 648; at Liverpool Royal Infirmary School of Medicine, [illegible]; at Owens College, [illegible]; at University of Durham College of Medicine, 457, 648; Middlemore, 468; at Glasgow Royal Infirmary School of Medicine, 648; at Carmichael College of Medicine, *ib.*; of Society of Apothecaries, 673; Bressa, of Academy of Sciences in Turin, 677; at Edinburgh School of Medicine, [illegible]; at Anderson's College, Glasgow, *ib.*; at Royal College of Surgeons of Ireland, *ib.*; at Queen's College, Belfast, *ib.*; at Queen's College, Cork, 683; at Queen's College, Galway, *ib.*; at Adelaide Medical and Surgical Hospital, *ib.*; at National Dental Hospital and College, *ib.*; at Dental Hospital of London Medical School, *ib.*; of Royal Academy of Medicine in Brussels, 762; of Sanitary Institute of Great Britain, 909, 958; of British Medical Associa[illegible]
Proceedings of [illegible]
Processus supracondyloideus humeri in man, 560
Prosecution for malapraxis, 88, 108 995; for neglect to report infectious disease, 752; of Dr. Ferrier, 785, 836, 886; for refusal of vaccination. *See* Vaccination.
Prostate, tumours of, removal during lithotomy, 980
Prostitutes, sterility of, 656
Protoplasm, living and dead, chemical difference between, [illegible]
Provident Dispensaries Association, Metropolitan, 169, 188, 963; extract from report of, 992
——— dispensary for Holborn district, 31
——— Tunbridge Wells, report of, 1038
——— West Ches[illegible] report of, [illegible]
——— Weybridge, report of, 880
——— hospital for Hampstead, 140
Prowse, Mr. W., nasal catarrh, 110
Prurigo, eczematous, 553
Prussia, medical profession in, 825
Psoriasis, Dr. Thin on pathology of, 146
Psychiatric medicine, teaching of, 565
Public health, reports of medical officers of health, Worcester, 6; Whitby, 24; Watford, *ib.*; Birmingham, 34, 357; Wolverhampton, 49; Cheltenham, 64; Bingham, 70; Chorley, 98; Tamworth, 105; Brandon and Byshottles, 115; [illegible]; East Derbyshire, [illegible], 356; Saltley, 143; Bath, 189; Louth, 190; Evesham, *ib.*; Bristol, 190, 783; Gloucester, 192; Tottenham, [illegible]; Bremenbridge; Teignmouth, [illegible]; Calcutta, [illegible]; Mansfield, 271; Kendal, [illegible]; Hawarden, [illegible]; Hexham, [illegible]; Penge, St. Edmunds, [illegible]; Portsmouth, *ib.*; Merthyr Tydfil, 347, 884, 1040; Carlisle, 382; Newport, Monmouthshire, [illegible]; Whitechapel, [illegible]; Hunslet, [illegible]; Wednesbury, 578; Middlesex and Hertfordshire, 690; Cambridge, 720; Accrington, 724; Exmouth, 761; Sunderland, *ib.*; Barnsley, *ib.*; Tyne Port, *ib.*; Okehampton, 762; Drayton, 780; Sidmouth, 875; Leicester, 881; Luton, [illegible]; Pembrokeshire, [illegible]; Chesterton, [illegible]; Pontefract, *ib.*; Tendring, 1041; Liverpool, 1071; Hendon, *ib.*; Willesden, 1072; Northampton, 1074; health of New York, [illegible], 54, [illegible], 714, [illegible], 1043; health of Calcutta, 32; Registrar-General's reports, [illegible], 690, 727, 763, 801, 884; health of foreign cities, 34, 66, [illegible], 1043, 1074; excessive mortality in Indian cities, 51; thanks to a retired medical officer, 105; influence of hot weather on health, 127; compensation for destruction of clothing, 128; sanitary state of Venice, 171; Mr. Simon's address in International Medical Congress, 219; tenure of office of medical officers, 292, 339; public health of Ventnor, 292; sanitary legislation in Wisconsin, 294; definition of duties of medical officers, 343; sanitary statistics of Naples, 382; regulations for certificates of examining boards, 493; district medical officers as officers of health, 576, 725; North-Western Association of Medical Officers, 688, 919; a mischievous provision, 689 Yorkshire Asso-

ciation of Medical Officers of Health, 881; quarterly return of Registrar-General, 917; annual reports of medical officers of health, 1039
Public Health, Ireland; sanitary conditions of districts, 24, 372, 631, 757; health of Cork, 57, 331, 417, 574, 719, 876, 1032; health of Belfast, 57, 373, 537, 645, 793, 996; health of Dublin, 95, 417, 719; sanitary progress in Dublin, 96; annual report of Local Government Board, 96; disinfecting chamber for Limerick, 130; sanitary state of Strabane, 233; disinfecting apparatus for Lurgan, 330; quarterly reports of health of Ireland, 416, 915; public health department in Dublin, 573; sanitary works in Ireland, 644
——— Scotland: meeting of Sanitary Association, 23; death-rates of eight principal towns, 23, 56, 94, 132, 174, 233, 870, 372, 417, 491, 535, 536, 613, 645, 680, 718, 756, 793, 830, 875, 913, 950, 995, 1031; health of Glasgow, 56, 132, 233, 329, 416, 491, 680, 718, 793, 875, 913, 996, 1032; health of Edinburgh, 94, 492, 536, 914; the sewage question at Helensburgh, 190; health of Scotland during 1880, 372; health of Leith, 492
Public Medicine, section of in British Medical Association, *see* Association; in International Medical Congress, *see* Congress
Pulsation of liver, 816
Pulse, slow, 1019
Purcell, Dr. F. A., on Cancer, *rev.*, 125
Purdon, Dr. H. S., pilocarpin in skin-diseases, 886
Purgative, a speedy, 30
Purulent discharge from ear, treatment of, 396
Pycroft, Mr., origin of the Volunteer movement, 22
Pye, Mr. W., spina bifida cured by operation, 47
Pye-Smith, Dr. P. H., cirrhosis of liver in a child 1015

Q.

Quadruple birth, 704
Quarantine regulations, 1066
Queen, visit of to Edinburgh Royal Infirmary, 571
Quinine, hydrochlorate of, influence of on malarial germs, 408
——— subcutaneous injection of, 582, 654
——— sulphate of, influence on glycosuria, 530; wine of, 572
Quinoline, tartrate of, 408
Quinlan, Dr., cirrhosis and hæmorrhagic infarction of liver, 98

R.

Rabagliati, Dr. A., classification and nomenclature of diseases, 119; the duration of life in England, 960, 996, 1079
Rabbit, poisoning by, 467, 643
Rabies or Hydrophobia, Mr. T. M. Dolan on Nature and Treatment of, *rev.*, 861. *See* Hydrophobia
Races, white and coloured, relative mortality of, 170
Radius, congenital absence of, 1016
Rae, Mr. A., treatment of eczema, 1076
Rags, dissemination of small-pox by, 130
Railways, accidents on, 612; ambulance centres at, 907; causes of accidents on, 960
Randacio, Dr., relations of nucleus tæniæformis with olfactory nerves, 704
Ransome, Dr. A., need for systematic study of epidemic disease, 950; registration of infectious diseases, 980
Rasori, Dr. H., inflammation of sweat-glands after use of pilocarpin, 511
Rattle-snake poison, 771
Rawson, Dr. T. L., death of, 980
Raymond, M., carbolic acid in therapeutics, 678
Raynaud, M., death of, 53; work of, 92; scepticism in medicine, 268, 300; precautions in thoracentesis, 534
Recreation-grounds, use of burial-grounds as, 907
Rectal alimentation, movements of intestine during, 59; Dr. Tynan on, 175
Rectum, imperforate, 803; cancer of, 876; linear rectotomy for stricture of, 1044
Reeves, Mr. H. A, gastrostomy in malignant stricture of œsophagus, 746; mid-femoral osteotomy, 935; contraction of palmar and plantar fasciæ, 1049
Registrar-General, reports of. *See* Public Health
Reid, Dr. J., appointed Exchange of Queen's household at Balmoral, 23, 367
——— Dr. W. J., adaptation of pessaries, 552
Reid, Dr., development of mammary gland, 552
Remedies, new, 121, 148, 603
Renaut, Dr., cellulosis in typhoid fever, 122
Renshaw, Dr. C. F., meningeal tuberculosis, 12
Replantation of teeth, 773
Resorcin and its allies, 944
Respiration for antiseptics, Dr. Coats on, 703; letter on, 1044
Retina, changes of in Bright's disease, 703; in progressive anæmia, 968, 1027; vascular changes in, 968; peri-arteritis in, 968
Revaccination, letter on, 1044. *See* Vaccination
Reymond, Dr., the antiseptic method in the extraction of cataract, 703
Reynolds, Dr. J. R., specialism in medicine, 1044
Rheumatic fever with pericarditis and hyperpyrexia, Dr. J. M. Finny on, 132
Rheumatism, gout, and rheumatic gout, 361; subcutaneous fibrous nodules in, 554, 1016; relation of chorea to, 555; acute, salicylic acid in, Dr. P. W. Latham on, 934; Dr. L. Shapter on, 1012; Dr. W. Strange on, *ib.*
Rich, Mr. A. C., ship-surgeons, 1036
Richards, Dr. V., antidote to cobra-poison, 1065
Richardson, Dr. B. W., causes of dental caries, 900
——— Dr. J. C., the micrometric method in the diagnosis of blood-stains, 107
Rickards, Dr. E., communication between aorta and pulmonary artery, 71; communication between ventricles of heart, 72; aneurysm of aorta projecting into pulmonary artery, 154; pulmonary aneurysm, 155; calcareous pericardium, 772
Rickets, relation of syphilis to, 138, 406
Rickety thorax, 816
Ricord, M., *veluti in speculo*, 54; verses by, 109
Rifle, Martini-Henry, wounds by bullets of, 559
Rigal and Vignal, MM., formation of callus, 164
Rigden, Mr. G. W., address to West Somerset Branch, 156
Robathan, Mr. E., ovariotomy, 384
Roberts, Mr. C., Detection of Colour-Blindness and Imperfect Eyesight, *rev.*, 162; physical maturity of man, 918
——— Mr. C. H., abuse of hospitals, 965
——— Dr. F. T., local treatment of diphtheria, 124; typhoid fever complicated by diphtheria, 161
——— Dr. W., bacteruria, 359; micro-organisms in fresh urine, 623
Robinson, Mr., double vertical fracture of pelvis, 1056
Robson, Mr. A. W. M., fungoid origin of diphtheria, 122; substitute for carbolic spray, 625
Rodent ulcer, 1058
Rogers, Dr. Joseph, address to Poor-law Medical Officers' Association, 373
Rome, hotels in, 130
Rope, Mr. H. J., self-retaining drainage-tubes, 230
Roper, Dr. G., trismus and tetany of uterus, 401
Rose, Mr. W., necrosis of tuberosity of ischium, 743
Rose-Innes, the late Mr. J., 466
Rosenstein, Dr. S., forms of Bright's disease, 360
Ross, Dr. J., brain-disease simulating bulbar paralysis, 601
Rossbach, Dr., laryngeal tuberculosis, 591; mucous secretion of larynx and trachea, *ib.*
Rosser, Dr. W. labour with unruptured hymen, 110
Rötheln, case of, 193; discussion on, 520
Rudall, Mr., address to, 137
Rue, treatment of epilepsy by, 1076
Rumbold, Dr. M. E., spray-producer, 590
Runnalls, Mr. H. B., anteversion of gravid uterus at full term, 777
Russell, Dr. J., tumour of both frontal lobes of brain, 775
——— Dr. W., early diagnosis of spinal caries, 771
Rutherford, Dr. W., microscopic appearances of striped muscle, 590
Ruxton, Mr. J., recovery from hydrophobia, 811, 1005
Ryan, Dr., and the guardians of the Midleton Union, 427, 714, 775
Ryder, Dr. R., peculiar case of tetanus, 81

S.

Sac, translucent, discharged from uterus, 708
St. George, Dr. G., gunshot-wound of upper jaw, 895
St. Germain, Dr. de, obesity, 1023
St. Giles, sanitary report of, 356
Salary, relation of to skill, 739
Salford, vital statistics of, 639
Salicylic acid in acute rheumatism, Dr. P. W. Latham on, 934; Dr. L. Shapter on, 1012; Dr. W. Strange on, *ib.*
Saliva, human, poisons in, 156
Salt and Sons, portable binaural stethoscope, 821; awards of the International Medical and Sanitary Exhibition, 966
Salt-baths in Cheshire, 652
Saltley, sanitary report of, 143
Sanatorium, new, at Brighton, 367, 1003
Sanctuary, Dr. T., sponge-grafting, 1014
Sanderson, Dr. Burdon, experimental physiology, 465
Sangster, Mr. A., papillary tumour of scalp, 551; supposed neurotic excoriations, 553
Sanitary administration in India, 490
——— arrangements in Bristol, 845
——— condition and laws of London, 858
——— Congress. *See* Congress
——— Exhibition at Brighton, 790
——— Exhibition, German, 570, 676
——— inspection of hotels, 122, 182, 194, 24
——— Institute of Great Britain, meeting at, 78, 80, 82; prizes of, 200, 238
——— legislation, in Wisconsin, 294; action of British Medical Association regarding, 957
——— progress in Dublin, 96
——— Protection Association in Portsmouth, 1056; in London, 714
——— statistics of Naples, 262
——— works in Ireland, 644
Sanitation of houses, rules for, 881
San Remo, Dr. A. H. Hassall on winter climate of, 659
Sapolini, Dr., sonorous waves and the acoustic nerve, 405
Sarcoma of groin, 856; of neck, Dr. Chavasse on injury to sympathetic nerve in removal of, 974; of thigh, 1020. *See* Cancer
Saundby, Dr. R., treatment of vertigo of Bright's disease, 740; antiseptic inhalations in phthisis, 1011
Saunders, Mr. Edwin, address to Metropolitan Counties Branch, 183; address in Section of Diseases of Teeth in International Medical Congress, 218
Sausages, German, horseflesh in, 907
Savage, Dr. T., oöphorectomy, 398
Savory, Mr. W. S., compulsory periods of study, 419; causes of failure in healing of operation-wounds, 550; case of hydrophobia, 814
Sayre, Dr. L. H., action for malapraxis against, 21; treatment of spinal curvature, 519
Scalp, papillary tumour of, 551; influence of climate and race on parasitic diseases of, 552; congenital abnormality in production of hair on, 554; calcified adenoma of, *ib.*
Scalpel, with the, 543
Scapula, excision of, 876, 915, 1056
Scarenzio, Dr., communicability of syphilis by sucking, 734
Scarlet fever, home for convalescents from, 20, 825; prevention of, 629; exposure to infection of, 638; Dr. C. H. Cattle on unusual cause of death in, 897; in Thornton, 56; at Calne, 89; at Heywood, *ib.*; from infected milk at Halifax, 485; in Limerick, 492; in Hull, 532, 761, 961; at Bridgwater, 611; at Carlisle, 638; at Broxburn, 643; at Warrington, 674; at Greenock, 717; at Chipping Wycombe, 751; at Prestwich, 761; at Merthyr Tydfil, 828; at Armagh, 951; at Willoughby-on-the-Wolds, 961; at Rowley, *ib.*; in Leith, 1031; at Carlisle, 1063; at Leeds, 1069
Scepticism in medicine, M. Raynaud on, 268, 300
Schech, Dr. B., extirpation of the larynx, 592
Schering's chemicals, 177; chinoline, 942
Schieffelin and Co., Messrs., articles shown in Medical and Sanitary Exhibition, 178; soluble pills and granules, 1065
Schleiden, Dr., death of, 165
Schnitzler, Dr. J., necroses of sensation of pharynx and larynx, 531
Scholarship, Letheby, at London Hospital, 327; Natural Science, at Exeter College, Oxford, 615; at St. Thomas's Hospital, 652; at St. Mary's Hospital, 689; at London Hospital, 726. *See also* Prizes
School, Ely Cathedral Grammar, opening of, 232
School of Anatomy, Physiology, and Surgery, note on, 452
——— of Dental Hospital of London, note on, 496; prizes, 682
——— of Dental Surgery in Geneva, 751
——— Ledwich, of Anatomy and Surgery, lectures, etc., 498; introductory address at, 831
——— medical, in London, Canada, 289
——— Medical, Army, close of summer session, 242; opening of winter session, 638
——— medical, at Lahore, report of, 65
——— of Medicine, Bristol, fees, 447; note on, 454; prizes, 454; lectures, 455; changes in, 464
——— Catholic University, lectures at, 497; appointment in, 996
——— Edinburgh, lecturers, 458; fees, 459; changes in, 464; prizes, 682
——— Glasgow Royal Infirmary, proposed improvement of, 55; lectures, 458; fees, etc., 459; changes in, 464; prizes, 682
——— Leeds, fees, 447; note on, 454; lectures, 455; prizes, 456, 648; changes in, 464; introductory address at, 605
——— Liverpool Royal Infirmary, fees, 447; lectures, 455; note on, 455; prizes, 456, 648; changes in, 464; introductory address at, 605; in Paris, programme of winter session, 760
——— Sheffield, fees, 447, lectures, 455, note on, 455; introductory address at, 605
——— for Women, lectures, etc., 455; introductory lecture at, 604
——— of Pharmacy, South London, prizes, 1056
——— of Physicians, Ireland, prizes, 682; Museum of Medicine, 552; lectures, etc., 455
——— of Surgeons, of Royal College of Surgeons, Ireland, lectures, etc., 497
Schools and training-ships, 552; Medical, British and Continental, 562; reformatory and industrial, in Ireland, report, 915; changes in, 1056
Science and medical men, 922, 1044
——— medical, dates for opening, 464; changes in, 464; opening lectures in, 464, 498; lectures in, 455, 498; Scotland, opening of, 717
Schwanner, Dr., [illegible]
Science, application of, [illegible]; promotion of, 52, 117, 1027. *See* Experiment, and Vivisection
Scientific grants of British Medical Association, 1044; of British Association, [illegible]

Semmola, Dr., treatment of malignant tumours of breast,

Senate, French, medical member of, 223

Sewage-farming, cost of, 798

Sewill, Mr. H., subscriptions to Dr. Ferrier, 878

Sex, determination of before birth, 766

Shattock, Mr., congenital absence of radius, 1016

Sheen, Dr. A., his annual report on the Cardiff Union

Shield, Mr., idiopathic

Sheep, Mr. J. C., on various

Sheppard, Dr. Edgar,

Sherrington, Mr. J. W.,

Ships: of war, management of wounded on board of,

Shrimpton, Dr. C., sanitary condition of hospitals, 580

Shuttleworth, Dr. G. E., rötheln or German measles

Sickness of pregnancy, belladonna in, 67

Sidmouth, sanitary report of, 875

Silver, Dr. A.,

Simon, Mr. J., address in Section of Public Medicine

—— Dr. O., balano-postho-mycosis, 551

Simpson, Dr. A. R., new nomenclature in obstetrics,

Simms, Dr. F., Bethesda water in diabetes, 1006

Sims, Dr. J. M., treatment of gunshot-wounds of abdo-

Sinuses, the cranial, and their variations, 562

Skae, Dr. F. W. A., obituary notice of, 540

Skerritt, Dr. E. M., subcutaneous emphysema from spontaneous rupture of lung, 480

Skin, Section of Diseases of in International Medical Congress, *see* Congress; etiology of certain scales

Skinner, Mr. D., lunatic asylums in Victoria, 103

—— Mr. E., introductory lecture at Sheffield School of Medicine, 606

Skoda, Dr., story of, 693

Skull, mathematical law of construction of, 561; compound fracture of with aphasia, 7

Sleeper, Hungarian, 676

Sligo, waterworks at, 41

Small-pox in London

Smallpeice, Dr. W. H., on Walsham

Smith, Dr. W.,

Snow, Dr. H. L., spurious diphtheria, 666

Societies, benefit, medical officers to, 656

Society, Antivivisection, meeting of, 18, 20

—— Clinical, of London, honorary members, 669, 817; ruptured ovarian cyst, *ib.*; odontoma of lower jaw, *ib.*; Charcot's joint-disease, *ib.*; note on first

cele, 745; double hæmorrhagic pleurisy with formation of cholesterin, *ib.*; excessively high temperature, 746; cancer of œsophagus, and gastrostomy, 817; pebble in right bronchus, 818; transfusion of blood for hæmorrhage in typhoid fever, 939; chromidrosis, *ib.*; continued fever with high temperature, 940; talipes equino-varus treated by resection of portion of tarsus, 1016; cases of myxœdema, *ib.*

—— Epidemiological, of London, 674; aids to epidemiological knowledge, 899; progress of zymotic micro-pathology, *ib.*

—— Food Reform, Scottish, progress of, 679; vegetarian

—— Gynæcological, American, honorary fellow, 751; papers read at annual meeting, 819

—— Harveian, *conversazione* of, 19; resolution regarding Dr. Ferrier, 991; officers and council, 1028

—— Leith destitute sick, report of, 913

—— Medical Benevolent, Birmingham, annual re-

—— Medical, of Cambridge, etiology of zymotic diarrhœa, 819; Saxon bones with arthritic changes, *ib.*; dilatation of stomach, *ib.*; perforating ulcer of stomach, 982; idiopathic tetanus, *ib.*; cancerous peritonitis, *ib.*; acute myelitis, *ib.*

—— Medical, of College of Physicians in Ireland,

stenosis of pulmonary valves, *ib.*; extraordinary case of hiccough, *ib.*

—— Medical, Glasgow Southern, office-bearers, 643

—— Medical, of London, honorary fellows, 53; Lettsomian lectures, 638; names of orators, 835

—— Medical, of Manchester: extirpation of kidney, 709; successful gastrostomy, *ib.*; bone-lesions in hereditary syphilis, 710; diabetic coma, *ib.*; transposition of aorta and pulmonary artery, 900; case of phlegmasia dolens, *ib.*; micrococci in urine, *ib.*; brain-disease simulating bulbar paralysis, *ib.*; adherent pericardium and mediastino-pericarditis, *ib.*; hereditary syphilis and tubercle, 940; pathology of hydrophobia, *ib.*; intracranial aneurysm and optic neuritis, *ib.*

—— Medical, of Massachusetts, centennial anniversary of, 23

—— Medical, Midland, officers and council, 652; annual meeting, 724, 752; laparo-enterotomy, 859; large vesical calculus in female, *ib.*; specimens, *ib.*; abdominal section, *ib.*

—— Medical Missionary, Edinburgh, proceedings of, 56; annual meeting, 874

—— Medical, of New York, resolution concerning Mr. Spencer Wells, 129

—— of Medical Officers of Health, deputation to Local Government Board, 292; officers, 487; sanitary condition and laws of London, 858; reports of infectious diseases, 1018; ventilating shaft for sewers, *ib.*; enteric fever, *ib.*; typhus fever in Marylebone, *ib.*

—— Medical, of Queen's College, Cork, office-bearers, 951

—— Medical, of Ulster, annual dinner,

Society, Medical, of University College, opening meeting, 640

animals, *ib.*

ship of, 43

uterus to dysmenorrhœa, 708; officers and council,

dental caries, 900; poisoning by arsenical paste, 1056; preparing and administering nitrous oxide, *ib.*

—— Ophthalmological, American, officers, 469

—— Ophthalmological, of Great Britain, first annual meeting, 54; officers and council, *ib.*; retinal changes in Bright's disease, 83; intra-ocular tumour, *ib.*; central amblyopia in diabetes, 84; hemeralopia with peculiar appearance in choroid, *ib.*; vaccinal ophthalmia, *ib.*; multiple growths in irides, *ib.*; improved electro-magnets for removing fragments of

card, 84, 982; relation between apparent movement of objects and rotation of eyes, 667; unilocular diplopia, *ib.*; pyæmic ophthalmia, *ib.*; perineuritis optica, 668; tubercular disease of iris, *ib.*; tubercle of cerebellum with double optic neuritis, *ib.*; retinal periarteritis, 981; tumour at sclero-corneal junction, *ib.*; acute glaucoma cured by eserine, *ib.*; case of cerebral tumour, *ib.*; optic neuritis in chorea, *ib.*; axial neuritis in spinal disease, 982; unilateral hemiopia in spinal atrophy, *ib.*; unilateral exophthalmos, *ib.*

—— Otological, American, officers and council, 420

—— Pathological, of Dublin, officers, 793; mitral stenosis, 900; necrosis of tibia, 901; fracture of metacarpal bone of thumb, *ib.*; large ovarian tumour, 940 pneumothorax, 941; tumour of eyeball, *ib.*; gallstones, 1019; cerebral hæmorrhage, *ib.*; ankylosis of atlas and occipital bone, *ib.*; micro-organisms in destructive ophthalmitis, *ib.*; ulcerative endocarditis, 1020; large aneurysm of aorta, *ib.*; round-celled sarcoma of thigh, *ib.*; fracture of tibia and fibula, *ib.*; cancer of kidney, *ib.*; fractures of skull, *ib.*; pericarditis, 1058; vesical calculi, *ib.*; Cruveilhier's disease, *ib.*; Jacob's rodent ulcer, *ib.*; myoma uteri, *ib.*; intracapsular fracture of femur, *ib.*; ovarian cyst, *ib.*; fracture of finger, *ib.*; necrosis of lower jaw, *ib.*

—— Pathological, of London, fracture of cervical spine, 668; filaria sanguinis hominis, *ib.*; recurrent mammary tumour, 669; aneurysm and rupture of aorta, *ib.*; membranous band in left auricle, *ib.*; parotid cyst containing oil, *ib.*; note on meeting, 673; ear of corn discharged through chest, 743; muscæ volitantes, *ib.*; renal tumour of striped muscle and sarcoma tissue, 743, 744; longitudinal fracture of femur, 744; fatty degeneration of lower limb, *ib.*; necrosis of skull, *ib.*; absence of half the cerebellum, *ib.*; abscess in head of tibia, *ib.*; cancer of kidney, *ib.*; thickening of pericardium, 745, 1015; specimens shown by card, 745, 939; pulsation of liver, 816; extra-uterine fœtation, *ib.*; rickety thorax, *ib.*; aneurysm of aorta with secondary pouch, 817; hypertrophied toe-nail, *ib.*; stenosis of aortic orifice, *ib.*; enlarged thyroid body, *ib.*; joints from case of gout, 938; tissues from case of hæmophilia, *ib.*; dilatation and suppuration of Fallopian tubes, *ib.*; calcified adenoma of scalp, 939; sebaceous adenoma of scalp, *ib.*; cirrhosis of liver in a child, 1015; disease of suprarenal capsules without bronzing of skin, 1016; ulcerative endocarditis, *ib.*; subcutaneous fibroid thickenings in rheumatism, *ib.*; congenital absence of radius, *ib.*; filaria medinensis, *ib.*; transposition of aorta and pulmonary artery, *ib.*

—— Philosophical, of Glasgow, award of Graham medal, 131

—— Provident Surgical Appliance, new regulation of,

—— for Relief of Widows and Orphans of Medical Men, quarterly courts of directors, 129, 689; advantage of membership of, 642

—— Royal, secretaryship of, 787; medals of, 867

—— Royal, of Edinburgh, opening meeting, 949

—— Royal Medical Benevolent Fund of Ireland, quarterly meeting of Belfast Branch, 876

—— Royal Medical and Chirurgical, urticaria tuberosa with unusual symptoms, 13; treatment of fractures and dislocations of leg and foot by plaster-of-Paris splints, *ib.*; pathology of acute periostitis, 14; vascular tumour of face, *ib.*; gangrenous eruptions in connection with chicken-pox and vaccination, 707; healthy child nursed by syphilitic mother, 708; congenital macrostoma, 780; ligature of subclavian and carotid arteries for innominate aneurysm, *ib.*; case of lithotomy, where tumour of prostate was enucleated successfully, 980; fibrous polypous tumour of bladder successfully removed, *ib.*

—— Sanitary, in Vienna,

Society, Statistical, anniversary meeting, 90; officers and council, *ib.*; Howard medal, 675
——— Statistical, of Dublin, officers of, 75
——— Surgical, of Ireland, opening meeting, 915; president's address, 983; nerve-stretching in traumatic tetanus, 984; new gas-cautery, *ib.*; removal of entire scapula with tumour, 1056; therapeutical and poisonous effects of carbolic acid, 1057
——— Temperance, Church of England, Abstinence of,
Solomon, Mr. C., treatment of *post partum* hæmorrhage, 1060
Somnambulist, death of a, 613
Sore, Kala-Azar, Mr. J. C. Lucas on, 110
Sore-throat from infected milk, 415; letter on, 539
Sound, waves of, and the acoustic nerve, 405
Southam, Mr. F. A., cases of hydrophobia, 564
Spain, public health in, 911
Spanton, Mr. W. D., immediate cure of inguinal hernia, 339
Spasmodic disorder of limbs, Dr. Handfield Jones on,
Spasms, clonic, of neck and shoulder treated by arsenic, 928
Specialism, Mr. J. Hutchinson on, 309; on medicine, Dr. J. R. Reynolds on, 620; letters on, 686, 797
Spectator, on the prosecution of Dr. Ferrier, 886
Speculum, vaginal, 1057
Spence, Mr. J., presentation to, 173
Spencer, Dr. J. K., arrest of bleeding from the nose, 772, 972, 1047
Spiegelberg, Dr. O., death of, 1112; antiseptics in midwifery, 901
Spina bifida cured by operation, 47; treated by subcutaneous ligature and excision, Dr. T. Lawson on, 1060
Spinal cord, Dr. Withers Moore on cases of disease of, 111; localisation of disease in, 322; minute structure of, 791; ophthalmoscopic changes in disease of, 1112; Dr. P. Eade on scorbutic hæmorrhage in, 812; new method of preparing for microscopic section, 903; axial neuritis in disease of, 982; unilateral hemiopia in atrophy of, 1112
Spine, early recognition and treatment of caries of, 392; treatment of curvature of, 518; fracture of in neck, 668; Mr. Howard Marsh on treatment of caries of in childhood, 769; Dr. W. Russell on early diagnosis of caries of, 771
Sponge-grafting, Dr. T. Sanctuary on, 1014
Sponge-tents, 1057
Spontaneous evolution, 1112
Sport, legitimate, 948
Spray-producer, 590; Allen's small, 635
Spurway, Mr. C., asclepias in dropsy, 976
Square, Mr. W., entropium, 854
Squire, Dr. W., position of rötheln, 520; pilocarpin, 526; bromide of ethyl, 530
Stacey, Mr. J. A., chemists' assistants, 692
Stanthorpe, Dr., prosecution of, 1112, 1113
Stanley, Dean, death of, 1112
Starin, Mr. L., Eastern leprosy, 1057
State Medicine, report of Committee of British Medical Association on, 334; regulations for certificates in, 1112
Steamships, hygiene of, 1112
Steel, Mr. John, presentation to, 763
——— Mr. W. D., treatment of *post partum* hæmorrhage, 1060
Steele, Mr. E. Y., death of, 945
Steele and Garland's smoke-consuming grate, 946
Stencil-plates, Goyder's clinical, 289
Stenosis of larynx, treatment of, 1112 *See* Syphilis; Dr. Woakes on, 890
Sterility, 1112, 1113
Stethoscope, combined, 1112, bedhead, 1112, Sidey's pocket-binaural, 1112; binaural, addition to, 1112
Stevens, Dr. G. T., conditions of eyes causing loss of hearing, 404
Stevenson, Mr. N., dental disease, 1112; dental education, 617; metallic springs for tooth-plates, 923; steel springs for false teeth, 1112; position of dental surgery, 1057
Stewart, Dr. J., coto-bark in sweating of phthisis, 727
——— Dr. T. G., examination of urine in Bright's disease, 960
Stigand, Mr. A., evidence regarding the Contagious Diseases Acts, 1112
Still birth, Mr. J. Oliver on direct method of respiration in, 1112
Stille, Dr. A., resignation of professorship by, 1112
Stimulants in Belfast Workhouse, 1112, 1113; in workhouses, 1112, 1113
Stirling, Mr. A. B., obituary notice of, 1112
——— Dr. W., Comte lectures on physiology, 1112, 1113, 1114, 1115, 1116, 1117
Stockwell, Mr. D., accident from lightning, 1112
Stoker, Mr. W. T., ankylosis of atlas and occipital bone, 1112; fracture of tibia and fibula, 1112; Cruveilhier's disease, 1112; intra-capsular fracture of neck of femur, *ib.*; fracture of fingers, 1112
Stokes, Dr. W., excision of knee in early life, 1112; necrosis of tibia, 1112; sarcoma of thigh, 1112
Stomach, washing out the, 126; action of coffee and tea on, 172; Dr. Wade on dilatation of, 191; discussion on dilatation of, 473; position of the, 560, 828; case of dilatation of, 819; perforating ulcer of, 982, 1113; cancer of, 1112
Stone. *See* Calculus
Storm, severe, in Scotland, 913
Story, Mr. J. B., micro-organisms in destructive ophthalmitis, 1112
Stowers, Dr. J. H., scleroderma diffusa, 554
Strabane, sanitary condition of, 233
Strange, Dr. W., notes of one hundred cases of chorea, 69, 145; origin and diffusion of enteric fever and diphtheria, 507; salicylic acid in acute rheumatism, 1112
Street-adornment and recreation, 15, 35
Stretton, Mr. S., arabinose conveyances in London, 1112
Struthers, Dr. J., the processus supracondyloideus humeri in man, 560; British and continental schools of anatomy, 562
Strychnia as an expectorant, 530; supposed suicide by 869
Student. *See* Medical Student
Stupor, mental, 566
Sturges, Dr. O., local treatment of diphtheria, 123
Sucking, syphilis communicated by, 734
Sugar, action of in stomach, 172
Suicide by dynamite, Mr. Leadman on, 159; supposed, of a surgeon, 415; of a medical man, 384; by strychnia, supposed, 869
Sultan, the late Abdul Aziz, death of, 51; Abdul Hamid, physician of, 754
Summer-resorts and watering-places, mortality in, 371
Sunderland, sanitary report of, 761
Sunstroke at Aldershot, 52, 64, 105; etiology of, 127; deaths from, 128; cases of, 160; among troops, 558
Superannuation of poor-law medical officers, cases of, 503, 536, 830; resolution of East Sussex district of South-Eastern Branch, 758
Suppuration without micro-organisms, 872; of mastoid cells, Mr. T. H. Pinder on, 896
Suprarenal capsules, disease of, 323; disease of without bronzing, 1016
Surgeon, supposed suicide of a, 415
Surgeons of ships, position of, 992, 998 1035; militia, forced retirement of, 1038
Surgery in the Kilmarnock Infirmary, Dr. J. C. McVail on, 117; Section of in British Medical Association, *see* Association; Section of, in International Medical Congress, *see* Congress; Mr. Hutchinson's address to British Medical Association, 309, 332; antiseptic, *see* Antiseptic; among the mound-builders, 574; for Dental Students, Mr. A. S. Underwood on, *rev.*, 985; Dr. C. B. Keetley's Index of, *rev.*, *ib.*
Surgical Cases, Dr. W. Newman on, *rev.*, 86
Suspension, value of in surgery, 392
Sutton, Dr. R. S., case of aneurysm of aorta, 18
Swain, Mr. Paul, cases of strangulated hernia, 74
Sweat, secretion of, 554
Sweat-glands, inflammation of after use of pilocarpin, 531
Sweating of phthisis, treatment of, 109: coto-bark in, 727
Sweetmeats, coins in, 677
Symblepharon, Mr. Anderson Critchett on case of, 934
Symonds, Mr. C. J., osteitis deformans, 597
——— Mr. F., obituary notice of, 501
Sympathetic disturbance, influence of uterine disorders in production of, 399
——— nerve. *See* Nerve
Sympson, Mr. T., tubercle of cerebellum with double optic neuritis, 1112
Synovitis, treatment of, 391
Syphilis, relation of to cancer, 1112; to disease, 223; prognosis of in women and children, 395; and hibernation, 1112; contagion of the blood in, of in various constitutions, 482; prevention of, 630; regulation of, in the case of Fort Victoria Barracks, concerning, 1112; hereditary, lesions of bone in, 761; communicated by sucking, 734; hereditary, and tubercle, 1112; communicated by kid-grafting, 1112
Syphilitic disease of tongue, simulated by epithelioma, 1112
——— origin of rickets, 128
——— stenosis of larynx, Dr. Woakes on, 890
Syringe, gonorrhœal injection, 1112

T

Tabes dorsalis, cases of, 1112; certain little recognised [illegible] *See* Ataxy
Tablets, Wyeth's compressed, 178
Tait, Mr. Lawson, recent advances in pelvic surgery, 1112; the success of ophorectomy, 1112; treatment of intraperitoneal tumours, 615; abdominal section as an aid to pathological investigation, 1112; hydrosalpinx, 1112; [illegible] dilatation and suppuration of Fallopian tubes, 938
Talma, Mr. R. Davy on treatment of tarsal arch in, 1112; excision of tarsus, 1112
Tate, Dr., death of, 1112; Alexander II. 64
Tamburini, Dr., cerebral localisations and hallucinations, 569
Tamworth, sanitary report of, 105
Tanner, Dr., 414
Tannic acid crystals, 177
Tansy, effects of oil of, 623
Tarnier's forceps, discussion on, 397
Tarsus, Mr. R. Davy on resection of in club-foot, 688; resection of in talipes, 1016
Tavera, Dr. de, Madrid and the International Medical Congress, 71
Taylor, Mr. Henry, antiseptic inhalations, 802
——— Dr. J. S., importation of insect-borne disease at Liverpool, 1112
——— Dr. M. W., fungoid origin of diphtheria, 6
——— Mr. P. A., and antivaccination, 636
Tea-Company, Anglo-China, proposal of to medical men, 1112
Teck, Duchess of, visit to Edinburgh Hospital for Incurables, 1112
Teeth, chronic suppuration of, 84; Mr. N. Stevenson on new disease of, 159; third set of, 170; Section of Diseases of in International Medical Congress, *see* Congress; replantation of, 563; devitalisation of pulp of, *ib.*; preservation of enamel of, 564; honeycombed, and infantile convulsions, *ib.*; effect of organisms on, 565; effect of civilisation on, *ib.*; irregularities of, *ib.*; erosion of, *ib.*; trephining roots of, 870
Teignmouth, sanitary report of, 215
Telephone in Paris Institute of Sciences, 1063
Temperatures, high, in London and the tropics, 90; influence of on public health, 127; high, examples of, 128, 167; in July, 423; in Scotland during August, 1112
——— febrile, excessively high, 715, 736, 939, 940
Tendon-reflexes, graphic representation of, 362; in paralysis agitans, 1112
Tendring rural district, sanitary report of, 1041
Terebene, Dr A. M. McAldowie on inhalation of in phthisis, 666
Terry, Mr. C., abdominal abscess after enteric fever, 1112
Test-case, pocket urinary, 607
Testamentary incapacity, 566
Testimonial to Miss Grant, 673
Testes, effect of removal of tonsils on, 193, 384
Testis, sarcomatous tumour of, 900
Testimonial to Professor Virchow, *see* Virchow; to M. A. Napper, *see* Napper. Sessional Presentations, 1112
Tetanus, Dr. R. Ryder on peculiar case of, 81; Mr. J. T. Hague on Calabar bean on, 703; idiopathic, 982
Therapeutics, recent studies in, 944
Thermograph, clinical, 903, 1045
Thermometers, restriction of scale of, 15
Thestrup, Dr. C., treatment of itch by balsam of Peru, 652
Thigh, recurrent fibroid tumour of, 855, 913; round-celled sarcoma of, 1112; Mr. J. F. Le Page on partial removal of cancer of, 1053
Thin, Dr. G., pathology of psoriasis, 146; congenital anomaly in production of hair on scalp, 554
Thomas, Dr. T. Gaillard, resignation of professorship by, 166; ovarian tumour treated by incision and drainage, 626
——— Mr. Hugh, passage of penny through alimentary canal, 193
——— Dr. M., [illegible] of hydrocephalus, 1112
Thompson, Mr. E., empyema and latent pleural effusion, 771
——— Dr. Finlay, replantation of teeth, 563
——— Sir Henry, removal of stone from bladder, 481; lateral lithotomy, 1034
——— Dr. Wyville, [illegible] of pneumonia, 1112
——— Mr. W., fracture of skull, 1020
——— Dr. W. S., [illegible], 1112
Thoracentesis, caution in, 534
Thorax, thoracic, 1112
Thornton, Mr. J. K., dermoid ovarian tumour in a child, 933
Thoroughfares, public, open spaces and benches in, 15, 35
Thread, Subcutaneous Diseases from International Medical Congress. *See* Congress
Thrombosis, Dr. J. F. W. Ashe on cerebral Meningeal, 1112, 1113, 1114
Thumb, fracture of metacarpal bone of, 901
Thyroid, Sprengel, the, 1112
Thyroid, excision of, 1112; enlarged, pressure on trachea, 817
Tibbits, Dr. E. T., woolsorters' disease, 101
Tibia, treatment of [illegible] Mr. H. [illegible] Dr. [illegible] Mr. [illegible] fracture of, 1112
Tinea tonsurans, seat of fungus in, 66
Tipcat, accident from, 90
Tissue, Dr. N., mineral metabolism, 1112
Tissues, Dr. [illegible] of contraction of, blood-vessels and blood to healthy, 1112
Titles, unauthorised, 127

Toinet, effect of, on [illegible]
Tongue, hypertrophy of [illegible]
Toes and fingers, Dr. W. M. [illegible] malformations of, 159
Tomes, Mr. J., dental education, 564
Tonga, botanical origin of, [illegible]
Tongue, hypertrophy of [illegible]; in dyspepsia, 647; syphilitic disease of simulated by epithelioma, 1015
Tonsillotomes, 965, 1045, 1077
Tonsils, effect of removal of [illegible]
Tooth, central incisor, splinter of wood in, 84; wisdom, use and [illegible] to the embedded [illegible] of the Teeth
Tottenham, sanitary report of, 198
Touch, sense of, as a standard of comparison for hearing power, 404
Trachea, prophylactic resection of, 172; and larynx, mucous secretion of, [illegible]; pressure on by enlarged thyroid body, 17
Tracheotome, 65, 942
Tracheotomy in croup, 131; in diphtheria, 522
Tracheotomy respirator, 1060
Transfusion of blood in puerperal hæmorrhagia, Dr. T. W. Hime on, [illegible]; for hæmorrhage in typhoid fever, 961
Travelling, bromides in, Dr. J. J. Tilt on, 11; Dr. P. Drummond on, 627; in the case of children, Dr. Edis on, 149
Tredinnick, Mr. E., use of vapour of carbolic acid, 1044
Trenches, flushing of in India, 787
Trestrail, Mr. H. E., exploration of interior of uterus, 393
Treves, Mr. F., histological characters of tubercle, 545; varicose veins of abdominal wall, 597
Trichinosis, prevention of, 632
Tripe, Dr. J. W., sanitary condition and laws of mediæval and modern London, 588
Tripier, Dr., anatomical transparencies, 242
Trismus and tetany of uterus in labour, 461
Trocar, antiseptic, 390
Tsetze fly, the, 93
Tubercle, miliary, caseous accumulation in ear a probable cause of, 405; discussion on, 545; of iris, 668; of cerebellum with double optic neuritis, *ib.*; and hereditary syphilis, 940; of Bone, M. Lannelongue on, *rev.*, 1059; micrococcus of, 1004
Tubercular disease, deaths from in Vienna, 486; in animals, communicability of to man, 631
Tuberculosis, Bovine, in Man, Dr. C. Creighton on, *rev.*, 85; disseminated, 545; of lung and kidney with Addison's disease, Mr. H. E. Wright on, 1052
Tuffield, Rev. T., evidence regarding the Contagious Diseases Acts, 58
Tuke, Dr. D. H., mental stupor, 566
Tumour of bladder, fibrous, removal of, 980
——— of brain, Dr. J. Russell on, 775; sequel to case of, 971
——— of breast, scirrhus, 778; adeno-lipomatous, *ib.*
——— of eye, sarcomatous, 83; at sclero-corneal junction, 981
——— of face, vascular, 14
——— of groin and scrotum, 598
——— of kidney, with sarcoma tissue and striped muscle, 743, 744
——— of neck, anterior triangle, 13
——— of ovary, treated by incision and drainage, 626; dermoid, in a child, Mr. J. K. Thornton on, [illegible]; large, 940. *See* Ovary
——— of prostate, removal of during lithotomy, 980
——— of scalp, papillary, 551
——— of scapula, removal of, 1056
——— of testes, sarcomatous, 980
——— of thigh, recurrent fibroid, 855, 915
——— of uterus. *See* Uterus
——— of vocal chord, papillary, 890
Tumours, malignant, of breast, Dr. Semmola on treatment of, 356; intraperitoneal, Mr. Spencer Wells on advance in treatment of, 258; discussion on, 549, 611; fibroid, of uterus, Dr. Malins on removal of ovaries for, 385, 393; of larynx, treatment of, 592; experiments on origin of, 636; intracranial, diagnosis of, 757
Turnbull, Dr. L., morbid growths of the ear, 403
Turner, Dr. F. C., pathology of fibroid degeneration of heart, 540
Twin pregnancy, peculiar disposition of ova in, 398
Twins, conjoined, 918
Tympanum, incision of membrane of, 403
Tyne Port, sanitary report of, 761
Tyson, Dr. James, Bright's Disease and Diabetes, *rev.*, 781
——— Dr. W. J., rectal alimentation, 475
Tytler, Dr. P., restoration of extensor power of a finger, 1046

U.

Uhthoff, Dr. W., retinal changes in progressive anæmia, 266
Ulcer, perforating, of stomach, 982, 1019; Jacob's rodent, 1058
Umbilical cord, Dr. Coghill on separation of the, 316; shortness of, a cause of obstruction in labour, 857
Undercliff, climate of the, 368; Dr. J. L. Whitehead on climate of, 544, 611
Underwood, Mr. A., effect of organisms on the teeth, 565; Surgery for Dental Students, *rev.*, 985
Union of [illegible] by Wire
United States, President of, *see* Garfield; opium in the, 93
Universities, German, number of students in, 873
University of Aberdeen, proposed alteration of ordinances, 94; recognition of lecturers, 94, 678; bursaries, 94, 612; close of medical session, 173; graduation, [illegible]; regulations for degrees, 437; fees, 457; lectures, 458; rectorship of, 535, 573, 612, 943, 1001, 1045, 1077; medical examiners, 678, 977; opening of medical session, 759; degree of LL.D., 995
——— of Berlin, number of students in, 33; *privat-docents*, 165; appointment of rector and dean, 284; [illegible]
——— of Bern, appointment in, 763
——— of Breslau, professorship of obstetric medicine, [illegible]
——— of Brussels, the degree of, 194, 923, 998
——— of Buda-Pesth, professorship of anatomy, [illegible]
——— of Cambridge, [illegible] examination, 21; regulations for degrees in medicine, 431; lectures at, 453; regulations for certificate in sanitary science, 493; pass list in sanitary science, 651; pass list for Bachelor of Medicine, [illegible]
——— of Dorpat, appointment in, 763
——— of Dublin, pass lists, 33, 1002, 1042; regulations for degrees in medicine, 441
——— of Durham, pass lists, 65, 725, 1042; regulations for degrees in medicine, 433; regulations for certificates in sanitary science, 493
——— of Edinburgh, conclusion of summer session, 173; presentation to Professor Nicholson, *ib.*; graduation ceremony, 293; pass lists, 344, 842; regulations for degrees in medicine, 437; fees, 457; practical instruction, 457, 543; scholarships, etc., 457, 913; lectures, 458; appointment in, 464; regulations for degrees in public health, 494; preliminary and first professional examinations, 678, 755; lecturer recognised, 679; registration fee, 679; changes in classrooms, 717; opening lectures, 717, 755; resignation of Sir Wyville Thomson, 755, 913; regulations as to lecturers, 950; the professorship of Natural History, 1026; "social" of students' club, 1031
——— of Giessen, appointment in, 422
——— of Glasgow, graduations at, 232; regulations for degrees in medicine, 437; lectures, 458; fees, 459; regulations for examinations in public health, 494; number of students in, 950
——— in Hungary, a new, [illegible]
——— of Liege, appointment of professor of Ophthalmic Surgery, 41
——— of London, pass lists, preliminary scientific examinations, 344; first M.B., 380, 421; second M.B., 920, 1073; B.S., 1073; M.D., *ib.*; the first M.B. examination for honours, 412; regulations for degrees in medicine, 432; regulations for examinations in public health, 493; fees received from candidates, 825; vacancies in Senate, 826, 908, 1026; medallists at M.D. examination, 945
——— of Oxford, the Linacre professorship, 168, 412, 610, 910; regulations for degrees in medicine, 437; instruction in, 453; natural science scholarship, [illegible]; curator of Bodleian Library, 763; appointment of coroner, [illegible]
——— of Pennsylvania, resignation of Dr. Stillé, 33
——— Queen's, in Ireland, regulations for degrees in medicine, 442; report on, 492; proposed alteration of date of examinations, 613; last meeting of senate, 686; honorary degrees, *ib.*; pass lists, 725
——— Royal, of Ireland, meetings of Committee, 492; regulations, 720, 802; vacancy in senate, 756
——— of St. Andrew's, regulations for degrees in medicine, 437; Professor Pettigrew's opening lecture, 791; the Chandos chair of Medicine and Anatomy, 832; installation of Lord Rector, 874
——— of Vienna, the chair of Pathology, 166, 412, 486; the professor of Ophthalmic Surgery, 787
Unna, Dr., the sweat-secretion, 554
Unqualified. *See* Medical Assistants and Medical Practitioners
Uræmia, experimental, 786
Urethra, Mr. R. Harrison on treatment of stricture of by stretching, 390, 929; dilator of, 1060
Urinary test-case, 607
Urine, Dr. J. A. Austin on suppression of in intestinal obstruction, 158; letter on, 248; examination of in Bright's disease, 360; fresh, Dr. W. Roberts on micro-organisms in, 623; frothing of, Mr. G. S. Johnson on, 812, 1054; Dr. R. Kirk on, 978; Dr. R. E. Carrington on alcohol in, 935
Urticaria tuberosa with unusual symptoms, 13
Uskoff, Dr., suppuration without micro-organisms, 872
Uterine injections, 796
Uterus, Dr. C. J. Renshaw on incision of os of in convulsions, 12; Dr. J. H. Bennet on abortion in connection with inflammation of, 39; microscopical section of [illegible]; and vagina, rupture of, [illegible]; myoma of, implicating placenta prævia, *ib.*; fleshy substance discharged from, 194; Dr. Malins on removal of ovaries for fibroid tumours of, 385, 393; Dr. Coghill on mechanical treatment of displacements and flexions of, 387, 394; adaptation of pessaries to displacements of, 393; exploration of interior of, 394; pregnant, intermittent contractions of a means of diagnosis, 397; curability of displacements of, 399; influence of disorders of in production of sympathetic disturbances, *ib.*; mechanical treatment of displacements and diseases of, *ib.*; total extirpation of, *ib.*; [illegible]; relations of anteflexion of to dysmenorrhœa, 708, 1078; Dr. L. Atthill on, 1010; gravid, anteversion of at full term, Mr. H. B. Runnalls on, 777; gravid, with epithelioma, excision of, [illegible]; vaginal extirpation of, 869; gravid, Dr. R. Barnes on fluid pressure in reduction of retroversion of, 936; myoma of, 1058
Uterus, cervix of, amputation of for chronic metritis, 402; Dr. J. H. Bennet on [illegible] of, 542; letter on, 607, [illegible]

V.

Vaccinal ophthalmia, [illegible]
Vaccination in Port of London, 19; alleged death from, 33; in Morocco, 53; question in Parliament respecting fines for refusal of, 64; le petit mal during, 67, 1004; compulsory, in France, M. Liouville's bill for, 138; The Truth about, Dutch translation of, *rev.*, 162; in China, 166, 571; in passenger ships, 169; in Dover, New Hampshire, 293; an argument for, 369; and small-pox, 370, 544, 844; letter on, 423; in Scotland, 490, 717; [illegible] of, 512; house-to-house visitations for, 534; prosecutions for refusal of, 536, 613, 830, 1032, 1067; skin eruptions after, 551; at Mysore, 610; opposition to, 636; Government grants for, 652, 670, 879, 899, 1009; action for fees for, 674; inquiry into, 674; gangrenous eruptions in connection with, 707; Dr. de Pietra Santa's Guide to, *rev.*, 711; tracts on, 788; in South Africa, 826; in Bombay, 829; in Ayr, 875, 965; neglect of in New Ross, 951; proceedings of Derby guardians respecting, 961
——— animal, letters on, 139, 379, 419; discussion on, 512; Dr. Warlomont on, 767; Mr. Ernest Hart on, 850; Mr. Hodgson on Mr. Badcock's experiments in, 852; in India, 1030
Vaccination Shield, 419
Vacher, Mr. F., spread of disease through food, 632; annual reports of health-officers, 1039
Vaginal injections after delivery, 796
Valves of Heart. *See* Heart
Van Capelle, Dr., prevention of diffusion of hydrophobia, 632
Vaporiser, Page's patent, 566
Varicella gangrænosa, 803
Varicose veins of abdominal wall, 597
Varioloid eruption after clipping sheep, Mr. J. C. Eaton on, 617
Varix, and varicocele, Mr. J. Duncan on subcutaneous ligature of, 57
Veins, subcutaneous, of the trunk, 561; varicose, of abdominal wall, 597
Veluti in speculo, 54
Venereal disease, prevention of, 630. *See* Syphilis
Venice, sanitary state of, 171
Venous circulation, effect of bicycle on, 144
Ventilating shaft for sewers, 1018
Ventnor, health of, 292; climate of, 765, 803
Vermiform appendix, ulceration of, 575; cherry-stone in, 900
Verneuil, M., modifications of syphilis in various constitutions, 482; primary union of wounds, 550
Verrier, Dr. E., construction and application of uterine repositors, 399; influence of climate, etc., on parasitic diseases of the scalp, 552
Vertigo of Bright's disease, Dr. Saundby on treatment of, 742
Veterinary surgeons, 35; register of, 488
Victoria Cross, awarded to Surgeon McCrea, 19; to Surgeon-major Mahon, 611; to Surgeon-major E. B. Hartley, 638
Vidal, Dr. E., parasitic pityriasis, 550; mycosis fungoides, 553
Vienna, tubercular disease in, 486
Vignal, M., formation of callus, 164
Virchow, Dr. R., value of pathological experiments, 198; tubercle, 545; testimonial to, 758, 787, 826, 844, 965; supper to, 826; celebration of birthday of, 908, 1025; Dr. Jacobi on, 1029
Vision, report of committee on tests for, 595
Visiting List, Smith's Physicians' and Surgeons', *rev.*, 1060
Vivisection, report on, 55; Dr. Virchow on, 198; Mr. J. Simon on, 222; Dr. T. R. Fraser on, 229; Mr. R. Owen on, 288; Dr. Humphry on, 332, 791, 865, 1025; remarks on, 365; Dr. Burdon Sanderson on, 465; resolution of Section of Physiology in International Medical Congress, 526; resolution of North Wales Branch, 684; Act, prosecutions under the, 752, 796, 834 836, 878; letters on, 887, 1077; Paget, Owen, and Wilks on, 987

Vocal chord, paralysis of muscle of, 339; papillary growth in, 895
Volkmann, Dr., modern surgery, 300; surgical wards of, 923
Volunteer ambulance department, 341
——— -- camp at Wimbledon, health of, 167
——— - hospital corps, proposed, 867; letter on, 1147
——— - movement, origin of, 22
——— - review, medical arrangements for, 31, 41; in Edinburgh, 416
——— surgeons, memorandum on, 41; letter, 31, 141, 240, 343; appointed surgeons-major, 469, 1
Voyage, scientific, to South America, 1000
Vulpian, M., resignation of office of dean of Paris Faculty of Medicine, 869

W.

Wacher, Mr., sarcoma of testicle, 900; congenital malformation of forearm, 1
Wade, Dr. W. F., elected treasurer of British Medical Association, 297; dilatation of the stomach, 471
Wagner, Dr. F., relation of syphilis to renal disease, 223
Waking the dead, 681
Wales, Prince of, speech at opening of International Medical Congress, 237; visit of to Swansea, 713, 798
Walford, Mr. T. L., speedy purgative, 36; practical dispensing, 544
Walking-sticks, 543
Wall, Dr. John, assault on, 132
Wallace, Dr. A. W., consultation with homœopaths, 506, 580
Walshe, Dr. W. H., Dramatic Singing Physiologically Estimated, *rev.*, 941
Walter, Dr., phlegmasia dolens, 900
Walters, Dr. J., abscess of brain, 757
Walton-on-the-Naze, sanitary state of, 415
War in South Africa, 97, 417; antiseptic treatment of wounds in, 556
Ward, Dr. M. F., obituary notice of, 105
Warlomont, Dr. E., animal vaccination, 139, 767
Warner, Dr. F., Student's Guide to Medical Case-Taking, *rev.*, 86; subcutaneous nodules and rheumatism in children, 554
——— Messrs., coated pills, 178
Warren, Dr. E. W., effects of carbolic acid, 1057
Water, supply of in London, 107, 327, 487, 639, 868; in Melbourne, 137; for Evesham, 412; hard and soft, 618; Lanman and Kemp's Florida, 635; hard, constipation from drinking, 693; Bethesda, in diabetes, Dr. W. Murrell on, 849; letter on, 1006; unfiltered, danger of drinking, 968
Watering-places and health-resorts, mortality in, 371; continental, works on, 845
Waterman, Dr., colchicum autumnale as an antipyretic and antiphlogistic, 528
Waters, Dr. A. T. H., pneumonia, 805
Water, arsenical, of Court St. Etienne in sea-sickness, 611
Waterworks at Sligo, 41
Watford, sanitary report of, 24
Watson, Mr. Spencer, intra-ocular tumour, 83
——— Sir Thomas, hydrophobia, 878
Watts, Dr. T. H., obituary notice of, 752
Weather, hot, influence of on public health, 127
Web in larynx, 590
Webb, Dr. M., preservation of enamel of teeth, 564
— - Dr. V. G. axi-traction forceps, 179
Webbed fingers, Mr. A. T. Norton on treatment of, 390, 931
Weber, Dr. A., pathology of glaucoma, 595
Wecker, Dr. de, Ophthalmoscopic Clinique, *rev.*, 1060
Wednesbury, sanitary report of, 578
Weekly Dispatch on the prosecution of Dr. Ferrier, 886
Weiss and Son, Messrs., articles shown in International Medical and Sanitary Exhibition, 176
Wells, Mr. S. S. D., toxic properties of bromide of iron, 924
——— Mr. Spencer, resolutions of Medical Society of New York and of New York Academy of Medicine concerning, 129; recent advances in surgical treatment of intraperitoneal tumours, 358, 549; excision of gravid uterus with epithelioma, 856; dinner to in Paris, 936
West, Dr. C., address in Section of Diseases of Children in International Medical Congress, 216
Westland, Dr. A., the opium traffic, 30
Wexford, graveyards in, 294
Whales, Mr. Flower on, 38
Wheelhouse, Mr. C. G., elected President of Council of British Medical Association, 298; the Association and its addresses, 418
Wherry, Mr., Saxon bones with arthritic changes, 819
Whipham, Dr. T. T., continued fever with high temperature, 640
Whiskey, 986
Whitby, sanitary report of, 24
White, Dr. H., and Dr. W. Edmunds, tracheotome, 942
Whitechapel, sanitary report of, 504
Whitehead, Dr. J. L., climate of the Undercliff, 514, 663
——— Mr. W., removal of tumours from anterior triangle of neck, 13; extirpation of kidney, 741; excision of thyroid gland, 772
Whitwell, Mr. F., Jenner and Jesty, 63
Widows of medical men, attendance on. *See* Medical
Wife, liability of husband for medical attendance on, 23
Wight, Isle of, as a health-resort, Dr. J. Groves on, 514, 663
Wilkerson, Dr. T. B., nymphomania cured by double oöphorectomy, 921
Wilkins, Dr. E. P., death of, 365
Wilks, Dr. S., address in Section of Pathology in International Medical Congress, 209; ear of corn discharged through chest, 743; muscæ volitantes, *ib.*; a science defence association, 878; vivisection, 987
Willesden, sanitary report of, 1072
Willett, Mr., popliteal aneurysm, 855
Williams, Dr. A. Wynn, treatment of diphtheria, 654
——— Dr. C. T., treatment of phthisis by residence at high altitudes, 364, 975
——— Dr. D. M., two thousand five hundred cases of midwifery, 9
——— Dr. Dawson, dactylitis syphilitica, 598; tumour of kidney composed of sarcoma tissue and striated muscle, 744
——— Dr. W., phthisis treated antiseptically, 120
Wilson, Surgeon, death of, 103
——— Sir Erasmus, address to Dermatological Section of International Medical Congress, 215; dermatotherapeia, 554; knighthood of, 788
Wiltshire, Dr. A., utero-vaginal rupture, 49; ruptured ovarian cyst, 669; pendulous cysts of labia, 708
Wind, influence of on spread of diphtheria, 535
Wind-instruments, influence of on pulmonary diseases, [illegible]
Wine, quinine, 572
Winslow, Dr. R., surgical treatment of abscess of liver, 779
Withington, sanitary report of, 537
Witnesses, fees of, 581
Woakes, Dr. E., electricity in ear-diseases, 73; local treatment of diphtheria, 123; the inferior cervical ganglion as a correlating nerve-centre, 324; paretic deafness, 405; cases of laryngeal disease, 889
Wolverhampton, sanitary report of, 49
Women, Dr. A. W. Edis on Diseases of, *rev.*, 635
Women doctors in Eastern Countries, 1046
Wood, Dr. H. C., physiological antagonism [illegible] animal heat, 529
——— Dr. O., boarding out of lunatics, 752
Woodward, Dr. W., eczema palmarum, 308
Woolsorters' disease, letters on, 29, 101, 139; results of inquiry into, 749
Workhouse, Belfast, condition of, 95; stimulants in, 495, 496; lunatic wards of, 1032
——— Birmingham, charge against medical staff of, 503
——— Cardiff, annual report of, 32
——— Cork, accommodation for lunatics, 95, 132; salary of medical officers, 951
——— Limerick, condition of, 57
——— North Dublin Union, medical officer, 831
Workhouses, Irish, mortality in, 174; stimulants in, 503, 826, 830; lunatics in, 751, 1065; supply of linen in, 2039; trained nurses in infirmaries of, 1056
Worms, Dr. J., influence of sulphate of quinine in glycosuria, 530
Wounds, relation of minute organisms to unhealthy processes in, 546; after operations, causes of failure of primary union in, 550; in war, antiseptic treatment of, 556; by Martini-Henry bullets, 559
Wray, Dr. D. C., fleshy substance discharged from uterus, 194
Wright, Mr. H. E., Addison's disease with tuberculosis of lung and kidney, 1052
Wright and Co.'s urinary test-case, 607
Wrist, Mr. Annandale on a case of injury of, 930
Wurtz, M., elected member of French Senate, 223
Wyeth's compressed tablets, 178
Wyllys, Mr. W. E., method of using the forceps, 123

X.

Xanthelasma in a child, 597
Xeroderma, local plantar and palmar, 597

Y.

Yates, Mr., notification of cases of infectious disease 1029, 1078
Yeld, Dr. H. J., obituary notice of, 920
Yeo, Dr. I. B., local treatment of diphtheria, 124
Young, Dr. P. A., gall-stones, 694
Younge, Dr. G. H., salicylic acid in acute rheumatism 934

Z.

Zenana and medical missions, 60, 346
Ziemssen's Cyclopædia of Medicine, Supplement to, *rev.*, 820
Zoological Atlas, Mr. D. M. Alpine's, [illegible]
Zymotic diseases in London, 54, 92, 369, 568, 678, 714, 791, 868; in town districts in Ireland, 372; influence of milk [illegible] in Scotch villages, 1074
——— [illegible]

ILLUSTRATIONS.

Plan of House showing Damp Wall (Dr. M. W. Taylor) 7
Dilator of Cervix Uteri 15
Modified Ferguson's Speculum .. .. *ib.*
New Pocket Obstetric Case .. .. *ib.*
Spina Bifida (Mr. W. Pye) 47
Communication between Aorta and Pulmonary Artery (Dr. E. Rickards) .. 71
India-rubber Drainage-Anchors (Mr. R. Davy) 80
Pathology of Psoriasis (Dr. G. Thin)—Six Figures 146, 147, 148
Apparatus for Transfusion of Blood (Dr. T. W. Hime) 154
Aneurysm of Aorta projecting into Pulmonary Artery and Right Ventricle (Dr. E. Rickards) 155
Sphygmographic Tracing from same Case (Dr. E. Rickards) .. .. *ib.*
Aneurysm of Pulmonary Artery (Dr. E. Rickards) 156
Clinical Thermometer 176
Leiter's Temperature-Regulator applied to Head 177
Goyder's Clinical Stencil-Plates 289
Instruments for Removal of Internal Piles (Mr. W. M. Coates)—Four Figures. 351
Vaccination Shield—Two Figures 409
New Elastic Cord Tourniquet (Dr. Ward Cousins) 461
Patent Vaporiser and Cresolene—Two Figures 566
Axis-traction Forceps 670
Saw and Director for Removal of Tarsal Arch (Mr. R. Davy) 695
Calcareous Pericardium (Dr. E. Rickards) 772
Instruments for Treatment of Diseases of the Ear (Mr. T. H. Pinder)—Four Figures 782, 783
Sound for Detecting Small Stones in Bladder (Dr. S. C. Duncan) 783
Sphygmographic Tracings and Temperature Curves in Pneumonia (Dr. A. T. H. Waters) 805, 806
Portable Binaural Stethoscope 821
Bacillus of Typhoid Fever 877
Cases of Laryngeal Disease (Dr. F. Woakes) Six Figures .. 889, 890, 891
Clinical Thermograph—Two Figures 903
Hospital Bath .. .. *ib.*
Deformity of Wrist from Injury (Mr. Annandale)—Two Figures .. 930, 931
Webbed Fingers (Mr. A. T. Norton) 931
Temperature Chart in Rheumatic Fever (Dr. J. M. Finny) 932
Case of Symblepharon (Mr. Anderson Critchett) 934
Tracheotome 942
Mercurial Spray and Fumigator (Mr. F. G. Hamilton) 986
Inhalation-Respirator (Dr. R. Saundby)—Two Figures 1011
Ear-Protector (Dr. J. Ward Cousins) 1050
Dilator of Urethra (Mr. Reginald Harrison) 1060

BRITISH MEDICAL ASSOCIATION.

OFFICERS AND COUNCIL FOR 1881-82.

President.

BENJAMIN BARROW, F.R.C.S., Consulting Surgeon to the Royal Isle of Wight Infirmary, Ryde.

President-Elect.

WILLIAM STRANGE, M.D., Senior Physician to the Worcester Infirmary.

Vice-Presidents.

GEORGE S. JENKS, M.D., F.R.C.P., Bath.
ALFRED LOCHÉE, M.D., F.R.C.P., Canterbury.
SIR GEORGE BURROWS, Bart., M.D., F.R.C.P., F.R.S., London.
EDWARD WATERS, M.D., F.K.Q.C.P., Chester.
CHARLES CHADWICK, M.D., D.C.L., F.R.C.P., Tunbridge Wells.
W. D. HUSBAND, F.R.C.S., Bournemouth
ALFRED BAKER, F.R.C.S., Birmingham.
GEORGE E. PAGET, M.D., F.R.C.P., F.R.S., Cambridge.
SIR ROBERT CHRISTISON, Bart. M.D., D.C.L., Edinburgh.
M. M. DE BARTOLOMÉ, M.D., Sheffield.
DENIS CHARLES O'CONNOR, M.D., LL.D., Cork.
GEORGE MURRAY HUMPHRY, M.D., F.R.C.S., F.R.S., Cambridge.
ALFRED CARPENTER, M.D., J.P., Croydon.

President of the Council.

C. G. WHEELHOUSE, F.R.C.S., Senior Surgeon to Leeds General Infirmary.

Treasurer.

W. F. WADE, F.R.C.P., Physician to the General Hospital, Birmingham.

Committee of Council.

THE PRESIDENT OF THE COUNCIL.
THE PRESIDENT OF THE ASSOCIATION.
THE PRESIDENT-ELECT.
THE VICE-PRESIDENTS.
THE TREASURER.
ONE SECRETARY FROM EACH BRANCH.
T. CLIFFORD ALLBUTT, M.D., Leeds.
L. BORCHARDT, M.D., Manchester.
T. H. BARTLEET, F.R.C.S., Birmingham.
CHARLES DRAGE, M.D., Hatfield.
B. FOSTER, M.D., Birmingham.
E. L. FOX, M.D., Bristol.
C. HOLMAN, M.D., Reigate.
A. J. HARRISON, M.B., Bristol.
LESLIE JONES, M.D., Blackpool.
D. J. LEECH, M.D., Manchester.
C. MACNAMARA, F.R.C.S., London.
F. E. MANBY, F.R.C.S., Wolverhampton.
F. MASON, M.R.C.S., Bath.
R. H. B. NICHOLSON, M.R.C.S., Hull.
HENRY POWER, M.B., F.R.C.S., London.
S. W. SIBLEY, F.R.C.S., London.
H. STEAR, M.R.C.S., Saffron Walden.
A. P. STEWART, M.D., London.
W. F. WADE, F.R.C.P., Birmingham.

Editor of the British Medical Journal.

ERNEST HART, ESQ., London.

General Secretary.

FRANCIS FOWKE, ESQ., London.

MEMBERS OF THE COUNCIL IN ACCORDANCE WITH BY-LAW 17.

Acland, Henry W., M.D., LD.D., F.R.S., Oxford.
Bradbury, J. B., M.D., F.R.C.P., Cambridge (A Representative of the Cambridge and Huntingdon Branch).
Browne, J. Crichton, M.D., LL.D., London.
Bristowe, John Syer, M.D., F.R.S., London.
Coates, W. Martin, Esq., Salisbury.
Coghill, John G. Sinclair, M.D., Ventnor.
Fox, Edward Long, M.D., Clifton, Bristol. (A Representative of the Bath and Bristol Branch.)
Hutchinson, Jonathan, F.R.C.S., London.
Paget, George Ed., M.D., D.C.L., LL.D. Ed., F.R.S., Cambridge.
Playfair, William S., M.D., London.
Rutherford, William, M.D., F.R.S., Edinburgh (A Representative of the Edinburgh Branch.)
Ransome, Arthur, M.D., Bowden, Cheshire.
Savory, William S., F.R.S., London.
Sinclair, Sir E. B., M.D., Dublin.

MEMBERS OF COUNCIL APPOINTED BY BRANCHES IN ACCORDANCE WITH BY-LAW 19.

ABERDEEN, BANFF, & KINCARDINE BRANCH.

George, J. T., Esq., Keith.
Ogston, Alexander, M.D., Aberdeen.
Smith Shand, J. W. L., Esq., Aberdeen.
Stirling, W., M.D., Aberdeen.
Urquhart, John, M.D., 250, Union Street, Aberdeen. *Honorary Secretary.*

ADELAIDE AND SOUTH AUSTRALIAN BRANCH.

Cleland, W. L., M.D., Adelaide. *Hon. Secretary.*

BATH & BRISTOL BRANCH

Davies, D., Esq., 1, Queen's Square, Bristol.
Fox, Ed. Long, M.D., Church House, Clifton.
Goodridge, H. F. A., M.D., Brock Street, Bath.
Harrison, A. J., M.B., Guthrie Road, Clifton.
Hensley, Henry, M.D., Circus, Bath.
Marshall, Henry, M.D., Caledonian Place, Clifton.
Mason, F., Esq., 20, Belmont, Bath.
Prichard, Augustin, Esq., Chesterfield Place, Clifton.
Smith, R. Shingleton, M.D., Richmond Hill, Clifton.
Stewart, J., Esq., Dunmarry, Sneyd Park, Bristol.
Fowler, R. S., Esq., 6, Belmont, Bath. *Honorary Secretary* for Bath.
Skerritt, E. M., M.B., Clifton. *Honorary Secretary* for Bristol.

BIRMINGHAM & MIDLAND COUNTIES BRANCH.

Bartleet, T. H., M.B., 58, Calthorpe Road, Edgbaston, Birmingham
Bassett, J., M.D., Hockley Hill, Birmingham.
Dewes, E., M.D., Coventry.
Foster, B., M.D., Grosvenor House, Edgbaston, Birmingham.
Gamgee, Sampson, Esq., Broad Street, Birmingham.
Greene, John, Esq., Summer Row, Birmingham.
Johnston, James, M.B., Goldilslie, near Sutton Coldfield, Birmingham.
Ker, H. R., Esq., Comberton House, Halesowen, near Birmingham.
Manby, F. E., Esq., King Street, Wolverhampton.
Manley, J., Esq., West Bromwich.
Morgan, H. M., Esq., Market Street, Lichfield.
Newnham, C. A., Esq., Wolverhampton.
Oakes, A., Esq., Old Square, Birmingham.
Prosser, R., Esq., Bromsgrove, Worcestershire.
Thompson, James, M.D., Avenue House, Leamington.
Totherick, J. Y., M.D., 46, Waterloo Road, Wolverhampton.
Underhill, Thomas, M.D., Summerfield, West Bromwich.
Williams, T. W., Esq., 13, Newhall Street, Birmingham.
Mahon, [illegible], M.D., [illegible]

BORDER COUNTIES BRANCH.

Grierson, S., Esq., Border Counties Asylum, Melrose.
Lockie, Stewart, M.D., Devonshire Street, Carlisle.
McBean, R. B., M.B., Annan.
Smith, John, M.D., 14, Castle Street, Dumfries.
Taylor, M. W., M.D., Penrith.
Tiffen, R., M.D., Wigton.
Batt, J. Kendall, [illegible]

CAMBRIDGE & HUNTINGDON BRANCH.

[illegible], G. M., M.D., [illegible]
Bradbury, J. B., M.D., Corpus Buildings, Cambridge.
Hodson, C. F., Esq., Bishop's Stortford.
Stear, H., Esq., Saffron Walden.
[illegible], B. [illegible], M.D., [illegible]

DUBLIN BRANCH.

Ashe, [illegible], M.D., [illegible]
[illegible], M.D., F.R.S., [illegible]
[illegible]
[illegible]
McClintock, Alfred H., M.D., 21, Merrion Square North, Dublin.
McDonnell, R., M.D., F.R.S., 14, Lower Pembroke Street, Dublin.
Porter, G. H., M.D., 3, Merrion Square North, Dublin.
Stokes, William, M.D., 5, Merrion Square North, Dublin.
[illegible]

EAST ANGLIAN BRANCH.

[illegible]
Bateman, F., M.D., Upper St. Giles's Street, Norwich.
[illegible]
[illegible]
Edwards, G. C., Esq., Ipswich.
[illegible]
Worthington, F. S., Esq., Lowestoft.
[illegible]

EAST YORK & NORTH LINCOLN BRANCH.

Gibson, J. H., M.D., Wright Street, Hull.
Lunn, W. J., M.D., 7, Charlotte Street, Hull.
Nicholson, R. H. B., Esq., 21, Albion Street, Hull.
[illegible]

EDINBURGH BRANCH.

Chiene, J., M.D., 21, Ainslie Place, Edinburgh.
Rutherford, W., M.D., 17, Douglas Crescent, Edinburgh.
Stewart, T. G., M.D., 19, Charlotte Square, Edinburgh.
Underhill, Charles E., M.D., 8, Coates Crescent, Edinburgh. *Hon. Secretary.*

GLASGOW & WEST OF SCOTLAND BRANCH.

Barr, Thos., M.D., 10, Albany Place, Glasgow.
Goff, Bruce, M.D., The Lindens, Bothwell.
Kelly, Adam L., M.D., 24, Carlton Place, Glasgow.
Miller, Hugh, M.D., 298, Bath Street, Glasgow.
Reid, W. L., M.D., 7, Royal Crescent, Glasgow.
Yellowlees, D., M.D., Gartnavel, Glasgow.
Coats, J., M.D., 7, Elmbank Crescent, Glasgow. *Honorary Secretary.*

GLOUCESTERSHIRE BRANCH.

Batten, R. W., M.D., [illegible] *Honorary Secretary.*

JAMAICA BRANCH.

Stern, M., Esq., Kingston, Jamaica. *Honorary Secretary.*

LANCASHIRE & CHESHIRE BRANCH.

Bailey, F. J., Esq., 51, Grove Street, Liverpool.
Barron, G. B., M.D., Summerseat, Southport.
Borchardt, L., M.D., Barton Arcade, Manchester.
Briggs, H., M.D., Burnley.
Campbell, W. M., M.D., Princes Road, Liverpool.
Carter, W., M.D., 74, Rodney Street, Liverpool.
Cullingworth, C. J., Esq., 260, Oxford Street, Manchester.
Dreschfeld, J., Esq., 292, Oxford Street, Manchester.
Ewart, J. H., Esq., Limefield House, Cheetham Hill, Manchester.
Farrar, J., Esq., Morecambe.
Fitzpatrick, W. H., M.D., Hazel Mount, Stonycroft, Liverpool.
Glascot, C. E., M.D., 25, St. John Street, Manchester.
Glynn, T. R., M.D., 36, Rodney Street, Liverpool.
Godson, A., M.B., Cheadle.
Harker, J., M.D. Lancaster.
Harrison, Reginald, Esq., 38, Rodney Street, Liverpool.
Howie, James M., M.B., 50, Rodney Street, Liverpool.
Johnson, C., Esq., Lancaster.
Jones, Leslie H., M.D., Brighton Parade, Blackpool.
Lambert, James, M.D., Price Street, Birkenhead.
Leech, D. J., M.D., 96, Mosley Street, Manchester.
Little, D., M.D., St. John Street, Manchester.
Mann, J. Dixon, M.D., 16, St. John Street, Manchester.
March, H. Colley, M.D., 18, West Street, Rochdale.
Mould, G. W., Esq., Asylum, Cheadle, Manchester.
Parks, J., Esq., The Wylde, Bury.
Puzey, Chauncy, Esq., 71, Rodney Street, Liverpool.
Rayner, E. M.D., Stockport.
Roberts, D. Lloyd, M.D., 23, St. John Street, Manchester.
Rogers, T. L., M.D., Asylum, Rainhill, Prescot.
Ross, James, M.D., 335, Brighton Place, Oxford Road, Manchester.
Simpson, Henry, M.D., 3, Oxford Street, Manchester.
Thorp, Charles W., Dobroyd, Todmorden.
Waters, A. T. H., M.D., 69, Bedford Street, Liverpool.
Watkins, John W., M.D., Newton-le-Willows.
White, Charles, Esq., Warrington.
Whitehead, W., Esq., 248, Oxford Street, Manchester.
Davidson, A., M.D., 2, Gambier Terrace, Liverpool. *Honorary Secretary.*

MELBOURNE AND VICTORIA BRANCH.

Henry, Louis, M.D., St. Kilda, Melbourne. *Honorary Secretary.*

METROPOLITAN COUNTIES BRANCH.

Aikin, C. A., Esq., 7, Clifton Place, W.
Blandford, G. F., M.D., 71, Grosvenor Street, W.
[illegible]
Brown, G. D., Esq., Henley Villa, Ealing.
Brunton, T. Lauder, M.D., F.R.S., 50, Welbeck Street, W.
Buzzard, Thomas, M.D., 56, Grosvenor Street, W.
[illegible]
Cheadle, W. B., M.D., 2, Hyde Park Place, W.
Clark, Andrew, M.D., 16, Cavendish Square, W.
Dalby, W. B., M.B., 18, Savile Row, W.
Davidson, C. Esq., 29, Cassland Road, South Hackney, E.
Dickson, Walter, M.D., R.N., Custom House, E.C.
Dowse, T. S., M.D., 14, Welbeck Street, W.
Down, J. Langdon, M.D., 39, Welbeck Street, W.
Duncan, J. Matthews, M.D., 71, Brook Street, W.
Drage, Chas., M.D., Hatfield, Herts.
[illegible] W
Felce, Stamford, Esq., Kenmure Lodge, Elgin Road, W.
Goodchild, John, Esq., Ealing.
Habershon, S. O., M.D. 70, Brook Street, W.
Hardy, H. Nelson, Esq., The Grove, Dulwich, S.E.
[illegible]
Henry, Alexander, M.D., 132, Highbury Hill, N.
Hulke, J. W., Esq., F.R.S., 10, Old Burlington Street, W.
Johnson, George, M.D., F.R.S., 11, Savile Row, W.
Jones, A. O'Brien, Esq., Epsom.
Liveing, Robert, M.D., 11, Manchester Square.
Mac Cormac, Sir W., 13, Harley Street, W.
Macnamara, Charles, Esq., 13, Grosvenor Street, W.
Power, Henry, Esq., 37A, Great Cumberland Place, W.
Quain, R., M.D., F.R.S., 67, Harley Street, W.
Rivington, Walter, Esq., 22, Finsbury Square, E.C.
Saunders, Edwin, Esq., 13A, George Street, Hanover Square, W.
Shillitoe, Richard, Esq., Hitchin.
Sibley, Septimus W., Esq., 7, Harley Street, W.
Sieveking, Edward H., M.D., 17, Manchester Square, W.
Smart, Sir Wm. R. E., M.D., K.C.B., 21, Castletown Road, W.
Stewart, A. P., M.D., 75, Grosvenor Street, W.
Sturges, Octavius, M.D., 85, Wimpole Street, W.
Sutherland, Henry, M.D., 6, Richmond Terrace, Whitehall.
Vinen, E. H., M.D., 17, Chepstow Villas, Bayswater, W.
Wood, John, Esq., F.R.S., 61, Wimpole Street, W.
Grigg, William C., M.D., 6, Curzon Street, Mayfair, W. *Hon. Secretary.*

MIDLAND BRANCH.

Baker, J. W., Esq., Friar Gate, Derby.
Benfield, T. W., Esq., Leicester.
Marriott, C. H., M.D., 7, Welford Place, Leicester.
Morris, Ed., M.D., Spalding.
Seaton, Ed., M.D., 8, Oxford Street, Nottingham.
Sympson, T., Esq., 2, James Street, Lincoln.
Webb, W., M.D., Wirksworth.
White, Joseph, Esq., Nottingham.
Marshall, L. W., M.D., 2, East Circus Street, Nottingham. *Hon. Sec.*

NORTH OF ENGLAND BRANCH.

Armstrong, H. E., Esq., Wentworth Place, Newcastle-on-Tyne.
Arnison, W. C., M.D., Northumberland Street, Newcastle-on-Tyne.
Broadbent, S. W., Esq., Dalton-le-Dale, Sunderland.
Dixon, W. H., M.D., Frederick Street, Sunderland.
Drummond, David, M.D., Northumberland Street, Newcastle-on-Tyne.
Eastwood, J. W., M.D., Dinsdale Park, Darlington.
Hume, G. H., M.D., Westgate Road, Newcastle-on-Tyne.
Jepson, Edward, Esq., Elvet, Durham.
Legat, A., M.D., South Shields.
Morgan, G. B., Esq., Bishopwearmouth.
Oliver, Thomas, M.D., Newcastle-on-Tyne.
Philipson, G. H., M.D., Eldon Square, Newcastle-on-Tyne.
Barron, T. W., M.B., Old Elvet, Durham. *Honorary Secretary.*

NORTH OF IRELAND BRANCH.

Cuming, J., M.D., 33, Wellington Place, Belfast.
Fagan, J., Esq., 11, College Square North, Belfast.
Miller, Sir William M., Knt., M.D., Pump Street, Londonderry.
McKeown, W. A., M.D., 1, Glengall Place, Belfast.
Palmer, J. M., Esq., Infirmary, Armagh.
Wheeler, T. K., M.D., 3, Clarendon Place, Belfast.
Moore, John, M.D., 2, Carlisle Terrace, Belfast. *Honorary Secretary.*

NORTH WALES BRANCH.

Lloyd, Edward J., M.D., High Street, Bangor.
Rees, Hugh, Esq., 5, Church Street, Carnarvon.
Richards, J., Esq, Bangor.
Roberts, R., Esq., Portmadoc.
Lloyd-Roberts, J., M.B., Vale Street, Denbigh. *Honorary Secretary.*

NORTHERN COUNTIES OF SCOTLAND BRANCH.

Aitken, Thomas, M.D., Inverness.
Mackay, J. W. N., M.D., Elgin. *Honorary Secretary.*

READING BRANCH.

Young, W. B., Esq., 10, Castle Street, Reading.
Shettle, R., M.D London Street, Reading. *Honorary Secretary.*

SHROPSHIRE & MID-WALES BRANCH.

Edwards, H. N., L[illegible], Moreton. Hon. Sec[illegible]

SOUTHERN BRANCH.

Axford, W. H., M.B., Arundel House, Clarence Parade, Southsea.
Batterbury, G. H., M.D., West Borough, Wimborne.
Boileau, J. P. H., M.D., Surg.-Maj., Netley.
Coghill, J. G. Sinclair, M.D., Ventnor, Isle of Wight.
Kealy, J. R., M.D., Ashley House, Gosport.
Langdon, Thos. C., Esq., Northgate House, Winchester.
Orsborn, J., M.D., Emsworth.
Philpots, E. P., M.D., Poole.
Straton, C. R., Esq., Wilton, Salisbury.
Thompson, R. J., M.D., [illegible]
Cousins, J. Ward, M.D., Kent Road, Southsea. *Honorary Secretary.*

SOUTH OF IRELAND BRANCH.

Atkins, Ringrose, M.D., Waterford.
Atkins, T. Gelston, M.D., 16, St. Patrick's Hill, Cork.
Eames, J. A., M.D., Cork.
Jones, H. Macnaughton, M.D., Cork.
Cremen, P. J., M.D., Cork. *Honorary Secretary.*

SOUTH-EASTERN BRANCH.

Bowles, R. L., M.D., 8, West Terrace, Folkestone.
Burton, J., Esq., Lee Park Lodge, Lee, S.E.
Carpenter, A., M.D., Croydon.
Eastes, G., M.B., 69, Connaught Street, Hyde Park Square, W.
Galton, J. H., M.D., Woodside Road, Anerley, Norwood, S.E.
Garraway, E., Esq., Faversham.
Harris, W. J., Esq., 13, Marine Parade, Worthing.
Hoar, W., Esq., Maidstone.
Hodgson, G. F., Esq., 52, Montpellier Road, Brighton.
Holman, C., M.D., Reigate.
Holman, H. M., M.D., Hurstpierpoint.
Lanchester, H. T., M.D., Croydon.
Monckton, S., M.D., Maidstone.
Mo[illegible], W. [illegible], M.D., 16, Brunswick Square, Brighton.
Napper, A. A., Esq., Cranleigh, Guildford.
Napper, A., Esq., Cranleigh, Guildford.
Reid, J., Esq., 12, Lower Bridge Street, Canterbury.
Smith, E. Noble, Esq., 24, Queen Anne Street, Cavendish Square, W.
Treves, W. Knight, Esq., 31, Dalby Square, Margate.
Tr[illegible], J., M.D., Mount Hill, S. Leonard's.
Thurston, Edwd. Whitfield, Esq., Elwick Road, Ashford.
Parsons, Charles, M.D., 2, St. James's Street, Dover. *Honorary Secretary.*

SOUTH MIDLAND BRANCH.

Newman, W., M.D., St. Martin's, Stamford.
Prior, C. E., M.D., Bedford.
Terry, H., Esq., Northampton.
Watkins, R. W., Esq., Towcester.
Walker, T. J., M.D., Peterborough.
Bryan, J. M., M.D., Northampton. *Honorary Secretary.*

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

Davies, H. N., Esq., Cymmer.
Griffiths, T. D., M.D., Hearne Lodge, Swansea.
Hall, J. G., Esq., Swansea.
Jones, Evan, Esq., Aberdare.
Jones, J. Talfourd, M.B., Brecon.
Probert, James, Esq. Merthyr-Tydfil.
Russell, John, Esq., Neath.
Thomas, Jabez, Esq., Swansea.
Sheen, Alfred, M.D., 61, Crockherbtown, Cardiff. *Honorary Secretary.*

SOUTH-WESTERN BRANCH.

Bu[illegible], C. H., Esq., Cheltenham.
Davy, Henry, M.B., Exeter.
Gould, John, Esq., Hatherleigh.
Ha[illegible], H., M.B., Redruth.
Hudson, R., M.D., Redruth.
Hu[illegible], R. H., M.B., 1, Lower Street, Plymouth.
Mudge, J., Esq., Hayle.
Th[illegible], J., M.D., Exmouth.
Ro[illegible], S., M.D., Wonford House, Exeter. *Honorary Secretary.*

STAFFORDSHIRE BRANCH.

Alcock, J., Esq., Burslem.
Ar[illegible], [illegible], M.[illegible], Shrewsbury Road, Longton.
D[illegible], H[illegible], M.D., [illegible]
E[illegible], W. H., E[illegible]
My[illegible], W., M.D., Dr[illegible] Street, Wolverhampton.
M[illegible], D. H., M.D., [illegible]
Ne[illegible], A. [illegible], W[illegible]
Spanton, W. D., Esq., Charles Street, Hanley.
Ja[illegible], T. V., L[illegible], W[illegible], [illegible]

SYDNEY AND NEW SOUTH WALES BRANCH.

Milford, F., M.D., Clarendon Terrace, Sydney, New South Wales. *Hon. Sec.*

THAMES VALLEY BRANCH.

Fo[illegible], E. L., M.D., [illegible], Sydenham, [illegible]

WEST OF IRELAND BRANCH.

Lynham, J. I., M.D., Galway. *Honorary Secretary.*

WEST SOMERSET BRANCH.

Meredith, J., M.D., Wellington.
Rigden, G. W., Esq., Hospital, Taunton.
Kelly, W. M., M.D., Crescent, Taunton. *Honorary Secretary.*

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

Batten, W. S., Esq., Bromsgrove.
Everett, D., Esq., Foregate Street, Worcester.
Roden, S. S., M.D., Droitwich.
Turner, T. Esq., 114, Owen Street, Hereford.
Crowe, G. W., M.D., Shaw Street, Worcester. *Honorary Secretary.*

YORKSHIRE BRANCH.

Allbutt, T. C., M.D., F.R.S., Park Chambers, Leeds.
Eddison, J. E., M.D., Park Square, Leeds.
Favell, W. F., Esq., Brunswick House, Glossop Road, Sheffield.
Holdsworth, S., M.D., West Parade, Wakefield.
Keeling, J. H., M.D., Broomhall Street, Sheffield.
Knaggs, S., Esq., Huddersfield.
Matterson, W., M.D., Minster Yard, York.
Meade, R. H., Esq., Bradford.
Myrtle, A. S., M.D., Harrogate.
Shann, G., M.D., Petergate, York.
Teale, T. P., Esq., 38, Cookridge Street, Leeds.
Wheelhouse, C. G., Esq., Hillary Place, Leeds.
Wright, J. H., Esq., Halifax.
Jackson, A., Esq., 17, Wilkinson Street, Sheffield. *Honorary Secretary.*

Sub-Committees of the Committee of Council and Standing Committees.

JOURNAL AND FINANCE SUB-COMMITTEE.

Wheelhouse, C. G., Esq., Hillary Place, Leeds. *President of Council.*
Wade, Dr. W. F., 24, Temple Row, Birmingham. *Treasurer.*
Baker, Alfred, Esq., 3, Waterloo Street, Birmingham.
Borchardt, Dr. L., Barton Arcade, Manchester.
Carpenter, Dr. Alfred, Croydon.
Chadwick, Dr. C., Lynncourt, Broadwater Down, Tunbridge Wells.
Foster, Dr. B., 16, Temple Row, Birmingham.
Holman, Dr. C., Reigate.
Husband, W. D., Esq., May Bank, Bournemouth.
Manby, F. E., Esq., King Street, Wolverhampton.
Mason, F., Esq., 20, Belmont, Bath.
Nicholson, R. H. B., Esq., 21, Albion Street, Hull.
Stewart, Dr. A. P., 75, Grosvenor Street, W.
Waters, Dr. E., 14, Nicholas Street, Chester.

OFFICE AND PRINTING SUB-COMMITTEE.

Wade, Dr. W. F., 24, Temple Row, Birmingham. *Treasurer.*
Carpenter, Dr. Alfred, Croydon.
Chadwick, Dr. C., Lynncourt, Broadwater Down, Tunbridge Wells.
Husband, W. D., Esq., May Bank, Bournemouth.

TRUST FUNDS SUB-COMMITTEE.

Chadwick, Dr. C., Lynncourt, Broadwater Down, Tunbridge Wells.
Wade, Dr. W. F., 24, Temple Row, Birmingham. *Treasurer.*
Baker, Alfred, Esq., 3, Waterloo Street, Birmingham.
Husband, W. D., Esq., May Bank, Bournemouth.
Stewart, Dr. A. P., 75, Grosvenor Street, W.

MEDICAL EDUCATION SUB-COMMITTEE.

[illegible], [illegible], W[illegible]
Allbutt, Dr. Clifford, F.R.S., Lyddon House, Leeds.
Carpenter, Dr. Alfred, Croydon.
Duffey, Dr. G. F., 30, Fitzwilliam Place, Dublin.
Foster, Dr. B., 16, Temple Row, Birmingham.
[illegible], [illegible], W[illegible]
Holman, Dr. C., Reigate.
[illegible], [illegible], [illegible]
Jackson, Arthur, Esq., 17, Wilkinson Street, Sheffield.
Leech, Dr. D. J., 96, Mosely Street, Manchester.
Parsons, Dr. C., 2, St. James's Street, Dover.
Stewart, Dr. A. P., 75, Grosvenor Street, W.
[illegible], [illegible], [illegible]

COLLECTIVE INVESTIGATION SUB-COMMITTEE.

Allbutt, Dr. C., F.R.S., Lydcott House, Leeds.
Carpenter, Dr. A., Croydon.
Humphry, Dr. G. M., F.R.S., Chesterton Lodge, Cambridge.
Husband, W. D., Esq., May Bank, Bournemouth.
Foster, Dr. B., 16, Temple Row, Birmingham.
Mahomed, Dr. F. A., 12, St. Thomas's Street, S.E.
Ransome, Dr. A., Bowdon, Cheshire.
Sieveking, Dr. E. H., 17, Manchester Square, W.

SCIENTIFIC GRANTS SUB-COMMITTEE.

Wade, Dr. W. F., 24, Temple Row, Birmingham. *Chairman.*
Wheelhouse, C. G., Esq., Hillary Place, Leeds. *President of Council.*
Baker, Alfred, Esq., 3, Waterloo Street, Birmingham.
Brunton, Dr. Lauder, F.R.S., 50, Welbeck Street, W.
Carpenter, Dr. A., Croydon.
Chadwick, Dr. C., Lynncourt, Broadwater Down, Tunbridge Wells.
Foster, Dr. Michael, F.R.S., Trinity College, Cambridge.
Humphry, Professor, F.R.S., Chesterton Lodge, Cambridge.
Husband, W. D. Esq., May Bank, Bournemouth.
McDonnell, Dr. R., F.R.S., 14, Lower Pembroke Street, Dublin.
Rutherford, Dr. W., F.R.S.E., University of Edinburgh.
Sanderson, Dr. Burdon, F.R.S., 26, Gordon Square, W.C.
Sieveking, Dr. Edward, 17, Manchester Square, W.
Stewart, Dr. A. P., 75, Grosvenor Street, W.
Waters, Dr. Edward, 14, Nicholas Street, Chester.
Wilks, Dr. S., F.R.S., 77, Grosvenor Street, W.
Hart, Ernest, Esq., 38, Wimpole Street, W. *Honorary Secretary.*

MEDICAL REFORM COMMITTEE.

Waters, Dr. E., 14, Nicholas Street, Chester. *Chairman and Convener.*
Wheelhouse, C. G., Esq., Hillary Place, Leeds. *President of Council.*
Wade, Dr. W. F., 24, Temple Row, Birmingham. *Treasurer.*
Carpenter, Dr. Alfred, Croydon.
De Bartolomé, Dr. M. M., 3, Eyre Street, Sheffield.
Chadwick, Dr. C., Lynncourt, Broadwater Down, Tunbridge Wells
Foster, Dr. Balthazar, 16, Temple Row, Birmingham.
Haughton, Rev. S., M.D., F.R.S., LL.D., Trinity College, Dublin.
Hardy, H. Nelson, Esq., The Grove, Dulwich.
Hart, Ernest, Esq., 38, Wimpole Street, W.
Husband, Wm. D., Esq., May Bank, Bournemouth.
Leech, Dr. D. J., 96, Moseley Street, Manchester.
Manby, F. E., Esq., King Street, Wolverhampton.
Michael, W. H., Esq., Q.C., 38, Parliament Street, S.W.
Nicholson, R. H. B., Esq., 21, Albion Street, Hull.
Stewart, Dr. A. P., 75, Grosvenor Street, W.

JOINT COMMITTEE OF BRITISH MEDICAL AND SOCIAL SCIENCE ASSOCIATIONS.

Angell, Lewis, Esq., The Grove, Stratford, E.
Arlidge, Dr. J. T., Newcastle, Staffordshire.
Ballard, Dr. Edward, 12, Highbury Terrace, N.
Baylis, Dr. C. O., 11, Beulah Road, Tunbridge Wells.
Beddoe, Dr. John, F.R.S., Mortimer House, Clifton, Bristol.
Bond, Dr. F. T., Barton Lawn, Gloucester.
Buck, Dr. W. E., 3, Welford Road, Leicester.
Carpenter, Dr. A., Duppas House, Croydon.
Chadwick, Edwin, Esq., C.B., Park Cottage, East Sheen, S.W.
Clode, W., Esq., Somerset House, W.C.
Collins, H. H., Esq., 61, Old Broad Street, E.C.
Corfield, Dr. W. H., 10, Bolton Row, Mayfair, W.
Dudfield, Dr. T. O., 8, Upper Phillimore Place, Kensington, W.
Duffey, Dr. George F., 30, Fitzwilliam Place, Dublin.
Farquharson, Dr. R., M.P., Reform Club, S.W.
Farr, Dr. W., C.B., F.R.S., 78, Portsdown Road, Maida Vale, W.
Fox, Dr. Cornelius, Ilfracombe.
Gairdner, Dr. W. T., 225, St. Vincent Street, Glasgow.
Galton, Capt. D., C.B., F.R.S., S.C.L., 12, Chester Street, Grosvenor Place, S.W.
Grimshaw, Dr., 22, Rutland Square North, Dublin.
Hart, Ernest, Esq., 38, Wimpole Street, W.
Hastings, G. W., Esq., M.P., Barnard's Green House, Malvern.
Haviland, A., Esq., Northwold Villa, Northampton.
Latham, Baldwin, Esq., C.E., 7, Westminster Chambers, S.W.
Liddle, John, Esq., 80, Bow Road, E.
Littlejohn, Dr. H. D., 24, Royal Circus, Edinburgh.
Lyons, Dr. R. D., M.P., 8, Merrion Square, West Dublin.
Nelson, F. G. P., Esq., 30, Great James Street, W. C.
Oldfield, Col., Dorchester.
Parsons, Dr. H. F., Local Government Board, Whitehall.
Phenè, Dr., F.S.A., 5, Carlton Terrace, Oakley Street, Chelsea, S.W
Philipson, Dr. G. H., 7, Eldon Square, Newcastle-on-Tyne.
Powell, F. S., Esq., 1, Cambridge Square, W.
Ransome, Dr. Arthur, Bowden, near Manchester.
Richardson, Dr. B. W., F.R.S., 12, Hinde Street, W.
Rogers, Dr. Joseph, 33, Soho Square, W.
Stewart, Dr. A. P., 75, Grosvenor Street, W.
Symons, G. J., Esq., F.R.S., 62, Camden Square, N.W.
Tripe, Dr. J. W., 232, Richmond Road, Hackney, E.
Tyacke, Dr. N., Westgate, Chichester.
Odell, Dr. G. W., Cowley House, Oxford. *Honorary Secretary.*
Michael, W. H., Esq., Q.C., 1, Park Prospect, St. James's Park. *Hon. Secretary.*

PARLIAMENTARY BILLS COMMITTEE.

Hart, Ernest, Esq., 38, Wimpole Street, W. *Chairman.*
Barnes, Dr. Fancourt, 7, Queen Anne Street, W.
Barnes, Dr. Robert, 15, Harley Street, W.
Barnes, J. Wickham, Esq., 3, Bolt Court, Fleet Street, E.C.
Bryan, Dr., Mayfair, Northampton.
Bucknill, Dr. J. C., F.R.S., 39, Wimpole Street, W.
Clark, Dr. Andrew, 16, Cavendish Square, W.
Curgenven, J. B., Esq., 11, Craven Hill Gardens, W.
Grigg, Dr. W. C., 6, Curzon Street, Mayfair, W.
Hardy, H. Nelson, Esq., The Grove, Dulwich.
Harris, J. D., Esq., Belmont, Shrewsbury.
Harrison, Reginald, Esq., 38, Rodney Street, Liverpool.
Hemming, W. Douglas, Esq., Glenalmond, Bournemouth.
Henry, Dr. A., 132, Highbury Hill, N.
Holman, Dr. C., Reigate.
Kerr, Dr. Norman S., 42, Grove Road, Regent's Park, W.
Macmillan, Dr., Regent Terrace, Hull.
Meadows, Dr. Alfred, 27, George Street, Hanover Square, W.
Morris, Dr. E., Spalding.
Myers, A. B. R., Esq., Surgeon Coldstream Guards.
Nicolson, Dr. David, Broadmoor, Wokingham.
Ord, Dr. William, 7, Brook Street, W.
Paul, Dr. J. H., Camberwell House, Camberwell, S.E.
Partridge, S. B., Esq., Thicket Road, Anerley, S.E.
Philipson, Dr. G. H., Eldon Square, Newcastle-on-Tyne.
Quain, Dr. R., F.R.S., 67, Harley Street, W.
Rees-Philipps, Dr. S., Wonford House, Exeter.
Rivington, W., Esq., 22, Finsbury Square, E.C.
Rogers, Dr. Joseph, 33, Soho Square, W.
Rogers-Harrison, C. H., Esq., 55, Stockwell Road, S.W.
Seaton, Dr. J., Sunbury, Middlesex.
Sibley, Septimus W., Esq., 7, Harley Street, W.
Stewart, Dr. A. P., 75, Grosvenor Street, W.
Taylor, Dr. M. W., Hutton Hall, Penrith.
Vinen, Dr. E. H., 17, Chepstow Villas, Bayswater, W.
Williams, Dr. Charles, Llanbedr, Merionethshire, R.S.O.

COMMITTEE ON LEGISLATION FOR HABITUAL DRUNKARDS.

Carpenter, Dr. Alfred, Croydon. *Chairman.*
Blandford, Dr. G. F., 71, Grosvenor Street, W.
Cadge, William, Esq., 24, St. Giles' Street, Norwich.
Eastwood, Dr. J. W., Dinsdale Park, Darlington.
Foster, Dr. B., 16, Temple Row, Birmingham.
Garman, W. C., Esq., The Hollies, Wednesbury, Staffordshire.
Holthouse, Carsten, Esq., 15, Percy Street, Bedford Square, W.C.
Kerr, Dr. Norman S., 42, Grove Road, Regent's Park, W.
Macnamara, Charles, Esq., 13, Grosvenor Street, W.
Monro, Dr. H., 13, Cavendish Square, W.
Mould, G. W., Esq., Asylum, Cheadle, near Manchester.
Nicholson, R. H. B., Esq., 21, Albion Street, Hull.
Rogers, Joseph, M.D., 33, Soho Square, W.
Stewart, Dr. A. P., 75, Grosvenor Street, W.
Farquharson, Dr. R. M.P., Reform Club, S.W. *Honorary Secretary.*
Vinen, Dr. E. H., 17, Chepstow Villas, Bayswater, W. *Honorary Secretary.*

HOSPITAL OUT-PATIENT REFORM COMMITTEE.

Holmes, T., Esq., 18, Great Cumberland Place, W. *Chairman.*
Barnes, J. Wickham, Esq., Bolt Court, Fleet Street, E.C.
Brierley, Dr. J. B., Alma House, Stretford Road, Manchester.
Dane, T., Esq., 86, Finchley Road, N.W.
Haddon, Dr. John, Eccles, Manchester.
Hardy, H. Nelson, Esq., The Grove, Dulwich.
Lee, Dr. Robert J., 6, Savile Row, W.
Macnamara, C., Esq., 13, Grosvenor Street, W.
Meadows, Dr. Alfred, George Street, Hanover Square, W.
Quain, Dr. R., F.R.S., 67, Harley Street, W.
Rogers, Dr. Joseph, 33, Soho Square, W.
Sibley, S., Esq., 7, Harley Street, W.
Sansom, Dr. A. E., 30, Devonshire Street, W
Stewart, Dr. A. P., 75, Grosvenor Street, W

LIST OF MEMBERS OF THE BRITISH MEDICAL ASSOCIATION,

For the Year ending 31st December, 1881.

(Arranged in Branches and Districts).

ABERDEEN, BANFF, AND KINCARDINE BRANCH

DISTRICT COMPRISING THE COUNTIES OF ABERDEEN, BANFF, AND KINCARDINE.

RECOGNISED 1872.

President .. .. .. J. T. GEORGE, Esq., Keith
President-Elect .. .. P. JAMIESON, Esq., Peterhead
Vice-Presidents .. .. S. DAVIDSON, M.D., Wartle; FRANCIS OGSTON, M.D., 156, Union Street, Aberdeen
Treasurer .. .. .. J. G. HALL, M.B., 189, Union St., Aberdeen
Honorary Secretaries .. J. URQUHART, M.D., 250, Union Street, Aberdeen; ROBERT JOHN GARDEN, M.D., 207, Union Street, Aberdeen

COUNCIL

Fraser, Angus, M.D. .. 232, Union Street, Aberdeen
Lyon, William, Esq. .. Peterculter
Mitchell, P., M.D. .. Old Rain, Insch
Moir, Forbes F. M., M.B. .. 143, Union Street, Aberdeen
Ogston, Alexander, M.D. .. 232, Union Street, Aberdeen
Trail, G. S., M.D. .. Strichen

MEMBERS OF BRANCH. (79.)

Anderson, Alex. T., M.D. .. Huntly
Barclay, John, M.D. .. 10, Low Street, Banff
Booth, James M., M.B. .. 231, Union Street, Aberdeen
Brander, J., M.B. .. 84, King Street, Aberdeen
Brown, Dyce, M.D. .. 29, Seymour Street, London, W.
Carlyle, J., M.D. .. Regent Street, Greenock
Catto, Robert, M.D. .. Peterhead
Clark, S., M.D. .. Cullen
Cran, G., M.D. .. Banchory Ternan
Crombie, C. M., M.B. .. 10, Union Terrace, Aberdeen
Davidson, A. D., M.D. .. 224, Union Street, Aberdeen
Davidson, S., M.D. .. Wartle
Divorty, P., M.B. .. Inverurie
Donald, W. D., Esq. .. Banff
Eddie, R., M.B. .. Rhynie
Edmond, George M., M.D. .. Stonehaven
Ewart, J. C., M.D. .. Marischal College, Aberdeen
Fowler, J. E., M.D. .. Woodside, Aberdeen
Fraser, Angus, M.D. .. 232, Union Street, Aberdeen
Garden, R. J., M.D. .. 207, Union Street, Aberdeen
George, J. T., Esq. .. Keith
Gordon, Clement, M.D. .. 9, Grosvenor Street, London, W. *(Hon. Member of Branch.)*
Greig, C. C., M.B. .. Sunnyside, Fyvie.
Grieve, A. C., Esq. .. Fraserburgh
Hall, J. G., M.B. .. 189, Union Street, Aberdeen
Innes, J. A., M.D. .. Dufftown
Ironside, J., M.B. .. Laurencekirk
Jackson, H., M.D. .. Golden Square, Aberdeen
Jamieson, P., Esq. .. Peterhead
Johnston, D., Esq. .. 89, Crown Street, Aberdeen
Keith, A. D., M.B. .. Alvayne
Lawrence, Nath., jun., M.D. .. Bridgend, Longside, Aberdeen
Leslie, W. B., M.D. .. Stonehaven, Kincardineshire
Lyon, William, Esq. .. Peterculter
Mackie, G., M.D. .. Insch
McEwen, F. A., M.B. .. Insch
McGregor, A., M.D. .. 213A, Union Street, Aberdeen
McHardy, J., Esq. .. Banchory Ternan
McKilliam, R., M.D. .. Huntly
Macleod, P. B. H., M.D. .. New Deer
McQuibban, C. M., M.B. .. 241, Union Street, Aberdeen
McRobbie, J. S., M.D. .. 160, Gallowgate, Aberdeen
Manson, Alex. J., M.D. .. Banff
Mellis, J., Esq. .. Fraserburgh
Michie, W. A., M.B. .. Cove
Mitchell, Andrew, M.D. .. New Deer
Mitchell, P., M.D. .. Old Rain, Insch
Moir, F. F. M., M.B. .. 143, Union Street, Aberdeen
Mortimer, W., M.D. .. Turriff
Noble, J., M.B. .. Braemar
Ogston, A., M.D. .. 232, Union Street, Aberdeen
Ogston, F., jun., M.D. .. 156, Union Street, Aberdeen
Ogston, Francis, M.D. .. 13, Albyn Terrace, Aberdeen
Paterson, W., M.D. .. Inverurie
Polson, R. L., M.D. .. 2, Chanonry, Old Aberdeen
Proctor, A. F., M.B. .. 230, Union Street, Aberdeen
Reith, Alexander, M.D. .. 15, Skene Terrace, Aberdeen
Robertson, J., Esq. .. Union Street, Aberdeen
Shearer, Johnston, M.B. .. Inverurie
Simpson, James, M.D. .. Insch
Skene, Thomas A., M.D. .. Stonehaven
Smith, C., Esq. .. Kinnairdy, Marnoch
Smith, P. B., M.D. .. 193, Union Street, Aberdeen
Smith-Shand, J. W. F., M.D. .. 256, Union Street, Aberdeen
Stephen, J., M.D. .. Bath House, Peterhead
Stephenson, Wm., M.D. .. 261, Union Street, Aberdeen
Stirling, William, M.D. .. University, Aberdeen
Stone, V., Esq. .. Laurencekirk
Trail, G. S., M.D. .. Strichen
Urquhart, J., M.D. .. 250, Union Street, Aberdeen
Wight, J., M.D. .. 265, Union Street, Aberdeen
Will, J. C. Ogilvie, M.D. .. 12, Union Terrace, Aberdeen
Williams, A., M.D. .. Insch
Williamson, W. H., M.D. .. 15, Union Terrace, Aberdeen
Willock, R. C., M.D. .. 4, Golden Square, Aberdeen
Wilson, J., M.D. .. Old Meldrum
Wilson, Robert M., M.B. .. Old Deer
Wyness, J. D., M.D. .. 53, School Hill, Aberdeen

MEMBERS UNATTACHED. (17.)

Beveridge, R., M.B. .. 36, King Street, Aberdeen
Blackhall, A. C., M.D. .. Crimond, Lounay
Findlater, S. W., M.B. .. Balrenie, Banffshire
Knowles, G. S. D., Esq. .. Fraserburgh
Laing, James, M.B. .. Dunecht, Aberdeen
Pirrie, J. M. G., M.D. .. 253, Union Street, Aberdeen
Profeit, A., Esq. .. Balmoral
Rae, G., M.B. .. New Pitsligo, Aberdeenshire
Reid, W., M.D. .. 135, Crown Street, Aberdeen
Reith, Archibald, M.D. .. 39, Union Place, Aberdeen
Robb, Alexander, M.D. .. 21, Seafield Street, Portsoy
Robb, J., M.B. .. Cullen
Robertson, W. S., M.B. .. 18, Harbour Street, Peterhead
Smith, A., Esq. .. Broxburn, Aberdeen
Spence, J. S., M.B. .. Ballater
Wallace, Andrew, M.D. .. Turriff
Wilson, J. O., M.D. .. Huntly

BATH AND BRISTOL BRANCH.

DISTRICT COMPRISING THE CITIES OF BATH AND BRISTOL AND SURROUNDING DISTRICTS.

RECOGNISED 1[illegible].

President .. .. D. DAVIES, Esq., 2, Queen Square, Bristol
President-Elect .. J. [illegible], M.D., Bath
Honorary Secretary (Bristol Sect.) [illegible], M.D., [illegible] Villa, Richmond Hill, Clifton
Honorary Secretary (Bath Section) R. S. [illegible], [illegible]

COUNCIL.

BRISTOL.

Beddoe, J., M.D., F.R.S. .. [illegible]
Brittan, F., M.D. .. [illegible]
Burder, G. F., M.D. .. [illegible]
Clarke, W. M., Esq. .. Clifton
Coe, R. W., Esq. .. [illegible]
Collins, C. H., Esq. .. [illegible]
[illegible] .. [illegible]
Davey, J. G., M.D. .. [illegible]
Fox, E. L., M.D. .. Clifton
Marshall, H., M.D. .. Clifton
Prichard, A., Esq. .. [illegible]
Steele, C., M.D. .. Clifton
Swayne, J. G., M.D. .. Clifton

BATH.

Bartrum, J. S., Esq. .. Bath
Cole, T., M.D. .. Bath
Gaine, C., Esq. .. Bath
Goodridge, H. F. A., M.D. .. Bath
[illegible] .. [illegible]
Harper, C., Esq. .. Batheaston
Hensley, H., M.D. .. Bath
[illegible] .. [illegible]
[illegible] .. [illegible]
Spender, J. K., M.D. .. Bath
Stockwell, T. G., Esq. .. Bath
Terry, T., Esq. .. Bath

Adams, G., [illegible]	[illegible] Victoria Cottages
Alford, G. E., Esq.	[illegible] Mall
Alford, R. [illegible]	[illegible]
Anderson, O., M.D.	[illegible]
Archer, L. B., [illegible]	Devizes
Archer, G. L., M.B.	[illegible] Park, Clifton
Bartrum, J. S., [illegible]	[illegible]
Bellairs, J. [illegible], L.R.C.P.	Mortimer House, Clifton
Bernard, D. E., Esq.	Sydney House, Stapleton Road, Bristol
Berry, [illegible]	Lynton, North Devon
Bevan, [illegible]	[illegible]
Board, E. C., Esq.	Caledonia Place, Clifton
Bowen, R., Esq., Surg.-Gen.	Ridgway, Gloucestershire
Bradshaw, A. [illegible]	Darlington Street, Bath
Brimacombe, [illegible]	[illegible]
Brown, W. [illegible]	Chippenham
Brittan, F., M.D.	[illegible], L.S.O.
Brown, J. [illegible]	Leicester Villas, Clifton
Bryden, R. J., Esq.	General Hospital, Bristol
Budd, G. T., M.B.	18, Richmond Hill, Clifton
Budd, S. P., Esq.	[illegible] Great Street, Bath
Burdett, [illegible]	South Parade, Clifton
Bush, M. F., Esq.	Cranwell Road, St. Andrews, Bristol
Campbell, [illegible] M.D.	[illegible]
Carr, A. [illegible]	Placerville, Wells Road, Bristol
Carter, R., M.D.	Northumberland Buildings, Bath
Carter, W. F., Esq.	Bedminster
Cattle, C. H., M.B.	Park Street, New Basford, Notts
Chadwick, P. C., Esq.	[illegible]
Challacombe, J. P., M.D.	[illegible] Road, Bristol
Clark, W. J., [illegible]	Rodwell Lodge, Weymouth.
Clark, T. E., M.D.	3, Victoria Square, Clifton
Clarke, W. Morrell, [illegible]	York Buildings, Clifton
Coathupe, E. W., Esq.	7, Clifton Park, Bristol
Cockey, E., Esq.	Frome
Coe, R. W., Esq.	Berkeley Square, Bristol
Coley, [illegible], M.D.	Paragon, Bath
Collins, C. H., Esq.	Chew Magna, Bristol
Collins, H. W., Esq.	Wrington, Bristol
Collins, W. C. G., M.D.	St. Austell
Colman, T. J., M.D.	Stokescroft, Bristol
Colthurst, J. B., Esq.	[illegible]
Colthurst, R., M.D.	Cotham, Bristol (Bruxelles)
Coombs, C. P., M.D.	Castle Cary
Cooper, F. W., Esq.	Hospital for Children, Queen's Square
Coppinger, A. W., [illegible]	Gay Street, Bath
Corbould, G. G., Esq.	Berkeley Square, Bristol
Cowan, S. B., Esq.	Queen's Square, Bath
Craddock, S., Esq.	Shepton Mallett
Crisp, J. H., Esq.	Lacock, Chippenham
Crisp, N. Esq.	Keynsham, near Bristol
Crocker, T., M.D.	King's Square, Bristol
Cross, F. R., Esq.	The Mall, Clifton
Crossman, E., Esq.	Hambrook, near Bristol
Davey, James G., M.D	Redland Park Villas, Bristol
Davies, D., Esq.	2, Queen's Square, Bristol
Davies, J., Esq.	38, Gay Street, Bath
Davis, Theodore, M.D.	Beachcroft, Clevedon
Davis, W. G., Esq.	Heytesbury
Dew, H. R., Esq.	Berkeley Square, Bristol
Dobson, N. C., Esq.	27, Victoria Square, Clifton
Dowson, C. H., Esq.	Tyndall's Park, Clifton
Dutton, D. J., Esq.	Dursley
Eager, R., M.D.	Northwoods, Bristol
Edwards, H. G., Esq.	The Grange, Tyndall's Park, Bristol
Elliott, C., M.D.	White Ladies' Road, Redland, Bristol
Ellis, R. W., Esq.	Redcliffe Parade West, Bristol
Ewens, J., Esq.	Cotham New Road, Bristol
Falconer, R. W., M.D., D.C.L.	Bennett Street, Bath (dead)
Fendick, Robert G., Esq.	3, Claremont Place, Queen's Road, Clifton
Fergus, W., M.D.	The Hermitage, Marlborough
Field, E., M.B.	Queen's Square, Bath
Flemming, T. H., M.D.	Freshford, Bath
Fowler, R. S. Esq.	Belmont, Bath
Fox, A. E. W., M.B.	Gay Street, Bath
Fox, B. B., M.B.	Brislington, Bristol
Fox, C. H., M.D.	Brislington House, near Bristol
Fox, E. F., Esq.	Brislington House, near Bristol
Fox, Edward Long, M.D.	Church House, Clifton
Fox, F. K., M.D.	Brislington House, near Bristol
Freeman, H. W., Esq.	24, Circus, Bath
French, J. G., Esq.	Wells (resigned)
Fry, J. B., Esq.	Swindon
Fuller, J., Esq.	Long Ashton, Bristol
Fyffe W. J., M.D., Dep. Surg.-Gen.	Victoria Square, Clifton
Gaine, C., Esq.	Gay Street, Bath
Gardiner, G. Esq.	Redcliffe Hill, Bristol
Garlike, J. P., Esq.	Sutton Benger
Gay, J. R., M.B.	Children's Hospital, Bristol
Gibbs, A. N. G., Esq.	Children's Hospital, Bristol
Giles, G. F., M.D.	Lower Redland Road, Bristol (resigned)
Gloag, G. A., Esq.	College Green, Bristol
Goodridge, H. F. A., M.D.	10, Brock Street, Bath
Goss, T. B., Esq.	The Paragon, Bath
Gosse, Hope, Esq.	Midsomer Norton, Somerset
Grace, A., Esq.	Chipping Sodbury
Grace, H., Esq.	Kingswood Hill, Bristol
Green, F. K., Esq.	Gay Street, Bath
Griffiths, L. M., Esq.	Hanover Place, Clifton
Hanham, F. W., Esq.	Widcombe, Bath
Harper, C., Esq.	[illegible]
Harrison, A. J., M.B.	Guthrie Road, Clifton
Harsant, W. H., Esq.	[illegible] Clifton
Hensley, Henry, M.D.	[illegible]
Herapath, Charles K. C., Esq.	[illegible] Parade
Hicks, T., Esq.	[illegible]
Hewett, C. [illegible]	[illegible] Montpellier, Bristol
Hinton, J., Esq.	[illegible]
Hopkins, H. C., Esq.	4, Gay Street, Bath
Howse, Wm., Esq.	New Swindon
Husband, W. E., Esq.	[illegible] Manchester
Imlay, G. A., M.D.	4, Apsley Villas, Kingsdown, Bristol
Jones, [illegible]	Malmesbury
Kell, W. [illegible]	Nelson Lodge, Coronation Road, Bristol
Kendall, Bernard, Esq., Surj.-Maj	[illegible]
Kilner, [illegible]	10, Russell Street, Bath
Kinneir, R. Esq.	Tower House, Malmesbury
Kirkman, J. M., Esq.	[illegible]
Knapp, E. M., Esq.	General Hospital, Bristol
Lamprey, [illegible]	19, White Ladies Road, Clifton
Lawrence, A. E. A., M.D.	15, Richmond Hill, Clifton
Lawrence, G. E., Esq.	Claverton Street, Bath
Lawrence, H. Esq.	Park Row, Bristol
Laxton, H., Esq.,	[illegible] Queen's Road, Clifton
Lewis, John R. M.B.	Bishoptone, Bristol
Logan, F. T. B., Esq.	Southville, Bristol
Logan, J., M.D.	Redcliffe Parade West, Bristol
Lovell, W. F., Esq.	Compton Martin, Bristol
Lower, N. H., Esq.	Olvestone, Bristol
Luffman, W. C., Esq.	Cotham Road, Bristol
Lyons, A. de Courcy, M.B.	Yatton
McClure, T., M.D.	[illegible]
Maclean, J. C., M.B.	Swindon
Marshall, Henry, M.D.	Caledonia Place, Clifton
Martin, E. F., M.B.	Victoria House, Weston-super-Mare
Mason, Frederick, Esq.	Belmont, Bath
Metford, J. S., Esq.	31, Berkeley Square, Bristol
Mitchell, J. J., Esq.	Catherine Place, Bath
Newman, C., Esq.	Portland Square, Bristol
Newstead, J., Esq.	York Place, Clifton
Norton, J. A., M.D.	Redcliffe Hill, Bristol
Norton, T. C., Esq.	King's Square, Bristol
Orfeur, C. H., Esq.	West Town, Bristol
Ormerod, H., Esq.	Westbury-on-Trym.
Paine, W. H., M.D.	Stroud
Parry, H. H., Esq.	Kidlington, near Oxford
Parry, J. H. Esq.	Ashley Road, Bristol
Parson, T. C., Esq.	Atherstone House, White Ladies Rd., Bristol
Parsons, J. Esq.	Frome
Parsons, J. D. F., M.D.	18, Dowry Square, Bristol
Parsons, J. F., Esq.	Frome
Pauli, G. C. P., Esq.	4, Somerset Terrace, Bath Bridge, Bristol
Phelps, W. H., Esq.	12, Ashley Place, Bristol
Pickering, C. F., Esq.	Hospital, Bristol
Pratt, R., Esq.	Royal United Hospital, Bath
Prichard, Augustin, Esq.	Chesterfield Place, Clifton
Prichard, A. W. Esq.	31, Victoria Place, Clifton
Rossiter, G. F., M.B.	Weston-super-Mare
Roué, W. B., M.B.	Redland, Bristol
Roxburg, R., M.B.	Weston-super-mare
Ruddock, R. B., Esq.	Saville Place, Clifton
Salmon, W. G., Esq.	Thornbury
Scott, R. J. H., Esq.	United Hospital, Bath
Shaw, J. E., M.B.	Rodney Cottages, Clifton
Shorland, W. E., Esq.	211, Cheltenham Road, Montpellier, Bristol
Skeate, E., Esq.	The Paragon, Bath
Skelton, H. Esq.,	Downend, Bristol
Skerritt, E. Markham, M.D.	Thornton Villa, Richmond Hill, Clifton
Skinner, S., M.B.	Clevedon
Skipton, A. Esq.	South Bank, Middlesborough
Smith, F. W., M.D.	Westbury
Smith, G., Esq.	Westbury-on-Trym
Smith, G. Munro, Esq.	70, Pembroke Road Clifton
Smith, J. Greig, M.B.	Queen's Road, Clifton
Smith, R. Shingleton, M.D.	Richmond Hill, Clifton
Spencer, F., Esq.	Chippenham
Spencer, W. H., M.D.	5, Landsdowne Place, Clifton
Spender, J. K., M.D.	Circus, Bath
Sproule, G. K., Esq.	Rook Lane House, Frome
Stanley, W. E. S., Esq.	Wellow, Bath
Steele, C., M.D.	Clifton Villa, Richmond Hill, Clifton.
Stephen, Alexander, M.D.	6, The Mall, Clifton
Stephens, F. G., Esq.	Stapleton Road, Bristol
Stewart, J. Esq.	Dunmarry, Sneyd Park, Bristol
Stockwell, T. G., Esq.	Alfred Street, Bath
Stone, R. S., M.D.	Care of King & Co., Cornhill, E.C
Swayne, J. G., M.D.	Pembroke Road, Clifton
Swayne, S. H., Esq.	129, Pembroke Road, Clifton
Sylvester, K. F., Esq.	Trowbridge
Talbot, A. D. M., Esq.	Richmond Hill, Clifton
Tayler, G. C., M.D.	Trowbridge
Taylor, James, Esq.	5, Ashley Road, Bristol
Taylor, T. H., Esq.	Thornbury
Taylor, W., M.D.	Westbury-on-Trym
Terry, G., Esq.	Mells, near Frome
Terry, J., Esq.	Bailbrook House, Bath
Thomas, R. W., Esq.	Keynsham
Thompson, G., Esq.	The Asylum, Stapleton, Bristol
Tivy, W. J., Esq.	Tottenham Place, Clifton
Waldo, H., M.D.	19, Pembroke Road, Clifton
Ware, J., Esq	Clifton, Bristol
Watkins, G., Esq.	Guy House, Chepstow

Watson, T. Sanden, M.D.	..	Lansdown Crescent, Bath
Waugh, A., Esq.	..	Midsomer-Norton
Weatherly, L. A., M.D.	.	Portishead, Bristol
Webster, Thomas, Esq.	..	Malvern House, Redland, Bristol
White, E. A., M.D.	..	Malmesbury
White, F. G., Esq.	..	44, Southernhay, Exeter
White, J. L., Esq.	..	Grosvenor, Bath (dead)
Wigan, G. C. H., M.D.	..	Portishead, Bristol
Willcox, R. L., Esq.	..	Warminster
Willett, M., M.D.	..	Ashley House, Bristol
Wintle, H., M.B.	..	12, Park Road Villas, Forest Hill, S.E

MEMBERS UNATTACHED. (54.)

Ashford, E. C., Esq.	..	Morlands, Bath
Ashley, Jacob, Esq.	..	Wick, Bath (dead)
Belfield, C. W., Esq.	..	Old Market Street, Bristol
Bird, H., Esq.	..	2, Bennett Street, Bath
Bothwell, J., Esq.	..	Horningsham, Warminster
Boys, A. H., Esq.	..	Lodway Villa, Pill, Bristol
Brush, J. R., M.D.	..	Miles Road, Clifton
Burman, J. W., M.D.	..	Ramsbury, Hungerford
Burroughs, B. P. B., Esq.	.	4, Park Crescent, Weston-super-Mare
Bush, William, Esq.	..	Circus, Bath
Carter, C. H., Esq.	..	Pewsey
Chilcot, J., Esq.	..	Mere
Clarke, T., Esq.	..	Pewsey
Cooke, E. M., M.B.	..	County Asylum, Devizes
Coombs, W. G., M.D.	..	Fisherton House Asylum, Salisbury
Daly, G. H., M.D.	..	Chippenham
Daubeny, C., Esq.	..	Combe Down, Bath
Eadon, W. F. B., Esq.	..	Hambrook, Bristol
Eddowes, C. Esq.	..	Maddington, Devizes
Edmond, W. R., M.B.	..	Chew Magna, Somerset
Evans, S. H., Esq.	.	Clifton
Fairbanks, W., M.D.	..	Wells
Fraser, Donald A., Esq.	..	Weston-super-Mare
Fulcher, George F., M.B.	.	Banbury
Grace, E. M., Esq.	.	Tewkesbury
Grose, Samuel, M.D.	..	Westbourne, Melksham
Henley, T. L., Esq.	..	Coombe Down, Bath
Hitchcock, C., Esq.	..	Market Lavington
Jay, H. M. M.D.	..	Chippenham
Jenks, G. S., M.D.	.	The Circus, Bath (resigned)
Kennard, Thomas A., Esq.	.	Highworth
Keir, W. J., Esq.	..	Melksham
King, T. H., Esq.	..	Calne, Wilts
Kirkman, J. T., Esq.	..	11, Melville Road, Redland
Knapp, J. H., Esq.	..	Upper Park Place, Clifton
Lawrence, C. Hinds, Esq.		Upavon, Wilts
Lidderdale, J., jun., Esq.		Great Bedwin, Hungerford
Lush, W. H., Esq.	..	Market Lavington
Marchant, W. R. F., M.B.	.	Clifton, Bristol
Mathews, J. Stewart, M.B.	.	Burnham
Nicholson, T. D., Esq.	.	Victoria House, Clifton
Purnell, R., M.D.	.	Wells
Parsons, St. J. G., Esq.		Bristol
Risdon, A., Esq.	.	Marlborough
Risdon, G. Owen, Esq.	..	Wells
Sheldon, T. S., M.B.	..	County Asylum, Wells
Shorland, E. P., Esq.	.	Westbury
Stockwell, F., M.D.	..	Bruton
Tolerton, W. R., M.D.	..	Sherston Magna, Wilts
Tuckett, W. F., Esq.	.	18, Daniel Street, Bath
Tyley, R. P., M.D.	..	Wedmore
Wathen, J. Hemyngke, Esq.	.	Clifton
Woods, J. T., Esq.	..	County Asylum, Wells, Somerset

BIRMINGHAM AND MIDLAND BRANCH.

DISTRICT COMPRISING BIRMINGHAM AND THE SURROUNDING DISTRICTS.

RECOGNISED 1854.

President	..	T. H. Bartleet, M.B., Birmingham
President Elect	..	E. Dewes, M.D., Coventry
Ex-President	..	[illegible]
Treasurer	..	[illegible], Old Square, Birmingham
Chairman of the Parliamentary Committee		J. E. Webb, Esq., Birmingham
Honorary Secretary of the Medical Section of the Social Science Congress		A. H. Carter, M.D., Newhall Street, Birmingham
Honorary Secretaries of Papers		[illegible], M.D., Newhall Street, Birmingham
		E. Malins, M.D., 8, Old Square, Birmingham
Honorary Secretaries of Papers		T. [illegible], M.B., 14, Newhall Street, Birmingham

COUNCIL.

Agar, S. H., M.D.	..	Henley-in-Arden
[illegible], M.D.	..	[illegible]
Foster, B., M.D.	..	Edgbaston, Birmingham
Johnston, James, M.B.	..	Law Row, Birmingham
[illegible], Esq.		Wednesbury
Manley, T., Esq.	..	West Bromwich
Monckton, D. H., M.D.	..	[illegible]
Newnham, C. A., Esq.		King Street, Wolverhampton
[illegible]		Newhall Street, Birmingham
Russell, James, M.D.	..	Newhall Street, Birmingham
Saundby, R., M.D.		Newhall Street, Birmingham
Savage, T., M.D.	..	Old Square, Birmingham
Sawyer, J., M.D.	..	Temple Row, Birmingham
Tibbits, J., M.D.	.	Walsall
Underhill, T., M.D.	.	West Bromwich
Wade, W. F., M.B.	..	Temple Row, Birmingham

MEMBERS OF BRANCH. (143.)

Agar, Samuel H., Esq.	..	Henley-in-Arden
Aitkens, J. A., Esq.	..	Hospital, Coventry
Allcock, A., Esq.	..	Smethwick
Allen, M. S., Esq.	..	Dudley
Allen, Thomas, Esq.	..	Marlboro' Villa, Uxbridge Road, London
Archer John, Esq.	..	9, Carpenter Road, Edgbaston, Birmingham
Archer, W. G., M.B.	..	Waterloo Street, Birmingham
Arthur, James, Esq.	..	Henley-in-Arden
Astley, D. G., Esq.	..	Newcastle-under-Lyme
Atkinson, M. C., Esq.	..	Abbey Hill, Kenilworth
Baker, Alfred, Esq.	..	Waterloo Street, Birmingham
Baker, R. L., M.D.	..	Leamington
Barling, H. G., M.B.	..	Hospital, Birmingham
Barlow, Charles, Esq.	..	Sutton Coldfield
Bartleet, T. H., M.B.	..	Edgbaston, Birmingham
Bassett, John, M.D.	..	144, Hockley Hill, Birmingham
Batten, W. S., Esq.	..	Bromsgrove, Worcestershire
Bayley, R. L., LL.D.	..	Stourbridge
Beasley, James G., Esq.	..	Mountford House, Rowley Regis
Bellingham, J., Esq.	..	Dudley
Berry, Samuel, Esq.	..	4, Cavendish Gardens, London, S.W.
Bindley, P., M.B.	..	New Bond Street, London
Birt, George, M.B.	..	High Street, Stourbridge
Blackwood, Thomas, Esq.	..	Wednesbury, Staffordshire
Blake, G. F., Esq.	..	Cambridge Road, Moseley, Birmingham
Bodington, G., Esq.	..	Rocksall, Sutton-Coldfield, Birmingham
Bodington, G. F., M.D.	..	Kingswinford
Bottle, A., M.D.	..	Easy Row, Birmingham
Bower, R., Esq.	..	141, Gt. Charles St., Birmingham
Bowstead, R. M., M.D.	..	Caistor, Lincolnshire
Bracey, C. J., M.B.	..	Hagley Road, Edgbaston, Birmingham
Bracey, H. R., Esq.	..	Bristol Street, Birmingham
Bradford, C., Esq.	..	Acocks Green, Birmingham
Bradley, D., Esq.	..	High Street, Dudley
Bradley J. P., Esq.	..	85, Lower Hurst Street, Birmingham
Briggs, H. M., Esq.	..	73, Stratford Place, Birmingham
Brown, G. J., Esq.	..	132, Bath Row, Birmingham
Brown, James, Esq	..	Canal Street, Tipton, Staffordshire
Brown, John, Esq.,	..	Jordan Well, Coventry
Browne, H. W. Langley, Esq.	..	Manor House, West Bromwich
Browne, W., M.D.	..	The Friary, Lichfield
Buck, J. R., Esq.	..	Sidbury, Worcester
Bucknill, S. B., M.D.	..	Hillmorton Road, Rugby (dead)
Bull, E. G., Esq.	..	189, Stratford Rd., Birmingham
Bullus, W., Esq.	..	High Street, West Bromwich
Burton, E. T., Esq.	..	Spring Hill, Birmingham
Campbell, C. G., Esq.	..	Handsworth
Carter, A. H., M.D.	..	Newhall Street, Birmingham
Carter, T. A., M.D.	..	4, Clarence Terrace, Leamington
Chapman, George, Esq.	..	Brierley Hill, Staffordshire
Chaundy, R. B., Esq.	..	Handsworth, Birmingham
Chavasse, T. F., M.D.	..	65, Newhall Street, Birmingham
Chesshire, Edwin, Esq.	..	83, Newhall Street, Birmingham
Clark, James, M.D.	..	Lichfield
Clark, J. F., Esq.	..	Leamington
Clay, G. L., Esq.	..	411, Moseley Road, Birmingham
Clay, John, Esq.	..	Steel House Lane, Birmingham
Clibborn, W., M.D.	..	97, Bradford Street, Birmingham
Coleman, J. M., M.D.	..	3, Salop Street, Wolverhampton
Compson, J. C., M.D.	..	Mineral Bank, Bridge of Allan
Cooke, John, M.B.	..	[illegible], Walsall
Cooke, W. H., M.D.	..	Walsall, Walsall
Crawford, C. H., M.D.	..	Stafford
Creswell, W. G., Esq.	..	[illegible]
Crewe, G. W., M.D.	..	Shaw Street, Worcester
Cunningham, A., M.B.	..	Oldbury, Worcestershire
Cureton, E., Esq.	..	[illegible]
Davidson, C., M.D.	..	[illegible]
Davis, R. A., M.D.		[illegible]
Dawson, W. H., Esq.	..	[illegible]
Day, John, Esq.	..	Walsall (resigned)
[illegible], M.D.	..	8, Hagley Road, Edgbaston, Birmingham
Dewes, Edward, M.D.	..	Coventry
Dixey, H. E., M.B.	..	[illegible]
Downes, W., Esq.		Moseley, Birmingham (dead)
[illegible], M.B.		Gosta Green, Birmingham
Drury, R., M.D.		[illegible]
[illegible], M.D.		Horton Crescent, Rugby
Dukes, Thomas, Esq.	..	Rugby
Dunn, F., Esq.		[illegible]
Eagar, R. T. S., M.D.	..	Stourbridge
Eagleton J. Esq.		[illegible]
Eales, H., Esq.		[illegible]
Edginton, R. W., M.D.	..	Bristol Road, Birmingham
[illegible]		Five Ways, Edgbaston, Birmingham
Ellerton, F. C., Esq.	..	[illegible]
Ellis, H. D'A., Esq.	..	Brierley Hill, Staffordshire
[illegible]		Sutton Coldfield, Warwickshire
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]	..	Worcester
[illegible]		[illegible]
Fairley, S. B., Esq.	..	[illegible]
Fausset, H. J., M.D.	..	[illegible]
Fletcher, T. B. E., M.D.	..	Clarendon Square, Leamington
[illegible]		129, Moor Street, Birmingham
[illegible]	..	Brownhills, Walsall
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]	..	Stourbridge, Worcestershire (resigned)

Freer, P. L., Esq.	[illegible], Handsworth, Birmingham
Gabb, J. Jun., Esq.	Dewdley
Gamgee, J. S., Esq.	Broad Street, Birmingham
Garmany, J. C., [illegible]	Wednesbury
Garman, W. C., Esq. ..	Wednesbury
Garner, John Esq.	[illegible], Birmingham
Gaunt, J. P., Esq.	Wednesbury
Gaunt, J. S., Esq.	Alvechurch
Gosling, C. E., Esq.	[illegible], Birmingham.
Goulder, F. S., Esq.	Cradley Heath
Greene, John, Esq.	[illegible], Birmingham.
Greensill, J. N., Esq. ..	Great Witley, Stourport
Guthrie, G., M.B.	[illegible], Birmingham
Hadley, Clement, Esq...	Ashted House, Birmingham
Hadley, G. Percival, M.D.	[illegible], Birmingham
Hammond, W., Esq.	Nuneaton
Hannay, J., Esq.	Wednesbury
Hardwicke, E. H., Esq. ..	Solihull
Hargrove, C. W., Esq...	Lansdowne Villa, Acock's Green, Birmingham
Harmar, J., Esq.	35, Newall Street, Birmingham
Harmar, J. R., Esq. ..	Oak Cottage, Monument Road, Edgbaston
Harvey, A., Esq.	12, Wheeley's Road, Birmingham
Harvey, John, M.D. ..	110, Heathfield Road, Handsworth, Birmingham
Harvey, Joseph J., Esq.	32, Myrtle Street, Dalston, London, E.
Haslehurst, T. W., Esq.	The Lodge, Claverley, Bridgnorth
Hawkins, Alex. F., Esq. ..	Queen's Hospital, Birmingham
Hayes, J., M.D.	Manor House, Tittensor, Stoke-on-Trent
Haynes, F. H., M.D. ..	3, Spencer Street, Leamington
Heslop, T. P., M.D. ..	11, Temple Row, Birmingham
Hickinbotham, J., M.D.	Broad Street, Birmingham
Hill, Alfred, M.D.	The Parade Office, Birmingham
Hill, A. B., M.D.	Temple Street, Birmingham
Hinds, W., M.D.	11, Inge Row, Birmingham (Head)
Hiron, J. H., Esq	Studley, Warwickshire
Heare, R. R., Esq.	Aston Road, Birmingham
Hobbes, J. L., Esq.	Clent, Stourbridge
Hogg, C. H. J., Esq. ..	Monument Lane, Edgbaston, Birmingham
Holbeche, A. O., Esq...	General Dispensary, Birmingham
Hollinshead, F., Esq. ..	Selly Oak, Birmingham
Holloway, G., Esq.	Belgrave Road, Birmingham
Holyoake, T., Esq.	Kinver, Staffordshire
Homan, G. W., Esq. ..	Lichfield
Hopkins, F. F., Esq. ..	Walsall Road, Birmingham
Horton, J. J., Esq.	St. Leonard's Place, Moseley, Birmingham.
Hues, J. J., Esq.	Handsworth.
Hunt, B., M.D.	George Road, Edgbaston, Birmingham
Hunt, Joseph, Esq.	23, Temple Row, Birmingham
Hunt, J. W., M.D. ..	101, Queen's Road, Dalston, E.
Hyde, W. E., Esq.	Leominster
Jackson, John B., Esq.	281, Summer Lane, Birmingham
Jackson, J. F., Esq.	Smethwick
Jackson, T. V., Esq.	Wolverhampton
Jackson, W. F. M., Esq.	Spark Hill, Birmingham
Johnston, James, M.B.	Goldslie, Sutton Coldfield
Jones, George, Esq.	12, Newhall Street, Birmingham
Jones, John W., Esq. ..	Cannock, Staffordshire
Jordan, F., Esq.	Colmore Row, Birmingham
Jordan, W. Ross, Esq...	Temple Street, Birmingham
Joy, J. H., M.D.,	Tamworth
Kelty, P. M., Esq.	131, Lichfield Street, Walsall
Ker, Hugh R., Esq. ..	Handsworth
Keyworth, J. W., M.D.	Sutton Street, Birmingham
Larkin, H. W., M.D. ..	Bilston
Lattey, W., Esq.	Southam, Warwickshire
Leah, W., Esq.	Birchfield, Birmingham
Leech, H. R., Esq.	1, Hyde Road, Birmingham
Lewis, C. J., Esq.	Dispensary, Birmingham
Lloyd, G. Jordan, Esq...	21, Broad Street, Birmingham
Lloyd, T. L., Esq.	Cheswardine, Market Drayton
Lowe, George, Esq.	Burton-on-Trent
Lowe, H. G., Esq.	General Hospital, Birmingham
Lowe, W. G., M.D. ..	Burton-on-Trent
Luce, J. J., M.D.	Stratford-on-Avon
Lumby, J. R. H., Esq.	77, Bloomsbury, Birmingham
Lycett, J. A., Esq. ..	The Hollies, Graiseley, Worcestershire
Lyle, T., M.D. ..	Barnsley Hall Asylum, near Bromsgrove, Worcestershire
Lynes, Edward, M.D. ..	9, Priory Row, Coventry
Maberley, G. F., Esq. ..	Vincent Lodge, Bishop's Teignton, Devon
McCarthy, J. McC., Esq.	Wellington
McDonnell, Michael S., Esq.	Burrage Road, Plumstead, Kent
Machin, E. S., Esq.	Park Villa, Erdington, Birmingham
Mackenzie, J. Ingleby, M.B.	Crescent House, Rugby
McMunn, C. A., M.D.	Waterloo Road, Wolverhampton
McVeagh, Denis L., Esq.	Bishop Street, Coventry
Male, —, M.D.	West Bromwich
Malet, H., M.B.	General Hospital, Birmingham
Malins, E., M.D. ..	Old Square, Birmingham
Manby, F. E., Esq.	Wolverhampton
Manley, John, Esq. ..	West Bromwich
Mann, W. S., Esq.	Bingley House, Broad Street, Birmingham
Marriott, C. W., Esq. ..	Dynevor House, Leamington
Marshall, H. F., M.B...	211, Deritend, Birmingham
Martin, John, Esq. ..	Moseley
Masser, H. C. P., Esq.	Longford, Foleshill
Masters, J. A., Esq. ..	Hednesford
Mathews, E., Esq.	8, Church Green East, Redditch
May, Bennett, M.B.	30, Temple Street, Birmingham
May, Henry, Esq.	Coniston House, Birchfield Road, Birmingham
May, James, Esq.	Harborne, Birmingham
Messiter, M. A., Esq. ..	Priory Villa, Dudley
Mtchell, C. J. C., Esq...	Borough Workhouse, Birmingham
Monckton, David H., M.D.	[illegible]
Moore, H. C., Esq. ..	King Street, Hereford
Moore, J. W., Esq.	[illegible], Birmingham
Moore, M. M., M.D. ..	Hereford Street, Coventry
Moore, R. Wilson, Esq.	Wednesbury
Morgan, Herbert M., Esq.	Lichfield
Morris, Joseph, Esq.	[illegible], Leamington
Mouillet, F. Arabin, Esq.	[illegible], Perth
Moxon, W., Esq.	Malvern Wells
Moyles, T., M.D.	[illegible], Birmingham
Nason, J. J., M.B.	[illegible], Birmingham
Nason, R. B., Esq.	Newhall Street, Birmingham
Nelson, T., M.B. ..	[illegible], Birmingham
Newnham, C. A., Esq. ..	Wednesbury
Newman, A., M.B.	2, Market Street, Dudley
Newton, R. A., Esq.	Newhall Street, Birmingham
Norris, R., M.D.	Birmingham and Midland Eye Hospital, Birmingham
Norris, R. H., M.D. ..	Birchfield, Birmingham
Oakes, A., Esq.	2, Old Square, Birmingham.
Oakes, Charles, M.B. ..	Leamington.
O'Dowd, John, Esq.	Nether [illegible]
Osborn, W. H., Esq. ..	General Hospital, Birmingham
Orton, E. W., Esq.	Bedworth
Owen, D. C. Lloyd, Esq.	11, New Hall Street, Birmingham
Page, E. S., Esq.	Solihull
Page, H. M., Esq.	Prospect Hill, Redditch
Palmer, Clement, Esq. ..	Barton-under-Needwood, Burton-on-Trent
Palmer, J. H., Esq., ..	Solihull
Palmer, S. F., Esq.	86, New Street, Birmingham
Parkes, W. E., M.D. ..	Handsworth, Birmingham
Parsey, W. H., M.D. ..	Hatton, Warwickshire
Partridge, Miles W. C., Esq.	Meriden, Warwickshire
Partridge, S., Esq.	Croft House, Darlaston, Staffordshire
Peacock, Edwin, Esq. ..	Nuneaton
Pearson, A. W. Esq.	Kingswinford, Dudley
Pemberton, C. L. H., Esq.	Banbury
Pemberton, O., Esq.	Temple Row, Birmingham
Pennell, M. W. C., Esq.	Greenwich, London, S.E.
Perks, Charles, Esq.	111, High Street, Burton-on-Trent
Phillips, G. A., Esq. ..	Walsall
Powell, W., Esq.	Bromyard
Price, Edwin, Esq.	Dudley Port, Tipton
Prosser, R., Esq.	Bromsgrove, Worcestershire
Prosser, R. A. S., Esq...	85, Brearley Street, Birmingham
Quirke, J., Esq.	Hunters Lane, Handsworth
Ravenhill, T. H., Esq. ..	113, High Street, Birmingham
Rees, R., M.B.	High Street, West Bromwich
Rhodes, W., Esq. ..	High Street, Bridgenorth
Richards, T. M.B.	Bath Row, Birmingham
Rickards, E., M.B.	Newhall Street, Birmingham
Roden, S. S., M.D.	Friar Street, Droitwich
Rosten, W. M., M.D. ..	Acock's Green, near Birmingham
Rowland, H. M., M.D.	1 Woodlands, Malvern Wells
Russell, James, M.D. ..	58, Calthorpe Road, Edgbaston
Sansome, T., Esq.	Hill Top, West Bromwich
Saundby, R., M.D.	25, Newhall Street, Birmingham
Savage, T., M.D.	12, Old Square, Birmingham
Sawyer, James, M.D. ..	Temple Row, Birmingham
Scurrah, J. D., M.D. ..	Islington Row, Birmingham
Shapley, H. T., M.B. ..	Leamington
Sharman, Malim, Esq...	313, Bristol Road, Birmingham
Sharp, G. G., Esq.	Walsall, Staffordshire
Shaw, O. C., M.B.	Moseley, Birmingham
Sheppard, G. A., Esq. ..	Worcester
Shore, P., Esq. ..	Walsall
Simon, R. M., M.D. ..	Newhall Street, Birmingham
Simpson, J. H., M.D. ..	Crescent, Rugby
Smith, C. R., M.B.	Waterloo Place, Wolverhampton
Smith, E. C., M.B. ..	Redditch
Smith, F. W., M.D. ..	Leamington
Smith, H. H., Esq.	Stourbridge
Smith, Priestley, Esq. ..	George Street, Edgbaston, Birmingham
Smith, Richard, Esq. ..	Deritend, Birmingham
Smith, Richard W., Esq.	Heath Road, Harborne, Birmingham
Smith, S. W., M.D.	Penkridge
Smith, W., Esq.	Redditch
Solomon, J. Vose, Esq.	Handsworth
Somerville, J. H., Esq...	Bloxwich, Walsall
Spofforth, J., Esq.	Kidderminster
Standish, T., Esq. ..	Cradley Heath
Strathy, F. R. L., M.D...	Harborne, Birmingham
Suckling, C. H., Esq. ..	Queen's College, Birmingham
Sutcliffe H., Esq.	The Hawthorns, West Bromwich
Swinson, H., Esq. ..	Braithwaite Road, Birmingham
Tait, G. W., Esq.	The Laurels, Knowle, Birmingham
Tait, Lawson, Esq.	Gt. Charles Street, Birmingham
Taylor, J. W., M.D. ..	413, Moseley Road, Birmingham
Taylor, M., Esq.	Cannock
Taylor, T., Esq.	Sutton Coldfield
Thomas, H. W., Esq. ..	Small Heath, Birmingham
Thomas, W., M.B.	318, Bristol Road, Birmingham
Thompson, James, M.D.	19, Cambridge Terrace, London
Thompson, Wesley H., Esq.	Cradley Heath, Stourbridge
Thomson, John, Esq.	Kingswinford, Staffordshire
Thorne, Frederic, Esq...	5, Waterloo Place, Leamington
Thursfield, T. W., M.D.	8, York Terrace, Leamington
Tibbits, J., M.D. ..	Jury Street, Warwick
Tomkins, A. W., M.D...	5, Newbold Terrace, Leamington
Torbitt, C., Esq.	Oldbury
Totherick, J. Y., M.D...	46, Waterloo Road, Wolverhampton
Townsend, C. P. G., Esq.	Tring, Herts
Tunley, J., Esq.	Burton-on-Trent

Turner, Edwin, Esq. ..	Aldham, Wordsley, Staffordshire
Tylecote, E. T., M.D. ..	Great Haywood, Staffordshire
Tylecote, J. H., M.D. ..	Sandon, Stone, Staffordshire
Underhill, A. S., M.D.	Great Bridge, Tipton, Staffordshire
Underhill, Francis W., Esq	[illegible] Road, Birmingham
Underhill, T., M.D. ..	West Bromwich
Underhill, T. E., M.B. ..	Tipton Green
Underhill, W. L., Esq. ..	Tipton Green
Vaudrey, T. G., Esq. ..	[illegible], Oakfield Terrace, Handsworth (resigned)
Vinrace, John, M.D. ..	[illegible], Hockley, Birmingham
Wade, W. F., M.B. ..	24, Temple Row, Birmingham
Walford, S. B., Esq. ..	[illegible] Hospital, Dudley
Walker, T. Alfred, Esq.	[illegible] Grove, Edgbaston
Ward, Joseph, Esq. ..	Sparkbrook, Birmingham
Warden, C., M.D. ..	[illegible] Temple Street, Birmingham
Waters, A. J. G., Esq. ..	Brandon, Suffolk
Waterson, J., Esq. ..	62, Hockley Hill, Birmingham
Webb, A. G., Esq.	Coleshill
Welch, J. B., M.B.	Soho Hill, Birmingham
Welch, S. A., Esq.	Hospital, West Bromwich
Welch, Rev. W. J. J., M.D.	Stourbridge
West, James F., Esq. ..	[illegible] Road, Birmingham
West, W. C., Esq.	Yarnton Lodge, Malvern
Weston, E. F., Esq. ..	Chetwynd House, Stafford
Whitby, E. V., Esq. ..	12, Heath Street, Birmingham
Whitcombe, E. B., Esq.	East Riding Asylum, Beverley
Whitcombe, W. P., Esq.	Aston, Birmingham
White, E. W. W., M.B. ..	[illegible] Road, Birmingham
Whitehouse, John, Esq. ..	[illegible] Sunderland
Wilders, J. St. S., Esq.	Temple House, Bath Row, Birmingham
Wilkins, R. B., Esq. ..	Newport, I. of W.
William[illegible] T. Watkins, Esq.	Newhall Street, Birmingham
Willmore, F. W., Esq. ..	Bridge Street, Walsall
Wilson, G., M.D.	Clodiagh Villa, Leamington
Wilson, Hugh C., M.D. ..	7, Pershore Road, Birmingham
Wood, Horatio, Esq. ..	Earldon Villa, Balsall Heath, Birmingham
Wood, J., M.B.	Bridge Street, Walsall
Wood, Richard, M.D. ..	Bromsgrove, Worcestershire
Wright, M. Hall, Esq. ..	Summer Hill, Birmingham
Wright, William, M.D. ..	Shipston-on-Stour, Worcester
Wyer, Otho F., M.D. ..	Epperston, The Avenue, Leamington
Yates, George, Esq.	Birchfield, Birmingham
Young, H. J., M.D. ..	Erdington, Birmingham

MEMBER UNATTACHED (cont.)

Adkins, Harry, Esq.	Meriden, Coventry (dead)
Barker, John, Esq.	Coleshill
Birt, Thomas, M.D.	Leamington
Bond, F. A., M.B.	Brinklow, Coventry
Bourne, Thomas S., Esq.	Kenilworth
Brown, C. F., Esq.	Leamington
Clarke, John, Esq. ..	Kenilworth
Douglas, W., M.D. ..	Avenue House, Leamington
Dresser, W., Esq. ..	Coventry
Dunkley, W. W., Esq. ..	Lodeshill, Coventry
Farncombe, R., Esq.	Balsall Heath, Birmingham
Gill, J., M.D.	Stratford-on-Avon
Hallsworth, S. M., Esq. ..	Atherstone, Warwickshire
Handford, T., Esq. ..	Atherstone, Warwickshire
Hyrons, E. A., Esq. ..	Dispensary, Dudley
Kingsley, H., M.D. ..	Stratford-on-Avon
Le Sage, W. L., Esq. ..	Lozells, Birmingham
Middlemore, R., Esq. ..	Bristol Road, Edgbaston, Birmingham
Millican, K. W., Esq. ..	Kineton, Warwick
Nash, W. G., Esq.	West Haddon, Rugby
Pitt, Richard, Esq. ..	Wellesbourne
Postgate, J., Esq. ..	301, Pershore Road, Birmingham (dead)
Robertson, J. B., Esq. ..	Marton, Rugby
Robertson, James, Esq.	34, Worcester Street, Birmingham
Sadd, J. G., Esq.	Rugby
Smith, George, Esq. ..	326, Bristol Road, Birmingham
Smith, T. Haywood, Esq. ..	Alcester
Smith, T. L., Esq. ..	Alcester
Thompson, E. T., Esq. ..	Wolston, Coventry
Vale, James T., Esq. ..	[illegible] Bristol
Wilson, W., Esq. ..	Newhall Street, Birmingham

BORDER COUNTIES BRANCH.

DISTRICT COMPRISING THE COUNTIES OF CUMBERLAND, WESTMORLAND, DUMFRIES, KIRKCUDBRIGHT, WIGTON, ROXBURGH, SELKIRK AND PEEBLES.

RECOGNISED [illegible]

President .. [illegible]

President-Elect [illegible]

[illegible]

T. S. CLOUSTON, M.D., Edinburgh

[illegible]

Vice-Presidents .. [illegible]

[illegible]

Honorary Secretaries .. [illegible]

COUNCIL.

Barnes, Henry, M.D.	Carlisle
Brydon, J., M.D.	Hawick
Forbes, R. T., M.B.	Moffat
I'Anson, T. F., M.D.	Workington
Macbean, R. B., M.B.	Annan
Maclaren, Roderick, M.D.	Carlisle
Taylor, M. W., M.D.	Penrith
Thomson, A., M.D	Dumfries
Turner, R., M.D.	Wigton

REPRESENTATIVE ON PARLIAMENTARY BILLS COMMITTEE.

Taylor, M. W., M.D. .. Penrith

MEMBERS OF BRANCH. (cont.)

Ablett, Edward, M.D. ..	Workington
Adam, J., M.D. ..	Crichton House, Dumfries
Anderson, J. R., M.D. ..	[illegible] Castle, Carlisle
Anderson, W. [illegible]	Whithorn, Wigtonshire
Armstrong, F., M.D. ..	Annan
Arras, W., Esq.	Wetherall, near Carlisle
Barkley, G., M.D.	Fritzington
Barnes, H., M.D. ..	6, Portland Square, Carlisle
Black, G., M.B.	Keswick
Braithwaite, Samuel, Esq.	Egremont
Briggs, W. P., Esq.	Mount Aspatria, Carlisle
Brown, William, Esq. ..	Devonshire Street, Carlisle
Browne, W. A. F., Esq.	Dumfries
Bruce, J., M.D.	Castledykes, Dumfries
Brydon, J., M.D.	Hawick
Buntine, R., Esq.	Jedburgh
Burt, J. Kendall, M.B.	Kendal
Calderwood, George, M.D.	Egremont
Campbell, John A., M.D.	Garland's Asylum, Carlisle
Carlyle, D., M.D.	The Crescent, Carlisle
Carlyle, William J., M.D.	Langholm
Carruthers, W., M.B. ..	Royal Infirmary, Dumfries
Clark, T., M.D. ..	9, Picton Place, Newcastle-on-Tyne
Cox, J. Nichol, Esq. ..	Gatehouse-on-Fleet
Crerar, John, Esq.	Maryport, Cumberland
Cullen, D., Esq., Dep. Surg.-Gen. A.M.D.	Halsey House, Cheltenham
Davidson, J. M., M.B. ..	Johnstone, Lockerbie
Denholme, J., M.B. ..	Dalston
Dick, James, M.D.	Harrington
Dinwoodie, Frederick, M.D.	Appleby
Dodgson, Henry, M.D.	Cockermouth
Douglas, T. S., Esq. ..	Workington
Eastwood, J. W., Esq. ..	Darlington
Eaton, J., M.D.	Trumpet House, Cleator
Elliot, Robert, M.D. ..	Carlisle
Forbes, R. T., M.B. ..	Moffat
Gilchrist, James, M.D. ..	Dumfries
Gordon, S. T., Esq. ..	Norwich
Grange, W. D'Oyley, M.D.	Moffat
Grierson, S., Esq.	Border Counties Asylum, Melrose
Hall, Cornelius S., Esq.	Carlisle
Hardesty, J. J., Esq. ..	Galashiels
Harrison, R., Esq.	South Cliff, Scarborough
Henry, E. W., M.D. ..	Lowther Street, Whitehaven
Highet, John, M.B.	Workington
Hogg, A., M.B.	Derwent Street, Workington
Hoggan, E., Esq. ..	Thornhill
Horan, P. C., Esq. ..	Lowther Street, Whitehaven (dead)
I'Anson, T. F., M.D. ..	Whitehaven
I'Anson, W., M.B.	Whitehaven
Inman, R., M.D.	Scotch
Jackson, T., M.D.	Penrith
Kennedy, W. J., M.D.	Scotch
Kerr, W. S., M.D. ..	Dumfries
Knight, Alexander A. H., M.D. ..	Keswick
[illegible]	[illegible]
[illegible]	[illegible] Street, Carlisle
Lockie, Stewart, M.D. ..	[illegible] Street, Carlisle
Logan, T., M.D.	Penpont
Lorraine, W., M.D. ..	St. Andrew's Street, Castle Douglas
MacBean, R. B., M.B.	Annan
McDonald, A. D., M.D.	[illegible] Street, Dumfries
Macdougall, J. A., M.D.	Carlisle
McLachlan, James, M.B.	Lockerbie
Maclaren, Roderick, M.D.	Carlisle
McLeod, D. J. A., Esq.	Dalston
Marshall, W., M.D. ..	[illegible], Scotch, Dumfries
Milligan, J. M., M.D. ..	[illegible] Dumfries (resigned)
Mitchell, H., M.D. ..	Wigton
Mitchell, Jas., Esq.	Southwaite
Montgomery, T. L., Esq.	Penrith
[illegible], J., M.D.	Scotch
Muir, J. P., M.B.	Moffat, Glasgow
Muir, J. S., M.B.	Scotch
Munro, H. C., M.B. ..	Dumfries
[illegible]	Wigton
[illegible]	Annan
[illegible]	[illegible] Street, Dumfries
Murray, P. M., M.D. ..	[illegible]
O'Riley, G. J., Esq. ..	Penrith
Parker, C. A., M.D. ..	[illegible] Cumberland
[illegible]	[illegible]
[illegible] W. ..	Penrith
Richardson, W., M.B. ..	[illegible] Dumfries
Rigg, Thomas, M.D. ..	Penrith
[illegible]	Keswick

[illegible], John, M.D.	Cockermouth
[illegible]	[illegible]
[illegible]	[illegible]
Rumney, [illegible] Esq.	Kells
[illegible], W., M.B.	1, Henry Street, Carlisle
Sanderson, T. D., M.B.	[illegible]
[illegible]	26, Castle Street, Dumfries
Shannon, John, Esq.	Whitehaven
Smith, John, M.D.	[illegible]
Spiers, William, Esq.	[illegible]
[illegible]	Maryport
[illegible]	[illegible]
Syme, James, Esq.	Egremont
Symons, M. J., M.D.	Dumfries
Taylor, M. W., M.D.	Penrith
[illegible]	Dumfries
Thomson, James, M.D.	[illegible]
Tiffen, Robert, M.D.	[illegible]
[illegible]	Stapleton
[illegible]	Carlisle
Wickham, J., M.D.	Penrith
Wotherspoon, T. A., M.D.	Brampton

MEMBERS UNATTACHED. (45).

Arnott, G., M.D.	Ecclefechan
Audland, John, Esq.	Ackenthwaite, Milnthorpe
Bhadha S. D., Esq.	Cleator Moor, Cumberland
[illegible], W., M.D.	Jedburgh
Bonthron, A., M.D.	West Linton
Cameron, J., M.B.	Innerleithen
Carson, Stewart, Esq.	Alston
Clark, D. M. C. [illegible]	Eskdalemuir, Langholme
Cochrane, H., Esq.	[illegible]
Connel, J., M.D.	Peebles
Cox, John D., Esq.	Innerleithen
Davidson, T., M.B.	Thornhill, Dumfriesshire
Fairer, M. R., M.B.	Kirkby Stephen, Westmorland
Fergusson, A., M.D.	Tweed Brae House, Peebles
Fraser, T., M.B.	[illegible]
Gill, John, M.B.	Langholm, Dumfriesshire
Head, Thomas, M.D.	Cairn House, Warwick Bridge, near Carlisle
Johnson, E., Esq.	Tweed Bank, Kelso
Johnston, A., M.B.	Gale House, Ambleside
Johnstone, J. J., Esq.	Brampton, Cumberland
Kendall, John Esq.	[illegible]
King, R., M.D.	Bargally, Newton Stewart, N.B.
Lennox, D., M.D.	Eden Bridge, Dumfries
Lewis, John P., M.D.	Alma, Dalbeattie
McBride, C., M.D.	Wigtown
McCormack, W., Esq.	Glenluce
McCulloch, J. M., M.D.	Dumfries
McGregor, D., Esq.	Hydropathic Establishment, Peebles
McLachlan, S. F., M.B.	[illegible]
McNeil, W., M.D.	9, Lewis Street, Stranraer
Meikle, John, Esq.	Melrose
Millman, A. McK., M.D.	[illegible]
Newcombe, C. F., M.D.	Windermere
Noble, Samuel C., Esq.	Kendal
Page, H. W., Esq.	Carlisle
Pickworth, A. J., Esq.	Alston, Cumberland
Selby, R. B., M.D.	Port William, Wigton, N.B.
Somerville, Robt., M.D.	Galashiels
Stephens, Charles, Esq.	Jedburgh
Sullivan, P. A., Esq.	Carlisle
Thompson, H. Y., Esq.	Brampton, Cumberland
Ward, J., M.D.	[illegible]
Wilson, J. S., M.B.	Thornhill
Wilson, James T., Esq.	Lockerbie
Wyllie, W., M.D.	Kirby Lonsdale, Westmorland

CAMBRIDGE AND HUNTINGDON BRANCH.

DISTRICT COMPRISING THE COUNTIES OF CAMBRIDGE AND HUNTINGDON.

President .. .. .. HERBERT LUCAS, Esq., Huntingdon

[illegible] .. .. .. [illegible], M.D., Cambridge

COUNCIL.

[illegible], M.D.	Fulbourne
Bradbury, J. B., M.D.	Cam
Hodson, C. F., Esq.	The Chantry, Bishop Stortford
Stear, H., Esq.	Saffron Walden

MEMBERS OF BRANCH (60).

[illegible], M.D.	Barton Road, Cambridge
Archer, Herbert Ray., M.D.	Royston
Armistead, W., M.B.	Shelford, Cambridge
Bacon, George M., M.D.	The Asylum, Fulbourn, near Cambridge
Balding, D. B., Esq.	Royston
Balding, M., M.B.	Royston
Bates, Charles P., Esq.	Ramsey
Baxter, H. F., Esq.	Cambridge
Beckett, F. M., Esq.	Ely
Bennett, F., Esq.	Linton
Berry, R. W., Esq.	Upwell, Wisbeach
Boyd, Robert John, Esq.	Fulborn Asylum, Cambridge
Bradbury, J. B., M.D.	Cambridge
Bridger, John, Esq.	Cottenham
Bryan, James B., M.D.	Cambridge
Buckenham, John, Esq.	Cambridge
Burrell, L., M.D.	1, Eastern Terrace, Cambridge
Carter, James, Esq.	30, Petty Cury, Cambridge
Carver, E., M.B.	Corpus Buildings, Cambridge
Clapham, John, Esq.	[illegible]
Craig, W. W., M.B.	Peterborough
Cribb, Henry Esq.	Bishop Stortford
Davey, F. A., Esq.	Barkway, near Royston
Deighton, J., Esq.	[illegible]
Drosier, W. H., M.D.	Parker's Piece, Cambridge
Earle, S. N., M.D.	[illegible], Cambs.
Easby, William, M.D.	[illegible]
Ellis, J. W., Esq.	Swavesey, St. Ives
[illegible]	Upgate, Louth
[illegible], M.D.	Cambridge
Few, W., Esq.	Ramsey
[illegible]	Caxton, near Cambridge
Gover, H. J., Esq.	Landsdown Road, Tunbridge Wells
Gray, C. F., Esq.	Newmarket
Groom, W., Esq.	North Brink, Wisbeach
Grove, W. R., M.D.	St. Ives
Grubb, J. S., Esq.	Waterbeach
Grubb, R. T., Esq.	Harlow
Guillemerd, B. J., M.B.	[illegible], Hants.
Hallett, H. A., M.D.	Kimbolton
Harle, E., Esq.	Lakenheath
Harris, F. H., Esq.	Mildenhall, near Soham
Head, R. T., Esq.	Balsham
Hemming, J. H., Esq.	Kimbolton
Hills, T. Hyde, Esq.	Cambridge
Hodson, C. F., Esq.	Bishop Stortford
Hodson, W. E., Esq.	Bishop Stortford
Hough James, Esq.	Cambridge
Humphry, G. M., M.D., F.R.S.	Cambridge
Ingle, R. N., M.D.	Cambridge
Kinder, R. Esq.	Haddenham
Kirkwood, G., M.D.	Peterborough
Knowles, E., Esq.	Newmarket Road, Cambridge
Latham, P. W., M.D.	Cambridge
Lucas, Herbert, Esq.	Huntingdon
Lucas, R., Esq.	Bottisham, near Cambridge
Lucas, T., Esq.	St. Andrew's Street, Cambridge
Lucas, T., Esq.	Burwell, Cambridge
Macaulay, W. R., Esq.	Harlow
Mead, G. B., Esq.	Newmarket
Mence, W. H. D., Esq.	St. Ives
Morris, J. E., Esq.	Bishop Stortford
Neak, C., Esq.	Stilton
Newton, Lancelot, Esq.	Alconbury Hill, Huntingdon
Nichol, D. C., Esq.	Wisbeach
Nichol, H., Esq.	Thorne, Doncaster
O'Connor, Thomas, Esq.	March
Paget, G. E., D.C.L., M.D., F.R.S.	Cambridge
Parker, G. R., Esq.	31, Cable Street, Lancaster
Prince, F., Esq.	Sawston
Prince, T., Esq.	Dorking, Surrey
Pyne, Richard, Esq.	Royston
Roper, W. Robert, Esq.	Cambridge
Russell, F. R., M.B.	109, High Street, Guildford
Shann, W. A., Esq.	Addenbrooke's Hospital, Cambridge
Sinclair, G. M., Esq.	Ely
Smart, A., Esq.	Bassingbourn
Stear, H., Esq.	Saffron Walden
Thomson, W. Sinclair, M.D.	40, Ladbroke Grove, London
Turnell, A. P., Esq.	Jesus Lane, Cambridge
Turner, A. C., Esq.	St. Neots
Walker, T., M.D.	19, Westgate, Peterborough
Walker, T. J., M.D.	Peterborough
Wallis, George, Esq.	Cambridge
Watson, G. S., Esq.	38, Beckenham Road, Penge
Welsh, Francis F., Esq.	Saffron Walden
Wherry, G. E., M.B., M.C.	Trumpington Street, Cambridge
White, H. F. L., Esq.	Caxton
Whitlock, J. E. N., Esq.	Linton
Wright, S., Esq.	St. Neots
Wright, T. G., Esq.	Stilton

MEMBERS UNATTACHED (13).

Adams, D. Esq.	30, Sydney Street, Cambridge
Ballard, W. W., M.D.	Huntingdon
Bryan, R., Esq.	Cambridge
Bury, E. C., M.D.	5, York Row, Wisbeach
Cane, Leonard, M.D.	Peterborough
Elliott, C. N., M.B.	Whittlesea
Emeron, P. H., Esq.	Clare College, Cambridge
Foster, M., M.D., F.R.S.	Cambridge
Gaskell, W. H., M.D.	Grantchester, Cambridge
Good, F. T., Esq.	St. Neots
O'Connor, M., Esq.	Chatteris
Osburne, C. A. P., Esq.	St. Mary Street, Huntingdon
Parkinson, E. W., Esq.	Melbourn, Royston
Prowse, Wm., Esq.	Trumpington Street, Cambridge
Ramsay, J. A., Esq.	Great Shelford
Ransom, F. P., M.D.	Cambridge
Steele, W. C., Esq.	County Hospital, Huntingdon
Stephens, E. B., Esq.	Doddington
Trimmer, H. B., M.D.	Gamlingay, Cambridgeshire

CHANNEL ISLANDS AND ISLE OF MAN.

MEMBERS. (14.)

Aikman, John, M.D.,	New Street, Guernsey
Cockburn, James B., M.D.	Elm House, Guernsey
Collenette, B., Esq.	Guernsey

Corbin, M. A. B., Esq.,	..	St. Peter Port, Guernsey
Dickson, J. L., M.B.	..	St. Helier's, Jersey
Godfray, A., Esq.	..	St. Helier's, Jersey
Jackson, J. J., Esq.	..	Lunatic Asylum, Jersey
Larmuth, J. H., Esq.	..	St. Martin's Guernsey
Le Page, W., Esq.	..	Guernsey
Moore, G., M.D.	..	Grouville, Jersey
Ross, W. A., Esq.	..	Square, Alderney
Taylor, H. C., Esq.	..	Jersey
Ward, F. O., Esq.	..	General Lunatic Asylum, Isle of Man
Yates, Walter Peel, Esq.	..	40, David Place, St. Helier's, Jersey

DUBLIN BRANCH.

DISTRICT COMPRISING THE PROVINCE OF LEINSTER AND COUNTIES OF CLARE.

President .
President-Elect .
Vice-Presidents .. (JOHN T. BANKS, M.D., Dublin
([illegible], M.D., Dublin.
([illegible], M.D., [illegible]
Honorary Secretary & Treasurer ([illegible]

COUNCIL.

Bennett, Edward H., M.D.	Dublin
Darby, Thomas, Esq.	Bray
Finny, J. M., M.D.	Dublin
Gordon, Samuel, M.D.	Dublin
Grimshaw, T. W., M.D. ..	Dublin
Hamilton, Edward, M.D. ..	Dublin
Harvey, R. J., M.D.	Dublin
Haughton, Rev. Samuel, M.D., F.R.S.	Dublin
Mapother, Edward, M.D. ..	Dublin
McDonnell, R., M.D., F.R.S.	Dublin
Smyly, P. C., M.D.	Dublin
Stokes William, M.D.	Dublin

MEMBERS OF BRANCH. (176.)

Abraham, P. S., Esq.	5, Clare Street, Dublin
Allen, C. D., M.B. ..	Bagnalstown, Carlow
Ashe, Isaac, M.D.	Criminal Lunatic Asylum, Dundrum
Atkins, G. Purcell, Esq.	Cook Street Hospital, Dublin
Atthill, Lombe, M.D. ..	Rotunda Hospital, Dublin
Auchinleck, H. A., Esq.	York Street, Dublin
Ball, C. B., M.D.	Lower Fitzwilliam Street, Dublin
Banks, J. T., M.D.	Merrion Square East, Dublin
Barton, J., M.D.	Sir P. Dun's Hospital, Dublin
Barton, J. K., M.D. ..	Lower Fitzwilliam Street, Dublin
Battersby, R., Esq.	45, Wellington Road, Dublin (dead)
Beatty, P. C., M.D.	66, Lower Baggot Street, Dublin
Beatty, Joseph, Esq. ..	Mount Clarence, Kingstown
Beatty, Wallace, M.B. ..	Lower Leeson Street, Dublin
Bennett, E. H., M.D. ..	[illegible]
Benson, A. H., M.B. ..	42, Fitzwilliam Square, Dublin
Benson, J. H., M.D. ..	[illegible]
Bigger, Saml. L., M.B.	Harcourt Street, Dublin
Brady, J., M.B.	38, Harcourt Street, Dublin
Bridgford, C. T., Esq. ..	Bray, Wicklow
Browne, J., M.D.	Dundalk, Louth
Browne, Robt., M.D. ..	[illegible]
Bushe, C. J. L., M.D., Sur., A.M.D.	Allahabad
Cameron, C. A., Esq. ..	Pembroke Road, Dublin
Chaplin, S., Esq.	[illegible]
Chapman, John H., Esq.	60, Pembroke Road, Dublin
[illegible]	103, Stephen's Green, Dublin
Collins, Thomas, Esq. ..	[illegible]
[illegible]	14, Upper Merrion Street, Dublin
Corbett, Daniel, Esq. ..	12, Clare Street, Dublin
Corley, A. H., M.D. ..	30, Lower Baggot Street, Dublin
Cosgrave, E. MacDowel, M.D. ..	73, Eccles Street, Dublin
Cranny, J. J., M.D. ..	82, Harcourt Street, Dublin
Croghan, E. H., Esq. ..	Capel Street, Dublin
Croly, H. G., Esq.	Merrion Square, N., Dublin
Crozier, W. E., Esq. ..	48, Wellington Road, Dublin
Darby, Thomas, Esq. ..	[illegible]
[illegible] A.M.D.	5, McElwain Terrace, Newbridge, co. Kildare
Davis, S., M.B.	St. Mark's Hospital, Dublin
[illegible]	Cremona, Swords, Dublin
[illegible]	55, Rutland Square West, Dublin
[illegible]	11, Upper Merrion Street, Dublin
[illegible]	76, Irishtown Road, Dublin
[illegible]	Abbey House, Enniscorthy, Wexford
Duffey, G. F., M.D. ..	40, Fitzwilliam Place, Dublin
Duke, A., Esq.	12, Lower Fitzwilliam Street, Dublin
Duncan, J. F., M.D. ..	8, Upper Merrion Street, Dublin (resigned)
Eaton, J., Esq.	Glendalough
Falkiner, F. J., M.B. ..	[illegible]
Finny, J. M., M.D. ..	19, Lower Baggot Street, Dublin
[illegible]	27, Upper Merrion Street, Dublin
[illegible]	18, Lower Fitzwilliam Street, Dublin
[illegible]	Kilrush, co. Clare
[illegible]	49, Lower Leeson Street, Dublin
[illegible]	69, Fitzwilliam Square, Dublin
[illegible]	[illegible]
[illegible]	Mercer's Hospital, Dublin
[illegible]	[illegible]
Gordon, Samuel, M.D.	13, Hume Street, Dublin
Grimshaw, T. W., M.D.	Priorsland, Carrickmines, co. Dublin
Gunn, C., M.D. ..	11, Talbot Street, Dublin
Hadden, D. H., Esq. ..	[illegible]
Hamilton, Ed., M.D. ..	120, Stephen's Green, Dublin
Hamilton, J. T., M.D.	3, Lower Sackville Street, Dublin
[illegible]	[illegible]
Harvey, Arthur, Esq. ..	[illegible]
Harvey, Reuben J., M.D.	7, Upper Merrion Street, Dublin
Harrison, J. J., Esq.	[illegible]
Haughton, Rev. S., M.D., D.C.L., F.R.S.	Trinity College, Dublin
Hayden, Thomas, Esq.	18, Merrion Square North, Dublin (dead)
Hayes, R. A., M.D. ..	32, Merrion Square South, Dublin
Head, H. H., M.D. ..	7, Fitzwilliam Square, Dublin
Heard, Robert Lynn, M.D.	[illegible]
Hearn, R. T., M.B. ..	Merton, Sandford Road, Dublin
Hepburn, W. J., Esq. ..	[illegible]
Heuston, F. T., M.D. ..	3, Harcourt Street, Dublin
Hillary, M., Esq.	30, Richmond Place, Dublin
Hillis, John D., Esq. ..	Providence, Carlow
Horne, A., Esq.	Rotunda Hospital, Dublin
Ingham, H. J., Esq. ..	[illegible]
Jackson, R. W., Esq., C.B., Brig.-Surg., A.M.D.	Merrion, Dublin
Jackson, T., Esq.	14, Harcourt Street, Dublin (resigned)
James, C. E., M.B. ..	Butler House, Kilkenny
Johnston, George, M.D.	15, Stephen's Green North, Dublin
Kelly, Joseph Dillon, Esq.	[illegible]
Kennedy, H., Esq.	Gardiners Place, Dublin
Kenny, J. E., Esq.	71, Lower Gardiner Street, Dublin
Kidd, George H., M.D.	30, Merrion Square South, Dublin
Kirkpatrick, J. R., M.B.	4, Upper Merrion Street, Dublin
Knaggs, S. T., M.D. ..	Rathmines, co. Dublin
Knott, J. F., Esq.	York Street, Dublin
[illegible]	The Glebe, Tara, co. Meath
Lalor, Joseph, M.D.	Richmond Asylum, Dublin
Lentaigne, J. V., Esq. ..	Richmond Hospital, Dublin
Levinge, E. G., M.D. ..	Lucan, co. Dublin
L'Estrange, G. W., Esq.	Raglan Road, Dublin
Little, James, M.D.	14, Stephen's Green North, Dublin
Little, T. E., M.D.	42, Great Brunswick St., Dublin
Lyon, R. N., Esq.	Dispensary, Coleraine Street, Dublin
Macalister, A., M.D. ..	11, Upper Fitzwilliam St., Dublin
Macan, A. V., M.B. ..	29, Lower Baggot Street, Dublin
[illegible]	21, Merrion Square North, Dublin (dead)
McDonnell, E. P., Esq.	Jervis Street Hospital, Dublin
McDonnell, Robert, M.D., F.R.S.	Merrion Square W., Dublin
McDowel, B. G., M.D.	5, Merrion Square South, Dublin
McVeagh, J. F., M.D. ..	1, Rutland Square East, Dublin
Madden, T. More, M.D.	33, Merrion Square South, Dublin
Mapother, E. D., M.D.	[illegible]
Marks, A. H., M.D. ..	26, Hatch Street, Dublin
Mason, T. P., M.B. ..	92, Harcourt Street, Dublin
Meldon, A. S., Esq.	15, Merrion Square North, Dublin
[illegible]	Mullingar, Westmeath
Moore, C. F., M.D. ..	10, Upper Merrion Street, Dublin
Moore, J. W., M.D. ..	40, Fitzwilliam Square, Dublin
Moore, W., M.D.	[illegible]
Moorhead, G. A., Esq. ..	Tullamore
Moorhead, T. H., M.D.	Coolehill
Murphy, J. J., Esq.	13, Harcourt Street, Dublin
Murray, Charles F., M.D.	[illegible]
Myles, T. W., Esq.	North Brunswick Street, Dublin
Nixon, F. A., Esq.	33, Harcourt Street, Dublin
[illegible] ..	[illegible]
O'Grady, E. S., M.B. ..	105, Stephen's Green South, Dublin
Ormsby, L. H., M.D.	Merrion Square W., Dublin
Patton, Alexander, M.B.	Farnham House, Finglas, co. Dublin
Pearsall, William B., Esq.	[illegible]
Peebles, W. B., M.B. ..	[illegible]
Pollock, J. F., M.B. ..	[illegible]
Pope, F. A., M.B.	[illegible]
Porter, G. H., M.D. ..	[illegible]
Powell, George D., M.D.	76, Upper Leeson Street, Dublin
Power, John B., Esq. ..	1, Roby Place, Kingstown
Purcell, T., Esq.	71, Harcourt Street, Dublin
Purefoy, R. D., M.B. ..	15, Merrion Square, N., Dublin
Purser, J. M., M.D. ..	3, Wilton Terrace, Dublin
Quinlan, F. J. B., M.D.	29, Lower Fitzwilliam Street, Dublin
[illegible]	[illegible]
Surg.-Major, A.M.D. ..	7, Spencer Terrace, Kilmainham
Rice, W., Esq.	[illegible]
[illegible]	[illegible]
Robinson, C. H., Esq. ..	[illegible]
Roche, A., Esq.	[illegible]
[illegible]	[illegible]
Shannon, Peter, M.D. ..	[illegible]
[illegible]	5, Clare Street, Dublin
[illegible]	45, Upper Sackville Street, Dublin
Smith, W. G., M.D. ..	[illegible]
[illegible]	[illegible]
Smyly, W. J., M.D. ..	[illegible]
Smyth, Joseph, M.D. ..	[illegible]
[illegible]	[illegible]
Stanistreet, R., M.D. ..	[illegible]
Stoker, E. A., Esq.	[illegible]
[illegible]	[illegible]
Stokes, W., M.D.	[illegible]
Story, J. B., M.B.	[illegible]
Strahan, M., Esq.	[illegible]
Swan, R. L., Esq.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Tufnell, T. J., Esq.	..	58, Lower Mount Street, Dublin
Truell, H. P., M.B.	..	[illegible]
[illegible]		[illegible]
[illegible]		Dundrum
[illegible]		[illegible]
Wall, T. P. [illegible]	A.M.D.	[illegible]
Ward, M. A., M.D.		[illegible]
Wayman, W. W., M.D.	..	23, York Street, Dublin
Wharton, J. H., M.B.	..	28, Upper Merrion Street, Dublin
Wheeler, W. I., M.D.	..	[illegible]
[illegible]		[illegible]
White, W. D., Esq.	..	51, Rutland Square, Dublin
Woodhouse, S., M.D.	..	Lower Fitzwilliam Street, Dublin

MEMBERS (NOT ENGAGED IN [illegible])

Barry, J. M., Esq.	..	Ballybrack, co. Dublin
Bennett, E., Esq.	..	Sandymount, Dublin
Blake, R. M., Esq.	..	Dundalk
Bond, J. H., Esq.	..	Rathgar, co. Dublin
Boyce, J. W., M.B.	..	Stillorgan, co. Dublin
[illegible]	..	Wicklow (resigned)
[illegible]		[illegible]
Burr, W. T., M.B.		[illegible]
Byrne, J. A., M.B.	..	37, Westland Row, Dublin
Colles, Wm., M.D.	..	21, Stephen's Green, Dublin
Delany, Barry, M.D.	..	District Asylum, Sion, Kilkenny
[illegible]		[illegible]
Dockeray, John A., Esq.		Richmond Asylum, Dublin
Dwyer, H. J., Esq.		15, Talbot Street, Dublin
Egan, R. W., Esq.		[illegible]
Ellis, G., M.B.		[illegible]
Finegan, L. P. J., Esq.		[illegible]
Fisher, Madison W., M.D.		Portarlington, King's County
Fitzsimons, J. B., M.D.		Kilkenny
Forrest, J. K., Esq.		13, Clare Street, Dublin
Friend, F. W., Esq.		[illegible]
Furlong, N., Esq.		[illegible]
Gray, C. E., M.D.		Late of Camden Street, Dublin
Hackett, J. B., Esq.	..	Kilkenny
Hadden, D., Esq.		Weston, Wexford
Hart, W. Hume, M.B.	..	71, St. Stephen's Green, Dubin (gone)
Horridge, G. J., Esq.	..	[illegible]
Hourigan, W. P., Esq.	..	Freshford, Kilkenny
Jacob, A. W., M.D.	..	Molesworth, Dublin
Johnson, J., Esq.		[illegible]
Kerans, R., Esq.		Banagher, King's County
Kilbride, J., Esq.	..	Athy, co. Kildare
Langstaff, H. H., M.B.	..	Killiney, near Dublin
Long, Oliver, J., Esq.	..	Portarlington
Lynch, H., M.D.	..	[illegible]
Lyster, C. G., Esq.		[illegible]
McDonnell, John, M.D.		32, Upper Fitzwilliam Street, Dublin
McDowell, C. W., M.D.		[illegible]
MacEvoy, F. J., Esq.	..	[illegible]
Mackay, W. B., Esq.	..	Killgobbin, co. Dublin
Macnamara, Rawdon, M.D.		95, Stephen's Green, Dublin
Meehan, N. J., Esq.	..	Quay Street, New Ross, co. Wexford
Mulvany, M., Esq.	..	Dundalk, Louth
Neale, J. M., Esq.		Newbridge, Kildare
Neary, Bernard J., Esq.		1, Victoria Terrace, Howth
Nixon, Christopher J., M.D.	..	2, Merriou Square, Dublin
O'Donovan, J., Esq.	..	Mount Haigh, Kingstown (resigned)
O'Flaherty, R. G., M.B.		Kingstown
O'Hanlon, M., Esq.		Castlecomer, Kilkenny
O'Meara, T. P., M.B.	..	Carlow
O'Neil, E. D., Esq.	..	Grange Gorman, Dublin
O'Neill, L. J., Esq.		St. Daulough's, co. Dublin
Price, R., Esq.	..	26, Clare Street, Dublin
Saunderson, R., M.D.	..	Rhode, Edenderry, King's County
Shimeld, James, Esq.	..	Dundalk
Slevin, Joseph, Esq.		Longford
Smallman, B. F., Esq.	..	Portarlington
Smith, T. O., M.B.	..	Beech Lodge, Kinnetty, King's County
Sterling, Robert, Esq.	..	Stoneyford, Kilkenny
Thompson, R., M.D.	..	Melross, Johnstown, co. Kilkenny
Twiss, G. E., Surg., A.M.D.		Royal Infirmary, Dubin
Wallace, A. W., M.D.	..	[illegible]
West, J. R., M.B.	..	11, Upper Pembroke Street, Dublin
Whitaker, G., M.B.	..	5, Iona Terrace, Dublin
White, James, Esq.		Kilkenny
Wyse, G. Hamilton, Esq.		Bray

EAST ANGLIAN BRANCH.

DISTRICT COMPRISING THE COUNTIES OF NORFOLK & SUFFOLK.

RECOGNISED [illegible]

[illegible]	.	[illegible] Great Yarmouth
[illegible]	.	W. M. [illegible], M.B., Beccles
[illegible]	.	(W. A. ELLISTON, M.D., 22, St. Peter's Street, Ipswich
[illegible]	.	[illegible] Street, Norwich
[illegible]	.	(M. [illegible], M.D., St. Giles's

COUNCIL

The Past Presidents

Barnes, E. G., M.D.	..	Eye
Bateman, F., M.D.	..	Norwich
Crickmay, E., Esq.	..	Laxfield
Crowfoot, W. M., M.D.	..	Beccles
Edwards, G. C., Esq.	..	Ipswich
Gorham, R. V., Esq.	..	Yoxford
Holden, J. S., M.D.	..	Sudbury
Lowe, J., M.D.	..	King's Lynn
Robinson, H. S., Esq.	..	Norwich

MEMBERS OF BRANCH. (1[illegible])

Alum, W., Esq.		Ipswich
Addison C. E., Esq.	..	Colchester
Allen, J., Esq.		[illegible] Norwich

Amyot, T. E., Esq.		[illegible]
Atthill, Robert		[illegible]
Barkway, F. T., Esq.	..	[illegible]
Barnes, E. G., M.D.	..	[illegible]
Bartlet, A. H., M.D.	..	[illegible]
Bartlet, J. H., M.D.	..	Museum Street, Ipswich
Bately, J., Esq.		[illegible]
Bateman, Frederic, M.D.		[illegible]
Benham, H. J., M.D.	..	22, [illegible] Street, Ipswich
Beverley, Michael, M.D.		[illegible]
Blackett, E. R., M.D.	..	[illegible]
Burton, S. H., M.B.	..	Hospital, Norwich
Cadge, William, Esq.	..	Norwich
[illegible]		Harleston
[illegible]		[illegible]
Casley, R. K., M.D.		[illegible]
Cater, William, Esq.	..	Fincham
Chambers, T. S., Esq.	..	[illegible]
Chevallier, B., M.D.		[illegible]
Clarke, F. W., Esq.		[illegible]
Clouting, J. R., Esq.		[illegible]
Clubbe, W. H., Esq.	..	Lowestoft
Collins, H. A., Esq.	..	[illegible]
Cooper, C., Esq.		Needham Market
Cooper, James, Esq.		[illegible]
Crickmay, E., Esq.		The Villa, Laxfield, Framlingham
Crosse, T. W., Esq.		Norwich
Crowfoot, W. M., M.D.		Beccles
Currie, J. L., Esq.		Trinity Hall, Bungay
Day, W. H., Esq.		All Saints' Green, Norwich
Drummond, H. P., M.D.		30, Silent Street, Ipswich
Drury, C. D. H., M.D.	..	Boudgate, Darlington
Durrant, C. M., M.D.	..	Ipswich
Eade, Peter, M.D.		Norwich
Eager, W., Esq.		Melton
Ebden, W. Esq.		Haughley, near Stowmarket
Edwards, B., Esq.		Ipswich
Edwards, G. C., Esq.	..	Ipswich
Elliston, G. S., Esq.		Bank House, King Street, Ipswich
Elliston, W. A., M.D.	..	22, St. Peter's Street, Ipswich
Faircloth, R., Esq.		[illegible] W.
Fenn, D. C., Esq.		Diss, Norfolk
Firth, C., M.B.		65, St. Giles's Street, Norwich
Firth, Eustace, M.B.	..	Debenham
Fletcher, G., M.D.		[illegible]
Fyson, R., Esq.		Newmarket
Gathergood, J., Esq.	..	Terrington St. John, King's Lynn
Gilder, S. E. A., Esq.	..	[illegible]
Gillett, G., Esq.		[illegible]
Gissing, J. S., Esq.	..	Woodbridge (dead)
Goodwin, C., Esq.		Willow Lane, Norwich
Gorham, R. V., Esq.	..	Yoxford
Green, E. F. S., M.B.	..	Alderton, Woodbridge
Groome, W. W., M.B.	..	Stowmarket
Growse, J. L., Esq.		Bildeston, near Ipswich
Hales, R. T., M.D.	..	Holt
Hammond, C. W., M.D.	..	6, Lower Brook Street, Ipswich
Hardwicke, H., Esq.	..	Hempnall, Long Stratton
Harper, J. W., Esq.	..	Stowmarket
Hastings, Horace C. Esq.	..	East Dereham
Haward, F., Esq.		Halesworth
Henley, A. A., Esq.		Woodbridge
Hinnell, G. J., Esq.		Bury St. Edmunds
Holden, John S., M.D.	..	Sudbury
Howard, H. F., Esq.		New Buckenham
Hughes, D. W., Esq.	..	[illegible]
Hutchinson, W., Esq.	..	Newmarket (resigned)
Image, W. E., Esq.		Soham
Jeffreson, George Edwards, Esq.		Framlingham
Jones, R. E., Esq.	..	Cleveland Lodge, Westbourne Pk., London, W.
Kidd, R. B., Esq.	..	Blofield
Kilner, C. S., M.D.	..	Bury St. Edmunds
Kilner, John, Esq.		Bury St. Edmunds
Knowles, E. Esq.		Cambridge
Lay, Joseph J., M.D.	..	Peasenhall
Leech, H. P., Esq.	..	Woolpit, near Bury St. Edmunds
Lettis, Thomas, Esq.	..	20, King Street, Great Yarmouth
Ling, E. M., Esq.	..	Saxmundham
Lock, W., M.D.		Funereau Road, Ipswich
Long, Frederick, Esq.	..	Wells-next-the-Sea
Love, J., Esq.	..	Castle Acre, Brandon
Lowe, John, M.D.	..	King's Lynn
Lucas, R. H., Esq.		Bury St. Edmunds
Lyddon, J. H., Esq.	..	[illegible]
Macarthur, T. A. C., Esq.		[illegible]
Manby, A. R., Esq.	..	East Rudham
Mann, C. P., Esq.	..	[illegible]
Marriott, R. B., Esq.	..	Swaffham
Marshall, C. G., Esq.	..	Woodbridge
Master, A., Esq.		St. Giles's Plain, Norwich
Mayo, A. C., Esq.		Camperdown Place, Great Yarmouth
Meadows, Daniel, Esq.	..	Great Yarmouth
Meadows, G. F. W., Esq.	..	Otley, Ipswich
Metcalfe, R. I. M.D.	..	Beccles
Miller, W. W., M.D.	..	Eye
Mills, W. P., M.D.	..	Ipswich
Moore, H. G., Esq.	..	Ipswich
Morton, Richard K., Esq.	..	Aylsham
Moxon, T. H., Esq.	..	7, St. George's Terrace, Great Yarmouth
Muriel, Charles E., Esq.	..	[illegible]
Norman, J. C., Esq.	..	Hadleigh
Orfeur, C. H., Esq.	..	West Town, Bristol
Owens, C. A. O., M.D.	..	Long Stratton
Palmer, Charles, Esq.	..	Great Yarmouth

Pearse, A., M.D.	Beccles
Phillips, J. D., Esq.	Hoxne
Pitt, John B., Esq.	Norwich
Pretty, G. W., Esq.	Lowestoft
Ransom, Peter P., Esq.	North Walsham
Raven, H., Esq.	Litcham
Ray, James, Esq.	Lowestoft
Read, C. G., Esq.	Stradbroke
Richardson, F. W., Esq.	Surrey Street, Norwich
Robinson, Haynes S., Esq.	St. Giles's Road, Norwich
Rose, Caleb, Esq.	Ipswich
Sampson, G. G., Esq.	Ipswich
Sheridan, J. W., Esq.	Stowmarket
Skrimshire, J. T., M.D.	Holt
Smith, John C., Esq.	Great Yarmouth
Smith, J. P., Esq.	Lowestoft
Soffe, W. E., Esq.	East Harling
Sparrow, J., Esq., Surg.-Maj., M.D.	Wilton Place, Pimlico, S.W.
Staddon, J. H., Esq.	Silent Street, Ipswich
Stevens, George, Esq.	Norton, Bury St. Edmunds
Taylor, G., Esq.	Mattishall, near East Dereham
Taylor, S. T., M.B.	St. Giles's Road, Norwich
Tench, E. B., Esq.	Wellington Street
Thomas, F. J., Esq.	Swaffham
Thompson, R., Esq.	Brandon
Turner, Horace, Esq.	Norwich
Vincent, James, M.D.	East Dereham
Vores, William, M.D.	Halesworth, Suffolk
Vertue, F. H., Esq.	Red House, Southwold, Suffolk
Walker, H. G., Esq.	Downham Market
Wallis, H. D., Esq.	Leiston
White, R. W., Esq.	Thorpe St. Andrew, Norwich
Wilcox, William, Esq.	North Walsham
Wing, C. H., Esq.	Downham Market, Lynn
Woodhouse, W., Esq.	St. Andrew's Street, Norwich
Woodman, R., M.D.	Ormsby, Yarmouth
Woodward, E., Esq.	King's Lynn
Worthington, F. S., Esq.	Lowestoft
Worthington, J. C., Esq.	Marine Parade, Lowestoft
Wyllys, W. E., Esq.	King Street, Great Yarmouth

[illegible]

Aldrich, P., Esq.	Mildenhall
Angove, W. T. Esq.	Mildenhall
Archer, E. G., Esq.	Thetford
Bailey, F. C., Esq.	30, St. Giles Street, Norwich
Barrett, Joseph W., Esq.	Kings' Lynn
Barrington, F. A., Esq.	Chapel Street, King's Lynn
Barry, D. P., M.D., Surg.-Maj., A.M.D.	Bury St. Edmunds
Barton, S. J., M.B.	Attleborough, Norfolk
Blake, H., M.B.	45, Dene Street, Gt. Yarmouth
Bond, G. W., Esq.	Fulham Rectory, Harleston
Bowen, E., Esq.	Ashley, Newmarket
Brainsford, C., M.D.	Haverhill
Breese, Thomas E., M.B.	3, Upper St. Giles, Norwich
Chant, T., Esq.	Kirkstead
Cuthbert, W. Wood, Esq.	Wallsend-on-Tyne
Dawson, John, M.D.	Ryecroft Grove, Lee, Kent
Day, D. D., Esq.	North Quay, Great Yarmouth
Duke, A. W., M.D., Surg.-Maj., A.M.D.	Cowley Barracks, Devonport
Ellis, C. G., Esq.	Attleborough
Gardner, J., M.D.	Barnsley
Garnett, T. E.	Barnsley
Gull, F., Esq.	The Shrubbery, Gt. Yarmouth
Henry, G. F., Esq.	Bury St. Edmunds
Holden, Luther, Esq.	Pine Toft, Ipswich
Hollis, E., M.D.	Ipswich
Hooker, C. P., Esq.	Colchester
Howes, F. C. P., M.D.	Belton Rectory, Gt. Yarmouth
Image, F. E., M.B.	Stradbroke, Diss
Lack, T. Lambert, Esq.	Hadleigh, Suffolk
Lock, Edward R., Esq.	Downham
Mallins, H., M.B.	Watton
Manning, F., Esq.	Eastern Depot, Ipswich
Marsh, John, Esq.	Wymondham, Norfolk
Mason, W. Inglis, Esq.	Swaffham
Mills, R. J., M.B.	Norwich
Mitchell, A., M.D.	Great Yarmouth
Pain, T. Dooley, Esq.	Stratford St. Mary
Palmer, Frederick, Esq.	Old Quebec Street, Portman Square
Perry, E. V., Esq.	Eccles
Pratt Walter, Esq.	Packers Market, Thetford
Prior, E. Thurlow, Esq.	Loddon
Reynolds, J. J., Esq.	Swaffham
Seymour, F. Esq.	Aylsham, Norfolk
Simpson, W., Esq.	Haverhill
Smith, Samuel, Esq.	Carlton Colville, Lowestoft
Steele, H. F., Esq.	Bury St. Edmunds
Tacon, E. L., Esq.	Harleston
Walford, W. G., Esq.	King's Lynn
Wayman, C. E., Esq.	Dereham, East Dereham
Whitty, C. R., M.D.	Thetford

EAST YORK AND NORTH LINCOLN BRANCH.

[illegible]

[illegible]	F. M[illegible], M.D., Hull
[illegible]	W. S[illegible], Esq., Pocklington
[illegible]	S. P. H[illegible], Esq., Bridlington Quay
	Address [illegible], Hull

Honorary Secretary .. F. M[illegible], M.D., Hull.

COUNCIL.

Cooper, Sir H., M.D.	Hull
Craven, R. M., Esq.	Hull
Dix, J., Esq.	Albion Street, Hull
Elliott, G. F., M.D.	Hull
Gibson, J. H., M.D.	Wright Street, Hull
King, Kelburne, M.D.	Hull
Locking, J. A., Esq.	Scarboro' Terrace, Hull
Lunn, W. J., M.D.	Hull
Nicholson, R. H. B., Esq.	Albion Street, Hull

REPRESENTATIVE ON PARLIAMENTARY BILLS COMMITTEE.

[illegible] A. M[illegible], Hull.

M[illegible]

Anderson, F. B., Esq.	Hull
Appleton, R. C., Esq.	Hull
Bell, J., Esq.	[illegible]
Best, P., M.B.	[illegible]
Bramwell, J. M., M.B.	Goole
Butt, [illegible]	Bridlington, Yorkshire
Briggs, G. J., Esq.	Springbank, Hull
Browne, W. H., Esq.	Aldborough, Hull
Burnham, R., Esq.	Keelby, Ulceby
Cooper, R. W., Esq.	[illegible] Hull
Cooper, W. W., Esq.	Haywood House, Sneinton, Notts
Craven, R. M., Esq.	Hull
Daly, O., M.D.	Albion Street, Hull
Davy, D. H., Esq.	Hull
Denton, S. B., M.D.	Hornsea, near Hull
Des Forges E., Esq.	South Cave, Brough
Dix, J., Esq.	Albion Street, Hull
Elliott, G. F., M.D.	Hull
[illegible] M.D.	Hull
Farbstein, H., Esq.	Hull
George, H., Esq.	North [illegible] Hull
Gibson, D., Esq.	Hull
Gibson, H., Esq.	Hull
Gibson, J. H., M.D.	[illegible] Hull
Godfrey, C. W., Esq.	Howden, Yorkshire
Goodworth, R. P. Esq.,	Winterton, Brigg
Graham, W., M.D.	Goxhill, near Hull
Hardey, E. P., Esq.	[illegible] Hull
Healey, T. St. C., Esq.	1, York Parade, Beverley Road, Hull
Henson, S. R., Esq.	Anlaby Road, Hull
Henson, W. K., Esq.	Anlaby Road, Hull
Holder, W., Esq.	[illegible] Hull
Hollingworth, J., Esq., jun.	Holderness Road, Hull
Hudson, G., M.D.	South Cave, Brough
Hutchinson, Christopher F., M.D.	[illegible] Hull
Jackson, W., Esq.	Anlaby Road, Hull
James, W. D., Esq.	[illegible] Hull
Jefferson, T. J., M.D.	Market Weighton
Johnson, F., Esq.	15, Kingston Square, Hull
Jones, J. T., Esq.	Hornsea, Hull
Keetley, T. B., Esq.	Great Grimsby
King, Kelburne, M.D.	Hull
[illegible] Hull	Balmoral Terrace, Hull
Lee, C. A., M.D.	1, Pryme Street, Hull
Leppington, H. M., Esq.	Grimsby
Locking, J. A., Esq.	Scarboro' Terrace, Hull
Lunn, W. J., M.D.	Hull
Mackay, Rev. W. P., M.D.	The Park, Hull
Macmillan, A., M.D.	[illegible] Hull
Macnab, F., Esq.	Great Union Street, Hull
Mason, J. W., Esq.	Hull
Merson, J., M.D.	Hull
Moody, C. B., Esq.	St. James' House, Grimsby
Morley, J., Esq.	Barton-on-Humber
M[illegible]	[illegible]
Nicholson, J. F., M.D.	Albion Street, Hull
[illegible]	53, George Street, Hull
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Pyburn, G. W., Esq.	Hull
[illegible]	57, Charlotte Street, Hull
Quinton, R. F., M.D.	H.M. Prison, Manchester
Redmond, W., Esq., Staff-Sur. R.N.	[illegible]
[illegible]	[illegible]
[illegible]	Withernsea, Hull
[illegible]	Lansdowne Terrace, Hull
[illegible]	[illegible]
Sherburn, J., M.B.	Albion Street, Hull
Sissons, W. H., Esq.	[illegible]
Smith, J. E., M.D.	Grimsby
[illegible]	Skirlaugh, near Hull
Soulby, H., M.D.	[illegible]
[illegible]	Beverley
[illegible]	[illegible]
Tomlinson, —, M.D., Brig.-Surg.	[illegible]
Watson, S., Esq.	Cottingham, Hull
[illegible]	[illegible]
[illegible]	[illegible]

[illegible]

[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

EDINBURGH BRANCH.

DISTRICT COMPRISING THE LOTHIANS AND FIFESHIRE.

RECOGNISED 1875.

Moray Place, Edinburgh

Square, Edinburgh

Edinburgh

J. BISHOP, M.D., 12, Walker Street, Edinburgh

COUNCIL.

Liberton

Carmichael, James, M.D.

Chiene, J., M.D. .. 21, Ainslie Place, Edinburgh

Gordon, P., Esq. .. Juniper Green, Edinburgh

Houston, P. C., M.D.

Jamieson, J., Esq. .. .. 6, Buccleuch Place, Edinburgh

Lucas, R., M.D. .. .. Dalkeith

Macdonald, A., M.D. ..

Ritchie, James, M.B. .. 10, Northumberland Street, Edinburgh

..

MEMBERS OF BRANCH.

Allison, A., M.D. .. .. Loanhead, Edinburgh
Anderson, T., M.B.
Annandale, T., Esq., F.R.S.E. .. 34, Charlotte Square, Edinburgh
Archibald, D., M.D. .. St. Andrew's
Badger, W., M.B.
Ballantyne, A., M.D. ..
Barry, F. W., Esq. .. Sanitary Commissioner, Cyprus
Bell, J. W., Esq. Dunfermline
Bishop, J., M.D. 12, Walker Street, Edinburgh
Black, W. T., Surg.-Maj. A.M.D. Edinburgh
M.D. 4, Drumsheugh Gardens, Edinburgh
Brodie, D., M.D. .. .. Liberton, Edinburgh
Brown, J. J., M.B. .. .. District Asylum, Cupar, Fife
Burn, J., M.D. .. .. Lauriston Place, Edinburgh
Cadell, F., M.B. .. .. 20, Castle Street, Edinburgh
Carmichael, J., M.D. .. .. 42, Northumberland Street, Edinburgh
Chiene, J., M.D., F.R.S.E. 21, Ainslie Place, Edinburgh
Christison, Sir R., Bart., M.D., .. 40, Moray Place, Edinburgh
Clouston, T. S., M.D. .. .. Morningside Asylum, Edinburgh
Constable, J., M.D. Leuchars, Fife
Annan
Craig, W., M.D. .. 7, Lothian Road, Edinburgh
Cumming, W., M.D. .. 13, Ainslie Place, Edinburgh
Cunynghame, R. J. B., M.D. 6, Walker Street, Edinburgh
Gillespie, J. D., M.D. .. 10, Walker Street, Edinburgh
Gilruth, G. R., Esq. .. Union Street, Edinburgh
Gordon, P., Esq. Juniper Green, Edinburgh
Houston, P. C., M.D. .. Fergus Place, Kirkcaldy
Hunter, G., M.D. .. .. Linlithgow
Imlach, F. B., Esq. .. 48, Queen Street, Edinburgh
Jamieson, J., Esq. 6, Buccleuch Place, Edinburgh
Keiller, A., M.D. 21, Queen Street, Edinburgh
Kennedy, John, M.D. ..
Lucas, R., M.D. .. Buccleuch Street, Dalkeith
Macdonald, A., M.D. .. 29, Charlotte Square, Edinburgh
Martine, W., M.D. .. Mayville, Haddington
Mather, J., Esq. ..
Miller, A. G., M.D. .. Walker Street, Edinburgh
Miller, P., Esq. .. 8, Bellevue Terrace, Edinburgh
Moir, J., M.D. 52, Castle Street, Edinburgh
Moir, J. W., M.D. .. .. St. Andrews
Morris, J., Esq. .. Dunfermline
Murray, D., M.D. .. Grove Street, Edinburgh
Peddie, A., M.D. 15, Rutland Street, Edinburgh
25, Rutland Street, Edinburgh
Ritchie, J., M.B. 10, Northumberland Street, Edinburgh
Robertson, D. A., M.D. 18, Charlotte Square, Edinburgh
Ronaldson, T. R., M.B.
Russell, J. A., M.B. .. Canaan Lane, Edinburgh
Rutherford, W., M.D., F.R.S. .. 14, Douglas Crescent, Edinburgh
Scott, T. R., jun., M.B. Musselburgh
Ratho, Edinburgh
Sinclair, A. J., M.D. .. 48, Northumberland Street, Edinburgh
Smart, A., M.D.
Smith, David, M.D. ..
Smith, Geo. D., M.B. .. 93, Ferry Road, North Leith
Spence, R., M.D. Burntisland, Fife
Strachan, J., M.D. Dollar by Stirling
Tuke, J. B., M.D. 20, Charlotte Square, Edinburgh
Underhill, C. E., M.B. .. 8, Coates Crescent, Edinburgh
White, G. L., Esq. Whitehall, Aberdour (resigned)
Wilson, D., M.D.
Young, J., M.D. 14, Ainslie Place, Edinburgh
Young, P. A., M.D. .. .. Brighton Place, Portobello, Edinburgh

[illegible]

Atleck, J. O., M.D. .. 12, Claremont Place, Edinburgh
Alexander, James, Esq. Leslie, Fife
Andrew, J., M.D. 6, Hope Street, Edinburgh
Balfour, A. H., Esq. .. Portobello
Balfour, J. H., M.D., F.R.S. Inverleith Row, Edinburgh
Balfour, T. A. G., M.D. 51, George Square, Edinburgh
Bell, J. M., M.D. King's Kettle, Fifeshire
Bell, Joseph, M.D.
12, Thirlstone Road, Edinburgh
Bleloch, A., M.B. 13, Brougham Street, Edinburgh
Brakenridge, D. J., M.D.
Brown, J. Graham, M.D. 63, Castle Street, Edinburgh
Brown, J. M., M.B. ..
Bruce, R., M.D. 12, York Place, Edinburgh
Caird, F. M., M.D. 16, Stafford Street, Edinburgh
Calder, H. L., M.B. ..
Cappie, James, M.D. .. .. 47, Lauriston Place, Edinburgh (dead)
Cathcart, C. W., M.B. . Bruntsfield, Edinburgh
Church, H. M., M.D. .. . 18, George Square, Edinburgh
Cochrane, J., M.D. . Lauriston Place, Edinburgh
Coldstream, A. R., M.D. .. Charlotte Street, Leith
Collie, M., Esq. .. Duddingstone, Edinburgh
Cossar, T., M.D. . Frederick Street, Edinburgh
Cotterill, Joseph, M.B. .. 24, Melville Street, Edinburgh
Craig, A., M.D .. .. Pathhead Ford, Dalkeith
Croom, John H., M.B. .. 10, Hope Street, Edinburgh
Cunningham, J. B., M.B. Prestonpans, N.B.
Day, W. H. H., Esq. .. .. Edinburgh
Dewar, A., M.D. . 20, Drummond Place, Edinburgh
Dewar, James, M.D. .. South Queensferry, Linlithgowshire
Dewar, W. H., Esq. .. .. Kirkcaldy
Dickson, G., M.D. .. .. India Street, Edinburgh
Dow, W. B., M.D. .. Comely Park House, Dunfermline
Duncan, John, M.D. .. 8, Ainslie Place, Edinburgh
Duncanson, John J. K., M.D. .. 22, Drumsheugh Gardens, Edinburgh
Dunsmure, J., jun., M.D. 53, Queen Street, Edinburgh
Finlay, W. A., M.D. .. .. St. Helen's, Trinity, Edinburgh
Foulis, J., M.D. .. . 34, Heriot Row, Edinburgh
Fowler, W. C., M.D. .. .. Corstorphine Hall, Edinburgh
Fraser, John, M.B. .. Regent Terrace, Edinburgh
Fraser, Thos. R., M.D. . 37, Melville Street, Edinburgh
Freeland, R., M.B. Broxburn, Linlithgow
Garland, O. H., M.B. .. . 35, Charlotte Street, Leith
Gibson, G. A., M.B. .. 1, Randolph-cliff, Edinburgh
Goodenough, W. H., Esq. .. Dysart
Gordon, H., M.B. .. St. Ann's, Kirkcaldy
Gordon, James, M.B. .. .. Linton Lodge, Prestonkirk
Graham, B., M.B. .. Borrowstounness, Linlithgowshire
Gray, J. Allan, M.D. .. .. 32, Madeira Street, Leith
Hamilton, D. J., M.B. .. .. 13, Granville Terrace, Edinburgh
Hart, D. B., M.D. .. .. Frederick Street, Edinburgh
Hay, H. D., M.B. .. . Leslie
Hay, J. H., M.D. . Alloa
Haycroft, J. B., M.B. .. . University, Edinburgh
Hunter, James, M.B. .. .. St. Catherine's Linlithgow
Husband, H. A., M.B. .. . Northumberland Street, Edinburgh
Husband, J., Esq. .. .. Castle Street, Edinburgh
Husband, Wm., M.D. .. .. 28, Clarence Street, Edinburgh
Inglis, Archibald, M.D. . Royal College of Surgeons, Edinburgh
Inglis, T., M.D. .. .. Care of Dr. Brown, Cupar, Fife
James, A., M.D. . . 11, Albyn Place, Edinburgh
Jamieson, W. A., M.D. .. .. 26, Rutland Street, Edinburgh
Keith, George S., M.D. .. Currie, near Edinburgh
Keith, T., M.D. . 2, North Charlotte Street, Edinburgh
Kennedy, Wm. J., M.D. .. Clunie, Dalkeith
Kirk, J. B., M.D. . Rowan Bank, Bathgate
Kyle, D. Hamilton, M.B. .. 140, Market Street, St. Andrews
Longmuir, James, M.D. .. Bathgate
Lowe, The Rev. John .. .. 56, George Square, Edinburgh
Macarthur, Alex. J. M.D. .. Anstruther
Macbain, H., Esq. . .. North Berwick
McBride, P., M.B. .. .. 20, Alva Street, Edinburgh
Macdonald, George, Esq. . Markinch
Macdonald, K. N., M.D. .. Gowan Park, Cupar
Mackay, G., M.B. . Edinburgh
Mackenzie, G. H., M.D. 1, Northumberland Street, Edinburgh
Maclagan, Douglas, M.D., F.R.S.E. 28, Heriot Row, Edinburgh
Maclaren, P. H., M.D. . 1, Drumsheugh Gardens, Edinburgh
Macnair, R., M.B. .. .. 65, Ferry Road, Leith
Masterton, John, M.B. .. .. 10, Blenheim Place, Edinburgh
Masson, D. T., M.D. .. . Edinburgh
Matthew, A., Esq. .. Kinross
.. .. Inverkeithing
Menzies, W., M.D. .. 3, Lothian Road, Edinburgh
Middleton, James, M.D. . Manorhead, Stow, Midlothian
Middleton, John, M.D. .. . 4, John Street, Edinburgh
Millard, W. W., M.B. .. Dunbar, N.B.
Moinet, Francis W., M.D., F.R.S.E. 13, Alva Street, Edinburgh
Moir, Alexander, Esq. . Castle Street, Edinburgh
Moir, R., M.D. .. .. St. Andrew's
Morris, A. J., M.B. . . Saughton Hall, Murrayfield, Edinburgh
Muirhead, Claud, M.D. 30, Charlotte Square
Murdoch, T. Burn, M.B. Morningside, Edinburgh
Napier, A. D. L., M.D. . Dunbar
Niven, Thomas, M.B. Newburgh, Fife
Porteous, J. L. Esq. . Pathhead, Fifeshire
Ritchie, R. P., M.D. .. 1, Melville Crescent, Edinburgh
Ronaldson, J. Bruce, Esq. . Haddington
Sibbald, John, M.D. .. 3, St. Margaret's Road, Edinburgh
Simpson, Alexander R., M.D. .. 52, Queen Street, Edinburgh
Simpson, James, Esq. .. .. Eastwood, Ferry Road, Edinburgh

Smith, John A., M.D.	Palmerston Place, Edinburgh
Smith, Thomas, Esq. .. .	[illegible] Edinburgh
Spalding, W., M.D. ..	Gorebridge
Spence, J., Esq., F.R.S.E. ..	Ainslie Place, Edinburgh
Spence, R., M.D. .	Linlithgow
Stewart, A., Esq. ..	Uphall, [illegible]
Stewart, John, Esq. ..	Louvain Villa, Newport, Fife
Stewart, T. Grainger, M.D., F.R.S.E.	19, Charlotte [illegible], Edinburgh
Stewart, W., M.D. .. .	Leven, Fife
Symington, J., M.B.	Chambers' Street, Edinburgh
Taylor, J. W., M.B. .. .	[illegible]
Taylor, W., M.D. .	67, York Place, Edinburgh
Thatcher, C. H., Esq.	13, Albany Street, Edinburgh
Troup, Francis, M.D.	Auchtermuchty, Ladybank
Turnbull, J. Rutherfoord, Esq.	29, Castle Terrace, Edinburgh
Watson, P. H., M.D., F.R.S.E. ..	16, Charlotte Square, Edinburgh
Watson, W., M.D.	Mid Calder
Webster, A. D., M.D.	3, Argyle Place, Edinburgh
White, A., Esq.	23, Melville Street, Edinburgh
Whitelaw, W., M.D.	Cupar, Fife
Wilson, Robert, M.D.	Alloa
Wilson, T. Duddingston, M.B. ..	Craiglockhart, Edinburgh
Wolston, W. T. P., M.D.	4[illegible] Charlotte [illegible], Edinburgh.
Wood, Andrew, M.D., LL.D., F.R.S.E.	9, Darnaway Street, Edinburgh (dead)
Woodcock, Alexander, Esq. .	Anstruther, Fife
Wright, F. L. W., Esq. .	Crail, Fifeshire (resigned)
Wyllie, John, M.D. .. .	9, Howe Street, Edinburgh
Ziegler, William, M.D... .	47, George Square, Edinburgh

GLASGOW AND WEST OF SCOTLAND BRANCH.

DISTRICT COMPRISING THE COUNTIES OF LANARK, RENFREW, STIRLING, DUMBARTON, AYR, ARGYLE, AND BUTE.

President	[illegible] M.D., [illegible], Glasgow
President-Elect .. .	[illegible] M.D., [illegible], Bath Street, Glasgow
Vice-Presidents ..	[illegible] M.D., Glasgow [illegible] M.D., [illegible]
Honorary Secretaries ..	[illegible] M.D., 7, Elmbank Crescent, Glasgow [illegible] M.D., 2[illegible], Bath Crescent, Glasgow

MEMBERS OF BRANCH. (134).

Alexander, John, M.D.	Western Infirmary, Glasgow
Alston, J. M., M.D. ..	Airdrie
Anderson, J. W., Esq. ..	1, Whitehill Terrace, Duke Street, Glasgow
Anderson, T. McCall, M.D.	[illegible] Crescent, Glasgow
Arthur, H., M.D. ..	2, South Bridge Street, Airdrie
Banning, R. J., M.D.	Dunblane
Barr, Thomas, M.D., ..	[illegible] Glasgow
Baxter, W., M.B. ..	Crooked Holm, Kilmarnock
Beatson, G. T., M.D. ..	2, Royal Crescent, Glasgow
Bell, Robert, M.D. ..	[illegible] Glasgow
Brown, A., M.D.	Mount Florida, Glasgow
Buchanan, A. McG., M.D.	[illegible] Glasgow
Buchanan, George, M.D.	193, Bath Street, Glasgow
Buchanan, T. D., M.D.	24, Westminster Terrace, Glasgow
Burns, John, Esq. .	15, Fitzroy Place, Glasgow
Caldwell, J. Esq. .	[illegible]
Cameron, H. C., M.D.	27, Elmbank Crescent, Glasgow
Cameron, John, M.D. ..	[illegible]
Campbell, Wm., Esq. ..	Meadow Bank Villa, Kilbarchan
Carr, Wm., M.B. .	[illegible]
Carswell, J. P., M.D.	2, Newton Terrace Glasgow
Charteris, Matthew, M.D. ..	8, Blythwood Square, Glasgow
Christie, J., M.D.	Great Kelvin Street, Glasgow
Coats, Joseph, M.D.	7, Elmbank Crescent, Glasgow
Connell, R., M.D. .	Marine Villa, Rothesay
Corbett, Robert, M.D... .	[illegible]
Cunningham, John, M.B. .	[illegible]
Dougall, John, M.D.	Pollokshields, Glasgow
Dougan, W., M.D. ..	[illegible]
Dun, W. G., M.D.	[illegible]
Duncan, Eben., M.D. ..	Crosshill, Glasgow
Fergus, Andrew, M.D...	[illegible]
Finlayson, James, M.D.	[illegible]
[illegible] W., M.D.	[illegible]
[illegible] M., B.[illegible]	[illegible]
Foulis, D., M.D. ..	[illegible]
Fraser, Donald, M.D. ..	[illegible]
Frew, W., M.B. .	[illegible]
Gairdner, W. T., M.D.	225, St. Vincent Street, Glasgow
Gardner, John, M.D. ..	[illegible]
Gibson, W., M.D. ..	[illegible]
Gilchrist, W., M.D. .. .	[illegible]
[illegible]	60, Pollok Street, Glasgow
Goff, Bruce, M.D.	The Lindens, Bothwell
Gorman, J., Esq. .	Rutherglen, Glasgow
Granger, J. R., M.B.	[illegible]
Gray, James, M.D. ..	[illegible]
[illegible] ..	Princes Street, Port Glasgow
[illegible] A., Esq. .. .	[illegible]
[illegible]	[illegible]
Henderson, Francis, M.D.	Helensburgh
[illegible]	[illegible]
Henderson, T. Beath, M.D. ..	48, Kelvingrove Street, Glasgow
[illegible] R. C., Esq.	[illegible]
Irvine A. K., M.D. .	3, Newton Terrace, Glasgow
Kelly, Adam L., M.D. .	24, Carlton Place, Glasgow
Kelly, James K., M.D. .	[illegible]
Kirk, Robert, M.D. .. .	[illegible]
Lapraik, T., M.D. . ..	[illegible]
Lewis, William, M.D.	[illegible]
Lindsay, John, M.D. .. .	[illegible]
Lothian, J. A., M.D. ..	6, Newton Terrace, Glasgow (resigned)
Lyon, James G., M.D...	[illegible]
McAlister, James, Esq. .	[illegible]
McCarthy, Denis A., M.D. ..	[illegible]
[illegible] M.D.	[illegible]
Macdonald, William, M.B. .	[illegible]
Macewen, W., M.D. .. .	[illegible]
McJannet, F. M., M.B.	[illegible]
[illegible] A., M.D.	[illegible]
McKechnie, W., M.D. .	[illegible]
McKelvie, R. B., M.D. .	[illegible]
[illegible] G., M.D., F.R.S.E.	[illegible]
Mackenzie, W. S., Esq.	[illegible]
Mackintosh, A., M.D. .. .	26, Woodside Place, Glasgow
Macklin, T. Thornton, M.B. ..	Buccleugh Street, Melrose
Maclaren, James D., M.D.	[illegible]
Maclean, D., M.D. .. .	121, Douglas Street, Glasgow
McLelland, Alex., M.B.	Ardenlee, Alexandria
Macleod, D., M.D.	Kilmarnock
Macleod, G. H. B., M.D., F.R.S.E.	10, Woodside Crescent, Glasgow
McVail, D. C., M.B. .. .	[illegible]
Marshall, W. J., M.D... .	8, Ardgowan Square, Greenock
Messer, Thomas J. F., M.D. .	Helensburgh
Miller, Hugh, M.D. ..	[illegible]
Morton, James, M.D.	199, Bath Street, Glasgow
Muir, W. L., Esq. . .	371, Duke Street, Glasgow
Munro, R., M.D. ..	[illegible]
Murray, John, Esq. .	[illegible]
Nairne, J. S., Esq. .	[illegible]
Newman, D., Esq. .	12, Annfield Terrace, Partick, Glasgow
Orr, Robert, M.D	9, Queen's Crescent, Glasgow
Paterson, Alex., M.D. ..	Fernfield, Bridge of Allan
Patrick, Wm., M.D. ..	[illegible]
Pearson, Wm., Esq.	[illegible]
Perry, R., M.D.	[illegible]
Pollok, R., M.B. ..	Pollokshields
Ramsay, Robert, M.D. .	Lochwinnoch
Rankin, P., M.D.	Airdrie
Reid, T., M.D.	14, Elmbank Street, Glasgow
Reid, W. L., M.D. ..	7, Royal Crescent, Glasgow
Renfrew, R., M.D. ..	Lansdowne Crescent, Glasgow
Renton, J. Crawford, M.B. ..	18, St. James's Terrace, Glasgow
Ritchie, Andrew, M.D.,	[illegible]
Ritchie, James, Esq. ..	Muirkirk, Ayrshire
Robertson, A., M.D. .. .	Towns Hospital, Glasgow
Robertson, A. M., Esq.	314, St. Vincent Street, Glasgow
Robertson, R. T. C., M.B.	[illegible]
Russell, J. B., M.D. ..	1, Montrose Street, Glasgow
Rutherford, J., M.D. ..	[illegible]
Scott, Alex., M.B. .	Tollcross
Sime, D., M.D.	Innellan, Argyleshire
Sloan, S., M.D.	Newton Terrace, Glasgow
Smart, Robert, M.D. ..	[illegible]
Smith, A. W., M.D. ..	[illegible]
Sneddon, W., M.D.	[illegible]
Stevens, James, Esq.	[illegible]
Stevens, W. G., Esq. ..	Renfrew
Stewart, A. D., Esq. ..	Hamilton Terrace, Greenock
Syme, Campbell, Esq. ..	Kilmalcolm
Thomas, M., M.D.	Royal Infirmary, Glasgow
[illegible]	[illegible]
Touch, E., M.D.	[illegible]
Turnbull, M. B., M.D.	[illegible]
Wallace, A., M.D.	Newton Place, Glasgow
Wallace, James, M.D. ..	[illegible]
Watson, W. R., Esq. ..	29, Monteith Row, Glasgow (resigned)
Weir, J. W., M.D.	25, Sandyford Place, Glasgow
Whitelaw, Wm., M.D...	Kirkintilloch, Glasgow
Willis, George, Esq. ..	[illegible]
Wilson, A. T., Esq. .	Kirn, Argyleshire
[illegible]	[illegible]
Wilson, R., Esq. ..	[illegible]
Wilson, William A., M.D. .	Brisbane Street, Greenock
Wylie, W., M.D. ..	[illegible]
Yair, J. M., M.B.	[illegible]
Yellowlees, D., M.D. .. .	Gartnavel, Glasgow

MEMBERS UNATTACHED. [illegible]

Adam, W. J., M.B.	Biggar
[illegible]	[illegible]
Alexander, W., M.D. ..	[illegible]
Barlow, John, M.D. ..	[illegible]
Barras, James, M.D. ..	[illegible]
Black, D. Campbell, M.D. ..	50, Woodlands Road, Glasgow
Black, J. R., M.D. ..	[illegible]
[illegible]	[illegible]
Blanchard, R. J., M.B.	[illegible]
Borland, John, M.D...	[illegible]
Brown, R., M.D.	[illegible]
[illegible]	[illegible]
Bulteel, M. H., Esq. ..	[illegible]
Cairns, D., M.B.	[illegible]
Cameron, C., M.D., M.P.	[illegible]
Carmichael, Daniel, M.B.	[illegible]
Carmichael, Neil, M.D.	[illegible]
Caskie, W. A., M.B. ..	[illegible]
[illegible]	[illegible]

Clerk, A., M.B. ..
Colligan, H. S., M.D. ..
Crawford, Geo., M.D. ..
Henderson Villa, Bridge of Allan
Alva
Strone-by-Greenock
Greenside, Strathaven
Drew, J., M.B. Port Street, Stirling
Dunbar, H., M.D. Gareloch Head, Helensburgh (resigned)
Findlay, W., M.D.
Fleming, W. J., M.B. ..
Forrest, James, M.D. .. Stirling
Gemmell, S., M.D.
Gilmour, A., M.D. Duntocher, Dumbarton
Glaister, J., M.B.
Grieve, John, M.D. 212, St. Vincent Street, Glasgow
Haddow, J., Esq. ..
Haldane, W., M.D. .. Bridge of Allan
Hall, A. J., M.D. 30, Battery Place, Rothesay
Hewitt, W., M.B. Prestwick, Ayrshire
Hislop, James, M.D. .. 5, West Prince's Street, Glasgow
Hunter, W., M.D.
Ireland, W. W., M.D. .. .. 20, Melville Terrace, Stirling
Jamieson, John A., M.D. Glencoy, Brodick, Arran
Johnston, A., M.B. Abbotsford Place, Glasgow
Johnston, G., Esq. Eaglesham
Johnston, Wm., M.D. .. 4, Pitt Terrace, Stirling
Johnstone, J. J., M.B. ..
Kay, A. G., M.B. Broomfield, Ayr
Kelly, E. H., M.D. Lanark, N.B.
Kerr, Joseph, Esq. Millport, Cumbrae
Kirkland, R., M.B. Rowan Bank, Abington
Kirkwood, R., M.D. ..
Knox, David N., M.B. Elmbank Crescent, Glasgow
Lawrence, James, M.D. ..
Lawrie, James, M.D. .. .. West Garden Street, Burnbank, Glasgow
Leishman, W., M.D. .. .. 11, Woodside Crescent, Glasgow
Linton, S., M.B. ..
M'Calman, D., M.B. ..
McColl, H., Esq. Tobermory
Macdonald, D. S., Esq. Campbeltown
McConnochie, J., M.D. Glasgow
McFadyen, Donald, M.D. .. 7, Viewfield Place, Stirling
McFarlane, Alex. W., M.D. Walmer, Kilmarnock
Macfie, Johnston, M.D. .. Ashton Terrace, Hillhead, Glasgow
McGill, J. F., Esq. .. .. Coilbank, Ayr
McGown, J., M.D. .. Millport
Bellshill
McIndeor, A., Esq.
Mackay, A., M.B. ..
Mackenzie, J., M.D. ..
McKerrow, Geo., M.B. 12, Cathcart Street, Ayr
Mackinlay, J., junr., Esq. Barrhead
Maclachlan, A., M.B. .. Tobermory
McLachlan, R., M.B. .. Dalmillington by Ayr
Maclachlan, W., M.D. .. Doon Bank, Patna
Maclean, M., M.D. .. Stewarton
Macnab, James, Esq. .. 16, Melville Terrace, Stirling
MacNaughton, Allan, M.B. Bonawe, Taynuilt
Macnaughton, John, M.B. Easdale by Oban
McPherson, R. B., M.B. Cambuslang
McVail, John C., M.D. Kilmarnock
Martin, Alex., M.B., .. Merryflatts, Govan, Glasgow
Mather, George R., M.D 11, Armfield Place, Glasgow
Meikle, Robert, Esq. .. Douglas
Middleton, G. S., M.B. Sandyford Place, Glasgow
Middleton, John, Esq ..
Millar, —, Esq. Paisley
Millar, John, Esq. Coltness Ironworks, New Mains
Millar, T., Esq. .. .. Barnhill, Glasgow
Miller, A., Esq. .. Royal Crescent, Crosshill, Glasgow
Milne, William, Esq. .. 49, Union Street, Glasgow
Moffat, A. T., Esq. Motherwell
Moffat, Robert, M.D. .. Falkirk
Moffat, R. M., M.B. .. Rothesay
Moodie, R., M.B. 5, Pell Terrace, Stirling
Moore, S. J., M.D. .. Blythswood Square, Glasgow
Moore, W., M.B. Ayr
Morton, Alex., M.B. Crosshill, Glasgow
Muir, W., M.B. Monteith Row, Glasgow
Mungall, A., M.B. Abbotsford Place, Glasgow
Napier, A., M.D. .. Crosshill, Glasgow
Neilson, Archibald, Esq. 10, Somerville Place, Glasgow
Oman, N. D. I., M.D. Wishaw
Paterson, John, Esq. .. Carnwath
Paterson, James, M.D. Partick, Glasgow
Patterson, A., M.D. .. 22, India Street, Glasgow
Pearson, Archibald, M.D Middleton Terrace, Glasgow
Pickering, William M., M.B. Glasgow
Pinkerton, R., M.B. .. Woodlands Road, Glasgow
Pirie, John, M.D. .. .. 26, Elmbank Crescent, Glasgow
Rae Alex. Esq. .. Stonehouse-by-Hamilton
Rae, James, M.D. .. .. Drummond Place, Stirling
Rankin, A., M.B. .. ..
Renny, A. W., M.B. ..
Robertson, P. F., M.D.
Rodger, W., Esq.
Shaw, W. J., M.B.
Simpson, Pierce A., M.D.
Skae, C. H., M.D. .. Glengall, Ayr
Sloan, A., M.B.
Smith, D., M.D.
Smith, G. W., Esq. Neilston (dead)
Smith, Thomas, Esq. .. Burnbank Terrace, Glasgow
Spiers, J. L., M.B.
Stewart, Robert, M.D. ... Carluke
.. 7, Woodside Crescent, Glasgow
Thomson, George W., M.D.
Turner, Hugh, Esq. .. 2, Belgrave Street, Glasgow
.. Denny, Stirlingshire
Walker, R., Esq.
Watt, J. R., M.B.
Greenock
Wilson, James, M.D. .. Johnstone
Wilson, Wm., M.D. .. Irvine, Ayrshire
Wolfe, John R., M.D. ... 18, Brandon Place, Glasgow

GLOUCESTERSHIRE BRANCH.

DISTRICT COMPRISING THE COUNTY OF GLOUCESTER.

RECOGNISED 1863.

.. E. T. Wilson, M.B., Westal, Cheltenham
T. S. Ellis, Esq., Clarence Street, Gloucester
.. R. W. Batten, M.D., 1, Brunswick Square Gloucester

MEMBERS OF BRANCH. (79.)

Allard, W. Esq. Tewkesbury
Batten, Rayner W., M.D. .. Gloucester
Bennett, C. J., Esq. Cheltenham
Bevan, J. P., Esq. Cheltenham (resigned)
Bond, Francis T., M.D. .. 3, Montpellier Place, Gloucester
Boughton, J. H., Esq. .. .. Tewkesbury
Boughton, W. B., Esq. .. .. Staunton
Bower, E. D., Esq. .. Gloucester
Bridgman, I. T., Esq. .. Berkeley
Brown, Walter, M.B. .. .. General Infirmary, Gloucester
Bubb, John, Esq. .. Cheltenham
Campbell, John, M.D. .. Gloucester
Cardew, G. A., Esq. .. Keyshamburg House, Cheltenham
Carleton, J. S., Esq. Newnham
Carter, A. P., Esq. London Road, Gloucester
Cole, Richard M. Esq. .. .. Clarence Street, Gloucester
Cook, Francis, M.D. .. Suffolk Lawn, Cheltenham
Cooke, Alfred S., Esq. .. .. Stroud
Cornwall, J., Esq. Fairford, Swindon
Cox, Wm., Esq. .. Tudor House, Winchcomb
Cripps, Edward, Esq. .. .. Cirencester
Cubitt, George R., Esq. Stroud
Currie, John, M.D. .. Park End, Lydney
Devereux, Daniel, M.D. Tewkesbury
Dutton, D. J., Esq. .. Dursley
Eager, R., M.D. .. Northwoods, Bristol
Edis, T., Esq. Gloucester
Ellis, T. S., Esq. Clarence Street, Gloucester
Ferguson, G. B. M.D. .. Cheltenham
Forty, D. H., Esq Wotton-under-Edge
Gooding, J. C., M.D. .. Alconbury, Cheltenham
Graves, Ryves W. Esq. .. Barton Street, Gloucester
Gregory, G. S., Esq. Stroud
Haviland, H. J., M.D. .. .. 6, Bayshill Villas, Cheltenham
Heane, W. C., Esq. .. Cinderford
Hepworth, G. A. H., Esq. Gloucester
Hitchman, J., M.D. .. .. The Laurels, Fairford
Hodges, W., Esq. .. Cirencester
Hormazdji, R. N., Esq. .. Cheltenham
Howsin, E. A., M.D. .. .. 11, Rowcroft, Stroud
Iles, Daniel, Esq. .. Montagu House, Fairford
Inglis, A. M., M.D. Montpelier Lawn, Cheltenham
Johnstone, J. J. S., M.D. Gloucester
Jones, H. F., Esq. .. Mitcheldean
Martin, R. S., Esq. .. Kemerton, Tewkesbury
Morris, C. W., Esq. .. .. Chipping Campden
Needham, F., M.D. .. .. Gloucester
Paine, W. H., M.D. .. .. Stroud
Philson, W., M.D. .. Cheltenham
Rooke, T. Morley, M.D. .. Cheltenham
Ryder, Richard, M.D. .. .. Nailsworth
Sampson, H. M., Esq. .. Painswick
Shaw, W., M.B. .. 45, Tunbridge Road, Maidstone
Smith, R. M.D. .. .. Imperial Square, Cheltenham
Smith, T., M.D. .. .. Portland House, Cheltenham
Stewart, J., Esq. .. .. Mount Hope, Sneyd Park, Bristol
Swinson, T. S., Esq. .. .. 22, Avenue Road, Eastbourne
Sydney-Turner, A. M., Esq. .. College Green, Gloucester
Tilton, J. E., Esq. .. .. Stonehouse, Gloucestershire

Tilton, Rowland, [illegible]	[illegible]
Toller, Ebenezer, Esq.	County Asylum, Gloucester
Trotter, L. B., M.B.	Coleford, Gloucestershire
Turner, T., Esq.	St. Owen's Street, Hereford
Waddy, H. E., Esq.	Gloucester
Walters, C. A., Esq.	Mona House, Cheltenham
Washborn, B., M.D.	Gloucester
Watson, J. D., M.B.	Chalford, near Stroud
Watters, G. T. B., M.D.	Stonehouse
Watts, T., Esq.	Frampton-on-Severn
Wethered, C., Esq.	[illegible]
Willis, G., M.D.	Monmouth
Wilson, E. T., M.B.	[illegible]
Wilton, J. P., Esq.	Gloucester
Winterbotham, L., Esq.	Cheltenham

MEMBERS UNATTACHED. (2)

Baines, C. W., M.D.	Dursley
Box, William Henry, Esq.	Lechlade
Cheatle, E., Esq.	[illegible]
Chiappini, P. J., M.D.	Care of Col. Peebles, Pitville, Cheltenham
Currie, A. S., M.D.	[illegible]
Dening, E., Esq.	[illegible]
Griffiths, C. N., Esq.	Cheltenham
Hawkins, Clement J., Esq.	Wellington Place, Cheltenham
Haydon, N. J., M.D.	Minchinhampton
Hayward, M. P., Esq.	Stonehouse
Hopgood, P. D., Esq.	[illegible]
Lynes, F. J., Esq.	[illegible]
Kilgour, J. S., M.D.	Cheltenham
Moore, J., Esq.	Bourton-on-the-Water
Newton, Chas. John, Esq.	Oriel Lodge, Cheltenham
Partridge, T., Esq.	Stroud
Smelt, Frank H., Esq.	The Villa, Newent
Smith, F. A. A., M.D.	Cheltenham
Thorp, Disney L., M.D.	[illegible]
York, James, M.D.	Pittville, Cheltenham

LANCASHIRE AND CHESHIRE BRANCH.

DISTRICT COMPRISING LANCASHIRE AND CHESHIRE.

RECOGNISED 1837.

President	R. C. BROWN, M.B., Preston
Vice-Presidents	C. JOHNSON, Esq., Lancaster W. H. FITZPATRICK, M.D., Liverpool
President-Elect	W. MCEWEN, M.D., Chester
Vice-Presidents-Elect	[illegible] L. BORCHARDT, M.D., Manchester
Honorary Secretary	A. DAVIDSON, M.D., 2, Gambier Ter., Liverpool
Local Secretaries	C. E. GLASCOTT, M.D., Manchester J. E. GARNER, M.B., Preston H. A. CHEESBROUGH, M.D., Blackburn W. HALL, Esq., Lancaster [illegible]

COUNCIL.

Adam, J. E.	Liverpool
Ayre, J. J.	Colne
Ball, J. A., M.B.	Heaton Norris
Caton, R., M.D.	Liverpool
Corns, J., M.D.	Oldham
Gamgee, A., M.D.	Manchester
Haddon, J., M.D.	Eccles
Hodgkinson, A., M.B.	Manchester
Hughes, J. B., Esq.	[illegible]
Ley, H. R.	Prestwich
Lund, E.	Manchester
Matthews, W., Esq.	[illegible]
Oxley, M. G. B., Esq.	Liverpool
Parker, Rushton, Esq.	Liverpool
Pouncey, W.	[illegible]
Ransome, A., M.D.	[illegible]
Spratley, S., M.D.	Rochdale
Stocks, A. W., Esq.	Salford
Thomson, G., M.D.	Oldham
Waters, E., M.D.	Chester

(And the Representative Members of Council.)

MEMBERS OF BRANCH. (—)

Adam, Edward, Esq.	95, Shaw Street, Liverpool
Ainsworth, Edgar, M.D.	[illegible]
Alexander, W., M.D.	102, Bedford Street South, Liverpool
Allen, John E., Esq.	[illegible]
Allen, W. J., Esq.	Denton, Manchester
Anderson, Alfred, Esq.	Lytham Road, Blackpool
Anderson, John, M.D.	[illegible]
Anningson, J. W., Esq.	[illegible]
Archer, R. S., M.B.	3, St. Domingo Vale, Liverpool
Arminson, J., M.D.	[illegible]
Arminson, W. B., M.D.	[illegible]
Armstrong, James, M.B.	[illegible]
Armstrong, John, Esq.	Park House, Harpurhey, Manchester
Armstrong, Wm., Esq.	[illegible]
Ashby, Henry M.D.	[illegible]
Ashton, J. T., M.B.	[illegible]
Ashworth, H. Esq.	[illegible]
Ashworth, J. W., Esq.	[illegible]
Aspinall, Thomas, Esq.	Over-Darwen
Aspinall, William, Esq.	[illegible]
Atkinson, James, Esq.	[illegible]
Atwell, Gregory H., Esq.	[illegible]
Ayre, J. J., Esq.	Colne
Bagley, S., Esq.	Stockport
Bailey, Francis J., Esq.	51, Grove Street, Liverpool
Bailey, Isaac, Esq.	Throstle Grove House, Stockport
Bailey, James F., M.D.	Marple
Baird, J. T. W., M.D.	[illegible]
Baker, G. Benson, M.D.	40, Hoghton Street, Southport
Baldwin, H. S., M.D.	[illegible]
Bale, W., Esq.	Heaton Norris, Stockport
Ball, John A., M.B.	Heaton Norris, Stockport
Banks, W. M., M.D.	28, Rodney Street, Liverpool
Barlow, W. H., M.D.	[illegible]
Barnes, J. J., Esq.	[illegible]
Barnes, [illegible]	23, King Street, Wigan
Barr, James, Esq.	Fishpool Union, Bolton
Barr, James, M.B.	1, St. Domingo Grove, Liverpool
Barr, W. H., Esq.	[illegible]
Barron, George B., M.D.	Summerseat, Southport
Batty, W. E. L., Esq.	Tranmere, Birkenhead
Bastable, J. B. L., Esq.	101, Lark Hill, Blackburn
Baxter, J. C., Esq.	102, Robson Street, Liverpool
Beales, R., M.D.	Congleton
Bean, D., Esq.	Rydal Mount, Mossley, Manchester
Beattie, G. W., M.D.	Oldham Road, Manchester
Bell, William, Esq.	[illegible]
Bennett, Edward A., Esq.	Marsden Hall, Burnley
Bennett, J. M., M.D.	2, Princes Road, Liverpool
Bernard, A., M.B.	63, Bedford Street North, Liverpool
Berry, J., Esq.	Leyland, Preston
Bickersteth, E. R., Esq.	2, Rodney Street, Liverpool
Birch, E. A., Esq.	Longsight, Manchester
Bird, J. D., M.B.	Heaton Chapel, Stockport
Bishop, E. S., Esq.	6, Stockport Road, Manchester
Blackburn, W., Esq.	Upper Mill, Saddleworth
Blackmore, E., Esq.	23, Quay Street, Manchester
Bland, Henry, Esq.	Whitworth Road, Rochdale
Bligh, John, M.D.	117, Mount Pleasant, Liverpool
Boddy, Hugh W., M.B.	118, Cheetham Hill, Manchester
Boodle, R. M. Esq.	54, Milnrow Road, Rochdale
Booth, P. L., Esq.	Barrow-in-Furness
Borchardt, Louis, M.D.	Barton Arcade, Manchester
Bott, H. S., Esq.	Royal Infirmary, Manchester
Boutflower, Andrew, Esq.	Manchester
Bowen, Essex, M.D.	Grange Mount, Birkenhead
Bowman, G., M.D.	Old Trafford, Manchester
Bowring, George, Esq.	324, Oxford Street, Manchester
Brabazon, W. P., M.D.	[illegible]
Braddon, C. H., M.D.	Cheetham Hill, Manchester
Bradshaw, J. D., M.B.	Slade House, Bowdon (resigned)
Braidwood, P. M., M.D.	Delamere Terrace, Birkenhead
Brandreth, C. L., Esq.	Blackpool
Brannigan, R. A., M.D.	4, Upper Parliament Street, Liverpool
Brebner, G. R., M.B.	Openshaw, Manchester
Bride, John, M.D.	Wilmslow, Cheshire
Bride, J. Grant, Esq.	Woodville, Warrington
Brideoake, James, Esq.	[illegible]
Brierley, J. B., M.D.	Old Trafford, Manchester
Brierley, T. B., Esq.	Tattenhall, Cheshire
Briggs, H., M.B.	Royal Infirmary, Liverpool
Briggs, H., M.D.	Burnley
Broadbent, G. Harry, Esq.	Ardwick, Manchester
Broadbent, John, Esq.	8, Sunny Bank, Alexandra Road, Manchester
Brown, J., Esq.	Mount Pleasant, Bacup
Brown, R. C., M.B.	Preston
Browne, E. A., Esq.	86, Bedford Street, Liverpool
Browne, Henry, M.D.	Heaton Mersey, Manchester
Brumwell, G. M., M.D.	[illegible]
Buckley, James, Esq.	[illegible]
Buckley, Samuel, Esq.	Cheetham Hill, Manchester
Burgess, W. H. Sutcliffe	Mottram-in-Longendale, Manchester
Burns, John, Esq.	[illegible]
Burrows, John, Esq.	Ivy House, Aigburth Road, Liverpool (resigned)
Burton, J. E., Esq.	64, Rodney Street, Liverpool
Bury, J. S., M.D.	36, Fitzwarren Street, Pendleton
Byerley, Isaac, Esq.	[illegible]
Byrne, J. J., Esq.	Preston
Cameron, A. H. F., Esq.	[illegible]
Cameron, John, M.D.	[illegible]
Campbell, W. Macfie, M.D.	[illegible]
Campion, H., Esq.	264, Oxford Street, Manchester
Carmichael, A. H., Esq.	139, Queen's Road, Liverpool
Carrington, B., M.D.	[illegible]
Carruthers, W., Esq.	Halton, Runcorn
Carruthers, W. H., M.D.	[illegible]
Carter, W., M.D.	[illegible]
Caton, R., M.D.	[illegible]
Cayzer, T., Esq.	[illegible]
Chadwick, Alfred, M.D.	[illegible]
Chadwick, J. M., Esq.	[illegible]
Chain, Alex., Esq.	10, Juvenal Street, Liverpool
Chambers, A. E., Esq.	[illegible]
Cheesbrough, H. A., M.D.	5, King Street, Blackburn
Christison, J., M.D.	[illegible]
Clark, John B., M.D.	[illegible]
Clarke, Alex., Esq.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Clayton, Richard, Esq.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

Cooper, W., Esq. ..
Corns, J., M.D. .. 121, Union Street, Oldham
Cr[illegible], A., Esq. .. Bradshaw, Bolton-le-Moors
Cr[illegible], David, M.D. .. 235, Boundary Street, Liverpool
Cr[illegible], A. A., Esq. ..
Coultate, W. M., Esq. .. Burnley
Court, W., Esq. .. Fold's Road, Bolton
Coutts, J. A., M.D. .. Waterfoot, Manchester
Coveney, J. H., Esq. .. Prestwich, Manchester
Cowan, J. A., M.D. .. Newchurch-in-Rossendale
Cran, James, M.B. .. Regent Road, Salford, Manchester
Crawford, [illegible] .. [illegible]
Crean, R., Esq. .. .. 26, Bury New Road, Manchester
Cr[illegible], N., Esq. .. .. 101, Upper Parliament Street, Liverpool
Crew, [illegible] .. .. Alexandra Park, Manchester
Crighton, D., M.B. .. Walton, Liverpool
Cr[illegible], W. H. [illegible] .. Moss Lane, Manchester
Crompton, S., M.D. .. Cranleigh, Surrey
Crutchley, H., M.D. .. .. Holmcroft, Alsager
Cullingworth, C. J., Esq. .. .. [illegible] Manchester
Daly, R. A. Shelton, Esq. .. 6, Vine Street, Manchester
Darwen, G. H. Esq. .. .. Chapman Street, Manchester
Davidson, A., M.D. .. .. 2, Gambier Terrace, Liverpool
Davidson, J. H., M.D. .. County Asylum, Chester
Davidson, J. K., Esq. .. [illegible]
Davies, W. R., [illegible]
Davies-Colley, Thos., M.D. .. Newton Cottage, near Chester
Dawson, T., Esq. .. 26, Rodney Street, Liverpool
Deakin, J., Esq. .. .. [illegible]
Dean, O., Esq. .. 8, Butler Street, Manchester
Dean, T. N., Esq. .. .. Shakspeare Street, Ardwick, Manchester
Dearden, R. J., Esq. .. .. Chorlton Dispensary, Manchester
Deas, P. M., M.B. .. .. County Asylum, Macclesfield
Denson, J. L., Esq. .. Chester
Denton, T. W., M.D. .. .. Newbold, Chester
Derham, B., M.D. .. .. 110, St. George's Road, Bolton
Derham, T., M.D. .. .. 84, Manchester Road, Bolton
Dickinson, L. H., M.D. .. .. 162, Bedford Street, Liverpool
Dickinson, J. B., M.D. .. 53, Grosvenor Square, Stalybridge
Diggle, C. F., Esq. .. .. Westwood Oldham
Dobb, Jas., Esq. .. .. Newton
Douglas, A. Latham, Esq. .. .. 69, Croxteth Road, Sefton Park, Liverpool
Downs, G., M.D. .. .. Stockport
Dowse, J. G., [illegible] .. Longsight, Manchester
Dreschfeld, J., M.D. .. .. 292, Oxford Street, Manchester
Dunbar, R. P., M.D. .. .. 16, St. Alban's Place, Blackburn
Duncan, J., M.B. .. Ashton-under-Lyne
Duncan, Wm., M.D. .. Tyldesley, Manchester
Eames, T. B., Esq. .. Kearsley, Stoneclough
Eccles, E., Esq. .. New [illegible] Preston
Edge, A. M., M.D. .. 252, Oxford Street, Manchester
Edge, J. J., Esq. .. Towlerton House, Carlow
Edwards, J. H., Esq. .. .. 17, Stretford Road, Manchester
Elias, D., M.D. .. .. 11, Hoghton Street, Southport
Elias, T. A., Esq. .. .. Hoghton Street, Southport
Elliott, J. W., Esq. .. 227, West Derby Road, Liverpool
Emmett, W. H., Esq. .. .. Horwich, Bolton-le-Moors
Evans, D. T., Esq., .. 121, Bury New Road, Manchester
Evans, T. C., Esq. .. .. Rose Vale, Liverpool
Ewart, J. H., Esq., .. Limefield House, Cheetham Hill, Manchester
Fairclough, J. J. K., M.D. .. Strettford Road, Old Trafford, Manchester
Farrar, Joseph, Esq. .. .. Morecombe
Faulkner, J. T., Esq. .. .. Stretford, Manchester
Fawsitt, T., Esq. .. George Street, Oldham
Fay, T. W. W., Esq. .. .. 3, Canning Street, Liverpool
Ferguson, John, Esq. .. .. 262, Stockport Road, Manchester
Ferguson, Fergus, Esq. .. [illegible] Mosley Street, Boston.
Ferguson, J. H., Esq. .. Bolton
Fernie, H. M., [illegible] .. [illegible]
Fiddes, Thos., M.B. .. .. Urmston, Manchester
Finegan, J. H., M.D. .. 48, Rodney Street, Liverpool
Firth, R. H., Esq. .. Infirmary, Blackburn
Fisher, H. F., Esq. .. 63, Walton Road, Liverpool
Fisher, T., Esq. .. Stone House, Wigan
Fisher, L., M.D. .. Lytham, Preston
Fitzhenry, E. H., M.D. .. 1, Esplanade, Waterloo, Liverpool
Fitzpatrick, A. E., Esq. .. .. Litherland, Liverpool
FitzPatrick, W. H., M.D. .. Hazel Mount, Stonycroft, Liverpool
Fletcher, Adam, M.D. .. Ilkley
Fletcher, J. Shepherd, M.D. .. 8, Lever Street, Manchester
Fletcher, Joseph L., Esq. .. Ardwick, Manchester
Folkes, F. H., Esq. .. .. St. Mary's Hospital, Manchester
Fort, T., Esq. .. Oldham
Fox, E. A., Esq. .. .. Enfield House, Academy Place, Warrington
Fox, R. Dacre, Esq., .. 341, Oxford Road, Manchester
Frend, J. A., Esq. .. Rosario, South America
Gallimore, T. A., Esq. .. .. Denton, Manchester
Galloway, James, M.D. .. .. Ramsbottom
Gamgee, A., M.D., F.R.S. .. Owen's College, Manchester
Garlick, Saxon, Esq. .. Hollinwood, near Manchester
Garner, J. E., M.B. .. 18, Winckley Square, Preston
Garstang, James, Esq. .. .. Wood Villa, Lytham
Garstang, W., M.D. .. .. Blackburn
Garthside, J., Esq. .. Wellington Field, Liverpool
Gaskell, R. A., Esq. .. St. Helen's
Gellatly, Andrew, M.B. .. Fairfield, Manchester
Gilbertson, J. B., M.D. .. .. Preston
Gill, G., Esq. .. 21, Abercromby Square, Liverpool
Gillibrand, W., Esq. .. Chorley Road, Bolton
Glascott, C. E., M.D. .. .. 11, St. John Street, Manchester
Glazebrook, N. S., Esq. .. Hayman's Green, West Derby, Liverpool
Glynn, T. R., M.D. .. .. 56, Rodney Street, Liverpool

Godson, A., M.B. .. .. Cheadle
Gornall, J. H., Esq. .. .. [illegible] Warrington
Gorst, H., Esq. .. .. [illegible]
Graham, A. F., M.D. .. ..
Graham, W., M.D. .. .. [illegible], Middleton, Manchester
Granger, F. M., Esq. .. .. [illegible]
Grant, D., M.B. .. .. [illegible], Manchester
Graydon, S. J., M.D. .. .. [illegible] Withington, Manchester
Greenhalgh, T., Esq. .. .. 102, Wellington Street, Stockport
Gregory, John, Esq. .. .. Rusholme, Manchester
Gregory, Geo. M.D. .. .. Brackley Park, Bolton
Gregson, T. W., M.B. .. .. 86, Lower Audley Street, Blackburn
Greves, E. H., M.B. .. .. [illegible] Liverpool
Griffith, A. H., Esq. .. .. Royal Eye Hospital, Manchester
Grime, H. A., Esq. .. [illegible]
Grime, John, M.D. .. .. 31, Great Bolton Street, Blackburn
Grimes, John, M.D. .. Grassendale, Liverpool
Grindrod, John A., Esq. .. Norden Rochdale
Grossman, K. A., M.D. .. .. 65, Rodney Street, Liverpool
Guest, E. S., Esq. .. .. 251, Oxford Road, Manchester
Gumpert, E., M.D. .. .. 266, Oxford Street, Manchester
Haddon, John, M.D. .. .. Eccles, Manchester
Haining, W., M.D. .. .. 82, Foregate Street, Chester
Hakes, James, Esq. .. .. 30, Hope Street, Liverpool
Hall, Egerton F., M.D. .. Prescot
Hall, James, M.B. .. .. 36, Moss Terrace, Higher Bridge St., Bolton
Hall, James, Esq. .. .. Fox Street, Preston
Hall, Richard S., Esq. .. .. Ince, Wigan
Hall, Wm., Esq. .. .. Lancaster
Hall, Wm., Esq. .. .. Crescent, Salford
Hall, William, jun., Esq. .. .. Stone-well, Lancaster
Hamilton, A., Esq. .. .. Henry Square, Ashton-under-Lyne
Hamilton, A., Esq. .. .. 58, Watergate Street, Chester
Hamilton, R., Esq. .. .. 1, Princes Road, Liverpool
Hampson, S., Esq. .. .. Dukinfield
Hardie, James, M.D. .. .. Higher Broughton, Manchester
Harker, John, M.D. .. .. Lancaster
Harris, Alfred C. E., M.B. .. Kenyon Terrace, Birkenhead
Harris, James A., M.D. .. .. St. George's House, Chorley, Lancashire
Harrison G., Esq. .. .. Chester
Harrison, Reginald, Esq. .. 38, Rodney Street, Liverpool
Harrisson, D., Esq. .. 23, Gambier Terrace, Liverpool
Harthan, Isaac, Esq. .. 89, City Road, Manchester
Hartley, D., Esq. .. .. [illegible]
Hartley, Robert, Esq. .. .. Pemberton, near Wigan
Haughey, A. R., M.D. .. .. Mill Street, Crewe
Hayward, T. E., Esq. .. .. Haydock, St. Helen's
Heap, S., Esq. .. .. Spotland Road, Rochdale
Heath, F. A., Esq. .. .. 118, Portland, Street, Manchester
Heath, W. R., Esq. .. .. Bold Street, Southport
Heathcote, Godfrey, Esq. .. .. 83, Grosvenor Street, Manchester
Heathcote, Ralph, Esq. .. .. 7, Chatham Street, Piccadilly, Manchester
Heathcote, Rowland, Esq. .. .. 5, Stockport Road, Ardwick, Manchester
Heckscher, M., M.D. .. .. 327, Oxford Road, Manchester
Heginbotham, H., Esq. .. .. Stockport
Hendry, D., Esq. .. .. 241, Boundary Street, Liverpool
Hendry, J. A., Esq. .. .. Kirkdale, Liverpool
Henson, Sydney, Esq. .. .. Harpurhey, Manchester
Hepworth, F., Esq. .. .. Eccles, Manchester
Hewer, Edward, Esq. .. .. Formby, Lancashire
Hewson, R. W., Esq. .. .. Asylum, Cheadle
Heyworth, J., Esq. .. .. Manchester Road, Hollinwood
Hicks, J. S., Esq. .. .. 2, Erskine Street, Liverpool
Hickson, A. T., M.D .. .. [illegible]
Hill, C., M.D. .. .. 26, Great Mersey Street, Liverpool
Hill, M., Esq. .. .. Falkner Terrace, Bootle, Liverpool
Hindle, George, Esq. .. .. Church Street, Darwen
Hirst, A., Esq. .. .. Prestwich, Manchester
Hodgkinson, A., M.B. .. .. Higher Broughton, Manchester
Hodgson, J. B., M.D. .. .. 64, Fishergate, Preston
Hodgson, W. J., M.D. .. The Butts, Rochdale
Hoggan, E., M.D. .. 72, Devonshire Park, Princes Park, Liverpool
Hollinworth, J., Esq. .. .. Lees, near Manchester
Holmes, F., Esq. .. .. West Gorton, Manchester
Holmes, J., M.D. .. .. [illegible], Manchester
Hopper, A. R., Esq. .. .. 61, Rodney Street, Liverpool
Hopwood, R., Esq. .. Portland Place, Stalybridge
Howard, J. F., M.D. .. .. Sandycroft, Shaws, Oldham
Howarth, G., Esq. .. .. Bolton-le Moors
Howe John, Esq. .. Marple
Howie, James M., M.B. .. 50, Rodney Street, Liverpool
Hudson, F., Esq. .. .. St. Petersgate, Stockport
Hudson, John, Esq. .. .. Ebor House, Bradford, Manchester
Hughes, James B., Esq. .. Roe Street House, Macclesfield
Hughes, W. H., Esq. .. .. Latchford House, Ashton-under-Lyne
Hunt, D. de Vere, Esq. .. 46, St. George's Terrace, Bolton
Hunt, T. H., Esq. .. .. 134, Embden Street, Hulme, Manchester
Huson-More, James, Esq. .. .. 4, Camp Street, Lower Broughton, Manchester
Hutchinson, R., Esq. .. .. 77, Upper Parliament Street, Liverpool
Ideson, J. J., Esq. .. .. Colne, Lancashire
Jackson, Edward, Esq. .. .. Wheelton, Chorley
Jackson, Edwin, Esq. .. .. Whalley Range, Manchester
Jackson, Richard A., M.D. .. Little Sutton, near Chester
Jackson, S., Esq. .. .. Peel Cottage, Oldham
Jackson, William, Esq. .. .. Bolton-le-Sands
Jacob, H. L., Esq. .. .. 23, Hamilton Square, Birkenhead
James, David, M.D. .. .. Sale, Cheshire
Jameson, G. H., M.D. .. .. Heywood
Jamison, A. A., M.D. .. .. St. Helen's
Jennett, M. J. J., Esq. .. .. Conway Street, Birkenhead
Johnson, C., Esq. .. .. Lancaster

Johnson, James, Esq. .. .. Breeze Hill, Bootle, Liverpool
Johnston, John, M.D. .. .. Bolton
Johnson, Thomas M., M.D. . 251, Chapel Street, Salford
Johnstone, G. W., Esq... .. Upholland, Wigan
Johnstone, John, Esq. .. . 53, Oxford Street Liverpool
Jones, A. Emrys, M.D. . 25, St. John Street, Manchester
Jones, David, Esq. .. . 71, Everton Road, Liverpool
Jones, Leslie H., M.D... Brighton Parade, Blackpool
Jones, R., Esq. .. Stretford New Road, Manchester
Jones, R. H., Esq. 9, Fern Grove, Lodge Lane, Liverpool
Jones, Thomas, M.B. .. . Royal Infirmary, Manchester
Jones, W. Goodall, M.D. 6, Prince Edwin Street, Liverpool
Jones, W. O., Esq. [illegible]
Jordan, F. W., Esq. .. Heaton Chapel, Stockport
[illegible], George W... Esq. 5, Bold Street, Warrington
Joynson, G. T., Esq. .. Northwich
Judson, T. R., Esq. .. .. West Derby, Liverpool
Kennedy, John, M.D. .. 4, Derby Terrace, Hulme, Manchester
Kenyon, George A., M.B. Chester
Kershaw, A., Esq. . Farnworth, Bolton
Kershaw, John, Esq. .. . Thorn Bank, Royton, Oldham
Kershaw, Joseph, Esq. .. Urmston, near Manchester
Kershaw, W. E. E., Esq. . Beech House, Middleton
King, G. M., Esq., . Royal Infirmary, Preston
King, H. W., M.D. .. . Infirmary, Chester
Kirk, Joseph, Esq. . Hindley, Wigan
Kitchen, C. F. H., Esq. .. York Street, Cheetham, Manchester
Knott, William, M.B. .. .. 109, Newport Road, Middlesborough
Knox, C., Esq. .. .. Grange Mount, Birkenhead
Knox, J. H., M.B. .. .. Clapham, Lancaster
Laidlaw, W. G., M.D. .. .. Tranmere, Birkenhead
Lambert, James, M.D... . Price Street, Birkenhead
Langshaw, J. P., Esq. .. . Lancaster
Lawson, J., M.B. .. .. Hebden Bridge
Lawson, S., Esq. . Brierfield, Burnley
Lax, William, Esq. .. . Ormskirk
Leach, Abraham .. Waterhead, Oldham
Leach, Abraham, jun., Esq. .. Manchester Street, Oldham
Leah, T. C., Esq. .. Hyde
Ledward, R. W., M.D... . 114, York Street, Cheetham, Manchester
Lee, Edmund, Esq. .. .. [illegible] Road, Manchester
Leech, D. J., M.D. .. .. 96, Mosley Street, Manchester
Lees, S. D., M.D. .. [illegible] Lane
Leigh, Herbert S., Esq. . Cheetham, Manchester
Lewis, Sigismund, M.D. .. 155, Duke Street, Liverpool
Ley, H. R., Esq. .. . County Asylum, Prestwich, Manchester
Leigh, T. D., Esq. .. . 2, Shaw Street, Liverpool
Lightbourne, J. A., M.D. . Winckley Square, Preston
Limrick, O. E. B., Esq... South Dispensary, Liverpool
Lindsay, J. F., M.B. .. . 24, Great George Square, Liverpool
Little, D., M.D. .. .. St. John Street, Manchester
Livesey, A. E., Esq. . 3, Carisbrooke Road, Liverpool
Livy, J., M.D. .. St. George's Terrace, Bolton
Lofthouse, J., Esq... .. West Bank, Rochdale
Longton, E. J., M.D. .. .. Southport
Looker, J. E., Esq. .. . Crescent, Levenshulme
Lowndes, F. W., Esq. .. . 40, Knight Street, Liverpool
Lowndes, H., Esq. . Catherine Street, Liverpool
Lowther, R., M.D. . Cartmel, Carnforth
Lucas, Samuel A., Esq. . 239, Boundary Street, Liverpool
Luckman, E., Esq. .. .. [illegible] Manchester
Lund, E., Esq. . 22, St. John Street, Manchester
Lupton, Richard J., M.B. .. 58, Norwood Grove, Liverpool
Lynn, Thomas, M.D. .. . 101, Everton Road, Liverpool (gone)
Lyster, C. E., M.D. .. . Devonshire Road, Liverpool (dead)
Maccall, W. N., M.D. .. [illegible] Manchester
M[illegible], W. [illegible] .. .. 47, Shaw Street, Everton, Liverpool
McClelland, J., M.D. .. .. Sefton Park, Liverpool
MacDonnell, M. A., M.D. . 8 Mulgrave Street, Liverpool
McEwen, W., M.D. .. .. Chester
M[illegible] C., M.D. .. [illegible]
MacGill, G., Esq. .. .. Littleborough
McGowan, S. A., M.D. .. Oldham
McGrath, T. J., Esq. .. .. 34, St. James's Road, Liverpool
McGeagh, W., M.D. .. .. 20, Spellow Lane, Liverpool
McLiesh, N., M.B. .. .. Bolton
M'Naught, [illegible] M.D. .. Boothfold, Newchurch, Manchester
M[illegible] [illegible] M.D. .. 74, Huskisson Street, Liverpool
McNaughtan, T., M.D. . Blackpool
M'N[illegible], Robert, [illegible] .. Hardshaw Street, St. Helen's
Main, W., M.D. .. The Park, New Ferry, Birkenhead
M[illegible], W. [illegible] .. Waikonaite, Otago, N.Z.
Mallett, F. B., M.D. .. .. Newport House, Bolton
Mallett, W. J., M.D. .. .. 63, Burlington Street, Manchester
Manifold, W. H., Esq. .. .. 45, Rodney Street, Liverpool
Mann, J. Dixon, M.D... .. 16, St. John St., Manchester
March, H. Colley, M.D. [illegible] Street, Rochdale
Marsh, J. Holt, Esq. .. .. Bolton
Marsh, N. K., Esq. .. .. 44, Bedford Street Liverpool
M[illegible], W. A., [illegible] .. Reedworth St., Kennington Rd., London, S.E.
Marshall, A., M.B. .. [illegible]
Martin, Johnson, Esq. .. [illegible]
Martin, J. M. H., M.D. . [illegible]
Martin, Richard J., Esq. .. Atherton, Manchester
Martin, W. Y., Esq. .. .. Walkden, Bolton-le-Moors
Martland, E. W., Esq. .. . [illegible]
Massiah, B. J., M.D. .. .. [illegible]
Mather, T., Esq. .. .. Ashton-in-Makerfield
M[illegible], W. [illegible] .. .. [illegible]
Matthews, James [illegible] .. [illegible], near Cranford

Matthews, Joseph, Esq. .. Waterloo, Liverpool
May, A. P., Esq. Moor House, Great Crosby
Meacham, E. Esq. Park Cottage, Turkey Lane, Manchester
Mellor, Thomas, Esq. .. Tottington Road, Bury
Mercier, C. A., Esq. .. 6, Chandos Street, London, W.
Merriman, W. S., Esq... 10, Upper Northgate Street, Chester
Miller, Hugh, M.D. .. 26, Hamilton Square, Birkenhead
Milne, J. K., Esq. .. . Monsall Hospital, Manchester
Molyneux, J. L., Esq. .. Upholland
Monks, E. H., Esq. . 160, Scholes Street, Wigan
Moore, E., M.D., 21, Pitt Street, Preston
Moore, Thomas, Esq. .. Hazel Grove, Stockport
Moore, W. H., Esq. .. 30, Great Mersey Street, Liverpool
Moreton, J. E., Esq. .. Tarvin, Chester
Morgan, J. E., M.D. .. . St. Peter's Square, Manchester
Moritz, S., M.D. . Cheetham, Manchester
Morris, G., Esq. .. . Skelmersdale
Morris, J. C., Esq. . Barrowford, Burnley
Morris, W. C., M.B. .. Chester-le-Street, Durham
Morrish, R. A., Esq. . Garston, Liverpool
Moss, H., M.D. . Moody House, Congleton
Mould, G. W., Esq. .. Asylum, Cheadle, Manchester
Mules, P. H., M.D. .. Bowdon
Munro, Seymour H., M.D. . [illegible]
Murphy, C. O., Esq. .. . Italian Villa, Alexandra Park, Manchester
Murray, H. G., Esq. .. [illegible]
Musson, W. E., Esq. .. .
Nash, F., Esq. .. . Todmorden
Needham, Walter, Esq. . Wilmslow
Neil, J., M.B. .. . Parkside Asylum, Macclesfield
Nesfield, Stephen, M.D. . 1, Richmond Place, Stretford Rd., Manchester
Nevins, J. B., M.D. .. . 3, Abercromby Square, Liverpool
Newton-Clare, E. S., Esq. . 2, Priory Villas, Calne, Wilts
Newton, G., Esq. . Lodge, Dukinfield, Cheshire
Newton, John, Esq. . 20, Marmaduke Street, Liverpool
Nichol, J. C., Esq. .. . 223, Stretford Road, Manchester
Noble, Daniel, M.D. .. . 258, Oxford Road, Manchester
Ogden, C., Esq. . 139, Yorkshire Street, Rochdale
Ogilvie, Jns., M.B. 128, St. George's Road, Bolton
O'Gorman, R. P., Esq... 64, Broad Street, Pendleton, Manchester
O'Grady, W. F., Esq. .. Swinton
O'Keeffe, J. M., Esq. .. Widnes
Oliver, John B., Esq. .. . 59, Parkfield Road, Liverpool
O'Sullivan, D. A., Esq. Oak Mount, Burnley
Owen, Harold, Esq. . Tue Brook, Liverpool
Owen, S. H., M.D. .. . Brooks Bar, Manchester
Oxley, M. G. B., M.D... .. 80, Rodney Street, Liverpool
Packer, J. M., M.D. .. [illegible]
Paget, W. S., M.D. .. . Victoria Road, Great Crosby, Liverpool
Paradise, Thos. D., Esq. . Leigh, Lancashire
Parker, Edward, Esq. .. . 126, Kirkdale Road, Liverpool
Parker, Roger, Esq. .. . 19, Derby Lane, Old Swan, Liverpool
Parker, Rushton, M.B. .. 69, Rodney Street, Liverpool
Parkinson, John R., Esq. .. 38, Frenchwood Street, Preston
Parkinson, R. T., Esq... .. 102, Upper Brook Street, Manchester
Parks, John, Esq. .. [illegible] Manchester
Parry, Thomas S., M.B. . 78, Northgate Street, Chester
Parsons, D. W., Esq. .. . 31, Everton Crescent, Liverpool
Parsons, G., M.B. .. . Hawkshead, Ambleside, Windermere
Parsons, John, Esq. .. Burnley
Paterson, William, M.D. . Park Road, Chorley
Paton, Robert, Esq. . 27, Thomas Street, Manchester
Patrick, Robert, Esq. .. . Derby Street, Bolton
Patterson, Thomas, M.D. . [illegible]
Paul, F. T., Esq. . 44, Rodney Street, Liverpool (dead)
Peatson, J. C., M.D. .. [illegible] Street, Manchester
Peirce, F., M.D. . Hoylake, Birkenhead
Perrin, J. B., Esq. .. Vernon House, Leigh
Pettinger, G. W., Esq... . Alexandra Road, Manchester
Philips, E. J. M., Esq.. . 33, Rodney Street, Liverpool
Pierce, F. M., M.D. .. . 98, Mosley Street, Manchester
Pigg, Thomas, M.D. .. Parsonage Nook, Withington, nr. Manchester
Pilkington, J. E., Esq... Salford Royal Infirmary, Manchester
Pinder, G. H., Esq. .. 98, Great Clowes Street, Manchesrer
Pinder, J. B., Esq. 2, York Place, Harpurhey, Manchester
Pinder, T. H., Esq. .. . Boston Street, Manchester
Pitcairn, G. K., M.B. .. Littleborough
Pitts, H. Yate, Esq. . Tue Brook, Liverpool
Platt, T., Esq. .. Oldham
Pointon, J., Esq. . [illegible]
Pollard, F., M.D. .. 52, Rodney Street, Liverpool
Pooley, R. C. M., Esq. [illegible]
Popjoy, J. J. B., Esq. .. [illegible]
Porter, C. F., Esq. [illegible]
Pountney, W. E., M.B. [illegible]
Price, John L., Esq. .. [illegible]
Price, T., Esq. [illegible]
Pritchard, Henry, Esq... [illegible]
Pughe, R. N., M.B. .. .. St. Paul's Square, Liverpool
Puzey, Chauncy, Esq. .. 71, Rodney Street, Liverpool
Rae, John, Esq. [illegible]
Railton, T. C., Esq. .. [illegible] Manchester
Rains, Samuel, Esq. .. [illegible]
Ransford, T. D., Esq. .. [illegible]
Ransome, Arthur, M.D. [illegible]
Rawdon, H. G., M.D... [illegible]
[illegible] [illegible]
Rayner, E., M.D. . [illegible]
[illegible] .. Northgate, Chester (dead)
Reed, G., M.D. .. 7, Cavendish Street, Manchester
Renshaw, C. J., M.D... .. Ashton-upon-Mersey

[illegible]	Ash House, Stretford, Manchester
[illegible]	[illegible]
Reston, Henry, Esq.	Ancoats, Manchester
[illegible]	Union Mills, Isle of Man
[illegible]	Crefeld Villa, Withington, Manchester
Rhodes, J. M., Esq	[illegible]
Rhodes, T. W., M.D.	[illegible]
[illegible]	[illegible]
[illegible]	Rusholme, Manchester
[illegible]	Blackpool
Richardson, W. E., Esq.	Claughton, Birkenhead
Richmond, C. E., Esq.	Warrington
[illegible]	112, Stanley Road, Liverpool
Riley, J. St. P., Esq.	[illegible]
[illegible]	[illegible]
Roberts, John, M.D.	[illegible]
[illegible]	Toxteth Workhouse, Liverpool
Roberts, William, M.D., F.R.S.	89, Mosley Street, Manchester
Robertson, G., M.B.	[illegible]
Robertson, Robert, M.D.	11, Oxford Street, Liverpool
Robinson, E., Esq.	Dukinfield, Cheshire
Robinson, John, M.B.	[illegible]
Robinson, John, Esq.	Frodsham
Rodger, Robert, M.D.	Cheetham Hill, Manchester
Rogers, Thomas L. M.D.	Asylum, Rainhill, Prescott
Rose, J., Esq.	Mount Pleasant, Liverpool
Ross, James, M.D.	335, Brighton Place, Oxford Rd., Manchester
Rothwell, C., Esq.	Bolton
Rowe, W. P., Esq.	76, Pembroke Place, Liverpool
[illegible]	27, Lever Street, Manchester
Rushton, J. L., M.D.	Gordon Gate Macclesfield
Russel, J. C., M.D	County Asylum, Lancaster
Russell, D., M.D.	Neston, near Chester
St. Clair, J. A., M.B.	Victoria Street, Blackpool
Samelson, A., M.D.	15, St. John's Street, Manchester
[illegible]	93, Shaw Street, Liverpool
Saul, W. W., M.D.	Lancaster
[illegible]	Radcliffe, Manchester
Schofield, G. T., Esq.	Stamford Road, Mossley
Scott, John, M.B.	41, Hyde Road, Manchester
Scowcroft, J. E., Esq.	[illegible]
Segar, J., M.D.	Lord Street, Southport
Sellers, W., Esq.	Radcliffe, Manchester
Sellers, W. B., Esq.	Rochdale
Sephton, Richard, Esq.	Culcheth, Warrington
[illegible]	Atherton, Manchester
Sergeant, E., Esq.	Town Hall, Bolton
Settle, R., M.D.	52, Bridge Street, Bolton
Shackleton, J., Esq.	Bridge Mills, Whitworth, Rochdale
Shain, J. M., Esq.	47, Pembroke Place, Liverpool
Sharp, H., Esq.	South Shore, Blackpool
Shaw, E., M.D.	24, Hoghton Street, Southport
Shaw, James [illegible]	Eccles, Manchester
Shaw, T., [illegible]	Kirkham, near Preston
Shearman, W. M., Esq.	Swinton, Manchester
Sheldon, E. M., Esq.	223, Boundary Street, Liverpool
Shepherd, C. D., Esq.	Wigan
Shuttleworth, G. E., M.D.	[illegible]
Sidebotham, G. W., Esq.	Church Street, Hyde, Manchester
Simpson, H., M.D.	3, Oxford Street, Manchester
Sinclair, W., M.D.	Duke Street, Barrow-in-Furness
Sinclair, W. J., M.D.	Moss Lane East, Manchester
Skaife, John, Esq.	6, Union Terrace, Blackburn
Smart, Bath C., M.D.	Strangeways, Manchester
Smart, R. Bath, Esq.	176, Waterloo Place, Oxford St. Manchester
Smith, C. E., Esq.	Stretford, near Manchester
Smith, D. T., M.B.	36, Church Street, Preston
Smith, Edward, M.B.	12, Folds Road, Bolton
Smith, G. W., Esq.	Aytoun Street, Manchester
Smith, H., Esq.	Blackrod, Chorley
Smith, H. Lionel, Esq.	Old Manor House, Uttoxeter
Smith, John, Esq.	[illegible]
Smith, Joseph Kellet, Esq.	23, Russell Street, Liverpool
Smith, Robert C., M.D.	29, Pin Mill Brow, Ardwick, Manchester
Smith, T., Esq.	[illegible]
Smith, T. Starkey, M.B.	Warrington
Smith, W., Esq.	Eccles, Manchester
Smithard, C. L., Esq	383, Oldham Road, Manchester
Snape, G. H., Esq.	75, Rodney Street, Liverpool
Somerville, John, Esq.	Park Street, Macclesfield
Somerville, T. A., Esq.	[illegible]
Southam, F. A., M.B.	Oakfield, Pendleton, Manchester
Sparrow, W. C., Esq.	326, Hardwood Terrace, Hollinwood
Sprakeling, R. J., Esq.	3, Derby Road, Bootle, Liverpool
Spratly, S., M.D.	[illegible]
Stanfield, W., M.D.	Warrington Street, Lees, Oldham
Stark, P. W., M.D.	Barrow-in-Furness
Steele, C. E., Esq.	56, Rodney Street, Liverpool
Steell, G., M.D.	Royal Infirmary, Manchester
Steeves, G. W., Esq.	53, Parkfield Rd., Liverpoo
Stephenson, W. H., M.D.	67, Ainsworth Street, Blackburn
Stevenson, G., M.D.	Holly Bank, Stretford, Manchester
Steward, A., Esq.	Newton Heath, Manchester
Stocks, A. W., Esq.	6, Crescent, Salford, Manchester
Stolterfoht, Henry, M.D.	Chester
Stothard, W. J., Esq.	Didsbury
Stuart, J. B., Esq.	Wallgate, Wigan
Sunderland, E., Esq.	Bolton
Sutcliffe, A. E., Esq.	345 Stretford Road, Manchester
Sutcliffe, W. H., Esq.	[illegible]
Sutherland, James, M.D.	[illegible]
Sutton, J. M., M.D.	[illegible]
Swaby-Smith, C., Esq.	[illegible]
Symonds, C. P., Esq.	[illegible]
Taylor, H. Coupland, M.B.	Todmorden Hall, Lancashire
Taylor, James, Esq.	Newgate Street, Chester
Taylor, John Stopford, M.D.,	Millbank Terrace, Liverpool
Taylor, R. Hibbert, M.D.	[illegible]
[illegible]	Bury
Thomas, H. O., Esq.	Nelson Street, Great George Square, Liverpool
Thompson, W., Esq.	Cobden House, Todmorden
Thomson, G., M.D.	Huddersfield Road, Oldham
Thomson, W., Esq.	[illegible]
Thorburn, J., M.D.	Rusholm, Manchester
Thorp, Charles W., Esq.	Dobroyd, Todmorden
Tomkins, H., M.D.	Monsall Hos., Newton Heath, Manchester
Tomlin, R. F., Esq.	Heaton Norris, near Stockport
Tomlinson, J. T., Esq.	22, Crescent, Salford, Manchester (resigned)
Torrop, J. S., M.D.,	[illegible]
Townson, B., Esq.	55, Shaw Street, Everton, Liverpool
Trail, A. F., M.B.	[illegible]
Treadgold, F. C. A., Esq.	32, Higher Bridge Street, Bolton
Trimble, R., M.D.	Walton-le-Dale, Preston
Turnbull, James M., M.D.	86, Rodney Street, Liverpool
Turner, G. M.D.	Hall Street, Stockport
Turner, G. E. W., Esq.	235, Wellington Rd. South, Stockport
Turner, Herod, Esq.	Rochdale
Turner, W., Esq.	Birkdale, Southport
Twyford, E. P., M.D.	St. Helens
Tyrer, R., Esq.	Rainhill, Prescot
Tytler, P., M.D.	106, York Street, Cheetham, Manchester
Utting, John, Esq.	Woodlands, Anfield, Liverpool
Vacher, Francis, Esq.	35, Hamilton Square, Birkenhead
Vaughan, W. E. W., Esq.	Crewe
[illegible]	30, Moss Lane West, Manchester
Wahltuch, A., M.D.	326, Oxford Street, Manchester
Walker, George, M.D.	11, Hamilton Square, Birkenhead
Walker, G. C., M.D.	Stanley Road, Bootle, Liverpool
Walker, G. Edward, Esq.	43, Rodney Street, Liverpool
Walker, T. Shadford, Esq.	88, Rodney Street, Liverpool
Wallace, J., M.D.	1, Gambier Terrace, Liverpool
Wallis, J. A., M.B.	Whittingham, Preston
Walls, W., Esq.	17, Oak Street, Manchester
Walmsley, F. H., Esq.	Higher Broughton, Manchester
Walter, W., M.D.	20, St. John Street, Manchester
Warburton, J. W., Esq.	114, Prince's Road, Liverpool
Ward, J. D., M.D.	70, Upper Brook Street, Manchester
Warren, S., M.D.	Hoylake
Wartenberg, V. A., Esq.	Blackpool
Waters, A. T. H., M.D.	69, Bedford Street, Liverpool
Waters, E., M.D.	Chester
Watkins, John W., M.D.	Newton-le-Willows (resigned)
Watson, A., M.D.	1, Laurel Bank, Alexandra Road, Manchester
Watson, T. Boswall, M.B.	Liscard
Watson, John, M.D.	115, Stockport Road, Manchester
Wearing, Allan, Esq.	Blackburn
Weaver, F. P., M.D.	Frodsham
Webster, B., M.D.	[illegible]
Weight, R. H., M.B.	Melrose
Welsh, A., M.D.	Whitworth, Rochdale
Westby, G., Esq.	Lodge Lane, Liverpool
Westmorland, Joseph, Esq.	106, St. Chad's Place, Manchester
Wharton, J., Esq.	110, Lees Road, Oldham
Whitaker, G. H. Esq.	Horwich, Bolton-le-Moors
White, Charles, Esq.	Warrington
White, James, Esq.	22, King Street, Wigan
White, J. A., Esq.	40, Chester Place, Pendleton, Manchester
White, W., M.D.	Wooley Bridge, Hadfield, Manchester
Whitehead, James, M.D.	87, Mosley Street, Manchester
Whitehead, Walter, Esq.	248, Oxford Street, Manchester
Whitelegge, B. A., M.B.	46, Crowndale Road, Oakley Sq., London
Whitford, W., M.D.	37, Shaw Street, Liverpool
Whitlam, J., Esq.	Glodwick road, Oldham
Whittington, T. Esq.	Woodleigh House, Prestwich
Whittle, Ewing, M.D.	77A, Upper Parliament St., Liverpool (resigned)
Willacy, C., Esq.	Cheadle Hulme, Stockport
Willett, James, Esq.	Stretton, Warrington
Williams, C., Esq.	Duffryn, Merioneth
Williams, D. M., Esq.	63, Shaw Street, Liverpool
Williams, Hugh, Esq.	81, Breckfield Road North, Liverpool
Williams, John, M.D.	Swinton, Manchester
Williams, J. T., Esq.	21, Storey Square, Barrow-in-Furness
Williams, Robert, Esq.	82, Rodney Street, Liverpool
Williams, R. H., Esq.	Great Eccleston, near Garstang
Williams, W., M.D.	58, Rodney Street, Liverpool
Williams, W. H., M.B.	Rossall School, Fleetwood
Williams, W. J., M.D.	The Hollies, Duke Street, Southport
Williamson, H. M., Esq	25 Stretford Road, Hulme, Manchester
Willis, F. T., Esq.	Burnley
Wills, T. M., Esq.	59, Merton Road, Bootle, Liverpool
Wilson, Charles B., Esq	Islington Square, Liverpool
Wilson, F., Esq.	Old Warke, Worsley, Manchester
Wilson, G. A., Esq.	9, St. Alban's Place, Blackburn
Wilson, James, M.D.	Newchurch, Rossendale, Manchester
Wilson, J. H., Esq.	Kensington, Liverpool
Wilson, Jonathan, Esq.	Withington, Manchester
Wilson, R. A., M.D.	Hornby, Lancaster
Wilson, T., M.D.	Ramsbotton, Manchester
Winn, John, Esq.	Poulton-le-Fylde
Winterbottom, Arthur T., Esq.,	Royal Hospital, Salford
Winterbottom, Henry, Esq.	[illegible]

Wisken, H., Esq.	Heywood, Manchester
Wolseley, C. B., M.D.	Moss Cliffe, Northwich
Wood, R. A. H., Esq.	118, Mount Pleasant, Liverpool
Wood, T. A., M.D.	Woolton, Liverpool
Woodcock, S., M.D.	Old Trafford, Manchester
Woods, C. R., M.D.	late of Lyndeth Park Infirmary, Liverpool
Woods, G., Esq.	Southport
Woodward, F. E., Esq.	General Infirmary, Chester
Woolstencroft, J., Esq.	Northwich
Worswick, F. H., M.D.	Chorlton Road, Manchester
Wraith, J. H., Esq.	Over Darwen
Wright, G. S., Esq.	Ducie Street, Manchester
Wright, N. W., Esq.	Ashley Bank, Bolton
Wright, S. H., M.D.	17, Alexandra Road, Southport
Wylde, J. H., Esq.	Hadfield
Wylie, A. H., M.D.	43, Manchester Street, Oldham
Yates, James, M.D.	Pit Bank, Oldham
Yeats, W., M.D.	Brunswick Street, Manchester
Young, A. H., M.B.	40, Sankey Street, Warrington
Young, Thomas F., Esq.	264, Derby Road, Bootle, Liverpool

MEMBERS UNATTACHED (162)

Aldred, H., Esq.	131, Great Ancoats Street, Manchester
Allan, Hector, M.B.	Whaley Bridge, by Stockport
Allen, Richard, Esq.	Didsbury
Anderson, James, M.D.	Park House, Royton
Anderson, James, M.B.	Poulton-le-Fylde
Anderton, C., Esq.	Lee, Manchester
Anthony, J., Esq.	Galgate
Arkwright, J., Esq.	Bowdon
Atkin, Chas., Esq.	136, Mount Pleasant, Liverpool
Bailey, T. C., Esq.	Mill Street, Crewe
Balbirnie, J. P., Esq.	Dalton-in-Furness
Ball, D., Esq.	Macclesfield
Barfoot, G. H., M.D.	Birkenhead
Barnes, R. W., Esq.	Fleetwood
Beaman, E. H., Esq.	Haydock Lodge, Newton-le-Willows
Bernardo, T. A. J., Esq.	Southport
Berry, W., Esq.	Appleby Cottage, Wigan
Bland, George, Esq.	Macclesfield
Blower, R., Esq.	119, Shaw Street, Liverpool
Bott, T. B., M.D.	Lytham
Boucher, A. H., M.D.	134, Wellington Road, N., Stockport
Bowen, O., Esq.	Heyworth Street, Liverpool
Bradburn, J. D., Esq.	Eccles, Manchester
Bramley, L., Esq.	Wray House, Lancaster
Bringloe, C., Esq.	Westhoughton, Bolton
Brown, J. M., M.B.	95, Warwick Street, Greenheys, Manchester
Butters, J., Esq.	4, Berkeley Street, Liverpool
Carmichael, A., M.D.	Barrow-in-Furness
Chalmers, J. D., M.B.	5, Renwick Street, Liverpool
Chapman, William, Esq.	Garstang
Chisholm, K. M., Esq.	Radcliffe, Manchester
Colan, T., M.D.	Manchester
Collier, W. H., Esq.	43, Southland Street, Southport
Cook, George H., Esq.	Hartford Hall, Northwich
Cormack, J. C., Esq.	Princes Road, Liverpool
Counsellor, W. P., Esq.	Stock Hills, Whalley
Cran, James, M.D.	Great Harwood
Crompton, J., Esq.	Bury
Dale, T., Esq.	163, Islington, Manchester
Daniel, J., Esq.	Cheadle
Dobie, W. M., M.D.	Chester
Doyle, E. A., M.B.	Leigh
Edwards, A. A., M.D.	Bank House, Rawtenstall
Erwin, S. J., Esq.	Openshaw, Manchester
Fisher, J. A., Esq.	Garston
Fleetwood, W. J., Esq.	Walton Vale, Aintree
Forbes, D., M.D.	Rock Ferry
Fourness-Brice, J., M.D.	Oxton, Birkenhead
Fyffe, John, M.B.	Southport
Gaythorpe, T. M., Esq.	23, Bark Street, Bolton
Goodman, J., Esq.	Southport
Gornall, R. G., Esq.	Newton Heath, Manchester
Green, Thomas W., M.D.	Rawtenstall, near Manchester
Griffith, D., Esq.	59, Mulgrave Street, Liverpool
Grimsdale, T. F., Esq.	29, Rodney Street, Liverpool
Gruggen, W. J., M.D.	29, Pilgrim Street, Liverpool
Hamill, J. W., M.D.	Higher Broughton, Manchester
Hammond, R. T., Esq.	771, Hyde Road, Gorton, Manchester
Hardman, A., M.D.	County Asylum, Lancaster
Hardman, W., M.B.	Blackpool
Harrison, Lewis Bower, M.D.	Higher Broughton, Manchester
Hawkes, H., M.B.	31, High Street, Worcester
Hazell, J., M.B.	Northwich, Cheshire
Hayward, J. D., M.D.	103, Grove Street, Liverpool
Hebblethwaite, Lancelot, M.D.	East Beach, Lytham
Helme, J. M., M.D.	Rusholme, Manchester
Hewett, J., Esq.	Kendal, Manchester
Hill, J. de Vere, Esq.	24, Wesley Street, Liverpool
Hobson, E. G., Esq.	Merton Road, Bootle, Liverpool
Hodder, John, Esq.	Preston
Hope, E. W., M.B.	Northumberland Road, Liverpool
Horrocks, W., Esq.	Edgworth, Bolton
Howden, J. H., Esq.	Royal Infirmary, Manchester
Hoyle, W., Esq.	Tyldesley, Manchester
Hulme, James, M.D.	Manchester
Irwin, L. A., M.D.	Liverpool
Illingworth, C. R., Esq.	Clayton, Manchester
Kendrick, James, M.D.	Warrington
Kidd, S., Esq.	14, Great George's Square, Liverpool
Lacey, E. S., Esq.	Royton, Oldham
Laing, James, M.B.	754, Rochdale Road, Manchester
Lancashire, J., Esq.	Stand, Manchester
Lane, Wm., Esq.	Hawkshead, Windermere
Lawrence, Alex., M.D.	County Asylum, Chester
Lees, J. E. M.B.	Elton, Bury
Macdonald, A. D., M.B.	3, Peel Street, Dingle Hill, Liverpool
Macdonald, P. W., M.B.	Co. Asylum, Parkside, Macclesfield
Mackenzie, J., M.B.	Burnley
MacLennan, D. U., M.B.	62, Mersey Road, Widnes
McPherson, T. A., Esq.	North Dispensary, Liverpool
Madeley, C. S., Esq.	2, Higher Ardwick, Manchester
Main, J. S., M.B.	Chorlton Union Hospital, Manchester
Malim, George W., Esq.	115, Drake Street, Rochdale
Mann, Robert M., Esq.	2, Great Bridgewater Street, Manchester
Mapei, Liugi V., Esq.	Golborne, Manchester
Marmon, James, Esq.	106 Derby Road, Bootle
Marshall, T., M.B.	Cornishead Priory, Durham
Martin, Robert, M.D.	Dispensary, Mill Street, Manchester
Massey, Thomas, Esq.	Stockport
Mathias, J. E., Esq.	Southport
Mayne, W. F., Esq.	Church Road, Urmston
Millar, A. P., M.D.	Nelson-in-Marsden
Miller, J. B., M.D.	Birkenhead
Mitchell, C. P., Esq.	Weaste, near Manchester
Moore, T. F., Esq.	Aughton Birkdale, Lancashire
Moreton, Thomas, Esq.	Hartford and Northwich
Mort, Wm., M.D.	Lord Street, Southport [resigned
Munro, William, M.D.	102, Earl St., Lower Broughton, Manchester
Mushet, William Boyd, M.D.	Victoria Road, New Brighton
Newman, H. T., M.D.	Audlem, Nantwich
Norbury, T. W., Esq.	Alderley Edge
O'Brien, R. J., M.B.	East Dispensary, Liverpool
Okell, George, Esq.	Winsford
Paley, Temple C., M.D.	Joy Cottage, Aynsome Grange-over-Sands
Parker, Robert, Esq.	Malpas, Cheshire
Paton, John W., M.D.	Dunraven, Rock Ferry, Cheshire
Payne, H., Esq.	The Infirmary, Ashton-under-Lyne
Pennington, T. R., Esq.	Erskine Street, Livepool
Phillips, W. H., M.D.	Egremont
Phipps, G. C., M.D.,	240, Oxford Street, Manchester
Pink, W., M.D.	Rochdale
Pownall, A. E., Esq.	Chorlton-cum-Hardy
Quinton, R. F., M.D.	H.M. Prison, Manchester [dead
Radford, Thomas, M.D.	Moorfield, Higher Broughton, Manchester
Renshaw, Herbert S., M.D.	Sale, near Manchester
Richardson, R. I., M.B.	Breck Road, Anfield, Liverpool
Robinson, Hugh, Esq.	Winckley Square, Preston
Robinson, James, M.D.	Dunscar
Robinson, James, Esq.	Ulverston
Roe, Edwin H., Esq.	Patricroft, Manchester
Ryder, P. H., Esq.	Ormskirk
Senior, Rawson, Esq.	Brooklands, Lymm
Serjeant, John, Esq.	Regent Road, Salford (dead)
Shaw, James, M.D.	Ashton, Newcastle-under-Lyne
Smith, J. B., M.B.	Newcastle-under-Lyne
Smith, S. H., Esq.	Chelford, Crewe
Smith, William, M.D.	Church Street, Preston
Snell, J., Esq.	Rock House, Bacup
Sparrow, Robert L., Esq.	Hollowood
Spearing, A., Esq.	Wren's Nest House, Shaw, Oldham
Squire, Robert. H., Esq.	Whittingham, Preston
Stansfield, G. S., Esq.	Price Street, Birkenhead
Stewart, Alex., M.D.	Brunswick Terrace, Pendleton
Stewart, W., M.D.	Bacup, Manchester
Stone, Joseph, M.D.	175, Upper Brook Street, Manchester
Street, A. F., M.B.	Royal Infirmary, Manchester
Tait, W. P., Esq.	Stalybridge
Tatham, J. F. W., M.D.	Salford
Telford, S., M.D.	236, Upper Parliament Street, Liverpool
Tinker, F. H., Esq.	Brooklands House, Hyde, Cheshire
Unwin, John B., Esq.	Wigan
Walby, Thomas, Esq.	3, Old Hall Street, Liverpool
Walker, A., M.D.	Newton Heath, Manchester
Wall, H. B., Esq.	Hesketh Park, Southport
Wallace, A., M.D.	Rochdale
Walsh, J., Esq.	Stonyhurst College, Blackburn
Walter, W., M.D.	St. Mary's Hospital, Manchester
Waterhouse, C. H., M.D.	Aigburth, Liverpool
Weir, John, Esq.	Penrith
Welch, H., M.B.	Rock Ferry, Birkenhead
Whitlow, Samuel, Esq.	Lytham
Whitlow, Samuel, Esq.	Cromwell Pool, Whitley, Northwich
Wickham, H. E., Esq.	Rock Ferry, Cheshire
Wilkinson, A. T., Esq.	3, Oxford Street, Manchester
Williams, W. C., M.D.	Bangor
Williams, H. C. P.	3, Rock Park, Southport
Wilson, J. F.	Rock Ferry, Birkenhead
Wilson, H. L.	Wavertree, Liverpool
Wilson, W., M.D.	Bank Street, Manchester
Wollaston, T. G., M.D.	3, Sandon Terrace, Liverpool
Woodburn, W. H., Esq.	Liverpool

METROPOLITAN COUNTIES BRANCH.

DISTRICT COMPRISING MIDDLESEX AND PARTS OF SURREY AND ESSEX AND THE METROPOLITAN POLICE DISTRICT OF SURREY.

Physician: [illegible]

Physician: [illegible]

[illegible] M.D., M.P., Reform Club, S.W.
[illegible] F.R.S. [illegible] Wimpole Street, W.
S. O. H[illegible], M.D. [illegible] Lower St., W.
[illegible] Hospital, Esq., 10, Great Cumberland Place, W.
C[illegible] M.D., Cantab., Hon. [illegible] Lower Thames Street, E.C.
Alexander Hood[illegible], M.D. [illegible] Hill, N.
W[illegible], Consulting Surgeon, M.D. [illegible] Surgeon, St. Mary's, Mayfair, W.
[illegible] W[illegible]
[illegible] Consulting Physician, Royal Chest Hospital, E.C.
North London—G. W. P[illegible], M.D. [illegible] Grosvenor Road, Highbury, N.
South London—H. N[illegible], Hon. Sec., The Grove, Dulwich, S.E.

COUNCIL.

Browne, J. Crichton, M.D., F.R.S.E. .. 7, Cumberland Terrace, N.W.
Clark, Andrew, M.D. .. 16, Cavendish Square, W.
Cavehorn, W. F., M.D. .. [illegible], Maida Vale, W.
Davidson, Charles J. .. Central Road, South Hackney, E.
Fagge, C. Hilton, M.D. .. 11, St. Thomas's Street, S.E.
Fotherby, Henry I., M.D. .. 3, Finsbury Square, E.C.
Gervis, Frederick H., Esq. .. 1 Fellows Road, Haverstock Hill, N.W.
Grant, Maxwell, M.D. .. 370, Commercial Road, E.
Holman, W. H., M.R.C.S. .. 10, Adelaide Road, South Hampstead, N.W.
MacCormac, Sir W. .. 13, Harley Street, W.
Mc[illegible], Charles [illegible] .. 1, Grosvenor Square, W.
Merriman, John L. .. 45, Kensington Square, W.
Savage, George H., M.D. .. Bethlem Royal Hospital, Southwark, S.E.
Sibley, [illegible] .. 7, Harley Street, Cavendish Square, W.
Smith, T. Gilbert, M.D. .. 78, Harley Street, W.
Stewart, A. P., M.D. .. 75, Grosvenor Street, W.
Stocker, Alonzo H., M.D. .. Peckham House, Peckham, S.E.
Vacher, L. Hart, M.D. .. 17, Chepstow Villas, Bayswater, W.

MEMBERS OF BRANCH. (Cont.)

Abbott, Charles E., Esq. .. Bocking, Braintree
Adams, James E., Esq. .. 10, Finsbury Circus, E.C.
Adams, Joseph C., [illegible] .. Brooke House, Clapton, E.
Adams, Wm., Esq. .. 5, Henrietta Street, Cavendish Sq., W.
Adams, William, Esq. .. 37, Harrington Square, N.W.
Aikin, Charles A., Esq. .. 7, Clifton Place, W.
Alderson, Fredk. H., M.D. .. Southerton House, Hammersmith, W.
Aldred, H. A., M.D. .. 4, Westbourne Park, W.
Alford, Stephen S., Esq. .. 61, Haverstock Hill, N.W. (dead)
Allchin, William H., M.B. .. 94, Wimpole Street, W.
Allingham, William, Esq. .. 25, Grosvenor Street, W.
Althaus, Julius, M.D. .. 36, Bryanstone Street, W.
Ambler, Vincent, Esq. .. 14, Cavendish Square, W.
Amsden, George, M.B. .. Asylum, Banstead
Anderson, Elizabeth Garrett, M.D. 4, Upper Berkeley Street, W.
Anderson, J. Ford, M.D. .. 28, Buckland Crescent, N.W.
Appleton, Henry, M.D. .. 31, Pembury Road, Lower Clapton, E.
Archer, Robert K., Esq. .. 33, Parkhurst Road, Camden Road, N.
Argles, R., Esq. .. 82, Oxford Terrace, Hyde Park, W.
Armstrong, G. W., Esq. .. Royal Hospital School, Greenwich, S.E.
Armstrong, John, M.D. .. Dartford
Asher, Asher, M.D. .. 18, Endsleigh Street, W.C.
Aveling, Chas. T., M.D., .. 14, Portland Place, Lower Clapton, E.
Aveling, J. H., M.D. .. 1, Upper Wimpole Street, W.
Ayling, William H., Esq. .. 103, Great Portland Street, W.
Baber, John, M.D. .. 34, Thurloe Square, S.W.
Bader, Charles, Esq. .. 10, Finsbury Circus, E.C.
Bailey, George H., M.B., .. 9, Cavendish Place, W.
Baker, G. Benson, M.D. .. Southport
Baker, W. Morrant, Esq. .. 26, Wimpole Street, W.
Ballard, Edward, M.D. .. 12, Highbury Terrace, N.
Bannister, Alfred J., M.D. .. 11, Addison Terrace, Notting Hill, W.
Bantock, George G., M.D. .. 12, Granville Place, Portman Square, W.
Barker, Alfred J., M.D., .. Ivy Lodge, Hornsey Road, N.
Barlow, Thomas, M.D. .. 10, Montague Street, W.C.
Barlow, T. C., Esq. .. 88, Dalston Lane, E.
Barnes, Edward C., Esq. .. Gloucester House, Hammersmith, W.
Barnes, J. Wickham, Esq. .. 3, Bolt Court, Fleet Street, E.C.
Barnes, Robert, M.D. .. 15, Harley Street, W.
Barnes, R. S. Fancourt, M.D. .. 7, Queen Anne Street, W.
Barraclough, R. W. S., M.D. .. 34, Dulwich road, Herne Hill, S.E.
Barratt, Joseph G., M.D. .. 8, Cleveland Gardens, W.
Barrow, A. Boyce, M.B. .. 17, Welbeck Street, W.
Bartlett, Edward, Esq., .. 40, Elgin Road, St. Peter's Park, W.
Barwell, Richard, Esq. .. 32, George Street, Hanover Square, W.
Bastian, H. Charlton, M.D. F.R.S. 20, Queen Anne Street, W.
Bate, George P., M.D. .. 2, Northumberland Houses, King Edward's Road, Hackney, E.
Batterbury, R. L., M.D. .. Berkhampstead
Baxter, E. Buchanan, M.D. .. 28, Weymouth Street, W.
Beach Fletcher, M.B. .. Asylum, Darenth, Dartford
Beale, Lionel S., M.B., F.R.S. .. 61, Grosvenor Street, W.
Beevor, Charles E., Esq., .. 129, Harley Street, W.
Begley, William C., M.D., .. 26, St. Peter's Square, Hammersmith, W.
Behrend, H., Esq. .. 26, Norfolk Crescent, W.
Bellamy, Edward, Esq. .. 17, Wimpole Street, W.
Bennett, A. Hughes, M.D. .. 1, Petersham Terrace, Queen's Gate, S.W., and Nice
Bennett, Sir J. Risdon, M.D., LL.D. F.R.S. .. .. .. 22, Cavendish Square, W
Bennett, Charles H., M.D. .. College House, Hammersmith, W.
Bennett, W. C. Steel, Esq. .. 17, George Street, Hanover Square, W.
Benton, Samuel, Esq. .. .. 2, Bennett Street, St. James's, S.W.
Berkart, Joseph I. B., M.D. .. 21, Wimpole Street, W.
Bernard, F., M.B. .. Small-pox Hospital, Stockwell
Berry, O. W., Esq. .. Bracondale House, Wimbledon Hill, S.W.
Best, Frederick A., [illegible] .. Walthamstow, E.
Beveridge, James S., Esq. .. 15, Palace Gdns. Terrace, Campden Hill, W.
Bindon, W. J. Vereker, M.D. .. Elm Villas, Kilburn, N.W.
Birch, George, Esq. .. Sussex House, Lower Clapton, E.
Bird, George, M.D. .. 49, Welbeck Street, W.
Bishop, George H., Esq. .. [illegible] Hospital, Hyde Park, W.
Bisshopp, James, Esq. .. .. Tunbridge Wells
Black, James [illegible] .. 10, Wimpole Street, W.
Blackburn, Herbert B., Esq. .. 12, Lansdowne Grove, W.
Blackmore, George H. .. .. 142, Dalling Road, Hammersmith, W.
Blackstone, Joseph, Esq. .. 6, Albert Terrace, Regent's Park, N.W.
Blake, William H., M.B. .. Harpenden
Blandford, George F., M.D. .. 71, Grosvenor Street, W.
Boswell, A., M.B. .. .. Dalston Lane, E.
Bott, W. Gibson, Esq. .. .. 61, Kennington Park Road, S.W.
Boulton, Percy, M.D. .. .. Seymour Street, W.
Bower, Richard N., Esq. .. 14, Doughty Street, W.C.
Bowkett, T. E., Esq. .. .. 239, East India Road, E.
Bowman, Wm., Esq., F.R.S. .. 5, Clifford Street, New Bond Street, W.
Boyd, Robert, M.D. .. .. 1, Bolton Row, Mayfair, W.
Brace, William H., M.D. .. 7, Queen's Gate Terrace, S.W.
Brailey, William A., M.D. .. 15, Orchard Street, W.
Braine, F. Woodhouse, Esq. .. 31, Madeline Street, W.
Brett, Alfred T., M.D. .. Watford
Bridges, John H., M.B. .. Furze Bank, Wimbledon, S.W.
Bridgwater, Thomas, M.B. .. Harrow
Bright, John M., M.B. .. The Green, Forest Hill, S.W.
Bristowe, John S., M.D. .. 11, Old Burlington Street, W.
Broadbent, William H., M.D. .. 34, Seymour Street, W.
Brodhurst, Bernard E., Esq., .. 20, Grosvenor Street, W.
Brodie, George B., M.D. .. 3, Chesterfield Street, Mayfair, W.
Brown, Augustus, M.D. .. 32, Arundel Square, N.
Brown, Charles Gage, M.D. .. 88, Sloane Street, S.W.
Brown, Charles R., M.D. .. Eastbourne
Brown, Frederick G., Esq. .. 16, Finsbury Circus, E.C.
Brown, George, Esq. .. .. 3, Gibson Square, Islington, N.
Brown, George D., Esq. .. Henley Villa, Ealing, W.
Brown, Thomas, Esq. .. 236, Kennington Park Road, S.E.
Browne, Henry, Esq. .. Albion Road, Stoke Newington, N. (dead)
Browne, J. Crichton, M.D., LL.D., F.R.S.E. .. .. .. 7, Cumberland Terr., Regent's Park, N.W.
Browne, Lennox, Esq. .. .. 36, Weymouth Street, W.
Bruce, J. Mitchell, M.D. .. 60, Queen Anne Street, W.
Brunton, John, M.D. .. .. 21, Euston Road, N.W.
Brunton, Linton B., Esq. .. 644, Commercial Road, E.
Brunton, T. Lauder, M.D., F.R.S. 50, Welbeck Street, W.
Bryant, Thomas, Esq. .. .. 53, Upper Brook Street, W.
Bucknill, John C., M.D., F.R.S. .. 39, Wimpole Street, W.
Buncombe, Charles H., Esq. .. City of London Infirmary, Bow Road, E.
Burchell, Peter L., M.B. .. 2, Kingsland Road, E.
Burger, Alexander, M.D. .. 43, Finsbury Circus, E.C.
Burnett, F. J., Esq. .. 28, George Street, Hanover Square, W.
Burney, W. C. S., Esq. .. Infirmary, Greenwich
Burrows, Sir G., Bt., M.D., F.R.S. 18, Cavendish Square, W.
Burton, John M., Esq. .. .. Lee Park, Lee, S.E.
Burton, Robert G., M.D. .. 1, Gloucester Villas, Hanwell, W.
Burton, T. Beard, Esq. .. 48, Rich Terrace, Brompton, S.W.
Burtonshaw, Thomas, Esq. .. 74, Southgate Road, N.
Bury, G. W. Heckwood, Esq. .. Welland House, Lyonsdown, Barnet.
Butler, Ebenezer R., M.D., .. 147, Cromwell Road, S.W.
Buzzard, Thomas, M.D. .. .. 56, Grosvenor Street, W.
Cahill, T., M.D. .. .. .. 9, Albert Terrace, Hyde Park, S.W. (dead)
Canton, Frederick, Esq. .. .. 17, Great Marlborough Street, W.
Capon, Herbert J., M.D. .. .. 159, Edgware Road, W.
Carter, Albert, Esq. .. 316, South Lambeth Road, S.W.
Carter, Charles Thomas, Esq. .. Hanley
Cartwright, Samuel, Esq. .. 32, Old Burlington Street, W.
Cartwright, S. Hamilton, Esq. .. 32, Old Burlington Street, W.
Carver, Eustace J., Esq. .. Fairlawn, Fulham, S.W.
Case, Henry, Esq. .. .. Asylum, Leavesden, Watford
Caskie, John B., M.D. .. 89, Goswell Road, E.C.
Cathcart, Samuel, Esq. .. Prudhoe House, Tottenham
Chambers, Thomas, Esq. .. 64, Chester Square, S.W.
Chance, Edward J., Esq. .. .. 59, Old Broad Street, E.C.
Chance, Frank, M.B. .. .. .. Burleigh House, Sydenham, S.E.
Chaple, Charles, M.D. .. .. 230, Burdett Road, E.
Chard, O. E. P., M.B. .. .. 19, Eccleston Street, S.W.
Cheadle, W. B., M.D. .. .. 2, Hyde Park Place, W.
Cheyne, R. Romley, Esq. .. .. 27, Nottingham Place, W.
Cheyne, W. Watson, M.B. .. 6, Old Cavendish Street, W.
Cholmeley, William, M.D. .. .. 63, Grosvenor Street, W.
Christie, T. B., M.D., F.R.S.E. .. Royal Indian Asylum, Ealing, W.
Church, W. S., M.D. .. .. .. 130, Harley Street, W.
Clapton, Edward, M.D. .. .. 10A, St. Thomas's Street, S.E.
Claremont, Claude C., Esq. .. .. Millbrook House, Hampstead Road, N.W.
Clark, Andrew, M.D. .. .. .. 16, Cavendish Square, W.
Clark, Andrew, Esq. .. .. .. 19, Cavendish Place, W.
Clark, Willington, Esq. .. .. 9, Cintra Park, Upper Norwood, S.E.
Clarke, Benjamin, Esq. .. .. 1, Arbutus Place, Upper Clapton, E.
Clarke, W. Fairlie, M.D. .. .. Southborough, Tunbridge Wells
Clarke, Vans C., M.D. .. .. Millbank Prison, S.W.
Clayton, Oscar, Esq. .. .. .. 5, Harley Street, W.
Cleveland, W. F., M.D. .. .. Stuart Villa, 199, Maida Vale, W
Clouston, C. S., M.D. .. .. .. Gunnersbury
Clover, Joseph T., Esq. .. .. 3, Cavendish Place, W.
Clutton, H. H., M.B. .. .. .. 16, Palace Road, S.E.

Cobbold, Charles S. W., M.D. .. Asylum, Colney Hatch, N.
Cockburn, Robert, Esq. .. 42, Leamington Road Villas, W.
Cockell, E. S., Esq. .. 62, Forest Road, Dalston, E.
Cockell, F. E., junr., Esq. .. 176, Richmond Road, Dalston, E.
Cockle, John, M.D. .. 13, Spring Gardens, S.W.
Coffin, R. J. Maitland, Esq. .. Alwington House, Baron's Court
Coffin, Thomas W., Esq. .. 81, Queen's Crescent, Haverstock Hill, N.W.
Collie, Alexander, M.D. .. Fever Hospital, Homerton, E.
Collins, W. J., M.D. .. 1, Albert Terrace, Regent's Park, N.W.
Comolly, Charles T., Esq. .. 3, Church Hill Villas, Wood Green, N.
Cook, John, M.D. .. 3, Upper Wimpole Street, W.
Cooke, Thomas, Esq. .. 16, Woburn Place, W.C.
Coombe, R. Gorton, jun., Esq. .. Tillingham, Essex
Connon, Charles James, Esq. .. Burnham, Malden, Essex.
Cooper, Alfred, Esq. .. 9, Henrietta Street, Cavendish Square, W.
Cooper, Arthur, Esq. .. 2, Henrietta Street, Cavendish Square, W
Cooper, Frank W., Esq. .. Leytonstone, E.
Cooper, Herbert, Esq. .. 3, Rosslyn Terrace, Hampstead, N.W.
Cooper, W. White, Esq. .. 19, Berkeley Square, W.
Corfield, W. H., M.D. .. 10, Bolton Row, Mayfair, W
Corner, F. M., Esq. .. Manor House, East India Road, E.
Corner, Matthew, M.D. .. 113, Mile End Road, E.
Cory, Robert, M.D. .. 14, Palace Road, Albert Embankment, S.E.
Cotman, J. S. E., Esq. .. 140, Minories, E.C.
Cottew, Edward, Esq. .. Campbell Cottage, Holloway Road, N.
Cottle, E. Wyndham, M.B. .. 3 Savile Row, W.
Cotton, Holland J., M.D., .. 109, Sloane Street, S.W.
Coulson, Walter John, Esq. .. 17, Harley Street, W.
Coupland, Sidney, M.D. .. 14, Weymouth Street, W.
Couper, John, M.D. .. 80, Grosvenor Street, W.
Cowell, George, Esq. .. 19, George Street, Hanover Square, W.
Crabb, James, M.D. .. 142, Hornsey Road, N.
Craigie, John H., Esq. .. 13, Portland Place, W.
Cree, Edward H., M.D. .. 2, Pemberton Villas, St. John's Park, N.
Cree, William E., Esq. .. 2, Pemberton Villas, St. John's Park, N.
Cribb, Henry, Esq. .. Bishop's Stortford
Crisp, Edwards, M.D. .. 16, Beaufort Street, Chelsea, S.W.
Critchett, George, Esq. .. 21, Harley Street, W.
Critchett, G. Anderson, Esq. .. 21, Harley Street, W.
Crocker, H. R., M.D. .. 28, Welbeck Street, W.
Croft, John, Esq. .. 61, Brook Street, W.
Croft, J. McGrigor, M.D. .. 15, Abbey Road, St. John's Wood, N.W.
Crosby, Thomas B., M.D. .. 21, Gordon Square, W.C.
Cross, Robert, M.D. .. 42, Craven Street, Strand, W.C.
Cuffe, Robert, Esq. .. Woodhall, Horncastle
Cumberbatch, T. T., M.D .. 25, Cadogan Place, S.W.
Cuolahan, Hugh, M.D. .. 7, Grove Road, Fermoy, Ireland.
Curgenven, J. Brendon, Esq. .. 11, Craven Hill Gardens, W.
Curwen, Cecil, Esq. .. The Laurels, Maidenhead
Dalby, William B., M.B. .. 11, Savile Row, W.
Dale, George C., M.D. .. Ivy Lodge, Upper Tooting, S.W.
Daly, Frederick H., M.D. .. 1, Victoria Road, Hackney Downs, E.
Dane, Thomas, Esq. .. 86, Finchley Road, N.W.
Daniel, W. Clement, M.D. .. Epsom
Daniell, R. T., M.B. .. 20, Cathcart Road, West Brompton, S.W
Davidson, Charles, Esq. .. 29, Cassland Road, South Hackney, E
Davies, Gomer, Esq. .. 66, Pembridge Villas, Bayswater, W.
Davies, Herbert, M.D. .. 23, Finsbury Square, E.C.
Davis, John Hall, M.D. .. 24, Harley Street, W.
Davis, Maurice, M.D. .. 11, Brunswick Square, W.C.
Davis, Willoughby, Esq. .. Amphthill Square, N.W.
Dawson, James, M.D. .. Oakley House, Upper Holloway Road, N.
Daw, William H., M.D. .. 10, Manchester Square, W.
Day, William H., Esq. .. Chapel Street, Pentonville, N.
DeBrent, Mortimer J., Esq. .. Aveley, Essex
De la Cour, George F., M.D. .. 282, Camden Road, N.W.
Dickinson, Thomas, Esq. .. 33, Sloane Street, S.W.
Dickson, Walter, M.D., R.N. .. Custom House, E.C.
Dingley, William, Esq. .. 7, Argyll Square, W.C.
Dixey, Augustus E., M.D. .. Finchley, N.
Dixon, James, Esq. .. Harrow House, Dorking.
Dobell, Horace, M.D. .. 9, Hanover Street, W
Doran, Alban H. G., Esq. .. 51, Seymour Street, W.
Douglas-Lithgow, R. A., Esq. .. 34, Cadogan Place, Chelsea, S.W.
Down, J. Langdon H., M.D. .. 39, Welbeck Street, W.
Dowse, Thomas S., M.D. .. 14, Welbeck Street, W.
Drage, Charles, M.D. .. Hatfield, Herts.
Drake, Arthur J., Esq. .. Stratford, E.
Drake, Charles H., Esq. .. Brixton Hill, S.W.
Druitt, Lionel, M.B. .. Leytonstone, E.
Drysdale, Charles R., M.D. .. 17, Woburn Place, W.C.
Dudfield, T. O., M.D. .. 1, Upper Hallam Street, W.
Dudley, J. Gardner, M.D. .. 71, Belgrave Road, S.W.
Duffin, W. B., M.D. .. 11, Devonshire Street, W
Duka, Theodore, M.D. .. 3, Montagu Square, W.
Duncan, B. Arcedeckne, M.D. .. 1, Grosvenor Street, W.C.
Duncan, Henry M., M.D. .. Abbey Road, South Hampstead, N.W.
Duncan, J. Matthews, M.D., LL.D. F.R.S.E. .. .. 71, Brook Street, W.
Dunn, Robert William, Esq. .. 13, Surrey Street, Strand, W.C.
Du Pasquier, Claudius F. Esq. .. Church Road, Upper Norwood, S.E.
Duplex, George, Esq. .. 60, Torrington Square, W.C.
Durham, Arthur E., Esq. .. 82, Brook Street, W.
Durham, Frederick, M.B. .. 82, Brook Street, W.
Early, George L., Esq. .. Ruxley, Cobham Valley
Eccles, George, M.B. .. 60, Grosvenor Street, Hyde Park, W
Eccles, John, M.D. .. 1, Norfolk Crescent, Hyde Park, W.
Eden, Arthur W., M.D. .. 22, Wimpole Street, W.
Edmunds, James, M.D. .. 1, Grafton Street, Bond Street, W.
Elin, George, M.D., .. Hereford
Evans, D. L., Esq., F.R.S. .. 61, Brook Street, W.
Evans, Evan W., Esq. .. Maesyfelin House, Pontypridd, S.W.

Evans, Herbert N., M.B. .. 3, Thurlow Road, Hampstead, N.W.
Evans, John T., jun., M.D. .. Hertford
Eve, R. W., M.B. .. 101, Lewisham High Road, S.E.
Fagge, C. Hilton, M.D. .. 11, St. Thomas's Street, S.E.
Fairbank, John, Esq. .. 18, George Street, Hanover Square, W.
Farquhar, William, Esq., Surg.-Major, A.M.D. .. Burmah
Farquharson, Robert, M.D., M.P. Reform Club, Pall Mall, S.W.
Farr, Wm., M.D., D.C.L., F.R.S. 78, Portsdown Road, Maida Hill, W.
Fayrer, Sir Joseph, K.C.S.I., M.D. 53, Wimpole Street, W.
Fegan, Richard, M.D. .. Old Charlton, Kent
Felce, Stamford, Esq. .. Kenmure House, Upper Park Road, St. John's Park, W.
Ferrier, David, M.D., F.R.S. .. 16, Upper Berkeley Street, W.
Field, George P., Esq. .. 31, Lower Seymour Street, W.
Field, Octavius A., Esq. .. 30, Westbourne Park Terrace, W.
Fincham, George T., M.D. .. 13, Belgrave Road, S.W.
Finlay, David W., M.D. .. 21, Montagu Street, W.
Finzi, J. M., Esq. .. 69, Sutherland Gardens, W.
Forbes, D. M., Esq. .. 204, Hoxton Road, N.
Forbes, John, Esq. .. St. John's Road, Jersey
Ford, James, M.D. .. Eltham
Forman, E. Baxter, M.D. .. 47, Stoke Newington Road, N.
Fotherby, Henry I., M.D. .. 3, Finsbury Square, E.C
Fothergill, J. Milner, M.D. .. 23, Somerset Street, Portman Square, W.
Foulerton, John, M.D. .. 44, Pembridge Villas, Bayswater, W.
Fountaine, D. O., Esq. .. 225, Camden Road, N.W.
Fowler, Robert, M.D. .. 145, Bishopsgate Street Without, E.C.
Fowler, Trevor, Esq. .. Epping
French, John G., Esq. .. 10, Cunningham Place, N.W.
Frost, William A., Esq. .. 77, Wimpole Street, W.
Fuller, William, Esq. .. 111, Piccadilly, W.
Fuller, William F., Esq. .. Uplands, Old Tiverton Road, Exeter (dead)
Gambier, Thomas, Esq. .. Stockleigh Road, St. Leonard's-on-Sea
Gant, Frederick J., Esq. .. 16, Connaught Square, W.
Garland, Henry, Esq. .. 11, Walworth Road, S.E.
Garlick, William, Esq. .. 33, Great James Street, W.C.
Garman, C. E., Esq. .. 143, Bow Road, E.
Garman, H. V., Esq. .. Kent House, Bow Road, E.
Garson, John G., M.D. .. Royal College of Surgeons, W.C.
Gaven, James A., Esq. .. 27, South Street, Thurloe Square, S.W.
Gawith, James T., Esq. .. 23, Westbourne Park Terrace, W.
Gervis, F. H., Esq. .. 1, Fellowes Road, Haverstock Hill, N.W.
Gervis, Henry, M.D. .. 40, Harley Street, W.
Gibbings, Alfred T., M.D. .. 93, Richmond Road, Dalston, E.
Gibbings, Ashley, Esq. .. 18, Stratford Place, W.
Gibbon, Septimus, M.B. .. 39, Oxford Terrace, W.
Gibbons, R. A., M.D. .. 88, Cadogan Place, S.W.
Gibson, John R., Esq. .. 10, Russell Square, W.C.
Gill, S. Lawrence, Esq. ..
Gimson, Thomas S., Esq. .. 32, Fitzroy Square, W.
Gittins, John, Esq. .. 134, Tooley Street, S.E.
Glassington, C. W., Esq. .. 1, Lansdowne Road, W.
Goddard, Eugene, Esq. .. 27, Pentonville Road, N.
Godlee, Rickman J., M.B. .. 22, Henrietta Street, Cavendish Square, W.
Godson, Charles, Esq. .. 1, Astwood Road, Cromwell Road, W.
Godson, Clement, M.D. .. 9, Grosvenor Street, W.
Goodchild, Arthur, Esq. .. Little Waltham, Chelmsford
Goodchild, John, Esq. .. Ealing, W.
Goodchild, John A., Esq. .. Ealing, W.
Goodhart, James F., M.D. .. 7, Weymouth Street, W.
Gordon, Charles A., M.D., C.B. 70, Cambridge Gardens, Notting Hill, W.
Gould, A. P., M.B. .. 16, Queen Anne Street, W.
Goullet, Arthur P., Esq. .. 1, Montpelier Row, Blackheath, S.E.
Gover, Robert M., Esq. .. 11, Hanover Square, W.
Gowers, William R., M.D. .. 61, Queen Anne Street, W.
Gowland, Peter Y., Esq. .. 34, Finsbury Square, E.C.
Grant, Alexander, M.D. .. 370, Commercial Road, E.
Grant, J. Dundas, M.D. .. 523, Commercial Road, E.
Grattan, Matthew H. Esq. .. Ostend
Graves, F. G., M.D. .. 1, Cambridge Road, W
Gray, John H., M.B. .. Bolingbroke House, Wandsworth Com., S.W
Gream, George T., M.D. .. Crawley Down Park, Worth, Sussex
Green, T. Henry, M.D. .. 24, Weymouth Street, W
Greenfield, W. S., M.D. .. 7, Heriot Row, Edinburgh
Greenhalgh, Robert, M.D. .. 71, Grosvenor Street, W
Greenhow, E. H., M.D., F.R.S. Castle House, Reigate
Greenwood, Major, jun., Esq. .. 18, Queen's Road, Dalston, E.
Gregson, George, Esq. .. 63, Harley Street, W.
Griffith, John T., M.D. .. Talfourd House, Camberwell, S.E.
Grigg, W. C., M.D. .. 6, Grosvenor Street, Manchester
Gross, Charles, Esq. .. St. Stephen's House, Westminster, S.W.
Grossmann, Alfred, M.D. .. Priory Road, West Hampstead, N.W.
Grossmann, G. F., M.D. .. 11, Devonshire Street, W.
Gull, Sir Wm. W., Bart., M.D., D.C.L., F.R.S. .. .. 54, Brook Street, W
Gunn, R. M., M.B. .. 1, Park Street, Grosvenor Square, W.
Guy, John, M.D. .. 1, Hornsey Road Terrace, N.W
Habershon, Samuel O., M.D. .. 5, Upper Brook Street, W
Hack, Alfred, M.D. .. Langport
Hall, Frederick, Esq. .. 1, Jermyn Street, S.W
Hamilton, F. G., Esq. .. Sherborne Lane, King William St., E.C.
Hamilton, J. Dickson, Esq. .. 1, Grosvenor Place, Hyde Park, W
Hardwicke, William, Esq. .. Hyde Hall, Hertford
Harman, H. N. .. 1, Grosvenor Street, S.W
Hare, Charles J., M.D. .. 57, Brook Street, W.
Harle, Ezra, Esq. .. Eagle Villa, Darnley Road, Hackney, E.
Harley, G. .. 11, Harley Street, W
Harley, John, M.D. .. 19, Upper Brook Street, W
Harman, A. C. .. 19, Upper Brook Street, N.
Harris, C. J. .. 11, Kensington Square, W

Harris, Robert, M.B.	2, Darnley Road, Hackney, E.
Harris, Vincent D., M.D.	[illegible] Wimpole Street, W.
Harrison, John, Esq.	Braintree
Hart, Ernest, Esq.	38, Wimpole Street, W.
Hart, Walter, Esq.	Great Baddow, Chelmsford
Hartley, Edmund, Esq.	31, Warwick Square, W.
Hastings, George, M.D.	47, Kensington Park Gardens, W.
Hayes, T. C., M.D.	17, Clarges Street, W.
Hawkins, F., M.D.	9, Harley Street, W.
Hawksley, Thomas, M.D.	31, Grosvenor Street, W.
Hayes, John A., M.D.	Lewisham, S.E.
Hayward, H. H., Lieut., R	38, Harley Street, W.
Hayes, George, Esq.	71, Oakley Square, N.W.
Heath, Christopher, Esq.	36, Cavendish Square, W.
Helsham, Hector, M.D.	341, Brixton Road, S.W.
Hemming, W. B., Esq.	26, Notting Hill Terrace, W.
Henry, Alex., M.D.	132, Highbury Hill, N.
Henty, George, M.D.	308, Camden Road, N.W.
Herman, G. E., M.B.	7, West Street, Finsbury Circus, E.C.
Hess, Augustus, M.D.	14, City Road, E.C.
Hewitt, Grailly, M.D.	36, Berkeley Square, W.
Heyward, Henry, Esq.	Lordship Lane, Dulwich, S.E.
Hichens, William, M.B.	1, Dorset Square, N.W.
Hicks, J. Braxton, M.D., F.R.S.	24, George Street, Hanover Square, W.
Hicks, G. Borlase, Esq.	Amhurst Road, Hackney, E.
Higgens, Charles, Esq.	38, Brook Street, W.
Higginson, Alfred, Esq.	135, Tulse Hill, S.W.
Hill, Berkeley, M.B.	55, Wimpole Street, W.
Hill, Charles H., M.D.	49, Richmond Road, Barnsbury, N.
Hill, Frederick A., M.D.	76, Abbey Road, N.W.
Hill, James, M.D.	1, Bedford Gardens, Kensington, W.
Hill, Samuel, M.D.	22, Mecklenburgh Square, W.C.
Hill, T. Harvey, Esq.	4, Stanhope Terrace, Bayswater Road, W.
Hill, William B., Esq.	89 Camberwell Road, S.E.
Hilliard, R. Harvey, M.D.	Fairmead House, Upper Holloway Road, N.
Hilton, A. P., Esq.	Carlton House, Bridge Road, S.W.
Hinds, James, M.D.	Halsted
Hird, Francis, Esq.	13, Old Burlington Street, W.
Hobson, John M., M.D.	3, Addiscombe Villas, Croydon
Hodges, Herbert B., Esq.	Watton, Hertford
Hodgson, George F., Esq.	Montpellier Road, Brighton
Hodson, Charles F., Esq.	Bishop's Stortford
Hogg, Charles, Esq.	12A, Charterhouse Square, E.C
Hogg, Jabez, Esq.	1, Bedford Square, W.C.
Holding, Charles, Esq.	107, Victoria Street, S.W.
Holman, William H., M.B.	68, Adelaide Road, South Hampstead, N.W.
Holmes, T., Esq.	18, Great Cumberland Place, W.
Holt, Barnard, Esq.	14, Savile Row, W.
Holthouse, Carsten, Esq.	
Hood, D. W. Charles, M.D.	43, Green Street, W.
Hope, Wm., M.D.	56, Curzon Street, Mayfair, W.
Hopkins, A. B., Esq.	180, Shoreditch, E.
Houghton, W. B., M.D.	26, Cavendish Square, W.
Hovell, D. De Berdt, Esq.	Five Houses, Clapton, E.
Hovell, T. M., Esq.	3, Mansfield Street, Queen Anne Street, W.
Howell, Horace S., M.D.	11, Boundary Road, St. John's Wood, N.W.
Hubbard, Henry W., Esq.	26, Elgin Road, Notting Hill, W.
Huggard, W. R., M.D.	Sussex House, Hammersmith, W.
Hulke, John W., Esq., F.R.S.	10, Old Burlington Street, W.
Humby, Edwin, M.D.	83, Hamilton Terr., St. John's Wood, N.W.
Hume, F. H., Esq.	21, St. Peter Street, Islington, N.
Hume, F. N., Esq.	42, Addison Road, Kensington, W.
Hunt, Joseph W., M.D.	101, Queen's Road, Dalston, E.
Hutchinson, Jonathan, Esq.	15, Cavendish Square, W.
Hutchinson, S. J., Esq.	44, Brook Street, W.
Hutton, R. J., Esq.	240, City Road, E.C.
Ibbetson, George A., Esq.	19A, Hanover Square, W.
Jackson, George E. C., Esq.	Marlborough House, 17, Poland Street, W
Jackson, J. R., Edwards, M.D., F.R.S.	3, Manchester Square, W.
Jacob, E. L., Esq.	8, Altenburg Grdns., Clapham Common, S.W
Jacobs, Henry, Esq.	3, Russell Road, Kensington, W.
Jacques, Edwin, Esq.	206, Brixton Road, S.W.
Jagielski, Victor, M.D.	20, Weymouth Street, W.
James, Joseph B., Esq.	47, Jamaica Road, Bermondsey, S.E.
James, M. Prosser, M.D.	3, Dean Street, Park Lane, W.
James, W. Culver, M.D.	11, Marloes Road, Kensington, W.
Jeken, Jas., Esq.	Eltham, Kent
Jenner, Sir Wm., Bart., K.C.B. M.D., D.C.L., F.R.S.	63, Brook Street, W.
Jephson, John H., M.D.	20, Warwick Gardens, Kensington, W.
Jepson, Octavius, M.D.	Asylum, Stone, Dartford
Johnson, George, M.D., F.R.S.	11, Savile Row, W.
Johnston, Joseph, M.D., Brig.-Surg. A.M.D.	24, St. John's Wood Park, N.W.
Johnston, W. B., M.D.	157, Jamaica Road, Bermondsey, S.E.
Johnston, W. W., M.D.	Osborne House, Mount Ephraim, Tunbridge Wells
Jones, A. O'Brien, Esq.	Epsom
Jones, C. Handfield, M.B., F.R.S.	24, Montagu Square, W.
Jones, Philip W., Esq.	Enfield
Jones, Sydney, Esq.	16, George Street, Hanover Square, W.
Jones, T. Wharton, Esq., F.R.S.	35, George Street, Hanover Square, W.
Kelly, Bernard, M.D.	12, Plough Road, Rotherhithe, S.E.
Kennedy, Alfred E., Esq.	Plaistow
Kennedy, Richard, M.D.	22, Wellington Road, Peckham, S.E.
Kerr, Norman S., M.D.	42, Grove Road, N.W.
Key, A. Cooper, Esq.	30, Wilton Place, S.W.
Kiallmark, Henry W., Esq.	5, Pembridge Gardens, W.
Kibbler, R. C., M.D.	61, King Edward's Road, Hackney, E.
King, Robert, Esq.	Uxbridge, W.
King, W. Talbot, M.D.	74, Victoria Park Road, E.
Knowsley, John A., Esq.	New Bank Buildings, E.C.
Kingsford, C. Dudley, M.D.	Upper Clapton, E. (dead)
Kisch, Albert, Esq.	3, Sutherland Gardens, Maida Hill W
Kitching, George, M.D.	Enfield
Lamb, William, M.B.	Lewisham, S.E.
Lamb, W. H., M.B.	46, Kensington Park Gardens, W.
Lane, James R., Esq.	49, Norfolk Square, W.
Langmore, John C., M.B.	20, Oxford Terrace, W.
Langston, Thomas, Esq.	29, Broadway, Westminster, S.W.
Lankester, John, Esq.	2, Harley Street, W.
Latham, C. W., Esq.	442, Hackney Road, E.
Lavies, J. S., M.D.	96, St. George's Road, S.W.
Lawrence, Henry Cripps, Esq.	49, Oxford Terrace, W.
Lawson, George, Esq.	12, Harley Street, W.
Leadam, W. Ward, M.D.	80, Gloucester Terrace, Hyde Park, W.
Lee, A. R., Esq.	6, Stavordale Road, N.
Lee, Henry, Esq.	9, Savile Row, W.
Lee, Robert J., M.D.	6, Savile Row, W.
Lees, David B., M.D.	2, Thurloe Houses, Thurloe Square, S.W
Leigh, William, Esq.	Chiswick, W.
Leonard, Henry J., M.B.	279, Camden Road, N.
Leonard, Thomas, M.D.	29, New North Road, N.
Lichtenberg, George, M.D.	47, Finsbury Square, E.C.
Liddle, John, Esq.	80, Bow Road, E.
Liebreich, Richard, Esq.	16, Albemarle Street, W. (resigned)
Ligertwood, Thomas, M.D.	Royal Hospital, Chelsea, S.W.
Ling, William S., Esq.	Brightlingsea
Lipscomb, John T. N., M.D.	St. Alban's
Lipscomb, Richard N., Esq.	Tring
Littlejohn, Saltern J., M.B.	Hanwell, W.
Liveing, Edward, M.D.	52, Queen Anne Street, W.
Liveing, Robert, M.D.	11, Manchester Square, W.
Livingston, John, M.D.	New Barnet
Llewellyn, Evan, Esq.	9, Mount Place, Whitechapel, E.
Lloyd, Ridgway R., Esq.	St. Alban's
Lloyd, Robert H., M.D.	Lambeth Infirmary, S.E.
Loane, Joseph, Esq.	1, Dock Street, Whitechapel, E.
Lockhart, W., Esq.	67, Granville Park, Blackheath, S.E.
Logie, Cosmo G., M.D.	47, Queensborough Terrace, W.
Lomas, William, M.D.	9, Craig's Court, Charing Cross, S.W.
Long, Mark, M.D.	Burham, Ludlow
Longhurst, A. K., Esq.	2, Theresa Place, Hammersmith, W.
Longstaff, George B., M.D.	Wellesley, Cranbrook
Lovett, Samuel R., Esq.	13, Great Russell Street, W.C.
Lowne, Benjamin T., Esq.	65, Cambridge Gardens, W.
Lubbock, Montague, M.D.	19, Grosvenor Street, W.
Lucas, R. Clement, M.B.	18, Finsbury Square, E.C
Lucey, W. Cubitt, M.D.	The Elms, Bush Hill Park, Enfield
Lynch, J. Roche, Esq.	8, Boyne Terrace, Holland Park, W.
McAndrew, James J., Esq.	51, East India Road, E.
Mac Cormac, Sir William	13, Harley Street, W.
Mac Cormack, Michael J., M.B. Surg.-Maj., A.M.D.	Torrington Park, North Finchley, N.
MacDonagh, J. A., Esq.	211, Hampstead Road, N.W.
Macfee, John, M.D.	176, Commercial Road, E.
Mac Grath, W. M., Esq.	32, Colville Terrace, W.
McKellar, Peter H., M.B.	Fever Hospital, Stockwell, S.W.
Mackenna, J. W., M.D.	31, Great Marlborough Street, W.
Mackenzie, F. M., Esq.	10, Hans Place, S.W.
Mackenzie, G. Welland, Esq.	13, William Street, Lowndes Square S.W
Mackenzie, Morell, M.D.	19, Harley Street, W.
Mackenzie, Stephen, M.D.	26, Finsbury Square, E.C.
Mackinlay, J. G., Esq.	18, Stratford Place, W.
Mackintosh, Donald, M.D.	10, Lancaster Road, Belsize Park, N.W
Maclaren, Alexander C., Esq.	60, Harley Street, W.
McMunn, John A., M.B.	Royal Hospital, Chelsea, S.W.
Macnamara, Charles, Esq.	13, Grosvenor Street, W.
McOscar, John, M.D.	4, Argyll Street, W.
Macpherson, John, M.D.	35, Curzon Street, W.
Macpherson, Peter, M.D.	31, Mildmay Park, N.
Madge, Henry M., M.D.	4, Upper Wimpole Street, W.
Mahomed, F. A., M.D.	12, St. Thomas's Street, S.E.
Male, Henry D., Esq.	Victoria Park Square, E.
Mann, John, Esq.	3, Warlter's Villa Road, Hornsey Rise, N.
Marshall, Francis J., Esq.	St. George's Hospital, S.W.
Marshall, John, Esq., F.R.S.	10, Savile Row, W.
Marshall, John, Esq.	143, Grange Road, Bermondsey, S.E
Marshall, William G., Esq.	Asylum, Colney Hatch, N.
Martin, Henry C., M.D.	11, Somers Place, W.
Mason, Francis, Esq.	5, Brook Street, W.
Mason, J. Wallis, Esq.	1, Osnaburgh Terrace, Regent's Park, N.W
Massey, Hugh H., Esq.	33, Camberwell Green, S.E
Maudsley, Henry, M.D.	9, Hanover Square, W.
May, E. Hooper, M.D.	Tottenham
May, G. Parker, M.D.	Maldon
May, Lewis J., Esq.	371, Holloway Road. N.
Mayhew, Charles H., Esq.	23, Huntingdon Street, Barnsbury, N.
Meadows, Alfred, M.D.	27, George Street, Hanover Square, W.
Merriman, J. J., Esq.	45, Kensington Square, W.
Metcalfe, Edmund, Esq.	55, Clifton Gardens, Maida Vale, W.
Michael, William H., Esq., Q.C.	38, Parliament Street, S.W.
Mickle, William J., M.D.	Grove Hall, Bow, E.
Mickley, George, M.B.	St. Luke's Hospital, E.C.
Millar, John, Esq.	Bethnal House, Cambridge Road, E.
Mills, Samuel, Esq.	3, Southampton Street, Strand, W.C.
Milsom, R. H., M.D.	88, Finchley Road, N.W.
Mitchell, Robert N., M.D.	Amersham Park Villas, New Cross, S.E
Mitcheson, J. H., Esq.	Bridport Hall, Edmonton
Monro, Henry, M.D.	13, Cavendish Square, W.
Moore, Alfred W., Esq.	2, Besborough Street, Pimlico, S.W
Morgan, John H., Esq.	12, Chapel Street, Park Lane, W.

Morison, Alexander, M.D. .. 7, The Terrace, Green Lanes, N.
Morris, Henry, M.B. .. .. 2, Mansfield Street, W.
Morris, James, M.D. .. .. 13, Somers Place, Hyde Park, W.
Morris, Malcolm A., Esq. .. 63, Montagu Square, W.
Morrison, John R., Esq. .. 57, Cannon Street Road, E.
Morton, Andrew S., M.B. . Ophthalmic Hospital, Moorfields, E.C.
Morton, Thomas, M.D. .. Greville Road, Kilburn, N.W
Muir, James C. P., Esq. . 44, Cornwall Road, Westbourne Park, W.
Mumford, W. H., M.D. . 1, Bartlett's Passage, Holborn, E.C.
Murrell, William, M.D. . 38, Weymouth Street, W.
Musgrave, J. T., Esq. .. . Irlam Villa, Finchley Road, N.W.
Myers, Arthur L. R., L.R.C.P. .. Coldstream Guards
Napier, W. Donald, Esq. . 22, George Street, Hanover Square, W. (dead)
Nettleship, Edward, Esq. . 4, Wimpole Street, W.
Nicholson, Emilius R., M.D. . 89, Camden Road, N.W.
Norton, Arthur Trehern, Esq. . 6, Wimpole Street, W.
Norton, John, Esq. .. .. 38, John Street, Bedford Row, W.C.
Oates, Parkinson, M.D. .. 164, Cambridge Street, S.W.
Odell, William, Esq. .. .. Hertford
Ogilvie, Charles F., M.D. . Warham Road, Croydon
Oppenheim, Lewis, Esq. . 27, Cleveland Gardens, Hyde Park, W.
Ord, William M., M.D. . 7, Brook Street, W.
Orlebar, Hotham G., M.D. . Athenæum Club, Suffolk Street, S.W.
Ostlere, R., M.B. . 28, Stoke Newington Road, N.
Oswald, J. W. J., M.D. . 245, Kennington Road, S.E.
Oswald, R. J. W., Esq. . 245, Kenninng.on Road, S.E.
Owen, Isambard, M.B. . 41, Gloster Gardens, Hyde Park, W.
Owen, William, Esq. .. . 18, Old Ford Road, E.
Paget, Sir Jas., Bt., D.C.L., F.R.S. 1, Harewood Place, W.
Palmer, Rt. Richard, Esq. .. 1, Hunter Street, Brunswick Sq., W.C.
Parker, Robert W., Esq. .. 3, Old Cavendish Street, W.
Parrott, Edward J., Esq. .. Hayes
Parry, Lloyd D., Esq. .. ..
Parsons, Sidney, Esq. .. .. 78, Kensington Park Road, W.
Patten, Charles A., Esq. .. Marpool House, Ealing, W.
Paul, John H., M.D. .. .. Camberwell, S.E.
Paul, J. Liston, M.D. .. .. 43, Queensborough Ter., Kensington Gds., W.
Pavy, Frederick W., M.D., F.R.S. 35, Grosvenor Street, W.
Payne, J. Frank, M.D. .. 78, Wimpole Street, W.
Peacock, Thomas B., M.D. . 20, Finsbury Circus, E.C.
Pearce, Joseph C., M.D. . Manor House, Brixton Rise, S.E.
Pearse, W. E. G., Esq. .. . 24, Bessborough Gardens, S.W.
Pedler, George H., Esq. . 6, Trevor Terrace, Rutland Gate, S.W.
Perigal, Arthur, M.D. .. Station Road, New Barnet
Perkins, Whitfield, Esq. . Alexandra House, Glastonbury
Phillips, C. D. F., M.D. . Church Road, Upper Norwood, S.E.
Phillips, Richard, Esq. .. . 27, Leinster Square, W.
Picard, P. Kirkpatrick, M.D. 59, Abbey Road, N.W.
Platt, W. H., Esq. .. .. 4, Upton Villas, Kilburn, N.W.
Playfair, W.S., M.D. .. . 31, George Street, Hanover Square, W.
Pocock, F. E., M.D., .. . The Limes, St. Mark's Rd., Notting Hill, W.
Pollock, James E., M.D. . 52, Upper Brook Street, W.
Pollock, Robert J., Esq. . Old Lodge, Wimbledon Park, S.W.
Poore, G. V., M.D. .. .. 30, Wimpole Street, W.
Pope, Edward, Esq. .. .. Ewell
Pope, H. Campbell, M.D. .. 280, Goldhawk Road, Shepherd's Bush, W.
Port, Heinrich, M.D. .. .. 48, Finsbury Square, E.C.
Potter, George W., M.D. .. 12, Grosvenor Road, Highbury, N.
Potter, John B., M.D. .. .. 21, George Street, Hanover Square, W.
Powdrell, John, Esq. .. .. 160, Euston Road, N.W.
Powell, R. Douglas, M.D. .. 15, Henrietta Street, Cavendish Square, W.
Power, Henry, M.B. .. .. 37A, Gt. Cumberland Place, Hyde Park, W.
Priestley, Charles W., Esq. .. 66, Harley Street, W.
Priestley, W. O., M.D. .. 17, Hertford Street, Mayfair, W.
Prince, C. E., Esq. .. .. Belmont Hall, Essex.
Prior, R. H., M.D. .. .. St. Alban's
Pritchard, Urban, M.D. .. 3, George Street, Hanover Square, W.
Purchas, T. B., M.D. .. .. 37, North Bank, Regent's Park, N.W.
Purvis, W. Lindsay, M.D. .. 6, Stratford Place, Oxford Street, W.
Quain, Richard, M.D., F.R.S. .. 67, Harley Street, W.
Radcliffe, J. Netten, Esq. .. 14, Regent's Park Terrace, N.W.
Ramsay, William F. H., M.D. .. 39, Hammersmith Road, Kensington, W.
Randall, John, M.D. .. .. 35, Nottingham Place, W.
Ranger, W. G., Esq. .. .. 4, Finsbury Square, E.C.
Rasch, Adolphus, M.D. .. 7, South Street, Finsbury, E.C.
Rayner, Henry, M.D. .. .. Aylsham, Norfolk, W.
Read, Thomas L., Esq. .. .. 11, Peter's Hill, Doctors' Commons, E.C.
Reed, George Owen, M.D., F.R.S. 36, Alfred Place, W.
Reilly, F. J., Esq. .. .. 107, Globe Road, E.
Reynolds, J. Russell, M.D., F.R.S. 38, Grosvenor Street, W.
Richardson, Alfred, Esq. .. Aylsham, Norfolk, W.
Richardson, Benj. W., M.D., F.R.S. 11, Hanover Street, W.
Richardson, Thomas, Esq. .. 394, Commercial Road E.
Rickards, Walter, M.D .. 8, Cavendish Place, W.
Rivers, Walter, Esq. .. .. 3, Montague Square, W.
Rivington, Francis, M.D. .. 12, Cambridge Gardens, Kensington, N.W.
Ringer, Sidney, M.D. .. .. 15, Cavendish Place, W.
Rivington, Walter, Esq. .. 22, Finsbury Square, E.C.
Robert, Dacre W., M.D. .. 7, Manchester Street, W.
Roberts, Frederick T., M.D. . 53, Harley Street, W.
Robert, John D., Esq. .. .. 7, Southwood Terrace, Road, S.E.
Robertson, Buchanan, M.D. .. 3, Upper Wimpole Street, W.
Robertson, George A., Esq. .. 124, High Street, Notting Hill, W.
Rogers, George H., Esq. .. 3, Clifford Street, W.
Rogers, Hildyard, Esq. .. St. Stephen's, Westbourne Park, W.
Rogers, Joseph, M.D. .. .. 33, Soho Square, W.
Rogers, William R., M.D. .. 20, Berners Street, Oxford Street, W.
Rose, Hamilton C., M.D. .. 1, Stephen's Crescent, Westbourne Pk., W.
Rose, George, M.D. .. .. 6, Wimpole Street, Cavendish Sq., W.C.
Rose, Henry Cooper, M.D. . Hampstead, N.W.
Rose, Cuthbert H., M.D. .. 20, Manchester Square, W. (dead)

Royston, Charles, M.D. . 1, St. Stephen's Crescent, Westbourne Pk., W.
Rugg, B. Alfred, Esq. .. 1, Church Hill Villas, Wood Green, N.
Rugg-Gunn, Geo. P., M.D. . Stockwell Villa, Clapham Road, S.W.
Rygate, John J., M.B. . 126, Cannon Street Road, E.
Salter, J. H., Esq. .. .. Lansdowne Road, Ilfracombe.
Sanderson, J. B., M.D., F.R.S. 26, Gordon Square, W.C.
Sandwell, Edward, Esq. .. 10, Charles Street, Soho Square, W.
Sansom, Arthur E., M.D. . 30, Devonshire Street, Portland Place, W.
Saul, William, M.D. .. .. Cheltenham.
Saunders, Charles E., M.D. .. 21, Lower Seymour Street, W.
Saunders, Edwin, Esq. .. .. 13A, George Street, Hanover Square, W.
Saunders, George, C.B., M.D. . 28, Colville Terrace, Bayswater, W.
Savage, George H., M.D. . Bethlem Hospital, S.E.
Savory, W. Scovell, M.B., F.R.S. . 66, Brook Street, W.
Schmidt, Alfred E., Esq. . 150, Bethnal Green Road, E.
Schofield, F., M.D. .. .. Camberwell House, Camberwell, S.E.
Scofield, William J. J., Esq. .. 13, South Hill Park Gardens, N.W.
Scott, John, Esq. .. .. 10, Tavistock Square, W.C.
Scott, Peter, M.B. .. .. 5, Shaw Place, Greenock, N.B.
Seaton, Joseph, M.D. .. .. Sunbury, Middlesex
Sedgwick, Leonard W., M.D. . 2, Gloucester Terrace, W.
Sedgwick, William, Esq. .. 12, Park Place, N.W.
Semon, Felix, M.D. .. .. 59, Welbeck Street, W.
Semple, Robert H., M.D. . 8, Torrington Square, W.C.
Sequeira, H. L., Esq. .. . 34, Jewry Street, Aldgate E.C.
Sequeira, James S., Esq. . Cassland Crescent, Cassland Road, E.
Seton, David E., M.D. . 12, Thurloe Place, S.W.
Sewell, Charles B., M.D. . 21, Cavendish Square, W.
Shaw, George, Esq. .. .. Enfield Highway
Sheehy, William H., Esq. . 4, Claremont Square, N.
Sheldon, T., M.D. .. .. 123, Cornwall Road, Notting Hill, W.
Shepard, W. L., Esq. .. . 15, Euston Road, N.W.
Shepherd, W. G., M.D. . 30, Myddelton Square, E.C.
Shillitoe, Buxton, Esq. .. .. 2, Frederick Place, Old Jewry, E.C.
Shillitoe, Richard, jun., Esq. Hitchin
Sibley, S. W., Esq. .. .. 7, Harley Street, W.
Sieveking, Edward H., M.D. . 17, Manchester Square, W.
Simms, Frederick, M.B. . 15, Albert Mansions, S.W.
Simpson, G. A. Malcolm, M.D. .. Highgate, N. (dead)
Simpson, G., Esq .. .. 739, Old Kent Rd., S.E.
Simpson, Thomas, Esq. .. Coggeshall, Essex
Slight, George, M.D. .. .. 25, Brewer Street, W.
Sloggett, W. H., Esq. .. .. 74, Cambridge Gardens West, W.
Slyman, William D., Esq. .. 26, Caversham Road, N.W.
Smale, M. A., Esq. .. .. 3, Seymour Terrace, Hampton.
Smart, James, Esq. .. .. 70, Victoria Park Road, E.
Smart, Sir W. R. E., K.C.B., M.D. 21, Castletown Road, Kensington, W
Smith, E. Noble, Esq. .. . 24, Queen Anne Street, W.
Smith, Eustace, M.D. .. .. 5, George Street, Hanover Square, W.
Smith, T. Gilbart, M.D. . 68, Harley Street, W.
Smith, Heywood, M.D. . 18, Harley Street, W.
Smith, Protheroe, M.D. . 42, Park Street, Grosvenor Square, W.
Smith, Richard T., M.D. . 53, Haverstock Hill, N.W.
Smith, Roland D., Esq. .. 1, Clapton Square, E.
Smith, Thomas Heckstall, Esq. .. St. Mary's Cray, Kent (dead)
Smith, Walter, Esq. .. .. 2, Stanhope Terrace, Regent's Park, N.W.
Smyth, Spencer T., M.D. . Tyson Road, Forest Hill, S.E.
Snell, Edward, Esq. .. .. 70, City Road, E.C.
Snow, Herbert L., M.D. . 40, Norfolk Terrace, W.
Southey, Reginald, M.D. . 6, Harley Street, W.
Soutter, Mansfield C., Esq., .. Cambridge House, Dalston, N.
Squire, William, M.D. .. .. 6, Orchard Street, W.
Startin, James, Esq. .. .. 17, Sackville Street, W.
Steet, George C., Esq. .. .. 130, King Henry's Road, N.W.
Stewart, A. P., M.D. .. .. 75, Grosvenor Street, W.
Stewart, William, M.D. . 37, Southwick Street, Hyde Park, W.
Stewart, William E., Esq. . 16, Harley Street, W.
Stilwell, Henry, M.D. .. .. Hawkhurst, Kent
Stilwell, Robert R., M.D. . Beckenham, Kent
Stocker, Alonzo H., M.D. .. Hampton House, Finsbury Circus, E.C.
Stowers, James H., M.D. . 23, Finsbury Circus, E.C.
Stowers, Nowell, Esq. .. .. Bank Buildings, E.C.
Strange, W. Heath, M.D. .. 2, Avenue, Belsize Park, N.W.
Sturges, Octavius, M.D. . 85, Wimpole Street, W.
Sutherland, Henry, M.D. .. Rangoon, Burmah.
Sutro, Sigismund, M.D. .. .. Leytonstone, E.
Swindell, Joseph J., Esq. . Whetstone, N.
Tait, Lawson, M.D. .. .. 10, Highbury Park, N.
Tanner, John, M.D. .. .. 102, Harley Street, W.
Tapson, J. A., Esq. .. .. Cambridge, S.W.
Tatham, John, M.D. .. .. Gateshead-on-Tyne.
Tatham, Robert G., Esq. .. 3, Manchester Square, W.
Tay, Waren, Esq. .. .. 3, Devonshire Place, W.
Taylor, Charles, M.D. .. .. Lea Hurst, Matlock.
Taylor, John, M.D. .. .. Cheltenham.
Taylor, Thomas, Esq. .. .. Bolton.
Teevan, William F., Esq. .. 10, Portman Square, W.
Tegart, Edward, Esq. .. .. 49, Jermyn Street, S.W.
Tenison, E. T. Ryan, M.D., R.N. .. Bombay.
Thin, George, M.D. .. .. 22, Queen Anne Street, W.
Thomas, G. Danford P., M.D. .. Swansea.
Thompson, Alfred B., Esq. . 18, Serjeant's Inn, E.C.
Thompson, Augustus, M.D. .. Cheltenham.
Thompson, Sir Henry .. .. 35, Wimpole Street, W.
Thompson, Herbert, Esq. .. Lancaster.
Thompson, Reginald E., M.D. .. Cheltenham.
Thompson, William, M.D., LL.D., F.R.S. .. Belfast.
Thorne, Thomas, M.D., .. Sydenham, S.E.
Tibbits, Herbert, M.D. .. ..

Fido[illegible] M.B. .. .. M. [illegible] Park, M[illegible] Square, W.
Tod[illegible], Stan[illegible] .. The Cedars, Cranford
[illegible] .. 27, Seymour Street, W.
[illegible] .. 9, Wimpole Street, W.
Todd [illegible] ..
Tom[illegible], Cor[illegible] .. .. [illegible] Caterham Valley
Tom[illegible], Ed[illegible] .. Harrow
Toul[illegible], Fran[illegible] .. Upper Clapton, E.
Toul[illegible] .. 36, Thurloe Square, S.W.
Townsend, T. S., Esq. .. 68, Queen's Gate, Kensington, S.W.
Tr[illegible] .. 2, Phillimore Gardens, W.
Tr[illegible] .. [illegible] Square, W.C.
Tu[illegible] .. 232, Richmond Road, Hackney, E.
Truman, Edwin, Esq. .. 23, Old Burlington Street, W.
Tu[illegible] .. 16, Richmond Road, Barnsbury, N.
Tu[illegible] .. 4, Charlotte Street, Bedford Square, W.C.
Tu[illegible] .. 15, Finsbury Square, E.C.
Tu[illegible] .. [illegible] George Street, Hanover Square, W.
Tu[illegible] .. [illegible]
Tw[illegible] .. 14, Upper Brook Street, W.
Tu[illegible] .. 11, Bedford Square, W.C.
Vallance, T. J., M.D. .. Stratford, E.
Vasey, Charles, Esq. .. 5, Cavendish Place, W.
Venning, Edgcombe, Esq. .. 87, Sloane Street, S.W.
Verdon, H. Walter, Esq. .. [illegible] Bruton Road, S.W.
Verdon, Michael J., Esq. .. 37, Craven Street, W.C.
Verley, Reginald L., Esq. .. 62, Camden Road, N.W.
Vinen, E. H., M.D. .. .. 17, Chepstow Villas, Bayswater, W.
Vinen, J. N., M.D. .. St. John's, Southwark, S.E.
Waggett, John, M.D. .. .. [illegible] Ladbroke Grove, W.
Waite, Charles D., M.B. .. 3, Old Burlington Street, W.
Wakefield, Thomas, M.B. .. 37, Nottingham Place, W.
Walker, A. D., M.D. .. .. 56, Ladbroke Grove Road, W.
Walker, Joseph, M.D. .. 22, Grosvenor Street, W.
Wall, A. B., Esq. .. .. 1, Bishop's Road, Bayswater, W. (resigns)
Wallace, Frederick, Esq. .. 96, Cazenove Road, Upper Clapton, E.
Wallace, Richard [illegible], M.B. .. Amhurst Road, Hackney, E.
Waldram, W. J., M.B. .. 27, Weymouth Street, W.
Walshe, Walter H., M.D. .. 37, Queen Anne Street, W.
Walton, Haynes, Esq. .. .. 1, Brook Street, W.
Warn, Reuben T., Esq. .. 37, Highgate Road, N.W.
Warner, Francis, M.D. .. 24, Harley Street, W.
Warwick, R. A., M.D. .. Richmond, S.W.
Watkins, Charles S., Esq. .. 16, King William Street, W.C.
Watkins, Edwin T., M.D. .. 61, Guildford Street, W.C.
Watney, Herbert, M.D. .. 1, Wilton Crescent, S.W.
Watson, John, M.D. .. .. 6, Southampton Street, Bloomsbury, W.C.
Watson, W. Spencer, Esq. .. 7, Henrietta Street, Cavendish Square, W.
Watson, W. Tyndale, M.D. .. Tottenham
Way, John, M.D. .. .. 4, Eaton Square, S.W.
Waylen, Edward, Esq. .. Colchester (dead)
Weaver, Loraine, Esq. .. 185, Clapham Road, S.W.
Webb, Frederick E., Esq. .. 113, Maida Vale, W.
Webber, W. Littleton, Esq. .. 36, Addison Road, W.
Weber, Frederic, M.D. .. 14, Green Street, Grosvenor Square, W.
Weber, Hermann, M.D. .. 10, Grosvenor Street, W.
Welch, Charles, Esq. .. .. 377, Hackney Road, E.
Welch, Charles H., Esq. .. 120, Stoke Newington Road, N.
Welch, Samuel, Esq. .. .. Lauriston Villa, Victoria Park Road, E.
Weller, George, Esq. .. .. The Mall, Wanstead
Wells, S. S. D., Esq., Dep. Ins.-Gen., R.N. .. .. Royal Naval Hospital, Haslar
West, Samuel, M.B. .. .. .. 15, Wimpole Street, W.
Whaley, John C., Esq. .. 1, Brondesbury Road, Kilburn, N.W.
Wharton, Henry T., Esq. .. .. 39, St. George's Road, Kilburn, N.W.
Wheeler, Charles, Esq. .. .. 96, Kennington Park Road, S.W.
Wheeler, Daniel, Esq. .. .. Chelmsford
Wheeler, Thomas, Esq. .. .. Bexley, Kent
Whistler, W. McNeill, M.D. .. 28, Wimpole Street, W.
White, T. Charters, Esq. .. .. 32, Belgrave Road, S.W.
Whitmarsh, John L., Esq. .. The Waterfall, Southgate, N.
Whitmore, W. T., Esq. .. 7, Arlington Street, S.W.
Wilbe, Richard H., M.D. .. .. 21, Finchley Road, N.W.
Willett, Edmund, M.D. .. 6, Anson Road, Tufnell Park, N.
Willett, Edmund S., M.D. .. Wyke House, Isleworth, W.
Williams, A. Wynn, M.D. .. 1, Montagu Square, W.
Williams, C. Theodore, M.D. .. 47, Upper Brook Street, W.
Williams, Dawson, M.D. .. .. 22, Redburn Street, Chelsea, S.W.
Williams, H. Ll., M.D. .. 5, Atherstone Terr., South Kensington, W.
Williams, H. W., M.D. .. .. 168, Fulham Road, S.W.
Williams, John, M.D. .. .. 28, Harley Street, W.
Williamson, James, M.D. .. 44, Mildmay Park, N.
Willoughby, E. F., M.B. .. 76, Marquess Road, N.
Wilson, Sir, Erasmus, F.R.S. .. .. 17, Henrietta Street, Cavendish Square, W.
Wilson, F. W., M.B. .. .. Acacia House, Highgate Hill, N.
Wiltshire, Alfred, M.D. .. .. 57, Wimpole Street, W.
Winslow, Lyttleton F., M.D. .. 23, Cavendish Square, W.
Wise, Alfred T. T., M.D. .. Davos Platz, Switzerland
Woakes, Edward, M.D. .. .. 57, Harley Street, W.
Wood, John, Esq., F.R.S. .. .. 61, Wimpole Street, W.
Wood, William, M.D. .. .. .. 99, Harley Street, W.
Woodhouse, John, M.D. .. .. Hertford
Woodhouse, R. H., Esq. .. 1, Hanover Square, W.
Wookey, James, Esq. .. ..
Worley, W. C., Esq. .. .. .. 43, De Beauvoir Road, Hoxton, N.
Wotton, Charles, M.D. .. King's Langley (dead)
Wotton, Henry, M.D. .. .. 62, Bedford Gardens, Kensington, W.
Wright, Francis J., M.D. .. Northumberland House, Stoke Newington, N.
Yeo, I. B., M.D., ... 44, Hertford Street, Mayfair, W.

MEMBERS UNATTACHED [illegible]

Air, A. C., jun., Esq. .. .. .. [illegible] Kensington Park [illegible] S.W.
Al[illegible] .. .. .. [illegible] Queen's College Road, W[illegible] S.W.
Allan, D., M.D. .. .. .. [illegible] Lancaster Gate Road, N[illegible] W.
Allen, Francis J., M.B. .. .. [illegible] East End Road, West Kensington, W.
Al[illegible] .. .. .. 60, Alexandra Road, N.W.
Anderson, H. B., M.B. .. .. 78, East India Road, E.
Anderson, J., M.D. .. .. 25, Welbeck Street, W.
Anderson, M. F., Esq. .. .. 80, Gray's Inn Road, W.C.
Anderson, W., Esq. .. .. [illegible] St. George's Square, S.W.
Andrew, W. W., M.B. .. .. Hendon, N.W.
Andrews, F. F., Esq. .. .. 29, Eccleston Street, S.W. (resigned)
Andrew[illegible] .. .. 62, Hammersmith Road, W.
Andrew[illegible] .. .. [illegible] Chorley Square, N.W.
Andrews, James, M.D. .. .. [illegible] Hampstead, N.W.
Anthonisz, P. D., M.D. .. .. 12, Tavistock Square, W.C.
Armitage, J., M.B. .. .. St. Bartholomew's Hospital, E.C.
Arnold, J., Esq. .. .. .. 48, Upper Gloucester Place, N.W.
Arnott, S., Esq. .. .. .. 213, Hill Street, Walworth, S.E.
Arthur, W., Esq. .. .. Royal Continental Hotel, George Street, Hanover Square, W.
Atkinson, J. M., Esq. .. .. Infirmary, Marloes Road, S.W.
Atkinson, W. J., Esq. .. .. Woodville House, Wood Green, Southgate Rd.
Bailey, R. G., Esq. .. .. 44, Upper Edmonton Park, N.
Baker, F. G., Esq. .. .. Poplar Hospital, East India Road, E.
Baker, J. P., Esq. .. .. .. 6, York Place, Portman Square, W.
Barclay, A. W., M.D. .. .. 23A, Bruton Street, W.
Barnes, J. J. F., Esq. .. .. 83, Caversham Road, N.W.
Barrett, A. E., Esq. .. .. 12, Ladbroke Grove, W.
Bartlett, J. P., Esq. .. .. .. Sydney Place, Onslow Square, S.W.
Bass, C. W., Esq. .. .. .. Great Ilford
Bayfield, H. O., Esq. .. .. Lavender Hill, S.W.
Beale, E. C., M.B. .. .. 23, Upper Berkeley Street, W.
Beamish, James M., M.D. [illegible] A.M.D., Hounslow
Bell, Alfred J., Esq. .. .. .. 52, Acacia Road, N.W.
Benoly, N., M.D. .. .. 2, Gore Road, Victoria Park, E.
Berdoe, Edward, Esq. .. .. Victoria Park Gate, E.
Berry, G., M.B. .. .. .. Ophthalmic Hospital, Moorfields, E.C.
Berry, H. T., Esq. .. .. 29, Amwell Street, E.C.
Biggs, J. M., Esq. .. .. .. Child's Hill, N.W.
Biggs, M. G., Esq. .. .. Northcote Road, Wandsworth
Birch, S. B., M.D. .. .. .. 61, Harley Street, W.
Bird, P. H., Esq. .. .. .. 1, Norfolk Square, W.
Birkett, E. L., M.B. .. .. .. 40, Russell Square, W.C.
Biss, C. Y., M.B. .. .. .. 2, Old Burlington Street, W.
Black, J. Watt, M.D. .. .. 15, Clarges Street, W.
Blackley, John G., M.B. .. .. 2, Gordon Street, Gordon Square, W.C.
Blake, J. F., Esq. .. .. .. 1, Princes Street, Storey's Gate, S.W.
Bland. A. R. H., M.D. .. .. 11, Gloucester Gardens, S.W.
Bodkin, W., M.D. .. .. .. Chelmsford
Bond, J. W., M.D. .. .. .. University College Hospital, Gower St., W.C
Bonney, W. A., Esq. .. .. 145, Beaufort Street, Chelsea, S.W.
Bossy, Alfred H., Esq. .. .. 116, Stoke Newington Road, N.
Boulter, H. B., Esq. .. .. St. Bartholomew's Hospital, E.C.
Bowker, E. H., Esq. .. .. Ware (resigned)
Boyd, Stanley, M.B. .. .. .. 21, Huntley Street, W.C.
Bradford, E., Esq. .. .. Harrow-on-the-Hill
Brayn, R., Esq. .. .. .. H.M. Convict Prison, Pentonville, N.
Bredon, R. E., M.B. .. .. 3, Regent Street, W. (resigned)
Bree, C. R., M.D. .. .. Colchester
Brett, J., Esq. .. .. .. 18, Addison Gardens, S.W.
Brewer, A. H., Esq. .. .. .. 201, Queen's Road, Dalston, E.
Brickwell, J., Esq. .. .. Sawbridgeworth
Bromley, John B., Esq. .. Castle Hedingham, Halstead
Brookfield, J. S., M.D. .. 2, Devonshire Villas, Brondesbury, N.W.
Brooking, C. H., M.D. .. .. Felstead
Brown, Geo., M.D. .. .. .. Colchester
Browne, E. S., Esq. .. .. .. 17, Lansdowne Road, W.
Brownfield, M., Esq. .. .. .. 171, East India Road, E.
Bryant, Walter J., Esq. .. 23A, Sussex Square, W.
Bullock, J. E., M.D. .. .. .. Berkhampstead, Herts
Bunting, J., Esq. .. .. .. Tottenham
Burrell, E., M.D. .. .. .. 20, Endsleigh Street, W.C.
Burry, H. B. P., Esq. .. .. Baldock
Burton, W. E., Esq. .. .. .. 24, Wimpole Street, W.
Bury, G., Esq. .. .. .. Whetstone, N.
Butlin, H. T., Esq. .. .. .. 79, Queen Anne Street, W.
Bush, R. H., M.D. .. .. .. 6, Gloucester Terrace, W.
Buss, Henry, M.D. .. .. .. Turnham Green
Buxton, D. W., Esq. .. .. .. University College Hospital, Gower St., W.C.
Cameron, Charles, M.D., M.P. .. .. 80, St. George's Square, S.W.
Cameron, C. H. H., Esq. .. .. Lochiel, Harlesden, N.W.
Cameron, J., M.D. .. .. .. Guildford House, Hendon
Campbell, W. F., Esq. .. .. 88, Junction Road, Holloway, N.
Carpenter, J. W., M.D. .. .. 276, Lambeth Road, S.E.
Carrington, R. E., Esq. .. .. 4, St. Thomas's Street, S.E.
Carter, C. H., M.D. .. .. .. 45, Great Cumberland Place, W.
Cayley, Wm., M.D. .. .. .. 58, Welbeck Street, W.
Chambers, J. L., Esq. .. .. 249, Hackney Road, E.
Champneys, C. T., Esq. .. .. 25, Tavistock Street, W.C.
Chapman, C., Esq. .. .. .. 104, Abbey Road, N.W.
Christie, J. W. S., Esq. .. .. Leavesden Asylum, Watford
Clarke, Ernest, Esq. .. .. St. Bartholomew's Hospital, E.C.
Clarke, J., M.D. .. .. .. 42, Hereford Street, W.
Clarke, J. A., Esq. .. .. Bushey
Clarke, W. Bruce, M.B. .. 12, Buckingham Street, W.C.
Clegg, Joseph, Esq. .. .. Epping
Clippingdale, S. D., M.D. .. Kensington Dispensary, Church Street, W.
Coates, G., M.B. .. .. .. 11, St. George's Ter., South Kensington, S.W.
Cocks, Benj., Esq. .. .. Buntingford, Herts

Cohen, A., M.B. . Metropolitan Free Hosp., Commercial St., E.
Collingwood, D., Esq. .. University College Hospital, Gower Street, W.
Cooke, R. H., Esq. .. [illegible]
Cooper, E. F., Esq. [illegible]
Cooper, R. T., M.D. .. 7, Stanley Gardens, W.
Corlett, J. B., M.D. .. 206, South Lambeth Road, S.W.
Cree, P. K., Esq. [illegible]
Creighton, C., M.D. .. [illegible]
Cripps, W. H., Esq. .. 6, Stratford Place, W.
Cronk, H. G., Esq. St. Bartholomew's Hospital, E.C.
Crookshank, H. [illegible] 14, [illegible], W.
Cross, A. J. G., M.D. .. 42, Craven Street, Strand, W.C.
Cross, J., M.D. 7, Stanhope Terrace, N.W.
Danaher, J. W., Esq. .. Manor House, Plaistow
Davies-Colley, J. N. C., M.B. 36, Harley Street, W.
Davies, T. G. D., Esq. 26, Hatton Garden, E.C.
Davy, Richard, Esq. .. 33, Welbeck Street, W.
Dawson, E., Esq. Finchingfield
Day, R. N., Esq. .. Harlow, Essex
Day, W. W., M.D. Church Street, Lower Edmonton
De Watteville, Baron A. 13, Old Cavendish Street, W
Dickinson, W. H., M.D. 11, Chesterfield Street, W.
Dickson, W. J., M.D. .. 4, The Grove, Hackney, E.
Dixon, John, M.B. Albion Villas, Highgate, N.
Dixon, John, M.D. Jamaica Road, S.E.
Dixon, W. E., Esq. .. 33, Harley Street, W.
Donkin, H. B., M.B., .. 60, Upper Berkeley Street, W.
Dove, J. R. B., M.B. .. Pinner
Dow, H. B., M.D. [illegible] W
Dresser, A. K., Esq. Grove End Road, St. John's Road, N.W.
Drew, C. L., M.B. H.M. Convict Prison, Millbank, S.W.
Duckworth, Dyce, M.D. 11, Grafton Street, W.
Duncan, G. C., M.D. .. [illegible]
Dyte, David H., Esq. .. 24, Upper Bedford Place, W.C.
Eagle, H. F. C., Esq. .. 217, Bethnal Green Road, E.
Edmunds, W., M.D. .. Fairfax Road, S. Hampstead, N.W.
Edwards, F. Swinford, Esq. 93, Wimpole Street, W.
Edward's, E. H., M.B. Hospital for Women, Soho Square, W.
English, T. J., Esq. 128, Fulham Road, S.W.
Evans, J. A. M., M.B... 123, Finborough Road, S.W.
Evans, T., jun., Esq. .. 3, Trinity Square, E.C.
Evans, W. H., Esq. [illegible] Finchley Road, N.W
Eve, F. S., Esq. 14, Furnival's Inn, W.C.
Evershed, V. [illegible] Hampstead, N.W.
Ewart, W., M.B. .. [illegible] Street, W.
Farmar, E. Dorset, Esq. 77, Wimpole Street, W.
Fearnley, William, Esq. [illegible] Park Road, W.
Fearon, Geo., M.D. 35, Westbourne Park Road, W.
Fearnside, H., M.B. 49, Leinster Gardens, W.
Fendick, T. R., Esq. .. 52, Fore Street, E.C.
Fennings, Allen, Esq. .. 81, Clarendon Road, W.
Fenton, G., Esq. 1, Cumberland Street, S.W.
Fenwick, Samuel, M.D. 20, Harley Street, W.
Ferris, John S., M.B. .. High Street, Uxbridge
Fisher, Frederick R., Esq. 79, Grosvenor Street, W.
Fitzgerald, W. A., M.B. .. Eye Hospital, Moorfields, E.C.
Fitzpatrick, T., M.D. .. 30, Sussex Gardens, Hyde Park, W,
Flack, James, Esq. Great Eastern Street, E.C.
Forbes, Litton, M.D. .. [illegible] Bingham Place, W.
Ford, R. G., Esq. .. 67, Commercial Road, E.
Foster, O. H., M.B. .. Hitchin
Fowler, J. K., M.B. .. 35, Clarges Street, W.
Freeman, W. H., Esq. .. [illegible] St. George's Square, S.W.
Fraser, D. M., M.D. .. Fever Hospital, Homerton, E.
Fuller, C. C., Esq. 10, St. Andrew's Place, Regent's Park, N.W.
Fyfe, Andrew, M.D. .. 112, Brompton Road, S.W.
Gabbett, H. S., M.B. .. 33, Upper Bedford Place, W.C.
Galloway, A. W., Esq. .. Epping
Gardiner, Gideon G., M.D. Upper Clapton, E.
Gardner, W. H., Esq. .. Hanover Square Club, W.
Garlike, E. W. B., Esq. Cheshunt
Garrett, J., Esq. London Hospital, E.
Garrod, A. B., M.D., F.R.S. .. 10, Harley Street, W.
Gaskoin, G., Esq. [illegible] Westbourne Park, W.
Gayton, W., M.D. .. Small Pox Hospital, Homerton, E.
Gidley-Moore, J. B. C. [illegible] .. Ongar
Gill, W., Esq. .. 11, Russell Square, W.C.
Gillard, R. [illegible] [illegible] Bingham Road, S.W.
Godfrey, F., Esq. .. [illegible] Camden Terrace, N.
Godrich, F., Esq. [illegible] Fulham Road, S.W.
Godwin, Ashton, M.D... [illegible] Brompton Crescent, S.W.
Goldie, Robert W., Esq. Poplar & Stepney Sick Asy., Bromley by Bow
Goude, H., Esq. Small-Pox Hospital, Highgate Hill, N.
Graham, W. [illegible] 206, King's Road, Chelsea, S.W.
Graham, J., M.D. .. 29, Gloucester Road, N.W.
Grayson, Francis D., M.D., .. Rayleigh
Greet, W. A., Esq. .. 2, Vernon Square, W.C.
Greenish, R. W., Esq. .. .. 20, New Street, Dorset Square, N.W.
Griffin, T., Esq. [illegible] Drury Lane, W.C.
Griffith, Cadle Gore [illegible] .. 9, Lupus Street, S.W.
Griffith, W. S. A., Esq. .. 66, Guildford Street, W.C.
Grosvenor, W., Esq. .. 19, Notting Hill Terrace, W.
Hadden, W. B., M.D... 7, Coventry Street, W.
Haden, F. Seymour, Esq. [illegible] Hertford Street, Mayfair, W.
Haden Hadden, W. H., M.D [illegible] Harley Street, W
Hall, Ed. T., Esq. .. Blacklands House, Chelsea, S.W.
Hall, John, M.D. .. Monkridge, Crouch End Hill, N.
Hamlin, W. H., Esq. 121, Tredegar Road, Bow, E.
Hare, Lancelot, Esq. .. 23, Prince's Street, Cavendish Square, W.
Harrison, R. C., Esq. .. Cunningham Road, Shepherd's Bush, W
Harrison, Robert H., Esq. .. 76, Coutts Road, Burdett Road, E. (dead)
Hartley, C., Esq. .. Great Dunmow, Essex

Harvey, R., M.B. 9, Hatherley Grove, Bayswater, W.
Haward, J. W., Esq. .. 16, Savile Row, W.
Haynes, Sydney, Esq. .. Stansted-Montfichet
Heath, W. L., Esq. .. St. Bartholomew's Hospital, E.C.
Heelas, James, M.D. .. Primrose Hill Road, N.W.
Henderson, A. M., M.D. 4, Grove Place, Highgate Road, N.
Hensley, P. J., M.D. .. 4, Henrietta Street, W.
Hernage, Henry J., Esq. .. 1, Little Chapel Street, Westminster, S.W.
Herron, J. W., Esq. .. 101, Gower Street
Hewett, Prescott G., Esq. 1, Chesterfield Street, W.
Hickman, W., M.D. .. 42, Robert Street, N.W.
Hicks, F. J., M.B. .. Brompton Hospital, S.W.
Hitch, F., Esq. .. [illegible]
Hoggan, George, M.B... 7, Trevor Terrace, W.
Holland, Edmund, M.D Tichfield Terrace, N.W.
Holland, J. F. R., M.D. 56, Maida Vale, W.
Hollings, E., Esq., 4, Gordon Square, W.C.
Holt, William, Esq., 1, Norton Folgate, E.
Horrocks, P., M.D. .. 29, Merrick Square, S.E.
Horsman, G. C., Esq. 22, King Street, Portman Square, W
Houchin, E. King, Esq. [illegible] Square, E.
Howse, A., Esq. .. Victoria Terrace, Barking Road, E.
Howse, Henry G., Esq. 10, St. Thomas's Street, S.E.
Humphry, L., M. B. .. 26, Princes Square, W.
Hunt, Alfred, Esq., Bridge Road, Hammersmith, W.
Hutchinson, Francis, Esq. 29, Woburn Place, W.C.
Hutchinson, T. Cayley, Esq. 40, Elgin Crescent, W.
Hutton, E. R. Esq. .. West Green Road, Tottenham
Ilott, J. J. Esq. Infirmary, Whitechapel, E.
Jackman, W. T., Esq. .. 11, Stoke Newington Road, N.
Jackson, Robt. A., Esq. .. 13, Ladbroke Grove, Notting Hill, W
Jacobson, W. H. A., M. B. 41, Finsbury Square E.C.
Jenner, W., Esq., [illegible]
Johnson, W. B., Esq. .. 2, York Road, S.E.
Jones, E. A., Esq. .. [illegible] Road, N.
Jones, John, Esq. 60, King Street, W.
Jones, Lewis H., Esq. .. 34, Maryland Road, Harrow Road, W
Jones, T., M.D. 92, Fentiman Road, Clapham Road, S.E.
Jones, T. R., M.D. .. 4, Chesham Place, S.W.
Jones, Walter, M.D. .. 45, Finsbury Square, E.C.
Jones, W., Esq. .. Cedar Villas, Edmonton
Juler, H., Esq. .. 77, Wimpole Street, W.
Keen, E., Esq. .. 44, New Broad Street, E.C.
Keen, W., Esq. 209, King's Road, Chelsea, S.W.
Kellett, R. G., Esq. Halstead
Kendrick, Phineas J., Esq. 9, Tavistock Square, W.C.
Kent, Thomas J., Esq... 60, St. James's Street, S.W.
Kiernan, L., Esq. .. Harrow-on-the-Hill
King, David A., Esq. .. St. Bartholomew's Hospital, E.C.
Kite, J. A., Esq. Welwyn
Klein, E. L., M.D. .. 94, Philbeach Gardens, Earls Court, S.W.
Ladell, W. J. S., Esq. .. 112, St. John's Road, Hoxton
Lake, Charles, Esq. .. 56, Guildford Street, Russell Square, W.C.
Lane, J. E., Esq. 49, Norfolk Square, W.
Langford, P. P., M.D... Park Lodge, East Finchley
Lattey, J., Esq. .. 23, St. Mary's Abbotts Terrace, Kensington
Lavin, M. Drury, Esq. Iver Heath, Uxbridge
Lawrance, F., Esq. .. St. Alban's Terrace, Hammersmith, W.
Leeson, Oliver J., Esq. 27, Longridge Road, South Kensington, S.W.
Lewis, C. B., M.D.
Lewis, Louis, M.D. .. 73, Albert Street, Regent's Park, N.W.
Lidbetter, T. G., Esq. .. 257, Essex Road, N.
Lilburn, J., M.D. .. 6, Brunswick Place, N.W.
Lingard, A., Esq. [illegible] Place Road, Mile End [illegible] S.E.
Lister, Joseph, M.D., LL.D. 12, Park Crescent, Portland Place, W.
Little, C. E., Esq. .. Shenley, Barnet
Lockwood, C. B., Esq... 8, Sergeant's Inn, E.C.
Lord, Richard, M.D. .. St. Ann's Villas, Notting Hill, W.
Lough, J. J., M.B. 389, City Road, E.C.
Lund, G., M.D. De Crespigny Park, S.E.
Lunn, J. R., Esq. [illegible] Mary [illegible] Hackney, Richmond Street, Ladbroke Grove Road, W.
Lyle, T., M.D. .. [illegible] Westbourne Square, W.
Lyons, Isidor I., Esq. .. 17, Queen Anne Street, W.
Macfarlane, W., M.D. .. [illegible] Drummond Place, W.
McHardy, M. M., Esq. 5, Savile Row, W.
Macnamara, F. H., M.B. 28, Palace Gardens Terrace, W.
Macready, J., Esq. 125, Harley Street, W.
McSwinney, G. H., M.D. [illegible] Green, W.
MacRae, Alexander C., M.D. [illegible] Westbourne Terrace, W.
Mackintosh, Hugh, M.D. [illegible] Brompton Road, S.W.
Maclagan, T. J., M.D. 9, Cadogan Place, S.W.
Maine, W., Esq. Clarence Street, Essex
Makuna, M. D., Esq. .. Asylum, Colney Hatch.
Mancor, A. F., M.B. .. [illegible] Walworth Road, S.E.
Manthorpe, M. L., Esq. .. Thorpe, Colchester.
Maples, Reginald, Esq. 33, Addison Road, W.
Marcet, William, M.D.. .. 39, Grosvenor Street, W.
Markwick, A., Esq., .. 1, Leinster Square, W.
Marsh, Howard, Esq. .. 36, Bruton Street, W.
Marsh, T. C., Esq. .. 56, Fitzroy Street, W.
Marshall, J. B., Esq., [illegible] Kensington Road, Campden Hill
May, Harry, M.D. .. Ware
Maybury, H. M., M.D. [illegible] Upper Street, Islington, N
Meagher, J. S., Esq. .. 10, Manchester Street, W.
Medlicott, C. W. C. M., M.D. .. 4, Holles Street, W.
Meeham, W., Esq. .. 9, Taunton Place, N.W.
Mennell, Z., Esq. Oxford Square, Hyde Park Road, W
Meredith, W. A., M.B. [illegible] Grosvenor Square, W.
Merryweather, H. W. [illegible] .. [illegible] North Audley Street, W.
Mickley, A. G., M.B. .. St. John's Road, N. (resigned)
Middleton, R. W., M.D. .. [illegible] Square, W.
Millen, H. P., Esq. .. 86, Stoke Newington Road, W.

Mills, Joseph, Esq .. The College, St. Bartholomew's Hosp., E.
Milne, R., M.D Grove Road, E.
Money, A., M.D. General Lying-in Hospital, York Road, S.E.
Montefiore, Nathaniel, Esq [illegible] Portman Square, W.
Moore, S. H., Esq. Holborn Union Infirmary, N.
Morgan, J., Esq., [illegible] Hyde Park Gardens, W.
Mott, F. W., Esq [illegible] University College Hospital, Gower Street, W.C.
Mould, J. T., Esq. 1, Onslow Crescent, S.W.
Moulton, C. W., M.A., M.D [illegible] Porchester Terrace, W.
Moulton, J. A., M.A., M.D [illegible] 15, Grosvenor Street, Hanover Square, W.
Moxon, Walter, M.D. .. .. 6, Finsbury Circus, E.C.
Munday, J. N., M.D [illegible] Brompton, Fulham
Murphy, S. J., Esq. [illegible] Cambridge Road, N.W.
Murphy, T. C., Esq. [illegible] Edmund Square, W.C.
Murray, John, M.D. 17, Westbourne Square, W.
Murray, H. M., Esq. .. [illegible] Pelham Road, Haverstock Hill, N.
Neal, J. P., M.D. [illegible] Lauderdale Road, W.
Neale, R., M.D. .. 60, Boundary Road, N.W.
Neale, W. H., M.B. [illegible] Queen's Gardens, Hyde Park, W.
Neville, L., M.D 85, Pimlico Road, S.W.
Nicholls, James, M.D. .. . Chelmsford
Nicoll, J. V., Esq. . Glencarn House, Upper Clapton, E.
Nix, E. J., M.D. . 143 Great Portland Street, W.
Noble, H. B., Esq. Tasman Road, North Stockwell, S.W.
Noble, J. B., Esq. . 33, Trinity Square, S.E.
Noott, W. M., Esq. [illegible] Kensington Park Road, W.
Norton, Alderman C. W [illegible] 112, Westbourne Grove, W.
Norton, G. Everitt, Esq. [illegible] Upper Baker Street, N.W.
Nunn, T. W., Esq. 8, Stratford Place, W.
O'Connor, Bernard, M.D. [illegible] Park Street, W.
Ormsby, G. H., M.B. .. 2, High Street, Wood Green, N.
Orwin, A. W., Esq. .. [illegible] Grange Road, Tufnell Park, N.W.
Osborn, Samuel, Esq. .. [illegible] Mandeville Street, W.
Osborne, Hy., M.D. .. [illegible] Churchfield Road, Ealing
Ottley, W., M.B. 93, Ladbroke Grove, W.
Owen, Ed. B. M.D. 61, Cleveland Square, W.
Owen, Rayley, Esq. . 61, Cleveland Square, Hyde Park, W.
Palmer, H. Drake, Esq. Nayland, Colchester
Palmer, James F., Esq. .. 120, King's Road, S.W.
Parker, Wm. K., Esq. .. . 36, Claverton Street, S.W.
Parsons, H. F., M.D. .. . Whitehall, S.W.
Paterson, Rev. H. S., M.D. . 50, Cathcart Road, S.W.
Pearse, Walter, Esq. .. [illegible] Upper Phillimore Place, W.
Pearson, David R., M.D. . [illegible] Upper Phillimore Place, W.
Peck, E. G., Esq. .. 1, St. George's Place, Hyde Park Corner, W.
Pett, Alfred, M.D. .. .. 57, Avenue Road, N.W.
Pettifer, Edmund Henry, Esq. . 50, Southgate Road, N.
Phibbs, R. F. Esq. .. . 30, Sutherland Gardens, W.
Philpot, H. J., Esq. . Warwick Road, N.W.
Pickett, Jacob, M.D. .. . Colville Square, W.
Pink, Thomas, Esq. . Boxted, Colchester
Plaister, W. H., Esq. .. Sycamores, Tottenham
Pollock, G. D., Esq. .. 36, Grosvenor Street, W.
Potts, Wm. Esq. .. 2, Albert Terrace, N.W.
Poulain, Victor, M.D. .. . 124, Fulham Road, S.W.
Powell, H. A. Esq. . Western General Disp., Marylebone Rd., W.
Powell, Josiah T., M.D. 347, City Road, E.C.
Prankerd, O. R., Esq. .. . 1, Church Crescent, South Hackney, N.
Preston, W. J., M.D. .. . 4, Abercorn Place, N.W.
Prince, J., Esq. Stanes
Pye, Walter, Esq. .. Sackville Street, W.
Pye-Smith, Philip H., M.D . 56, Harley Street, W.
Radcliffe, C. B., M.D. .. . 25, Cavendish Square, W.
Radfe, C. H., M.D. [illegible] Queen Anne Street, W.
Ramskill, Jabez S., M.D. 5, St. Helen's Place, E.C.
Raper, W. A., M.D. .. Great Wakering
Rawlings, H. A., Esq. .. 41, Highgate Road, N.W.
Ray, C., M.D. .. 72, Bishop's Road, W.
Rayner, W., Esq. 123, Marylebone Road, W. [Street, W.C.
Read, M., Esq. Hospital for Sick Children, Great Ormond
Reed, H. A., Esq. 33, Trinity Square, S.E.
Rees, W., Esq. . . 129, Queen's Crescent, Haverstock Hill, N.W.
Reeve, H., Esq, 286, Mile End Road, E.
Reeves, H. A., Esq. . 8, Grosvenor Street, W.
Reid, A., M.D. 29, Canonbury Park North, N.
Reid, James, Jun., M.D. .. Buckingham Palace, S.W.
Reid, Robert W., M.D. 10, Nottingham Place, W.
Renner, Charles, M.D. 80, Portsdown Road, W.
Renner, William, Esq. .. 46, Woburn Place, W.C.
Richards, S. A., Esq. .. 153, Upper Kennington Lane, S.E.
Richardson, Ralph, M.D. 10, Roland Gardens, South Kensington, S.W.
Ridge, J. J., M.D. Enfield
Ridsdale, George, Esq. 26, Endsleigh Gardens, W.
Ring, E. Cuthbert, Esq. Albany House, North Park, Croydon
Risk, R. Tudor, Esq. .. .. St. Ann's, Harrow
Robarts, H. P., Esq. .. [illegible] Keppel Street, W.C.
Roberts, Arthur M., Esq. Buckhurst Hill
Roberts, C., Esq. .. . 2, Bolton Row, W.
Roberts, C. H., Esq. .. 4, Cambridge Terrace, Westbourne Park, W.
Robertson, E. B., M.B. .. 17, Tredegar Place, Bow, E.
Roeckel, W. J., Esq. .. .. 7, Grosvenor Street, W.
Rogers, Maurice C., Esq. .. 23, Wimpole Street, W.
Rose, W., M.B. .. . 21, Welbeck Street, W.
Ross, D. M., Esq. .. .. 54, Upper Berkeley Street, W.
Routh, A. J. M. C., M.B. .. 6, Upper Montagu Street, W.
Roworth, A. T., Esq. .. .. Grays, Essex
Rudderforth, E. H., Esq. .. 6, Air Street, W.
Sanders, Charles, Esq. .. Chigwell
Sanderson, Hugh J., M.D. .. 26, Upper Berkeley Street, W.
Sangster, C., Esq. .. 148, Lambeth Road, S.E.
Savage, J., Esq. .. .. High Street, Kensington, W.
Schäfer, E. A., Esq., F.R.S .. Elstree
Shadwell, St Clair B., Esq. .. Walthamstow

Shelly, C. E., M.B., ... Hertford
Shepherd, Frederick, Esq. [illegible] King Henry's Road, N.W.
Sherrard, D. J., M.B. .. [illegible] Queen's Road, St. John's Wood, N.W.
Shout, A. C., Esq. .. .. Chelmsford
Shuter, J., M.B. . .. Lawn House, Tufnell Park, N.W.
Simon, [illegible] [illegible] Kensington Square, W.
Skinner, W. A., Esq. .. 45, Lower Belgrave Street, S.W.
Smith, Charles Wyatt, Esq. .. 149, High Street, Poplar, E.
Smith, E. S., Esq. .. Carlton House, Pembridge Villas, W.
Smith, Fred. M., M.D. Great Hadham
Smith, H., Esq. . .. 82, Wimpole Street, W.
Smith, H. A., M.B. . .. Christ's Hospital, E.C.
Smith, Thomas, Esq. .. [illegible] Stratford Place, Oxford Street, W.
Smith, W. Wilberforce, M.D. . .. Lauderdale Terrace, Hyde Park, W.
Smyth, A. C. B., Esq. .. .. 1, Hill Side, Crouch End, N.
Snell, John H. G. C [illegible] . 131, Green Street, E.
Squire, Balmanno, M.B. .. 24, Weymouth Street, W.
Stanley, W. H. R., M.D. .. 29, Palace Road, S.E.
Steavenson, W. E., M.B. .. Great Ormond Street, W.C.
Steele, Frank, Esq. . .. 22, Bloomsbury Street, W.C.
Stericker, W., M.B. . .. 24, Tollington Park, N.
Stevenson, James, M.D. .. 466, Edgware Road, W.
Stevenson, N., Esq. .. .. 51, Wimpole Street, W.
Stevenson, T., M.D. .. .. 45, Gresham Road, S.W.
Stewart, A., Esq. .. .. 112, Cheapside, E.C.
Stewart, H. C., Esq. .. [illegible] North Bank, Regent's Park, N.W.
Stirling, W. B., M.D. .. [illegible] High Street, Whitechapel, E.
Stott, T. S., Esq. .. .. 1, Highgate Road, N.W.
Strugnell, F. W., Esq. .. .. 45, Highgate Road, N.W.
Summerhayes, H., Esq. .. Wanderer's Club, Pall Mall, S.W.
Sutton, H. G., M.B. .. 9, Finsbury Square, E.C.
Swain, E., Esq. .. Three Counties Asylum, near Baldock.
Swinson, G. N., Esq. .. Arlwell, Herts.
Sylvester, H. T., M.D. .. .. 7, Bessborough Gardens, Pimlico S.W.
Symes, Edmund S., M.D. .. 18, Charles Street, W. (dead)
Tapson, Alfred J., M.B. . 36, Gloucester Gardens, W
Taylor, F., M.D. .. .. 15, St. Thomas's Street, S.E.
Teevan, A., Esq. .. .. 116, Netherwood Road, W.
Thane, G. D., M.D. .. .. 15, Montague Street, W.C.
Thomas, Llewelyn, M.D. .. 15, Weymouth Street, W.
Thorn, W., Esq. .. .. 87, Harrow Road, W.
Thorne-Thorne, R., M.B. .. 45, Inverness Terrace, W.
Thornton, J. K., M.B. .. .. 83, Park Street, W.
Thornton, Wm. Pugin, Esq. .. 42, Devonshire Street, W.
Thorowgood, J. C., M.D .. 61, Welbeck Street, W.
Tirard, Nestor I. C., M.D. King's College, W.C.
Tonge-Smith, W., M.D. .. London Fever Hospital, Islington, N.
Tuke, T. Harrington, M.D. .. 37, Albemarle Street, W.
Tunstall, A. C., M.B. .. . 2, VictoriaPark, Road, E.
Turle, J., M.D . .. North Finchley, N.W.
Turner, Geo., Esq. .. .. 9, Sussex Gardens, Hyde Park, W.
Turtle, F., M.D. .. .. Woodford
Turtle, J. H., M.D. .. .. 35, High Street, Homerton
Twynam, G. F., Esq. .. .. 18, Blandford Square, W.
Tyrrell, W., Esq. .. . 95, Cromwell Road, S.W.
Vance, W. J., Esq. .. .. North Woolwich, E.
Vintras, Achille, M.D. 141, Regent Street, W.
Walker, John R., Esq. .. . 22, Portsdown Road, Maida Vale, W.
Wallford, W., Esq. .. .. 20, Little Britain, E.C.
Wane, Daniel, M.D. .. .. 20, Grafton Street Bond Street, W.
Waters, J., M.D. .. .. 15, Bedford Square, W.C.
Watson, F. S., Esq. .. Small-pox Hospital, Stockwell, S.E.
Watson, Sir T. Bart., M.D. .. 16, Henrietta Street, W.
Weakley, S. J. J., Esq. .. . Forest Gate, E.
Webster, F. R., Esq. .. St. Albans
Webster, H. W., M.D. .. St. George's Infirmary, Fulham, S.W.
Wells, J. R., Esq. 20, Fitzroy Street, Fitzroy Square, W.
Wells, Thos. Spencer, Esq. .. 3, Upper Grosvenor Street, W.
Westcott, W. W., M.B. .. Heneon, N.W.
Westland, A., M.D. .. .. 17, Belsize Crescent, N.W.
Wheeler, J., M.D. .. 1, Pembridge Gardens, W.
White, A. D., M.D. .. 56, Chancery Lane, E.C.
Wilkins, G. H., Esq. .. .. 134, Brixton Road, S.W.
Wilks, S., M.D., F.R.S. . 77, Grosvenor Street, W.
Willans, W. Blundell, Esq. Great Hadham
Willcocks, F., M.D. .. 59, Stanhope Street, Strand, W.C
Williams, W. R., Esq. .. .. 62, Bush Hill Park, Enfield
Willis, Julian, Esq. .. .. 82, Sutherland Gardens, London, W.
Wilson, Albert, M.B. .. Leytonstone
Wilson, John, Esq. .. Harpenden, Herts
Wilson, J. S., Esq. .. .. 3, Woodberry Villas, Seven Sisters Road, N.
Wilson, S., Esq. .. . Mare Street, Hackney, E.
Wilson, W., M.B. .. .. 4, Sydney Street, South Kensington
Wolff, A., Esq. .. .. 48, Gloucester Gardens, W.
Woodforde, Alfred, Esq. Plaistow
Woodroffe, J. F., M.B. .. .. 1, Mildmay Park, N.
Wright, Albert, Esq. .. Church End, Finchley, N.
Wright, H. E., Esq. .. .. The Elms, Acton
Yeo, Gerald F., M.D. .. .. Staines.

(See also South-Eastern and Thames Valley Branches.)

MIDLAND BRANCH.

DISTRICT COMPRISING THE COUNTIES OF LEICESTER, DERBY NOTTINGHAM, AND LINCOLN.

RECOGNISED 1852.

President .. .. W. Edgar Bond, M.D., Leicester
President-Elect .. .. C. Harrison, M.D., Lincoln
Vice-Presidents .. .. T. W. Baker, Esq., Derby
J. Wright, M.D., Nottingham
Hon. Sec. for Leicester .. Frank H. Hodges, Esq., Leicester
,, ,, *Derby* .. .. J. A. Sharp, Esq., Derby
,, ,, *Lincoln* .. .. W. A. Carline, Esq., M.D., Lincoln
Hon. Sec.-Treasurer for Branch L. W. Marshall, M.D., Nottingham

COUNCIL.

Dolman, A. H., Esq. ..	Derby
[illegible]	[illegible]
Gaylor, E., Esq. ..	Belper
[illegible]	Leicester
[illegible]	Leicester
[illegible]	[illegible]
[illegible]	[illegible]

MEMBERS OF THE [illegible]

Allan, A. M[illegible] M.D.	[illegible]
Adsetts, J. M.D. [illegible]	[illegible]
A.M.D. ..	[illegible]
Allen, Josiah, [illegible]	[illegible]
Allen, Robert M[illegible]	
Insp.-Gen ..	[illegible]
Allen, R. Granville, [illegible]	Greasley House, Belper
Atkinson, T. H. [illegible] ..	[illegible]
Baird, John, Esq.	[illegible]
Baker, J. W., [illegible] ..	Friar Gate, Derby
Barclay, John, M.D.	Leicester
Barton, M. [illegible]	Market Rasen
Bateman, Lewis P., Esq.	Arboretum Terrace, Derby
Beddard, J., M.B.	[illegible]
Bell, G. H., M.D.	East M[illegible]
Bell, P. G., Esq.	Etwall, Derby
Bell, R. F., [illegible]	Sileby, Loughborough
Benfield, T. W., Esq. ..	Leicester
Bentley, C. E., Esq. ..	[illegible]
Betts, N. P., [illegible]	Ashby-de-la-Zouche
Bingham, [illegible]	[illegible]
Blunt, T., M.D. ..	St. M[illegible]
Borough, F., Esq. ..	Derby
Boulton, A. E., Esq.	Horncastle
Boulton, G. S., Esq.	[illegible]
Bower, W., [illegible]	[illegible]
Brans[illegible] Bergson, M.D. ..	Ludlow, [illegible]
Broadbent, J., Esq. ..	South Collingham
Brook, C., Esq. ..	[illegible]
Brookhouse, J. O., M.D.	[illegible]
Broster, A., Esq. ..	Wirksworth
Bryan, C. F., [illegible]	Leicester
Bubb, E. [illegible]	Wrangle, Boston
Buck, W. Elgar, M.D...	Leicester
Buckell, E. C., Esq. ..	[illegible]
Burton, [illegible]	[illegible]
Cade, T. C., Esq.	Spondon, Derby
Calvert, C., Esq. ..	Southwell
Campbell, A., Esq. ..	[illegible]
Cant, W. J., [illegible] ..	County Hospital Lincoln
Carline, W. A., M.D. ..	Flaxengate, Lincoln
Carnegie, [illegible] M.D.	Chesterfield
Chawner, A., Esq.	Ashover, Chesterfield
Chicken, R. C., Esq.	[illegible]
Clifton, G., Esq.	53, London Road, Leicester
Collingwood, J. E., Esq.	Corby, Grantham
Collington, J. W., Esq.	Kibworth, Leicestershire
Copestake, W. G., [illegible]	Derby
Crossley, C., Esq.	[illegible]
Cuttgeesen, W. G., M.D.	Friargate, Derby
Dalton, C. G., Esq.	Dispensary, Lincoln
Denton, E. R., Esq.	Leicester
Dickinson, G. M., Esq.	[illegible]
Dickson, F. K., M.D. ..	Wye House, Buxton
Dolman, A. H., Esq. ..	[illegible]
Douglas, C., Esq.	[illegible]
Dunn, C. B. N., Esq. ..	Crich, Belper
Eaton, J. C., Esq.	[illegible]
[illegible]	[illegible]
[illegible]	Loughborough
[illegible]	[illegible]
[illegible]	[illegible]
Ellis, [illegible] M.D.	[illegible]
Evans, [illegible]	[illegible]
Fenn, [illegible] M.D.	St. John Street, Mansfield, Notts
[illegible]	[illegible]
Emms, A. W., Esq. ..	Belgrave, Leicester
[illegible]	Upgate, Louth
[illegible]	Bakewell, Derbyshire
[illegible] ..	Infirmary, Leicester
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	Alfreton
[illegible]	[illegible]
Foulds, H. J., Esq. ..	[illegible]
[illegible]	[illegible]
Fulshaw, R., Esq.	[illegible]
Gaylor, E., Esq.	Belper
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	Derby
[illegible]	Lincoln
[illegible]	Ashbourne
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Griffiths, W. H., Esq. ..	[illegible]
[illegible]	Horncastle
[illegible]	[illegible]
[illegible]	[illegible]
Harrison, W., M.D. ..	.. Matlock
Harvey, George, Esq. ..	.. Wirksworth
Harvey, R. S., Esq.	.. St. Mark's Terrace, Lincoln
Hatherley, H. R., Esq.	.. Parkside, Nottingham
Higginbottom, M. H., Es	[illegible]
Higgins, W. H., M.B...	County Lunatic Asylum, Leicester
Highton, T., Esq.	. Charnwood Street, Derby
Hine, W. C., Esq.	.. Swineshead, Spalding
Hodges, Frank H., Esq.	Leicester
Holland, R. C. B., M.D.	.. Matlock
Hooper, Marshall, Esq.	Ripley
Hough, C. H., Esq.	[illegible]
Howitt, F., M.D.	Nottingham
Hunt, John, Esq.	Thurnby
Hunt, J. A., Esq.	Ockbrook
Hunter, W. B., M.D. ..	[illegible]
Hutchinson, John, M.D.	Claybrook, Lutterworth
Huthwaite, C., M.D. ..	[illegible]
Hynes, J. O. C., Esq. ..	[illegible]
Iliffe, William, Esq. ..	Derby
[illegible]	Cromford
Jalland, R. Esq.	Horncastle
Job, S., Esq.	Newark
Johnson, O., Esq.	[illegible]
Johnson, T. G., Esq. ..	Heighington, Lincoln
Johnston, T., Esq. ..	[illegible]
Johnston, W., M.D. ..	Upper Kent Street, Leicester
Jollye, E. W., Esq.	[illegible]
Jones, John T., Esq. ..	Eckington
[illegible]	Melbourne
Knox, John, M.D.	Bakewell
Lankester, H., Esq.	Leicester
Lanphier, R., M.B.	[illegible]
Lee, John, Esq.	[illegible]
Legge, William, Esq.	Osmaston Street, Derby
Lett, R. A., M.B.	Wadingham, Kirton-in-Lindsey
Lindsay, J. M., M.D. ..	The Asylum, Mickleover, Derby
[illegible]	.. Sudbury, Derbyshire
Lorimer, G., M.D.	Buxton
Lowe, G. M., M.D. ..	.. St. Mark's, Lincoln
[illegible]	.. North Collingham
Mackern, W. M.D.	Long Eaton
Mackinder, D., M.D. ..	Gainsboro'
Maclean, J. Hugh, Esq.	[illegible]
Marriott, C. H., M.D...	Leicester
Marriott, E. D., Esq. ..	[illegible]
Marsh, J. W., Esq. ..	County Asylum, Bracebridge
Marshall, L. W., M.D.	2, East Circus Street, Nottingham
Marshall, W. J., Esq. ..	Stanley Hall, Derby
Mason, F. J., Esq.	[illegible]
Meadows, H., M.B. ..	Leicester
Measures, J. W., Esq. ..	Long Sutton
Milligan, W., Esq.	[illegible]
Mitchinson, G., Esq. ..	Lincoln
Moore, C. A., M.B. ..	Infirmary, Leicester
Morris, E., M.D.	[illegible]
Morris, W. W., M.B. ..	[illegible]
Mutch, F. R., M.B. ..	[illegible]
Mutch, Robert S., Esq.	[illegible]
Myers, C. [illegible]	The Sycamore, North Somercotes
Newman, W. [illegible] D	[illegible]
Nuttall, H., M.D.	Leicester
Ogle, William, M.D. ..	[illegible]
O'Mullane, E. J., Esq.	[illegible]
O'Neill, W., M.D.	[illegible]
[illegible]	Southwell
Palmer, E., M.D.	[illegible]
Parke, J. Latimer, Osq.,	[illegible]
[illegible]	[illegible]
Pearce, G., M.D.	[illegible]
Penny, C. H., Esq.	Ansty, Leicester
Penny, H. J., Esq.	[illegible]
Phillimore, W. P., M.B.	[illegible]
Pilcher, W. J., Esq., ..	Boston
Powell, Lionel, Esq.	[illegible]
Rainbird, H., Esq.	Saxilby, near Lincoln
Ransom, W. H., M.D., [illegible]	[illegible]
Redmayne, Hugh, Esq.	Ambleside, Westmorland
Rice, G., Esq.	Friar Gate, Derby
[illegible]	[illegible]
Roberts, James, Esq. ..	Melton Mowbray
Robertson, W. H., M.D.	[illegible]
Robinson, Henry, Esq.	[illegible]
Rowbotham, H. C., Esq	[illegible]
Russell, A. P., M.B.	Hospital, Lincoln
Scott, W. E., Esq.	Lincoln (dead)
[illegible]	[illegible]
[illegible]	[illegible]
Sharp, John A., Esq. ..	[illegible]
[illegible]	Louth
[illegible]	[illegible]
Shipman, G. W., Esq. ..	[illegible]
Shipton, W. P., Esq. ..	[illegible]
Skipworth, H., Esq.	Mountsorrel, Loughborough
[illegible]	[illegible]
[illegible]	[illegible]
Smith, F. McI., Esq. ..	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

[illegible]	[illegible]
[illegible]	Gosberton, Spalding
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	The Park, Nottingham
Taylor, C. Bell, M.D. ..	Mansfield Road, Nottingham
Taylor, C. V., M.D. ..	[illegible]
[illegible]	[illegible]
[illegible]	Friar Gate, Derby
[illegible]	[illegible]
[illegible]	[illegible]
Thomas, R. H., Esq. ..	[illegible]
[illegible]	Billinghay, Sleaford
[illegible]	[illegible]
Turnour, H. E., M.D. ..	Market Rasen
[illegible]	Enderly, Leicester
Tuxford, A., M.D.	[illegible]
[illegible]	[illegible]
[illegible]	Great Peatling, Lutterworth
Webb, W., M.D.	[illegible]
White, G. B., Esq.	Nottingham
[illegible]	Nottingham
[illegible]	Lincoln
Williams, Edwd., Esq. ..	[illegible]
[illegible]	Colston Bassett
[illegible]	[illegible]
Wood, W. J. H., Esq. ..	Ilkeston
Woolley, T. S., Esq. ..	13, Pen Street, Boston
Wotton, H., Esq.	[illegible]
Wray, D. C., M.D. ..	Bingham
[illegible]	[illegible]
Wrench, E. M., Esq. ..	Baslow, near Chesterfield
[illegible]	[illegible]
[illegible]	Nottingham
[illegible]	Nottingham

MEMBERS UNATTACHED (20).

[illegible]	Chapel-en-le-Frith
Ashworth, James H. ..	Bourne
Ball, Arnold, Esq.	Spalding
Beevor, W. C., M.B.	Newark-on-Trent
Bedford, C. T., Esq.	Sleaford
Bell, Thomas, Esq.	Uppingham
Bluett, John, Esq.	New Square, Chesterfield
Blurton, T., Esq.	Keyworth, near Nottingham
Booth, C., M.D.	Chesterfield
Brocklehurst, T. H. ..	Darley Dale
Brown, F. W., Esq. ..	Uppingham
[illegible]	Bourne
Butler, James, Esq.	Beeston
Carden, J. C., Esq.	Welton
Cartwright, H. G., Esq.	Narborough
Chiles, C., Esq.	Uppingham
Coote, Michael, M.D.	Ashby-de-la-Zouch
Court, Josiah, Esq.	Staveley, Chesterfield
Craig, James, M.B.	Eastwood, Nottingham
Crockett, E., Esq.	Bradsford
Dancey, Horace, M., Esq.	Southwell, Nottingham
Dewar, James, Esq.	Buxton
Dyer, A. K., M.D. ..	Sutton-in-Ashfield
Eaton, James, Esq.	St. Peter's Hill, Grantham
Elsom, F., Esq.	Whitwell, Chesterfield
Fagge, W. H., M.D.	Lutterworth
Fewkes, J. M., Esq.	Great Glenn, Leicester
Fleming, Christopher, Esq.	Worksop
Foulds, Samuel, Esq.	Chesterfield
Francis, Alfred O., Esq.	Derby
Fyfe, G., M.D.	Kineton, Warwick
George, Hugh, M.D.	Horncastle
Grant, L., Esq.	Market Harborough
Hale, T. F., Esq.	Barrow Hill, Chesterfield
Hatchett, Joseph, M.D.	Ravenstone, Ashby-de-la-Zouch
Heath, H. T., Esq.	Mansfield-Woodhouse
Hope, W. M., Esq. ..	Infirmary, Stamford
Hoskyns, Ed. J. H., Esq.	Duffield
Hunter, W., M.B.	Nottingham
Hunter, W. M., M.D. ..	Eckington, Chesterfield
Irwin, W. C., M.D.	Leicester
Jeans, James, W., Esq. ..	Grantham
Jeffreys, Richard, Esq. ..	Chesterfield
Jones, H. T., Esq.	Hucknall Torkard
Jones, T., Esq.	Mansfield, Nottingham
Jones, T. E., Esq.	Chapel-en-le-Frith
Knight, J. T., Esq.	Carlton, Nottingham
Ludlow, T. S., Esq.	Hinckley, Leicester
Mackenzie, D. J., M.D.	Glossop
McMunn, J., M.D., ..	Long Eaton
Manson, David, M.D. ..	Chesterfield
Marriott, John, Esq. ..	Knibworth
Massey, Isaac, M.D. ..	The Circus, Nottingham
Morris, Henry, Esq. ..	Gaslerton, Spalding
Newton, Isaac, Esq. ..	Worksop
Norman, Alfred B., Esq.	Oakham
O'Callaghan, M. Q., Esq.	Hollington
Orford, F. J., Esq. ..	Market Bosworth
Palmer, Ambrose M., Esq.	Whittington, near Chesterfield
Perry, Marten, M.D.	Spalding
Powell, E., Esq. ..	Borough Asylum, Nottingham
Pritchard, W., M.D. ..	[illegible]
Rainey, W. B., Esq.	Hogsthorpe, Alford
Rhodes, James, Esq. ..	[illegible]
[illegible]	Appleby Magna, Leicestershire
Roberts, T. A., Esq.	The Elms, Coningsby
Rogers, C. E. H., Esq.	Retford
[illegible]	Chesterfield
Row, W., Esq.	[illegible]
[illegible]	Worksop
[illegible]	[illegible]
Serjeant, W. R., Esq. ..	[illegible]
[illegible]	202 Victoria Street, Grimsby
Taplin, B. D., Esq.	Binbrooke, Market Rasen
Thomas, David P., Esq.	Market Bosworth
[illegible]	Nottingham
White, C. Hayson, Esq. ..	20, Shakespeare Street, Nottingham
Wright, T. C., [illegible]	Osmaston Road, Derby
Wilson, R. Esq.	Grantham
Withers, O., Esq. ..	New Basford, Nottingham
Wood, J. A., Esq.	Sheepshed, Loughborough
[illegible]	[illegible]
[illegible]	Uppingham

NORTH OF ENGLAND BRANCH.

DISTRICT COMPRISING THE COUNTIES OF NORTHUMBERLAND AND DURHAM.

RECOGNISED [illegible].

[illegible]	J. W. EASTWOOD, M.D., Darlington
[illegible]	R. WILSON, M.D. Newcastle
[illegible]	J. W. [illegible], M.B. [illegible], Old Elvet, Durham DAVID DICKSON, M.D., 11, Ellison Place, Newcastle

COUNCIL.

Broadbent, S. W.	Dalton-le-Dale, Sunderland
Dixon, W. H., M.D.	Frederick Street, Sunderland
Ross, R. W., M.D.	Stockton
Fothergill, J. R., M.D.	Darlington
Oliver, Thomas, M.D.	Newcastle-on-Tyne
Philipson, G. H., M.D.	Eldon Square, Newcastle-on-Tyne

REPRESENTATIVE IN THE PARLIAMENTARY COMMITTEE.

Philipson, G. H., M.D. .. Newcastle-on-Tyne

MEMBERS OF BRANCH (239).

Adamson, James, M.D.	Hetton-le-Hole, Fence Houses
Aitchison, James, M.B.	145, Barras Bridge, Newcastle
Alexander, Peter, Esq. ..	Earsdon, Newcastle
Allan, H. B., Esq.	Southwick, Sunderland
Allen, W. C., Esq.	Willington, Durham
Alworthy, Charles, Esq.	Toft Hill, Bishop Auckland
Anderson, Robert, M.D.	Cramlington
Anderson, E. C., M.D.	Tow Law, Darlington
Anderson, W. H., M.B.	Heaton, Newcastle
Angus, J. A., Esq.	4, Wentworth Place, Newcastle
Armstrong, H. E., Esq.	Wentworth Place, Newcastle
Armstrong, J. F., M.D.	23, Victoria Terrace, South Shields
Armstrong, Luke, M.D.	Clayton Street, West Newcastle
Arnison, Charles, Esq. ..	Stanhope, Darlington
Arnison, W. C., M.D.	Northumberland Street, Newcastle
Arrowsmith, W. H., Esq.	Darlington
Atkinson, James, M.D.	West Hartlepool
Atkinson, J. I., Esq.	Wylam
Barkus, Benjamin, M.D.	Gateshead-on-Tyne
Barron, James, Esq.	John Street, Sunderland
Barron, T. W., M.B.	Old Elvet, Durham
Beattie, J. W., M.B.	North Shields
Beatty, T. C., jun., Esq.	Seaham Harbour
Bell, Anthony, Esq.	1, Eldon Square, Newcastle
Benson, T., Esq.	Stanley, Durham
Bernard, Gerald, M.D.	Silksworth, Durham
Berwick, J., Esq.	Chester Road, Sunderland
Blackett, W. C., Esq.	Durham
Blacklock, A. W., M.D.	Gateshead
Blandford, J. W., Esq.	Norton, Stockton-on Tees
Blumer, Luke, M.D.	North Bridge Street, Monkwearmouth
Bolton, W. T., Esq.	Ebchester Hill, by Burnopfield
Bowes, Richard, Esq.	Richmond, Yorkshire
Bowman, H. T., M.B.	Newcastle-on-Tyne
Boyd, William, Esq.	Claypath, Durham
Bradley, M. McW., M.D.	Jarrow-on-Tyne
Brady, G. S., M.D.	2, Mowbray Villas, Sunderland
Brady, Henry, Esq.	High Street, Gateshead
Bramwell, J. W., M.D.	Percy Gardens, Tynemouth
Brecknell, W. H., M.D	Felling, Gateshead (resigned)
Broadbent, L. G., M.D.	Bamborough
Broadbent, S. W., Esq.	Dalton-le-Dale, Sunderland
Brown, Colville, M.D.	Berwick
Brown, W. J., M.B.	Chester-le-Street, Durham
Brumell, Matthew, Esq.	Morpeth
Brunskill, R. D., Esq.	Coxhoe, Durham
Callcott, J. T., M.B.	Sedgefield Asylum, Durham [Hill.
Campbell, C. Mc. J., Esq.	Durham County Asylum, Sedgefield, by Ferry
Campbell, Jas., M.B.	Blackhall Mill, Ebchester, Durham
Chisholm, William, M.D.	Hurworth, Darlington
Clark, Hugh, M.D.	Ferry Hill, Durham
Cook, R. F., M.B.	Gateshead
Copeland, William, jun., M.B.	Staindrop, Darlington
Craster, T. W., M.D.	Middlesborough
Crease, J. R., Esq.	2, Ogle Terrace, South Shields
Crisp, J. L., Esq.	South Shields
Crowe, J. W., Esq.	Hartlepool
Currie, Thomas, Esq.	Amble, Acklington

Dale, H. B., Esq. ..	13, Nelson Street, South Shields
Dale, John, Esq.	Stockton
Davie, H. W., Esq. .	42, Dorset Street, Jarrow-on-Tyne
Davis, John, Esq.	Monkwearmouth, Sunderland
Dawes, R., Esq. ..	Low Fell, Gateshead
Dawson, Anthony, Esq.	Seaton Delaval
Davison, R. S., Esq.	Newburn, Scotswood-on-Tyne
Denham, J. S., M.D.	South Shields (resigned)
Drysdale, G. H. J., M.P. .	Coundon, Bishop Auckland
Dunn, J. D., M.B.	Derwent Place, Newcastle
Dixon, J. F., Esq.	Stockton-on-Tees
Dixon, W. H., M.D.	Frederick Street, Sunderland
Dodd, Henry, Esq. .	Rillington, Malton, Yorkshire
Dodd, T. A. H., Esq. .	Benton's Terrace, Newcastle
Douglas, Morley, Esq.	19, John Street, Sunderland
Douglass, George, M.D.	Gateshead
Doyle, Anthony, Esq. ..	Murton Colliery
Drinkwater, H., M.B. ..	Bishopwearmouth
Drummond, David, M.D.	11, Ellison Place, Newcastle
Duncan, James, Esq. ..	Newbiggin-by-the-Sea
Eastwood, J. W., M.D.	Dinsdale Park, Darlington
Eastwood, Lewis, Esq.	2, Prince's Terrace, Darlington
Ellerton, John, M.D. ..	Middlesborough
Ellis, R., Esq. .	Newcastle-on-Tyne
Farmer, C., Esq.	Hexham
Farquharson, John, Esq.	Whitehall Place, Stockton-on-Tees
Fell, T., Esq.	3, High Street West, Sunderland (resigned)
Fenwick, J. C. J., M.D.	Durham
Fielden, Samuel, M.D.	Shildon, Darlington
Foss, R. W., M.D. .	Stockton-on-Tees
Fothergill, J. R., M.D.	Darlington
Fothergill, S. A., Esq. ..	Haswell, Fence Houses
Frain, J., M.D. ..	South Shields
Galloway, W., Esq. .	Eighton Banks, Gateshead
Gammage, R. G., Esq. ..	Villiers Street, Sunderland
Gibb, C. J., M.D. .	Westgate Road, Newcastle
Gibbon, T., Esq. .	Seaham Harbour
Gibson, C., M.D. ..	Eldon Square, Newcastle
Gibson, Charles, Esq. ..	Colbeck Place, Tynemouth
Gourley, Samuel, M.D. ..	West Hartlepool
Gowans, William, Esq. ..	Victoria Terrace, South Shields
Goyder, C. M., Esq. ..	Infirmary, Newcastle
Grant, John, Esq.	West Boldon, Durham
Hardcastle, Nicholas, Esq.	West Clayton Street, Newcastle
Hawthorn, John, Esq. ..	New Bridge Street, Newcastle
Heath, G. Y., M.D. ..	Westgate Road, Newcastle
Hedley, John, Esq.	Yester House, Middlesborough
Hepburn, W. A., Esq. ..	Coxhoe, Durham
Hind, Henry, Esq.,	Bridge Road, Stockton-on-Tees
Hope, John, Esq.	Eldon Square, Newcastle
Hopwood, Thomas F., Esq.	Stockton Road, Sunderland
Horan, John, Esq. .	26, Bridge Street, Sunderland (resigned)
Houseman, John, M.D. ..	67, Jesmond Road, Barras Bridge, Newcastle
Howson, J. L., Esq. .	Stockton-on-Tees (dead)
Hume, C. H., M.D. .	4, Ellison Place, Newcastle
Huntley, R. E., M.D. ..	Jarrow
Hurst, H. F., Esq. .	Walker-on-Tyne
Hutchinson, Valentine, M.D. ..	Bishop Auckland
I'Anson, W. A., Esq.	Westgate Road, Newcastle
Jackson, Daniel, M.D. ..	Hexham
Jackson, John, Esq. .	Usworth
Jepson, Edward, Esq. ..	Elvet, Durham
Jobson, John, Esq. ..	Bishop Auckland
Kendal, C. R., Esq. .	Abbey Gate House, Hexham
Ketchen, W., M.D. .	Middlesborough
Kilburn, W. B., Esq. .	West Auckland
Lawrence, James, M.D. ..	Darlington
Legat, A. E., Esq.	South Hylton, Sunderland
Legat, Andrew, M.D. .. .	South Shields
Linton, Ralph, Esq. .	Chester-le-Street
Logie, J. C., M.B. .	Morpeth
Longbotham, G., Esq. ..	1, Market Place, Middlesborough
Longbotham, Jonathan, Esq.	Stanhope Road, Darlington
Low, A. Bruce, M.B. .. .	27, Holmside, Borough Road, Sunderland
Lowndes, J. R., Esq.	Osborne Road, Newcastle
Lynn, R. D., M.D. .	Cumberland Row, Newcastle
Lyon, Walter, M.D.	Houghton-le-Spring
Macaulay, John, M.D. .	132, Rye Hill, Newcastle
McCloskey, James, M.B.	Stockton
McCoull, George, Esq. ..	Ovingdon, Prudhoe
McCutcheon, Samuel, M.D.	Queen's Terrace, Middlesborough
McDowall, T. W., M.D.	County Asylum, Morpeth
McKane, G. O., Esq. ..	Byers Green, Durham
Maclay, Alexander, M.D.	Crook, Durham
McKechnie, David, Esq.	West Hartlepool
Mackenzie, R. F., M.D.	Coatham, Redcar
Mackie, James, Esq. . .	Houghton, Darlington
Mackenzie, John, M.B.	Bear Park, Durham
Mackinlay, J. E. H., Esq.	Coatham, Redcar
Maclachlan, A., M.B. ..	Newcastle-on-Tyne
Maclagan, James, M.C., M.D	Riding Mill-on-Tyne
McLaren, Benjamin, Esq.	Bedlington
Macneilage, D., Esq.	Spennymoor
McLean, Hugh, M.D. ..	Corbridge
Means, W., M.B.	Newcastle
Malcomson, J. A., M.D.	Middlesborough
Maling, F. V., Esq. ..	48, John Street, Sunderland
Mantle, A., M.B. .	Stanley, Chester-le-Street
Marson, H. W., Esq. ..	Old Elvet, Durham
Matthews, John, M.D. ..	Tynemouth
May, T. F., Esq.	35, Hinde Street, Newcastle
Merryweather, James, Esq. .	Guisborough
Middlemiss, George, Esq.	Skinner Gate, Darlington
Mitchell, John, M.D. ..	Barras Bridge
Morgan, G. B., Esq.	Bishopwearmouth
Morison, J. R., M.B. ..	Hartlepool
Morris, W. C., M.B. ..	Chester-le-Street
Munro, James, M.D. ..	Barras Bridge
Murray, J. C., M.D. ..	Northgate Street, Newcastle
Murray, J. R., Esq.	Grange Terrace, Norton, Stockton-on-Tees
Murray, W., M.B.	Haydon Bridge
Murray, William, M.D.	Clayton Street West, Newcastle
Nattrass, Charles, M.D.	Park Terrace, Sunderland
Newton, R. C., Esq. ..	Barras Bridge, Newcastle
Oliver, James, M.B.	Durham
Oliver, T., M.D.	Newcastle-on-Tyne
Oliver, W. H., Esq.	Stockton
Paxton, John, Esq.	Norham
Peacock, J. B., Esq.	Streonshalh House, Darlington (dead)
Peart, R. S., M.D.	North Shields
Philipson, George H., M.D.	Eldon Square, Newcastle
Piper, S. E., Esq. .	Darlington
Porteous, David, M.D. ..	Middleton, St. George, Darlington
Proudfoot, T., M.B. ..	North Seaton, Northumberland
Pyle, T. T., M.D. ..	5, Lower Seymour Street, London, W.
Rawlings, James, Esq. ..	100, High Street, Hartlepool
Reid, J. C., M.D. .	Newbiggin-by-the-Sea
Renton, W. M., M.D. ..	Shotley Bridge
Ridley, J. H. W., Esq. .	Hexham Road, Gateshead
Robson, Adam, Esq. ..	3, Frederick Street, South Shields
Robson, E. S., Esq. ..	3, North Bailey, Durham
Robson, James, Esq. ..	Chapter Row, South Shields
Robson, R. N., Esq. ..	Durham
Ross, David, M.D. .	2, Zion Terrace, South Shields
Russell, Hugh, M.D. ..	New Trimdon, Ferry Hill
Shiell, W. R., Esq. ..	Chester-le-Street (dead)
Skrimshire, F. W., Esq.	Morpeth
Smeddle, Robert, Esq. ..	Shildon, near Darlington
Smith, James, Esq. .	Westmorland Terrace, Newcastle
Smith, James W., M.D.	Ryton-on-Tyne
Smith, Robert, M.D. ..	Durham County Asylum, Sedgefield
Smith, R. A., M.D. ..	Park Terrace, Sunderland
Spear, John, Esq ..	Local Government Board, Whitehall, S.W.
Stainthorpe, Thomas, M.D.	Hexham
Stewart, Peter, M.B. ..	Langley Moor, Durham
Stiven, E. W. F., M.D. ..	Sunderland
Strachan, B., M.B. . .	Monkwearmouth
Strang, Wm. J., M.B. .. .	Dispensary, Newcastle
Sutherland, J. R., Esq. ..	West Rainton, Fence Houses, Durham
Sutherland, Walter, M.D. .	West Hartlepool
Sutherland, William, Esq.	Capheaton, Northumberland
Swanwick, E. M., Esq. ..	West Hartlepool
Thornhill, John, Esq. ..	Gosforth, Newcastle
Tinley, Thomas, Esq. ..	22, Skinner Street, Whitby
Torrance, Robert, Esq.	Saville Row, Newcastle
Turnbull, T. J., Esq. ..	North Shields
Umpleby, Henry, M.D.	Bedale
Walker, Allan, M.B. ..	Seaton Burn, Northumberland
Walker, Robert, M.D. ..	Wooler, near Alnwick
Walker, W. H., M.D. ..	Aldborough, Durham
Ward, H. D., M.D. ..	Blyth
Waterston, James, Esq.	Frederick Street, Sunderland
Watson, P. H., Esq ..	13, North Bridge St., Sunderland
Watson, Thomas, M.B.	George Street, South Stockton
Wear, A. T., Esq. ..	Newcastle
Welford, C., M.B. . .	Sunderland
Welford, George, Esq. ..	Sunderland
Welford, G. E., M.D. ..	Park Terrace, Sunderland
Wickham, R. H. B., Esq.	Coxlodge Asylum, Newcastle
Wicks, W. C., M.B. ..	Park Parade, Newcastle
Wilkinson, Auburn, Esq.	Tynemouth
Williams, W. J., M.D. ..	Grange Road, Middlesborough
Williamson, A. V., Esq.	Witton Park, Darlington
Williamson, G. E., Esq.	Newcastle-on-Tyne
Wilson, Allan, M.D. ..	Castle Eden
Wilson, James, Esq. ..	Villiers Street, Sunderland
Wilson, John, Esq. .	10, Russel Street, Stockton-on-Tees
Wilson, John, M.D. ..	Manchester
Wilson, Robert, M.D. ..	Alnwick
Wilson, R. H., M.D. ..	Gateshead
Wilson, Thomas, Esq. ..	Wallsend, Newcastle
Wilson, W. T., M.D. ..	Derwent Place, Newcastle
Young, Christopher, M.D.	Yarm

MEMBERS UNATTACHED (58)

Anderson, R. S., M.B.	Spennymoor
Arnold, Andrew, Esq.	Bishop Auckland
Baumgartner, John R., Esq. .	126, Clayton Street, Newcastle
Biggart, S., M.D. ..	West Hartlepool
Black, J. G., M.D. .	Rothbury
Booth, Lionel, M.D. ..	Sherburn Hospital, Durham
Burton, C. C., Esq.	Belford, Northumberland
Candlish, Henry, M.D. ..	Alnwick
Crampton, J. S., Esq. ..	Borough Asylum, Newcastle-on-Tyne
Drummond, J., M.B. ..	14, Saville Street, South Shields
Edwards, S., Esq. .	Eighton Banks
Elliott, J. P., Esq.	Bellingham, Northumberland
Forster, F. W., Esq	7, West Terrace, Darlington,
Fraser, C. Ross, Esq	Wallsend-on-Tyne
Fraser R. McLean, Esq.	Northgate, Darlington
Garson, W. R. J., M.B.	11, Waterloo Terrace, Newcastle-on-Tyne
Graham, L., Esq ..	Barnard Castle

Gre[illegible]	Co[illegible]d
Hollan[illegible] ..	82, Elswick Road, Newcastle
Hood, [illegible]	[illegible]
Hoyle, W., [illegible]	[illegible]
Lambe, [illegible]	[illegible]
Liddell, S., [illegible]	[illegible]
[illegible]	[illegible]
M. [illegible]	[illegible]
Morrison, [illegible]	Infirmary, Alnwick
May[illegible]	Bishop Auckland, Durham
[illegible]	[illegible]
Oliver, [illegible]	[illegible]
[illegible]	Ingham Infirmary, South Shields
[illegible]	[illegible]
Veitch, W. Y., Esq.	Middlesborough
[illegible]	[illegible]
[illegible]	[illegible]
Webb, [illegible] ..	[illegible]
Young, Thomas, Esq. ..	South Shields (resigned)

NORTH OF IRELAND BRANCH.

DISTRICT COMPRISING THE PROVINCE OF ULSTER.

RECOGNISED [illegible].

President	J. W. T. SMITH, M.D., Belfast
Vice-Presidents	[illegible]
	[illegible] K. WHEELER, M.D., Belfast
Honorary Secretary	JOHN [illegible], M.D., Carlisle Terrace, Belfast.

COUNCIL.

[illegible]	College Square North, Belfast
[illegible]	33, Wellington Place, Belfast
Dempsey, A., M.D.	78, Donegal Street, Belfast
[illegible]	Fisherwick Place, Belfast
Dunlop, A., M.D. ..	Holywood
Fagan, J., Esq., ..	College Square North, Belfast
Filson, Alexander, M.D. ..	Portaferry
Gray, R., Esq. ..	Russell Street, Armagh
Harkin, Alexander, M.D, ..	5, College Square, [illegible]
Kidd, A., M.D. ..	Ballymena
[illegible]	Downpatrick
M'Keown, William A., M.D.	Belfast
[illegible] M.D.	Londonderry
[illegible]	Armagh

MEMBERS OF BRANCH (107).

Adamson, J. G., M.D. ..	Lurgan
Allan, W., M.D. ..	6, Murray's Terrace, Belfast
[illegible] ..	Richill, co. Armagh
Anderson, R. J., M.D. ..	[illegible]
Arnold, W., Esq. ..	Crescent House, Belfast
Ball, Thos., Esq.	Donegal Place, Belfast
[illegible] ..	Templepatrick
Beck, F. E., Esq. ..	Clarence Place, Belfast
Bernard, W., Esq. ..	Londonderry
Boyd, S. B., M.D. ..	[illegible]
Brown, D. J., Esq. ..	Londonderry
Browne, J. W., M.D. ..	College Square North, Belfast
Byers, J. W., M.D.	Lower Crescent, Belfast
Carson, A. T., M.D. ..	Portrush, Belfast
Casement, B. N., M.B.	Ballymena
[illegible] ..	Bellaghy, Londonderry
Coates, S. B., Esq. ..	Great Victoria Street, Belfast
Cordner, L. M., Esq.	Aughnacloy, co. Tyrone
Core, W. S., M.D.	Abbotsford Place, Belfast
Corry, T. C. S., Esq.	Donegal Pass, Belfast
Creery, J. T., M.B. ..	Co. Infirmary, Londonderry
Cuming, J., M.D. ..	33, Wellington Place, Belfast
Dempsey, A., M.D.	78, Donegal Street, Belfast
Dickson, J., M.D. ..	Ballynahinch, co. Down
Dill, R. F., M.D.	Fisherwick Place, Belfast
Duncan, T., Esq. ..	Fintonia, Tyrone
Dunlop, A., M.D.	Holywood, Belfast
Dunn, A., Esq. ..	Downpatrick
Esler, Robert, M.D.	Packenham Place, Belfast
Fagan, J., Esq.	College Square North, Belfast
Fergus, S., M.D.,	Moy, Tyrone
Ferguson, H. S., M.D.	Fisherwick Place, Belfast
Fleming, Hans, M.D.	Omagh
Foreman, T. D., Esq. ..	Ballynahinch, co. Down
Forsyth, James, M.D.	Culmore, Londonderry
Frazer, H., Esq.	English Street, Armagh
Frier, W., M.D.	Waringstown, co. Down
Fulton, T., M.D. ..	Saintfield, co. Down (resigned)
Graham, James, M.D. ..	Donegal Pass, Belfast
Given, G. K., M.D. ..	Gortin, co. Tyrone
Gray, G. M.D.	Castlewellan, Down
Gray, R., Esq. ..	Russell Street, Armagh
Harkin, Alexander, M.D. ..	5, College Square, Belfast
Hawthorne, John, M.D.	Banbridge, co. Down
Hegarty, A., M.D. ..	Kilrea, Derry
Henry, Richard, M.D. ..	Brookborough, Fermanagh
Henry, R., M.B.	Clones, Monaghan
Hunter, R. L., M.D.	Larne, Antrim
Johnston, D., M.D.	Clifton Street, Belfast
Kidd, A., M.D. ..	Ballymena
Kevin, C., M.D. ..	144, Donegal Pass, Belfast,
Kirker, G., M.D., Surgeon R.N. ..	H.M.S. "Iris," Portsmouth
Leary, T., Esq. ..	Castleberg, Co. Tyrone
Little, R., M.B. ..	Combermore, co. Donegal (dead)
Macarthur, P., M.B.	Grey Abbey, co. Down
McBride, H., Esq.	Gilford, co. Down
McConnell, A., Esq.	[illegible]
[illegible] ..	Banbridge, co. Down
[illegible]	Londonderry
[illegible]	[illegible]
[illegible]	Antrim [illegible]
McIlroy, J., M.B. ..	[illegible]
McKeown, W. A., M.D. ..	[illegible]
[illegible] ..	Strabane
McLaughlin, T., Esq.	Pump Street, Londonderry
McMeekin, J., Esq. ..	[illegible]
Maconchy, J. K., M.B. ..	Downpatrick
Manley, H. C., Esq. ..	[illegible]
Martin, J., Esq. ..	[illegible]
Mackenzie, W. S., M.D.	[illegible]
Merrick, A. S., M.D.	Hospital for Insane, Belfast
Miller, Sir W. M. Knt., M.D. ..	[illegible]
Moore, J. M., Esq.	Dungiven
Moore, J., M.D.	Carlisle Terrace, Belfast
Moorhead, W. R., M.D.	Benburb, co. Tyrone
O'Connor, L., Esq.	Glenarm
O'Malley, M. R., M.D. ..	[illegible]
O'Neill, H., M.D. ..	[illegible]
Orr, Gawin, M.D. ..	Ballylesson, Lisburn
Palmer, J. M., Esq.	Infirmary, Armagh
Parke, R. C., Esq. ..	[illegible]
[illegible] ..	[illegible]
Purdon, C. D., M.B.	[illegible]
Ross, R., M.D.	7, Wellington Place, Belfast
Scott, W., M.D.	[illegible]
Sinclair, J., M.D., Dep. Insp.-Gen.	Belfast
Smith, James, Esq. ..	257, Shankhill Road, Belfast
Smith, J. W. T., M.D.	[illegible]
Smyth, Bryce, Esq. ..	College Square, Belfast
Spedding, B. H., Esq.	[illegible]
Stone, Ralph, Esq. ..	Omagh
Sweenie, W. F., M.B.	Newtowncunningham
Stephenson, S. S., Esq.	[illegible]
Taggart, W. J., M.D.	Antrim
Taylor, W., Esq. ..	Downpatrick
Thetford, W. W., Esq.	Strangford
Thompson, D., Esq. ..	[illegible]
Thompson, E. C., M.B.	Omagh
Thompson, V. C., M.D., I.M.D. ..	Madras
Vesey, A. B., Esq. ..	Magherafelt
Vesey, T. A., M.B.	Rostrevor, co. Devon
Wadsworth, C., Esq. ..	Townsend Street, Belfast
Weir, C. J., Esq., Surg.-Maj. A.M.D.	Armagh
West, G. F. Esq.	Asylum, Omagh
Wheeler, T. K., M.D.	3, Clarendon Place, Belfast
Whitla, W., M.D.	41, Great Victoria Street, Belfast
Withers, T. J., M.D.	Comber, co. Down
Workman, C., M.D.	2, Glengall Place, Belfast

MEMBERS UNATTACHED (64).

Black, W., Esq. ..	Ballymena, co. Antrim (resigned)
Bolton, R., M.D.	Bangor, co. Down
Britton, John, M.D.	Strabane, co. Tyrone
Browne, T. J., M.B.	[illegible]
Browne, W., M.D.	[illegible]
Carre, F., Esq. ..	Letterkenny
Carson, J. C. L., M.D.	Coleraine
Christal, J., Esq.	Coole Hill, co. Cavan
Christie, D., Esq. ..	Carrigart-by-Letterkenny
Clugston, W. A., M.D.	Ballyclare, Antrim
Corbett, T., Esq. ..	Londonderry
Crossit, R., Esq. ..	Cookstown, co. Tyrone
Cuming, T., M.D. ..	Armagh
Cuppage, T., M.D.	Lurgan (resigned)
Davis, T., M.D. ..	Spencer Road, Londonderry
Davison, H. A., M.B.	Armagh
Diamond, C., Esq.	Rasharkin, Belfast
Diamond, C. J., Esq. ..	[illegible]
Dysart, J., M.D. ..	Port Glenone, Antrim
Eccles, R. K., M.D. ..	Toomebridge, Antrim
Evans, H. E., Esq. ..	Kilkeel
Fenwick, C., Esq.	Killygordon, co. Donegal
Flood, A. W., Esq. ..	Bundoran, co. Donegal
Fullarton, R., M.B. ..	Armagh
Gage, R. C., M.B.	Scottstown, Monaghan
Gaussen, J. L., M.D.	Wellington Place, Belfast
Gilmore, S., Esq. ..	Castleblayney, co. Monaghan
Gordon, R., Esq.	Strabane, co. Tyrone
Hall, J. C., M.B. ..	Monaghan
Jamison, D., M.D. ..	Newtownards
Johnston, H. M., M.D. ..	Stranorlar, Donegal
Kenny, J. [illegible] ..	Killeshandra, co. Cavan
Kidd, A. N., M.D. ..	Caledon, co. Tyrone
Loughnan, Michael, Esq. ..	Rathmullen
Lyndon, G., Esq. ..	Ballinagh, co. Cavan
McCaul, G. B., Esq.	Clarendon Street, Londonderry
Mackinstry, R., M.D.	Armagh
McMaster, A., Esq.	Ballygawley, co. Tyrone
MacNeece, T. F., Esq., Sur. A.M.D.	Newbridge
Miller, J. E., M.D.	Londonderry
Moore, Mark, Esq.	Cavan
Mullan, A., M.D.	Ballymena
Murdoch, J., M.B.	Magherafelt, co. Derry
Nelson, Joseph, M.D. ..	Holywood, near Belfast
Norman, Conolly, Esq.	District Asylum, Monaghan
Olpherts, J. W., Esq. ..	Lurgan, co. Armagh
Patterson, J., M.B. ..	Ramelton, co. Donegal
Petit, J., Esq.	Letterkenny

Pratt, Joseph, Esq.	..	Armagh
Reid, J. Seaton, M.D.	..	Belfast
Robinson, W., Esq.	..	Keady, co. Armagh
Ross, J. R., M.D.	..	Ballykelly, co. Derry
Shackleton, E., Esq.	.	Tandragee, co. Armagh
Sheil, S., M.D.	..	Ballyshannon
Smith, W. Ashe, Esq.	..	Clogher, co. Tyrone
Smyth, W., M.B.	..	Banbridge, co. Down
Taylor, J., Esq.	..	Tandragee, co. Armagh
Thompson, G. W., Esq.	..	Doochary, Stranorlar (resigned)
Wales, G. F., M.D.	.	York Street, Belfast
Warnock, H. T. A., Esq.	..	Donegal
Westropp, C. G., Esq.	..	Derrylin, Belturbet
Wilson, W. W., M.B.	..	Milburn, Burrena
Wood, John, Esq.		Carnbe[illegible], Dundalk
Young, A. G., M.B.	..	Mount Corry, Markethill, Armagh

NORTH WALES BRANCH.

DISTRICT COMPRISING THE COUNTIES OF CARNARVON, MERIONETH, DENBIGH, ANGLESEY, AND FLINT.

RECOGNISED 1[illegible].

President	..	S. GRIFFITH, M.D., Portmadoc
Vice-President	..	J. ROBERTS, M.D., Chester
Honorary Treasurer	..	W. WILLIAMS, M.B., North Wales Asylum, Denbigh
Honorary Secretaries	..	J. LLOYD ROBERTS, M.B., Denbigh T. EYTON JONES, M.D., Wrexham

COUNCIL.

Davies, Thomas, Esq.	..	Colwyn Bay
Girdlestone, W. T. Esq.	..	Rhyl
Hughes, R., M.D.	..	Penmaenmawr
Owen, O. E., Esq.	..	Langefni
Prichard, R. A., Esq.	..	Conway

MEMBERS OF BRANCH (73).

Davies, E. T., M.B.	..	191, Heyworth Street, Liverpool
Davies, Edward, M.D.	..	Wrexham
Davies, H. Ll.		Holywell
Davies, Price Lloyd, Esq.		Abergele
Davies, R., Esq.		Llanfair, Abergele
Davies, T., Esq.	..	Machynlleth
Davies, Thomas, Esq.	..	Preswylfa, Colwyn Bay
Edmunds, R., Esq.		Cwmbran House, Pontnewydd Newport
Evans, E., M.B.		Beaumaris
Evans, O. T., Esq.		Bryn[illegible], Wrexham
Evans, R. D.		Festiniog
Evans, R. W. J., Esq.	..	Wrexham
Girdlestone, W. T., Esq.	.	Rhyl
Gobat, James T., Esq.	..	Overton, Ruabon
Griffith, G. R., M.B.	..	Castle Square, Carnarvon
Griffith, R., Esq.		Abergele
Griffith, Robert G., M.B.	..	Carnarvon
Griffith, Samuel, M.D.	..	Portmadoc
Grosholz, F. H. V., Esq.		Aberdovey
Hughes, D., Esq.		Llangollen
Hughes, D. A., Esq.		Coed-y-Bachau, Dyffryn, Merioneth[illegible]
Hughes, H. R. Gwyn, Esq.		Bangor
Hughes, J. E., Esq.		Nevin
Hughes, John Robert, M.D.	..	Denbigh
Hughes, J. T. D., Esq.	..	Menai Bridge
Hughes, Robert, M.D.	..	Penmaenmawr
Hughes, Roger, Esq.	..	Bala
Hughes, T. H., Esq.	..	Pwllheli
Hughes, T. W., Esq.	..	Dwylan, Llanengan, Pwllheli
Jenkins, Josiah R., M.D.		Ruthin
Jones, E., M.D.	..	Caerffynon, Dolgelley (resigned)
Jones, D. R., Esq.		Corwen
Jones, J. E., M.D.		Brynffynon, Dolgelley
Jones, J. L., Esq.		Bron-y-Graig, Corris
Jones, Price, Esq.		Llangollen
Jones, Richard O., Esq.	..	Bala
Jones, T. Evans, Esq.	..	Plas Henar, Llanrwst
Jones, T. Eyton, M.D.	..	Grosvenor Lodge, Wrexham
Jones, W., Esq.		Ty Newydd, Ruabon
Jones, W. Lloyd, Esq.	..	Bala
Lewis, W. Parry, Esq.	..	Beaumaris
Lloyd, Edward H., M.D.		High Street, Bangor
Lloyd, Hugh J., Esq.	..	Barmouth
Morris, P., Esq.	..	Colwyn Bay, Conway
Morris, W. Jones, Esq.		Penmaenmawr
Owen, R. E., Esq.		Beaumaris
Owen, Owen Elias, Esq.		Gladstone, Llangefni, Anglesey
Palin, H. V., M.B.		Wrexham
Prichard, R. A., Esq.	..	Conway
Prichard, R. M., M.D.	..	Denbigh
Price, P. E. L., Esq.		Pwllheli
Rees, Hugh E.		5, Church Street, Carnarvon
Richards, J., Esq.		Bangor
Richards, O., M.D.	..	Ysgoldewig, Bala
Roberts, W.		Llanfachreth, near Dolgelley
Roberts, John, M.D.	..	Talarvor, Criccieth
Roberts, John, M.D.	..	Abbey Square, Chester
Roberts, R. Ll., Esq.		Portmadoc
Roberts, Robert, Esq.	..	Portmadoc
Roberts, R. Price, Esq.	..	Rhyl
Rowlands, W., M.B.	..	Llanberis, Carnarvon
Shaw, T., Esq.		Bron-y-de, Llandudno
Turnour, Arthur H., M.D.		Dudleston
Walker, James R., Esq.		Corwen
Williams, C., Esq.		Hengwrt, Dolgelley, Merioneth
Williams, David Mark, Esq.		Shaw Street, Liverpool
Williams, E., M.D.		Wrexham
Williams, Evan, Esq.		Llangefni, Anglesey
Williams, Humphrey L., Esq.		Fronhenlog, Dolgelley
Williams, J., Esq.		Holywell
Williams, J. Llewelyn, M.B.		Oberet-in Gardens, Edinburgh
Williams, R. Esq.		Regent Place, Wrexham
Williams, Richard, Esq.		82, Rodney Street, Liverpool
Williams, W., Esq.	..	Carnarvon
Williams, W. J., M.D.	..	Mold
Williams, W., M.D.		58, Rodney Street, Liverpool
Williams, W., M.B.		North Wales Asylum, Denbigh
Wolstenholme, J. H., Esq.		Abergele, Llandulas

MEMBERS UNATTACHED (21).

Carstairs, W. B. M.B.	..	Plas Newydd Plas
Crighton, A., M.D.	..	Brymbo, Wrexham.
Dalton, Thomas, M.D.	..	Llandudno
Edwards, D., Esq.	..	Mold
Edwards, J., Esq.	..	Portmadoc
Griffith, J. T., Esq.	..	Llwyn-onn, Penygroes
Griffiths, Owen W., Esq.		The Plas, Nevin
Hughes, Evan Thomas, Esq.		Stanley Crescent, Holyhead
Hughes, W. Evan, Esq.		Penisardre, Llanrwst (dead)
Jones, R. A., Esq.		Maen Hir, Llanfair, Anglesey
Lodge, Llewelyn, Esq.	..	St. Asaph
Manisty, F., Esq.		The Retreat, Wrexham
Manisty, F. S., Esq.		Gresford, near Wrexham
Meteyard, C. J., Esq.	..	Menai Bridge
Morgan, W. T., M.D.	..	Carnarvon
Owen, R. H., Esq.		Plas-Coch, Bottwnog, Pwllheli
Owen, W. G., M.B.		Carnarvon
Pierce, Evan, M.D.	..	Denbigh
Prytherch, H., Esq.		Menai Bridge
Roberts, Evan, Esq.	..	Penygroes, Carnarvon
Roberts, J. G., Esq.	..	Amlwch, Anglesey
Roberts, W. W., Esq.	..	Uxbridge Place, Carnarvon
Roden, T. C., Esq.		Llandudno
Williams, J., Esq.	..	Castle Square, Carnarvon

NORTHERN COUNTIES OF SCOTLAND BRANCH.

DISTRICT COMPRISING THE WESTERN PORTION OF BANFFSHIRE AND THE OTHER COUNTIES OF SCOTLAND NORTHWARD.

RECOGNISED 1873.

President	.. ..	W[illegible]
Vice-President	..	G[illegible], M.D., [illegible]
Secretary and Treasurer	.	J. W. [illegible], M.D., [illegible]

COUNCIL.

M[illegible], D., Esq.	Beauly
Mackenzie, A. R., M.D.	Fortrose
McNee, J., M.D.	Inverness
Middleton, J., M.B.	[illegible]
Simpson, J., M.D.	Inverness

MEMBERS OF BRANCH. (3[illegible])

Adam, Ch. M.B.		Elgin
Adam, J., M.B.		Dingwall
Aitken, Thomas, M.D.	..	[illegible]
Bruce, William, M.D.	..	[illegible]
Butler, Anthony, M.B.	..	[illegible]
Craig, R., M.D.		Glen Urquhart
Cruickshank, B., M.D.	..	Nairn
Duff, George, M.D.		Elgin
Duguid, W. R., M.D.	..	Buckie
Finlayson, A.		Munlochy, Inverness
Forbes, G., M.D.		Fochabers
Grant, John, M.D.		Grantown
Grigor, John, M.D.		[illegible]
Hay, G. Petrie, M.D.	..	Forres
[illegible]		[illegible]
McDonald, Wm., M.D.		Inverness
McFadyen, D., Esq.		[illegible]
McIntyre, D., M.D.		[illegible]
Mackay, J. W. N., M.D.		[illegible]
Mackenzie, A. R., M.D.		[illegible]
Mackenzie, Finlay M., Esq.		[illegible]
McPherson, C., M.B.	..	[illegible]
McNee, J., M.D.		[illegible]
Middleton, J., M.B.	..	[illegible]
Murray, J., M.D.	..	[illegible]
Ross, James, M.D.		[illegible]
Ross, James J., M.D.		[illegible]
Simpson, J., M.D.		[illegible]
[illegible]		[illegible]
Sutherland, A., M.B.	..	[illegible]
Turner, Robert Shand, M.D.		Keith
Vass, J., M.D.		[illegible]
Whyte, [illegible] M.D.		Elgin

MEMBERS UNATTACHED (3[illegible])

Austin, J. A., M.D.	.. ..	Tonge
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]
[illegible]		[illegible]

[illegible]	..	[illegible]
[illegible]	..	[illegible]
Logie, James S. S., M.D.	..	Kirkwall
Mann, H., Esq.	..	[illegible]
McCallum, Ronald [illegible]	.	Ullapool
McConaghy, J. [illegible]	..	[illegible]
McDonald, J., M.D.	..	Orbost, Skye
Mackay, [illegible]	..	[illegible]
Mackay, Duncan, M.D.	.	[illegible]
Mackay, [illegible]	.	[illegible]
Maclean, [illegible]	.	[illegible]
Maclean, J., M.D.	.	Orbost House, Dunvegan
McNeill, D., Esq.	.	Holm, Kirkwall
MacRae, J., M.D.	..	[illegible]
McRobert, H. G., M.B.	..	Westray, Orkney
Pole, A., M.D.	..	Lerwick, Shetland
[illegible]	..	Lochs, Stornoway
Rutherford, D. J., M.D.	.	Brook Point, Haroldswick, Shetland
Skae, F. D. A., M.D.	..	[illegible]
Stephen, W., M.D.	..	[illegible]
Stewart, J., Esq.	..	Obbe, South Harris
Stewart, W., M.D.	..	Kirkwall, Orkney
Stuart, R. W., Esq.	..	Boddam, Dunrossness, Shetland
Tulloch, David, M.B.	..	Helmsdale
Yule, R. M., M.D.	.	Scalloway, Shetland

OXFORDSHIRE.

MEMBERS UNATTACHED. ([illegible])

Acland, H.W., M.D., D.C.L., F.R.S.		Oxford
Bal[illegible]	..	Oxford
Bam[illegible]	..	Henley-on-Thames
Batt, Augustine, M.D.	..	The Hill, Witney
Beaumont, W. M., Esq.	..	St. Giles' Road, Oxford
Bevers, Edmund Augustine, Esq.		Broad Street, Oxford
Brooks, A. D Oxley, Esq.	..	Henley-on-Thames
Cheatle, Thomas Henry, Esq.	..	Burford
Derbyshire, S. D., M.B.	..	Oxford
Drinkwater, W., Esq.	..	Bicester
Fairless, W. D., M.D.	..	Park Town, Oxford
Giles, R., M.D.	..	Oxford
Gray, E. B., M.D.	..	Oxford
Gill[illegible]	..	[illegible]
Hutchinson, G. W., Esq.	..	Chipping Norton
McFadden, J., M.D.	..	St. Clement's, Oxford
Mal[illegible]	.	[illegible]
Morgan, W. [illegible]		Exeter College Oxford
Orpen, A.H., Esq.		Chipping Norton
Rolleston, George, M.D., F.R.S.		Park Grange, Oxford
Sankey, R. H. H., Esq.		[illegible]
Thompson, H., Esq.		St. John Street Oxford
Tuckwell, Henry M., M.D.	.	Oxford
Ward, John B., M.D.	..	Warneford Asylum, Oxford
Winkfield, A., Esq.		Beaumont Street, Oxford
Wise, R. S., M.D.	.	Banbury

READING BRANCH.

DISTRICT COMPRISING THE TOWN OF READING AND SURROUNDING DISTRICT.

RECOGNISED [illegible].

President	..	HENRY HEYGATE PHILLIPS, M.D., Reading
President-Elect	..	W. T. G. WOODFORDE, M.D., Oak Bank, Spencer's Wood
Honorary [illegible]	..	R. C. SHUTTLE, M.D., Eldon St., Reading

COUNCIL.

Harrinson, Isaac, Esq.	.	Reading
May, George, jun., M.B.	..	Reading
Royds, W. A. S., Esq.		London Street, Reading
Shea, John, M.D.		London Road, Reading
Walford, T. L., Esq.		Reading
Wells, Edward, M.D.		Reading
Young, W. B., Esq.		Reading

MEMBERS OF BRANCH. (46.)

Armstrong, H. G., Esq.	.	Reading
Bateman, Francis, M.D.		Whitchurch, Oxon
Birch, Robert, Esq.	.	Newbury
Bunny, Joseph, M.D.	..	Newbury
Cochran, C. H., Esq.	..	Caversham
Davis, G. H., Esq.	.	Mortimer
Davis, E. H., Esq.		Esleigh Court, Reading
Galpin, R., Esq.		Kelvedon, Essex
Gooch, James W., Esq.	.	Eton
Graham, C. R., Esq.	..	Hospital for Sick Children, Manchester
Harrinson, Isaac, Esq.	..	Reading
Heasman, W., Esq., Brit.-Surg., A.M.D.	..	Taunton
Hewitt, Tom Smith, M.D.		Winkfield, Windsor
Hickman, Richard, Esq.		Newbury
Holderness, W. Brown, Esq.		Windsor
Jeston, T. W., Esq.		Henley-on-Thames
Lockwood, J. Parker, Esq.		Faringdon
Lousley, Oded, Esq.		Reading
Major, Harry Pike, Esq., M.D.	..	Hungerford
McIntyre, A. J., M.D.	..	Odiham
McIntyre, J., M.D.	..	Odiham
Maurice, O. C., Esq.	..	Reading
May, George, Esq.	..	Reading
May, George, jun., M.B.		Reading
Montgomery, E. C., M.D.		Maidenhead
Moore, Adam Jas.	..	Reading
Moore, G. E., M.B.	..	Maidenhead
Noad, G. W., M.D.	..	Wokingham
Orange, William, M.D.	..	Broadmoor, Wokingham
Phillips, Henry Heygate, M.D.		[illegible]
Playne, Alfred, M.B.		Maidenhead
Richardson, W., Esq.		Reading
Royds, W. A. S., Esq.		London Street, Reading
Shea, John, M.D.		London Road, Reading
Shuttle, R. C., M.D.		Reading
Smith, Robert, Esq.		Hurstfield
Sutton, F. W., Esq.		Greenlands, Reading
Swinnerton, John, Esq.		Binfield, Bracknell
Tench, C. H., M.B.	..	[illegible] Road, Reading
Walford, T. L., Esq.	..	Reading
Walker, J. F., Esq.		Swallowfield, Reading
Wallis, [illegible]		Castle Street, Reading
Wells, Edward, M.D.	..	Reading
Woodforde, W. T. Garrett, M.D.		Oakbank, Spencer's Wood, Reading
Workman, John W., Esq.		Reading
Young, W. B., Esq.	..	Reading

MEMBERS UNATTACHED. ([illegible])

Armstrong, H., M.D.	..	Wick Hill, Bracknell
Barrett, S. [illegible], Esq.	.	Abingdon
Barford, J. G., Esq.	.	Wokingham
Breach, John, Esq.	..	Aston, Upthorpe
Burman, J. W., M.D.	..	Ramsbury, Hungerford
Daly, J. H., Esq.		Kingston Bagpuize, Abingdon
Ellison, James, M.D.	..	Windsor
Gossett, G., M.B.		Abingdon
Greene, W., Esq.	..	High Street, Wallingford
Isaac, John B., M.D.	..	Broadmoor, Wokingham
Jay, F. F., Esq.		Wokingham
Marshall, John H., Esq.	..	Wallingford
Martin, Paulin, Esq.	..	Abingdon
Maskelyne, G. H., Esq.	.	Faringdon
Orsborn, John, M.D.	..	Sandhurst, Wokingham
Pearl, E., Esq.	..	Windsor
Perkins, J. R., Esq.	.	Windsor [illegible]
Russell, Jas., M.D.	.	Sandhurst, Wokingham
Slack, R., M.D.		Newbury
Thomson, Geo. L., M.D.	.	East Woodhay, Newbury

SCOTLAND.

MEMBERS UNATTACHED. (63.)

BERWICKSHIRE.

Campbell, W. W., M.D.	..	Dunse
Kynock, Patrick, Esq.	..	Greenlaw
McDougall, J. N., M.D.	..	Coldingham
Macvie, S., M.B.	.	Chirnside
McWatt, Robert C., M.D.	..	Dunse
Skinner, David, Esq.	..	Lauder
Stuart, Charles, M.D.	..	Hillside, Chirnside
Turnbull, Matthew J., M.D.	..	Coldstream

FORFARSHIRE.

Anderson, A. M., M.D.		Dundee
Anderson, J. K., M.D.	..	Arbroath
Campbell, Alexander, M.B.	..	140, Nethergate, Dundee
Christie, James, M.D.	..	Dundee
Cowan, W. C., Esq.	..	Broughty Ferry
Crichton, James S., M.D.	..	Arbroath
Dewar, James A., M.D.	..	Arbroath
Dewar, Michael, M.B.	..	Kirriemuir
Dickson, Robert, Esq.	..	Carnoustie
Duncan, Andrew J., M.D.	..	Nethergate, Dundee
Galloway, Wm., Esq.	..	South Tay Street, Dundee
Gray, R. A., M.D.	..	47, John Street, Montrose
Howden, James C., M.D.	..	Lunatic Asylum, Montrose
Macleod, J. B., M.D.	..	Nethergate, Dundee
McLaren, David, M.D.	.	Dundee
Miller, James W., M.D.		Dundee
Moon, David S., Esq.	..	Dundee
Munro, R. H., M.B.	..	Frockheim, Forfarshire
Nimmo, Matthew, Esq.	.	Dundee
Paton, David, M.D.	..	Carnoustie
Pirie, George C., M.D.	..	South Tay Street, Dundee
Sinclair, Robert, M.D.	..	Dundee
Traill, John, Esq.	..	Arbroath
Urquhart, John, Esq.	..	3, Castle Street, Montrose
Watson, Wm. Mc[illegible], M.D.	..	158, High Street, Montrose
Wannan, W. A., Esq.	..	Market Gate, Arbroath
Wemyss, John W., M.D.	.	Broughty Ferry
Young, Peter, M.D.	..	Ellen Street, Dundee

PERTHSHIRE.

Baird, Alexander, M.D.	..	Perth
Beckett, J., M.D.	..	Dunblane, Perth
Bramwell, James P., M.D.	..	Perth
Calder, A. B., M.B.	..	24, Kemwell Street, Perth
Crerar, Alexander, Esq.,	..	Rannoch, Pitlochry
Dudgeon, J. M., M.B.		Comrie, Perthshire
Fitzmaurice, N. F. H., Esq.	..	Dunning, Perthshire
Gairdner, Matthew B., M.D.	..	Crieff
Hunt, Leigh, M.B.	..	17, Athole Street, Perth
Irvine, W. S., M.D.	..	Craigatin, Pitlochry
Johnston, James, M.D.	..	Drumfort, Blairgowrie
Kennedy, D. Sinclair, M.B.		13, York Place, Perth
Laing, H. W., M.D.	..	Bridge of Earn
Lowe, R., M.D.	..	Coupar Angus
Lunan, Robert, Esq.	..	Blairgowrie
M'Callum, P. [illegible]	..	Woodlands, St. Martin

Mackay, John, M.D. . Abergeldy
McMillan, A., M.D. .. Stanley, Perth
Marshall, W., M.D. .. 2, Wood [illegible]
Meikle, Thomas H., M.D. . Crieff
Morrison, J. H., M.D. .. . Dunning, Perthshire.
Reid, J. W., M.B. . Bankfoot, Perth
Roy, William, M.D. .. . Pitlochry
Shepherd, W., M.D. .. . Dunning
Stevenson, W., Esq. . Crieff
Stirling, David H., M.D. .. Perth
Thom, A., Esq. . Crieff

(See also Aberdeen, Border Counties, Edinburgh, Glasgow and North England Branches.)

SHROPSHIRE AND MID WALES.

DISTRICT COMPRISING SHROPSHIRE AND ADJACENT WELSH COUNTIES.

RECOGNISED [illegible].

President . . J. R. HUMPHREYS, Esq., Shrewsbury
Vice-President . J. SIDES DAVIES, Esq., Oswestry
Honorary Secretary .. HENRY NELSON EDWARDS, Esq., Morton House, Shrewsbury

COUNCIL.

Barrett, T. B., Esq. . Welshpool
Bratton, J., Esq. .. Shrewsbury
Eddowes, William, Esq. .. Shrewsbury
Elliot, H. F., Esq. . Ruyton-of-Eleven-Towns
Gwynn S. Tayleur, M.D. . Whitchurch
Harries J. D., Esq. Shrewsbury
Rider, J., Esq. .. Wellington
Rope, H. J., Esq. . Shrewsbury
Withers, R. W. O., Esq. .. Shrewsbury

MEMBERS OF BRANCH (57).

Andrew, Edwyn, M.D. . Shrewsbury
Barrett, T. B., Esq. .. .. Welshpool
Bethell, Alfred, Esq. .. . Bridgnorth
Blaikie, Robert, Esq. .. . Oswestry
Blyth, Robert, Esq. .. Swan Hill, Shrewsbury
Bratton, J., Esq. Shrewsbury
Bromfield, Jn., Esq. . Whitchurch
Brookes, A. G., Esq. Council House, Shrewsbury
Brookes, W. P., Esq. .. Much Wenlock
Brown, G. A., Esq. Tredegar
Brown, John, Esq. Whitchurch
Burd, Edward, M.D. .. Shrewsbury
Chillingworth, A., Esq. . Infirmary, Shrewsbury
Colles, A., M.B. Whitburn Street, Bridgnorth
Covernton, C. J., Esq. .. .. Knighton
Cureton, E., Esq. .. Shrewsbury
Davies, F. H., Esq. .. Dawley
Davies, J. Sides, Esq. .. Oswestry (dead)
Davies, W. Bowen, Esq. Llandrindod Wells
Downes, T. R. C., Esq. .. Munslow, near Church Stretton
Drinkwater, J. P., Esq. . Plas Guyfran, Llangollen
Eddowes, Alfred, M.D. Market Drayton
Eddowes, W., jun., Esq. . 3, The College, Shrewsbury
Edwards, H. Nelson, Esq. Moreton House, Shrewsbury
Elkington, Ernest A., M.B. Newport, Salop
Elliot, Henry F., Esq. .. Ruyton-eleven-towns
Fairles-Humphreys, N. W., Esq. . Montgomery
Fenton, Henry, Esq. .. Shrewsbury
Fuller, Wm., M.D. . Oswestry
Giles, R. F., Esq. .. . Wem, Salop
Glover, J., Esq. .. . Dorrington, Shrewsbury
Groom, Thomas, Esq. .. Whitchurch
Grosholz, F. H. V., M.D. Aberdovey
Gwynn, C. H., M.B. .. Whitchurch
Gwynn, S. Tayleur, M.D. Whitchurch
Hall, T. Lambert, Esq. Bridgnorth
Harries, J. D., Esq. Shrewsbury
Humphreys, J. R., Esq. . Shrewsbury
Jordison, C., Esq. .. Malpas, Chester
Keyworth, G. H., M.B. .. Wem
Lane, J. W., M.D. .. Bishop's Castle, Salop
Lewis, W. A. A., Esq. .. Castle Buildings, Oswestry
Lyon, John, M.B. Hadnet
MacLintock, J., M.D. .. .. Church Stretton
Mathews, Wm., Esq. .. . Nantwich, Cheshire
Mathias, Alfred, Esq. .. .. Dinas Mawddwy, Montgomery
Monro, C. E., Esq. The Elms, Newtown, Mont.
Morgan, T., Esq. Montgomery
Perry, Fred., M.D. Swan Hill, Shrewsbury
Parry, W., M.D. Oswestry (deceased)
Pidduck, T., Esq. . Shrewsbury
Popham, Samuel Lane, M.D. Market Drayton
Pratt, W., M.D. Newtown, Montgomeryshire
Preston, Lane, Esq. Llanfyllin
Rider, J., Esq. Wellington
Robertson, John, M.D. Llangollen
Roe, J. W., M.D. Ludlow
Rope, H. J., Esq. .. St. Mary's Street, Shrewsbury
Sandford, Folliott J., M.D. Market Drayton
Scott, E. S., Esq. . Swan Hill, Shrewsbury
Sterling, H. L., Esq. . 19, Belle Vue Street, Bridgnorth
Skerrow, B. M., Esq. .. .. Morton House, Shrewsbury
Smith, A. P., Esq. Shawbury
Smith, Thornton, Esq. .. 61, Wyle Cop, Shrewsbury
Soame, C. B. H., Esq. . Dawley Court, near Wellington
Strangman, Arthur, M.D. . Salop County Asylum, Upton Heath
Stubbs, Henry, Esq. .. . Market [illegible]
Tait, Lawson, Esq. Great Charles Street, Birmingham
Thomson, J. A. Mulville, Esq. Newport
Thursfield, W. N., M.D. . Shrewsbury
Tredinnick, E., Esq. . Old Strefford, Craven Arms
Welsh, Joseph, Esq. . Knighton
Whitfield, W. B., Esq. .. Ellesmere
Whitwell, F., Esq. Shrewsbury
Wilding, R., Esq. Church Stretton
Williams, C. Rice, M.D. Aberystwith
Wilson, J. G., Esq. .. Wem
Withers, R. W. O., Esq. .. Claremont Hill, Shrewsbury

MEMBERS UNATTACHED (13).

Bailey, J. Battersby, M.D. . Aston-on-Clun
Brooks, J. E., Esq. . Ludlow
Cartwright, J. P., Esq. . Oswestry
Davies, J. W., Esq. .. . Caio
Ellesmere, E., M.B. .. Shrewsbury
Hall, Edward, Esq. .. . Newtown
Harrison, E. T. D., Esq. . Welshpool
Hodges, G., Esq. . Bridgnorth
Howe, Jonas, Esq. . Llanidloes
Jones, J. Thoresby, Esq. .. 2, Swan Hill, Shrewsbury
Lemon, Henry M., M.D. . Bishop's Castle
Mackereth, Michael, Esq. . Welshpool
Manning, Leonard A., M.B. Llangynog
Meymott, H., Esq. . Ludlow
Morgan, George, J., Esq. Kinnerly, Salop
Packer, W. H., Esq. .. County Asylum, Denbigh
Rigby, W. B., Esq. .. . 1, Wyle Cop, Shrewsbury
Somerby, Thomas, Esq. Welshpool
Styrap, J., Esq. . Shrewsbury (deceased)
Thompson, F. H., Esq. Cleobury, Mortimer

SOUTH EASTERN BRANCH.

DISTRICT COMPRISING THE COUNTIES OF KENT, SURREY AND SUSSEX.

RECOGNISED [illegible].

President . . F. B. H[illegible]
Past-Presidents . . J. H. GALTON, M.D., Anerley
H[illegible], M.D., W[illegible]
President-Elect B[illegible], Maresfield, Uckfield
Vice-Presidents-Elect .. J. V. [illegible], M.B., Ramsgate
J. M[illegible] B[illegible], M.D., [illegible]
Honorary Secretary and Treasurer C[illegible] P[illegible], M.D., D[illegible]
[illegible] J. Wh[illegible], [illegible], Canterbury
[illegible] V. H. H[illegible], [illegible], Maidstone
[illegible] H[illegible], [illegible], M.D.
Past-Presidents 23, Finsbury Circus, E.C.
[illegible] V. N[illegible]
[illegible] E. V[illegible]
Bedford Place, Brighton
[illegible], [illegible], Worthing

COUNCIL.

Bagshawe, F., M.D. St. Leonard's
Baylis, C. O., M.D. Tunbridge Wells
Braid, James, M.D. . Burgess Hill
[illegible], M.D. C[illegible], Hayward's Heath
Chaldecott, Charles W., Esq. Dorking
Eastes, Thomas, M.D. Folkestone
Ewart, Joseph, M.D. . [illegible]
Fussell, Edward F., M.B. .. [illegible], Brighton
Galton, E. Hooper, Esq. Brixton Hill, S.W.
Hayman, C. N., M.B. . Grand Parade, Eastbourne
Hetley, F., M.D. Upper Norwood, S.E.
[illegible], D. W[illegible], [illegible], [illegible], W.
Humphry, Fred. Abel, Esq. [illegible], Preston, Brighton
Jardine, John Lee, Esq. Cranbrook
[illegible], [illegible], [illegible], Tunbridge Wells
[illegible], [illegible], [illegible], 5, Eversfield Place, Brighton
Roberts, Bransby, M.D. .. [illegible]
Turner, J. Sidney, Esq. [illegible], [illegible]
[illegible], W. [illegible], M.B. Folkestone
[illegible], Samuel, Esq. [illegible], Reigate
Worship, [illegible], [illegible], Reigate

[illegible] COMMITTEE

Chaldecott, C. W., Esq. Dorking
Grabham, George W., M.D. [illegible]
Holman, C., M.D. . Reigate
Kelsey, Arthur, Esq. Reigate
Oldham, Charles, E., M.D. [illegible]
Stone, H. S., M.B. Reigate

REPRESENTATIVE IN THE PARLIAMENTARY COMMITTEE

[illegible], M.D. [illegible]

MEMBERS OF BRANCH. (456.)

[illegible] P[illegible] [illegible], Hastings, [illegible]
[illegible] Matthew W[illegible] [illegible], Ashford, Kent
[illegible], [illegible], [illegible], [illegible], [illegible]
Allen, Bryan H., M.D. .. [illegible], [illegible], [illegible]
Allen, H. M., Esq. [illegible], Penge, [illegible]
Allfrey, C. H., M.D. .. St. Mary Cray
[illegible] [illegible], M.B. . Rochester, [illegible]
[illegible], [illegible], M.D. Green Street, Dartford
Armstrong, J. Christopher, Esq. . [illegible]
Ashburner, H. J., Esq. .. Hastings
[illegible], [illegible], Hastings

Astley, Edward Lennard, M.D.	Marine Parade, Dover
Austen, Josiah, Esq.	High Street, Ramsgate
Austin, Sydney, C., Esq.	Ringfield, East Grinstead
Aveling, James H., M.D.	1, Upper Wimpole Street, London, W.
Baber, E. C., M.B.	4, Preston Street, Brighton
Baber, H. A., Esq.	Langton, Tunbridge Wells
Bagshawe, Frederick, M.D.	5, Warrior Square, St. Leonard's
Bailey, Thomas, Esq.	Fontency Road, Balham, S.W.
Baker, W. Morrant, Esq.	27, Wimpole Street, Cavendish Square, W.
Barnes, L. J. J., M.B.	Pier Road, Erith
Barnes, T. H., M.D.	53, London Road, West Croydon
Barrington, Nicholas W., M.D.	Heath Lodge, Bexley Heath, S.E.
Barrow, F. C., Lieut.-Surg., M.D.	East India United Service Club, St. James's Square, S.W.
Barry, J. Milner, M.D.	Mount Lebanon Road, Purbrook, Cosham (dead)
Barrow, G. L., M.D.	Winckfield, Windsor
Barton, Francis E., Esq.	Cambridge Terrace, Dover
Barton, James L., Esq.	Brookwood Asylum, Woking Station
Baskerville, J. D., Esq.	High Street, Chatham
Bayly, C. O., M.D.	Tunbridge Wells
Beard, Charles Izard, M.D.	Local Government Board, Whitehall
Beeby, Walter T., M.D.	Bromley, Kent
Bell, James V., M.D.	Star Hill, Rochester
Bernays, Herbert L., Esq.	Church Lane, Old Charlton
Berney, Edward, Esq.	Lower Addiscombe Road, Croydon
Berridge, W. A., Esq.	Redhill
Billing, James Pyman, Esq.	The Laurels, Hailsham, Hawkhurst
Bishop, Henry, Esq.	Tunbridge (dead)
Bishop, William, Esq.	Elham, Canterbury
Bisshopp, James, Esq.	Bedford Place, Tunbridge Wells
Blaker, Edgar S., Esq.	Rokeby, Farncombe Road, Worthing
Blaker, Nathaniel P., Esq.	22, Old Steine, Brighton
Blaker, Walter C., Esq.	Lyndhurst, Hants
Bostock, Edward Ingram, Esq.	Horsham
Bourns, Charles, Esq.	Hall Hill, Oxted, Surrey
Bowles, Robert Leamon, M.D.	West Terrace, Folkestone
Boyce, Charles, M.B.	3, Clarendon Place, Maidstone
Braid, Charles, M.B.	Burgess Hill, Hurstpierpoint
Braid, James, M.D.	Lawnswood, Burgess Hill, Hurstpierpoint
Bright, John M., M.D.	The Glen, 1, Westbourne Rd., Forest Hill, S.E.
Brock, J., Esq.	129, Clapham Road
Brockwell, John, Esq.	Parkside, Gipsy Hill, Norwood, S.E.
Brown, John Dan, M.D.	High Street, Rochester
Brown, Robert Ross, Esq.	Strood, Rochester
Browne, George, Esq.	35, Montpelier Road, Brighton
Browning, Benjamin, Esq.	40, Lower Deptford Road, Rotherhithe
Brushfield, Thomas N., M.D.	Brookwood Mount, Woking Station
Buchanan, Walter, Esq.	Paddock House, Chatham
Buckell, Leonard, M.D.	North Pallant, Chichester
Burns, John J. D., M.D., R.N.	Borstal Prison, Rochester
Burroughs, Thomas J., M.D.	Crondall, Hants
Burrows, Wm. Seymour, Esq.	62, Old Steine, Brighton
Burton, H. C., Esq.	22, Lee Terrace, Lee, S.E.
Burton, John M., Esq.	Lee Park Lodge, Lee, S.E.
Burton, Joseph S., Esq.	Woodland Lodge, Blackheath, S.E.
Butler, Thomas M., Esq.	Guildford
Byass, Thomas Spry, M.D.	Cuckfield, Hayward's Heath
Campbell, John, M.D.	Knap Hill, Woking
Campbell, William, Esq.	40, Wellington Square, Hastings
Carpenter, Alfred, M.D.	Croydon
Carpenter, Henry, Esq.	Godstone
Carter, G. Roe, Esq.	Lynton House, Anerley
Cattlin, W. A. N., Esq.	Westfield Gardens, 113, King's Road, Brighton
Caudle, Adolphus W. W., Esq.	Henfield, Hurstpierpoint
Chaldecott, Charles W., Esq.	Dorking
Chaldecott, Horace, Esq.	Dorking
Chambers, Frederick, Esq.	11, Vicarage Crescent, Margate
Champneys, Hy. Montague, Esq.	Hamilton House, Penge
Chapman, Edmund, Esq.	Buckingham Place, Brighton
Chessall, Wm., M.D.	Horley, Surrey
Clapton, Edward, M.D.	10A, St. Thomas's Street, Southwark, S.E.
Clarke, W. Fairlie, M.D.	Southborough, Tunbridge Wells
Cleaver, Henry A., Esq.	Croydon
Coke, William Harriott, Esq.	2, Elwick Road, Ashford
Colbeck, Thomas William, Esq.	Quay House, Dover
Colebrooke, Henry, M.D.	Brightlands, Southborough, Tunbridge Wells
Coles, W. F., M.D.	Croydon
Collet, Golding Bird, Esq.	5, The Steyne, Worthing
Colman, W. T., Esq.	87, Buckingham Road, Brighton
Cooke, John, M.B.	Montague House, 6, Carlisle Parade, Hastings
Cooke, W. C., Esq.	4, Sidlaw Terrace, Bognor
Crawford, James, Esq.	Ightham, Sevenoaks
Croft, John, Esq.	61, Brook Street, Grosvenor Sq., London, W.
Crook, J. Evelyn, M.D.	Northfleet, Gravesend
Crosskey, Walter F., M.D.	Lewes
Crothers, R., M.D.	2, Warrior Terrace, St. Leonard's-on-Sea
Croucher, Henry, Esq.	Dartford (resigned)
Curling, William, Esq.	Albion Hill House, Ramsgate
Daniel, W. C., M.D.	Epsom
Davey, R. Staines, M.D.	Walmer, Deal
Davies, David, M.D.	18, Magdalen Road, St. Leonard's
Davies, Francis Prichard, M.D.	Kent County Asylum, near Barming Heath, Maidstone
Dawson, Richard, M.D.	5, Second Avenue, Queen's Gardens, Brighton
Dearsley, H. Hanson, Esq.	Warlingham, Croydon
Diver, Ebenezer, M.D.,	Kenley, Caterham
Dixon, Joseph, Esq.	6, Lansdowne Terrace, Brighton
Dring, W. E., Esq.	Boughton, Faversham
Down, J. Langdon, M.D.	59, Welbeck Street, London, W.
Duke, Allen, M.D.	Folkestone
Dukes, Major Charles, M.D.	Wellesley Road, Croydon
Duncan, Wm. Archdeckne, M.D.	24, George Street, Croydon
Dunlop, R., Esq.	The Grove, Gravesend
Eardley-Wilmot, R., M.B.	Petworth
Eastes, Silvester, Esq.	Folkestone
Eastes, Thomas, M.D.	3, Shakespeare Terrace, Folkestone
Eastes, G., M.B.	69, Connaught Street, Hyde Park Square, W.
Eastes, W., Esq.	Lyndhurst, Church Rd., Upper Norwood, S.E.
Ede, Charles, Esq.	Guildford
Elliot, George H., Esq.	North Street, Chichester
Ellis, Heber Dowling, Esq.	Gloucester Terrace, Eastbourne
Evans, Henry, Esq.	9, Springfield Road, Brighton
Ewart, Joseph, M.D.	Montpelier Terrace, Brighton
Fear, W., Esq.	Brenchley
Fenn, Edwin, Esq.	4, Camden Crescent, Dover
Ferrier, John Christian, M.D.	Selhurst Road, South Norwood
Fish, John Crockett, M.D.	92, Wimpole Street, London, W.
Fisher, Charles H., M.D.	Sittingbourne
Fitzgerald, Charles Egerton, M.D.	Folkestone
Forster, J. Cooper, Esq.	24, Upper Grosvenor Street, London, W.
Franks, John, Esq.	Sevenoaks
Fuller, Thomas, M.D.	Longcrofts, near Shoreham
Furber, George Henry, Esq.	7, Ashford Road, Maidstone
Furner, Edmund J., Esq.	111, King's Road, Brighton
Furner, Willoughby, Esq.	2, Brunswick Place, Brighton
Fussell, Edward F., M.B.	23, Clifton Terrace, Brighton
Gabb, Claude B., Esq.	18, Wellington Square, Hastings
Galabin, Alfred Lewis, M.D.	14, St. Thomas's Street, London Bridge
Galton, John H., M.D.	Woodside Road, Anerley, Norwood, S.E.
Galton, Edmund Hooper, Esq.	Springfield House, Brixton Hill, S.W.
Gandy, William Esq.	Hill Top, Gipsy Hill, Norwood
Gange, Frederick A., M.D.	Faversham
Gargory, Caleb, Esq.	Pembury, Tunbridge Wells
Garraway, Edward, Esq.	Faversham
Gibbes, Francis R., Esq.	Croydon Road, Anerley
Giffard, Douglas W., Esq.	44, Old Steine, Brighton
Gogarty, H. A., M.D.	16, St. George's Place, Canterbury
Golding-Bird, Cuthbert H., M.B.	16, St. Thomas's Street, London
Goldsmith, John, M.D.	Highworth House, Worthing
Gould, Henry, Esq.	Lea Bridge Road, Leyton, Essex
Grabham, George W., M.D.	Earlswood Asylum, Redhill
Graham, T. H., Esq.	Lamberhurst, Hawkhurst
Gramshaw, James Henry, M.D.	Gravesend
Gravely, Richard, Esq.	Newick, Lewes
Greasley, J., Esq.	St. George's Street, Canterbury
Habgood, H., M.D.	Stafford House, Upperton Road, Eastbourne
Hackney, John, Esq.	Hythe, Kent
Hall, Alfred, M.D.	38, Albany Villas, Brighton
Hall, Frank Algernon, Esq.	4, Abion Street, Lewes
Hall, Henry J., Esq.	Mayfield, Sussex
Hallowes, A. H. Blackwood, Esq.	King Street, Maidstone
Hallowes, Frederick, B., Esq.	Redhill
Hammersley, J., Esq.	2, Norfolk Villas, Catford, S.E.
Harding, G. C. Esq.	North Lawn, Westgate-on-Sea
Harland, Henry, M.D.	Belmont, Wadhurst, Hawkhurst
Harmer, W. Milstead, Esq.	North Grove House, Hawkhurst
Harris, Jas. Smith, Esq.	Minster, Ramsgate
Harris William John, Esq.	13, Marine Parade, Worthing
Hawken, G. Lockwood Lang, Esq.	Hurstpierpoint, Sussex
Hayman, C. N., M.B.	Grand Parade, Eastbourne
Hayward, J. W., Esq.	Whitstable
Hearnden, Wm. Alex., Esq.	Down House, Sutton, Surrey
Henry, Alexander, M.D.	132, Highbury Hill, N.
Hetley, Frederick, M.D.	Norbury Lodge, Upper Norwood, S.E.
Hetley, H. M.D.	Greystoke, Church Road, Upper Norwood
Hicks, J. Braxton, M.D., F.R.S.	24, George Street, Hanover Sq., London, W
Hicks, Robert, Esq.	Albion Hill House, Ramsgate
Hinton, James Thomas, M.D.	38, High Street, Croydon
Hoar, Charles E., M.D.	Maidstone
Hoar, William, Esq.	Maidstone
Hodgson, G. Frederick, Esq.	52, Montpelier Road, Brighton
Hollis, William A., M.D.	Park Gate, Preston Road, Brighton
Hollis, W. Mellet, Esq.	7, St. George's Place, Brighton
Holman, Constantine, M.D.	Reigate
Holman, Henry Cooper, Esq.	East Hoathly, Sussex
Holman, H. Martin, M.D.	Hurstpierpoint (dead)
Holman, Thomas, Esq.	East Hoathley, Hawkhurst
Holt, H. J., M.D.	9, High Street, Bromley
Holttum, Charles, Esq.	Canterbury
Hood, D. W. Chas., M.D.	43, Green Street, Park Lane, W.
Hope, S. Wilson, Esq.	Petworth
Hubbard, T. Wells, Esq.	Moreland Prospect, Tunbridge Wells
Huddart, Cuthbert H. C., M.B.	Greenhithe
Hugo, Edward Henry, Esq.	1, Walton Place, New Brompton, Chatham
Humphreys, Henry, M.D.	9, St. Margaret's Terrace, St. Leonard's
Humphry, Fredk. Abel, Esq.	Late of 23, Marine Parade, Brighton
Hunter, Richard H., Esq.	Isleworth
Hutchinson, Thomas, S., Esq.	Newington, Sittingbourne
Ilott, H. J., M.D.	9, High Street, Bromley
Jackson, T., Esq.	New Thornton Heath, Croydon
Jardine, John Lee, Esq.	Capel, Dorking
Jeaffreson, Horace, M.D.	The Red House, Wandsworth, S.W.
Jeffery, Geo. Augustus, M.D.	Trinity House, Eastbourne
Jessett, Frederick B., Esq.	Pier Road, Erith, S.E.
Johnson, Jeffery Strudwicke, Esq.	105A, High Street, Croydon
Johnson, John, M.D.	Belmont, Church Road, Tunbridge Wells
Jones, David Johnston, Esq.	Kent County Asylum, Maidstone
Joseph, S. W. Iorwerth, M.D.	134, London Road, St. Leonard's
Joy, Henry W., Esq.	Bower Terrace, Maidstone
Joyce, Thomas, M.D.	Cranbrook, Staplehurst
Julius, Stanley Alexander, Esq.	12, York Buildings, Hastings
Kelly, Charles, M.D.	Broadwater Road, Worthing
Kelsey, Arthur, Esq.	Redhill
Kersey, Robert Cooper, M.D.	Temple Villas, Dover
Knowles, John, Esq.	West Kent General Hospital, Maidstone
Lankester, Henry J., M.D.	Croydon

Langton, John, Esq.	2, Harley Street, London, W.
Langston, John, Esq.	Strood, Rochester
Lashmar, Charles, Esq.	Croydon
Leggatt, R. S., Esq.	Eastry, Sandwich
Lewis, Charles, Esq.	67, Sandgate Road, Folkestone
Lewis, C. G. M., Esq.	Wingham, Sandwich
Lewis, Henry, M.D.	West Terrace, Folkestone
Lister, Charles Henry, M.D.	[illegible]
Lloyd, Thomas Francklin, L.	Reigate
Lochee, Alfred, M.D.	Oaten Hill House, Canterbury
Locking, B., Esq.	Worthing
Long, Arthur, Esq.	[illegible]
Lorimer, J. A., Esq.	33, Castle Street, Farnham
Lovegrove, Charles, M.D.	The Oaks, Hythe
Lowry, T. Harvey, M.D.	Malling Place, West Malling, Maidstone
Lucas, Geo., Esq.	Uckfield, Sussex
Lyddon, R., Esq.	13, Albion Place, Ramsgate
Mackey, E., M.D.	[illegible]
Macintosh, Matt., Esq.	Crowborough, Tunbridge Wells
McKellar, E., M.D.	Woodleigh, Preston Road, Brighton
McMahon, J. T., Esq.	Sandown, Isle of Wight
McQueen, Thomas, M.B.	Sussex House, Bolton Road, Eastbourne
Mansell, E. R., Esq.	3, St. John's Rd., Highgate Rd., London, N.W
Mansell-Jones R., Esq.	All Saints Cottage, Meads, Eastbourne
Manning, Joseph, Esq.	Wye, Ashford
Manser, Frederick, Esq.	Mount Zion, Tunbridge Wells
Marsack, Blackall, Esq.	Tunbridge Wells
Marsh, Howard, Esq.	36, Bruton Street, W.
Marshall, Edward, Esq.	Church House, Mitcham
Marshall, John, Esq.	13, Liverpool Street, Dover
Marshall, John James, Esq.	Lamberhurst
Martin, A. Rae, Esq.	Rochester
Martin, Joseph Cooper, Esq.	West Hill, Dartford
Martin, Robert, M.D.	51, Queen Anne St., Cavendish Sq., W.
Martin, Timothy H., Esq.	Northgate, Crawley
Maynard, Foster F. M., Esq.	58, Canning Road, Croydon
Medcalf, Ernest Sexton, Esq.	16, Hova Villas, Cliftonville, Brighton
Meelwin, A. George, M.D.	Montpelier Row, Blackheath, S.E.
Menzies, J. A., M.D.	Cannes, France
Meredith, John Edward, M.D.	84, Week Street, Maidstone
Miles, E. J., M.D.	2, Hova Terrace, Brighton
Miller, John N., M.D.	Montpelier Road, Blackheath, S.E
Miller, Richard May, M.D.	[illegible] Road, Upper Norwood
Minors, Richard, Esq.	Rolvenden
Monckton, Stephen, M.D.	Maidstone
Montfort, A. H., M.D.	Hospital, Canterbury
Moore, Daniel, M.D.	Dulwich Wood Park, Upper Norwood, S.E.
Moore, Ebenezer, Esq.	[illegible]
Moore, Thomas, Esq.	6, Lee Terrace, Blackheath
Moore, W. Withers, M.D.	18, Brunswick Square, Brighton
Morton, John, M.B.	Eastgate House, Guildford
Murray, J. Jardine, Esq.	99, Montpelier Road, Brighton
Nankivell, A. Wolcot, Esq.	St. Bartholomew's Hospital, Chatham
Napper, Albert, Esq.	2, Chichester Place, Guildford
Napper, A. Arthur, Esq.	Cranleigh, Guildford
Newington, Herbert F. H., Esq	[illegible]
Newington, Samuel, Esq.	Ticehurst
Newth, Alfred, H., M.D.	Haywards Heath
Nicholls, [illegible]	South Croydon
Nicholson, Arthur, M.D.	98, Montpelier Road, Brighton
Nisbett, R. Innes, Esq.	Overcliff, Gravesend
Noad, Henry Carden, Esq.	Chesham Lodge, Lower Norwood
Oldham, C. J., Esq.	1, Brunswick Place, Brighton
Oldman, Charles E., M.D.	[illegible]
Ord, George, Rice, Esq.	Streatham Hill
Osborn, Ashby G., Esq.	2, Priory Road, Dover
Parish, Frank, Esq.	[illegible]
Parr, Alfred, M.D.	14, Steyne, Worthing
Parsons, Charles, M.D.	Ravenleigh, Betchworth, Surrey
Parsons, Francis Henry, M.D.	2, St. James's Street, Dover
Pearse, T. F., M.D.	Mount Pleasant, Hastings
Paul, John H., M.D.	Bramshot, Liphook
Paul, [illegible]	The Terrace, Camberwell, S.E.
Penfold, Henry, Esq.	West Street, Chichester
Penhall, John T., M.D.	7, Brunswick Place, Brighton
Perkins, Charles Steele, M.B.	5, Eversfield Place, St. Leonard's
Perry, C. E., M.D.	80, Kirkdale Road, Sydenham
Philpot, Chas. W., M.D.	19, Guildhall Street, Folkestone
Pinching, C. J. W., Esq.	6, Sydenham Road, Croydon
Pittock, George M., M.B.	6, The Terrace, Gravesend
Plomley, John Fred., M.D.	Cecil Square, Margate
Plowman, C. F. M., M.D.	[illegible]
Poole, George Kenneth, M.D., Surg.	Argyll House, Perry Vale, Forest Hill, S.E.
[illegible]	[illegible]
Porter, William Elliot, Esq.	Turner's Hill, Crawley
Powell, Scudamore Kydley, M.D.	Faversham
Prall, Samuel, M.D.	[illegible]
Price, [illegible]	[illegible]
Purvis, [illegible]	Royal Hill, Greenwich, S.E.
Purvis, Prior, M.D.	5, Lansdown Place, Blackheath, S.E.
Rand, John, Esq.	Walton House, Grove Hill, Dulwich
Ranking, John E., M.D.	[illegible]
Ratliff, [illegible]	[illegible]
Ravn, [illegible]	[illegible]
Ray, [illegible]	[illegible]
Reid, [illegible]	Dulwich, S.E.
Reid, T. Whitehead, Esq.	[illegible]
Richards, David, Esq.	[illegible]
Richardson, Thomas Arthur, Esq.	[illegible]
Richmond, Onslow R., Esq.	[illegible]
Rigden, George, Esq.	[illegible]
Rix, [illegible]	[illegible]
Roberts, Bransby, M.D.	Badlesmere House, Eastbourne
Roberts, Henry William, Esq.	Wickham Terrace, Lewisham High Road
Robinson, John, M.D.	Midhurst, Sussex
Robinson, Major K., M.D.	Priory Gate, Dover
Rogers, Robert James, Esq.	40, Cannon Place, Brighton
Roper, Alfred George, Esq.	57, North End, Croydon
Roper, Arthur, Esq.	17, Granville Park, Lewisham, S.E.
Ross, D. M., M.D.	9, Pavilion Parade, Brighton
Ross, John Harris, M.D.	8, St. George's Place, Brighton
Roose, E. C. R., M.D.	9, Regency Square, Brighton
Rosser, Walter, M.D.	22, George Street, Croydon
Roth, Bernard Mathias Simon, Esq.	Rossmore, Preston Road, Brighton
Rowe, T. Smith, M.D.	Union Crescent, Margate
Ryan, M. F., Esq.	St. George's Retreat, Burgess Hill
Russell, Geo. Ireland, Esq.	40, Harmer Street, Gravesend
Rutter, Joseph, M.D.	Codrington House, Brighton
Sams, J. Sutton, Esq.	Eltham Road, Lee, S.E.
Sankey, George, Esq.	Week Street, Maidstone
Sankey, William, M.D.	Sutton Valence, Staplehurst
Satchell, William C., Esq.	Monson Place, Tunbridge Wells
Saunders, Edwin Dawes, Esq.	Tenterden, Ashford
Schollick, T. J., Esq.	Guildford
Schön, James Edward, Esq.	Littlebourn, Wingham, Kent
Scott, Andrew James, M.D.	Bettws-y-Coed, Carnarvon
Sedgwick, Charles, Esq.	Hollingbourn, Maidstone
Sells, C. J., Esq.	Guildford
Simpson, W. J., M.D.	28, Biggin Street, Dublin
Simpson, W. S., Esq.	Holm Leas, Worthing
Slaughter, Thomas G., Esq.	Farningham, Dartford
Slaughter, G. M., Esq., Brig.-Sur.	Herbert Hospital, Shooter's Hill, Kent
Sloman, Samuel G., Esq.	[illegible]
Sloman, Samuel G., junr.	[illegible]
Smith, Edward, Esq.	Battle
Smith, E. Noble, Esq.	24, Queen Anne Street, Cavendish Square, W.
Smith, F. Aubrey, Esq.	East Malling
Smith, G. J. Malcolm, M.B.	Hurstpierpoint
Smith, Heckstall, Esq.	3, Courtney Terrace, Hove, Brighton
Smith, J., Esq.	Weybank House, Guildford
Smith, John P. M., Esq.	118, Western Road, Brighton
Smith, Rowland, Esq.	Cobham, Surrey
Smith, Thomas Heckstall, Esq.	Rowlands, St. Mary's Cray, Chislehurst (dead)
Smith, Samuel Parsons, Esq.	St. John's Lodge, Addiscombe
Smith, W. H. M., Esq.	22, London Road, Croydon
Smithers, Bartholomew D., Esq.	Oak Villa, Hayward's Heath
Soper, William, Esq.	283, Clapham Road, London
Spooner, Charles H., Esq.	15, Victoria Road, Brighton
Spurrell, Flaxman, Esq.	Lessness Heath, Belvedere, Kent
Stamford, William, Esq.	Collingwood House, Tunbridge Wells
Starling, Robert J., Esq.	Calverley Terrace, Tunbridge Wells
Stedman, A., Esq.	Great Bookham
Stedman, James R., M.D.	Guildford
Steele, James D., Esq.	[illegible]
Stevens, A. F., Esq.	Wellington, Surrey
Stilwell, Robert R., M.D.	Springcroft, Beckenham
Stone, H. S., M.B.	North Redlands, Reigate
Stowers, James Herbert, M.D.	15, Lower Tulse Hill
Strang, William Douglas, Esq.	13, Queen Adelaide Road, Penge
Strong, Henry John, M.D.	North End, Croydon
Sutcliff, Joseph H., Esq.	Ripley Woking Station
Sutton, William, M.D.	Liverpool Street, Dover
Taaffe, Rickard P. Burke, M.D.	45, Old Steine, Brighton
Tapson, John, M.D.	12, St. German's Place, Blackheath
Taylor, Henry S., Esq.	15, Quarry Street, Guildford
Taylor, John, Esq.	Ticehurst, Hawkhurst
Teevan, W. F., Esq.	10, Portman Square, London, W.
Terry, John Jenkin, Esq.	The Cottage, Wittersham, Ashford
Thompson, Charles Robert, Esq.	Westerham, Edenbridge
Thompson, Henry George, M.D.	[illegible]
Thomson, John B., Esq.	Spencer Square, Ramsgate
Thornton, William H., Esq.	Berkeley Lodge, Margate
Thurston, Edward Paget, M.B.	7, Argyll Street, London, W.
Thurston, Edwd. Whitfield, Esq.	Elwick Road, Ashford
Ticehurst, Augustus R., Esq.	Silchester House, St. Leonards
Ticehurst, C. S., Esq.	Petersfield
Tomkins, Charles P., Esq.	Beddington, Croydon
Travers, Otho Robert, Esq.	London Road, St. Leonards
Trent, Thomas, Esq.	Lower Tooting
Treutler, William John, M.B.	Fletching, Uckfield
Treves, W. Knight, Esq.	31, Dalby Square, Margate
Trollope, Thomas, M.D.	9, Maize Hill, St. Leonard's
[illegible]	[illegible]
Turner, John Sidney, Esq.	Stanton House, Anerley Road, S.E.
Turner, Richard, Esq.	22, School Hill, Lewes
Tyacke, Nicholas, M.D.	Chichester
Tyson, William Joseph, M.B.	[illegible]
Underwood, John, M.D.	41, Robertson Street, Hastings
Uhthoff, J. Caldwell, M.D.	Sussex Co. Hospital, Brighton
Upton, Herbert C., Esq.	23, Albany Villars, West Brighton
Verrall, Thomas Jenner, Esq.	[illegible]
[illegible]	[illegible]
Wacher, Frank, Esq.	Kingsbridge, Canterbury
Wagstaffe, W. W., M.B.	[illegible]
Walford, Edward, Esq.	[illegible]
Wallis, Albert W., Esq.	[illegible]
Wallis, Frederic, Esq.	[illegible]
Wallis, F. M., Esq.	[illegible]
Wallis, H., Esq.	Alfriston, Sussex
Wallis, William, Esq.	[illegible]
Walter, Clement C., Esq.	[illegible]
Walters, John, M.B.	[illegible]
Wardell, John R., M.D.	[illegible]
[illegible]	[illegible]
Wheeler, Thomas, Esq.	Bridge House, Bexley, S.E.

White, Charles J., M.D. .. Snodland, Rochester
White, E. A., [illegible] .. 14, Cecil Sq., Margate
Wintle, [illegible] .. Croydon
Wright, [illegible] .. [illegible], Brighton
Wynn, [illegible] .. Beckenham, S.E.
Wilk[illegible] .. [illegible]
W[illegible] .. County Asylum, Hayward's Heath
Williams, Hutchins, Esq. .. Bloomville, Lee
Wiltshire, Alfred, M.D. .. [illegible]
Wi[illegible] .. [illegible]
W[illegible] .. The Hermitage, Dover
W[illegible] .. Prospect Terrace, Ramsgate
Wooldridge, William, Esq. .. Withdean, Brighton
Worship, John Lucas, Esq. .. Manor House, Riverhead
Wright, J. C. Hornsby, M.D., Dep.-Surg. Gen., A.M.D. .. .. Folkestone
Wright, J. F., Esq. .. .. Worthing
Yate, Frederick, Esq. .. .. [illegible]
Young, A., Esq. .. .. Sevenoaks.
Young, Edmund, Esq. .. .. Steyning, Hurstpierpoint
Young, Edward, Esq. .. .. The Hall House, Hawkhurst
Young, W. W., M.D. .. .. Aldershot

MEMBERS UNATTACHED (257).

Adey, C. A., M.D. .. .. St. Leonards
Alden, E. W., Esq. .. .. 7, Oak Villas, Gipsy Hill, S.E.
Alliott, A. J., M.D. .. .. St. John's Hill, Sevenoaks
Allt, N. W., Esq. .. .. Wittersham, Ashford
Archibald, J., M.D. .. .. Lynton House, Brixton Rise, S.W.
Ashurst, W. R., M.D. .. .. Farningham
Atkey, W. [illegible] .. .. Westgate House, Chichester
Atkins, F. Esq. .. .. 1, Bedford Terrace, Plumstead
Atkinson, A. J., Esq. .. .. Downing Street, Farnham
Austin, Thomas J., Esq. .. Crescent Road Park, South Norwood, S.E.
Baker, C. E., Esq. .. .. Tenterden
Barker, Robt. Esq. .. .. 32, New Cross Road, S.E.
Barker, Samuel, M.D. .. .. 24, Eaton Place, Brighton
Barnes, A. R., M.B. .. .. Pevensey
Bartleet, W., Esq .. .. 1, Castle Road, Deal
Bell, J. Albert, Esq. .. .. Rochester
Bell, W. R., M.D. .. .. Catford Bridge
Benson, A., M.B. .. .. care of J. R. Bosworth, Esq., Sutton, Surrey
Benington, R. C., Esq. .. Copleston Road, S.E.
Billinghurst, H., M.D. .. .. Stedham Hall, Midhurst
Bird, W. V., M.D. .. .. Sydenham, S.E.
Bluett, G. A., Esq. .. .. 66, Upper Wilbury Road, Brighton
Bostock, A. S., Esq. .. .. North Parade, Chichester
Boyes, J. F., M.B. .. .. Cliftonville, Brighton
Brock, A. C., Esq. .. .. Dorking
Brookhouse, C. T., Esq. .. 43, Manor Road, New Cross, S.E.
Brown, John, Esq. .. .. Falcon Road, Clapham Junction
Browne, Charles, Esq. .. .. Hurst View, Coventry Park, Streatham, S.W.
Brownrigg, J. A., Esq. .. .. Streatham Common
Bull, J. W., M.D. .. .. Chislehurst
Burgess, W. F. R., M.D. .. Langham Cottage, Streatham
Buzzard, T. H., Esq. .. .. New Brompton, Kent
Carpenter, E., Esq. .. .. Albemarle Road, Beckenham
Cash, J. T., Esq. .. .. Bolingbroke Grove, Wandsworth Com., S.W.
Chadwick, Chas., M.D. .. .. Lynncourt, Broadwater Down, Tunb. Wells
Churchward, Albert, M.D. .. Selhurst Road, S. Norwood, S.E.
Clark, G. B., M.D. .. .. Thurlow, Park Road, Dulwich
Clark, R., Esq. .. .. Lee Park, Blackheath
Clitherow, R. E., Esq. .. Lancaster House, Peckham Rye, S.E.
Cock, Edward, Esq. .. .. Dean Street South, S.E.
Cohen, A. A., M.B. .. .. Burwash, Sussex
Coleman, C. A., M.D. .. .. Streatham Common, S.W.
Collingridge, W., M.B. .. .. 65, Tressillian Road, St. John's, S.E.
Connor, J. H. T., Esq. .. .. St. John's Hill, Battersea Rise
Cook, T. D., M.B. .. .. 15, Paragon, New Kent Road
Cooper, P., Esq. .. .. Leyland Villa, Eltham Road, Lee, S.E.
Coryn, W. J., Esq. .. .. Acre Lane, Brixton, S.E.
Cressy, W. E., M.B. .. .. Wallington
Cronk, H. G., Esq. .. .. Sevenoaks
Curling, T. B., Esq., F.R.S. .. 27, Brunswick Square, Brighton
Curtis, W. K. Esq. .. .. Burgate Street, Canterbury
Daldy, F. S., Esq. .. .. Horsham
Davidson, A. D., Esq. .. .. Bexley Road, Erith
Davies, R. C. N., Esq. .. .. Rye
Davies, William, Esq. .. .. York Town, near Bagshot (dead)
Davis, Theodore, Esq. .. .. Devon House, Caterham Valley
Dill, R., M.D. .. .. 19, Regency Square, Brighton
Dolton, W. Blucher, Esq. .. 2, Blackheath Park Terrace, Blackheath
Dorin, A. F. L., Esq. .. .. Clapham Road
Doubleday, James, Esq. .. .. Chiddingfold, Godalming
Doudney, E., Esq. .. .. New Romney
Drew, J., M.B., ... Foxgrove Road, Beckenham
Duke, Benjamin, Esq. .. .. 1, Cavendish Terrace, Clapham Common, S.W.
Dunbar, J. J. M., M.D. .. Argyle House, Clapham Common, S.W.
Dutton, Thomas, Esq. .. .. Sidlesham, Chichester
Edwards, E. N., Esq. .. .. Goldsmid Road, Brighton
Elliot, John, Esq. .. .. Belvedere
Elliot, Norman, Esq. .. .. 93, Denmark Road, S.E.
Embleton, D., M.B. .. .. Great Doods, Reigate
Erskine, W., M.D. .. .. Longton Grove, Sydenham
Evershed, C. L., Esq. .. .. Arundel
Field, A. F., M.D. .. .. 58, Windmill Street, Gravesend (resigned)
Fisher, George, Esq. .. .. Shere, Guildford
Fisher, J. M., M.D. .. .. Eastbourne
Flint, A., Esq. .. .. Adrian Square, St. Leonard's
Forsyth, Alexander, M.D. .. 11, Park Terrace, Greenwich
Francis, C. R., M.B. .. .. 1, Nelson Terrace, Clapham
Frazer, Robert F., M.D. .. Three Sisters' Terrace, Lavender Hill, Clapham
Fry, J. W., Esq. .. .. Wateringbury
Fuller, L. H., Esq. .. .. Streatham Hill, S.W.
Garnham, R. W., Esq. .. .. 74, Lowden Road, Herne Hill, S.E.
Gooding, Ralph, M.D. .. .. Blackheath
Grayling, Francis, Esq. .. .. [illegible]
Greenway, A. S., M.D. .. .. [illegible]
Gresham, F. C., M.D. .. .. [illegible]
Ground, E., Esq. .. .. [illegible]
Guthrie, James, M.D. .. .. Esher
Hague, Samuel, M.D. .. .. 277, Southampton Street, Camberwell
Harker, T., M.B. .. .. Richmond Terrace, Kennington Park, S.W. (resigned)
Harrison, G., Esq. .. .. 11, Paragon, Brixton Hill
Harvey, T. P., Esq. .. .. St. Leonard's
[illegible] .. .. [illegible]
[illegible] .. .. St. Leonard's-on-Sea
Henderson, T. A., M.D. .. .. [illegible]
Hogan, J. C., M.D. .. .. 16, Sisters Avenue, Clapham, S.W.
Holmes, William, Esq. .. .. Cavendish Road, Sutton
Hopcroft, J. F., Esq. .. .. Dorking, Surrey
Hosking, Ethelbert, Esq. .. .. Surrey County Lunatic Asylum, Tooting
Howard, H., M.B. .. .. [illegible]
Hurd-Wood, John, M.D. .. .. Leatherhead
Jevers, E., M.D. .. .. Tunbridge
Johnstone, Athol A. W., Esq. .. .. [illegible]
Jones, A. Lloyd, Esq. .. .. 327, New Cross Road, S.E.
Jones, Isaac S., Esq. .. .. East Fairleigh
Jones, R. M., Esq. .. .. 439, Brixton Road, S.W.
King, J. B., M.D. .. .. 5, Old Steine, Brighton
King, Thomas W., M.D. .. .. The Terrace, Camberwell, S.E.
Kitching, W., Esq. .. .. 39, Old Town, Clapham
Lancaster, H. F., M.D. .. .. 247, Lewisham High Road, S.E.
Land, W. J. Esq. .. .. Tunbridge
Langdale, H. M., Esq. .. .. [illegible]
Law, W. T., Esq. .. .. Warrior Gardens, St. Leonard's
Lawson, R. L., Esq. .. .. St. Mary's, Barry Road, Dulwich
Leeds, T., Esq. .. .. 1, Oxford Villas, Balham
Leigh, T., Esq. .. .. Grand Parade, Brighton
Lewis, C. F., Esq. .. .. Henfield
Lowdell, S. P., Esq. .. .. East Grinstead
Lownds, T. M., M.D. .. .. [illegible]
Lund, G., M.D. .. .. De Crespigny Park, S.E.
McCombie, J., M.D. .. .. Deptford Hospital, S.E.
McNaul, H. H., M.P. .. .. Dartford
McNeece, H., Esq. .. .. Carshalton
Macpherson, G. G., M.B. .. .. 7, Hova Terrace, West Brighton
Markham, W. Orlando, M.D. .. .. 9, Nightingale Lane, Clapham
Marriott, O. D., M.B. .. .. Sevenoaks
Martin, Fred., M.D. .. .. The Priory, Sydenham, S.E.
Mason, R., Esq. .. .. 7, Rectory Place, Woolwich
Mathews, R., Esq. .. .. Bickley
Maxwell, T., M.D. .. .. 27, Woolwich Common
May, Augustus S., Esq. .. .. 4, Gresham Villas, Forest Hill, S.E.
Monckton, Marshall, Esq. .. .. Maidstone
Money, F. J., M.D. .. .. Marlborough Place, Brighton
Morgan, Charles, Esq. .. .. Steyning
Morris, J., Esq. .. .. 30, Dorset Gardens, Brighton
Morton, S., M.B. .. .. Wellesley Villas, Croydon
Muggeridge, H. H., Esq. .. 7, New Rents, Ashford, Kent
Murchison, F., M.B. .. .. Banstead Downs
Murdoch, W., M.B. .. .. County Asylum, Barming Heath
Murphy, T. C., Esq. .. .. 28, Brunswick Square, W.C
Newington, A. S. L., Esq. .. Ticehurst, Hawkhurst
Newington, J. H., Esq. .. .. Tenterden
Newman, A. P., M.D. .. .. Stonedene, Hawkhurst
Newman, J. J., Esq. .. .. General Hospital, Croydon
Niven, Graham, Esq. .. .. Parkhurst, Epsom
Noble, H. B., Esq. .. .. 62, Tasman Road, North Stockwell, S.W.
Noble, J. B., Esq. .. .. 33, Trinity Square, S.E.
O'Connor, A. B., Esq. .. .. 1, Cottage Green, Camberwell
Oliver, Josiah, Esq. .. .. Maidstone
Owen, F., Esq. .. .. Leatherhead
Owen, H. K., M.D. .. .. 20, Palace Square, Upper Norwood
Partridge, S. B., Esq. .. .. Anerley
Passmore, F. G., Esq. .. .. 1, Clarence Square, Brighton
Peele, Thomas, M.D. .. .. Tunbridge Wells
Phillips, W. A., Esq. .. .. Bell Green, Lower Sydenham, S.E.
Pollard, Clement, Esq. .. .. 23, Springfield Road, Brighton
Power, Fred. D., Esq. .. .. 299, Cold Harbour Lane, S.W.
Powell, J. J., junr., Esq. .. Heathlands, Weybridge
Pratt, A., M.D. .. .. Bletchingley
Price, H. E., M.D. .. .. Tisbury Road, West Brighton
Purkiss, Arthur, M.B. .. .. 7, St. Mary's Vale, Chatham
Purnell, John J., Esq. .. .. Streatham Hill, S.W.
Rawlings, A., Esq. .. .. Herne Bay
Reed, H., Esq. .. .. Blackheath
Rendle, Richard, Esq. .. .. Treverbyn House, Forest Hill
Rice, G., M.B. .. .. Woolwich Infirmary, Plumstead
Richards, S. A., Esq. .. .. 153, Upper Kennington Lane, S.E.
Robathan, G. B., Esq. .. .. York Villas, Prestonville, Brighton
Roberts, A. T., M.D. .. .. Buckingham Road, Brighton
Robey, S. H., Esq. .. .. New Wandsworth
Ross, C. E., Esq. .. .. 5, St. John's Hill, Wandsworth
Russell, W. J., M.B. .. .. 88, Clapham Park Road
Sainsbury, H., Esq. .. .. 5, Rectory Place, Clapham, S.W.
Sandberg, A. G., Esq. .. .. 334, Brixton Road
Sangster, C., Esq. .. .. 148, Lambeth Road
Satchell, W. C., Esq. .. .. Tunbridge Wells
Scatliff, J. P., M.D. .. .. Clapham Common
Schön, C. H., Esq. .. .. New Brompton, Chatham
Serjeant, D. M., M.D. .. .. Terrace, Camberwell
Shaw, T. Claye, M.D. .. .. Asylum, Banstead
Skimming, Robert, M.D .. .. Eleanor Villa, Manor Road, East Moulsey

Smith, C. J., Esq.	..	74, Old Steine, Brighton
Smith, F. J. S., Esq.	..	Plumstead
Smith, H. N., Esq.	..	31, Old Steine, Brighton
Smith, Henry, Esq.	..	1[illegible] Road, Plumstead
Smith, John, Esq.	..	Addlestone, near Weybridge
Smith, J. F., Esq.	..	[illegible]
Smith, W. J., Esq.	..	Seamen's Hospital, Greenwich
Smyth, F. S., Esq.	..	Denmark Hill Residence, S.E.
Smyth, Spencer T., M.D.	..	Tyson Road, Forest Hill
Spence, J. B., M.D.	..	Earlswood Asylum, Redhill
Spitta, Robert J., M.D.	..	[illegible] Clapham Common
Stafford, J. F., Esq.	..	Windlesham, Bagshot
Stanley, W. H. R., M.D.	..	25, Palace Road, S.E.
Stocks, F., Esq.	..	121, Westbourne Road
Stormont, H. J., Esq.	..	Clifton Place, Brighton
Sturges, M. J., M.D.	..	Beckenham
Summerhayes, W., M.D.	..	Barnes
Swales, Edward, Esq.	..	Stockton
Tamplin, C. H., Esq.	..	15, Victoria Square, Ramsgate
Tayler, W. H., M.D.	..	Acton
Taylor, F., M.D.	..	15, St. Thomas's Street, S.E.
Taylor, W. B., Esq.	..	Champion Park, Denmark Hill
Thompson, Herbert, Esq.	..	Scarborough
Thorne, G. L., M.D.	..	Lenham, near Maidstone, Kent
Threadgale, R. E., M.D.	..	Westow Street, Upper Norwood
Townsend, K., Esq.	..	168, Lewisham High Road, S.E.
Trewhella, H. Ellery, M.D.	..	Upper Norwood
Tuke, Buckmaster J., Esq.	..	Seaford
Tuke, G. M., Esq.	..	Sutton Valence
Turner, W., Esq.	..	Brunswick Place, Brighton
Tweed, W. H., Esq.	..	Cuckfield
Upton, Alfred, Esq	..	Montpelier Place, Brighton
Vance, W. J., Esq.	..	2, High Street, North Woolwich
Van Waterschoodt, C., M.D.	..	High Street, Deptford
Vine, C., Esq.	..	Grange Road, Ramsgate
Vines, H. J. K., Esq.	..	Derry House, Littlehampton
Walker, J. W., M.D.	..	Lewes, Sussex
Waller, C. B., Esq.	..	Seaford
Ward, Frederick H., Esq.	..	Surrey County Asylum, Tooting
West, E. de L., M.B.	..	Wilson House, Epsom, Surrey
Weddell, James C., M.D.	..	Dartford
Weld, C. H., Esq.	..	Sandhurst, Kent
Wells, Robert, Esq.,	..	Randolph, Biddenden
White, J. A., Esq.	..	Maidstone
White, Richard, M.D.	..	Maidstone
White, S. S., M.D.	..	41, Warrior Square, St. Leonard's-on-Sea
Wilks, W. H., M.D.	..	Devonshire Lodge, Redhill, Surrey
Wood, W. R., M.B.	..	Belmont, Wadhurst
Wilcox, Henry, M.B.	..	
Wildash, H. Cobb, M.D.	..	Hythe
Will, J. P., M.B.	..	Bexhill, Hastings
Wilson, J. G., Esq.,	..	Lansdowne Place, Brighton
Wilton, F., Esq.	..	Ticehurst
Wilton, John, M.D.	..	Sutton
Winter-Fisher, S., M.D.	..	Marine Parade, Brighton
Wise, W. C., M.D.	..	Dunmow
Witten, E. W., Esq.	..	Alston Villa, College Road, Brighton
Wood, E. J., M.B.	..	Yeovil
Woodward, G., Esq.	..	The Chestnuts, Upper Tooting
Wood, F., Esq.	..	Marine Square, Brighton
Woollett, S. W., Esq.	..	Peckham House, Peckham
Wotherspoon, G. F. J., Esq.	..	Sidcup

SOUTH MIDLAND BRANCH.

DISTRICT COMPRISING THE COUNTIES OF BEDFORD, BUCKINGHAM, NORTHAMPTON, AND ADJACENT DISTRICTS

RECOGNISED [illegible]

President	..	H. C. ROGERS, Esq., Newport Pagnell
President-Elect	..	C. J. EVANS, Esq., Northampton
Past-President	..	G. [illegible], M.D., Bedford
Honorary Secretary and Treasurer	..	[illegible], M.D., Northampton
Honorary Secretary	..	G. [illegible], Esq., Northampton

COUNCIL.

Bull, W. H., Esq.	..	Stony Stratford
Coombs, R. H., Esq.	..	Bedford
Evans, C. J., Esq.	..	Northampton
Kinsey, R. H., Esq.	..	Bedford
Macdonald, Alex., M.D.	..	Woburn
Moxon, William, Esq.	..	Northampton
Percival, G. H., M.B.	..	Northampton

REPRESENTATIVE TO PARLIAMENTARY COMMITTEE.

Bryan, John M., M.D. [illegible]

MEMBERS OF [illegible]

Adams, S. H., M.D.	..	[illegible]
Babington, Charles C., Esq.		[illegible]
Bird, P. H., Esq.		[illegible]
Barr, William Alexander, M.D.		[illegible]
Bayley, Joseph E.		[illegible] Northampton
Blandford, H. Latham, M.D.		[illegible]
Bloxham, W. H. Bateman, Esq.		[illegible]
Bond, C. J., Esq.	..	[illegible]
Bower, D., M.D.		Stony Stratford, Bedford
Brown, Thomas Malcolm, Esq.		[illegible]
Bryan, John M., M.D.		[illegible]
Bull, William Henry, Esq.		Stony Stratford, Buckingham [illegible]
Buszard, Frank, M.D.	..	[illegible]
Calcott, G. W. Berkeley, Esq.	..	Olney
Carter, Jabez, Esq.	..	St. Peter's Green, Bedford
Clark, William W., M.D.	..	Wellingborough
Cogan, L. F., Esq.	..	Sheep Street, Northampton
Coombs, R. H., Esq.	..	Mill Street, Bedford
Cox, Arthur, Esq.	..	Long Buckby, near Rugby
Crew, John, Esq.		Hanslope, Stony Stratford
Culhane, F. W. S., Esq.	..	Pitsford Lodge, Brixworth, Northamptonshire
Dawson, W. B., [illegible]		Shenley Lodge, [illegible]
De'Ath, Robert, Esq.	..	Buckingham
Denton, Thomas John, M.D.	..	Steeple Claydon, Winslow, Bucks
Deyns, Frederick, M.D.	..	Fenny Stratford
Eagles, Woodfield, Esq.		Aylesbury
Emmerson, J. B., M.B.	..	Rugby
Evans, C. J., Esq.	..	Northampton
Farmer, John, Esq.	..	Billing, Northampton
Forster, T., Esq.	..	Daventry
Francis, D. J. Thackwell, M.D.	..	Cranleigh, Surrey (resigned)
Gibbs, Robert, Esq.	..	Harrold
Goldsmith, G. P., M.D.	..	Bedford
Greene, Richard, Esq.	..	Asylum, Berry Wood, Northampton
Grindon, G. H., Esq.	..	Olney
Harday, George, Esq.	..	West Haddon, Northampton
Hawkins, B. L., Esq.	..	Woburn
Hemming, J. H., Esq.	..	Kimbolton, Huntingdonshire
Heward, J. M., Esq.	..	Stamford
Heygate, F. R., Esq.	..	Wellingboro
Hicks, C. C., M.D.	..	41, Cromwell House, [illegible]
Hooper, Charles, Esq.		Aylesbury
Johnson, Cottingham Greaves, Esq.		Harpur Street, Bedford
Johnson, W. G., Esq.	..	68, High Street, Bedford
Jones, Arthur H., M.D.	..	32, Sheep Street, Nottingham
Kennedy, W., Esq.	..	Northampton
Kinsey, R. H., Esq.	..	Bedford
Knott, James P., Esq.	..	Pitsford, Northampton
Lawford, Edward, M.D.	..	Leighton Buzzard
Lee, H. G., M.D.		Thame, Oxfordshire
McGachen, F. W. D., Esq.	..	Stony Stratford
Mackie, W. J., Esq.	..	Turvey
Maguire, Thomas Stephen, Esq.	..	Stony Stratford
Mahon, G. A. Derville, Esq.	..	Aspley Guise, Woburn
Marshall, F. H., Esq.	..	Moulton, Northampton
Mash, James, Esq.	..	Northampton (gone)
Masters, William H., Esq.		Thrapstone
Milligan William Wright, Esq.	..	Cranfield, Beds
More, J., M.D.	..	Rothwell, Northamptonshire
Morgan, F. J., Esq.	..	Stamford
Moxon, William, Esq.		Northampton
Nash, W. G., Esq.	..	West Haddon, Rugby
Newman, W., M.D.		St. Martin's, Stamford
Percival, G. H., M.B.		Abington Street, Northampton
Prior, Charles Edward, M.D.	..	Bedford
Rae, William, Esq.	..	Northampton
Robinson, George, Esq.	..	Harpur Place, Bedford
Rogers, Henry Cripps, Esq.		Newport Pagnell
Ryan, W. H., Esq.	..	Hanslope, Stony Stratford
Sharpin, H. W., Esq.	..	Bedford
Smith, G. [illegible]	..	Northampton
Spackman, Frederick R., M.D.	..	Harpenden, Hertfordshire
Spencer, Charles, Esq.		Whitchurch, Buckinghamshire
Sprigge, Charles, M.D.	..	Great Barford, Bedfordshire
Spurgin, Herbert B., Esq.	..	Northampton
Swann, F. Billingham, Esq.	..	Wellingboro, Northampton
Sworder, Horace, Esq.	..	Luton
Symington, W. D., M.B.		Wellingboro
Terry, Charles, Esq.	..	Newport Pagnell
Terry, H., Esq.	..	Northampton
Thomson, David, M.D.	..	Northampton Asylum, Berry Wood
Thurnam, F. Wyatt, M.B.	..	Yardley, Hastings
Tomlinson, Daniel Webster, Esq.		Oundle
Veasey, Henry, Esq.	..	Northampton
Walker, T. J., M.D.	..	Northampton
Walker, W. H., Esq.	..	Northampton, Northampton
Watkins, R. W., Esq.	..	Northampton
Watts, Algernon N., Esq.	..	Northampton, Stony Stratford
Wilcox, R. W., Esq.	..	Aylesbury
Williams, A. F., Esq.	..	Northampton, Northampton
Williams, D. M., Esq.		Olney
Winckworth, C. E., Esq.		Stony Stratford, Bedford

HONORARY MEMBERS.

Addis, Philip, Esq.	..	Ivel
Bennett, C., Esq.		[illegible]
Bond, W. J., Esq.	..	Brill, Bucks
Bowes, J. T., Esq.	..	Berry Wood, Northampton
Brickwell, John, jun.,		[illegible]
Burgess, R. E., M.D.		Bedford
Clarke, J. F., Esq.	..	Nelson Street, Luton (resigned)
De Denne, T. V., Esq.		Abington Street, Northampton
Dickinson, Lionel D., M.D.		[illegible]
Dixon, [illegible]		[illegible]
Dufty, F., Esq.	..	Stony Stratford
Hall, [illegible]		[illegible]
Hall, W. [illegible]		Water Newton, Wansford
Humphry, John, Esq.	..	County Asylum, Stone, Aylesbury
James, A., Esq.		[illegible]
[illegible]		[illegible]
Kirkland, A., M.D.	..	Chalfont, St. Peter
[illegible]	..	Luton
[illegible]	..	Iver
[illegible]		[illegible]
Neate, C. P. W., Esq.	..	Stilton
Orton, W.	..	Wellingboro
Parrott T. M., Esq.	..	[illegible]

Reynolds, L. W., Esq...	[illegible]
Rew, James, Esq.	[illegible]
Rose, W., Esq.	High Wycombe
Story, William, Esq. ..	Linslade, Leighton Buzzard (resigned)
Thomas, John H., [illegible]	Wellingborough
Thomson, Wm. A. Urquhart, [illegible]	The "Limes," Ampthill
Weir, James B., M.D...	Silverstone, Towcester

SOUTH OF IRELAND BRANCH.

DISTRICT COMPRISING THE COUNTIES OF CORK, KERRY LIMERICK, AND WATERFORD.

RECOGNISED 1875.

President	P. J. CREMEN, M.D., Cork
President-Elect	RINGROSE ATKINS, M.D., Waterford
Ex-President	[illegible] C. SIBTHORP, M.D., Cork
Vice-Presidents	R. O'REILLY, M.D., Lismore
Honorary Secretaries	T. GELSTON ATKINS, B.A., M.D., Cork

COUNCIL.

Atkins, Ringrose, M.D.	Asylum, Waterford
Burke, R. J., M.D.	Douglas, co. Cork
Corby, H., M.D.	62, South Mall, Cork
Cummins, W. J., M.D	11, South Mall, Cork
Curtis, J. G., M.D.	Camden Place, Cork
Donovan, D. D., Esq.	King Street, Cork
Gratton, N., Esq.	24, South Mall, Cork
Harvey, C. A., M.D.	St. Patrick's Hill, Cork
Hayes, J. R., M.D.	St. Patrick's Place, Tralee
Jones, H. M., M.D.	Blackrock, co. Cork
O'Connor, A., M.D.	Cork
O'Reilly, R., M.D.	South Mall, Lismore
Sisk, J. O'Neill, M.D.	Fermoy

MEMBERS OF BRANCH. (49.)

Alcock, A. M., Esq. ..	Innishannon
Allen, J. H. L., M.D. ..	Middleton, co. Cork
Atkins, Ringrose, M.D.	Asylum, Waterford
Atkins, T. Gelston, M.D.	20, St. Patrick's Hill, Cork
Belcher, W., Esq.	Bandon
Berry, Parsons, Esq. ..	Mallow
Bricknell, E. T., Esq. ..	East Beach, Queenstown
Brodie, Terence, M.D...	Glanmore Road, Cork
Burke, R. J., M.D.	Douglas, co. Cork
Cagney, D., Esq.	Charleville, co. Cork
Connolly, W. R., M.B...	Waterford
Corby, H., M.D.	62, South Mall, Cork
Corbett, Robert de la Cour, M.D. Surg.-Major, A.M.D.	Dum Dum, India
Cronin, J. D., M.D.	Westbourne Place, Queenstown
Cummins, W. J., M.D.	South Mall, Cork
Currey, J. E., M.D. ..	Lismore, co. Waterford
Curtis, J. G., M.D.	Camden Place, Cork
Donovan, D. D., Esq. ..	King Street, Cork
Eames, J. A., M.D.	District Lunatic Asylum, Cork
Fitzgerald, E., Esq.	Mallow, co. Cork
Golding, J. P., M.D.	Camden Place, Cork (resigned)
Grattan, N., Esq.	24, South Mall, Cork
Griffin, L. T., Esq.	High Street, Killarney
Hadden, R. S., M.D. ..	Skibbereen
Harley, H. R., M.D. ..	Carrignavar, co. Cork
Harvey, C. A., M.D. ..	St. Patrick's Hill, Cork
Hayes, J. R., M.D. ..	Tralee
Hill, W. G., Esq., Fleet-Surg. R.N.	Fermoy
Hobart, N. J., M.D. ..	South Mall, Cork
Jones, H. Macnaughton, M.D. ..	St. Patrick's Place, Cork
Lawton, M., Esq.	Middleton, co. Cork
Magner, E., M.D.	Workhouse, Cork
Nunan, Ed., Esq.	Greenhill, Kinsale
O'Connor, A., M.D. ..	Blackrock, co. Cork
O'Connor, Denis C., sen., M.D., J.P.	2, Camden Place, Cork
O'Flynn, D. B., M.D. ..	Glanmire
O'Flynn, P., Esq.	Lismore, co. Waterford
O'Reilly, R., M.D.	South Mall, Lismore
O'Sullivan, M. J., M.D.	Castle Street, Tralee, (abroad)
Pearson, C. Y., M.D. ..	42, King Street, Cork
Riordan, T. F., M.D. ..	South Mall, Cork
Ronayne, R. U., Esq. ..	South Abbey, Youghal
Sandiford, T., M.D. ..	Castlemartyr, co. Cork
Scott, D. H., M.D.	Queenstown
Shinkwin, T. H. C., M.D.	North Mall, Cork
Sisk, J. O'Neil, M.D. ..	Fermoy
Townsend, R. H., M.B.	Queenstown
Townsend, W. C., M.D.	57, South Mall, Cork
Woods, O. T., M.D. ..	District Lunatic Asylum, Killarney

MEMBERS UNATTACHED. (91.)

(In the Province of Munster.)

Ahern, M., Esq.	Ballingary
Arthur, T. F., Esq. ..	Waterford
Atkins, T. Edward, Esq.	Fever Hospital, Cork
Barry, John, Esq., Sur.-Maj. A.M.D.	Fermoy
Baylie, J. J., Esq.	Lakemount, Bandon, co. Cork
Beamish, T., Esq.	Passage West, Cork
Buckley, D. F., Esq.	Kilmeadon, co. Waterford
Charles J. J., M.D.	Queen's College, Cork
Conolly, A. E., Esq. ..	[illegible]
Cotter, Jeremiah, M.D.	[illegible]
Counihan, J. F., Esq.	[illegible]
[illegible]	[illegible]
Creagh, J., Esq. ..	[illegible]
Crowley, Timothy, M.D.	[illegible]
Cutler, Peter, Esq. ..	[illegible]
Daxon, W. M.D.	[illegible]
Dillon, J. T., M.D.	[illegible]
Donaldson, J., M.D. ..	[illegible]
Elmes, J. M.B.	[illegible]
Evans, J. W., M.B.	Waterford
Falvey, F. J., Esq.	[illegible]
Fennelly, W., Esq.	Castletown, Templemore
Foley, W., M.D.	[illegible]
Forster, Frank, Esq. ..	[illegible]
Gelston, R. R., M.D. ..	[illegible]
Griffin, J., M.D. ..	[illegible]
Gwynne, G., Esq.	[illegible]
Hamilton, W., M.D. ..	[illegible]
Harvey, J. R., M.D. ..	[illegible]
Heffernan, W. K., Esq.	[illegible]
Jackson, B., M.D.	[illegible]
Holland, J. C., Esq. ..	[illegible]
Holmes, W. H., Esq. ..	[illegible]
Kennedy, M. S., Esq. ..	[illegible]
Keyes, W., Esq.	[illegible]
Lavelor, W. H., M.D. ..	Tralee
Leader R. Radley, M.D.	[illegible]
Lyne, D. J., Esq., J.P. ..	Castletown, Beerhaven
McCraith, E., Esq.	[illegible]
McDonnell, C., Esq. ..	[illegible]
Mackesy, G. I., M.B. ..	[illegible]
Mackesy, W. L., Esq. ..	[illegible]
Macnamara, Patrick J., M.D.	[illegible]
Madras, R. C., M.B. ..	Dripsey, Cork
Martin, James, Esq.	[illegible]
May, W., Esq.	[illegible]
Mayberry, F. G., M.B.	Kenmare
Miles, J. F. M., Esq. ..	[illegible]
Minnett, J. R., M.B. ..	Nenagh, co. Tipperary
Molony, D., Esq. ..	Cashel, co. Tipperary
Morgan, R., Esq.	Rathcormack
Morrissy, T. J., M.D. ..	Tipperary
Moynihan, T. F., Esq. ..	Kilcully, co. Cork
Myles, G., Esq.	26, George Street, Limerick
Nadin, J. E. K., Esq. ..	[illegible]
Nolan, Wm., Esq.	[illegible]
O'Brien, J. J., Esq. ..	Churchfield, Clarina
O'Brien, P. C., Esq. ..	Asheaton
O'Brien, R. R., M.D. ..	Bansha
O'Connell, M. D., Esq. ..	Kilmallock
O'Connolly, James, Esq.	Durras, Bantry
O'Connor, Denis C., junr., Esq.	2, Camden Place, Cork
O'Connor, Francis W., Esq.	72, George Street, Limerick
O'Connor, M. R., M.D...	Limerick
O'Farrell, Nicholas S., M.B.	[illegible]
O'Keefe, P., M.D. ..	Spike Island
O'Riordan, J. J., M.D...	Rathmore, co. Kerry
O'Ryan, E., M.D.	Shannacoole, Yougha
O'Ryan, J. F., Esq. ..	Tipperary
O'Sullivan, Stephen, M.D.	6, Camden Place, Cork
Pearson, W. W., M.D. ..	Crosshaven, Cork
Powell, B. C., M.B. ..	Parkmore, Roscrea
Reardon, T., Esq. ..	Kildorrey, co. Cork
Riordan, P. A., Esq. ..	Cloyne, co. Cork
Roome, Henry, M.D. ..	Lota, Cork
Rowan, J. F.	Kilkee, co. Clare (dead)
Ryan, C. E., Esq.	Emly, co. Tipperary
Savage, Matthew, Esq...	[illegible]
Sheedy, M. M., Esq. ..	Kilmallock
Somerville, J. E., M.D. ..	Leap, co. Cork
Starkie, R. F., M.D ..	[illegible]
Stokes, J., Esq. ..	Cahir, co. Tipperary (resigned)
Swanton, J. R., M.D. ..	[illegible]
Townsend, E. R., M.D.	24, St. Patrick's Hill, Cork
Travers, R. B., Esq. ..	Rostellan
Twiss, R., Esq.	Glanmore, co. Cork
Vickery, George, M.D. ..	[illegible]
Walton, J., M.B. ..	Kilkee
Welply, J. J., M.D. ..	6, Bridge Street, Bandon
Whitaker, W. M., M.B.	Valentia, Kerry
Worrall, John, Esq. ..	Adare

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

DISTRICT COMPRISING BRECKNOCKSHIRE, CARMARTHENSHIRE, CARDIGANSHIRE, GLAMORGANSHIRE, MONMOUTHSHIRE, PEMBROKESHIRE, AND RADNORSHIRE.

RECOGNISED 1871.

President	PEARSON R. CRESSWELL, ESQ., Dowlais
President-Elect	EVAN JONES, ESQ., Aberdare
Ex-President	T. D. GRIFFITHS, M.D., Swansea
Honorary Secretaries ..	ALFRED SHEEN, M.D., Cardiff
	D. ARTHUR DAVIES, M.B., Swansea

COUNCIL.

Brown, George A., Esq. ..	Tredegar
Davies, Andrew, M.D. ..	Cardiff
Davies, Henry N., Esq. ..	Cymer, Pontypridd
Dyke, Thomas Jones, Esq...	Merthyr

Edward , William T., M.D.	Cardiff
Hall, James Griffith, Esq. ..	Swansea
Jones, J. Talbot, M.B.	[illegible]
Milward, James, Esq. ..	Cardiff
Probert, James, Esq. ..	Merthyr
Russell, John, Esq. ..	Neath
Steel, S. Hopkins, M.B. ..	Abergavenny
Thomas, Jabez, Esq. ..	Swansea

MEMBERS OF BRANCH. (164.)

Anthony, T. G., Esq. ..	[illegible]
Applebe, E. A., Esq.	Hay, Breconshire (resigned)
Bates, [illegible] Esq. ..	Cowbridge
Bevan, John Iron, M.B. .	Church Park House, Oystermouth
Biddle, C., Esq.	Merthyr
Bligh, S. Edmund, M.B.	12, Queen Street, Neath
Brown, George A., Esq. .	Tredegar
Buckley, H. C., M.D. ..	Llanelly
Buist, James Joseph, M.D.	Crockherbtown, Cardiff
Byers, William, Esq. ..	[illegible] Cardiff
Campbell, Wm., M.D. ..	Roath, Cardiff
Chater, G., Esq.	[illegible]mby
Cooke, R., Esq.	[illegible], Commercial Rd., Newport
Couch, James, Esq.	[illegible] Street, Swansea
Covernton C. J., Esq. ..	[illegible], Radnor
Cresswell, Pearson, R., Esq. .	Dowlais
Davis, A., M.D.	Cardiff
Davies, D., Esq.	Aberdare
Davies, D. Arthur, M.B.	De-la-beeche Street, Swansea
Davies, Eleazar, Esq. ..	Dowlais
Davies, Ebenezer, Esq.	Swansea
Davies, Evan P., Esq. ..	[illegible]
Davies, G. A., Esq.	68, High Street, Newport, Mon.
Davies, H. N., Esq.	Cymmer
Davies, John, M.D. . ..	[illegible]
Davies, Joseph, Esq. .	Hafan Villa, Swansea
Davies, David Llewellyn, M.B. .	Neath
Davies, Naunton W., Esq. ..	Bridgend
Davies, W. H., Esq. ..	Cwm Doros, Newbridge, near Newport
Davis, Evan Thomas, Esq.	Rhoscelyn, Cowbridge
Duncan. A. T., Esq.	Asylum, Carmarthen
Dyke, Thos. J., Esq. ..	Merthyr Tydfil
Edwards, D. T., Esq. ..	Taff's Well, Cardiff
Edwards, W. T., M.D. ..	Cardiff
Essex, J. R., Esq.	Pontypool
Evans, Edward Benyon, Esq. .	St. Thomas, Swansea
Evans, F. G., Esq. .	Tynant House, near Cardiff
Evans, John, Esq. .	Canton, Cardiff
Evans, John, Esq. ..	Dowlais
Evans, John, Esq. .	[illegible] Street, Swansea
Evans, M. G., M.D. ..	Roath, Cardiff
Evans, Thomas, Esq. .. .	Cardiff
Evans, W. C., M.B. ..	Saundersfoot, Pembrokeshire
Fiddian, A. P., M.B. ..	[illegible]
Fitzgerald, Ed. Maxwell, Esq.	The Mumbles, Swansea
Fry, J. Farrant, Esq. ..	Belvoir, Swansea
Gabe, J. B., Esq.	Morriston, Swansea
Granger, F. W., Esq. ..	St. Mary Street, Cardiff
Griffith, George, Esq. ..	Milford Haven
Griffiths, D., M.B.	Pontardulais
Griffiths, G., Esq.	Pontardawe, Swansea
Griffiths, T. D., M.D. ..	Hearne Lodge, Swansea
Hall, J. G., Esq. .	Swansea
Hardyman, C. E., Esq.	[illegible], Crockherbtown, Cardiff
Harold, David, Esq.	Newport, Pembrokeshire
Hearder, G. J., M.D. ..	Joint Counties Asylum, Carmarthen
Hicks, [illegible] Hawksley, M.B.	[illegible] Street, Hay, Brecon
Hopkins, Rees, Esq.	Dan-y-Graig House, Pontypridd
Horder, T. G., Esq. ..	Crockherbtown, Cardiff
Hutchens, T. D., M.B.	Aberdare
James, John Davies, Esq.	Blackwood, Monmouthshire
James, [illegible]	[illegible] Pearl, Ystrad-rhondda, Glam.
James, John R., Esq. ..	Cwmavon, Taibach
James, Philip Esq.	[illegible] House, Llwyny Pia, Pontypridd
Jenkins, [illegible]	Maesteg, Bridgend
Jennings, O. H., Esq. ..	Dan-y-Bryn, Newport, Monmouthshire
Jones, C. J., Esq.	Ton Pandy, near Pontypridd
Jones, C. M., Esq.	Merthyr Vale, Merthyr
Jones, D. E., Esq.	45, Loudoun Square, Cardiff
Jones, Evan, Esq. ..	Aberdare
Jones, J. Arthur, M.B.	Llanelly
Jones, J. Edward, M.B.	[illegible]
Jones, T. Evan, Esq. ..	[illegible]
Jones, T. M., Esq.	[illegible] House, Langland
Jones, V. Llewellyn W., Esq.	St. Clear's, Carmarthenshire
Jones, W. Clay, Esq. ..	[illegible], Pontypridd
Jones, W. Lewis, Esq. ..	[illegible]
King, E. P., Esq.	[illegible]
Latimer, H. A., Esq. ..	[illegible] Street, Swansea
Leckie, J. L., Esq.	Pontypridd
Leigh, John, Esq.	Llanfabon, Pontypridd
Leigh, R. H., Esq.	[illegible], Aberdare
Leigh, W. W., Esq. ..	[illegible]
Llewellyn, John, Esq.	Liverpool
Lowe, T. W., Esq.	Llandovery
Limbery, Thomas, Esq.	Newport, Monmouthshire
Llewellin, G. J., Esq. ..	[illegible] Park, Lampeter, Birkenhead
Lloyd, William H., Esq.	[illegible] Grammar School
Lock, J. G., Esq. .. .	[illegible]
Loughor, R., Esq. .	Cardiff
Milward, James, Esq. ..	54, Charles Street, Cardiff
Morgan, D. R., Esq.	Morristown, Swansea
Morgan, L. W., M.D. ..	The Llan, near Pontypridd
Morgan, William, Esq. .. .	Clydach, Swansea Valley
Morison, Joshua William, Esq. ..	Pembroke
Morris, John A., Esq. ..	Caerleon-upon-Usk
Morris, John W., Esq. ..	Llanelly, Carmarthen
Mowat, G., Esq.	Swansea
Mulligan, J. W., M.D. ..	Abersychan, Monmouthshire
Nell, R. F., Esq. .	Penarth, Cardiff
Owen, Robert, Esq.	Brecon
Paddon, J., M.B.	The Laurels, Swansea
Padley, G., Esq.	Swansea
Paine, H. J., M.D. ..	Cardiff (resigned)
Parry, T. W., Esq. ..	Ferndale
Phillips, C., Esq. .	Vernon House Asylum, Briton Ferry
Phillips, Edward Picton, Esq.	High Street, Haverfordwest
Phillips, John Esq.	Narberth
Phillips, J. M., M.D. ..	Priory Road, Cardigan
Plain, A., M.B.	Penarth
Price, Ebenezer E., M.D.	Dowlais
Price, R. G., Esq.	Treorchy, Pontypridd
Price, W., M.B.	Park Place, Cardiff
Prichard, W., Esq.	[illegible]
Pringle, H. T., M.D. ..	County Asylum, Bridgend
Probert, James, Esq.	Merthyr Tydfil
Prothero, David G., Esq.	Llandebie, Carmarthenshire
Quirk, Martin, M.D. ..	[illegible]
Rawlings, J. A., Esq. ..	Northampton Terrace, Swansea
Redwood, T. H., M.D.	Rhymney
Rees, Howell, Esq. .	Cwmamman
Rees, Valentine, Esq. ..	Brecon
Richards, T. W., M.B.	Canton, Cardiff
Rogers, James, M.D. ..	Pagefield House, Swansea
Russell, F. M., Esq. ..	Orchard Street, Neath
Russell, John, Esq. .	Neath
Ryding, George, M.D. ..	Neath
Samuel, Richard, Esq. ..	Greenfields, Llanelly
Scale, T. W., Esq. ..	Merthyr Tydvil
Sheen, Alfred, M.D. ..	Halswell House, Cardiff
Shepard, A. J., Esq.	Usk
Skrimshire, C. P., Esq.	Clydach Villa, near Abergavenny
Smythe, R., Esq.	Leven House, Abergavenny
Soper, J. H., Esq.	[illegible]
Stanistreet, T. Dawson, Esq.	Cowbridge (dead)
Steel, Samuel Hopkins, M.B.	[illegible]
Symes, James, Esq. .	Britonferry
Taylor, William, M.D. ..	Crockherbtown, Cardiff
Thomas, A. G., M.D. ..	28, Bridge Street, Newport
Thomas, D., M.D. .	Ystalyfera, Swansea
Thomas, J. Raglan, Esq.	Llanelly
Thomas, Jabez, Esq.	Swansea
Thomas, O. D., Esq. ..	[illegible]
Timmins, J. A. J., M.D.	Carmarthen
Treharne, J. Ll., Esq. ..	[illegible]
Vachell, C. T., M.D. ..	51, Crockherbtown, Cardiff
Vachell, H. R. M.D. ..	18, Pembroke Terrace, Cardiff
Verity, A. J., Esq.	Bridgend
Wallace, T., M.D. .	Cardiff
Ward, J. L. W., Esq. ..	2, Somerset Place, Thomas Town, Merthyr
Wathen, J. H., Esq	Coburg Villa, Clifton, Bristol
Watkins, C. J., Esq.	Infirmary, Cardiff
Webster, T. J., Esq. ..	[illegible]
Williams, Egbert, Esq. ..	Ty Collen, Llandovery
Williams, D. J., Esq. ..	Llanelly
Williams, James, Esq. ..	Honddu, Brecon
Williams, J., M.D.	[illegible]
Williams, M., Esq.	[illegible]
Williams, O., Esq.	[illegible]
Williams, T. E., Esq. ..	Talgarth, Brecon
Williams, W. E., Esq. ..	[illegible]
Willis, G. O., Esq.	Monmouth
Wilson, G., Esq.	[illegible]
Woollett, C. J., Esq. ..	Monmouth

[illegible]

Brewer, H. M., Esq.	Newport, Mon.
Brigstocke, Charles A., Esq.	[illegible]
Brown, Henry O., Esq.	[illegible]
Brown, T. J. E., Esq. ..	[illegible]
David, W. W., Esq. ..	Cymer, Pontypridd
Davies, E. N., Esq.	[illegible]
Davies, Henry, Esq.	[illegible]
Edwards, D., M.B. ..	[illegible]
Evans, Thomas, M.D. ..	[illegible]
Griffiths, John, Esq.	[illegible]
Hudson, H. R., Esq. ..	[illegible]
[illegible]	[illegible]
Hughes, W. L., Esq. ..	[illegible]
James, J. A., Esq.	[illegible]
James, J. B., Esq.	[illegible]
[illegible], W. [illegible]	Court House, Haverfordwest
Jones, D. R., Esq.	[illegible]
Jones, John M., Esq. ..	[illegible]
[illegible]	[illegible]
Lloyd, Morgan, Esq.	Conwil-Elvet, Carmarthenshire
Mason, S. B., Esq.	[illegible]
Morgan, John, Esq.	[illegible]
[illegible], [illegible]	[illegible]
Pearse, R. P., Esq.	[illegible]
Prichard, J. E., Esq., M.B.	[illegible]
Ready, W. J. M., Esq. ..	[illegible]
Richardson, R., Esq. ..	[illegible]
Riordan, Daniel, M.D. ..	[illegible]
Robathan, E., Esq.	[illegible]

Rowlands, James, [illegible]	[illegible]
Samuel, William, [illegible]	[illegible]
Scott, R. I., Esq.	[illegible]
Sear, D. P., Esq.	[illegible]
Sheppard, W. D., Esq. ..	Cardiff (left)
Stamper, J. F., M.D.	Pembroke Dock
Thain, Leslie, L., Esq.	[illegible]
Thomas, D. H., [illegible]	[illegible]
Wall, W. E., [illegible]	Pembroke
Whittington, T. P., Esq. ..	Neath
Williams, E., Esq.	[illegible]
William, P. [illegible]	[illegible]

SOUTH-WESTERN BRANCH.

DISTRICT COMPRISING DEVONSHIRE AND CORNWALL.

[illegible]

President .. .. [illegible]
President-Elect .. .. [illegible]

Vice-Presidents .. .. T. SHAPTER, M.D., Exeter; [illegible]; J. B. MONTGOMERY, M.D., Penzance; [illegible]

Hon. Secretary [illegible]

COUNCIL.

Ackland, W. H., M.D. ..	Bideford
Bath, [illegible] H. [illegible]	Camborn
Cumming, A. J., Esq. ..	Exeter
Davy, H., M.B. ..	Exeter
Furse, E., Esq.	[illegible]
Gardiner, F., Esq.	[illegible]
Gould, J., Esq.	[illegible]
Harper, [illegible]	[illegible]
Harris, Henry, M.D. ..	Redruth
Kempthorne, John, Esq.	[illegible]
Kerswill, G., Esq.	Looe
Mitchell, [illegible] Esq.	Redruth
Mudge, J., Esq.	Hayle
Thompson, J., M.D. ..	Bideford
Woodman, [illegible]	[illegible]

MEMBERS [illegible]

Ackland, W. H., M.D. ..	Bideford
Adams, James, M.D.	Ashburton
Adkins, E. J., Esq.	Yealmpton
Adkins, Joshua Edward, Esq.	[illegible]
Aldridge, C., M.D. ..	[illegible]
Appleton, George, Esq.	Lizard, Helston
Armstrong, Leonard, Esq.	Newton Abbot
Baker, Albert, M.D.	Dawlish
Baker, A. de Winter, Esq.	[illegible]
Bampton, A. H., M.D. ..	Plymouth
Bankart, James, M.B. ..	19, Southernhay, Exeter
Barham, C., M.D. ..	Truro
Bazeley, William, Esq. ..	Princess Square, Plymouth
Blomfield, A. G., M.B. ..	Devon and Exeter Hospital, Exeter
Boase, Francis, Esq. ..	Penzance
Bothwell, G. G., Esq. ..	Topsham
Boyle, T. Esq. ..	Newquay, Cornwall
Bryden, R., Esq. ..	[illegible]
Budd, Samuel, M.D.	20, Southernhay, Exeter
Budd, William Alexander, Esq. ..	23, Southernhay, Exeter
Bulteel, C., Esq.	Durnford Street, East Stonehouse
Bulteel, M. H., Esq. ..	Buckingham House, Stonehouse
Burrows, Samuel James, Esq.	Witheridge
Butlin, C. H., Esq. ..	Camborne
Cheves, Alexander Bruce, M.B.	Millbrook, near Devonport
Chubb, Ch. W., Esq. ..	Torpoint, near Devonport
Clay, R. Hogarth, M.D.	Plymouth
Colquhoun, A. G., Esq., R.N.	H.M.S. "Pembroke," Chatham
Conner, W., Esq.	Belle Vista, Queenstown, Cork
Corbett, W. H., Esq., Brig.-Surg. A.M.D.	Bombay
Crighton, Robert Wilkie, M.D.	Tavistock
Cumming, A. J., Esq. ..	Southernhay, Exeter
Cumming, H. Gordon, Esq.	Torquay
Curran, E. J., Esq. ..	Tavistock
Dalby, W. B., M.D. ..	Warwick House, Torquay
Davis, H., Esq. ..	[illegible]
Davson, F. A., M.D.	Broadstone House, Dartmouth
Davy, H., M.B. ..	34, Southernhay, Exeter
Davy, J. H., M.D. ..	Penzance
Deans, John, Esq. ..	North Newton
De Legh, H., Esq. ..	[illegible]
Deverell, H. G., M.B.	Redruth
Dinnis, J. J., Esq. ..	73, Albany Street, Springbank, Hull
Dodge, W. H., Esq.	Penzance
Doidge, J. G., Esq. ..	[illegible]
Edlin, E. Holberton, Esq. ..	6, Seaton Terrace, Plymouth
Edwards, H. J., Esq.	Bank Street, Teignmouth
Ellery, Richard, Esq.	[illegible]
Elliot, John, Esq. ..	[illegible]
Ewen, Arthur Benjamin, Esq.	[illegible]
Field, Rev. J. M. ..	[illegible]
Finch, Thomas, M.D.	St. Mary Church, Torquay
Fox, F., Esq. ..	[illegible]
Furse, Edwin, Esq.	Southmolton
Gamble, Samuel, Esq.	Torquay
Gardner, F., Esq. ..	[illegible]
[illegible]	[illegible]
Gill, J. W., Esq.	St. Germans
Goodridge, J. T., Esq.	Paignton
Gould, John, Esq., ...	Hatherleigh
Gray, F. A., Esq.	[illegible]
Greenway, Henry, Esq. ..	Plymouth
Grenfell, Henry, Esq.	[illegible]
Hallett, C., Esq.	[illegible]
Harden, H., Esq.	St. Mawes
Harper, [illegible]	Barnstaple
Harper, Thomas, Esq.	Plymouth
Harris, Henry, M.D.	Trengweath, Redruth
Harris, J. Delpratt, Esq.	Southernhay, Exeter
Hawkes, Anthony Mann, Esq. ..	[illegible]
Haydon, Nathaniel T. J., Esq. ..	[illegible]
Henderson, Wm., M.D. ..	18, East Southernhay, Exeter
Hichens, J. S., Esq. ..	Redruth
Hingston, Charles A., M.D. ..	Sussex Terrace, Plymouth
Hodge, B. T., Esq.	Sidmouth
Hosking, R., Esq. ..	Penzance
Hounsell, H. S., M.D.	Torquay
Hudson, R. S., M.D.	Redruth
Hughes, R. H., M.B.	12, Lockyer Street, Plymouth
Hunt, W. C., Esq.	22, St. Sidwell's, Exeter
[illegible]	Camborne
Huxley, J. U., M.D.	Hughes Terrace, Torquay
Jackson, George, Esq.	North Road, Plymouth
[illegible]	[illegible]
Jones, C. Marchant, Esq.	St. Andrew's Terrace, Plymouth
Karkeek, P. Q., Esq.	[illegible]
Kempe, Arthur W., Esq. ..	Exeter
Kempthorne, John, Esq. ..	Callington
Kerswill, G. Esq.	Looe
Kerswill, J. Bedford, Esq. ..	St. Germans
Kerswill, Robert, Esq.	St. Germains
King, D. H., Esq.	Stratton
King, Francis, Esq.	Truro
Lake, W. C., M.D.	Teignmouth
Langford, E. C., Esq.	Mutley Plain, Plymouth
Lawton, J., Esq.	Torquay
Leverton, H. S., Esq.	Truro
Lewis, Lewis, Esq.	Plymouth
Lillies, Herbert, Esq.	Chudleigh
Littleton, P. R., Esq.	Ashbourne, Derbyshire
Mackenzie, F., Esq.	Tiverton
Macreight, W. W., M.D. ..	Torquay
Magrath, J. A., M.D.	Teignmouth
Matthews, J. Forrester, Esq. ..	St. Austell (resigned)
[illegible]	Melford House, Plymouth
May, Joseph, Esq.	Devonport
May, J. jun., Esq.	68, Albert Road, Stoke, Devonport
Meeres, Edward E., M.D. ..	Princess Square, Plymouth
Michell, Sloane, Esq.	Dolton
Michell, G. Aunger, Esq. ..	Redruth
Miles, George, Esq.	Plympton (resigned)
Montgomery, James B., M.D. ..	Penzance
Mudge, J., Esq.	Hayle
Mudge, J., jun., Esq.	Hayle
[illegible]	Torquay
Nankivell, C. B., M.D.	Torquay
Nettle, W., Esq.	Liskeard
Norris, H. E., Esq. ..	Charmouth
Nourse, W. E. C., Esq. ..	Exeter
[illegible]	[illegible]
A.M.D.	Exeter
Owen, A. W., Esq.	Black Torrington, Highampton
Parsons, Arthur D., Esq. ..	Dawlish
Pattinson, H. B., Esq.	Topsham
Pearse, W., Esq.	St. Tudye, Bodmin
Perkins, A. R. S., Esq. ..	161, Sidwell Street, Exeter
Philipps, Sutherland Rees, M.D. ..	Wonford House, Exeter
Pollard, James, Esq.	St. Mary Church, Torquay (dead)
Pollard, W., Esq.	Torquay
Porter, Philip, Esq.	Saltash (resigned)
Potter, S. R., M.B. ..	Collumpton
Powell, William, M.B.	Hill Garden, Torquay
Puddicombe, E. M., Esq. ..	Silverton
Pulling, Frank P., Esq. ..	Honiton
Pycroft, George, Esq.	Kenton, Exeter
Quick, John, Esq.	96, East Street, Penzance
Rayne, Charles Alfred, M.B. ..	Stoke, Devonport
Rendle, C. B., Esq.	Liskeard
Richardson, J. B., M.B. ..	Torquay
Rolston, Geo. Theodotus, Esq. ..	Osborne Villas, Stoke, Devonport
Rolston, John, M.D. ..	Clarendon Villa, Stoke, Devonport
Roper, Charles H., Esq. ..	15, Bishop Road, London, W. (dead)
Russel-Rendle, E. M. Esq. ..	Plymouth
Sanctuary, T., M.B. ..	Hayle
Saunders, G. J. Symes, M.B. ..	Exminster
Scott, W. G., M.B.	Newton Abbott
Shapter, Lewis, M.D.	Barnfield, Exeter
Sharp, Edward, Esq.	Truro
Snape, C., M.D.	Wiveliscombe
Somer, James, Esq.	Broadclyst

Square, William, Esq.	..	4, Portland Square, Plymouth
Square, William Joseph, Esq.		[illegible] Portland Square, Plymouth
Staff, G. T. A., Esq.	..	Wadebridge
Slade-King, J., M.D.	..	[illegible]
Steele, William Stott, M.D.		Miramar, Babbacombe
Stephenson, Frank L., M.D.	..	Bradninch, Collumpton
Swain, W. P., Esq.		Devonport
Thom, G., Esq.	..	St. Jean d'Acre Terrace, Devonport
Thomson, Spencer, M.D.	..	Ashton, Torquay
Thompson, David, Esq.	..	[illegible]
Thompson, J., M.D.	..	Bideford
Thorold, Ellis Frederick, M.D.		Windsor Villas, Plymouth (dead)
[illegible]		Exeter
Trezise, William R., Esq.		[illegible]
Trimmer, Francis, Esq.	..	Forest Gate, near London, E.
Turnbull, Geo. Wm., M.D.	..	Exmouth
Ubsdell, Henry, Esq.	..	Buckfastleigh
Walters, S., M.D.		Buckfastleigh
Wallis, A. J., Esq.		[illegible]
Ward, T. M., Esq.	..	Exmouth
Waters, A. J. G., Esq.		Brandon, Suffolk
Watson, J. A., Esq.	..	[illegible]
Wearne, W., Esq.	..	Helston
Webb, W. H., Esq.	..	Kingsbridge, South Devon
West, E. L., Esq.	..	Launceston
Whipple, Connell, Esq.	..	Sussex Terrace, Plymouth
Whitworth, W., Esq	..	St. Agnes, Cornwall
Wiles, J., Esq., Surg.-Maj., A.M.D.		Devenport
Wilson, G., M.D.	..	Launceston
Wolferstan, Sedley, Esq.	..	Mutley Plain, Plymouth
Woodman, John, Esq.	..	2, Chichester Place, Southernhay, Exeter
Workman, C. J., M.D.	..	7, Den Crescent, Teignmouth
Worth, Edwin James, Esq.	..	Millbrook

MEMBERS UNATTACHED. (65.)

Alexander, Jas., M.D.	..	Paignton
Archer, A. L., M.D.	..	Stoke, Devonport
Barnes, G., Esq.	..	Castle Hill, Axminster
Batho, R., Esq., Surg.-Maj. A.M.D.		4, Alfred Street, Plymouth
Bennett, H. J. L., Esq.	..	Queen's Terrace, St. David's, Exeter
Bennett, W. S., Esq.	..	Penzance
Blamey, J., Esq.	..	Penryn, Cornwall
Branfoot, H. S., M.B.	..	Torbay Hospital, Torquay
Brereton, J. B., Esq.	..	Port Isaac, Cornwall
Budd, George, M.D., F.R.S.	..	Ashleigh
Bullmore, [illegible]	..	Falmouth
Caddy, Henry, Esq,	..	Probus, Cornwall
Campbell, Charles M., M.D.	..	Torquay
Cash, Alfred M., M.D.	..	Torquay
Chilcote, H. Nicholas, Esq.	..	Charlwood, Babbacombe
Clarke, J. H., [illegible]	..	Chillington
Clogg, S., Esq.	..	East Looe, Cornwall
Cooke, George R., Esq.	..	[illegible]
Cornbill, John, Esq.	..	Ilfracombe
Cowburn, G. H., Esq.	..	1, Clarendon Villas, Exeter
De Wolfe, J. R., [illegible]	..	Ilfracombe (resigned)
Dick, C. W. L.		H.M. Convict Prison, Dartmoor
Drummond, E., M.D.		[illegible]
Eccles, George H., Esq.	..	Bedford Terrace, Plymouth
Elliot, R. L., Esq.	..	Tresillian, Kingsbridge
Erskine, R., M.D.	..	[illegible]
Faskally, G. B., Esq.	..	Belgrave, Sidmouth, Devon
Fawcett, E., M.B.	..	[illegible]
Fisher, John, Esq., Fleet-Surg. R.N.		H.M. Dockyard, Devonport
Fox, C. B., M.D.	..	[illegible]
Fulford, W. E., Esq.	..	Port Isaac, Cornwall
Furnivall, H. W., Esq.	..	Woodbury, Exeter
Gard, W. J., Esq.	..	[illegible]
Gaye, H. S., M.D.	..	[illegible]
Gilbert, George R., Esq.	..	Dunolly, Torquay
Goodfellow, S. J., M.D.	..	Dartmouth
Haig, Alex., M.B.	..	5, Western Terrace, Torquay
Heath, R. E., M.D.	..	Ellington, Torquay
Jackson, Henry, Esq.	..	Barnstaple
Lane, Stephen O., Esq.	..	[illegible]
Ley, J. W., Esq.	..	[illegible]
Leah, T., Esq.	..	[illegible]
Mackay, [illegible]	..	St. Columb
Marley, H. F., Esq.	..	Padstow
May, [illegible]	..	[illegible]
Millett, G. B., Esq.	..	[illegible]
Nance, [illegible]	..	[illegible]
Nettleton, [illegible]	..	[illegible]
Norman, W. A., M.B.	..	[illegible]
Raby, J., Esq.		[illegible]
Reed, Thomas Sleeman, Esq.		Pool, Camborne
Reed, W. C., M.D.	..	[illegible]
Rogers, [illegible]		[illegible]
Row, F. E., Esq.	..	[illegible]
Scott, [illegible]	..	[illegible]
Shrimpton, C., M.D.	..	Torquay
Simcox, [illegible]	..	[illegible]
Smalley, H. Esq.,	..	[illegible]
Smith, G., Esq.	..	[illegible]
Soper, R. W., [illegible]	..	[illegible]
Twining, A. H., Esq.	..	[illegible]
Vigurs, [illegible]	..	[illegible]
Vigurs, R. C., M.B.	..	[illegible]
Wild, [illegible]	..	[illegible]
Will, W., [illegible]	..	[illegible]
Yates, Walter, [illegible]	..	[illegible]

SOUTHERN BRANCH.

DISTRICT COMPRISING HAMPSHIRE, THE ISLE OF WIGHT, DORSET, AND SOUTH WILTSHIRE.

[illegible]

President .. [illegible], M.D., [illegible], Hants

President-Elect .. W. C. MACLEAN, M.D., C.B. Surg.-General, Netley

Vice-President .. [illegible], Newport

Vice-President .. W. ENGLAND, M.D., Manchester

Honorary Secretary and Treasurer .. [illegible], M.D., Ryde, Isle of Wight; [illegible], M.D., Rochester, Kent

HONORARY SECRETARIES OF DISTRICTS.

DORSET.—W. G. Vawdrey Lush, M.D., Frederick Place, Weymouth; C. H. W. Parkinson, Esq., Wimborne Minster

SOUTHAMPTON.—Theophilus W. Trend, M.D., Raeberry Lodge, Southampton

[illegible]

WINCHESTER.—T. C. Langdon, Esq., Northgate House, Winchester

SOUTH WILTSHIRE.—H. J. Manning, Esq., Laverstock, Salisbury

[illegible]

COUNCIL.

Bentham, S., Esq.	..	Southsea
Curtis, W., Esq.	..	Alton
Darke, F. R. P., Esq.	..	Salisbury
Dyer, Samuel S., M.D.	..	Ringwood
[illegible]	..	[illegible]
Manley, J., M.D.	..	Knowle, Fareham

REPRESENTATIVE ON THE PARLIAMENTARY BILLS COMMITTEE.

Nicolson, D., M.D. .. Broadmoor

MEMBERS OF BRANCH. (230.)

Aitken, William, M.D., F.R.S.	Park Villa, Woolston, Southampton
Alder, J. W. B., Esq.	Audrey House, Gosport
Aldridge, J. P., M.D.	Shirley Lodge, Dorchester
Anderson, R., Esq., Surg.-Maj.	Cornwall House, Dorchester
Andrews, S., Esq.	Basingstoke
Archer, E. J., M.B.	5, Portland Street, Southampton
Axford, W. H., M.B.	Arundel House, Clarence Parade, Southsea
Bacot, W. G., M.D.	Blandford
Barker, W. H., Esq.	Knowle, Fareham, Hants
Barrett, S. B. C., Esq.	Kneller's Court, Fareham
Barrow, Benjamin, Esq.	Southlands, Ryde
Batterbury, G. H., M.D.	West Borough, Wimborne
Beaton, D., M.D.	Ryde
Beckingsale, J. Edgar, Esq.	Newport, Isle of Wight
Bennett, F. C., Esq.	Oakhampton, Devon
Bentham, Augustus D., Esq.	Victoria Road, Southsea
Bentham, Samuel, Esq.	Norfolk House, Southsea
Beresford, C. W., Esq.	East Ilsley, Newbury, Berks
Blackman, J. G., Esq.	Landport
Blackmore, H. P., M.D.	Salisbury
Blake, T. W., Esq.	Hurstbourne, Bournemouth
Bland, W. C., Esq.	Borough Asylum, Portsmouth
Bligh, Richard, Esq.	Droxford
Boileau, J. P. H., M.D., Sur.-Major	Woolston
Bond, Florio St. Quintin, Esq.	[illegible]
[illegible]	Rowlands, Wimborne
Brook, W. Frederick, Esq.	[illegible]
Broster, John, M.D.	[illegible], Southampton
Buckell, Edward, Esq.	High Street, Winchester
Butler, A., Esq.	Evershot, Dorchester
Butler, F. J., M.D.	[illegible]
Cæsar, R. T., Esq.	Shirley, Southampton
Canton, G. Anderson, Esq.	Pier Terrace, Ryde
Case, G. Henry, Esq.	Fareham
Chinery, E. Fluder, Esq.	[illegible]
Clapperton, James, Esq.	[illegible]
Clifton, James, Esq.	[illegible]
Close, H. A., Esq., Staff-Surg., R.N.	[illegible]
Coates, F. W., M.D.	Salisbury
Coates, W. M., Esq.	[illegible]
Coghill, J. G. Sinclair, M.D.	Ventnor
Colt, T. A., Esq.	Portsea
Compton, T. A., M.D.	Bournemouth
Corrie, A. T., Esq., Surg. R.N.	[illegible]
Cousins, J. Ward, M.D.	[illegible] (Hon. Sec.)
Cross, R. Shackleford, Esq.	[illegible]
Curme, Decimus, Esq.	[illegible]
Curtis, William, junr., Esq.	[illegible]
Dabbs, G. H. R., M.D.	[illegible]
Daniel, T. P., Esq.	Beaminster
Daniel, Woodruffe, Esq.	[illegible]
Daniell, G. Williamson, Esq.	[illegible]
Darke, Fitz-Roy P., Esq.	Salisbury
Davis, W. G., Esq.	[illegible]
Davies, N. E., Esq.	[illegible]
Davey, A. G., M.D.	[illegible]
Dayman, Henry, Esq.	Millbrook, Southampton
[illegible]	[illegible]
[illegible], F.R.S., Surg.-Maj.	[illegible]
Delamotte, G. C., Esq.	[illegible]
[illegible]	[illegible]
Drew, G. F. A., Esq., Fleet-Surg. R.N.	[illegible]
Dyer, Samuel S., M.D.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

[illegible]	[illegible]
[illegible]	Milton Abbas, Dorset
[illegible]	[illegible]
Flower, Frederic J., Esq.	Broad Chalk, Salisbury
Flower, T., Esq.	[illegible]
Frazer, W., M.D.	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
Giles, W. Foster, Esq.	Hythe, Southampton
Gilmour, J. H., Esq.	[illegible]
[illegible]	Salisbury
[illegible]	Windsor Terrace, Southsea
[illegible]	Avon House, Salisbury
[illegible]	[illegible]
Grainger, W. S., Esq.	Wool, Wareham
Greaves, Henry, Esq.	[illegible]
Green, James, Esq.	[illegible]
Green, J. Lardner, Esq.	[illegible]
Green, W. E., Esq.	[illegible]
Greening, F. J., Esq.	Melville Street, Ryde
Gribbon, J., Surg.-Maj.	Station Hospital, Gosport
[illegible]	Weymouth
Groves, Joseph, M.B.	Carisbrook, Isle of Wight
[illegible]	Buckland Road, Landport
Hannan, F. J., M.D.	Avonside, Downton
Haran, Timotheus, J., M.D., Dep. Inspec.-Gen., R.N.	[illegible]
[illegible]	Leigh, Tunbridge, Kent
Harnett, Alfred, Esq.	[illegible]
Harris, Alfred E., Esq.	5, Elliot Place, Gosport
Hartford, H. W., Esq.	Christchurch
Harvey, W. A., M.B.	[illegible]
[illegible]	Montpelier Lodge, Tunbridge Wells
Hawkins, William, Esq.	Abbotsbury
Hay, W. A. E., Esq.	East Street, Bridport
Hemming, W. D., Esq.	Glenalmond, Bournemouth
Hemsted, Henry, Esq.	Whitchurch
Hoffmeister, Wm., M.D.	[illegible]
Hoffmeister, William C., M.D.	Clifton House, Cowes
Hollis, Alfred, M.D.	Freshwater, I. of W.
Hope, Henry, Esq.	72, Marland Place, Southampton
Humble, W. E., M.D.	Corfe Castle
Hunter, E. J., Esq.	Gosport
Husband, W. D., Esq.	Bournemouth
Hussey, J. F., Esq.	High West Street, Dorchester
Ingram, Charles, Esq.	[illegible]
[illegible] A.M.D.	Parkhurst, Isle of Wight
Jackson, Alfred, M.D.	Holmbeach, Grove Road, Southsea
Johnson, C. H., Esq.	Basingstoke
[illegible]	Yofford House, Newport, Isle of Wight
Jones, John, Esq.	Medina Road, West Cowes
Kealy, J. R., M.D.	Ashley House, Gosport
Kelland, J., M.B.	[illegible]
Knott, Charles, Esq.	Holly Bank House, Mile End, Landport
Lake, G. A. K., M.D.	Southampton
[illegible] A.M.D.	Ashburton Road, Southsea
[illegible]	Northgate House, Winchester
Langstaff, Charles, M.D.	The Chalet, Basset, Southampton
Leach, J. Comyns, Esq.	Sturminster-Newton
Lee, F. F., Esq.	81, Ann Street, Salisbury
Leslie, Louis, M.D.	Alton
Lewis, James, P., M.D.	1, Harewood Place, London (gone)
Lilley, George Herbert, M.D.	H.M. Convict Prison, Portland
Lilly, J. Hoyland, M.D.	Bitterne, Southampton
[illegible]	[illegible]
Lloyd, David, Esq.	Hinton House, Shanklin, Isle of Wight
[illegible]	Stalbridge
Longmore, T., Surg.-Gen., C.B.	Woolston, Southampton
Lord, F., Esq.	Landport Terrace, Southsea
Love, A. E. B., Esq.	Bournemouth
Lush, W. G. Vawdrey, M.D.	Frederick Place, Weymouth
Lys, Francis Daniel, Esq.	Whitelovington, Bere Regis, Wareham
Macartney, W. H. C., Esq.	Dorchester
Maclean, W. C., M.D., Surg.-Gen.	Rockstone Terrace, Southampton
Mahomed, A. G. S., Esq.	Dispensary, Bournemouth
McEnery, W., Esq.	Lodge, Cerne Abbas
[illegible] A.M.D.	Royal Hospital, Netley
McLean, Allan, M.B.	Portland, Dorset
Manley, John, M.D.	County Asylum, Fareham
Manning, H. J., Esq.	Laverstock House Asylum, Salisbury
Martin, H. A., M.D.	Cosham
Martin, J. H. C. E., M.D.	Cambridge House, Portsmouth
Martin, W. T., M.D., Surg.-Maj. A.M.D.	East Park, Southampton
[illegible]	Mile End Terrace, Landport
Maybury, Lysander, M.D.	15, Commercial Road, Southsea
Mead, H. T. H., Esq.	Christchurch
Meade, Warren, Esq., Surg.-Maj., A.M.D.	Anglesey, Gosport
Meeres, C., Esq.	Manor House, Sandown
Miller, F. D., Esq.	Basingstoke
Miller, William, Esq.	High Street, Poole
Modlin, R., Esq.	Shanklin
Moore, Thomas, Esq.	6, Lee Terrace, Blackheath, Kent
Morley, Frederick, Esq.	45, High Street, Portsmouth
Morris, F. H., M.D.	Wellingborough, Northampton
Mortimer, E. T., Esq., Fleet-Surg., R.N.	H.M.S. "Euryalus"
Neal, J., M.D.	Barcelona House, Sandown
Nicolson, D., M.D.	Broadmoor, Wokingham
[illegible]	[illegible]
[illegible]	[illegible]
[illegible] A.M.D.	[illegible]
Nunn, P. W. G., Esq.	Bournemouth
Orsborn, John, M.D.	Emsworth
[illegible]	[illegible]
Perks, E. Rogers, Esq.	St. George's Square, Portsea
Pern, Alfred, Esq.	[illegible]
Philpots, Edward Payne, M.D.	Disco, Bournemouth
Philpots, J. R., Esq.	[illegible]
[illegible]	Rose Cottage, Green Road, Southsea
Pletts, J. M., M.D.	Kent Hospital, Ryde, Isle of Wight
Pridham, John W., Esq.	Broadway, near Dorchester
Pinniger, B., Esq.	[illegible]
Reid, Walter, M.D., R.N.	Haslar
Rendall, William, Esq.	Maiden Newton
Rich, E. A., M.D.	138, Cromwell Road, Kensington, W.
Richards, W. Alsept, M.D.	St. Thomas's Street, Winchester
Roberts, T., Esq.	Twyford, near Winchester
Rundle, Henry, Esq.	Warflete, Clarence Parade, Southsea
Scott, George, M.D.	5, Prospect Place, Southampton
[illegible] A.M.D.	[illegible]
Scott, T. B., Esq.	Bournemouth
Shiels, R., Esq.	[illegible]
[illegible]	12, Gloucester Road, Weymouth
Slade, Robert, Esq.	Puddleton
Smart, Sir William R. E., M.D., Insp.-Gen., R.N.	[illegible]
Smith, G. H., M.B.	Southsea
Smith, H. R., Esq.	Dover House, Southsea
Smith, J. Hume, M.D.	Knowle, Fareham
Smyth, Hatton, M.D.	Poole
[illegible]	Bournemouth
Snowden, G. H., Esq.	Royal Hospital, Portsea
Sparrow, G. Gordon, Esq.	Landport Terrace, Southsea
Spooner, Edward M., M.D.	Blandford
Stephens, T. Palmer, Esq.	Emsworth
Stevens, R. Stead Jones, M.D.	Sway, Lymington
Straton, C. R., Esq.	Wilton, Salisbury
Strong, R. G., Esq.	Horndean
Sykes, Walter J., M.D.	Waverley Road, Southsea
Thomas, J. Lewis, M.D.	[illegible]
Thomson, J. Roberts, M.D.	Bournemouth
Tizard, Henry, M.D.	Clarence Buildings, Weymouth
Tobin, R. F., Esq., Surg.-Maj., A.M.D.	Royal Victoria Hospital, Netley
Tracy, S. J., Esq.	17, Anglesey Crescent, Alverstoke, Hants
Trend, Theophilus W., M.D.	Raebury Lodge, Southampton
Turner, G., Esq.	Hoddesdon, Herts
Turner, Henry G., Esq.	Holmwood, Bournemouth
Turner, W. F. J., Esq.	Ryde
Veale, H. R. L., M.D., Surg.-Maj. A.M.D.	Netley Abbey Southampton
Waterworth, A., jun., M.D.	[illegible]
Way, F. Walter, Esq.	66, St. George's Square, Portsea
Way, J. Palmer, Esq.	Mile End, Landport
Wharton, H. Samuel, Esq.	Porch House, High Street, Gosport
White, R. Dormer, M.B., Surg. R.N.	Forton Barracks, Gosport
White, John G., M.D.	Bournemouth
Whitehead, J. L., M.D.	Ventnor
Wickham, Charles T., Esq.	St. Thomas's Street, Winchester
Williams, H. F., M.D., Dep. Sur.-Gen.	Southsea
Williams, William H., M.D.	Sherborne
Williamson, J. Mann, M.D.	South-Cliff, Ventnor
Wilson, F. R., M.B., Surg.-Maj., A.M.D.	Perth
Wilson, W. S., Esq.	Percy Lodge, Sandown
[illegible] R.N.	Alverstoke
Woodward, A., Esq.	Bloomfield, Ryde
Wykes, Edwin, Esq.	Shaftesbury

MEMBERS UNATTACHED (75.)

Allchin, William H., M.B.	Loders, Bridport
Allden, J. H., Esq.	Shirley
Balfour, W. G., Esq.	Alton
Bangay, R., M.D.	Lynn-Regis
Beaumont, C. G., M.D.	Shirley
Benthall, W., Esq.	Sherborne
Boreham, W. T., M.D.	[illegible]
Brett, James, Esq.	Petersfield
Browne, J. H., M.D.	Ridgeway, Southampton
Buck, T. A., M.B.	George Street, Ryde, Isle of Wight
Buckell, L. Martin, Esq.	Romsey
Burslem, W. M., M.D.	Bournemouth
Butler, G. W., Esq.	West Meon, Hants
Castle, Hutton, M.B.	Newport, Isle of Wight
Cook, G. W. H., Esq.	Southsea
Coombs, M. L. B., Esq.	[illegible]
Craven, R. M., Esq.	Devenport
Crouch, Edward Thomas, Esq.	Fareham
Curtis, A., Esq.	Alton (resigned)
Dixon, C. H., M.B.	Station Hospital, Gosport
Dowding, A. W. Woodman, Esq.	Poplar's Woolston, Southampton
Eliot, G., Esq.	Fern Hill, Charmouth
Evans, G. Moule, Esq.	Bridport
Fairland, S. T., Esq.	Fovant, Salisbury
Farr, S. B., Esq.	Andover
Fitzsimon, C. C., M.D.	6, Victoria Terrace, Aldershot

Frank, P., M.D.	Minley Lodge, Hants
Francis, J., Esq.	Edenham, Shaftesbury Road, Southsea
Gibson, James E., Esq.	West Cowes
Good, John, Esq.	Dorchester
Grant, D., M.B.	Ventnor
Griffith, H. T., Esq. ..	Chilbolton, Hants
Hall, J. [illegible] Esq., Surg.A.M.D.	Southsea Terrace, Southsea
Hatfield, W. H., Esq.	Hambledon
Hayes, H. R., Esq.	Basingstoke
Helsdon, C. V., Esq. ..	Weyhill, Andover
Hingeston, Wm., Esq.	Lyme Regis
Hirons, G. M., Esq.	Bournemouth
Hitchcock, H. K., M.D.	Branksome Park, Bournemouth
Jenkins, R. W., Esq. ..	Fawley
Jumeaux, B., Esq.	Swanage, Dorset
Keele, C. P., Esq.	5, Prospect Place, Southampton
Leslie, Edward J. L., Esq.	Alton
Lithgow, T. G., Esq.	Farnborough
Lush, W. J. H., M.D.	Fyfield
Mackintosh, H., Esq. ..	Poole, Dorset
Macnamara, W., M.D., Deputy Surg. Gen.	Claremont, Millbrook, Southampton
Maturin, H., Esq.	Winchfield
Moorhead, John, M.D.	Weymouth
Neill, Channing, M.D.	Ryde
Norton, Edward, M.D.	Dorchester
Paul, J., M.D. ..	The Hermitage, Whitwell, I. of W. (resigned)
Phillips, W. Fleming, Esq.	St. Mary-Bourne, Andover
Power, R. E., Esq.	1, Anchorgate Terrace, Portsea
Ragde, F., Esq.	Titchfield
Robertson, F. F. L., M.B.	Gosport
Robertson, R., M.B.	Royal Hospital for Consumption, Ventnor
Robinson, J., Esq., Sur.-Maj., A.M.D.	Hilsea
Satchell, W. A., Esq. ..	Gowanbrae, Bournemouth
Scallon, E. O., Esq. ..	Milborne Port, Sherborne
Skinner, David S., Esq.	Lyme Regis
Smith, Wm., M.D.	Weyhill, Andover
Smith, Wm. A., Esq.	Mount Vernon, Bournemouth
Southerden, W. W., M.D.	Wareham, Dorset
Stickland, S., Esq.	Ventnor
Tarzewell, James, Esq.	Gloucester Newton
Trestrail, H. Ernest, Esq.	9, Trinity Terrace, Victoria Road, Aldershot
Walker, G. E., Esq.	Parkhurst
Ward, Thomas, Esq. ..	70, Marland Place, Southampton
Webb, E., Esq.	New Street, Basingstoke
Westcott, S., Esq.	Royal Haslar Hospital, Gosport
Williams, W. H., jun., Esq.	Sherborne
Willis, J., Esq.	7, Sutherland Gardens, Maida Vale, London
Wills, John Smith, Esq.	Thorncombe, Chard
Wohlgo, Herbert, L. R., Esq., Surg.A.M.D.,	Portsmouth

STAFFORDSHIRE BRANCH.

DISTRICT COMPRISING STAFFORDSHIRE AND ADJACENT DISTRICTS.

RECOGNISED 1874.

President ..	W. H. Fox, Esq., Hanley
President Elect ..	J. K. Wyatt, Esq., Lichfield
Vice-Presidents	C. F. Wilson, Esq., Stafford
	J. H. Tyrrell, M.D., Sandon, Stone
Honorary Secretaries	C. Vincent Dickinson, Esq., Wolverhampton
	J. G. C. Wise, Esq., Stoke-upon-Trent
Auditor	W. H. Fox, Esq., Hanley

COUNCIL.

Arlidge, J. T., M.D.	Stoke-upon-Trent
Day, Henry, M.D. ..	Stafford
Fernie, E., M.D.	Stone
Gray, F. J., Esq. ..	Rugeley
Morgan, H. M., Esq. ..	Lichfield
Hartill, J. T., Esq. ..	Willenhall
Hunt, Joseph, M.D. ..	Wolverhampton
Orton, C., Esq. ..	Newcastle-under-Lyme
Sharp, G. G., Esq.	Walsall
Thomson, J. A. Mulville, Esq.	Newport, Salop
Totherick, J. Y., M.D. ..	Wolverhampton
Walbridge, J. W., Esq.	Tettenhall

MEMBERS OF BRANCH. (1875.)

Acton, Walter, Esq.	Newcastle-under-Lyme
Adams, Edgar, Esq.	Burslem
Arlidge, W. G., M.B.	1, Waterloo Street, Birmingham
Arlidge, J. T., M.D. ..	Newcastle-under-Lyme, and Stoke-upon-Trent
Armson, C. G., Esq.	Yoxall, Stoke-upon-Trent
Astley, David C., Esq.	Newcastle-under-Lyme
Atherton, James, Esq.	Crewe
Averill, A., Esq.	Longton, Staffordshire
Baddeley, G. A., Esq. ..	Crewe
Baird, J. T. W., M.B. ..	Congleton
Beadles, R., M.D.	Congleton
Bebington, George E., M.D.	Victoria House, Kingswinford
Bellew, F., Esq.	Penkridge
Bentinck, R., Esq.	Hanley
Bermingham, E. H., M.D.	Bridge End, Newcastle
Bowey, H. W. Langton, Esq.	West Bromwich
Ball, G. Rhind, Esq.	Stafford
Bunch, J. J., Esq.	30, Snow Hill, Wolverhampton
Byrne, T. E. D., J.P. ..	Ellenslea, South Molton, Devon
Cameron, J., Esq.	High Street, Bilston
Carter, A. H., M.D. ..	51, Newhall Street, Birmingham
Charlesworth, J., Esq. ..	27, Birch Terrace, Hanley
Clare, John, Esq. ..	Hanley
Clendinnen, J. G., Esq.	Coseley
Coleman, J. M., M.B. ..	Wolverhampton
Cooke, John, M.D.	Leamington
Cookson, S., M.D.	Stafford
Crawford, C. H., M.D. ..	Stafford
Dakeyne, T. E., Esq. ..	Leek
Davies, W. R., Esq.	Smethwick
Davis, W. Hancock, M.D.	Tean, Stoke-upon-Trent
Day, Henry, M.D. ..	Stafford (dead)
Day, John, Esq.,	Hatherton House, Walsall
Dunn, F., Esq.	Wolverhampton
Fernie, E., M.D.	Stone
Flinn, David Edgar, Esq	Brownhills, Walsall
Follett, W. H., Esq.	Hanley
Foster, B. W., M.D.	Edgbaston, Birmingham
Fraser, J., M.D.	Wolverhampton
Freer, John H., Esq.	Cross Cauldon, Rugeley
Gailey, J. A., M.D. ..	Leek
Garman, J. C., Esq.	Wednesbury
Garman, W. C., Esq. ..	Wednesbury
Garrett, C. F., Esq.	Kenmare House, Walsall
Goodall, Ralph, Esq. ..	Silverdale
Gosling, S. F. Esq., J.P.	Biddulph, near Congleton
Gray, Frederick J., Esq.	Talbot Terrace, Rugeley
Greaves, Charles H., Esq.	Eastgate Street, Stafford
Greatrex, A. B., M.D.	Lawton Villa, Church Lawton
Greenslade, G., Esq.	Rocester, Uttoxeter
Greenwood, J. W., Esq.	Hanley
Gunning, J. E., Esq.	Silverdale
Griffiths, A. V., Esq.	Fountain Square, Fenton
Hales, T., Esq.	Church Street, Burslem, Stafford
Hamp, J. W., Esq.	Penn Road, Wolverhampton
Hartill, John T., Esq. ..	Manor House, Willenhall
Haughey, A. R., M.D	Mill House, Crewe
Hawthorn, F. J., Esq. ..	Oaken, Wolverhampton
Hayes, J., Esq.	Manor House, Tittensor, Stoke-upon-Trent
Hewson, John Dale, M.D.	Coton Hill, Stafford
Hopkins, Geo. H., Esq.	Stone, Stafford
Hunt, Joseph, M.D.	Wolverhampton
Jackson, Vincent, Esq. ..	Wolverhampton
Johnson, S., M.D.	5, Hill Street, Stoke-upon-Trent
Kelly, P. M., Esq.	131, Lichfield Street, Walsall
Kendall, W. B., Esq. ..	Sherwin House, Sandgate
Larkin, H. W., M.D. ..	Bilston, Staffordshire
Lowe, George, Esq.	Burton-on-Trent
Lowe, Walter George, M.D.	Burton on-Trent
Lycett, J. Allan, Esq. ..	Graiseley, Wolverhampton
Manby, F. E., Esq.	Wolverhampton
Manley, J., Esq.	West Bromwich
Marsh, F., Esq.	Infirmary, Stafford
Masters, J. A., Esq.	Hednesford
Mathews, W., Esq.	Beam Street, Nantwich
McAldowie, Alex. M., M.D.	Stoke-upon-Trent
McMunn, Charles Alexander, M.D.	Waterloo Road, Wolverhampton
Millington, W., M.D. ..	Darlington Street, Wolverhampton
Monckton, David H., M.D.	Rugeley
Morgan, H. M., Esq. ..	Market Street, Lichfield
Moss, H., M.D.	Congleton
Munro, Seymour Hugo, M.D.	Nantwich
Newnham, C. A., Esq. ..	Wolverhampton
Oldham, S., Esq.	The Wellington Road, Edgbaston, Staffordshire
Orton, Charles, Esq.	Newcastle-under-Lyme
Palmer, J. Henry, Esq.	Solihull
Parkes, A., Esq.	Edgbaston
Pater, William T., Esq.	General Asylum, Stafford
Phillips, Charles Henry, Esq.	Hanley
Phillips, G. A., Esq. ..	Walsall
Reid, George, M.B.	Stafford
Ritchie, J. J., Esq.	Leek
Russell, G., M.B.	Tunstall
Scott, J. W., Esq.	Wolverhampton
Sharp, G. G., Esq.	Walsall
Skirving, G., Esq. ..	Wednesbury (dead)
Smith, C. R., M.B.	Darlington Street, Wolverhampton
Smith, H. Lonal, Esq. ..	Old Manor House, Edgbaston
Solomon, James Vose, Esq.	70, Newhall Street, Birmingham
Somerville, J. Harmer, Esq.	Bloxwich
Spackman, W., M.D. ..	Penn Fields, Wolverhampton
Spanton, W. D., Esq. ..	Charles Street, Hanley
Tait, Lawson, Esq.	Edgbaston, Birmingham
Taylor, James Muter, Esq.	Edgbaston
Taylor, Moses, Esq.	Cannock
Thomson, J. A. Mulville, Esq.	Penkridge House, Newport, Salop
Totherick, J. Y., M.D. ..	Wolverhampton Road, Wednesbury
Tylecote, J. H., M.D. ..	Sandon, Stone
Tylecote, Edward T., M.D.	Great Haywood
Vaughan, W. F. Wodehouse, Esq.	Grove Cottage, Crewe
Warburton, C. W., Esq.	Hatherton, Nantwich
Warrington, F. W., M.D.	Congleton
Webb, Thomas, Esq. ..	Church Street, Stoke-upon-Trent
Weir, J. G. T., Esq.	Stoke-upon-Trent
Wetton, E. F., Esq.	Stafford
Willmore, F. W., Esq. ..	30, Bridge Street, Walsall
Wilson, William Wright, Esq.	21, The Crescent, Birmingham
Wolfenden, J. De W., Esq.	Tutbury, Burton-on-Trent
Wynne, J. K., Esq.	Edgbaston
Yates, J., Esq.	Newcastle-under-Lyme

MEMBERS [illegible]

Ashmead, G., [illegible]	[illegible]
Butler, S., Esq.	[illegible]
Campbell, C., [illegible]	[illegible]
Carmichael, Wm., M.D.	[illegible]
Dowse, R. H., [illegible]	[illegible]
Fuller, [illegible]	[illegible]
Garrett, C., [illegible]	Walsall
Goodwin, Arthur, Esq.	Hanley
Hawkins, H. M., M.D.	[illegible]
Love, J. H., Esq.	Wolverhampton
Mackenzie, W. H., [illegible]	Cheadle
Moorcroft, C. F., [illegible]	[illegible]
Parsons, W. A., Esq.	[illegible]
Partridge, W., M.D.	[illegible]
Ryan, M., [illegible]	[illegible]
Southam, Alfred M., [illegible]	[illegible]
Sheedy, T., Esq.	Wolverhampton
Shore, P., Esq.	Bradford Street, Walsall
Stathers, G. N., Esq.	[illegible]
Walker, J. S., M.D.	[illegible]
Webb, H., [illegible]	[illegible]
Willett, [illegible]	Overton, Hants
Williams, H. W., [illegible]	Stoke

THAMES VALLEY BRANCH.

DISTRICT COMPRISING THE THAMES VALLEY

RECOGNISED 1[illegible]

President	F. P. ATKINSON, M.D., Surbiton Rd., Kingston
Vice-Presidents	[illegible]
Honorary Secretary & Treasurer	[illegible]

COUNCIL.

Down, J. Langdon, M.D.	39, Welbeck Street, London, W.
Graham, A. R., M.B.	Holmwood, Weybridge
Günther, T., M.D.	Hampton Wick
Jones, W. Price, M.D.	Claremont Road, Surbiton
Sealy, G. J., M.D.	[illegible]
Wyman, W. S., M.D.	Upper Richmond Road, Putney

MEMBERS OF BRANCH. (49.)

Atkinson, F. P., M.D.	Surbiton Road, Kingston
Barnes, G. R., M.D.	Dorset House, Ewell
Bateman, W. A. F., Esq.	[illegible]
Biddle, D., Esq.	Kingston
Bookless, J. P., M.D.	Wimbledon
Chaldecott, T. A., M.D.	[illegible]
Child, E., Esq.	New Malden, Kingston
Clark, A. Esq.	[illegible]
Coalbank, Isaac, Esq.	Somerset Road, Teddington
Coleman, W. O., M.D.	Victoria Terrace, Surbiton
Corbett, T., Esq	Surbiton Road, Kingston
Crichton, G., M.B.	Twickenham
Curtis, Albert, Esq.	Staines
Down, J. Langdon, M.D.	39, Welbeck Street, W.
Fenn, E. L., M.D.	Portland Terrace, Richmond
Fenton, F. E., Esq.	Ealing Dean, W.
Fergusson, Jas., Esq.	9, Chislehurst Villas, Richmond
Franklin, C. Esq.	Upper Richmond Road, Putney
Gibbes, Cuthbert C., M.D.	3, Wyburn Villas, Surbiton
Graham, A. R., M.B.	Holmwood, Weybridge
Günther, T., M.D.	Hampton Wick
Hayes, [illegible], M.D.	17, Clarges Street, W.
Hogg, W. B. G., M.D.	Gunnersbury
Howell, T. S., Esq.	Old Vicarage, Wandsworth
Hunter, R. H., Esq.	[illegible]
Jeaffreson, H., M.D.	West Hill, Wandsworth
Jeynes, W., Esq.	Norbiton, Kingston
Jones, W. Price, M.D.	Claremont Road, Surbiton
Kane, N. H. K., M.D.	Kingston Hill
Lawrence, J. [illegible], Esq.	[illegible]
Leeson, J. Rudd, M.B.	6, Clifton Road, Twickenham
Martyn, William, M.D.	Inner Park Road, Wimbledon
Milsome, J. R., M.D.	Addlestone, Weybridge
Murphy, H. H., M.D.	The Barons, St. Margaret's, Twickenham
Page, W. J., Esq.	Wimbledon
Palmer, F. S., Esq.	Clarence Villas, East Sheen
Powell, [illegible], Esq., jun.	Heathlands, Weybridge
Roots, W. H., Esq.	Kingston
Sealy, G. J., M.D.	Oak Hill, Weybridge
Seaton, J., M.D.	Sunbury
Seaton, J. J. J., Esq.	Walton-on-Thames
Shirtliff, E. M., Esq.	Richmond Road, Kingston
Trouncer, J. H., M.D.	Cedar House, Surbiton
Wadd, F. J., M.B.	Hill Rise, Richmond
Walker, George, Esq.	12, Lingfield Road, Wimbledon
Ward, M. C., M.D.	Saltburn, Twickenham Common
Warwick, R. A., M.D.	Hill Rise, Richmond
White, E., Esq.	19, Park Terrace, Regent's Park
White, George Farr, Esq.	Moat House, Kingston
Willett, E. S., M.D.	Wyke House, Isleworth
Wiltshire, A., M.D.	57, Wimpole Street, London
Wyman, W. S., M.D.	Upper Richmond Road, Putney

MEMBERS UNATTACHED [illegible]

[illegible]	[illegible]
Anderson, William, M.D.	Richmond
Andrew, G., Esq.	[illegible]
Atkinson, J. C., jun., Esq.	[illegible]
Beckingsale, Daniel Loftus, M.D.	[illegible]
[illegible]	Tudor Lodge, Richmond
[illegible]	[illegible]
Cundell, G. R., Esq.	[illegible]
Duncan, P. T., M.D.	Putney
Dutton, E. G., Esq.	5, St. Ann's-Park Terrace, Wandsworth
Hackney, J., Esq.	[illegible]
Hewson, H., [illegible]	Hampton Court
Lewis, J. R. M., M.D.	Norbiton, Kingston
Low, F. H., M.B.	Thames Ditton
McDougall, H., M.B.	[illegible]
McGavin, J., Esq.	The Little Green, Richmond
Maybury, A. K., M.D.	Holly Lodge, Richmond
Neale, J. B., Esq.	Wandsworth
Norcott, W. B., Esq.	Wimbledon
Parsons, F. W., Esq.	[illegible]
Parsons, T. E., Esq.	Sunny Side, Wimbledon
Powell, H. M., Esq.	2, South View, Wimbledon
Prince, John, Esq.	[illegible]
Sheard, W. F., Esq.	Clyde House, Putney
Shurlock, Mainwaring, Esq.	[illegible]
Starr, T. H., M.D.	[illegible]
Thomas, O. R., Esq.	Twickenham
Tweedie, A., M.D., F.R.S.	Bute Lodge, Twickenham
Tyte, E. C., M.D.	[illegible]
Walker, A., M.D.	Putney
Ward, W. A., Esq.	Church Road, Richmond
Whitsed, J., M.B.	Twickenham
Williams, Joseph, M.D.	[illegible]
Williams, P. H., Esq.	[illegible]
Winchester, W. H. B., Esq.	[illegible]

WEST OF IRELAND BRANCH.

DISTRICT COMPRISING GALWAY AND SURROUNDING DISTRICT

RECOGNISED 1879.

President	R. J. KINKEAD, M.D., Galway
President-Elect	C. J. PAYNE, M.D., Clifden, Galway
Vice-Presidents	F. McGUIRE, M.D., Cong, Mayo
	[illegible]
Honorary Secretary and Treasurer	JOHN I. LYNHAM, M.D., Ely Place, Galway

COUNCIL.

Browne, J. V., M.D.	Galway
Clayton, N. G., Esq.	Galway
Colahan, N. W., M.D.	Galway
Fletcher, R. V., Esq.	[illegible]
Hegarty, J., M.D.	Cloonbur
Lambert, W. F., M.B.	Athenry
McDonnell, J., Esq.	Dunmore
O'Kelly, J., M.D.	Mount Bellew-Bridge
Pye, J. P., M.D.	Galway
Rutherford, W., M.D.	[illegible]

MEMBERS OF BRANCH. (25).

Bookey, W. A., M.B.	[illegible]
Brereton, W. W., Esq.	Oughterard, Galway
Browne, J. Valentine, M.D.	County Infirmary, Galway
Colahan, N. W., M.D.	Dominick Street, Galway
Deely, W. B., Esq.	Kilconnell
Fletcher, R. V., Esq.	District Asylum, Ballinasloe
Flood, J. C., M.D.	Headford, Galway
Gorham, J. J., M.D.	Letterfrack, co. Galway
Gorham, P. C., Esq.	Roundstone, Galway
Hegarty, John, M.D.	Cloonbur, Galway
Kearney, A. B., Esq.	Kilkieran, Recess, co. Galway
Kinkead, R. J., M.D.	Galway
Lambert, W. F., M.B.	Athenry, co. Galway
Lynham, John I., M.D.	Ely Place, Galway
McDonnell, J., Esq.	Dunmore, co. Galway
Nally, W. J., Esq.	Kinvara, Oranmore
O'Donaghue, P., Esq.	Loughrea
O'Kelly, Joseph, M.D.	Mount Bellew-Bridge, Galway
O'Rorke, C. T. J., Esq.	Ballinrobe
Payne, C. J., M.D.	Clifden, co. Galway
Pye, J. P., M.D.	Queen's College, Galway
Rutherford, W., M.D.	Ballinasloe
Wade, J. J., Esq.	Rosmuck

MEMBERS UNATTACHED. (16.)

(Including Province of Connaught.)

Bingham, R. A., Esq.	Bangor, co. Mayo
Harrison, John, M.D.	Roscommon
Kerr, Elias W., M.B.	Bundoran, co. Leitrim
Laird, J., Esq.	Quay Street, Sligo
Lyster, T. P., Esq.	Athlone
McDermott, S., Esq.	Ballaghaderren
MacDowell, E. C., M.D.	Sligo
Martyn, R. J., Esq.	[illegible]
Nolan, A. O'Kelly	Gort, co. Galway
O Beirne, G. P., Esq.	Athlone
O'Dea, P. St. L., Esq.	Oranmore (resigned)
O'Farrell, G. P., M.D.	Tangier, Boyle
O'Grady, F. R., Esq.	Swinford, co. Mayo

Raverty, James, Esq. .. .. Boyle
Rutherford, R. A., Esq. .. Manorhamilton
Shanley, Michael, M.B. .. Strokestown, co. Roscommon
Walsh, P. C., Esq. .. .. Frenchpark, co. Roscommon

WEST SOMERSET BRANCH.

DISTRICT COMPRISING WEST SOMERSET.

RECOGNISED 1[illegible].

President .. .. .. G. W. RIGDEN, Esq., Taunton
President-Elect .. .. H. P. OLIVEY, Esq., North Curry
Honorary Secretary & Treasurer .. W. M. KELLY, M.D., Taunton

COUNCIL.

Alford, Henry, Esq. .. Taunton
Alford, H. J., M.D. .. Taunton
Edwards, Walter, Esq. .. Wellington
Kelly, W. M., M.D. .. Taunton
Meredith, J., M.D. .. Wellington
Olivey, H. P., Esq. .. North Curry
Prankerd, J. Esq. .. Langport
Randolph, H. W. Esq. .. Milverton, near Wellington
Rigden, G. W., Esq. .. Taunton
Winterbotham, W. L., M.B. .. Bridgwater

MEMBERS OF BRANCH. (54.)

Adams, J. D., M.D. .. .. Martock
Aldridge, R., M.D. .. .. Hendford, Yeovil
Alford, Henry, Esq. .. .. The Vivary, Mount Street, Taunton
Alford, H. J., M.D. .. .. Taunton
Bendall, James, Esq. .. .. Creech St. Michael, Taunton
Brook, Henry, Esq. .. .. Bridgwater
Burrows, S. J., Esq. .. .. Witheridge, N. Devon
Burt, G. R., Esq. .. .. Ilminster
Carter, R. W. F., Esq. .. .. Dulverton
Clark, Thomas, Esq. .. .. Dunster, near Taunton
Collyns, J. B., Esq. .. .. Dulverton
Cordwent, G., M.D. .. .. Milverton
Cornish, G. B., M.D. .. .. Taunton
Cornwall, John, Esq. .. .. Manor House, Meare, Glastonbury
Cox, Albert G., Esq. .. .. Crewkerne
Crocker, Jonathan, Esq. .. Stogumber
Edwards, Walter, Esq. .. .. Wellington
Evans, Evan, Esq. .. .. Nether Stowey, Bridgwater
Farmer, F., Esq. .. .. Bridgwater
Farrant, Samuel, Esq. .. .. Taunton
Flower, G. J. W., Esq. .. .. Yeovil
Gibson, H. C. M., Esq. .. .. The Elms, Ilchester
Hensman, W., Esq., Brigade-Surg. A.M.D. .. .. .. Taunton
Hunt, W. A., Esq. .. .. Pen Villa, Yeovil
Hes, A. R. Esq. .. .. East Gate, Taunton
Kelly, W. M., M.D. .. .. Taunton
Kemmis, Henry M., Esq. .. Bradford Place, Bridgwater
Kinglake, J. H., M.D. .. .. Taunton
Liddon, W., M.B. .. .. Taunton
Meredith, J., M.D. .. .. Wellington
Morgan, J., Esq. .. .. Langford, Somerset
Munden, Charles, Esq. .. .. Ilminster
Nash, Robert, Esq. .. .. Bath Bridgelamp
Norris, G. R., Esq. .. .. Wiveliscombe
Norris, Hugh, Esq. .. .. South Petherton
Olivey, H. P., Esq. .. .. North Curry, Taunton
Ollerhead, Thomas J., Esq. .. 6, Blenheim Terrace, Minehead
Parsons, F. [illegible], Esq. .. .. Bridgwater
Pairman, Robert, M.D. .. .. Stogursey, Bridgwater
Penny, H. J., Esq. .. .. Taunton
Prankerd, J., Esq. .. .. Langport
Prideaux, T. Engledue P., Esq. .. Wellington
Randolph, H. W., Esq. .. .. Milverton
Reed, W. H., Esq. .. .. Donhead St. Andrew, Salisbury
Rigden, G. W., Esq. .. .. Hospital, Taunton
Sincock, J. B., Esq. .. .. Bridgwater
Spicer, Northcote W. Esq. .. Chard
Stephens, Edward, Esq. .. .. The Chantry, Ilminster
Stewart, J. Esq. .. .. Sneyd Park, Bristol
Todd, W. J., Esq. .. .. North Petherton, Bridgwater
Walter, W. H. Esq. .. .. South Petherton
Walter, W. W., Esq. .. .. Stobswell House, Ilminster
Winterbotham, W. L., M.B. .. Bridgwater
Wybrants, Jonathan, M.D. .. Shepton Mallet

MEMBERS UNATTACHED. (3.)

Bartlett, J. Harry, Esq. .. .. Porlock
Bayliffe, A. M., Esq. .. .. Bridgwater
Ellerton, J. F. H., Esq. .. .. Chard
Wade, Reginald, Esq. .. .. Highbridge
West, R. H., Esq. .. .. 10, Hammet Street, Taunton

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.

DISTRICT COMPRISING THE COUNTIES OF WORCESTERSHIRE AND HEREFORDSHIRE.

RECOGNISED [illegible].

President .. .. .. D. EVERETT, Esq., Worcester
President-Elect .. .. H. [illegible], Esq., Hereford
Honorary Secretary .. .. GEORGE W. [illegible], M.D., Worcester

MEMBERS OF BRANCH. (79.)

Averay-Jones, E., Esq. .. Fownhope near Hereford
Bainbridge, W. P. Z., Esq. .. Droitwich
Barnett, S., Esq. .. Leominster
Bates, Tom, Esq. .. Foregate Street, Worcester
Batten, W. S., Esq. .. Bromsgrove
Blyth, L. G., Esq. .. Martley, Worcester
Brown, H. J., Esq. .. 20, Foregate Street, Worcester
Buck, J. R., Esq. .. Sidbury, Worcester
Budd, H. G., Esq. .. .. High Street, Worcester
Carter, A. H., M.D. .. [illegible], Newhall Street, Birmingham
Chapman, T. A., M.D. .. County Asylum, Hereford
Crowe, G. W., M.D. .. Shaw Street, Worcester
Cocks, C. C., M.D. .. [illegible]
Cooke, E. M., M.B. .. County Asylum, Powick
Coombs, S. W., Esq. .. Lowesmoor, Worcester
Cuthbertson, J. M., Esq. .. Droitwich
Davenhill, R. S., Esq. .. St. John's House, Worcester
Dawson, W. H., Esq. .. .. Great Malvern
Devis, C. J., Esq. .. .. Infirmary, Hereford
Edwards, O., Esq. .. Leominster
Evans, D., Esq. .. Kingstone
Everett, D., Esq. .. St. Helen's, Palace Park Rd., Sydenham, S.E.
Fernie, W. T., M.D. .. .. The Nook, Great Malvern
Fitch, F., M.D. .. Chaddesley-Corbett, Kidderminster
Fosbroke, G. H., Esq. .. Bidford, Redditch
Foster, B., M.D. .. Birmingham
Foote, Gustavus, Esq. .. Kington, Hereford
Gabb, J., Esq. .. Bewdley
Gilkes, M. D'O., Esq. .. General Infirmary, Hereford
Greensill, J. N., Esq. .. Great Witley, Stourport
Hastings, G. W., Esq., M.P. .. Barnard's Green, Malvern (*Hon. Member*)
Haynes, A. L., Esq. .. .. Evesham
Haynes, H. E., Esq. .. .. Evesham
Haynes, S. L., M.D. .. .. Parkhurst, Malvern
Henderson, A., Esq. .. .. Great Malvern
Hoffman, O. W., Esq. .. .. Eardisley
Horton, H., Esq. .. .. Bromyard
Hughes, J. H., Esq. .. .. Ombersley, Droitwich
Johnson, W., M.B. .. .. Malvernbury, Great Malvern
MacCarthy, W. F., M.B. .. Chestnut Walk, Worcester
Marsh, F. B., Esq. .. .. Kempsey
Martin, A. H., Esq. .. .. Evesham
Moore, H. C., Esq. .. .. King Street, Hereford
Morris, J. G., Esq. .. .. Hereford
Norman, J. W., Esq. .. .. Ross
Pentland, H. T. de M., Esq. .. Leominster
Phillips, S. T., Esq. .. .. The Vinery, Wellington, Hereford
Pike, Thelwell, M.D. .. .. Great Malvern
Powell, W. H., Esq., ... Charedale, Ross, Herefordshire
Rayner, T., M.D. .. .. Great Malvern
Roden, S. S., M.D. .. .. Droitwich
Rowe, G. H., Esq. .. .. York
Rowland, H. M., M.D. .. Malvern Wells
Richards, G., Esq. .. .. Ross
Sheppard, G. A., Esq. .. .. Foregate Street, Worcester
Siddall, J. B., M.D. .. .. Duxmere, Ross
Smith, A. R., M.B. .. .. 58, Commercial Street, Hereford
Smith, S. W., M.D. .. .. Pershore
Smith, W. R., M.D. .. .. Cheltenham
Spofforth, J., Esq. .. .. Kidderminster
Strange, A., M.D. .. .. County Asylum, Shrewsbury
Strange, W., M.D. .. .. Worcester
Swete, H., M.D. .. .. Worcester
Tait, Lawson, Esq. .. .. Birmingham
Tanner, R. C., Esq. .. .. Kempsey, Worcester
Thain, L. L., Esq. .. Longtown, Abergavenny
Thomason, R., Esq. .. Hereford
Thompson, W. H., Esq. .. Cradley, Stourbridge
Turner, T., Esq. .. [illegible]
Tyrrell, W., Esq. .. Great Malvern
Vevers, H., Esq. .. .. Hereford
Wadams, E., Esq. .. Malvern
Walsh, T. W., Esq. .. Worcester
Walsh, W. A. S., Esq. .. Worcester
Whitfield, W. C., Esq. .. .. Abertillery
[illegible] .. .. [illegible], Worcester
Wood, J. H., M.B. .. Tarrington, Ledbury
Wood, M. A., Esq. .. [illegible]
Woodward, M., Esq. .. Pershore

MEMBERS UNATTACHED. (7.)

[illegible] H., Esq. .. Mill Street, Kidderminster
Atkinson, R., Esq. .. [illegible]
Badley, J. P., Esq. .. Dudley
[illegible] .. Stourbridge
Boyce, W. S., Esq. .. [illegible], Leominster
Buckell, J. W., M.B. .. [illegible]
Bull, H. G., M.D. .. [illegible]
Cannon, Rev. F. J. .. [illegible], Kidderminster
[illegible] .. [illegible]
[illegible] .. [illegible]
[illegible] .. [illegible]
Leacroft, J. W., M.B. .. [illegible], Worcester
[illegible] .. [illegible]
Masterman, G. F., Esq. .. [illegible]
Murray, W. B., M.D. .. [illegible]
[illegible] .. Malvern Wells
Peirce, J. E., Esq., J.P. .. [illegible]

Powell, John, Esq.	..	[illegible] Harold
Roden, W., M.D.	..	[illegible]
[illegible]	..	[illegible]
Weir, A., M.D.	..	St. Mungho's, Malvern
Weston, S. T. D. Esq.	..	[illegible]
Whiteley, E. A., Esq.	..	Droitwich
Wilson, D., M.D.	..	Dilwyn, Leominster
Wilson, J., M.D.	..	Worcester

YORKSHIRE BRANCH.

DISTRICT COMPRISING YORKSHIRE, EXCEPTING THE HULL DISTRICT.

President . [illegible]
President Elect [illegible]
Honorary Secretaries and Treasurers [illegible]

COUNCIL.

Allbutt, T. C., M.D., F.R.S.		Park Corner, Leeds
Ball, Alfred, Esq.		York
Barham, H. F., M.B.		Sheffield
Bartolomé, M. Martin de, M.D.		Eyre Street, Sheffield
Burnie, W., M.D.	..	Bradford
Dolan, T. M., Esq.	.	North Parade, Huddersfield
Eddison, J. F., M.D.	..	Park Square, Leeds
Fayell, W. F., Esq.	..	Glossop Road, Sheffield
Goyder, D., M.D.	..	Horton Road, Bradford
Hardwicke, J., M.D.		Chilton Lodge, Rotherham
Holdsworth, S., M.D.	..	West Parade, Wakefield
Jessop, T. R., Esq.	.	Park Square, Leeds
Keeling, J. H., M.D.	.	Broomhall Street, Sheffield
Knaggs, S., Esq.	..	Huddersfield
Matterson, W., M.D.		York
Meade, R. H., Esq.	..	Bradford
Miall, P. E., Esq.	..	Bradford
Myrtle, A. S., M.D.	..	Harrogate
North, S. W., Esq.	..	York
Scattergood, T., Esq.	..	Park Square, Leeds
Shann, George, M.D.	..	Petergate, York
Teale, J. W., Esq.	..	Belvoir Terrace, Scarborough
Teale, T. P., Esq.	.	Cookridge Street, Leeds
Wheelhouse, C. G., Esq.	..	Hillary Place, Leeds
Wright, J. H., Esq.	..	Halifax

MEMBERS OF BRANCH. (cont.)

Acland, T. D., M.B.	..	St. Thomas's Hospital, S.W.
Alexander, William, M.D.	..	Halifax
Allbutt, T. Clifford, M.D.	..	Carr Manor, Meanwood, Leeds
Allott, W. L., Esq.	..	Hoyland-Nether, near Barnsley
Appleyard, John, M.B.	..	Manningham, near Bradford
Arlidge, J. F., Esq.	..	Haworth, Keighley
Atkinson, Edward, Esq.	.	2, Albion Place, Leeds
Atkinson, Robert, Esq.	..	Ripponden, near Halifax
Bainbridge, F., Esq.	..	1, Easton Villas, Cheltenham
Baker, A., Esq.	..	Aysgarth
Ball, Alfred, Esq.	..	York
Banham, H. F., M.B.	..	Surrey Street, Sheffield
Barrs, Alfred George, M.B.	..	General Infirmary, Leeds
Bartolomé, M. Martin de, M.D.	..	Eyre Street, Sheffield
Baxter, Robert, Esq.	..	2, Howard Street, Bradford
Bealey, Adam, M.D.	..	Oak Lea, Harrogate
Bell, J. H., M.D.	..	Hallfield Road, Bradford
Benson, John, Esq.	.	Broomhill, Sheffield
Bird, William, M.D.	..	3, St. Leonard's Place, York
Booth, W. H., Esq.	..	St. James's Street, Sheffield
Bowman, R. M., Esq.	..	Ripon
Braithwaite, James, M.D.	..	Clarendon Road, Leeds
Branson, John, Esq.	..	Rotherham
Brigham, J. K., M.D.	..	Shipley
Britton, Thomas, M.D.	..	Halifax
Bronner, Edward, M.D.	..	Manor Row, Bradford
Browning, George, Esq.	..	Oughtibridge, Sheffield
Bryan, Edward, Esq.	..	Idle, near Leeds
Burnie, William, M.D.	.	Bradford
Butterfield H., Esq.	..	Merton Road, Bradford
Cameron, J. Spottiswoode, M.D.	.	51, New North Road, Huddersfield
Carter, D'A. B., Esq.	..	Clayton Hospital, Wakefield
Carter, F. R., Esq.	.	Elm House, Potter-Newton, Leeds
Carter, Joseph Barton, Esq.	..	Potternewton, Chapel Allerton, Leeds
Charteris, William, Esq.		Hipperholme, Halifax
Churton, Thomas, M.D.	.	Leeds
Clarke, T. Kilner, Esq.	.	67, John William Street, Huddersfield
Clarke, W., M.D.	.	Wentworth, Rotherham
Clarkson, W. C., Esq.	..	Pateley Bridge, Yorkshire
Clay, C., Esq.	..	Manor House, Dewsbury
Cleaver, W. J., M.B.	.	Sheffield
Clements, E. H.		Wetwang, Driffield
Colby, G., Esq.		New Malton
Colby, W. Taylor, M.D.	.	The Mount, Malton
Coleman, G. E., Esq.	.	Hemsworth, Pontefract
Coleman, H. W., Esq.	.	Armley, near Leeds
Collier, Thomas, Esq.		Westgate, Ripon
Cooke, R. T. E. B., Esq.	..	Scarborough
Crocker, James, Esq.	.	Bingley
Cross, Richard, M.D.		Scarborough
Crossley, William H., Esq.	..	Maltby, near Rotherham
Dale, G. P., Esq.	.	Falconer House, Huntriss Row, Scarborough
Davison, James E., M.D.	..	12, Hyde Terrace, Leeds
Deville, Titus, M.D.	..	Claremont House, Harrogate
Dobie, William, M.D.	.	Queen Street, Keighley
Dobson, J., Esq.	..	Leeds
Dolan, Thomas M., Esq.	..	North Parade, Huddersfield
Dunsford, W. E., Esq.	.	Helmsley
Draper, William, Esq.	..	St. Leonard's, York
Drew, Samuel, M.D.	.	Chapeltown, Leeds
Dyson, William, M.D.	..	Cow Street, [illegible]
Eastwood, J. W., M.D.	..	Dunclair Park, [illegible]
Ellis, J. E., M.D.	..	Park Square, Leeds
Ellerton, J. E., Esq.	..	[illegible] Leeds
Elliott, W., M.D.	..	Somerby Bridge
Ellis, H. W. T., Esq.	..	Crowle, Doncaster
English, A. W., Esq.	..	Whitby
Farrer, Robert, Esq.	..	Brigsteer, Kendal
Favell, Richard, Esq.	..	Glossop Road, Sheffield
Favell, William Fisher, Esq.	..	Glossop Road, Sheffield
Figgins, H., Esq.	..	[illegible]
Fitzsimons, H., M.D.	..	Mount View, York
Foote, H. D'O., M.D.	..	Rotherham
Ford, A.	.	Harrogate
Foster, John, M.D.	.	Bradford
Fothergill, T. P., M.D.		Bedale
Fowler, James, Esq.	.	South Parade, Wakefield
Garrard, W. A., Esq.	..	Wellgate, Rotherham
Garstang, T. W. H., Esq.	..	Dobcross
Giddings, W. K., Esq.	.	Calverley
Gill, H. C., Esq.		Asylum, Bootham, York
Gowan, Charles, M.D.	..	Anston, Rotherham
Goyder, D., M.D.	..	Horton Road, Bradford
Grabham, Charles, M.B.	..	Pontefract
Greenhow, Thomas M., M.D.	..	Chapel Allerton, Leeds (dead)
Greenwood, J. W.	..	Ossett, Wakefield
Gwynne, C. Nelson., M.B.	..	London Road, Sheffield
Haigh, T. A., Esq.	..	Meltham, Huddersfield
Haley, W. H.	..	Garden Street, Wakefield
Hall, F., M.D.	..	North Street, Leeds
Hall, John, Esq.	..	40, Victoria Street, Sheffield
Hall, William, Esq.	..	Hillary Place, Leeds
Hallam, Arthur, Esq.	..	Sheffield
Hallam, W., Esq.	.	The Wicker, Sheffield
Hamilton, George, [illegible]	..	Chapeltown Road, Leeds
Hardwicke, H. J., M.D.	..	Sharrow, Sheffield
Hardwicke, J., M.D.	..	Chilton Lodge, Rotherham
Hargreaves, Edmund, M.B.	..	2, Eyre Street, Sheffield
Harrison, J. W., Esq.	..	Cemetery Road, Sheffield
Harrison, Robert, M.D.	..	Scarborough
Hartley, J. F., M.B.	..	Ripon
Haworth, James, Esq.	..	Filey
Hawthorne, H. J., Esq.	..	Ecclesfield, Sheffield
Heald, B. Grange, Esq.	..	East Street, Leeds
Hebden, John, Esq.	.	3, Princess Terrace, Ripon
Hewetson, Richard, Esq.	..	Bootham, York
Hey, Samuel, Esq.	..	Albion Place, Leeds
Higgins, G. Hodgson, Esq.	..	Belmont House, Burmantofts, Leeds
Hime, T. W., M.B.	..	Hounsfield Road, Sheffield
Hingston, J. T., Esq.	..	North Riding Asylum, Clifton, York
Hirst, S. W., Esq.	..	Bowling, Bradford
Holdsworth, S., M.D.	..	West Parade, Wakefield
Hollings, Robert, M.D.	..	Grove House, Wakefield
Hood, William, Esq.	..	Castlegate, York
Horne, J. F., Esq.	..	Barnsley
Horne, John, M.D.	..	15, Albemarle Road, Scarborough
Horsfall, John, Esq.	..	Leeds
Howard, James, Esq.	..	Altofts, Normanton
Hutchinson, C. F., M.D.	..	19, Esplanade, Scarborough
Ikin, J. I., Esq.	..	Park Place, Leeds
Inkster, S. M., M.D.	..	Fulwood Road, Sheffield
Jackson, Arthur, Esq.	..	Wilkinson Street, Sheffield
Jackson, Edward, M.B.	..	Glossop Road, Sheffield
Jacob, Ernest Henry, M.D.	..	12, Park Street, Leeds
Jalland, W. H., Esq.	..	St. Leonard's House, Museum Street, York
Jessop, Adam, Esq.	..	Castleford
Jessop, T. R., Esq.	..	Park Square, Leeds
Johnson, T., Esq.	..	Knottingley
Johnston, S., M.D.	..	Bradford
Johnstone, Thomas, M.D.	..	The Grove, Ilkley
Jones, W. M., Esq.	..	Wath-upon-Dearne
Jubb, Abraham, Esq.	..	Aked's Road, Halifax
Keeling, J. H., M.D.	..	Glossop Road, Sheffield
Kemp, E. W., Esq.	..	Castleford, Normanton
Knaggs, Samuel, Esq.	..	Huddersfield
Knight, H. J., Esq.	..	Rotherham
Lambert, John, Esq.	..	Farsley, Leeds
Laver, A. H., Esq.	..	Cemetery Road, Sheffield
Lawson, Joseph, M.B.	..	Hebden Bridge
Leach, Matthew, Esq.	..	26, Surrey Street, Sheffield
Leak, Thomas Mallorie, Esq.	..	Hemsworth, Pontefract
Lee, F. B., Esq.	..	The Elms, Heckmondwike
Leeson, J. F., Esq.	..	Ilkley Wells, Wharfedale
Libbey, H. Cornelius, Esq.	..	Horsforth, Leeds
Little, John Fletcher, Esq.	..	Ben Rhydding
Lodge, S., Esq.	..	Bowling, Bradford
Low, R. B., M.D.	..	Helmsley
Lyth, J. B., Esq.	..	27, Crofts, Rotherham
McCaskie, Charles, Esq.	..	Huddersfield
McDowall, John Greig, M.B.	.	Wadsley, near Sheffield
McGregor, Peter, Esq.	..	Huddersfield
McKenzie, L. S., Esq.	..	Bradford
Major, Herbert C., M.D.	..	Wakefield
March, F. K., Esq.	..	Tennyson Place, Bradford
Marshall, J. I. F., Esq.	..	28, St. Saviour's Gate, York
Martin, John, Esq.	..	York
Martin, J. W., M.D.	..	Brunswick Street, Sheffield
Matterson, Wm. M.D.	..	York
Mead, E. P., M.D.	..	Whitby

Meade, Richard, H., Esq. .. Bradford
Merryweather, James, Esq. .. Guisborough
Miall, P. E., Esq. .. Bradford
Mickle, David, Esq. .. Kirklington, Ripon
Mitchell, S., M.D. .. South Yorks Asylum, Wadsley, near Sheffield
Mossop, Isaac, Esq. .. 34, Victor Road, Manningham, Bradford
Muil, William, M.D. .. Kirkby-Moorside
Murray, J. Ivor, M.D. .. 8, Huntriss Row, Scarborough
Murray, W., M.D. .. Burley-in-Wharfedale
Muscroft, Henry, M.D. .. Pontefract
Myrtle, A. S., M.D. .. Harrogate
Naylor, George F., Esq. .. Wakefield
Nevitt, J. G., Esq. .. Chapel Allerton, Leeds
Newstead, George, Esq. .. Lockeshill
Nickols, Thomas, Esq. .. New Wortley
North, Samuel W., Esq. .. York
Nuttall, Radcliffe, Esq. .. Bradford
Oakley, John, Esq. .. Holly House, Halifax
Owen, W. Hunter, Esq. .. Upperton, Huddersfield (retires)
Packman, A. T. V., Esq. .. South Street, Sheffield
Payne, Henry, Esq. .. Loxley, near Sheffield
Pinder, W. M., Esq. .. Horsforth, Leeds
Price, W. N., M.D. .. Mount Pleasant, Leeds
Pritchett, Henry, Esq. .. Brighouse
Pye-Smith, R. J., Esq. .. Sheffield
Rabagliati, A. C. Francisco, M.D. .. 9, Walmer Villas, Bradford
Ramsay, James, M.D. .. 90, Minster Yard, York
Ramsden, W. T., Esq. .. Raventhorpe, Mirfield
Ramskill, Josiah, Esq. .. 29, Meadow Lane, Leeds
Reckitt, Edward Bass, Esq. .. Boston, Lincolnshire
Reckless, Alfred, Esq. .. Sheffield
Rhodes, G. W., Esq. .. Huddersfield
Richardson, Charles, Esq. .. Brunswick Place, North Street, Leeds
Roberts, Arthur, Esq. .. Albert Street, Keighley
Robinson, Edmund, Esq. .. 15, Park Square, Leeds
Robinson, George, Esq. .. Burngreave Road, Sheffield
Robson, A. W. Mayo, Esq. .. Leeds
Rowley, C. O., Esq. .. Barnsley
Russell, J. W. L., Esq. .. Montgomery Terrace Road, Sheffield
Scattergood, Thomas, Esq. .. Park Square, Leeds
Scott, Thomas, M.D. .. Ilkley
Scott, W., M.D. .. Waverley House, Huddersfield
Seougal, D. Fowler, M.D. .. Newmill, near Huddersfield
Shann, F., Esq. .. 71, Micklegate, York
Shann, George, M.D. .. Petergate, York
Shaw, Geo. H., Esq. .. Attercliffe, near Sheffield
Shera, Henry A., Esq. .. Glossop Road, Sheffield
Skinner, E., Esq. .. Eldon House, Sheffield
Sloan, John, M.B. .. Bramley, Leeds (retires)
Smailes, Thomas, Esq. .. Honley, near Huddersfield
Smith, Charles, M.D. .. Surrey Street, Sheffield (dead)
Smith, S. C., Esq. .. St. John's House, Halifax
Snell, S., Esq. .. 17, Eyre Street, Sheffield
Smith, W. J., Esq. .. Parkgate, Rotherham
Spencer, H. M. Esq. .. Peel Street, Bradford
Spowart, Thomas, Esq. .. 22, Montgomery Terrace Road, Sheffield
Stanger, William, Esq. .. Wakefield
Statter, W. A., Esq. .. Wakefield
Swanson, George Isles, M.D. .. Lawrence House, York
Sykes, John, M.D. .. Doncaster
Sykes, Wm., Esq. .. Mexborough, Rotherham
Tacey, W. G., Esq. .. 18, North Parade, Bradford
Tait, Lawson, Esq. .. 7, Great Charles Street, Birmingham
Taylor, C. Henry, Esq. .. 18, Manor Row, Bradford
Taylor, G. Stamp, Esq. .. Meadow Lane, Leeds
Taylor, G. Stopford, Esq. .. 2, Eyre Street, Sheffield
Taylor, Joseph, Esq. .. Hathersage, Sheffield
Taylor, John William, M.D. .. 4, Queen Street, Scarborough
Teale, T. W., Esq. .. 2, Belvoir Terrace, Scarborough
Teale, Thomas Pridgin, M.B. .. 19, Commercial Street, Leeds
Thomas, G. H. W., Esq. .. Pocklington, York
Thomas, W. R., M.D. .. 61, Upper Hanover Road, Sheffield
Thomson, Edward W., Esq. .. Sheffield
Tibbits, Edward Thomas, M.D. .. 44, Manningham Lane, Bradford
Tindall, Hardy, Esq. .. 1, Grand Hotel Buildings, Leeds
Trotter, C. J., Esq. .. Hemsworth, Horbury
Walker, E. B., M.D. .. Prospect House, Golcar, Huddersfield
Walker, J. H., Esq. .. Pickering, near York
Walker, L., Esq. .. The Elms, Wakefield
Warburton, E., Esq. .. Pateley Bridge
Watson, A. M., M.D. .. Penistone
Wheelhouse, C. G., Esq. .. Hallam Place, Leeds
Whitelegg, J., Esq. .. 20, Queen Street, Wakefield
Wigin, George William, Esq. .. Middleton, Leeds
Williams, Isaac Mennell, Esq. .. 48, Micklegate, York
Wilmot, Alfred, Esq. .. Middleton, Leeds (retires)
Wilmot, Thomas, Esq. .. Intake, near Dewsbury
Wimperis, J. .. Holmfirth
Wood, Arthur, Esq. .. Kirkby-Moorside
Woodhouse, J. .. Bramley, Leeds
Wright, C. J., Esq. .. Lower Vicar Lane, Wakefield, Leeds
Wright, J. A., M.B. .. Hemsworth
Wright, J., Esq. .. Doncaster
Wright, J. H., Esq. .. Hanley
Young, J., M.D. .. Victoria Square, Sheffield

MEMBERS UNATTACHED (cont.)

Adams, F. J., Esq. .. Sheffield
Allan, W. W., Esq. .. Gateshead
Allbutt, Henry A., .. Queen's Road, Leeds
Armstrong, A., M.D. .. Malton

Anthony, John, Esq. .. Kettlewell, Skipton
Arbuckle, H. W., M.D. .. Thorne, near Doncaster
Armistead, J. W., Esq. .. 85, Meanwood Road, Leeds (resigned)
Atkinson, Edward Tweddell, Esq. Richmond, Yorks
Atkinson, G. P., Esq. .. Pontefract
Bacon, A. T., Esq. .. Kirkstall Road, Leeds
Baker, Robert, M.D. .. The Retreat, York
Barber, J., Esq. .. Eyre Street, Sheffield
Barker, Elijah, Esq. .. Pitsmoor, Sheffield
Barr, Joseph H., Esq. .. Wyke, Bradford
Bates, W. R., Esq. .. Addingham, Leeds
Behrendt, M. R. J., Esq. Barrington, Doncaster
Bell, Rev. David, M.D. .. Goole
Beverley, W. H., Esq. .. 5, Woodsley Terrace, Leeds
Birchall, T. B., M.B. .. 1, Burngreave Road, Sheffield
Blythman, Clement S., M.B. .. Swinton, Rotherham
Brewer, T., Esq. .. New North Road, Huddersfield
Brown, H., Esq. .. Northallerton
Brown, S., M.B. .. Manor Row, Bradford
Brown, W. Perrin, Esq. .. Infirmary, Bradford
Browne, Andrew, Esq. .. Mold Green, Huddersfield
Buck, C. W., Esq. .. Settle
Buncle, A., M.B. .. Purstone, Pontefract
Cameron, J. A., M.D. .. Bawtry
Carter, T., Esq. .. Richmond
Cass, Wm. E., Esq. .. Goole
Cautley, W. Clapham, Esq. .. Killinghall, Ripley
Chestnutt, J., Esq. .. Howden
Clarke, John C., Esq. .. Bank House, Morley, near Leeds
Clarkson, F. R., Esq. .. Tockwith, near York
Clunn, T. R. H., Esq. .. West Riding Asylum, Wakefield
Cockcroft, W., Esq. .. Catterick
Connon, W., M.D. .. Dewsbury
Corrie, J., Esq. .. Burmantofts, Leeds
Craig, J. W., M.D. .. Pudsey
Dawson, C., Esq. .. Rawdon, near Leeds
Denby, T. C., Esq. .. 1, Camden Terrace, Bradford
Denning, John Vere C., Esq. .. West Vale, Greetland, Halifax
Denning, R. N., M.B. .. Elland
Denton, A. H., Esq. .. St. Philip's Road, Sheffield
Diamond, James, M.D. .. 1, Victoria Terrace, Marsh, Huddersfield
Dobson, H., M.D. .. Craiglands, Ilkley
Dobson, J., Esq. .. Burley Lawn, Leeds
Duncan, A. G., M.B. .. Clayton West, Huddersfield
Drake, F. H., Esq. .. Headingley, Leeds
East, G. E., Esq. .. Goole
Edgar, J. W., M.D. .. Settle, Yorks
Farquhar, J., M.D. .. Pudsey, near Leeds
Ford, Alexander, Esq. .. Harrogate
Fowler, A., M.D. .. Carlin How, Saltburn-by-the-Sea
Gill, W., Esq. .. Somerset House, St. Philip's Road, Sheffield
Green, T. B., Esq. .. Sedburgh
Haley, William Henry, Esq. .. Garden Street, Wakefield
Hallilay, John, Esq. .. Burley Road, Leeds
Hargreaves, J. B., Esq. .. Armley, Leeds
Harrison, H. B., Esq. .. Kettlewell, near Shipton
Harrison, W. A., M.B. .. Pontefract
Hartley, Joshua, Esq. .. New Malton
Hartley, Reginald, Esq. .. Thirsk
Hatfield, W. H., Esq. .. Thornhill, Dewsbury
Hepworth, Wm., Esq. .. Guiseley
Hellier, J. B., Esq. .. 1, De Grey Terrace, York
Hilles, J. Wm., Esq. .. Gargrave, Yorks.
Hinchliffe, Matthew, M.D. .. Wellington Road, Dewsbury
Hindle, F. J., Esq. .. Askern, Doncaster
Holmes, F., Esq. .. Leeds
Horden, J. O., M.B. .. Dispensary, York
Hunt, H. J., Esq. .. Beech Lodge, Harrogate
Hunt, Lewis G., M.D. .. 5, Eyre Street, Sheffield
Hunt, R., Esq. .. Brunswick Place, Leeds
Hunter, W. L., M.B. .. Pudsey
Ingham, Amos, M.D. .. Hemsworth, near Pontefract
Ireland, Thos. B., Esq. .. Tadcaster East
Irving, J., M.B. .. 22, New North Road, Huddersfield
Jackson, Alfred, Esq. .. Market Weighton
Jackson, J. .. Welton, near Brough
Jackson, C. .. Dispensary and Vaccine House, Spital Hill, Sheffield
Johnson, W. J., Esq. .. Bawtry
Johnston, J. Somerville, Esq. .. 1, Spital Hill, Sheffield
Kendall, A. J. .. Hanson
Keighley, Robert D., Esq. .. Batley
Kemp, B., Esq. .. Westgate End House, Wakefield
Keith, A. E., M.D. .. Kirkleatham, Redcar
Kenny, Maurice A., Esq. .. Selby
Kenyon, J. E., Esq. .. Pontefract
Kernot, Abraham B., Esq. .. Roseneath, Roundhay Road, Leeds
Lambert, John, Esq. .. Pontefract
Lawson, R. M. .. Shipley, near York
Laverick, John V., Esq. .. Park House, Hemsworth
Lawson, J., M.D. .. 1, Park Place, Leeds
Law, Joseph D., M.D. .. Devonshire Street, Sheffield
Lee, A. D. H. .. Pontefract
Le Tall, F. T., Esq. .. Woodhouse, Sheffield
Locke, Thomas W. S., Esq. .. Cawthorne, Barnsley
Lyon, [illegible] M.D. .. Knowsley Terrace, Wakefield
Mackenzie, A. C., M.D. .. Mexborough
Mackenzie, [illegible] .. Hemsworth
Mann, [illegible] .. Cawthorne
Martin, W. [illegible] M.D. .. Sandal, Wakefield
Mason, [illegible] M.D. .. Pontefract
Mason, [illegible] .. Pontefract
Mason, [illegible] .. Pontefract
Mason, [illegible] .. Pontefract
Marshall, T. H., Esq. .. [illegible]

[illegible]	..	[illegible], Halifax
Morton, Samuel, Esq.	..	[illegible], Sheffield
Morton, T. H., M.D.	..	[illegible], Sheffield
Munro, A. B., M.D.	..	[illegible]
Noake, Samuel J., Esq.	..	Poplar House, Horton, near Leeds
Nowell, J., Esq.	..	[illegible], Leeds
Nunneley, John A., M.B.	..	[illegible]
Oates, J. H.	..	Public Dispensary, Leeds
O'Callaghan, C. H. K.	..	[illegible], York
Oglesby, R. P., Esq.	..	[illegible]
Oldroyd, J. H., Esq.	..	[illegible], Huddersfield
Oliver, G., M.D.	..	West End Park, Harrogate
Peirson, G. B., Esq.	..	Sydenham Place, Holbeck, Leeds
Pogson, W., Esq.	..	Seacroft, Leeds
Petch, R., M.B.	..	[illegible], York
Pollard, G. E., Esq.	..	[illegible], Shipley
Porritt, N., Esq.	..	[illegible], Huddersfield
Ramsay, W., Esq.	..	Hatton Bank
Rhodes, G. S., Esq.	..	Saltburn-by-the-Sea
Richmond, Sylvester, M.D.	..	Northallerton
Ritchie, Thomas, Esq.	..	Otley
Roberts, A. M., Esq.	..	Attercliffe, Sheffield
Roberts, W. Lake, Esq.	..	[illegible], Bradford
Robinson, Edward, Esq.	..	Rotherham
Rose, R. D., Esq.	..	St. Leonard's House, York
Rutherford, J. J., Esq.	..	Shipley, Leeds
Sadler, Michael T., M.D.	..	Church Street, Barnsley
Scatchard, T. E., Esq.	..	[illegible], Lancaster
Scholefield, Wm. S., M.D.	..	Pickering, near York (dead)
Scott, Robert, M.D.	..	Infirmary, Halifax
Sedgwick, James, M.D.	..	Ladywell House, Borough Bridge
Sime, Robert, Esq.	..	Ecclesfield, Sheffield
Sinclair, David, M.B.	..	Great Horton, Bradford
Skinner, Wm., Esq.	..	250, Brookhill, Sheffield
Smith, J. W., Esq	..	Hallgate, Doncaster
Steele, S. T., Esq.	..	Morley, Leeds
Stewart, W., Esq.	..	Highfield House, Barnsley
Storrs, Robert, Esq.	..	Hallgate, Doncaster
Strickland, F. G., Esq.	..	14, Ward's End, Halifax
Sykes, Benjamin C., M.D.	..	Cleckheaton, Normanton
Sykes, Richard, Esq.	..	Drighlington, Leeds
Sykes, W. A., Esq.	..	Golcar, Huddersfield
Tacey, Dalton, Esq.	..	53, Hallgate, Doncaster
Taylor, Edward, Esq., Surg.-Maj. A.M.D.		4, Esplanade Gardens, Scarboro'
Taylor, T., Esq.	..	Brotton, Saltburn-by-the-Sea
Taylor, W. C. E., Esq.		34, Queen Street, Scarborough
Teasdale, W., Esq.	..	Easingwold
Thomas, H., Esq.	..	260, Brookhill, Sheffield
Thompson, Arthur H., Esq.	..	Great Ouseburn, Yorks.
Thorburn, R., M.B.	..	Fairfield, Sedburgh
Thornton, Jas. P., M.B.	..	Melsonby, Yorks.
Thorp, B., Esq.	..	[illegible]ith
Tickler, R. P., Esq.	..	Owston, Bawtry
Tireman, Henry, Esq.	..	Howden
Todd, G. D., Esq.	..	Gowthorpe, Selby, Yorkshire
Trousdale, W. M., Esq.	..	West Park, Harrogate
Unthank, R. E., Esq.	..	Appleton, Wiske
Upton, Thomas Sisson, Esq.	..	Tadcaster
Veale, R. S., M.D.	..	Harrogate
Waddington, Frank, Esq.	..	Armley, Leeds
Waddington, Isaac, M.D.	..	Bradford
Walker, B., Esq.	..	Masborough
Walker, C. E., M.B.	..	Pine House, Hurworth-upon-Tees, Darlington
Wallis, F., Esq.	..	Doncaster
Watson, T. H., M.B.	..	Westbourne Road, Sheffield
Westbrook, Charles, Esq.	..	St. Philip's Road, Sheffield
Wallace, E. J., M.D.	..	Cleckheaton, Yorkshire.
Whalley, W., M.D.	..	Bradford, Yorkshire
Williams, Josiah, Esq.	..	St. Philip's Road, Sheffield
Wilson, A. C. J., Esq.	..	Penistone, Yorkshire
Wilson, J. M., M.B.	..	Thorne Road, Doncaster
Wright, C. W. J., M.B.	..	Sheffield

(Several Members of the North of Yorkshire are included in the Northof England Branch, Newcastle-upon-Tyne, see Branches.)

*** Several of the "Unattached" Members in the preceding Lists have joined the Branches of their respective Districts since the beginning of the year; and some have ceased to belong to Branches, though remaining in the Association.

ARMY AND NAVY.

MEMBERS. (Retd.)

Adcock, John, M.D., Brig.-Surg. A.M.D.	..	31st Brig. Depot, Great Yarmouth
Adsetts, J., M.D., Surg.-Maj.	..	Lincoln (*M. Br.*)
Alcock, N., Esq., Surg. A.M.D.	..	Ballybrack, co. Dublin
Allan, A., Esq., Surg.-Maj. A.M.D.		1, Mount Terrace, Woolwich
Allen, Robert Marshall, Esq., Dep. Insp.-Gen. (H.P.)	..	Wellbourn Hall, Grantham (*M. Br.*)
Allen, William H., Esq., Surg.-Maj. A.M.D.	..	Station Hospital, Belfast
Anderson, Alexander, Esq., Surg. A.M.D.	..	[illegible]
Anderson, D. H. B., M.D., Surg. A.M.D.	..	Charisville, Portobello
Anderson, J., Esq., Surg.-Maj. R.H.A.	..	Governor General's Camp, India
Anderson, J. Albert, M.D., Surg.-Maj. A.M.D.	..	Care of Principal Medical Officer, Barbadoes
Anderson, R., Esq., Surg.-Major	..	[illegible]
Anderson, W., Esq., Fleet Surg.	..	[illegible], Walmer
Andrew, G., M.B., Surg.-Maj. A.M.D.	..	[illegible]
Archer, S., Esq., Surg.-Maj. A.M.D.		Singapore, Straits Settlements
Bainbridge, G., Esq., Surg. A.M.D.		Civil Surgeon, Satara, Bombay
Barclay, A., M.B., Surg. Beng. Army		[illegible], Calcutta
Barrow, E. [illegible], Surg. A.M.D.		Thyemyo, British Burmah
Barrow, F. E., Esq., Surg. A.M.D.		St. James's Square, S.W. [Dublin
Barrow, H. J. W., Surg. A.M.D.		[illegible], North Circular Road,
Barry, J., Esq., Surg.-Maj., A.M.D.		21, Weymouth Street, W.
Bartley, A. G., M.D., Surg.-Maj.		4, Alfred Street, Plymouth (*S.W. Br.*)
Batho, R., Esq., Surg.-Maj. A.M.D.		Hounslow
Beamish, J. M., M.D., Surg., A.M.D.		Cannanore, Madras
Beamish, R. T., M.D., Surg. A.M.D.		
Beattie, J. F., M.D., Surg.-Maj. A.M.D.	..	Kurrachee, Bombay
Beaumont, R. W., Esq., Fleet Surg. R.N.	..	Royal Naval Hospital, Haulbowline, Ireland
Becher, E., M.D., Surg.-Maj.	..	Gravesend
Beelmore, Alfred J., Esq., Surg.-Maj., R.A.	..	Pembroke Dock
Bennett, W. R., M.D., Fleet Surg. R.N.		[illegible], N.W.
Berkeley, R. W., Surg.-Maj. A.M.D.		Meerut, India
Bernard, J., Esq., Insp.-Gen. R.N.		37, Warwick Road, S.W.
Black, W. T., Esq., Surg.-Maj. A.M.D.	..	Edinburgh (*E. Br.*)
Blair-Brown, Dugald, Esq., Surg. A.M.D.	..	14, Guildford Terrace, Dover
Blood, R., M.D., Surg. A.M.D.	..	Meerut, N. W. P., India
Boileau, J. P. H., M.D., Staff Surg.-Maj.		Woolston, Hants (*S. Br.*)
Bookey, W. J. B., Esq., Surg. R.N.		H.M.S. "[illegible]," China
Boult, E. F., Esq., Surg.-Maj A.M.D.	..	Malcolm Road, Penge
Boulton, E. J., Esq., Surg.-Maj. A.M.D.	..	Allahabad
Bourke, I., M.B., Surg.-Maj.		Mallcapooran, Malabar
Bowen, R., Esq., Surg.-Gen. A.M.D.		[illegible]way, Gloucestershire (*B. and B. Br.*
Brebner, A., M.D., Surg.-Maj. A.M.D.	..	Allahabad, India
Brown, W., Esq., Surg. R.N.		Royal Naval Hospital, Plymouth
Browne, C. H., Esq., Surg.-Maj. A.M.D.	..	Peshawur
Browne, W. R., M.D., Surg. 3rd Hyderabad Contingent		General Hospital, Madras
Buckle, Fleetwood, M.D., Staff-Surg. R.N.	..	Care of Joseph Matts, Esq., Isleworth
Buckley, John, Esq., Staff-Surg. R.N.	..	H.M.S. "Temeraire," Mediterranean
Burgess, P., M.B., Staff.-Surg. R.N.		21. Shardeloes Road, New Cross, S.E.
Burke, John R., M.D., Staff-Surg. R.N.	..	H.M.S. "Emerald," Australia
Bushe, C. J. L., M.D., Surg., A.M.D.		Allahabad (*D. Br.*)
Campbell, G. A., M.D., Staff-Surg. R.N.	..	H.M.S. "Vernon," Portsmouth
Campbell, J. A. Esq. Surg.-Maj. A.M.D.	..	Jamaica (*Jamaica Br.*)
Candy, John, M.D., Surg.-Maj. A.M.D.	..	Station Hospital, Portland
Carolan, G. Mc G., Esq. Surg.-Maj. A.M.D.	..	15, Daly Mount, Phibston, Dublin
Carter, S. H., M.B. Surg.-Maj. A.M.D.	..	
Chapple, R. A., Esq., Brig.-Surg. A.M.D.	..	Lucknow
Charlesworth, H., Esq., Surg.-Maj. A.M.D.	..	Station Hospital, York
Charlton, W. J., Surg. A.M.D.	..	
Chesnaye, G. C., Esq., Surg.-Maj. Bengal Army		Bakloh, Punjab
Clarke, A. F. S., M.D., Surg.-Maj.		6, Campden Hill Road, W.
Close, H. A., Esq., Staff-Surg. R.N.	..	Lower Queen's Terrace, Southampton (*S. Br.*
Coates, Matthew, Esq., Staff-Surg. R.N.		H.M.S. "Encounter," China
Cockburn, Robert, Esq., Surg.-Gen. Bengal Army		42, Leamington Road Villas, W. (*Met. Co. Br*
Codrington O., M.D., Surg.-Maj., A.M.D.	..	Bombay
Colan, H. A., Esq., Surg.-Maj. A.M.D.	..	Cork (resigned)
Collier, H. Currie, Esq., Surg.-Maj. A.M.D.	..	Gibraltar (resigned)
Collis, William, Esq., Surg.-Maj. A.M.D.	..	Meean Meer, Moultan
Colquhoun, A. G., Esq., Staff-Surg R.N.	..	H.M.S. "Iris,' Mediterranean (*S.W. Br.*.
Comyn, J. S., M.D., Surg.-Maj. A.M.D.	..	6, York Crescent, Woolwich
Conolly, J. V. J., M.B., Surg. A.M.D.		Peshawur
Conolly, P. B., Esq., Surg. A.M.D.		Natal
Conway, J. K. M.D., St.-Surg., R.N.		H.M.S. "Liffey."
Corban, L., M.D., Surg.-Major, A.M.D.	..	Gibraltar
Corbett, A. P., Esq., Surg.-Maj. A.M.D.	..	Gosport (dead)
Corbett, Robert de la Cour, M.D., Surg.-Maj. A.M.D.	..	Dum Dum, India (*S. of I. Br.*)
Corbett, W. H., Esq., Brig.-Surg. A.M.D.	..	Bombay (*S.W. Br.*)

Corker, T. M., M.D., Surg. A.M.D.	Bara Gulf, India
Corrie, A. T., Esq., Surg. R.N. ..	Hospital, Island of Ascension (*S. Br.*)
Cotton, J., M.D., Dep. Insp. Gn. R.N.	Royal Hospital, Plymouth
Cowan, Michael W., M.D., Fleet Surg. R.N.	Forton, Gosport
Craig, R. M., Esq., Surg.-Maj. A.M.D. ..	Cyprus
Crane, Samuel L., M.D., Surg.-Gen.	Care of Messrs. King & Co., Cornhill, E.C.
Crawford, Thomas, M.D., Surg.-Gen. A.M.D.	Simla
Creagh, S. H., Esq., Surg. A.M.D.	South Camp, Aldershot
Creagh, William, Esq., Brig.-Surg. A.M.D.	Wylde Green, Birmingham
Creyke, W., M.B., Surg. Maj. A.M.D.	Bengal
Crocker, H. L., Esq., Surg. R.N.	[illegible] Park, Plymouth
Crofts, James, M.D., Surg. Madras Army	Calcutta
Crowe, J. D. Esq., Surg.-Maj. R.A.	Gibraltar
Cuffe, C., McD., Esq., Surg.-Maj. A.M.D. ..	[illegible] Place
Cullen, D., M.D., Dep. Surg.-Gen A.M.D. ..	Cheltenham (*B.C. Br.*)
Currie, G. V., M.D., Brig.-Surg. ..	Sealcote, Punjaub
Cusack, R. Oriel, Esq., Surg. A.M.D.	Trimulgherry, Secunderabad
Dane, Arthur H. C., M.D., Surg. Bombay Army	Quetta
Dántrá, S. H., M.D., Surg. Ind. Army	[illegible] Bombay
Davis, F. W., Esq., Fleet Surg. R.N.	Royal Marine Infirmary, Walmer
Davis, James, Esq., Surg.-Maj. A.M.D. ..	Jhansi, Central India
Davis, J. N., M.D., Surg.-Maj. A.M.D. ..	5, McElwain Terrace, co. Kildare (*D. Br.*)
De Chaumont, F. S. B., M.D. F.R.S., Surg.-Maj. A.M.D. ..	Woolston Lawn, Southampton (*S. Br.*)
De Tatham, H., M.D., Surg.-Maj. A.M.D. ..	[illegible], Bombay
Dick, Forbes, M.D., Surg.-Maj. A.M.D. ..	Abbey Gate, Colchester
Dimmock, H. P., Esq., Surgeon Indian Army ..	[illegible]
Dixon, C. H., M.B.	Station Hospital, Gosport
Doig, Alexander, Esq., Surg.-Maj. A.M.D. ..	Rainklet, N. W. P., India
Donnelly, Henry F., M.D., Deputy Inspector-General, R.N.	23, Gloucester Place, Greenwich (resigned)
Donnet, Jas. J. V., M.D., Surg.-Maj. A.M.D. ..	5th Fusiliers, Agra
Donnett, J. J. L., M.D., Inspector-General R.N.	Dover
Douglas, Campbell Mellis, M.D., Surg. A.M.D., V.C. ..	Meerut
Downie, Kenneth M., M.D., Surg. Maj. Bengal Army ..	[illegible] N.W.P. India
Doyle, B., M.B., Surg. Bengal Med. Serv. ..	Ambala, Bengal
Drew, G. F. A., Esq., Fleet-Surg. R.N.	[illegible], Portsmouth (*S. Br.*)
Drury, R., M.D., Surg. A.M.D. ..	Natal
Duke, A. W., Esq., Surg.-Maj. A.M.D. ..	Mauritius
Dustan, J., Esq. Surg.-Maj., A.M.D.	Jersey
Eames, W. J., Esq., Fleet Surg., R.N.	[illegible] Park, Plymouth
Edge, J. Dallas, M.D., Surg.-Maj. A.M.D. ..	Timahoe, Queen's County
Elkington, G. A., Esq., Surg. Maj. A.M.D. ..	52, Gillingham Street, S.W.
Emson, A., Esq., Surg. R.N. ..	H.M.S. "Eclipse," Aden.
Evans, J. Lyons, M.D., Dep. Surg.-Gen. A.M.D.	Surrey Road, Bournemouth
Evatt, G. J. H., M.D., Surg.-Maj. A.M.D. ..	Woolwich
Exham, R., Esq., Surg., A.M.D. ..	Bombay
Fairlough, E. F., [illegible] A.M.D. ..	[illegible] N.W.P. India
Faris, T., M.B., Surg., A.M.D. ..	Aldershot
Farmer, E. D., Esq., Surg. A.M.D.	Aldershot
Fergusson, William, [illegible] Surg.-Maj. A.M.D.	[illegible] (*W. Br.*)
Fasson, S. H., M.D., Deputy Surg.-Gen. A.M.D.	Royal Infirmary, Edinburgh
Ffolliott, N., Esq., Surg.-Maj. A.M.D.	14, Charlemont Terrace, Cork
Ffolliott, W., Surg.-Maj., A.M.D. ..	[illegible]
Fitzgerald, E. M., M.B., Surg. Maj. A.M.D.	[illegible]
Fitzgerald, F. [illegible]	H.M. Dockyard, Devonport
Fitzgerald, [illegible]	[illegible], N.W. Canada
Flood, Sam. J., Esq., Sur., A.M.D.	[illegible]
Footner, E., M.B., Surg.-Maj., A.M.D. ..	[illegible], India
Forbes, [illegible] A.M.D.	[illegible], Bombay Presidency
Forbes, R. W., M.B., A.M.D.	[illegible]
Fox, Thos. W., M.B., Surg. Maj. .. A.M.D. ..	[illegible], Edinburgh
Fraser, [illegible], M.D., Deputy Surg.-Gen. A.M.D.	Meerut
Fraser, F., M.D., Deputy Surg.-Gen. A.M.D. ..	[illegible]
Fyffe, W. F., M.D., Deputy Surg.-Gen. A.M.D. ..	Victoria Square, Clifton (*S. and B. Br.*)
Galloway, F. E., M.B., Surg. A.M.D.	Dover
Gardiner, W. C., M.B., Surg. Maj. A.M.D. ..	
Gillespie, Frank., M.D., Surg.-Maj. A.M.D. ..	St. Helena
Goode, W. H., Esq., R.N.	[illegible] (*Australian Br.*)
Gore, A. A., M.D., Surg.-Maj., A.M.D.	Ferozepore, Punjaub
Gordon, Charles A., M.D., C.B. Surg.-Gen. A.M.D. ..	[illegible] Netley Hos., Loan [illegible] (*W. Br.*)
Grant, R., M.B., Staff Surg., R.N.	H.M.S. "Duke of Wellington," Portsmouth
Greenhill, J. R., Esq., Surg.-Maj., A.M.D.	Cotehele Terrace, Stoke, Devonport
Gribbon, G. C., M.B., Surg.-Maj. A.M.D.	Military Hospital, Gosport
Grose, D. C., Esq., Surg.-Maj. A.M.D. ..	Barracks, Londonderry.
Gubbins, A. D., M.D., Brig.-Surg. A.M.D. ..	Secunderabad, Madras
Gunn, F. L. G. Esq., Dep. Surg.-Gen. A.M.D.	Rathgar, Dublin
Gunn, W., M.D., R.N. ..	Rochester
Gunning, J. D., Esq., Surg. A.M.D.	Lampton Road, Hounslow
Hall, J. Lees, Esq., Surg., A.M.D.	2, Southsea Terrace, Southsea
Haran, Timotheus J., M.D., Dep. Insp.-Gen., R.N.	Haslar Hospital, Gosport
Hardie, Gordon Kenmure, M.D., Dep.-Inspector-Gen. A.M.D. ..	Ealing, W.
Harman, W. M., M.B., Surg. Maj. A.M.D. ..	Dagshai, Punjaub
Harris, W. H., Esq., M.D., Surg.-Maj. A.M.D.	Care of Sir C. R. McGregor, Bart and Co., 25, Charles Street, W. (resigned)
Harte, Mark A., Esq., Staff.-Surg. R.N.	H.M.S. "Royal Adelaide," Devonport [Africa
Hartley, E. B., Esq., Surg.-Maj. ..	Cape Mounted Rifles, Kingwilliamstown, South
Harvey, Christopher, Esq., Surg. R.N.	Teignmouth
Harvey, C. H., M.D., Surg.-Maj. A.M.D. ..	Bombay
Harvey, James D'Arcy, Esq., Staff-Surg. R.N.	Stonehouse, Devon
Hassard, H. B., Esq., Dep.-Surg.-Gen. A.M.D.	Umballah
Hatch, W. K., M.B., Surg. A.M.D.	Bombay
Hector, James, M.B., Surg.-Maj. A.M.D. ..	Newton, Stonehaven
Henderson, J., M.D., Dep. Insp. of Hospitals, R.N. ..	2, Alexandra Road, [illegible]
Hensman, H. F., Esq., Surg.-Maj. 1st Life Guards	[illegible], Gloucester Place, W.
Hensman, W., Esq., Brig.-Surg. A.M.D. ..	Fareham (*W. Br.*)
Hewett, Augustus, Esq., Surg. A.M.D. ..	Bombay
Hewlett, T. Gilham, Esq., Dep. Surg.-Gen Bombay Army	Bombay
Hickson, George B., Esq., Surg.-Maj. A.M.D. ..	Aden
Hickson, R. C. C., M.D, Surg.-Maj. A.M.D.	Birr, Ireland
Hill, W. G., Esq., Fleet-Surg. R.N.	Fermoy (*S. of I. Br.*)
Hinton, James, Esq., Surg.-Maj.	Royal York Crescent, Clifton, Bristol
Hoadley, T. W. L., Esq., Surg. A.M.D. ..	[illegible]
Hoskyns, E. J., M.D., Surg. Bengal Army ..	[illegible]
Howard, F., M.D., Surg.-Maj. A.M.D. ..	Dublin [illegible]
Hughes, J. H., M.D., Surg.-Maj. A.M.D. ..	Colchester
Hulseberg, John Wild, Esq., Brig.-Surg. A.M.D.	Boyne Cottage, Navan, co. Meath
Hume-Spry, G. F., M.D., Surg.-Maj. A.M.D.	Rosendale Road, West Dulwich, S.E.
Hunter, W. G., M.D., Surg.-Gen.	Barracks, Knightsbridge, S.W.
Hyde, J. M., Esq., Dep.-Surg.-Gen.	[illegible], W.
Ingham, W. J., Esq. Surg.-Maj. A.M.D. ..	Westbourne Road, Forest Hill
Inkson, J., M.D., Surg.-Maj. A.M.D. ..	[illegible]
Innes, C. N., M.D., Surg.-Maj. A.M.D. ..	[illegible]
Irving, G. C., Esq., Surg.-Major A.M.D. ..	Bermuda
Irving, James, M.D., Surg.-Gen. ..	[illegible]
Jackson, [illegible], Deputy Surg.-Gen. A.M.D. ..	[illegible]
Jackson, Gustavus, Esq., Staff-Surg. R.N.	Borstal, Rochester
Jackson, R. [illegible], Surg.-Maj. A.M.D. ..	207, Piccadilly, W.
Jackson, R. W., [illegible] A.M.D.	[illegible]
Jackson, [illegible] Surg.-Maj. A.M.D. ..	[illegible]
Jennings, C. B., Esq., Surg. A.M.D.	[illegible]
Jones, [illegible], M.B., Deputy Surg.-Gen. A.M.D. ..	[illegible]
Johnson, C. M., Esq., Surg. A.M.D.	Ringwood, Hants
Johnson, [illegible], M.B., Surg.-Maj. A.M.D. ..	[illegible]
Johnston, Joseph, M.D., Brig.-Surg. A.M.D. ..	[illegible]
Jones, [illegible], M.D., Surg.-Maj. A.M.D. ..	[illegible], W. [illegible]
	[illegible], W. [illegible]

Johnston, W., M.D., Surg.-Maj. A.M.D. ..	Cape of Good Hope
Johnston, W. T., M.D., Surg. A.M.D. ..	Cyprus
Jones, J. M., Esq., Surg., A.M.D.	Lucknow
Joubert, C. H., M.D. [illegible] gal Army ..	Calcutta
Keays, W., Esq., Surg. A.M.D. ..	Cyprus
Kell, G., Esq., Staff-Surg., R.N. ..	St. Peter's Park, Southsea
Kellett, L. H., M.B., Surg., R.N.	H.M.S. "Moorhen," China
Kelly, A. H., M.B., Surg. R.N. ..	c.o. A. Kelly, Esq., Parsonstown, King's Co.
Kelly, J.B., Esq., Surg.-Maj. A.M.D.	Fyzabad, India
Kendall, Bernard, Esq., Surg.-Maj.	Downside Road, Clifton (*Somerset Br.*)
Kerr, B.C., M.D., Surg.-Maj. A.M.D.	Jullundur, Punjaub
Kidd, A., Esq., Surg., R.N.	H.M.S. "Dido," North America
Kirker, G., M.D., Surg. R.N.	H.M.S. "Iris," Portsmouth (*N. of E. Br.*)
Knott, T. H., Esq., Staff-Surg. R.N.	H.M.S. "Nelson"
Lambert, J., Esq., Staff-Surg. R.N.	Stoke, Devonport
Lane, W. L., Esq., M.B., A.M.D.	Poonamalles, Madras
Langdon, J. A. Esq., R.N.	H.M.S. "Firefly"
Langley, E. H. R., M.B., Surg.-Maj. ..	
Lever, R. C., M.B., Surg.-Maj. A.M.D. ..	Elm Lodge, Iffley, Oxford
Lewis, T. H., Esq., Surg. R.N. ..	H.M.S. "Cormorant," Australia
Lithgow, S. A., Esq., M.D., Brig.-Surg. A.M.D	
Lofthouse, Richard C., M.D. Brig.-Surg., A.M.D. ..	Bombay
Long, A., Esq., Surg.-Maj. A.M.D.	Gosport
Longmore, T., Surg.-Gen., C.B. ..	Bedford Street, Liverpool
Love, R. L., M.D., Surg. A.M.D.	Woolston, Hants (*S. Br.*)
Love, W. S., Esq., Surg. A.M.D.	c.o. Prin. Med. Officer, Allahabad, Bengal
Lucas, J. C., Esq., M.D., Surg. I.M.D.	Omagh, Tyrone
Lyall, D., M.D., Dep. Insp.-Gen., R.N.	c.o. Messrs. Watson & Co., Apollo St., Bombay
Lyons, R. T., M.D., Surg.-Maj. ..	Priory Parade, Cheltenham
McClement, F., M.D. Staff-Surg. R.N.	251, Rue St. Honoré, Paris
McCormack, M. J., M.B., Surg.-Maj. A.M.D.	H.M.S. "Osprey," Pacific
McCracken, J. A., M.D., Surg. A.M.D. ..	North Finchley (*Met. Br.*)
McCreery, N., Esq., Surg. A.M.D.	Altmore House, Omeath, co. Louth
McFarland, F. E., Esq., Surg.-Maj. R.A.	Fermoy, Cork
Mackenzie, John, M.D., Surg.-Maj. A.M.D.	Antrim Road, Belfast (*N. of E Br.*)
Mackinnon, C., Esq., Surg.-Maj. A.M.D. ..	
MacKinnon, W. A., Esq., C.B., Surg.-Gen. ..	Royal Hospital, Netley (*S. Br.*)
Maclean, A., M.D., Dep. Surg.-Gen., A.M.D.	Malta
Maclean, W. C., M.D., C.B., Insp.-Gen. ..	Halkirk, Caithness
McGrath, E. J., Esq., Surg.-Maj.	Rockstone Terrace, Southampton (*S. Br.*)
McLaughlin, H. J., M.B., Surg. A.M.D. ..	Lower Leeson Street, Dublin
Macnamara, W., M.D., Dep. Surg.-Gen. ..	Madras
Macnamara, W. H., M.D., Surg.-Maj., A.M.D. ..	Claremont, Millbrook, Southampton
McNeece, J. G., Esq., Surg. A.M.D.	Cyprus
MacNeece, T. E., Surg., A.M.D.	Quetta
Macrobin, A. A., M.B., Surg. A.M.D.	Peshawur
McShane, Charles, Esq., Deputy-Inspector-Gen., R.N.	Aldershot
MacSwiney, Eugene V., M.D., Surg. Maj. A.M.D. ..	Plymouth
McTavish, Alex. C., Esq., Surg.-Maj. A.M.D.	Newnham House, Woolwich
Magill, James, M.D., Surgeon A.M.D. ..	c.o. Col. Hunter, Norton Barracks, Worcester
Mair, George, M.D., Staff-Surg. R.N. ..	Coldstream Guards Hospital, Vincent Sq., S.W.
Mally, R. N., Esq., Surg.-Maj. A.M.D. ..	H.M.S. "Brilliant," Inverness
Manifold, M. F., Esq., Dep.-Surg.-Gen. A.M.D.	
Manley, W. G. N., Esq., V.C. Brig.-Maj. A.M.D. ..	Royal Victoria Hospital, Netley
Manser, R., Esq., Surg. Bombay Army ..	Allahabad, Bengal
Mapleton, R.W., M.B., Surg. A.M.D.	Kaira, Gujarab, India
Martin, John, Esq., Surg. A.M.D.	Duntrose Castle, Lochgilphead, N.B.
Martin, W. T., M.D., Surg.-Maj. A.M.D. ..	12, North Mall, Cork
Mason, George, M.D., Deputy Ins-Gen. R.N. ..	East Park, Southampton (*S. Br.*)
Maunsell, C. A., M.D., Surg.-Maj. A.M.D. ..	Bermuda
Maunsell, Thomas, Esq., Surg.-Major, A.M.D.	Halifax, Nova Scotia
Meade, R. W., Esq., Surg.-Maj. A.M.D. ..	Anglesea, Gosport (*S. Br.*)
Meadows, Robert W., Esq., Surg.-Major, A.M.D.	Umballa, Bengal
Melladew, H. F. L., M.D., Surg. R.H.G. ..	Cavalry Barracks, Windsor
Messer, A.B., M.D., Fleet-Surg. R.N.	H.M.S. "Northampton," Halifax, N.S.
Messer, John C., M.D., Fleet-Surg. R.N.	British Naval Hospital, Lisbon
Mitchell, Hamilton, Esq., Brig.-Surg. A.M.D.	Fountain Hill, Londonderry
Moffitt, A., Surg. A.M.D.	Southsea
Moorhead, G. A., Esq., Brig.-Surg. A.M.D. ..	Salthill Road, Galway
Moriarty, Matthew D., M.B., Sur. Bengal Army	Muzerffarnagar
Moriarty, Thomas B., M.D., Surg.-Major A.M.D.	Barracks, Cork
Morrogh, G., M.D., Surg.-Maj. A.M.D. ..	6, Mountjoy Square, Dublin (resigned) (*D. Br.*)
Mortimer, E. T., Esq., Fleet-Surg. R.N.	H.M.S. "Euryalus," East Indies (*S. Br.*)
Morton, Charles, Esq., Fleet-Surg. R.N.	H.M.S. "Iron Duke," China
Mosse, Charles Benjamin, C. B., Dep. Surg.-Gen. A.M.D.	Kingston, Jamaica (*Jamaica Branch*)
Mosse, C. G. D., Esq., Surg. A.M.D.	Cape Coast Castle
Mouat, J., Surg.-Gen. C.B., V.C. ..	108, Palace Gardens, W.
Mould, T. R., M.D., Brig.-Surg. A.M.D. ..	Devizes
Mowll, R.A., M.D., Staff-Surg. R.N.	H.M.S. "Rocket," Vancouvers Island
Mugleston, T. C., Esq., Surg. R.N.	Singapore
Muir, H. Skey, M.D., Surg.-Major A.M.D. ..	Fort William, Calcutta
Mulock, Edward R., Esq., Surg., R.N.	Keyham Dockyard, Devonport
Mulvany, John, M.D., Staff-Surg. R.N. ..	H.M. Dockyard, Portsmouth
Murphy, T. J., M.D., Brig.-Surg. A.M.D. ..	Ceylon
Murray, G. B., Esq., Staff-Surg. R.N. ..	H.M.S. "Merlin" Greenock (*B. Co. Br.*)
Murray, John Ross, M.D., Surg.-Major, A.M.D.	Southsea
Murphy, M. W., Esq., Surg.-Gen. A.M.D. ..	Sunday's Well, Cork
Myers, A. B. R., Esq., Surg. A.M.D.	Coldstream Guards (*Met. Co. Br.*)
Newland, P. F., Esq., Surg.-Maj. A.M.D.	Carrickmines, co. Dublin (dead)
Nicholson, R. H., Esq., Surg. A.M.D. ..	Jamaica (*D. Br.*)
Ninnis, Belgrave, M.D., Fleet-Surg. R.N. ..	c.o. Hallett & Co., St. Martin's Place, S.W.
Nixon, G. M., M.B., Surg. I.M.D.	Jhansi, N.W.P. India
O Brien, T. M., Esq., Surg.-Maj. A.M.D. ..	Exeter (*S. W. Br.*)
O'Callaghan, G. H. K., Esq., A.M.D.	Station Hospital Barracks, Cork
O'Connell, Ed., Esq., Surg.-Maj. A.M.D.	Quarry Road, Hastings
O'Connell, M. D., Esq., Surg.-Maj. A.M.D. ..	Bermuda
O'Connor, D., Esq., Fleet Surg. ..	H.M.S. "Superb," Chatham
O'Farrell, T., J. M.D., Surg.-Maj. A.M.D. ..	Loughrea, co. Galway
O'Flaherty, T. Alex., M.D., Staff-Surg. R.N. ..	c.o. Hallett & Co., St. Martin's Place, S.W.
Ogilvy, J., M.D., Dep-Surg. Gen. A.M.D. ..	1, Cranmore Houses, West End, Aldershot
Oliver, J. R., Surg A.M.D. ..	Station Hospital. Gosport
O'Reilly, J. J., Esq., Surg.-Maj. A.M.D. ..	Bengal
Orton, R. J. W., Esq., Surg.-Maj. A.M.D. ..	Glencorse, N.B.
Orton, T. J., Esq., Surg.-Maj. A.M.D.	Kurrachee [W.
O'Sullivan, D., Esq., Surg. A.M.D	c.o. Messrs. Hemingham & Hollis, Mount St.,
O'Sullivan, T., M.D., Staff-Surg R.N. ..	17, Denny Street, Tralee
Ovens, J.C., Esq., Surg.-Maj. A.M.D.	
Paterson, A. McM., Esq., Surg.-Maj. I.M.D.	Aldershot
Paterson, H. F., M.D., Surg.-Maj A.M.D.	
Pickthorn, T. Russell, Esq., Insp.-Gen. R.N. ..	1, Wetherby Terrace, S.W.
Pollard, W. H., Esq., Surg.-Maj. A.M.D. ..	54, Marina, St. Leonard's-on-Sea
Pollock, C. F., M.B., Surg. A.M.D.	Military Hospital, Piershill, Edinburgh
Poole, George Kenneth, M.D., Surg.-Maj. A.M.D.	[*S. E. Br.*)
Poole Walter C. J., M.B., A.M.D.	Montrose, Anerley Hill, Upper Norwood
Powell, James, Esq., Surg. A.M.D.	45, Rathgar Road, Dublin (*D. Br.*)
Powell, W. L., Esq., Staff-Surg. R.E.	Herbert's Hospital, Shooter's Hill, S.E.
Power, W. M., Esq., Staff-Surg. R.N.	H.M.S. "Assistance," Portsmouth
Poynder, G. F., Esq., Surg. A.M.D.	Portsea
Preston, A. F., M.B., Surg.-Maj. A.M.D.	Southsea
Quill, R. H., M.B., Surg.-Maj. A.M.D.	26, Clarinda Park, W., Dublin (*D. Br.*)
Quinton, W. West, M.B., Surg.-Maj. A.M.D.	Care of Grindlay & Co., Bombay
Rainsford, W. J. R., Esq., Surg. A.M.D.	Meerut, N.W.P. India
Ramsay, T., Esq., Surg.-Maj. A.M.D.	Agra
Randall, J. G., Esq., Surg.-Maj. A.M.D.	3, Arthur Terrace, Belfast
Ratigan, A. H., Esq., Surg.-Maj. A.M.D.	Wellington House, Woolwich Common (dead)
Rankin, W. J., M.D., Staff-Surg. R.N.	Portobello, Dublin
	H.M.S. "Dryad," Aden

Ray, S. Keyworth, Esq., Surg.-Maj. A.M.D.	Station Hospital, Sheerness
Reade, H. T., Esq., V.C., Dep.-Surg. Gen. A.M.D.	Barbadoes
Redmond, W., Esq., Staff. Surg. R.N.	H.M.S. "Repulse," Hull (*E. Y. & N.L. Br.*)
Reid, J. Watt, M.D., Dir.-Gen. Navy Med. Depart.	9, New Street, Spring Gardens
Reid, Walter, M.D., Staff-Surg. ..	Haslar (*S. Br.*)
Renton, David, M.D., Surg.-Maj. A.M.D.	Peitermaritzburg, Natal
Reynolds, J. H., M.B., LL.D., V.C., Surg.-Maj. A.M.D.	7, Spencer Terrace, Kilmainham (*D. Br.*)
Ring, James, M.D., Surg. A.M.D.	Natal
Riordan, Robt. de B., Esq., Surg.-Maj. A.M.D.	Union Club, Malta
Riordan, W. E., Esq., Surg.-Maj. A.M.D.	Ivy Bank Villa, Gravesend
Robbins, H. J., M.B., Surg.-Maj...	Kurram Valley
Roberts, Edmund H., Esq., Surg.-Maj. A.M.D. ..	Royal Military Academy, Woolwich
Robertson, Alex. C., M.D., Surg.-Maj. A.M.D.	Alderney
Robinson, J., Esq., Sur.-Maj., A.M.D.	Hilsea
Robinson, Mark, Esq., Surg., Madras Army	H.M. Dockyard, Portsmouth
Roe, E. A. H., Esq., Surg. A.M.D.	Care of Messrs. King & Co., Bombay
Roe, P. H., Esq., Surg.-Maj. ..	Beulah Hill, Norwood
Rorie, J., Esq., Fleet-Surg. R.N. ..	Royal Victoria Yard, Deptford
Ross, D. R., M.D., Surg. A.M.D.	Bushire
Russell, E. G., M.B., Surgeon, Bengal Service	St. James's Square, S.W.
Russell, G. M., M.B., Surg. A.M.D.	Sealkote, Punjaub
Ruttledge, W. F., Esq., Surg.-Maj. A.M.D.	Manor House, Redbridge, Hants
Ruxton, John, M.B., Surg. A.M.D.	Station Hospital, Wrexham
Sandiford, J. O. G., M.D. Surg. A.M.D.	Dum Dum, Calcutta
Sargent, A. F., Esq., Surg. Madras Army	c.o. Messrs. King, King, & Co., Bombay
Scanlan, H., M.B., Surg. R.N. ..	
Scanlan, James, M.B., Surg.-Maj. A.M.D.	R. A. Barracks, Exeter
Scott, R. R., Esq., Surg.-Maj. A.M.D. ..	Shirley Lodge, Southampton (*S. Br.*)
Shaw, J., Esq., Inspec.-Gen. Hospitals, Madras Army	14, Thicket Road, Anerley, S.E.
Sibthorpe, C., Esq., Surg. Madras Army	36, Upper Leeson Street, Dublin
Siccama, R.R., Esq., Fleet-Surg. R.N.	Stoke, Devonport
Sinclair, E. M., M.D., Brig.-Surg. A.M.D. ..	102, Hereford Road, Bayswater
Sinclair, J., M.D., Dep. Surg.-Gen.	Belfast (*N. of I. Br.*)
Skeen, Wm., M.D., Surg.-Maj. A.M.D.	Pretoria
Skipton, S. S., M.D., Surg.-Maj. A.M.D. ..	Deolali Camp, Bombay
Skues, F. M., M.B., Brig.-Surg. A.M.D. ..	Ferozepore
Slaughter, G. M., Esq., Brig.-Surg.	Herbert Hospital, Shooter's Hill (*S.E. Br.*)
Smart, Sir W. R. E., M.D., K.C.B. Insp.-Gen. R.N.	[*Met. Co. Br.*)
Smith, P. B., M.D. Surg.-Major, A.M.D. ..	21, Castletown Road, London, W. (*S. and
Sparrow, H. R. S., Esq.	Ahmednagar, Bombay
Sparrow, J., Esq., Surg.-Maj. ..	H.M.S. "Boscawen," Portland
	c.o. Messrs. Holloway & Son, 2, Waterloo Place, S.W. (*E. Ang. Br.*)
Spencer, F. H., M.D., Surg. A.M.D.	1, Spencer's Belle Vue, Lansdown, Bath (resigned)
Stafford, P. W., Esq., Surg. A.M.D. ..	Durban, Natal
Stapleton, P. P., Esq., Surg.-Maj., A.M.D.	Station Hospital, Gibraltar
Steele, Wm. H., M.D., Surg. Maj. A.M.D.	Cyprus
Stewart, Wm., M.D., Dep. Surg.-Gen. A.M.D.	Madras
Stoker, R.N., Esq., Surg. Bengal Army ..	Fort Attack, Punjab
Stokes, H. H., M.B., Surg.-A.M.D.	Barbadoes
Sutherland, G. W. J., Esq., Fleet Surg. R.N.	[St., W.
Suttie, L. L., Esq., Surg.-Maj. A.M.D.	c.o. Messrs. Henningham and Hollis, Mount
Sweetnam, R. J., Esq., Staff-Surg. R.N.	Umballa
Sweetnam, S., Esq., Staff-Surg. R.N.	[St., W.
Tarrant, Thomas, Esq., Brig.-Surg. A.M.D. ..	c.o. Messrs. Henningham and Hollis, Mount
Taylor, E., Esq., Sur.-Maj. A.M.D.	H.M.S. "Invincible," Mediterranean
Temple, Wm., M.B., V.C., Surg.-Maj. A.M.D.	Wellington Road, Dublin (resigned)
Thomas, J. R., Esq., Surg.-Maj. Madras Army	3, Belvoir Terrace, Scarboro'
Thompson, J. J., Esq., Brig.-Surg. A.M.D. ..	Moray House, Southsea
Thompson, V. C., M.D., I.M.D. ..	Fishguard
Thomson, James, Esq., Fleet-Surg. R.N.	Up. Port Royal Camp, Jamaica (*Jamaica Br.*)
Thomson, S. J., Esq., Surg. Bengal Army	Madras (*N. of I. Br.*)
	Sheerness
	Hemdon, Oudh

Thorp, R. C., M.D., Surg.-Maj. Bombay Army	Bombay
Tobin, R. F., Esq., Surg.-Maj. A.M.D.	Royal Victoria Hospital, Netley (*S. Br.*)
Tobin, W., Esq., Surg.-Maj. A.M.D.	6, Rue Castiglione, Paris
Tomlinson, E. D., Esq., Surg.-Maj. A.M.D.	Beverley
Townsend, S. C., Esq., Dep. Surg.-Gen. Bengal Army ..	Simla
Triphook, G. R., M.B., Surg.-Maj. A.M.D.	Buttevant
Tucker, T. J., Esq. Surg.-Maj. A.M.D.	The Dene, Hindon, Salisbury
Turnbull, A., M.D., Fleet-Surg. R.N.	H.M.S. "Bacchante"
Turnbull, P. S., M.D., Surg.-Maj. Bombay Army	Poona
Turner, A. F., Esq., Surg.-Maj. A.M.D.	Woolston, Southampton
Turton, F. A., Esq., Surg.-Maj. A.M.D	Muttra, N. W. P., India
Tuthill, Phineas B., M.D. Surg. A.M.D.	Station Hospital, Gibraltar
Tyndall, J., Esq., Surg. R.N. ..	R. N. Hospital, Haulbowline
Vasey, Charles Lyon, Esq., Surg. R.N.	Naval Medical Establishment, Hong Kong
Vasey, J. A., Esq., Surg. R.N. ..	H.M.S. "Forester," West Indies
Vasey, S. W., Esq., Surg., R.N. ..	H.M.S. "Seagull," Aden
Veale, H. R. L., M.D., Surg.-Maj A.M.D.	Netley Abbey, Southampton (*S. Br.*)
Waghorn, Fred., M.D., Surg.-Maj. A.M.D.	Aldershot
Wales, J., Esq., Surg.-Maj. A.M.D.	Station Hospital, Stirling
Walker, John, M.B., Surg.-Maj., A.M.D.	Station Hospital, Gosport
Walker, J. P., M.D., Surg.-Gen.	32, Bedford Square, W.C.
Walsh, Thomas, Esq., Surg.-Maj. A.M.D.	
Walsh, T. P., Esq., Surg., R.N. ..	Kingstown, co. Dublin (*D. Br.*) (dead)
Ward, E. C. R., Esq., Surg. A.M.D.	Natal
Watson, A., M.D., Insp.-Gen. R.N.	Bushmills, co. Antrim
Watts, Joseph, Esq., Surg.-Maj. A.M.D.	Sandgate, Kent
Wearne, Vivian, Esq., Surg.-Maj. A.M.D.	Parkhurst Barracks, I. of W.
Webb, W. M., Esq., Surg.-Gen. A.M.D.	Bitterne, Southampton
Weir, C. J., Esq., Surg.-Maj. A.M.D.	Armagh (*S. of I. Br.*)
Wells, S. S. D., Esq., Dep. Insp.-Gen. R.N.	Royal Naval Hospital, Haslar (*Met. Co. Br.*)
Welsh, J. T., M.D., Surg.-Maj. Bombay Army	Rajkote, Bombay
White, Charles J., Esq., Surg.-Maj. A.M.D.	Kemp Town, Brighton
White J. B., Esq., Surg.-Maj. Bengal Army	Clonmell, co. Tipperary
White, R. D., M.B., Surg. R.N. ..	Forton Barracks, Gosport (*S. Br.*)
White, Samuel G., M.D., Surg.-Maj. A.M.D.	Lucknow
White, W. O'B., Esq., Surg.-Maj. A.M.D.	Tipperary
Whittaker, John H., Esq., Surg.-Maj. A.M.D.	Malta
Williams, H. F., M.D., Dep. Surg.-Gen.	Southsea (*S. Br.*)
Williamson, J. G., Esq., Surg. A.M.D.	Field Force, Candahar
Wills, Caleb S., Esq., C.B., Surg.-Maj. A.M.D. ..	Fort William, Calcutta
Wilson, F.R., M.B., Sur.-Maj. A.M.D.	Perth (*S. Br.*)
Wilson, W. J., M.D., Surg.-Maj. A.M.D.	Quetta
Wodrige, H. F. R., Esq., Surg. A.M.D.	Norfolk House, Southsea
Wood, O. G., M.B., Surg. A.M.D.	Mora, Bengal
Wood, T., M.D., Surg.-Maj. A.M.D.	
Woods, D., Esq., Surg.-Maj. A.M.D.	77, Radcliffe Gardens, W.
Woods, H. C., M.D., Staff-Surg...	Alverstoke (*S. Br.*)
Woodward, G. P. M., M.D., Dep. Surg.-Gen. ..	Clarendon House, Herne Hill
Woolfreyes, John A., M.D., C.B., Surg.-Gen. A.M.D.	Portsmouth
Wright, J. C. Hornsby, M.D., Dep. Surg.-Gen. A.M.D. ..	Folkestone (*S.E. Br.*)
Wright, Thomas, Esq., Surg.-Maj. A.M.D.	Peshawur
Wright, T. W., Esq., Surg.-Maj. A.M.D.	Gravesend, Private Residence

[illegible] —*B. and B.*, Bath and Bristol; *B.Co.*, Border Counties; *D.*, Dublin; *E.*, Edinburgh; [illegible] *E.*, North of England; *N. of I.*, North of Ireland; *S.*, Southern; *S.E.*, South Eastern; *S. of I.*, South of Ireland; *S.W.*, South Western; *S. and N.S.W.*, Sydney and New South Wales.

COLONIAL BRANCHES.

ADELAIDE AND SOUTH AUSTRALIA BRANCH.

RECOGNISED [illegible].

President .. .. [illegible]
Vice-President .. .. W. [illegible], Esq., Adelaide
Honorary Treasurer .. .. [illegible]
Honorary Secretary .. .. W. [illegible], M.D., Adelaide

MEMBERS OF COUNCIL.

Baily, F. W., Esq. .. Norwood, Adelaide
Cleland, W. L., M.D. .. Adelaide
Clendinning, W. T., Esq. .. North Terrace, Adelaide
Corbin, T. W., Esq. .. King William Street, Adelaide
Gosse, W., M.D. .. Kent Town
Hawkins, T. H., Esq. .. Victoria Square, Adelaide (dead)
Nesbitt, W. Peel, M.B. .. Adelaide

MEMBERS OF BRANCH. (41.)

Astles, H. Eustace, Esq. .. Adelaide
Baily, F. W., Esq. .. Norwood, Adelaide
Baker, J. P., Esq. .. Mount Pleasant
Blood, M. H. Smith, Esq. .. Kapunda
Cawley, Thomas, M.D. .. Adelaide
Chown, J. W., M.B. .. Jamestown
Cleland, W. Lennox, M.B. .. Adelaide
Clendinning, W. T., Esq. .. North Terrace, Adelaide
Cockburn, J. A., M.D. .. Jamestown
Corbin, T. W., Esq. .. King William Street, Adelaide
Creelman, J. A., Esq. .. Queen
Esau, H. C. F., Esq. .. Woodside
Flood, J. W., M.B. .. Yorketown
Gardner, W., M.D. .. Adelaide
Gething, R., M.D. .. Port Adelaide
Gosse, W., M.D. .. Kent Town
Gray, C. E., M.B. .. Yongla, S.A.
Hamilton, J. A. G., M.B. .. Kapunda
Hamilton, T. K., M.D. .. Laura, S.A.
Harvey, H. Frederick, Esq. .. Auburn
Hawkins, T. H., Esq. .. Victoria Square, Adelaide (dead)
Hayward, W. T., Esq. .. Riverton
Jackson, James, M.D. .. Mount Gambier
McGowan, Robert, Esq. .. Willunga
McIntyre, A., Esq. .. North Adelaide
Mackintosh, J. S., M.D. .. Glanville, Port Adelaide
Maclachlan, Donald A., Esq. .. Salisbury
Markham, W., M.D. .. Port Augusta, S.A.
Morison, B. Paynter, Esq. .. Glenelg
Nesbitt, W. Peel, M.B. .. Adelaide
Paoli, F., Esq. .. Gladstone
Pendleton, R. W., Esq. .. Port Augusta
Popham, F. W. H. Esq. .. Gawler
Robinson, W. Newman, M.D. .. Kadina
Smith, Otto Wien, M.B. .. Clare
Smith, W. B., Esq. ..
Stewart, Robert Walter, Esq. .. Port Pirie
Toll, J. T., Esq. .. Port Adelaide
Verco, Joseph Cook, M.D. .. Wellington Square, North Adelaide
Walls, A., Esq. .. Saddleworth
Way, E. W., M.B. .. North Terrace, Adelaide
Wilson, J. S., M.D. .. .. Adelaide

MEMBERS UNATTACHED. (8.)

Blue, W. A. S., Esq. .. .. Strathalbyn
Cave, A., Esq. .. .. Brompton, Adelaide
Curtis, H. C., Esq. .. .. Clarendon, Adelaide
Dixon, H., Esq. .. .. Mount Barker
Görger, O., Esq. .. .. North Terrace, Adelaide
Hicks, E. J. W., M.D. .. .. Port Elliot
Robertson, R., Esq. .. .. Adelaide
Shand, H. M., M.D. .. .. Post Office, Adelaide

JAMAICA BRANCH.

RECOGNISED 1877.

President .. .. J. Olivier, Esq., Kingston
President-Elect .. .. Christopher Gayleard, Esq., Kingston
Honorary Secretary .. .. M. Stern, Esq., Kingston

COUNCIL.

Cargill, Jasper, M.D. .. Monaltre, St. Andrews
Clark, J. H., Esq. .. St. Elizabeth
Davies, B. W., M.D. .. Kingston
Phillippo, J. C., M.D. .. Kingston
Ross, D. Palmer, M.D. .. Kingston
Saunders, A. R., M.B. .. Kingston
Tompsett, James, Esq. .. Spanish Town

MEMBERS OF BRANCH. (37.)

Calder, W. J., M.B. .. Stanmore, Malvern (resigned)
Campbell, J. A., Esq., Surg.-Maj. A.M.D. .. .. Jamaica
Cargill, Jasper, M.D. .. Monaltre, St. Andrews
Cheyne, G. E., Esq. .. Kingston
Clare, Hy. L., Esq. .. Public Hospital, Jamaica
Clark, J. H., Esq. .. St. Elizabeth
Clarke, Thomas, M.D. .. Belfield, Annoto Bay
Cooke, E. H., M.B. .. Chester Castle Post Office
Cotter, A. H., Esq. .. Kingston
Davis, B. W., M.D. .. Kingston
De Leon, John, Esq. .. Falmouth
Gayleard, Christopher, Esq .. Kingston
Gibb, R. C., Esq. .. Clarendon
Gerrard, John, Esq. .. Morant Bay
Harvey, Octavius Charles, M.D. .. Savannah-la-Mar
Harvey, Richard Spence, M.D. .. [illegible]
Lawes, [illegible], Esq. .. Public Hospital, Jamaica
McCormack, M. P. Cormac, Esq. [illegible]
[illegible], Esq. .. Kingston
Martyn, G., Esq. .. Moneague Post Office
Maunsell, H. E., M.B. .. Buff Bay
Mosse, Charles Benjamin, Esq., C.B., Deputy Surveyor .. Kingston
Mullen, —, Esq. .. [illegible]
Neyland, J., Esq. .. [illegible], Plantain Garden River, P.O.
Neish, James, Esq. .. [illegible]
O'Connor, W. A., M.D. .. Stony Hill
Ogilvie, James, Esq. .. Kingston
Peck, T. H., Esq. .. [illegible], Jamaica
Phillippo, J. C., M.D. .. Kingston
Pringle, John, M.B. .. Port Maria
Roberts, T. C. L., Esq. .. Moneague, St. Ann
Ross, D. Palmer, M.D. .. Kingston
Saunders, Arthur Rich., M.B. .. Kingston
Saunders, F. H., Esq. .. Kingston
Stern, M., Esq. .. Kingston
Talbot, J. Bindley, Esq. .. [illegible]
Taylor, W., Esq. .. Chapeltown
Thompson, J. J., Esq., Brig.-Surg. A.M.D. .. Jamaica
Tompsett, James, Esq. .. Spanish Town
Vincent, F. M., Esq. .. Annotto Bay
Wilson, John, M.D. .. Montego Bay

MEMBERS UNATTACHED. (10.)

Anderson, Izett, W., M.D. .. Kingston
Duncombe, Honiball O., M.D. .. Plaintain Gardens River
Hillary, J., Esq .. Four Paths Post Office
McMahon, J. J., Esq. .. St. Ann's Bay
Miller, O. D., Esq. .. Brownstown
Nicholson, R. H., Surg. A.M.D. .. Jamaica
Scott James, Esq. .. Kingston

MELBOURNE AND VICTORIA BRANCH.

RECOGNISED 1880.

President .. .. William Henry Coppin, M.D., Melbourne
Vice-President .. .. James Edward Neild, M.D., Melbourne
Honorary Treasurer .. .. George Graham, M.D., Richmond
Honorary Secretary .. .. Louis Henry, M.D., Melbourne

MEMBERS OF BRANCH. (70.)

A'Beckett, W. G., Esq. .. St. Kilda
Adam, G. R. W., M.B. .. 38, Powlett Street East, Melbourne
Alsop, T. O. F., M.B. .. Hawthorn, Melbourne
Balls-Headley, W., M.D. .. Collins Street East, Melbourne
Barker, W., Esq. .. Albert Park, Melbourne
Black, A. G., M.B. .. Hotham, Melbourne
Bone, W., M.D. .. Castlemaine, Victoria
Bradford, Dr. W. A. .. Ballarat, Victoria
Browning, J. H., Esq .. Fitzroy
Burke, S. J., Esq. .. Hotham, Melbourne
Carstairs, J. G., M.B. .. Geelong
Colquhoun, R., Esq. .. Sandhurst
Colquhoun, R., Esq. .. Hospital, Clunes, Victoria
Croker, P. A., M.B. .. Yarra Street, Geelong
Cutts, W. H. M.D .. William Street, Melbourne
Dean, H. D., Esq. .. East Charlton
Dempster, J. J. Colquhoun, M.D. .. St. Kilda
Embling, W. H., Esq. .. Chapel Street East, St. Kilda
Fitzgerald, T. N. Esq. .. Melbourne
Fyffe, B., Esq. .. Fitzroy
Galbraith, J., M.D. .. Invercargill, New Zealand
Gillbee, W. Esq. .. Collins Street, East Melbourne
Grace, J. F., M.D. .. Melbourne
Graham, G., M.D. .. Richmond
Haig, W., Esq. .. Emerald Hill, Melbourne
Haffernan, E. B., Esq. .. Fitzroy
Hardy, C. H., M.D. .. Collins Street East, Melbourne
Harrocks, Dr. .. St. Kilda, Melbourne
Harris, J. L., M.B. .. Melbourne
Harris, —, Esq. .. Muttaburra, Aramac, Queensland
Henry, Louis, M.B. .. 119, Collins Street, Melbourne
Hewlett, T., Esq. .. Fitzroy
Hora, T., Esq. .. Carlton, Melbourne
Hudson, R. F., M.D. .. Ballarat
James, E. M., Esq. .. Collins Street East, Melbourne
Jamieson, J., Esq., M.D. .. Collins Street East, Melbourne
Jordan, F., M.D. .. Smythesdale
Kirkland, J. D., Esq. .. Carlton, Melbourne
Lawton, T., Esq. .. Lancefield
Lefevre, G., M.B. .. Melbourne
Lempriere, C. M'A., Esq. .. South Yarra
Lucas, T. Pennington, Esq. .. Emerald Hill, Melbourne
McCrea, W., M.B. .. Hawthorn, Melbourne
McInerney, J. R., Esq. .. Brunswick Street, Fitzroy
McGillivray, P. H., Esq. .. Sandhurst, Victoria
McMillan, T. L., M.D. .. 15, Collins Street East, Melbourne
Malcolmson, R., Esq. .. Sandridge
Massey, E. H. C., Esq. .. Talbot, Victoria
Morrison, A., Esq. .. East Melbourne
Mueller, Baron F. von .. Melbourne
Neild, J. E., M.D. .. Collins Street East, Melbourne
O'Hara, H. M., Esq. .. Bay Street, Brighton
O'Neill, J., M.D. .. North Fitzroy

Owen, W. H., Esq.	Warrnambool
Pegus, W. T., M.B.	St. Arnaud
Fitzherbert, Hon. T., M.D.	Colonial Treasury, Wellington, N.Z.
Pratt, R. D., M.B.	Ballarat, Victoria
Radcliffe, H. H., Esq.	Ballarat
Rae, W., Esq.	Barclays Mark
Ramsay, J. K., Esq.	Prahram, Victoria
Rankin, W. B., Esq.	St. Kilda
Robertson, R., Esq.	St. Kilda
Rohne, C. W., Esq.	Bright
Rudall, J. T., Esq.	Collins Street East, Melbourne
Ryan, C. S., M.B.	160, Collins St. East, Melbourne
Shields, Andrew, M.D.	Hotham
Skinner, D., M.D.	Alfred Hospital, Melbourne
Smyth, W. S., Esq.	Sandridge, Melbourne
Steel, T. H., M.D.	Horsham
Stewart, C. A., Esq.	Launceston, Tasmania
Stewart, Douglas L., M.B.	Mount Barrow, Tasmania
Talbot, R., M.D.	Brunswick
Tremarne, J., Esq.	Hospital, Geelong
Tuck, John, Esq.	Seymour
Warren, W., Esq.	The Hospital, Geelong
Whitcombe, W. P., Esq.	North Ballarat
Williams, D. J., M.D.	Queenscliffe

MEMBERS UNALLOTTED. (7)

Beaney J. G., M.D.	Melbourne
Courtenay, J. H., Esq.	c/o G. Collins, Esq., 19, Flinders Street, Melbourne
Day, J., Esq.	Geelong
Henderson, Colin, M.D.	Ararat, Victoria
Hutchinson, R. C., M.D.	Warrnambool
Peel, Robert, Esq.	120, Collins Street East, Melbourne
Thomson, W., Esq.	Yarra

SYDNEY AND NEW SOUTH WALES BRANCH.

RECOGNISED 1880.

President	[illegible], M.D., Sydney
Vice-President	ANDREW MOFFITT, ESQ., Sydney
Honorary Treasurer	HORATIO G. A. WRIGHT, ESQ., Sydney
Honorary Secretary	FREDERICK MILFORD, M.D., Elizabeth Stree Sydney

MEMBERS OF BRANCH. (58)

Alessandra, P. C., M.D.	Sydney
Belgrave, T. B., M.D.	Elizabeth Street, Sydney
Bennett, G., M.D.	Woolloomooloo
Boote, Edwin Henry, Esq.	Elizabeth Street, Sydney
Brady, Andrew J., Esq.	Lyon's Terrace, Sydney
Breton, H., Esq.	Wentworth, Murray River, New South Wale
Browne, Thomas, Esq.	Infirmary, Sydney
Chisholm, Edwin, M.D.	Abergeldie, Ashfield
Clune, M. J., Esq.	College Street, Sydney
Cox, James Charles, M.D.	Sydney
Day, H., Esq.	Elizabeth Street, Sydney
De Vine, C. Leslie, M.D.	Sydney
Dixson, Craig, M.B.	2, Clarendon Terrace, Sydney
Dixson, Thomas, M.B.	[illegible] Sydney
Dowe, J. A., M.B.	Gunnedah
Durham, J. Charles Crozier, Esq.	College Street, Sydney
Evans, O. S., Esq.	Darling Street, Balmain
Fiaschi, Thomas, M.D.	Windsor
Fortescue, G., M.B.	Lyon's Terrace, Sydney
Gilhooley, J. C., Esq.	Oxford Street, Sydney
Hallet, Laurence H., Esq.	Wynyard Street, Sydney
Hastie, Thomas, M.B.	Infirmary, Sydney
Hodgson, D. W., Esq.	Regent Street, Sydney
Hogg, Hume, Esq.	[illegible], Sydney
Jodrell, L. C., Esq.	Richmond
Johnson, Charles, M.D.	Paramatta
Kyngdon, F. H., Esq.	St. Leonard's
Laure, Louis, M.D.	Sydney
MacKellar, C. K., M.B.	Liverpool Street, Sydney
Mackenzie, Walter Lindsay	Lyon's Terrace, Sydney
Maclaurin, H. Norman, M.D.	Macquarie Street, Sydney
Manns, George Vincent, M.D.	261, Elizabeth Street, Sydney
Markey, James, Esq.	William Street, Sydney
Marshall, George, M.D.	Lyon's Terrace, Sydney
Milford, Frederick, M.D.	Elizabeth Street, Sydney
Moffitt, Andrew, Esq.	Lyons Terrace, Sydney
Nott Thomas, M.D.	Woollahra
Oakes, Arthur, Esq.	Wynyard
O'Connor, Maurice J., Esq.	80, William Street, Sydney
O'Reilly, W. W. J., M.D.	Liverpool Street, Sydney
Pickburn, T. J., M.D.	[illegible], Sydney
Power, John J., M.B.	[illegible] Street, Sydney
Quaife, T. Hermon, M.D.	Waverley
Renwick, Arthur, M.D.	Elizabeth Street, Sydney
Rowley, Charles Edward	Maitland
Schuetté, Rudolph B., M.D.	10, College Street, Sydney
Stead, James, M.D.	12, College Street, Sydney
Tarrant, Harman J., Esq.	Sydney
Ward, Robert D., Esq.	St. Leonard's, Sydney
Warren, W. Edward, M.D.	Elizabeth Street, Sydney
Wright, Horatio G. A., Esq.	Winyard Street, Sydney

MEMBERS UNALLOTTED. (11)

Alston, J. W., Esq.	Pitt Street, Sydney
Andrews, A., Esq.	Newcastle
Barker, W. J., Esq.	Waverley
Callaghan, Joseph, Esq.	Wagga
Carruthers, C. U., Esq.	Balranald
Casey, P., Esq.	Deniliquin
Cuppaidge, J. Loftus., M.B.	Newcastle
Dawes, R. St. Mark, M.B.	Gawler
Foucart, Dr. L.	23, Macquaree Street, Sydney
Fullerton, G., Esq.	Woollaherd
Gillman, H., Esq.	Wynyard Square, Sydney
Goode, George, M.D.	Camden
Goode, W. H., Esq., R.N.	Camden
Heeley, J. T., Esq.	Young, N.S.W.
Hill, J. H., M.D.	Lampton, Newcastle
Hodgson, Alfred, M.D.	Sydney
Hurst, G., Esq.	Liverpool
Jones, P. S., M.D.	10, College Street, Sydney
King, H. Kirwan, M.B.	Bowman Street
Lowie, Louis, M.D.	Sydney
McDougall, R. M.B.	Marrangburrah
McKillop, R., Esq.	Gudagai
Moffitt, Dr. J.	Sydney
Newton, J. L., Esq.	Mudgee
Norrie, A., M.D.	Blaviathal, Campbe town, Sydney
Read, R., M.D.	Singleton
Rundle, G. E., Esq.	Hillstone, Lachlan River
Ryley, J. Rutherford, M.D.	Post Office, Sydney
Shewen, Alfred, M.D.	College Street, Sydney
Smith, Jas., Esq.	Parramatta
Smith, L. G., Esq.	Grafton
Soull, H., Esq.	Sydney
Scale, George John, Esq.	Liverpool
Souter, J. C., M.D.	Coonabaraban
Traill, M. W., Esq.	Sydney
West, W. A., Esq.	Glebe Street, Sydney
Wigan, G., Esq.	Armidale

FOREIGN AND COLONIAL.

MEMBERS. ([illegible])

Ady, James Charles, Esq.	6, Phayre Street, Rangoon
Aitken, L., M.D.	[illegible] Via Frattina, Rome
Ball, B., M.D.	Paris
Bancroft, J., M.D.	Brisbane, Australia
Batchelor, F. C., Esq.	Dunedin, New Zealand
Bell, James H. M., M.P.	Worcester, Cape Colony
Belvin, J. N., M.D.	51, Rue de [illegible], Paris
Bennett, A. C., M.D.	Grignan, [illegible]
Bennet, Henry, M.D.	Mentone and Weybridge, Surrey
Bessey, W. E., M.D.	Montreal, Canada
Beviss, Charles, M.D.	Pine Town, Durban, Natal
Biden, W. Price, Esq.	Hyeres Var, France
Bishop, Thomas, M.D.	114, Rue de [illegible], Paris
Blanchard, T., Esq.	Linares, Jaen, Andalusia, Spain
Blanche, E., M.D.	15, Rue des Fontes, Auteuil, Paris
Boddaert, Gustave, M.D.	67, Rue-basse-des-Champs, Ghent
Boggs, A., M.D.	362, Rue St. Honoré, Paris
Brandt, G. H., M.D.	Oporto
Bright, George C., M.D.	Villa [illegible], Cannes
Brown-Séquard, C. E., M.D., F.R.S.	15, Rue [illegible], Paris)
Byrd, W. A., M.D.	[illegible] U.S.A.
Caldwell, C. P., M.D.	Cook's County, Illinois, U.S.A.
Caldwell, R.A., Esq.	365, Fifth Avenue, New York
Cameron, C. J., Esq.	Montreal
Cameron, Irving H., M.B.	144, Duke Street, Toronto, Canada
Campbell, C. J., Esq.	Rue Rayale, St. Honoré, Paris
Carey, W., M.B.	Simla, India
Carlyon, T. B., Esq.	British Hospital, Buenos Ayres
Carroll, Alfred L., M.D.	New Brighton, New York
Cazaux, J. M., M.D.	Paris [illegible]
Chauvin, P. S., M.B.	Mauritius
Chute, H. M., Esq.	Port Elizabeth
Clarke, J. H., Esq.	Hyères, [illegible]
Cleghorn, G., Esq.	Blenheim, New Zealand
Cohn, Max, M.D.	15, Rue [illegible], Wiesbaden
Colbourne, Louis, M.B.	Calle [illegible] Buenos Ayres
Connolly, P., Esq.	Wanganui, New Zealand
Cordes, A., M.D.	Geneva
Cormack, Sir John Rose, M.D., F.R.S.E.	4, Rue St. Honoré, Paris
Corporandy, François, M.D.	Nice
Cowie, A. J., M.D.	Halifax, Nova Scotia
Cox, H. T., Esq.	Rue Neuve [illegible], Paris
Croskery, Rev. Hugh	Skeldon, Berbice, British Guiana
Crowley, H. F., M.D.	7, Promenade des Anglais, Nice
Cuppaidge, J. Loftus, M.B.,	Newcastle, New South Wales)
Da Cunha, J. G., Esq.	[illegible] Hotel, London
Dalton, H., M.D.	Demerara
Davies, W., M.D.	[illegible] Square, New York (resigned)
Daubeny, H., M.D.	[illegible] Paris
Davies, Albert, M.D.	[illegible], 79) Cleal
Davison, Frank, Esq.	[illegible], Manchester
De Valcourt, F., M.D.	Cannes
Dey, Baboo Kanny Loll	Calcutta
De Zouche, I., M.D.	Dunedin, New Zealand
Dick, H., M.D.	Carlsruhe, Grand Duchy, Baden, Germany
Didama, H. D., M.D.	Sydney, New South Wales
Dodge, S., M.D.	Hudson, New York
Donaldson, Lewis, M.D.	19, Park Avenue, New York
Duirs, David P., M.B.	Rio [illegible] Argentine Republic
Edmonds, F. H., Esq.	Cannes, [illegible]
Eyde, Stonard, Esq.	Monte Video
Ellis, J., M.D.	Valparaiso, [illegible]
Fenwick, Isaac, M.D.	Frankfort, Main
Fergusson, R. A., Esq.	Valparaiso, [illegible]
Finlayson, A., M.D.	Dunedin, [illegible]
Fisher, F. C., Esq.	Cannes, [illegible]
Field, Simon, M.D.	Halifax, Nova Scotia

Francis, E. G., Esq.	[illegible]
Freeman, A. J., M.D.	San Remo, Italy
Frend, J. A., Esq.	[illegible]
Gaddy, J., M.D.	Lovett, Indiana, U.S.A.
Galgey, O., Esq.	[illegible]
Garland, Albert I., Esq.	Oamaru, New Zealand
Gason, [illegible]	8, Via St. Sebastiano, Rome
Gilman, [illegible]	Lowell, Mass. U.S.A.
Giovannini, [illegible]	S. Arcangelo di Romagna, Italy
Goodall, W. P., Esq.	Dover, Plate
Grabham, M. C., M.D.	Madeira
Grant, Duncan, M.D.	Amoy, China
Grant, [illegible] M.D. Bey	Cairo
Gray, C. W., M.D.	Boston, Mass.
Greathead, [illegible]	Graham's Town, Cape of Good Hope
Grieve, Robert, M.D.	New Amsterdam, Berbice, Guiana
Grimth, R. Grove, Esq.	Durapore [illegible]
Grigor, J., M.D.	Nanni and Piazza di Spagna, Rome (Winter)
Gueneau de Mussy, H., M.D.	Rue du Cirque, Paris
Guenneau de Mussy, N., M.D.	Rue St. Armand, Paris (*Hon. Mem.*)
Hattigan, W. [illegible]	Hong Kong
Hassall, Arthur, M.D.	London and Scarborough (S. *Div.*)
Hay, G. W. R., M.D.	Aden
Henderson, W. H., M.D.	Kingston, Ontario
Hetherington, G. V., M.D.	Starkey's Post Office, Queen's Co., Canada
Hiron, W. N., M.D.	187½, Rivada Via, Buenos Ayres
Hislop, G. B., [illegible]	Graaf Reinet, Cape of Good Hope
Holton, Harry D., M.D.	Brattleborough, U.S.A.
Howard, A. C., M.D.	Boston Mass, U.S.A.
Hubbard, Stephen G., M.D.	Yale College, New Haven, U.S.
Humiston, C. B., M.D.	1096, Pearl Street, Ohio, U.S.A.
Hurford, C. H., M.D.	Demarara, British Guiana
Hutchings, R. H., Esq.	Delmar, Ceylon
Hutson, Charles, M.B.	Barbadoes
Jelly, W., M.D.	17, Calle Hortaleza, Pral, Madrid
Jenkins, J. F., M.D.	Yonkers, New York
Jones, J. R., M.B.	233½, Berkeley Street, Toronto, Canada
Kelly, Dillon, Esq.	179, Chausse de Wavre, Bruxelles
Kemp, William G., Esq.	Wellington, New Zealand
Kenny, W. W., M.B.	Bengal
Kilian, P., M.D.	Aix-la-Chapelle
Kynsey, Wm. R. Esq.	Colombo, Ceylon
Lea, J. A., Esq.	Port Elizabeth, Cape of Good Hope
Leary, E. G., Esq.	West Coast, Demerara
Leary, Samuel, Esq.	Berbice, Brit. Guiana, and Castlederg, Ireland
Lebec, Edouard, M.D.	38, Boulevard de Belle Chasse Paris
Leech, J. R., M.D.	Wimburg, Orange Free State
Leeper, G. R., M.B.	Debrugarb, Assam
Letcher, James H., M.D.	Henderson, Kentucky
Lindsay, A. W. H., M.D	Halifax, Nova Scotia
Loos, James, M.D.	Kandy, Ceylon
Lorans, H., M.B.	Port Louis, Mauritius
Lovegrove, J. F., Esq.	Timaru South, Canterbury, New Zealand
Lovett, H. A., Esq.	Hobart Town
McCalman, R. G., M.D.	Oporto
Macdonald, J. W., Esq.	Antigonish, Nova Scotia
Macdonald, John, Esq.	Dunedin
MacHattie, A. G., M.D.	Antigua
MacKeough, G. T., M.B.	Chatham, Ontario
Mackie, James, M.B.	Alexandria, Egypt
Mackie, W., Esq.	Madagascar
McReddie, G. D., Esq.	Partalgurh, Oudh
Makinson, W., Esq.	Maikonaite, Otago, N.Z. (*L. and C. Br.*)
Malloch, Archibald E., M.D	Hamilton, Ontario, Canada
Martin, Alred H., M.B.	Port of Spain, Trinidad (dead)
Massiah, Clarence H., Esq.	George Town, Demerara
Mathias, J., Esq.	Sutherland, Cape Colony
Maunsell, J., M.D.	Maskelyea, Colombo
Menzies, J. A., M.D.	Cannes, France
Mercer, Alfred, M.D.	Syracuse, New York
Metcalfe, P. H., Esq.	Norfolk Island
Moir, J. M., Esq.	Belize, Honduras
Muller, Franz, M.D.	Graz, Austria
Nachtel, Henri, M.D.	[illegible]
Nash, [illegible]	Fort Nolloth, S. Africa
Nicholls, H., M.D.	Dominica, West Indies
O'Connell, P., M.D.	[illegible]
Oppert, Franz, M.D.	Berlin
Ostler, W., Esq.	[illegible]
O'Sullivan, J., M.D.	[illegible]
Owen, [illegible]	[illegible]
Otis, F. N., M.D.	[illegible]
Pallen, Montrose A., M.B., L.L.D.	New York
Parrish, J., M.D.	New Jersey, U.S.A.
Partridge, T. d'O., Esq.	[illegible]
Patterson, John, M.D.	[illegible]
Pedley, T. F., M.D.	Rangoon
Phillips, A. O. H., Esq.	Warwick, Brisbane
Plaxton, J. W., Esq.	[illegible]
Polson, J., M.D.,	[illegible]
Putsey, Prof. Felix	Leige, Belgium
Quimby, I. N., M.D.	Jersey City, U.S.A.
Reeve, R. A., M.D.	[illegible]
Ryerson, G. S., M.D.	Toronto
Sammut, J. B., M.D.	[illegible]
Sarell, Richard, M.D.	[illegible]
Schliep, Paul, M.D.	Baden Baden
Scott, John H., M.D.	[illegible]
Service, J., M.B.	Tharsis, Huelva, Spain
Shepherd, J., M.D.	[illegible]
Silke, G. B., M.D.	Hope Town, Cape Colony
Sims, H. L., Esq.	San Francisco (resigned)
Sims, J. Marion, M.D.	[illegible]
Sinclair, A. W., Esq.	Kuching, Sarawak, Borneo
Sinclair, C. F., M.D.	Madrelehna, Ceylon
Siordet, Jas. L., M.B.	Mentone, Alpes Maritimes, France
Sircar, M. L., M.D.	[illegible]
Skae, F. W. A., M.D.	Wellington, New Zealand
Snell, G., Esq.	Berbice, British Guiana
Somershield, Oscar F. W., Esq.	Kimberley, South Africa (*Met. Co. Br.*)
Spurway, C., Esq.	Pegli, Reviera di Ponente, Italy
Stabell, F., M.D.	Christiana, Norway
Stanley, Stevens C. H., Esq.	Algiers
Stenhouse, W. M'S., M.D.	Dunedin, Otago, New Zealand
Stewart, J., M.B.	Picton, Nova Scotia
Strang, Christopher, M.B.	Cradock, Cape of Good Hope
Sturge, W. Allen, M.D.	Nice, France
Taberlet, Francis, M.D.	Haute Savoie
Thomson, William, M.D.	Algiers, and Spa, Belgium
Thornhill, Hayman, M.B.	Badulla, Ceylon
Thornicroft, T. C., Esq.	Hiogo Kobé Japan,
Valentine, Rev. C. S.	Jeypore, Rajputana
Van Derveer, Albert, M.D.	New York
Watkins, W., Esq.	Demerara
Wells, Harry, M.D.	San Ysidro, Buenos Ayres
Werdermüller, V. W. T., M.B.	Bethulie, Orange Free State
White, A. O., Esq.	Tangier
White, T. A., Esq.	Veytaux, Vaud, Switzerland
White, T. G., Esq.	Colar Road Station, Mysore, India
Whitely, G. B., M.D.	Cannes
Williams, C. J. B., M.D., F.R.S.	London and Cannes
Wright, John, M.D.	Wynberg, Cape of Good Hope
Wrigley, F. H., Esq.	[illegible]
Young, David, M.D.	Florence, Italy

This List includes several Members of the Association who are Members of Branches, and those names are marked accordingly.

Explanation of Abbreviations of Branches used in the above List.—*Met. Co.*, Metropolitan Counties; ; *N.C. of S.*, Northern Counties of Scotland; *S.E.*, South Eastern; *S. of I.*, South of Ireland; *L. and C.*, Lancashire and Cheshire.

HONORARY MEMBERS OF THE ASSOCIATION.

Airy, George B., LL.D.	Cambridge
Armstrong, Sir William, G.C.B.	Newcastle-upon-Tyne
Bardeleben, A., M.D.	Berlin
Billroth, Theodor, M.D.	Vienna
Brown-Séquard, C. E., M.D., LL.D. F.R.S.	Paris
Carson, the Rev. Joseph, D.D.	Trinity College, Dublin
Carus, Victor, M.D.	Leipsic
Chadwick, Edwin, Esq., C.B.	Richmond
Chapman, Ed., Esq.	Frewen Hall, Oxford
Charcot, M.	Paris
Chase, Rev. D. P., M.A.	St. Mary's Hall, Oxford
Clifton, Robert B., M.A.	Oxford
Cox, Christopher C., M.D.	Baltimore, U.S.
De Pietra Santa, Prosper, M.D.	Paris
Eckhard, C., M.D.	Giessen
Esmarch, Fr., M.D.	Kiel
Frerichs, F. T., M.D.	Berlin
Galton, Capt. Douglas, C.B., R.E.	London
George, T. W., Esq.	Leeds
Gordon, Right Hon. Lord	London
Grant, Sir Alexander, Bart., LL.D.	Edinburgh
Gross, Samuel D., M.D., LL.D.	Philadelphia
Gueneau de Mussy, Noel, M.D.	Paris
Hastings, George W., Esq., M.P.	Barnard's Green, Malvern
Inglis, Right Hon. Lord	Edinburgh
Langenbeck, B., M.D.	Berlin
Larrey, Baron Hippolyte	Paris
Leighton, Rev. F. K., D.D.	Oxford
Liebreich, Oscar, M.D.	Berlin
Liddell, the Very Rev. Henry G., D.D.	Christ Church, Oxford
Ludwig, Carl, M.D.	Leipsic
Marey, M.,	Paris
Mitchell, S. Weir, M.D.	Philadelphia
Neumann, S., M.D.	Berlin
Pasteur, M.	Paris
Playfair, Rt. Hon. Lyon, M.P., F.R.S.	London
Ricord, Philip, M.D.	Paris
Sayre, Lewis A., M.D.	New York
Sewell, Rev. James E., D.D.	New College, Oxford
Stokes, G. G., M.A., F.R.S.	University, Cambridge
Virchow, Rudolph, M.D.	Berlin

BRITISH MEDICAL JOURNAL:

BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION.

EDITED FOR THE ASSOCIATION BY ERNEST HART.

LONDON: SATURDAY, JULY 2, 1881.

CLINICAL LECTURE
ON A
CASE OF LOCOMOTOR ATAXY TREATED BY NERVE-STRETCHING.

Delivered in University College Hospital on May 13th, 1881.

BY H. CHARLTON BASTIAN, M.D., F.R.C.P., F.R.S.,

Physician to the Hospital, and to the National Hospital for the Epileptic and Paralysed.

THE case to which I propose to call your attention to-day, gentlemen, is one of considerable interest. You know that Locomotor Ataxy, dependent as it is upon a sclerosis of the posterior columns of the spinal cord, is a very intractable disease, and that, of late, new attempts have been made to modify its course by a procedure which would not, at first sight, seem likely to commend itself much to pathologists. I certainly had no bias in favour of the process of "nerve-stretching" as a remedial measure for such a disease. Still, results had been reported in Germany, and more recently in France, of so far favourable a nature, as to make it highly desirable that the method should have a wider trial. The patient whose case we shall consider to-day had been previously under my care in this hospital. He had been rapidly becoming worse, and there was reason to believe that the process of sclerosis had been extending (on the left side more especially) so as to implicate the anterior grey matter in the lumbar region. I thought it would be well, in an advanced and apparently hopeless case of this kind, to see whether the course of the disease could be arrested by the new procedure, especially as the patient was himself most anxious (after the nature of the operation had been explained to him) that the trial should be made.

To judge of the effects of this method of treatment in the present case, it was needful to have pretty full details as to the condition of the patient before and for some time after the operation; hence the clinical record must be much more detailed than would otherwise have been necessary. An abstract of the previous notes has been made by my able assistant, Mr. Henry Maudsley, who has also been very zealous in carrying out and recording numerous comparative observations as to the patient's condition subsequent to the two operations which he has undergone.

Charles D., aged 39, was admitted into Ward 7 on March 22nd, 1880, and discharged on June 16th, 1880.

Previous History.—He had been a warehouse porter for the last ten years; was formerly a machine-printer. He was a soldier from 1854 to 1856, but was never abroad. He had lived in London thirty-one years, and had had family troubles which caused him much anxiety (wife intemperate). There was no neurotic history. He had rheumatic fever seventeen or eighteen years ago. There was no history of syphilis; he had gonorrhœa at twenty; no history of previous sexual excesses.

Mode of Onset of Disease.—About three years and a half since (autumn of 1876), he began to lose strength in his legs, could not run so well as formerly, and began to have difficulty in getting up and down stairs; also in walking in the dark, unless touching a wall. These symptoms gradually increased, and within six months he experienced difficulty in voiding his urine, which gradually became worse; so that in eight or nine months he was unable to micturate, except during defæcation. During this time, he was admitted into the Middlesex Hospital, and remained there four months, and it was whilst in the hospital that he lost the power of voiding his urine, and was obliged to pass a catheter three times a day. This he had continued to do ever since. He had also slight dimness of sight. Loss of sexual desire and power came on suddenly, soon after he was unable to void his urine (about two years ago). He had had no emissions since, but occasional erections. There was no history of lightning nor of other paroxysmal pains. There was a history of attacks of diarrhœa and of sickness at distant intervals ever since he began to be ill. He had suffered from a burning pain in the hypogastrium occasionally ever since 1876.

Condition in March 1880.—Cranial Nerves.—There was slight dimness of vision; but, except the second, none of the cranial nerves were affected. The pupils were insensitive, and slightly contracted; the movements of the eyeballs perfect in all directions. *Motor Apparatus.*—The muscles of the upper extremities were firm and well developed. The grasp of the right hand was 71 lbs.; of the left, 64 lbs. *Gait.*—When the patient was supported by a stick, he could walk; but he threw his legs outwards at each step, raised the toes somewhat off the ground, and brought the heel down suddenly. He could not walk without a stick, but this seemed more due to general weakness of limbs than to loss of co-ordinating power. He stood, with slight support, steadily when the eyes were open; but, when they were closed, he began to sway about, and would have fallen, if not supported. The knowledge of the position of the legs and of their passive movements was unaffected. There was slight loss of natural power in bending the right knee and right ankle against pressure, though this was more marked on the left side. All the muscles of the lower extremities reacted normally to the faradic and galvanic currents. Tactile sensibility was unimpaired; there was no analgesia anywhere; hot and cold bodies also were at once and correctly discriminated. *Reflexes.*—The plantar reflex was diminished, especially on the left side. The knee-reflex was absent on both sides. There was no ankle-clonus. He had retention of urine, so as to require the use of the catheter. The control of the sphincter ani was usually perfect, but was diminished if there were any diarrhœa. There was loss of sexual desire and power; he had occasional erections at night; no emissions.

During his stay in hospital, he much improved in his gait; so that he could walk downstairs after a time, merely with aid of a stick. There were no attacks of stabbing pains in the limbs whilst in the hospital; but the severe hypogastric pain was almost constantly present, and sometimes prevented his sleeping. He had several attacks of diarrhœa, and was sick at times. The temperature in the axilla varied between 98.2° and 99.4°. During his stay, he took mistura quiniæ or mistura quiniæ cum ferro; and, for a time, a bromide and chloral draught every night.

The patient continued to improve after leaving the hospital until September. His gait was much better, and he was free from pain.

In September, his gait became worse; he fell at times, and became obliged to use two sticks instead of one. The pains in the hypogastrium and also his appetite became worse; his sleep was much disturbed.

The patient was readmitted on November 4th, 1880. His condition then seems to have been about the same as in March, except that he walked with much more difficulty, and only with aid of support on each side. The left pupil was larger than the right. He remained in the hospital until December 1st, suffering much from dull burning pain in the hypogastrium. He left the hospital this time in about the same condition as when he was admitted, and was sent to Eastbourne, where he began to suffer again from "startings" of the legs. His ability to stand or walk seemed diminished, so that he moved about habitually in a wheel-chair whilst at Eastbourne. His hypogastric pains also remained as bad as ever. During his stay there, he had several attacks of diarrhœa; and on one occasion his temperature rose to 103°, and he shivered, and suffered much for some hours with pains in the abdomen. The day after this attack he seemed to be in his usual condition again.

His condition when admitted on February 2nd, 1881, was as follows.

Cranial Nerves.—The pupils were unequal: the l. was about normal size; the right rather smaller; both reacted to light (though sluggishly) and in accommodation. Vision was fairly good. There was nothing abnormal about other cranial nerves. *Sensory Apparatus.*—The upper limbs were normal. In the lower limbs, there was impairment, not loss, of tactile sensibility around both knee-joints and the inner side of the thighs as high as the middle: no delay, and correct localisation. Tactile and painful sensations, also those of temperature, were elsewhere normally appreciated. He had occasional

"starting feelings", not painful, from the buttock to the heel, causing the legs to kick out. There was constant dull aching pain in the hypogastrium. *Motor Apparatus: Upper Limbs.*—There was slight wasting and flabbiness of the muscles of the left arm and forearm. The grasp of the right hand was 75 lbs.; of the left, 65 lbs. The muscles of the left arm and forearm reacted less readily to the faradic current than did those of the right, though all the muscles reacted to the weakest current of the Ward battery. *Lower Limbs: Right.*—There was slight wasting of the muscles (anterior and posterior) below the knee. There was weakness of the flexors of the hip-joint, so that the patient could not, when lying in bed, raise his extended leg to more than an angle of forty degrees with the bed, and could only retain it in this position about four or five seconds; the weakness of the muscles of the knee and ankle joints was comparatively slight. *Left.*—There was much more wasting and flabbiness of the muscles of the left than of the right lower extremity—in the leg, and also in the thigh; each of these parts being half an inch less in circumference than its fellow at the same level. He was unable to rise into the sitting posture without using his pulley. He had very little power of flexing the hip-joint, and complete inability to raise the limb from the bed. Weakness of the muscles of the knee-joint was much more marked than on the right side. He had scarcely any power of flexing or extending the ankle-joint. The muscles of the left thigh and leg responded rather less readily to the faradic current than those of the right. Occasional involuntary painless "jerkings" of the lower limbs were complained of. *Gait.*—He could not stand without the support of two persons, his legs falling under him; but, with his heels apart, and his toes turned outwards, he could stand with two persons holding him up. When he attempted to walk, thus supported, he took short steps; the left foot often getting in the way of the right; his legs were thrown about helplessly. He was unable to clear the ground with his left toes, and occasionally also with his right. The movements of the legs were slow and jerky. After walking thus for five or six yards, he became exhausted and his legs doubled up under him. When his eyes were closed, he trembled, and showed a tendency to fall. *Reflexes.*—The plantar reflex was normal; the cremasteric, absent; the abdominal, absent; the epigastric, absent. The knee-reflex was absent; there was no ankle-clonus. The patient had retention of urine; he used the catheter himself night and morning. He had usually complete control over the sphincter ani, but he could not retain a very relaxed stool nor an enema. There was loss of sexual desire and power. He had still occasional erections at night, but no desire and no emissions.

February 5th. This afternoon, while the patient was under the influence of ether, Mr. Marshall cut down upon the great sciatic nerve in the middle third of the right thigh, and stretched it with his finger. With the nerve between his thumb and forefinger, he pulled it upwards from below twice, and afterwards from above downwards twice, making the nerve stand out like a tense thick cord in the buttock. The nerve was raised between one and two inches from the level of the skin, and four or five from its bed. The wound was dressed antiseptically. There was scarcely any shock during the operation, the pulse remaining of good quality, and about 100 per minute. The patient was put to bed; and, when he recovered from the ether, he could move his right ankle and toes, there being no motor paralysis of that leg, and no anæsthesia. About two hours after the operation, he complained of being chilly. The temperature was 98.4°; pulse 102, very small and compressible. Hot bottles were applied to his feet, which were very cold, but not one more than the other; and two drachms of brandy ordered every two hours. The patient had one dose; and at 8 P.M., five hours after the operation, was very comfortable, complaining of no pain anywhere in the leg or back.

February 6th. He was restless last night, and slept badly. There was no pain in the leg or thigh, but the constant aching pain in the hypogastrium still continued. There was no paralysis of the muscles supplied by the great sciatic nerve, the power of bending the ankle-joint and toes being the same as before the operation. That he might not disturb the wound in the thigh, he did not attempt to flex the knee. There was no anæsthesia anywhere; the tactile sensibility about the knee being, if anything, slightly improved. Appreciation of painful impressions seemed to be the same as before the operation.

February 7th. He slept badly, but did not complain of pain in the leg. During the early morning, there were involuntary flexions of the hip and knee joints three times. These movements were slower, more extensive, and more painless than the previous "jerkings". The slightest touch of the finger about the right knee was appreciated much better than before the operation. Painful impressions were perceived as before. There was no motor paralysis. He was in good spirits, and said he felt better than before the operation.

February 9th. He had slept well during the last two nights. He considered himself better than before the operation, as the leg felt warmer and more comfortable, and he could more readily appreciate a light touch on it.

February 10th. The tactile sensibility of the right leg was perfect. The right leg was warmer to the touch than the left. Temperature in the right popliteal space 97.8°, in the left 97°, in the morning; in the evening, 98.2° and 97.2° respectively.*

February 12th. *The constant aching pain in the hypogastrium disappeared about this time.* He slept well, was in good spirits, and took his food well.

February 18th. Tactile sensibility about the right knee seemed not quite so good to-day. Temperature was still higher in the right than in the left popliteal space—97.8° and 96.2° respectively. The right limb felt warmer and more comfortable; the left just the same as before the operation.

February 21st. He made his first attempt at walking to day. When supported by two persons, he walked nearly across the ward and back, and in a better manner than before the operation. He moved his right leg more regularly, and seemed to have more power in controlling it. He dragged the toes of the left foot along the ground in attempting to move it forwards, as before. He complained occasionally of the right leg jerking, causing slight pain, which appeared to travel from the buttock to the ankle. The right limb was still warmer than the left—98° and 97.2° respectively.

February 25th. Tactile sensibility of the right leg was now about the same as before the operation, though the right leg continued warmer to the touch than the left, being still 0.8° higher. An attempt at walking to-day was not more successful than it had been before the operation. The wound had been healing very slowly, the track of the drainage-tube being still open.

March 5th. Tactile sensibility about the right knee and thigh seemed to vary from day to day, though it was still generally better than over the corresponding parts of the left knee and thigh. The temperature of the right continued from 0.7° to 0.9° higher than that of the left leg.

March 12th. An aching pain in the lower part of the chest on both sides came on three days ago, and still continued. No signs of pleurisy were found. The patient got up and tried to walk again. His gait was markedly improved; he did not require so much support. He bent his knees and raised the toes from the ground, never dragging them. The movements of the legs were much less jerky and sudden, though he brought his heels rather abruptly to the ground. Tactile sensibility was better over the right than the left knee. The right leg for the last two days had not been so warm as the left, and the temperature was now 0.2° lower on the right than on the left side.

March 15th. The condition of the left leg, on careful examination, was found to be the same as on admission, except that the circumference of the calf seemed to be a quarter of an inch less. The state of the right leg was improved as regarded tactile sensibility and temperature, the latter being now again on the right 97.6°, and on the left 96.8°. *Second Operation.*—The left sciatic nerve was stretched by Mr. Marshall in the same manner as the right had been, under ether, and with antiseptic precautions. There was no shock.

March 16th. He slept badly last night. Between 4 and 5 A.M., there was one involuntary flexion of the hip and knee joints, similar to what had occurred on the right side after the operation. Tactile sensibility about the left knee and leg was markedly improved. The left leg was now warmer to the touch than the right; and the temperature of both was raised, that of the left being 99 6°, and of the right 98°. The power of flexing and extending the ankle-joint was also markedly improved. No attempts were made to move the knee, on account of the operation-wound.

March 21st. Increased power over the ankle continued; also improved sensibility on the left—now equal on the two sides. Temperature—right 98.4°, left 98.8°.

March 28th. He had a slight attack of diarrhœa during the last two days, but was better now. Improved power and tactile sensibility on the left side continued.

April 2nd. He had another attack of diarrhœa yesterday. He had some mental depression, and was rather weak.

April 4th. Though still weak from the effects of the diarrhœa, he attempted to walk to-day for the first time since the second operation. There was extreme weakness of the legs; no ataxic movement. He required much support. There was occasional dragging of the left toes,

* These temperatures were in all cases obtained by placing an ordinary clinical thermometer between the skin of the popliteal space and a pad of cotton-wool, and securing it thus by a few turns of a bandage round the knee. The thermometers were allowed to remain in this manner in contact with the skin for from 60-90 minutes.

but not at all of the right. He had no pains anywhere. His appetite was bad; he slept badly.

April 12th. He made another attempt at walking. His gait was improved again; he was not quite so weak; he did not drag the toes; and there was more control over the movements of the legs. He has had an attack of constant aching pain in both sides of the chest, more or less, for the last three days. There was no pleurisy. Temperature in axilla yesterday at 3 P.M. 101.4°, and at 7 P.M. 103°. An attack of diarrhœa began at 3 A.M. this morning. He had little sleep. The tongue was covered with creamy fur. Pulse 128, small, but regular. The urine was alkaline, and contained a quantity of thick ropy mucus and pus. The urethra was painful and tender, and there was considerable spasm of it on passing the catheter. The catheter was now passed twice a day, and the bladder washed out with a solution of quinine (two grains to the ounce).

April 22nd. Diarrhœa had been present, on and off, since the last note. He had ten stools yesterday; was better this morning, though he was extremely weak. The tongue was coated with thick white fur. Temperature 100.6°; pulse 114; respirations 20. The urine was still alkaline.

April 26th. The patient had been gradually improving. The tongue was clean and moist. Temperature 98.4°. He had no pains in the chest now. The diarrhœa was much less—only two or three loose stools daily. His appetite was improved.

April 30th. He continued to improve. Diarrhœa had ceased. The appetite was better. The urine was now acid, but still contained a quantity of mucus.

May 8th. The patient had been improving gradually since the last note. This morning he tried to walk. He required the support of two people to stand upright. He was exceedingly weak on his legs; but his gait was better than before the operation. He had more control over his legs, and he cleared the ground better with the toes. Tactile sensibility over both lower limbs was perfect; and he could also appreciate the prick of a pin everywhere, and the difference between heat and cold. His power of moving the left ankle was decidedly better than before the operation, and he moved the hip-joint more forcibly. The legs felt much warmer than formerly; and their temperature was generally about 98° to 98.6°, the right being sometimes higher than the left. He still had slight pain in the lower part of his chest; but the old severe pain in the hypogastrium, which disappeared a few days after the first operation, had not been felt since.

As I said in introducing this case to your notice, gentlemen, our patient was advised to submit to the operation of having his right sciatic nerve stretched as a kind of "forlorn hope". Originally, the performance of the operation on the left leg was not contemplated; but, soon after the first operation, the patient himself was so satisfied with the improvement which had been brought about in his condition, that he repeatedly asked for the other leg to be treated in a similar manner. Finally, after prolonged observation of the changes brought about in the right limb by the first operation, I no longer thought that the operation was contraindicated by the condition of the left limb—rather the reverse; and I accordingly asked my colleague Mr. Marshall to be good enough to operate upon the left sciatic nerve as he had done upon the right. His method of pulling the nerve in both directions, and with the fingers rather than with a hard spatula, is worthy of note. It is, of course, most desirable, in such an operation, not to injure the nerve-fibres.

The effects observed in our patient as results of the operation have been these. Within one week from the date of the first operation, he lost the continuous dull burning sensation at the hypogastrium, from which he had been scarcely ever free for several months, and from which he had suffered at intervals since the commencement of his disease. He has continued free from this pain up to the present time—that is, for rather more than three months—though of late he has occasionally felt a less continuous pain on each side of the lower part of the thorax. Marked lancinating pains in the limbs seem never to have been present in this patient, though in other cases which have been reported such torturing pains have similarly been either greatly mitigated or caused to disappear by the operation of nerve-stretching.

He has had several attacks of diarrhœa similar to those to which he had been subject before the operation; and one of these attacks was severe, and associated with some cystitis. In other respects, however, the patient's general health has been somewhat improved. He has been taking his food well and sleeping better since the hypogastric pain disappeared. Still it is worthy of note that the operations have done nothing to mitigate the occasional attacks of diarrhœa.

If we turn now to the condition of the limbs, we shall find that similar changes in their condition were observed after each operation, and that these effects are in part those to which Brown-Séquard has recently called the attention of the profession; viz., an increased temperature and an improved sensibility of the limb.

More marked and slower painless contractions took place from time to time in the limb which had been operated upon, in place of the slighter jerking and somewhat painful movements to which it had previously been subject. These were observed in each case on the morning after the operation, and they were subsequently repeated from time to time.

There was no *motor paralysis* in the course of the sciatic nerve, even on the same or on the day following the operation, in either leg. In the case of the right leg, the patient was able to move his foot the next morning (February 6th) as well as before; and afterwards he seemed to gain some amount of strength in this leg, judging from the improved manner in which he walked on February 21st. In the case of the left leg, on the morning after the operation (March 16th), he was even able to move the foot better than he had done before during the previous five weeks; and a slight increase in power over the movements of this limb has continued to the present time (*i.e.*, for a period of eight weeks and a half), though there seems to have been no further or progressive gain in this direction.

The *sensibility* of the limbs was never very much impaired; but in each case, after the operation, the previous slight defect in tactile sensibility disappeared in the corresponding limb. Three weeks after the first operation, the tactile sensibility of the right limb seemed for a time to undergo slight daily variations; but, as the last note on May 8th shows, this variation was only temporary. The sensibility in each limb seems to have been restored by the operation.

The *temperature* of the *left* limb on the morning after the operation (March 16th) was very distinctly warmer than the right, though for almost five weeks previously it had been observed to be persistently lower. In the right popliteal space it was 98°, and in the left 99.6°. Subsequently, the following variations were noted:—March 17th—right 99°, left 98.6°; March 19th—right 98.2°, left 98°; March 21st—right 98.4°, left 98.8°; March 28th—right 97.6°, left 97.8°. Attention was not particularly directed to the temperature of the *right* leg on the days immediately following the operation. At all events, there is no note till February 9th, when the leg felt warmer, and was described by the patient as feeling much more comfortable than it did before the operation. On the next day, the temperatures in the two popliteal spaces were found to be as follows: morning—right 97.8°, left 97°; evening—right 98.2°, left 97.2°. Other temperatures are recorded thus:—February 14th—right 98.8°, left 97.8°; February 15th—right 97.6°, left 97°; February 18th—right 97.8°, left 96.2°; February 21st—right 98°, left 97.2°; February 25th—right 97.6°, left 96.8°; March 5th—right still higher by 0.7° to 0.9° than left; March 12th—right for last two days 0.2° lower than left leg; but on March 15th (morning of second operation)—right 97.6°, left 96.8°.

In another less advanced case of locomotor ataxy, which has since been treated in the same manner, now in Ward 7, the temperature in the limb operated upon did not rise above that of the other by more than 0.5°, and even this, or a smaller amount of elevation, did not continue for more than two weeks. The improvement in sensibility in this case was also slight and temporary. Here, again, no motor paralysis was produced at first; but there does not seem as yet (five weeks) to be any appreciable improvement in the patient's condition. He walks rather more steadily, but requires a little more support than before the operation. He also complains of a slight fixed pain in the right foot which was not previously felt. It is difficult, of course, to gauge the exact strength of the "pull" to which the sciatic nerve is subjected, but it is thought to have been a little stronger in this case than in the former patient. I mention this because it is probably a matter of considerable importance; it is quite possible that too weak a pull may produce little or no effect; but, on the other hand, too strong a pull may yield either no good results or results which are positively harmful.

The *power of motion*, in our patient, poor as it is, is certainly better than it was before the first operation (just fourteen weeks ago), though I do not think it can be said that there has been any appreciable gain in this respect since the second operation (just eight and a half weeks ago). Still, when lying in bed, his power of moving the left foot and leg is very slightly increased, in comparison with what it was during the five weeks preceding this operation. The wounds, as might have been expected, have been rather slow to heal in these patients.

In the present condition of our knowledge, I do not think it profitable to attempt anything like a physiological explanation of the mode of action of nerve-stretching. One of the results seems clearly to be the induction of some amount of vaso-motor paralysis in the limb operated upon. The improvement in sensibility may be a result of this

change in the vascularity of the limb, or it may be in a measure independent of it. It is worthy of note in this connection that daily variations seemed to take place (about three weeks after the first operation) in the sensibility of the right leg without any corresponding variations in the temperature of the limb.

Although we cannot explain the exact mode in which nerve-stretching acts, we are not in a much better condition as regards many internal remedies which we know to have an undoubted power in modifying processes of disease. We do not on this account hesitate to use quinine or arsenic in ague, or salicylate of soda in rheumatic fever; nor is there any reason why, if nerve-stretching really seems to do good in this or in other chronic diseases of the spinal cord, we should not have recourse to such a procedure. Much of our therapeutics is still empirical rather than rational. What we have to ascertain, therefore, in the first place, is, whether the operation does or does not seem to do good.

Although it is still very doubtful how long the good effects produced by nerve-stretching in locomotor ataxy may last, it seems to me, judging from the results which have been published by others, as well as from my own experience in regard to this case, that its influence over the disease is so decided as to deserve further careful trial. Looking also to the effects which the operation produces upon the limbs, I am disposed to think that it may also prove of considerable service, in conjunction with electrical treatment, in certain cases of chronic spinal paralysis in children or in adults; and I shall take an early opportunity of giving the method a trial in some suitable cases. The increase in the temperature of the limb operated upon may decidedly help to improve the nutrition of its wasted muscles, and thus perhaps render them more amenable to electrical treatment.

CLINICAL LECTURE
ON
CASES OF SPASMODIC DISORDERS IN THE LOWER LIMBS.

Delivered at St. Mary's Hospital.

By C. HANDFIELD JONES, M.B.Cantab., F.R.S.,
Physician to the Hospital.

Gentlemen,—We have lately had a case in the wards which was of interest to me, and I am sure I may say to you, in several respects. Let us occupy our time to-day in taking a retrospect of the story, and in seeing what instruction we may gain from it.

Case I.—The patient, F. C., was a young girl aged 13, the daughter of a carpenter, who was disabled from work by an injury to his leg, and of a mother, whom I judged, and I trow not unjustly, to be fond, foolish, and anxious. She was herself a sleek-faced little damsel, who lay in her bed with great propriety, at any rate after the first few days, attired in a rather showy red dressing-gown, of a modern cut (as far as my imperfect erudition on such points enables me to affirm), and in bright yellow worsted slippers, which I learned were her own workmanship. She crochetted or did some such fancy work. Altogether there was a good deal in her "pose" to warrant the suspicion which more than one of you entertained, that her malady was largely compounded of, or based on, hysteria. This notion was materially supported by the circumstance that, about three months and a half previously, she had been in the hospital for six weeks on account of fits, which were stated to have been of very frequent occurrence, sometimes three or four in a day, but which were conspicuous by their absence during the whole or almost the whole of her stay. The first fit occurred on September 2nd, 1879, when she was struck on the left temple, and immediately fell down in a fit. Two days after this, while racing at a school-treat, she had another. Since then, she had been continually having fits, which came on after any excitement, and were usually ushered in by drowsiness; the patient then sat down, and the fit came on, and lasted from half an hour to five hours. After a fit, she generally complained of headache. On October 30th, she had a fit in the morning, which lasted four hours; on her recovery, she had lost the use of her legs, and had not been able to stand since. She came to us on November 9th, 1880. The notes, taken probably the day after, say that her aspect was healthy, that her manner was natural, and that she behaved well and gave no unnecessary trouble. Her legs were very sensitive to touch, though she could scarcely stir them from the bed, and she was quite unable to stand. When the faradic current was applied, there was no response for about twenty seconds, and then the muscles acted powerfully, and severe pain was felt. On tickling the soles, reflex contractions sometimes occurred, and sometimes did not; one foot was affected at times more than the other. The feet were at times pointed, and extension of them was painful, and strongly resisted by the calf-muscles. This, however, was not quite constant; to-day the right foot could be brought into its natural position. The patellar tendon-reflex was well marked. She complained of pain in the left back and on the left side of the abdomen. On the 12th, when taken out of bed and held up, she could not move her legs at all, or make any attempt to support herself; the feet were turned inwards, the soles raised, the legs in a state of rigid spasm. I could not flex them with any ordinary effort, and any great force applied to them caused much pain. When lying in bed, the rigidity at times seemed to be less, but at others was complete. The remedies indicated were evidently such as might reasonably be expected to calm an excited state of nerve and muscle. To produce relaxation, I might have employed belladonna, chloral, bromides, physostigma, and others; but I selected two, one of which was an old well-approved means, and the other a modern, of which I had lately been making trial in the analogous state of asthma with advantage. I ordered a warm bath to be given every night, and two minims of a one per cent. solution of nitro-glycerine three times daily, with a teaspoonful of cod-liver oil twice daily. On the 15th, she could draw up her right limb fully, and allowed me to move it quite easily; it was in its natural state; the left was just as before, quite rigid in extension, and could not be flexed. I increased the dose of nitro-glycerine to three minims. On the 16th, the pulse was 90, soft. There was no giddiness nor flushing of the face. The right foot was drawn up when the sole was tickled; the left did not move; but she was conscious when the sole or the leg was touched. She was quite unable to stir the left leg voluntarily. There was no blueness or coldness of the left foot; it felt to the hand as warm as the right. On the 18th, a subcutaneous injection of one-sixtieth of a grain of atropine was directed to be made daily, and the other remedies continued. On the 20th, she had regained the use of both legs, could walk the whole length of Victoria Ward (thirty yards), and could just stand on either leg. Reflex action now occurred on tickling the sole of the left foot, or perhaps voluntary; the foot was drawn up, and the leg bent at the knee. She was first able to bend the knee in the warm bath on the night of the 18th. The sequela of the fit, the spasm, having thus yielded, the next indication appeared to be to prevent the recurrence of the primary disorder, for which, of course, bromide suggested itself. I ordered her bromide of ammonium gr. viij; tincture of cinchona ʒss; compound spirit of ammonia ɱv; decoction of cinchona ʒss—three times daily; and to continue her oil. On the 22nd, she was walking about well, and could walk a good way along a single plank of the floor. On the 26th, she complained of a pain in her great toe, and looked, I thought, pale; I therefore ordered ten grains of saccharated carbonate of iron to be taken twice daily; and, on December 2nd, I sent her out. She came to hospital on the 6th to show herself, looking very well; and, at my request, stepped up on an ordinary chair and jumped down again to the floor. I dismissed her apparently quite well, but shall not feel surprised if she returns, sooner or later, with some other neurosis, or a recurrence of the same. June 18th, 1881. This expectation has up to this time not been realised.

Before offering any comments on this case, I will relate some others which appear to be of the same kind.

Case II.—E. B., aged 23, single, was admitted on April 27th, 1878. Her eyes were grey, and her hair rather light. She had been ailing a month, attending as out-patient three weeks. She was taken worse on the 27th; she had a fit, in which she lost consciousness, but did not bite her tongue; her hands were contracted, and her feet, and her body all drawn up. She never had a fit before; she had globus hystericus at the time. There had been no mental worry. The catamenia were regular, too copious the last time. She slept well. Her appetite was not good.—April 30th. The left hand was now all right, but the right hand was somewhat swollen, and was pained by movement at the wrist; the pain extended up to the shoulder. To-day the fingers were extended, but yesterday they were flexed partially, and were more or less rigid. The feet appeared normal, but movement at the ankle-joints caused pain, and was strongly resisted by the muscles; the pain extended up to the calves of the legs. She was ordered bromide of potassium, 10 grains; iodide of potassium, 3 grains; compound spirit of ammonia, 10 minims; water an ounce—three times a day. Diet simple—milk, beef-tea.—May 2nd. She was in much the same state, taking, since the 29th ult., mistura sodæ salicylatis four times daily. She had at first a dose every hour for four doses.—May 6th. Both hands were quite free, but the ankles were not; she

could not stand. April 13th. She was quite in the same state; the face was morose and sullen; she complained of pain in both feet when they were moved; the feet appeared quite normal. Ten grains of assafœtida were given in two pills every two hours.—April 16th. She was sitting up dressed, could walk now, and was much better.—April 20th. She was doing well, walking about. After this, she took bark and ammonia, and went out well on the 27th.

CASE III.—E. Br., aged 14, female, was admitted on January 22nd, 1878. Both parents were subject to attacks of rheumatism. She herself had never had any kind of fever. About a year ago, she first had an attack of rheumatism, after the disappearance of which she remained free until the 19th. On admission, she complained of great pain in the chest, aggravated by breathing. She had now no pains in the limbs or elsewhere. There was good resonance of the chest, and good breathing in both lungs. The heart's sounds were normal. She slept badly. She had a good appetite. Her bowels were regular. She was ordered simple diet (fish, milk, and beef-tea), and two grains of iodide of potassium with ten minims of compound spirit of ammonia in an ounce of decoction of aloes three times a day. —January 25th. She complained of pain in the neck, particularly when she moved her head. She still complained of pain in the chest, also of pains in both her knees. She was ordered an ounce of salicylic acid mixture three times daily.—January 29th. She felt better to-day; had no pain in the neck, but great pain in her knees. She was ordered to have a warm bath each night; she had it last night. —February 4th. She complained of great pain in the neck and shoulders, and of pain in the knees. Her legs were flexed at an acute angle on her thighs, and she could not extend them, or suffer them to be extended, without great suffering; the flexor muscles were tense, and resisted strongly. She had very bad headache. The heart's sounds were normal. The appetite was good; the bowels regular. She was now narcotised by ether, when the resistance of the muscles entirely ceased, and the legs were perfectly mobile at all the joints. They were then put up in straight splints.—February 6th. The splints were removed; she did not complain of pain. The contraction did not return again for some time. She was ordered, on the 7th, twenty grains of saccharated carbonate of iron daily, and half a drachm of ammoniated tincture of valerian in water three times a day.—February 11th. She was up, could just make a shift to stand and hobble with a good deal of support, but was quite unable to stand alone. There was a decided tendency to rigidity of the long flexors. She was ordered a drachm each of tincture of cinchona and ammoniated tincture of valerian in an ounce of infusion of valerian three times a day.—February 18th. She could walk in a hobbling way a few steps; managed to walk down some (a dozen) steps to-day from an upper ward to a lower.—February 21st. She was improving slowly. Three ounces of port wine were ordered.—February 28th. She was walking much better, almost naturally.—April 4th. She had a good colour, and walked well, and was going out.

CASE IV.—F. R., aged 11, was admitted on June 4th, 1878. He had been ill since Christmas last, and had been better, but had relapsed. The left hand and wrist were swollen and tender; the other limbs were free. Temperature 101°. There was no murmur at the mid-sternum; but the second sound was accentuated. Pulse jerky, soft, regular, 115. His face was somewhat flushed. He was thirsty. The tongue was natural; the bowels open. He was ordered half an ounce of mixture of salicylate of soda every two hours.—June 5th. Temperature 97°; pulse 102. He slept well last night, and seemed to be altogether better. The urine was not albuminous.—June 10th. The pain in the joints was all gone. His appetite was good. He slept well. Temperature 97.8°.—June 13th. He was ordered three grains of citrate of quinine and iron in water three times a day.—June 21st. He was to have gone out to-day; but the last three days he had had attacks lasting about five minutes, in which his right leg was affected with spasmodic jerking of the muscles, very evident to the touch, attended with pain. He kept, at these times, the limb extended by pressing on the front part of it with his hand; otherwise it would be drawn up. No other limb was affected. He could touch my index tip with his own steadily. The heart's sounds were normal; the bowels open; the tongue clean. His father said he never had chorea. June 22nd. At 3 P.M., another paroxysmal attack occurred; he fell down on the other knee—could not walk. He said the soles of his feet felt hard and sore.—June 27th. He had another attack of convulsive movement of the leg on the 25th. He had gone down into the garden, and there felt premonitory symptoms, as if a cord were tied tightly round his toes. This lasted till he got up into the ward again, when the attack came on in the usual way. July 1st. There had been no attack since June 25th. He slept well, and went out soon afterwards.

CASE V.—A., female, aged 10, was seen on November 4th, 1871. Her mother was one of a family who had all had nervous symptoms. She had suffered a good deal from neuralgia herself. The patient did not walk until she was three years old. When much younger, she used to be very passionate, but now was very placid and sweet-tempered. She had had measles, it was said, three times; the second time badly. Last November, she and all her sisters had chicken-pox so severely that it was like small-pox; one child was pitted on the abdomen, and was quite delirious. Her mental power was weak; she had learned to read with much difficulty, but could not learn to write. As her memory and mind seemed to improve, her body, her mother said, appeared to become weaker. Four and a half years ago, she had a very bad sore-throat; and, on being taken out of bed in the night, was found unable to stand; both legs seemed to give way. This weakness of legs lasted about three weeks, and then she quite got the use of her legs again. This occurred in 1867. In the following June, it was noticed that she dragged her left leg, especially when tired; this continued until April 17th, 1871, and then she lost the use of it completely. She was suddenly seized with severe pain about the left iliac fossa while in the street, and had to be carried home. Her feet were then very cold. This attack was attributed to an overloaded state of bowels. She regained the use of her leg again the same day; the pain lasted two or three hours, but occurred again now and then less severely. She went to Ramsgate; was very well while there; was able to run about, and made no complaint. When she came back in the early part of July, she was very well indeed, but soon afterwards had a slight attack of feverishness and pain in the abdomen. On August 7th, she was taken with fever; she was so red that it was thought to be scarlatina; but the medical man called it summer-fever. The weather was then very hot. About this time, she complained of her head, and was slightly delirious, but did not complain of her leg until the fever left her; and then she was just as now, only that she complained of more constant pain in her left knee. When seen on June 4th, she was quite unable to walk by herself on her feet, but could get along quite fast on her knees. If a finger were given to her, or her chin held up, she could walk, shuffling her feet along the ground, and with her trunk bowed forward at right angles from the hips on her legs. If her trunk were raised erect, the left leg was drawn up, and the thigh flexed on the pelvis. The joints all seemed mobile; when lying in bed, she moved her limbs freely. An aunt was hypermetropic, and so was she; she wore spectacles by order of an ophthalmic surgeon. At one time she had a squint, which got better, and returned when she had fever. There was some fulness at the inner and upper part of the left thigh, but no psoas abscess; nor did I find any in the abdomen. There was some tenderness of the lumbar spines. I ordered, first, five grains of citrate of iron and quinine with five minims of tincture of nux vomica in water three times a day; cod-liver oil, water dash-baths, and frictions of the back and leg with an ounce of compound camphor liniment and three ounces of soap liniment.—December 7th. The report was that she carried herself a little better, but was rather more excitable, never uniform, either depressed and drooping or shrieking with excitement. The head was apt to ache. She slept very lightly. She came out of the bath delightfully warm; ate meat well. She was ordered succus conii, half a drachm to a drachm three times a day. The liniment was continued; the mixture omitted. In eleven days there was some improvement; she had less headache, stooped less, and was less excited. By February 12th, she was wonderfully better, almost upright, but leaning a little to the left. She ran about the house without any assistance, went up and down stairs, and took her usual walks when the weather was fine. The dose of conium had been increased to a drachm and a half. She was less irritable and excitable. On May 30th, she was reported to be becoming quite stout and strong; she could walk nearly four miles without fatigue. Her appetite was very good; but the cod-oil did not agree during hot weather. When not taking the oil, she became very confined and obstinate, and then she screamed and talked excitedly in her sleep. Her spirits were generally good; but at times she had attacks of excitement, succeeded by crying.—January 11th, 1873. She was upright; could walk and run fairly well. As long as she took the conium, her bowels were open, and she was free from headache; but, when she left it off, constipation and headache ensued. I saw her last in May 1880; she had grown very tall, but was weak in mind and body.

COMMENT.—The above cases [illegible]. They were all certainly functional, not dependent on any gross lesion, probably not on any demonstrable. In Cases II, III, and IV, there were distinct indications of the presence of rheumatism; in the two others, these were wanting. In Case V, there was positive evidence of the [illegible] being undoubtedly hereditary. In Case I, the patient

was affirmed to be very liable to fits; but, as none occurred while she was under my observation, and scarce any during her stay in the hospital on a former occasion, it is not very clear what their character was. Probably they were more hysterical than epileptic, yet not without some affinity to the latter. The occurrence of spasmodic paraplegia as the sequel of a fit is more after the manner of epilepsy than of hysteria, or it may be compared to the occurrence of chorea from a fright. The spasm in all but one—viz., IV—was continuous; in the latter, the attacks were paroxysmal, and of brief duration. The cause of the disorder in the cases with rheumatoid affection was probably the unknown virus or *materies morbi* which usually excites articular inflammation, but may, as is well known, specially affect the brain or some other nerve-centre. In these, then, the derangement was toxic. In Case V, it seems to have resulted simply from the instability of the nervous system, without any special excitant. Just as the weak brain occasionally fell into paroxysms of excitement—loss of control—so it was, but more persistently, with the spinal motor centre of the psoas and iliacus muscles.

The essential morbid state in all these, and in a multitude of similar instances, is *superexcitability*—a condition which, I have often stated, depends, not on excess in the force-generating faculty of the motor cells, but in impairment of the faculty whereby the evolution of force, the liberation of energy, is regulated. It is clear that motor centres must possess these two faculties; otherwise, as long as the cells were supplied with fresh blood, they would go on sending forth impulses, and muscular repose would be impossible. The condition of spasm is, therefore, a mode of paralysis; and the affinity between the two states has long been recognised. In some of these states, both faculties may be impaired, and force continuously evolved, but in small quantity. This occurs in senile and alcohol tremor, and in many cases of chorea. In other conditions, the generation of force may be very active, as well as its liberation; and it may be quite impossible to arrest the movements by any ordinary exertion of strength. When this is the case, the therapy may need to be modified correspondingly.

The remedies likely to avail in such cases as those above narrated seem to depend rather on the severity and persistence of the spasm, and on the state of the general system, than on the nature of the exciting cause. The spasm ceased under the continued administration of iron, quinine, nux vomica, in Case IV; under full doses of assafœtida in Case II; under valerian, cinchona, with iron, in Case III; and under simple non-stimulating sedatives, nitro-glycerine, and conium, in Case I and Case V. The varying *quality* of spasm is not easy to appreciate accurately; but it is very important to do so, for on this the treatment very largely depends. One case of tetanus may require poisonous doses of aconite or tobacco; another will yield to chloral; and a third, perhaps, to alcohol.

I have scarcely touched the question whether the disorder in Case I was hysterical, meaning thereby that it was not purely physical. Probably, it was so to a certain extent, yet not so much as to render physical agents useless. I can hardly doubt that the nitro-glycerine acted beneficially, and I advise you to try it when you meet with similar instances. As it relaxes vaso-motor nerve-organs, it may similarly affect musculo-motor.

WORCESTER.—For the past year, Dr. Strange has to report a lower death-rate (20.0 per 1,000) than has been recorded in Worcester since the "present sanitary conditions" have been in force. Of the total number of deaths (712), diarrhœa was credited with 74, consumption with 69, other diseases of the lungs with 110, and heart-disease with 49. The ratio of infantile deaths was about 170 per 1,000 births. A large proportion of these deaths were of infants who died before attaining the age of even three months. More than a half (112) so died last year. This number is excessive, and to be deplored; but it is some small satisfaction to find that it is now much less than in former years. The work of the removal of nuisances continues with satisfactory speed, and improvements are noted in the water-supply and in house-drainage. The condition of cottage property, however, should still receive the attention of the medical officer. The hospital for infectious diseases received eight patients during the year—all of them cases that could not have been treated at home without danger to the rest of the inmates. The public mortuary and *post mortem* room attached are reported as being also of great use in the same direction. Dr. Strange adds to his report an interesting retrospect of the past seven years, showing a very large amount of good work accomplished by the authority. Six years ago, there were 441 houses containing more than one family in each; this overcrowding has been removed. There were then 108 houses without any supply of town's water; now every house in the city has a proper supply of good water. At least two-thirds of the open privies have been abolished, and an average of about 750 nuisances have been removed every year.

ON THE FUNGOID ORIGIN OF DIPHTHERIA.

By MICHAEL W. TAYLOR, M.D.Edin., Penrith.

THERE is no part of the history of diphtheria more undefined, and on which conclusions are more at variance, than its etiology, and a knowledge of the conditions which favour its origin and dissemination. The object of the following paper is to record the particulars of a small isolated outbreak, and to exemplify the influence of dampness in a dwelling as the exciting cause, and to show a probability that the growth of certain fungi, associated with that dampness, may have had some connection with the disease. I may premise that this communication is not the result of any official public sanitary service, but of clinical observation in practice.

CASE I.—A little girl, E., aged 8½, of slight frame, fair delicate skin, and nervo-sanguineous temperament, had never had any illness except a slight attack of measles in 1879. She had been in the habit of attending a day-school with her two sisters, but they had been at home during the vacation for the last ten days. It could not be said that she had manifested any premonitory symptoms.

On August 1st, she was quite well when she rose in the morning; on the afternoon of that day, she complained of headache, giddiness, lassitude; and at night she was sleepless, and calling out in a delirious manner. I saw her on the morning of August 2nd, and found her feverish and excited, complaining of headache and sore-throat. Pulse 120; temperature 103°, with quick respiration; nothing particular in the chest-sounds. The tonsils, the faucial arches, and the velum palati presented a diffused redness of a deep tint. The tongue was coated white, soft, and moist. A suspicion of commencing scarlatina was excited, but no rash was visible on the skin. At 9 P.M., the pulse was 112, temperature 102°. There were some mental unconsciousness, and somewhat drowsy aspect; increased vascularity of the throat and pharynx, and decided swelling of the right tonsil; and also considerable tumidity and tenderness of the lymphatic glands under the maxilla on the same side of the neck.

August 3rd, at 10 A.M. Pulse 100; temperature 99°. She had had rather a better night, and answered questions sensibly. There was no rash on the skin, but, on examining the throat, it was seen that the portion which yesterday was red, was now covered with a film of semi-transparent whitish membrane, with branching filaments, involving the surface of the right tonsil and uvula, and extending across the velum partially on the left tonsil. Thus exudation was coherent to the surface of the mucous membrane, but it was easily detached. Pain of the throat was not much complained of, but some difficulty was experienced in swallowing. At 10 P.M., there was abatement of the feverish symptoms, but some anxiety depicted on the face.

August 4th, 10 A.M. Pulse 96; temperature 98.5°. White patches had become more opaque and thicker, but might be brushed off in shreds, leaving a red, tender, but smooth, non-ulcerated surface. There were infiltration and swelling of the mucous structure. Both tonsils were now implicated, but the left side least so. The glands above and under the jaw were engorged and painful on both sides. Breathing was noisy and rather snoring, but not of a hissing character. 9 P.M. Pulse 94; temperature 98°. There was no extension of membranous exudation to the larynx, and the chest-sounds were free from *râles*, but the breathing was noisy from the swelling of the throat, and the affection of the arches and velum. The countenance was rather turgid, and the eyes were watery and suffused; there was some degree of torpor and somnolence.

August 5th. Pulse 94; temperature 98.4°. She swallowed rather better, and the breathing was rather less noisy. The whole membrane, which had extended continuously over each tonsil and the pillars of the fauces, was seen to be breaking away, and becoming detached here and there; this process was assisted by brushing. The uvula, which had been clothed with a thin white pellicle, was observed to be nearly clear of this material, leaving the surface rosy red, and the whole organ œdematous and pendulous.

August 7th. Pulse 84. The uvula was still long, and infiltrated with puffy swelling. The white patches had all worn off, except on the left side, where there were two or three specks; the rest was clear of membrane. There was a little pain in swallowing; none at other times.

August 8th. This morning there appeared on the surface of the skin of the left forearm and left thigh, three or four deep purplish crimson stripes, like vibices, four or five inches long and two inches in breadth. The patient was hot and restless all night, with some fever and delirium, and frequent complaints of feeling a lump in the throat. The

pulse was now 96. The throat was not affected with any fresh outbreak beyond the appearance of puffiness, but the gums were somewhat red and swollen. The glands of the neck were still tender.

August 10th. The red stripes had disappeared, though the stain could be discerned under the skin. The general symptoms were much better. Pallor and debility continued for some time. Recovery was very slow. There was no albuminuria nor paralysis.

CASE II.—A sister of the above, C., aged 9¾, with light hair, fair complexion, and thin delicate skin, had had measles, but never any throat-ailment. For two days, in consequence of the illness of her sister, her health had been particularly inquired into, and during that time she had been placed in a different part of the house.

August 3rd, 10 P.M. She had shown no premonitory disturbance until this afternoon. There had been no rigor, but she became affected with headache, lassitude, loss of appetite, and thirst. I found her in bed, with temperature 99°, pulse 112, flushed, breathing rather quickened, but no cough nor dyspnœa. She had a suffused aspect, and drowsiness and headache; no appearance of rash. Her throat was carefully inspected; no pain was complained of, but the velum and pillars of the fauces and uvula were brightly reddened throughout, as if a brush dipped in carmine had been passed over them. The surface so reddened was in a less degree smooth and glistening than the natural mucous membrane, but no film nor white spots had yet appeared.

August 4th, 10 A.M. I found that she had passed a restless, bad night, with some excitement and wandering. Pulse 116; temperature 100°. I found three separate patches of diphtheritic exudation developed on the right tonsil, white, oval in contour, tenacious and adherent; the glands under the maxilla on the same side were enlarged and tender. 9 P.M. Pulse 104; temperature 98.75°. She had pain under the lower jaw; deglutition was rather difficult; the neck was more swollen; there was some extension of one of the white patches towards the uvula.

August 5th, 10 A.M. She passed a much more comfortable night. Pulse 88; temperature 98.4°. The white membrane over the right tonsil was separating; no extension elsewhere. She was able to swallow with less discomfort.

August 6th. The mucous surface, from which the white pellicle had been brushed, appeared reddish and granular, and slightly raised. The arch of the palate, the uvula, and surrounding parts, were œdematous with serum.

August 8th. The throat was clear of membrane, but rather puffy. Pulse 72; temperature natural. She was considered convalescent.

Return of strength came very slowly. She and her sister were sent to the seaside on September 5th. They had no albuminuria nor paralysis.

CASE III.—The youngest sister, M., aged 7½ years, thin, pale, with dark hair and fine delicate skin, had an attack of pneumonia in February last from an exposure; no other illness. This was a milder case than the others; the daily record need not be given. She began a week after her sisters; commencing in the same manner, with slight pyrexia and headache. A thin white filmy exudation covered both tonsils, which cleared away insensibly in two or three days. The peculiarity was the amount of œdema and relaxation of the parts, which continued for a week afterwards. These were the only children in the house; the other inmates numbered four adults, none of whom took the disease.

As is common with many diseases of the zymotic group, diphtheria presents gradations of aspect, from a local affection of comparative mildness to one of withering malignity—from a condition exhibiting here and there on the fauces a transparent exudation of a mere pellucid film, to one with thick and speedily reproduced masses of coriaceous membrane: in constitutional effects, from an initiatory pyrexia of the mildest character, to a blood-poisoning of a most acute, and sometimes persistent and intractable, kind. As in scarlatina, typhoid, small-pox, and other morbid infections, so in diphtheria, may there be two factors which govern or modify the intensity of the symptoms; first, the conditions intrinsic to the individual, such as age, temperament, constitution, and present fitness for receptivity of the virus; second, the conditions extrinsic to the body, amongst which, I conceive, the most potential are the states of concentration, activity, and ripeness of the *materies morbi*. There is no doubt that the cases now related were cases of true diphtheria, as contradistinguished from such affections as muguet and follicular tonsillitis; but they were of the mild type of diphtheria.

This part of the country cannot be denominated a pre-eminently diphtheritic district. On the advent of the disease in an epidemic form twenty years ago, cases of great intensity and fatality were frequent, but of late years the malady has only appeared in a sporadic or endemic form, often showing a remarkable tendency in persistently clinging to certain dwellings and neighbourhoods; and the large majority of the cases of late years have been of the mild type of which I have just given examples. A few cases have been observed in the town during this year, but no deaths.

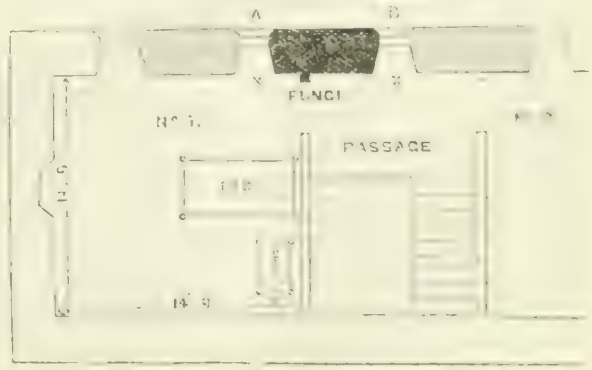
Let us revert now to the circumstances concerning the outbreak in this dwelling. The house is a large old-fashioned town residence, of the date of the beginning of last century; it closely adjoins the ancient, now disused, parish churchyard, from which it is separated by twelve feet only. Its elevation presents two stories, and a basement partially sunk below the surface of the ground. The thick stone walls are composed of rough loose rubble, originally probably rough-cast, but now covered with cement. The sleeping apartments are on the highest floor, or second story. The bedroom occupied by these little girls is an apartment 14 feet 9 inches square, and 9 feet 7 inches high, hence affording a cubic space of 2,067 feet. It faces the north, and is lighted by two windows on this aspect, and it overlooks the churchyard. The sleeping arrangements consist of a large iron bedstead, which accommodates two of the little girls and their aunt, their guardian, and a crib in which the third child sleeps. There is an alternation sometimes as to the individual child who shall occupy the crib; but, for this year or two, such has been the general disposition of the family at night. After Sunday night, August 1st, when the nature of E.'s illness became apparent, the two other children were removed to bedroom No. 2, on the other side of the passage; and the first case was treated in bedroom No. 1, and the other two children, as they were successively taken ill, were moved into the apartment.

Now, up to a certain period, it could not be said that the conditions of this apartment were ever such as might affect its salubrity; it was cleanly, airy, ample in space, well lighted and ventilated. This room had been occupied by these children during most of their childhood, and they had enjoyed a fair share of health; and, except two of them having contracted measles last year, no disease of a zymotic character had ever been in the house during a very considerable period I had known it.

However, this immunity from offending causes of disease was interrupted by an accidental occurrence. The water-spouting of the roof of the house immediately above the window lighting the passage between the two bedrooms of which I have spoken, had got out of order. A great rainfall commenced on Monday, July 12th, and continued throughout the week (which was well remembered as being the week of the Royal Agricultural Show at Carlisle). The outside wall of bedroom No. 1 adjoining the passage became saturated with wet; water dripped fast from the soffit of the window in the passage, and tubs were placed underneath to catch it. The paper on the wall became quite sodden with moisture, and separated from the thick pulpy layer of paste and plaster underneath. On Monday, July 19th, the roof was repaired, and the leaden spouting was found to be much decayed and broken.

On July 22nd, it was first noticed that a peculiar eruption of fungi were sprouting from this wall in the passage, and that there was a cluster of ten or twelve, which had partially opened into the toadstool form; and that others in earlier stages of growth studded the surface of the wall in considerable numbers. These at this time were removed and brushed off the wall; they grew again, and were swept away a second time, during the succeeding ten days.

In casting about for the probable infective sources of this outbreak of diphtheria, an inquiry into the question of dampness in the house or surroundings naturally occurred, and my attention was immediately called to the condition of this wall. I examined it on the morning of August 3rd; the accompanying plan will assist the description.



The portion of wall most invaded by the downpour of water was that lying between the windows A and B, occupying a space 4 ft. 6

9 inches wide, and 9½ feet high; a lath and plaster partition containing the doorway of the bedroom abutted on the external wall. The interspace between these two windows was then thoroughly dripping with moisture. Here the inside aspect of the wall had been covered with Roman cement, over which had been pasted, years before, a marbled paper, varnished on the surface. This paper, and the paste, and the superficial layer of cement, were so saturated with wet, as to be reduced to a creamy pultaceous consistence, forming a semi-liquid pulp, capable of being detached from the wall with great readiness. A sour, fusty, putrescent effluvium was exhaled from the wall, and had been felt for some days.

The surface, both in the bedroom and outside, was covered with a fine filamentous pellucid glaucous mould, which was particularly exuberant in the recess behind the shutter in the bedroom. Besides this lower form of mildew growth, a higher species of fungus was vegetating freely. Spread over the surface of the wall were numerous clusters of buttony excrescences, ranging in size from a split pea up to a thimble; and in some places near the cornice, specimens were seen with the stalk and umbrella-formed pileus in various stages of advancement, maturity, and decay. I may state here, that so inveterably had this fungus obtained possession of this feeding-ground on the plaster, that, notwithstanding several scrubbings, clean scrapings, and washings with carbolic water, and when nothing else was left but the apparently clean-polished coating of cement, yet, for months after, did this fungus crop out from the wall—not from cracks or crevices, but firmly attached to the bare and continuous plaster. In fact, during the months of November and December, cultivation of the fungus was purposely permitted, so as to allow a study of its nature and form, and the determination of its botanical character.

Here, then, at the very first step of the inquiry as to the origin of this invasion of diphtheria, the fact is obtruded upon us, that these children, for twenty days previous to the attack, had been subjected during their sleeping hours to conditions arising from dampness and its results. But, leaving for a moment the consideration of this particular cause, it would be in accordance with the legitimate rules of investigation to extend the inquiry to all possible causes, and then to eliminate such as can be proved to have had no substantive relation with the origin of the disease.

Amongst the sources of danger, polluted water has been described as the occasional birthplace of diphtheritic poison. In my experience, I cannot say that I have ever observed any facts which favour this assertion; nor yet have I ever seen reason to suppose that this virus, like those of typhoid and scarlet fevers, is capable of being disseminated by milk, or by anything taken into the stomach. Here, on this occasion, no suspicion could attach to the milk-supply, nor to the water, which was derived direct from the main at constant pressure, and it consisted of the water of Ullswater Lake, from which the town is served. The soil-pipes, drains, and water-closets on the premises were all in a serviceable state, and nothing had been complained of in reference to these arrangements. No ostensible sources could be discovered, through which infection could have been contracted; it was not a diphtheritic season; there had been no prevalence of the disease in the town for a considerable period; and, above all, it was not a diphtheritic house. No stranger had visited it for residence; the children had not been visiting elsewhere for months. They attended a day-school with half a dozen other little girls, no one of whom had lately suffered from any sickness. All these elements of mischief may be excluded in determining the allotment of the source of evil.

There remains, however, for assessment one condition of surroundings, which is always put prominently forward as bearing a very intimate relationship with the disease, and that is dampness. Speaking generally, from a varied experience of diphtheria in rural places, both in a sporadic and in an epidemic form, and having in my mind particular illustrations of the fact, I know of no circumstance bearing on the production or development of the disease, or associated with it so generally, or assuming a position so salient and potential, as the element of dampness. By this is meant both wetness of the subsoil, dependent on the presence of clay, or the geological formation, and standing stagnant water in the vicinity of the site; as well as dampness in the walls, and within the chambers of the dwelling itself.

Now, this house, though it had a basement sunk considerably below the surface of the adjacent churchyard, yet was not placed at a greater disadvantage in this respect than, nor perhaps as much so as, the other houses (and they were numerous) which abutted on the churchyard close; and, although placed in what might not be regarded as a salubrious site, yet it had always enjoyed a remarkable immunity from disease. In point of fact, it was not a damp house, until the decay and breaking of the eaves-spout, and the rainfall on the second week of July, caused a deluge into the wall, and made it so.

The question of the origin of the disease may thus be regarded as reduced to a finite quantity; and the answer may be stated in the form of such a syllogism as this: If all other known causes have been proved to have been inoperative, and if dampness is the only other known cause, the effect in this particular case was caused by damp.

But, although we are justified in regarding dampness as the predisposing cause, yet in a disease like diphtheria, of a specific nature, we can hardly accept it as the final cause—or, in other words, as the disease itself. Was this seizure amongst the children due simply to the fact of their sleeping-room wall being wet, and to their being exposed to the moist vapour and cold, produced by evaporation therefrom; or may it not rather have been from some development subsequently, in this moist feeding-ground, of some particular form of specific virus, the germs of which were either bred on the surface of the wall, or may have been carried from without by the rainwash on the roof and spouting?

It was on the 13th, 14th, and 15th of July that the heavy rainfall occurred, and when the wall became soaked; yet it was not until seventeen and twenty days later, that the first two cases of diphtheria commenced. Now, the consequences of exposure to dampness and cold, in the manner alluded to, might determine a throat-ailment of a non-specific character, such as an ordinary angina or tonsillitis, which, we would naturally expect, would have supervened in a briefer period after the exposure. But this illness was not a simple cynanche, but diphtheria, which we all believe to be specific in its nature, and dependent on a special *materies morbi*. Then, there is no one fact relating to diphtheria more satisfactorily demonstrated than that the period of incubation, compared to that of other zymotic affections, is of brief duration—four, three, or two days, or under; it does not take fifteen days to develop; and if dampness had been the sole cause, the probability would have been that the affection would have occurred at an earlier date. If, on the contrary, the elements of the disease resided in some of the products of putrescence, it would not be until a week or ten days after the accident happened to the wall that the specific agency, or virus, or disease-producing particles, were properly ripe, or sufficiently numerous, or diffused through the atmosphere, to determine their noxious influence; so that we may suppose that, for about a week preceding August 1st, the air in this apartment contained some occult specific agent, apart from simple moisture, which possessed the power of implanting on the throats of these children a contagion which initiated the pathological process of diphtheria.

So far, our deduction has rested on pretty positive general suppositions; but, in attempting the solution of the only question which remains—*i.e.*, what was the nature of this infective agent?—any advance is in the direction of hypothesis, or of reasoning by analogy.

The results of the investigations of scientific pathologists, during the last fifteen years, all tend to further the broad theory, that "all contagia are probably particulate", and that the infective particles enjoy endowments not known to exist otherwise than in association with life and organisation; and moreover, microscopy and experimental inoculation have incontestably demonstrated the presence of distinct specific vegetative forms in the contagious liquids of at least four contagious diseases. These are small-pox, sheep-pox, splenic fever, and relapsing fever. It has been shewn—first, that the minute organisms discovered infiltrating the tissues and blood in these diseases, which have been described, according to their form and structure, as the micrococcus, bacillus, spirilla, etc., are not congeneric with the animal body in which they are found, but are apparently of the lowest vegetable kind; and secondly, that they constitute the essence, or an inseparable part of the essence, of the contagia of these diseases.

It has been proved, so late as the present year, by Toussaint of Toulouse, that the very infectious disease amongst poultry, called the *cholera des poules*, consists of a minute bacterium, which is capable of cultivation out of the body, in chicken-broth; and it has been long known that the epizöotic parasite which infests the silk-worm, and the house-fly, is a mould with fungal threads and mycelium, which is almost identical with oïdium, or peronospora, so well known in connection with the potato and vine plagues.

Thus we see that the progress of modern research justifies the conclusion, that the vastly multiplied minute organisms and vegetable sporules, inducing and produced by the ordinary processes of fermentation and putrefaction going on in nature, may be absorbed into the blood of animals, or be engrafted on their tissues, so as to assume an intimate relationship with many of the diseases most fatal to human life. Hence there is really nothing startling nor singular in the proposition I enunciate, that the diphtheria in this particular instance had its origin in some of the fungoid sporules which infested this chamber.

In the year 1858, Professor Laycock of Edinburgh put forth the

theory, that diphtheritic exudation depended on "oïdium albicans", or potato fungus;* the same conjecture was supported by Dr. Wilks and others;† long before which—in 1844—Gruby of Paris, and afterwards Ch. Robin, had shown, by the microscope, that in the pseudo-diphtherite, or muguet, and in thrush, the buccal pellicles displayed the tubular filaments and mycelium of a vegetable form analogous to the oïdium. This hypothesis, however, in regard to true diphtheria did not receive acceptation, in consequence of the general failure at that time of sufficient microscopic evidence, in the false membrane itself, of the presence of vegetable growths.‡ The more recent researches, however, of Nassiloff and Oertel in Germany, Leloir in France, Burdon Sanderson, and other workers in scientific pathology, show that pharyngeal diphtheria is a true mycosis, or infiltration of living tissue with micrococci, and that the development of these minute spheroids is intimately associated with the morbid process. It has been found that the pseudo-membrane consists of layers of stratified epithelium, more or less mingled with products of exudation from blood-plasma and some micrococci, but that, in the mucous and submucous tissues, the channels communicating with the lymphatics are filled with granular matter, which is mainly micrococci, or masses of vegetation; so that observation has tended to establish a certain analogy in the morbid processes of diphtheria with those in the respective diseases I have mentioned—splenic fever, or woolsorters' disease, for example, which we know to be produced by vegetable sporules existing outside of the body.

As was well shown by Sir James Paget, in his masterly address at the Cambridge meeting of the Association, some of the obscure processes of human pathology are capable of receiving much elucidation from a comparative study of diseases in plants, and of the action of parasites on the vegetable kingdom. We have described to us, by the practical mycologist, an infinite multitude of distinct structural forms of fungi, each of which has its own habitat, and affects certain sites of decaying vegetable or animal matters, or preys on certain living species or natural orders of plants; each has its own feeding ground. We cannot advance far in this study without being struck with the marked parallelism which exists between the action of the parasitic spore in producing local and general morbid changes in the plant, and the action of a bacillus, or oïdium, affecting animal tissues. The resting spore, let us say, of the peronospora infestans, capable of resisting the hardest winter frosts, and the greatest heats of summer, lies dormant underneath the ground, until the time of germination arrives; its habitat, or feeding-ground, is the potato; at the proper season it meets with a tuber; it attaches itself to the skin by its little lash-like appendage; it germinates there; it starts out its rootlets into the parenchyma of the tuber—this is its mycelium; it branches and penetrates in all directions; it poisons the tissues; the plant looks sickly; the stalk withers, and the leaves blacken; it has fulfilled its end, the reproduction of its kind. So, when the leaves of phanerogamous plants are attacked, the zöospores of the fungus gain entrance by the stomata, throw out their mycelium through the cellular tissue of the leaf; the thread-like filaments burrow underneath in search of food; whilst the epidermis is raised like a blister, and perishes and exfoliates, just as does the epithelial false membrane from a diphtheritic throat. No theory in regard to the essential cause of diphtheria explains so well many known facts in its history as that of its fungoid origin. For example, the persistence of vitality in the so-called resting-spores of fungi lying dormant in drains, or amid heaps of putrescible matter, for an indefinite time after an outbreak, affords a ready explanation why the disease so often inveterably clings to certain dwellings and localities.

I must now close my argument, which I have pr[illegible] with an enforced compression, which the exigency of space in the pages of this valuable JOURNAL necessitates, and will refer briefly to the botanical characters of these fungi.

For the determination of their species, I am indebted to the kind offices of Dr. Buchanan White, editor of the *Scottish Naturalist*, and to the genial aid of the Rev. M. J. Berkeley, the highest living authority on cryptogams. Mr. Berkeley tells me, concerning the pileate fungus, "I have no doubt it is a state of Coprinus domesticus, the base being unusually thickened for the necessity for spreading, for firm attachment on the plaster. C. radians grows in similar positions, and the mycelium spreads over the wall. It is curious, when I was at Lille in 1838, at which time influenza was very fatal, it was supposed to arise from the spores of some Coprinus". Coprinus is a genus of the natural order of Agaricina, and contains about twenty-eight species. On reference to Fries's *Hymenomycetes Europæi*, I find the habitat given as—"In pagis, plateis urbium locisque similibus"; while in Cook's *Handbook* it is said to grow "on damp carpets, etc.". In neither case is there any reference to the fungus in question growing on plaster; but as plaster is not an unfavourite locality for some other fungi, there is nothing remarkable in that. In regard to the mould which was associated with the Coprinus, it was either a form of Aspergillus, or, as Mr. Berkeley suggests, it may have been what Sowerby calls a Fibrillaria.

I have thus endeavoured to fix, from a positive observation, a certain kind of relation in the origin of this outbreak of diphtheria with the development of these two species of fungi; I will not at present attempt to discuss whether of these generated the spores which constituted the throat irritant. It is very possible that in our search for the essential cause of diphtheria, it will be found to depend, not on one structural form or species exclusively, but probably on a multiplicity of analogous vegetable sporules, more or less baneful to animal life; for fungologists have found that there is an alternation of development—a discontinuity of form amongst these minute organisms of the natural family of Mucedines—a variableness of generic character, induced by differences of food and habitat, although they may really be identical in origin. Thus the genus oïdium is regarded as the elementary state of a higher fungus; the torula, or yeast-plant, can be got both from the aspergillus and penicillium; the empusina or microphyton Schönleinü to which so many house-flies fall victims, alters its whole character when immersed in water, and forms the achlya, the confervoid tufts which infest the gold-fish; and further, the achlya itself is but another form of Botrytis bassiana—the "muscardine", which consumes the intestines of silkworms.

I have every confidence that the growth of fungi, in coincidence with diphtheria, will be corroborated—what is once observed is bound to occur again; and I hope to receive confirmatory evidence from others of this observation.

ABSTRACT OF TWO THOUSAND FIVE HUNDRED CONSECUTIVE CASES IN MIDWIFERY PRACTICE.*

BY D. M. WILLIAMS, M.R.C.S.ENG., L.K.Q.C.P.I.

AMONG the 2,500 cases there were: premature confinements among primiparæ, 11 cases; among pluriparæ, 10; in all, 21 (excluding cases of placenta prævia). Of these, one mother died of phthisis the day after her confinement, which was but an incident in her illness. Of the 2,479 to be further accounted for, there were—

Primiparæ whose cases terminated in 12 hours or less ...	271
Primiparæ whose cases terminated in over 12 and within 24 hours	317
Primiparæ whose cases were longer than 24 hours ...	83
	671
Pluriparæ whose cases terminated in 12 hours or less ...	1,461
Pluriparæ whose cases terminated in over 12 and within 24 hours	315
Pluriparæ whose cases were longer than 24 hours ...	32
	1,808

Twin cases occurred in primiparæ, 9 times; in pluriparæ, 17 times; in all, 26 times. The forceps was used in primiparæ 125 times; in pluriparæ, 92; in all, 217 times, or nearly 9 per cent. Of craniotomy, there was one case only, in a primipara. Breech or footling presentations occurred in 22 primiparæ, and in 31 pluriparæ. There were one face-presentation and three (?) shoulder-presentations. Of complicated labours, there were 10; viz., head and funis 5; foot and funis 3; breech, hand, and funis 1; shoulder and funis 1. These occurred in 3 primi[illegible] and 7 in pluriparæ. Dangerous hæmorrhage occurred in 5 primi[illegible], and in 31 pluriparæ; in all, 50. Convulsions occurred in primiparæ five times; in pluriparæ twice; in all, seven times. There were two cases of monsters, two of hare-lip, two of spina bifida, and two of [illegible] vasa. Among the primiparæ, there were 25 [illegible] labours:

In labours of 12 hours or less	8
In labours of 24 hours or less	8
In labours of over 24 hours	9

* Read before the Liverpool Medical Institution.

* *Lancet*, [illegible] Lancashire Branch, Dec. [illegible]

† *Medical Times and Gazette*, [illegible] Ophthalmic Hospital, [illegible] with a Lecture. Vogel's Pathology.

‡ Since I have been engaged with this paper, I have received a communication, forwarded by the Rev. John E. Vize, M.A., F.R.M.S., Vice-President of the Royal Microscopical Society, that this able fungologist has strongly maintained the opinion that diphtheria is an oïdium.

Amongst the pluriparæ, there were 48 dead children:

In labours of 12 hours or less	31
In labours of 24 hours or less (but over 12) ...	14
In labours of over 24 hours	3

Nineteen of the deaths were from causes unconnected with the labour. There were 3 cases of septicæmia, of which 2 died; two of scarlet fever, of which one died; one of typhoid fever, and one of phlegmasia dolens, both recovered; 7 of eclampsia, of which 6 recovered, and one (primipara) died; one fatal case of secondary hæmorrhage on the seventh day (this had been a case of placenta prævia, with severe flooding); one case of phthisis (fatal); and one of heart-disease, fatal on the tenth day. The final result to the children (excluding the premature) was: Dead, 73; living, 2,432; and to the mothers (including all): dead, 7; living, 2,493; or (excluding the two deaths from phthisis and heart-disease) one mother died in each 500 of the labours, and about 3 per cent. of the children died. The longest labour (99½ hours) was in a primipara; the shortest (20 minutes) in a pluripara. The ages of the primiparæ ranged from 14 to 47. The five elders were aged respectively as follows:

Age.	Child.	Method of Delivery.	Result.
39 ...	Male ...	Forceps	Mother and child living.
41 ...	do.	do.	do. ..... do.
42	Female .	do.	do. . do.
45	Male ...	Naturally	do. do.
47	do. ..	Forceps	do. ..... do.

There was nothing unusual about the youngest, except a very slow recovery.

At our recent interesting discussion on Puerperal Mortality, there seemed to exist an unwillingness, on the part of some of the members, to bring forward the histories of their own midwifery practices, preferring rather to let their opinions rest on the statistics of others; and as there exists amongst us considerable difference of opinion, especially in the treatment of *post partum* hæmorrhage, it is well, I think, to place the result of practice before the members, in order that others may judge the value of those opinions. In the abstract which I have just read is given a condensed history of 2,500 cases, all being my own engagements, and attended by myself throughout (consultation cases being omitted).

It is impossible to-night to deal with all the points of interest in this group; I will therefore explain matters of lesser importance, and leave the forceps cases, cases of hæmorrhage and of eclampsia, to be dealt with in separate papers. I confine the term "premature" in my first group to those cases where the seventh month was completed, but delivery took place before full term, without any assignable cause. It will be noticed that the infant mortality is greatest in pluriparæ delivered in 12 hours or less; the reason is, that upon being summoned to a patient's aid, I did not leave until I was perfectly satisfied of the presentation, and had formed some idea of the duration of labour; if in a pluripara I fail to make out the presentation by the ordinary digital examination, I introduced the hand, and prepared to turn, and generally found it needful to complete the delivery; in such cases, I have occasionally turned and delivered, although I found the head presenting, if the patient had a narrow brim, and had been delivered before by forceps. I sought, as far as prudent, to let the patient do her own work, but never allowed her to continue without aid when a few hours of fruitless labour indicated that this was needful.

The forceps I consider the greatest boon, and always use it with comfort and safety. I have never injured the mother with it; and in those cases where the child has perished, I think many would have performed craniotomy. My love for the forceps may account for the fact that I have had but one case of craniotomy. I have for over twenty years introduced the forceps into the uterus. The first case in which this was done was a primipara, aged 22, in labour seventeen hours. The os was not bigger than a crown-piece, but dilatable; the brim narrow. In consultation with the late Dr. Arnold, he consented to the forceps being tried before performing craniotomy. Having applied it, I kept the forefinger of the right hand in the os to watch it, and made careful traction with the left, and succeeded in delivering the woman of a living male child. The mother made a good recovery. I have done so many times since, in common, doubtless, with most practitioners. Chloroform I used in the first stage only to overcome rigidity; in the second stage, I often pushed it to complete unconsciousness, and think it helps to save the perinæum; but I must admit that the latter has been sometimes torn, in spite of every effort to save it. The following case of torn perinæum is interesting. The patient was in labour of her second child; the first had been a forceps-delivery in Wales, and she had been badly torn. I found a fibrous band occupying the place of the perinæum, which resisted two hours of severe labour with the head pressing on it. I applied the forceps, and simply kept the head as far as the pain had brought it, until the next pain came, when it instantly snapped, and the rent went right through the sphincter; yet she eventually completely recovered, the means used being the following: She was kept upon her sides, the knees together, the parts being kept clean. She was made to empty the bladder on her elbows and knees; the bowels were kept locked with opium, being only occasionally relieved with enemata. I have twice since attended her.

I do not at all sympathise with the recent expressions of contempt for, and distrust in, ergot, but hold it to be a valuable aid when rightly used; and to Dr. Ewing Whittle is due the credit of pointing out that those cases where the pains are weak, and intervals long, are sure to end in *post partum* hæmorrhage if ergot be not given. In such cases, the early rupture of the membranes is also a valuable aid.

When a student, I never saw the binder used before delivery; but it is a most excellent help, supporting the back, and increasing the power of the pains. The placenta I always remove quickly, usually by pressure, but, if needs be, by the introduction of the hand. On one occasion, the patient, a fat healthy woman aged 42, expelled the whole contents of the uterus unbroken, a few minutes after I arrived in the room. I was startled for a moment at the unusual sight, but quickly tore the membranes; the child cried lustily, and the woman did well.

When the labour is over, I invariably make my patients comfortable, removing everything wet, even to the chemise and night-dress, if required, applying the binder myself next the skin. In doing this, I bring my hand sideways into the abdomen, so that I can embrace the fundus, then fill the furrow thus made with napkins, not putting them upon the uterus, with reference to the horizontal position, but above, with reference to the vertical position; then a firm binder tightly applied and well pinned makes me feel tolerably secure from *post partum* hæmorrhage; and I have felt safe in leaving my patient quickly—an important matter, when I have frequently attended three labours in a night, occasionally five, and once seven.

That the rate of mortality should be much below what is usually given in our published works is explained by the fact that my practice lies chiefly amongst the comfortable middle classes; and I have reason to believe that my success is not exceptional.

It is a great mistake to suppose that puerperal mortality is the result of civilisation, as can be easily ascertained if we read the history of the Sandwich Islands (where the living child is buried with its dead mother), or Livingstone's travels; and our esteemed friend Dr. Adam could soon dispose of such a notion from his experience on the West Coast of Africa. We may be sure the truth is quite the other way, and increased knowledge in this, like every other branch of medicine, means increased safety to those who commit themselves to our care; but wherever the human race is to be found, there the woman's lot is to bring forth children in sorrow and suffering, frequently in danger, and occasionally ending in her death.

THE LOCAL TREATMENT OF PHTHISIS BY CARBOLIC ACID.

By ROBERT HAMILTON, F.R.C.S.,
Senior Surgeon Royal Southern Hospital, Liverpool.

A PAPER which Dr. W. Williams lately read before the North Wales Branch of the British Medical Association, draws attention to a mode of treatment of phthisis which, I believe, will prove extremely valuable, and, I am sanguine enough to think, will be more successful than any other in many allied diseases of the lungs.

The inhalation of carbolic acid vapour, in the continuous mode suggested by my colleague, meets a difficulty which, I have always felt, has stood in the way of all previous methods of conveying drugs to the lungs. He utilises the carbolic gauze of Lister, and merely saturates it occasionally with an aqueous solution of the acid.

The old forms of inhalers, as well as the modern spray-producers, necessitate a quantity of aqueous vapour being introduced into the bronchial tubes and into the air-cells, much in excess of what is ever naturally taken in. There is a positive evil in this, such vapour condensing, and being then deposited on the delicate epithelial lining of air-tubes and cells, interferes with the osmic movements which respiration induces. That respiration is practically impeded is shown by the coughing and the suffocating sensation produced, so that a very few minutes' use, at one time, of inhalers and vaporisers is all that is possible. The suspension put to natural processes is apt to be overlooked in our eagerness to get the drug brought into actual contact with

diseased lung-tissue; and the evil produced by the water is far more than commensurate with the good that the drug can do.

The mode of conveyance of the minute particles of carbolic acid by Dr. Williams's respirator is not open to the above objection; and as the drug itself has been tested in surgical practice, and found to be of invaluable service in the treatment of all suppurating surfaces which are accessible, it is fair to infer that, if it can be applied *per se* to the lungs, it may be equally efficacious in checking the growth and development of morbific germs in them, and thus allow tissue to be reconstructed.

I have treated several cases of phthisis in the way suggested by Dr. Williams, with good results. The almost constant wearing of the respirator whilst under treatment may be an obstacle to the rapid adoption of the method; but it is, as he says, astonishing how soon the patients become accustomed to the wearing of them. They are only one degree more unsightly than the respirators which many people wear out of doors without hesitation. Further improvement in their shape and appearance is sure to follow, if their value be established.

I have desired to draw attention to this mode of treatment of phthisis, because it is following in the lines of thought in which surgical procedure has run for some time, with marked success. It approves itself to the views of those who uphold the germ theory of disease; and as an undoubted germicide, and nothing more when used in moderation, it carries out another great desideratum—non-interference with natural processes of nutrition and repair of material.

BROMIDES IN RELATION TO TRAVELLING.

By E. J. TILT, M.D.,

Past President of the Obstetrical Society of London.

Now that summer has come, and that many are planning their annual holiday to far distant lands, it is well to draw attention to the value of bromide of potassium as a help to travelling.

The best plans are sometimes completely upset by nervous and delicate ladies being knocked up by travelling all day—still more by night travelling; and their hardy companions may have to storm or fume for days in some out-of-the-way inn. I have enabled such women to travel long distances, with comfort to themselves and to the rest of the party, by telling them to take 25 grains of bromide of potassium, dissolved in a wineglassful of cold water, on going to bed, after travelling all day. A good night has enabled most of them to continue their journey the next day, and on the following day, by taking the same dose of the bromide on each successive night.

In summer, on the Continent, night-trains are the quickest and the coolest; and I have often enabled very weak and nervous women to travel all night without damage to health, by giving them 25 or 30 grains of bromide on starting, and the same dose on going to bed the following day, as soon after reaching their destination as possible. The first dose generally brings on the usual bromide sleep; or, at all events, it calms the system, and abates the irksome weariness of body and soul that follows long travelling in a cramped position. I have permitted patients to take the bromide in this way for two or three successive days, at a week's interval, during a two months' tour, warning them against taking large doses, and against taking the drug day after day during the whole course of travelling without further medical advice. This use of bromides I commend to the attention of the country practitioners who send us patients. If they come to us fatigued by a long journey, exhausted by a bad night, and by not having been able to breakfast, there is an aggravation of some of the symptoms of the case, which may mar the accuracy of our prognosis. If the complaint be slight, and the journey of moderate length, from 25 to 30 grains of bromide, taken on going to bed, will probably give sleep, and insure a quiet state of the system on the following morning. Should the case be serious, and the journey long, the same dose should be given at starting, and also on arriving. No doubt the journey to town will sometimes seriously aggravate the state of those who come up for advice; and I know nothing better calculated to prevent this than giving the bromide in the way I have described. Liquid medicines are objectionable in carpet-bags; but it is easy to have the roughly powdered bromide made up into powders of 25 grains, and one or two dozen of these powders can be stowed away, with a box of aperient pills, three or four ounces of bicarbonate of soda, a small pot of vaseline, and a roll of papier Fayard, to supplement the loss of epidermis from the feet, or any other part of the body.

In what precedes, I have had women in view; but the use of one or other of the bromides in travelling applies equally to men; and I think these remedies will be found valuable additions to the therapeutics of travelling.

CLINICAL MEMORANDA.

NERVE-STRETCHING IN LOCOMOTOR ATAXY.

As continental surgeons are now advocating this operation, and as notices of several successful cases have appeared in the JOURNAL, the following case may be of interest.

G. L., aged 39, married, pattern-designer and sign-painter, had for about twelve years suffered from acute transient pains darting suddenly through different parts of the body. These came on at intervals, without warning, and most frequently in the right leg, which showed the scars of an old necrosis of the tibia. There was a history of syphilis contracted at the age of twenty, and he confessed to having practised masturbation before marriage. About three years ago, he noticed that he was very unsteady on his legs, and that his walk was peculiar, and this slowly increased, until he was unable to do more than walk across the floor. There was no personal or family history of chorea, fits, or any mental disturbance, and his habits had been regular and temperate.

He presented the characteristic ataxic gait and inability to walk without assistance in the dark, or to stand with his feet together and his eyes closed. There was an absence of the feeling as if walking on felt, velvet, or wool. In sitting down, as soon as the knees became semiflexed, he dropped down quite suddenly. In the recumbent posture, he could not tell the position of his legs; said he felt as though they were not resting on the bed at all; and had great difficulty in changing his position. Tickling the soles of the feet did not produce any reflex action. Cutaneous sensibility of the legs was much impaired, but there were no anæsthetic patches. His muscular power was good, and he was able to resist attempts to forcibly flex or extend the legs. There was entire absence of the patellar tendon-reflex (Westphal's symptom). There was slight ataxy in the arms, as he had some difficulty in dressing himself—the buttons troubled him; and his writing, formerly very good, was now very poor and shaky. The muscular sense or sense of weight was unimpaired. There was no incontinence of urine, but micturition was sudden. There was no insomnia. Sexual power and desire were weak. He had frequent attacks of the typical lightning-pains in the extremities, and complained of a dull aching pain in the back, along with a girdle-feeling of constriction round the loins. At no time were there any of the *crises gastriques* of Charcot; and there was entire absence of any changes in the bones or joints. There was no ataxia of the eyeballs, no double vision, nor colour-blindness. The right eyelid was affected with ptosis, and there was diminished vision, which was found upon examination to be due to white atrophy of the optic disc. He exhibited the Argyll-Robertson pupils, which contracted during accommodation, but not to light.

The patient being willing to submit to anything which afforded him the prospect of relief, I determined to try nerve-stretching, selecting the right sciatic, because the symptoms were most marked on that side.

April 24th. Esmarch's bandage was applied to the upper part of the thigh. Dr. Smith, of Ashton, who assisted me, having anæsthetised the back part of the thigh at its middle third, a longitudinal incision, four inches long, was made down to the biceps, which was drawn aside. The great sciatic nerve was found at the inner aspect of the muscle; its sheath was opened, and the body of the nerve was then hooked on to the finger and pulled vertically upwards with some force, the whole weight of the limb being suspended by the nerve. This being repeated three times; the nerve was then replaced, a drainage-tube inserted, the wound stitched and dressed with carbolised oil. The patient did not seem to feel the operation very much, even the sutures causing very little pain. The wound did not unite by first intention, but there were no bad symptoms from it.

It is now five weeks since the operation, and the result thus far is a very great improvement in one symptom: the lightning-pains, which formerly were frequent and distressing, have now to a considerable extent disappeared. They are not nearly so acute, and they come on at much longer intervals than before. The improvement has been most marked during the past ten days; and, as it still continues, I am in hopes that the pains will ultimately disappear entirely. But, while he is more comfortable in this respect, I am sorry to be unable to report any improvement in the ataxic symptoms, which remain unchanged. His staggering ataxic gait and inability to stand with his eyes closed remain as before. There is, however, a slight improvement in the anæsthesia, and he can now tell the position of his legs.

REMARKS.—1. The case confirms the statement of Dr. Gowers (BRITISH MEDICAL JOURNAL, 1880, vol. ii, p. 623), that "75 per cent. of the cases were of syphilitic origin", and of Dr. Dowse (*ibid.*, p. 925), that every case of locomotor ataxy, with very few exceptions, could be traced to syphilis as a cause. 2. It presented the three characteristic

eye-symptoms, as noted by Dr. Hughlings Jackson—viz., paralysis of the parts supplied by the oculo-motor nerve, dilatation of the pupils, and white atrophy of the optic disc. 3. The absence of [illegible] and joint-alterations are a negative confirmation of Dr. Buzzard's theory regarding the connection between these symptoms (British Medical Journal, 1880, vol. i, pp. 244, 256-7; vol. ii, pp. 384, 743; 1881, vol. i, p. 330). 4. The operation, although somewhat disappointing in its result, as compared with those cases previously reported, was not so fruitless as in the case reported by Mr. Berridge, April 2nd. The marked improvement in the lightning-pains and the diminution of the anæsthesia are not to be despised, and I should not hesitate to recommend the operation in another case of locomotor ataxy.

J. Johnston, M.D., L.S.A.Lond., Bolton.

OBSTETRIC MEMORANDA.

CONVULSIONS: INCISION OF OS UTERI: RECOVERY.

A. B., a slightly made woman, married, aged 33, a primipara, in her eighth month of pregnancy, was taken with severe pain in the stomach on May 20th. She had for the week previous suffered from slight bloody discharge; this had ceased for two days. On examation, I could detect no dilation of the uterus; the pain was not intermittent. I administered ten drops of tincture of opium with ten of sp. ammon. arom.; and, as the pain was just the same in an hour, I repeated the dose, and applied a flannel wrung out of hot water to the stomach, the seat of the pain. This gave considerable relief, ad in half an hour more she said the pain was quite gone from the stomach, but she had considerable pains in her head; her pulse then was 120. I applied cold to the head, and counterirritation to the back of the neck, and a mustard bath to the feet; and she shortly said she could sleep. I left in about an hour, the patient being then asleep. I was, however, quickly sent for again; the patient then had had two severe convulsions, and was in the third when I got to her house. I used the usual means in such cases, and in a couple of hours she again dosed. I was obliged to leave her. On my return, I found she had had five more convulsions. I immediately gave her chloroform. I carefully examined the abdomen with the stethoscope, but was unable to detect the fœtal circulation. I then thought no more time must be lost, but the fœtus removed at once. I therefore passed a female catheter through the os uteri and ruptured the membranes. I gradually dilated the os by means of Barnes's dilators, my partner, Mr. W. A. Renshaw, giving the chloroform for me. When I had used the largest dilator, I was unable to overcome a strong cartilaginous-like band inside the os; my partner suggested that pressure downwards might do so. The case being a breech, I had considerable difficulty in passing the second blade of the forceps both through the os and past the shoulder; but in time I managed to get Barnes's long forceps well on to the head, and locked, but still the strong band would not give way. I therefore passed a lancet along my finger and made twelve incisions through the band, and then placed the blunt hook over the right fœtal thigh. The os uteri immediately gave way, and the child was born. The patient was under chloroform for six hours, and made a complete and speedy recovery.

This case, I think, is another to add to the list of recoveries from convulsions, and to the treatment in such cases by chloroform, and as rapid delivery as possible, in preference to bleeding and expectancy.

Charles J. Renshaw, M.D., Beech Hurst, Ashton Mersey.

Presentation.—Mr. Conolly Norman, who has been for several years assistant medical officer to the Monaghan District Asylum, has been presented, on the occasion of his departure for England, by the officers and servants, with a purse of sovereigns and a very handsome gold hunting-watch, designed expressly for the purpose. The staff of the asylum being assembled, the house-steward made the presentation, in the name of the officers, attendants, and nurses, at the same time expressing the regret universally felt at the departure of so amiable and popular an officer. Archdeacon Stack, one of the governors of the asylum; Mr. Young, visiting physician; and Dr. Robertson, the resident medical superintendent, also spoke, expressing in warm terms their appreciation of Mr. Norman's labours.

The Warren Triennial Prize.—The Warren Prize Committee offers a premium of four hundred dollars, for the best dissertation worthy of a prize, upon the following subject.—"Chronic Bright's Disease (parenchymatous and interstitial nephritis): the nature and mutual relations of the derangements in the circulatory and secretory organs". Dissertations should be forwarded to the resident physician, Massachusetts General Hospital, Boston, on or before February 1st, 1883.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

CHARING CROSS HOSPITAL.

A CASE OF POISONING BY BITTER ALMONDS. BY J. B. BAKER, L.R.C.P., M.R.C.S., RESIDENT MEDICAL OFFICER.

The patient, a man aged 38, was said to have fallen down in a fit immediately before he was brought to this hospital, at 9.30 P.M., on June 1st, 1881. When seen, he was quite insensible and collapsed; breathing gasping and laboured; he was cyanotic; and the pulse was hardly perceptible, rapid and flickering. There was some dark mucus about his mouth; his jaw was fixed, his teeth firmly closed, and the pupils contracted, and perfectly insensible to touch or light. The extremities were cold. The heart's apex-beat was weak and rapid; the abdomen was somewhat distended, and he had passed his fæces unconsciously; some mucous *râles* were heard over both chests. The stomach-pump was at once used, and about a pint of thick brown fluid, containing a quantity of small white particles smelling strongly of hydrocyanic acid, was removed. His stomach was then washed out with warm water. After this, the patient became more collapsed, and his radial pulse almost ceased. The battery was used for ten minutes—one pole over the apex of the heart, the other on his neck, over the course of the pneumogastric nerve. Respiration now improved a little, and the patient was put to bed, with hot fomentations on his chest and abdomen, and hot water to his feet. At 10 P.M., liquor ammoniæ fortior was given as an inhalation every ten minutes, and the current from twenty-five cells of Leclanché's battery applied as before—contact being made and broken with the inspirations. Under this treatment, his breathing became deeper and more regular; the pulse was 120 to 140. At midnight, the patient remained in about the same state. The battery, and inhalations of liquor ammoniæ, were continued alternately, every half-hour, until 2 A.M. The pulse was 130, and stronger. At 2 A.M., turpentine stupes were applied over the chest, and an injection of one twenty-fourth of a grain of sulphate of atropia was given hypodermically; after this, he perspired freely, and he had a slight convulsion; his breathing improved, and his jaws slightly relaxed. From 2 to 5 A.M., he had several slight convulsions; his breathing gradually became easier; his pupils more sensitive; and, at 3 A.M., he was able to swallow, although still very cyanotic and insensible. At 5 A.M., he opened his eyes; his pulse was stronger, regular, and 140; the breathing was easy, and 30 per minute; the mucous *râles* had ceased, and he was given half an ounce of brandy in beef-tea every hour; he was now undressed and cleaned. At 10 A.M., the patient had slept for two hours, and was then conscious, but was rather dull, and still very cyanotic; the respirations easy, and 20 per minute; the pulse was 120; he was perspiring freely; the brandy was continued every hour, with beef-tea or milk, until 6 P.M., when the patient was sleeping quietly; the breathing was 18, the pulse 80, and of good quality.

June 3rd. The patient passed a good night, ate a good breakfast, and was discharged at his own request, weak but well.

The patient's own account was, that he had eaten nothing during the day, but that in the evening he had had two handfuls of bitter almonds and a pint of beer; he returned to his work, and felt quite well until he fell down; after which he remembered nothing more. Throughout the night of admission, his pulse varied from 120 to 140; his respirations were very rapid, and his breath smelt strongly of prussic acid. The contents of his stomach were tested at once on being removed, and gave reactions for hydrocyanic acid.

For these notes Mr. Baker is partly indebted to Mr. Lyster, assistant medical officer.

Remarks.—Very few cases of poisoning by bitter almonds are on record. Dr. Taylor mentions two only, neither of which were fatal; but in his cases the symptoms were by no means so severe as in this, where it seems probable that a fatal result was only averted by the promptitude and vigour of the treatment resorted to by Mr. Baker. The symptoms are no doubt due to prussic acid, which was found in the matter withdrawn by the stomach-pump in this case. The acid is produced by the mutual action of two of the constituents of the almond, emulsine and amygdaline, in the presence of water at a certain temperature. A point of some medico-legal interest is, that there was a considerable interval of consciousness between the ingestion of the almonds and the first development of the symptoms, which was, as seems to be the rule with prussic acid poisoning, quite sudden.

MANCHESTER ROYAL INFIRMARY.

TWO CASES IN WHICH CYSTIC TUMOURS WERE REMOVED FROM THE ANTERIOR TRIANGLE OF THE NECK: RECOVERY IN BOTH CASES.

(Under the care of Mr. WALTER WHITEHEAD.)

WE are indebted for the notes of the following cases to Mr. HENRY PAYNE, Assistant House-Physician.

CASE I.—Nancy P., aged 55, was admitted an out-patient in the summer of 1877, suffering from a tumour on the right side of her neck, which, she stated, had commenced during her convalescence from acute rheumatism in 1871. The tumour had gradually increased to the size of a closed hand, causing great difficulty in breathing, affecting her voice, and causing pain in swallowing. The tumour was tapped, and over six ounces of pus and blood drawn off. In four days, it had refilled; it was then freely opened, and the cavity plugged with lint. For two years and a half she remained at home, replugging the wound daily. A profuse discharge continued, without the cavity being materially altered, or her general health much affected. In January 1880, she was admitted an in-patient, with the view of having the cyst-wall removed. On January 30th, under chloroform, the walls of the sac, which were found to be covered with a dense papillary growth, were carefully dissected out, and all but separated, when the internal jugular vein, which was adherent to the tumour, was wounded. A ligature was applied above and below, and the wound closed with catgut sutures. A carbolised sponge was placed over the wound, and retained with a gauze bandage. The ligatures on the vein were used for drainage purposes. On the second day, there was a slight hæmorrhage, requiring a graduated compress for its control. After this, the case progressed satisfactorily, and she was discharged cured on the nineteenth day after the operation. Dr. Dreschfeld examined the tumour, and expressed his opinion that it was a cystic sarcoma.

Post Scriptum.—The patient was alive and in good health on April 3rd, 1881.

CASE II.—Susannah R., aged 20, single, a weaver, was admitted on May 30th, 1880, with a congenital cystic tumour of the neck. The tumour had been repeatedly tapped, and a clear serous fluid withdrawn. Twelve months prior to admission, the tumour commenced to enlarge very rapidly; and, when she presented herself at the hospital, had attained the dimensions of a medium-sized cocoa-nut. The growth was situated over the left sterno-mastoid muscle, and extended from the angle of the jaw to the clavicle, and from the middle line of the neck in front to the lobe of the left ear behind. On May 29th, the tumour was removed under chloroform. An incision was made from below the ear, in the direction of the sterno-mastoid, down to the sterno-clavicular articulation; and the superficial structures were divided until the cyst was exposed. The tumour was gradually raised, and the common carotid artery with its divisions exposed, together with the internal jugular vein, which was adherent to the cyst. The vein was carefully freed from the tumour, and the whole of the cyst, with the exception of a small portion dipping behind the sterno-mastoid, removed. A horsehair drain was left in the wound, and the edges brought together with catgut sutures. The operation and after-treatment were conducted antiseptically, and the patient was discharged cured on the twentieth day after the operation.

These two cases were shown at the meeting in Manchester of the Lancashire and Cheshire Branch of the British Medical Association.

THE HEALTH OF NEW YORK.—Dr. Nagle, the deputy-registrar of records for New York, has published a very elaborate statistical digest of the deaths occurring in that city during 1879. From his tables it appears that the actual number of deaths occurring in that year, was 28,342—14,807 males and 13,535 females—of whom 442 were coloured. This shows an average of 77.65 daily, against 73.99, the daily average of 1878, and represents an annual death-rate of 24.19 per 1000 persons living, the population being estimated at 1,171,740. A most exhaustive comparative table of vital statistics of American and foreign cities, for the years under report accompanies the figures relating to the city.

MONTREAL GENERAL HOSPITAL.—Dr. James Bell, who retired a year ago from the house-surgeoncy of this hospital, has been appointed, under the new by-laws of the institution, its medical superintendent, at a salary of 1500 dollars the first year, increasing to 2000 dollars. Dr. John Reddy has resigned his position of attending physician to the hospital after twenty-five years' service. Dr. W. A. Molson has been elected to the indoor staff of the hospital, in place of Dr. Reddy; and Dr. W. Gardner has succeeded Dr. Molson on the out-door staff.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JUNE 14TH, 1881.

TIMOTHY HOLMES, F.R.C.S., Vice-President, in the Chair.

A CASE OF URTICARIA TUBEROSA WITH UNUSUAL SYMPTOMS. BY W. MORRANT BAKER, F.R.C.S.

THE case related was that of a man thirty-three years old, who had suffered from a peculiar disease of the skin for about two years, and for nearly a year had been under the care of the author at St. Bartholomew's Hospital, both in the out-patient department for diseases of the skin and as an in-patient. The general symptoms from which the patient suffered were those of factitious urticaria, to which were added those of so-called urticaria tuberosa. The most peculiar feature of the case, however, and one which, in the author's experience, was unique, was the presence of persistant yellowish-red tubercles in various parts of the body, which proceeded to ulceration; the parts most affected being the knuckles, elbows, and ears. These tubercles were said to have begun in a manner similar to that which characterised the onset of the evanescent urticaria wheals and tubercles. The patient's general health was good, and he had not suffered from syphilis or other serious malady. Under the influence of treatment as an in-patient, the disease became rapidly better, but soon relapsed when the patient left the hospital. The author considered briefly the doubtful relationship of the disease to others less rare, which in some respects resembled it; and came to the conclusion that the case was one of so-called urticaria tuberosa; and that the persistency of some of the tubercles, and their ulceration, might be due in part to the unfavourable circumstances in which the patient was placed on account of the loss of his occupation.

Dr. CAVAFY suggested that the permanent ulcerating lesions might be due to chilblains, for these lesions existed mainly on the knuckles, elbows, and ears, the seats for chilblains, which they resembled in many respects.—Mr. MORRANT BAKER, in reply, said that the tubercles in question were at their worst in July, and had, moreover, existed for two years. This was against the view that they were of the nature of chilblains.

TREATMENT OF SIMPLE FRACTURES AND DISLOCATIONS OF THE BONES OF THE LEG AND FOOT BY THE IMMEDIATE APPLICATION OF PLASTER-OF-PARIS SPLINTS (LATERAL). BY JOHN CROFT, F.R.C.S.

The author said that opportunity was taken by this paper and demonstration, first, to reaffirm that it was not only safe, but beneficial, to apply plaster-of-Paris splints (lateral) immediately, for simple fractures of the bones of the leg and foot; second, to demonstrate the particular method of applying these splints, and how quickly and easily they might be put on; and thirdly, to elicit observations on the practice at the various hospitals with regard to the immediate treatment of fractures of the leg and foot. The author's experience, of six years' duration, was decidedly in favour of covering the injured or swollen part immediately. Only the most severe cases of contusion and subcutaneous laceration were excepted. The special advantages claimed for these splints, as made and used for the author at St. Thomas's Hospital, were: uniform pressure; complete fixation of the broken bones and injured muscles; perfect adaptation to the limb and maintenance of extension; diminution of risks of pressure, sores, pains, or excoriations; diminution of risks of delayed union; facilities for quick removal and reapplication; comfort to the patient; freedom of movement allowed to the patient; simplicity and cheapness; economy of time and trouble. The author desired to popularise the use of these splints, because he had found them, during six years' constant experience, of great benefit to patients, attendants, and surgeons. From statistics supplied by Mr. Battle, the present Registrar at St. Thomas's Hospital, it appeared that, during the years 1875 to 1880 inclusive, a total of 717 fractures of the leg were treated at that hospital; and of this total 498 cases were treated by the immediate application of plaster-of-Paris apparatus, and 98 cases by splints first and plaster-of-Paris later; 118 by splints only; and 12 by other methods. During 1875, out of 97 cases of fracture, 10 were treated by plaster-of-Paris apparatus. In 1880, out of 131 cases, 125 were treated by the immediate application of the plaster splints. In the intervening period, the numbers had rapidly increased from 10 to 51, to 84, 93, 125, and 125. *Post partum*, the treatment by splints only had continued in favour: in 1875, 63 were treated by splints, but in 1879 and 1880 only 2 and 7 respectively. All the cases might have been treated by Mr. Croft's particular method. In his own wards, his particular

plan had been persistently pursued. No disasters or evil consequences had been reported, though during the six years he had been assisted by as many as twenty-six house-surgeons and forty dressers. He thought the average stay of patients in the hospital had been shortened by this plan, but he could not state positively that the cure had been materially hastened by it. By his direction, the Registrar at St. Thomas's had obtained from his fellow-registrars at nine other hospitals some general statements with reference to the immediate treatment of fractures. From these it appeared that University College Hospital was the only one besides St. Thomas's at which the immediate treatment by plaster-of-Paris apparatus was *systematically* employed. The St. Thomas's Hospital statistics and the registrars' statements were arranged in separate tabular forms. Its adaptability to fractures of the femur, patella, pelvis, and spine was touched upon. After the meeting, a demonstration was given of the particular mode of applying the splints. This was done by Messrs. Ballance and Butler, House-Surgeons of St. Thomas's Hospital.

Sir JOSEPH FAYRER had seen the Army Hospital Corps at work at Aldershot, and had been struck with the rapid and efficacious manner in which the Bavarian splint-bandage was applied. Two pieces of flannel were moulded to the leg, the inner layer secured by pins, and the plaster spread between the layers. In five minutes a perfect splint was obtained, the pins temporarily securing the inner layer of flannel being removed. This splint could be opened out so that the leg could be inspected.—Mr. HOLMES said that, at St. George's Hospital, he was constantly in the habit of having such fractures put up in immovable splints, the patients going out in a few days instead of weeks after admission. He agreed with Mr. Croft as to the general benefit derived from immediate treatment, and did not think this was so little recognised as the author inferred.—Mr. CHRISTOPHER HEATH said that the practice was the same as that adopted many years ago by American surgeons, and the Bavarian method was well known to be a good one. The principle was adopted at University College Hospital, and at other hospitals. He himself preferred the plaster-of-Paris bandage, which took a shorter time and gave better results than other measures. The great point was to swathe the limb in cotton-wadding before applying the bandage. He invariably treated fractures of the thigh in children with this bandage, which could be varnished when dry. In fractures of the patella, he found the best results to follow the application of this bandage, the effused blood in the knee-joint being first withdrawn by the aspirator.—Mr. HOLMES said that the form of immovable apparatus he employed was composed of splints of thick pasteboard, over which a starched bandage was applied. He preferred this to the heavier plaster-of-Paris bandage, and it was quite as efficacious.—Mr. GANT said that immovable bandages were only applicable to cases which were seen very shortly after the injury; when the case was not seen till a few hours after the fracture had occurred, the pain, swelling, spasm, etc., rendered such fixed bandages unbearable.—Mr. WALTER PYE thought that cases of simple fracture of the leg could be treated as out-patients by the use of stiffened bandages; he preferred the gum-and-chalk bandage for this purpose. It was elastic as well as stiff, so that it yielded slightly.—Mr. WILLETT said that, when he was a pupil at the Brighton Hospital, twenty-five years ago, it was customary to treat simple fractures of the leg by splints, composed of interlacing bandages, stiffened on each side of the limb by a mixture of white of egg and flour. In two or three days, a layer of wool and a starched bandage were substituted. There were some points which should be carefully considered. He had seen a case where gangrene had resulted, and quite recently had met with a badly set Pott's fracture, with considerable deformity, in a patient who had been so treated. The great difficulty in this treatment was in some cases of Pott's fracture, or in cases where there was much mobility, where it was not easy to secure such apposition of the fragments as to justify the permanent putting-up of the limb. The same difficulty occurred in oblique fractures, with great tendency to displacement.—Mr. ARTHUR DURHAM said that in some cases the immediate application of plaster-of-Paris was the best; but in others it was the reverse, as in a case, in Guy's Hospital, of extreme deformity from a badly set fracture which had been put up in another hospital in plaster. In fracture of the patella, he had excellent results from the use of back-splints and plaster. A great objection to the immovable permanent bandages was, that the surgeon could not see what was taking place during the process of union; and he had often seen this objection practically exemplified when such bandages had been opened. As a general rule, it was a good plan to keep the fractured limb under view until one was sure that firm union had taken place.—Mr. HENRY MORRIS asked Mr. Croft whether the plaster-splints were only applied as high as the tubercle of the tibia; it was generally believed, especially in cases of oblique fracture in the upper and middle part, that the knee and ankle-joints should be fixed.—Mr. CROFT, in reply, referred to letters from Mr. W. Mac Cormac and Dr. Yandell of Louisville in favour of the use of plaster-of-Paris splints. He claimed no novelty for the principle; but since its introduction it had revolutionised the practice at St. Thomas's Hospital. Either flannel or cotton-wadding might be used underneath the plaster. He had adopted the plan spoken of by Mr. Holmes, of removing serum and blood from the knee-joint by aspiration, in a case of fractured patella. With the aid of chloroform, a Pott's fracture or oblique fracture might be put up at once in the plaster, whether the limb were swollen or not. If the fracture were properly set, it would be found at the end of six weeks in the position in which it was put up. Accidents, however, would sometimes happen; much depended on individual skill. The splint was often carried above the knee; it was good practice to fix both joints. The Bavarian splint mentioned by Sir Joseph Fayrer was admirable.

ON THE PATHOLOGY OF ACUTE PERIOSTITIS.

BY C. T. DENT, F.R.C.S.

The exact relation which acute periostitis and osteomyelitis bear to each other, as well as to the articular affections with which they were often associated, had long been matters of dispute; so also had their effects with regard to the extent of necrosis which usually followed. French and German writers held, generally, that total necrosis of the shaft would not take place unless osteomyelitis had been present as well as periostitis. This view was not shared, for the most part, by writers in this country; and cases were on record where the removal of the entire diaphysis had been performed for the results of acute periostitis alone. The exact tissue where the changes commenced in acute periostitis was also a subject of difference of opinion. Some German writers especially held that it commenced in the outer cellular layer of the periosteum, and destroyed the fibrous layer by suppuration. This was, however, but one form of the disease, frequently seen about the lower third of the femur, and also in true whitlow (panaritium periostale). More commonly it began in the deeper osteogenetic layer, and raised up the periosteum from the bone. This might lead to osteomyelitis, and was sometimes, though not commonly, associated with affections of the neighbouring joints. Acute idiopathic osteomyelitis, as a primary affection, was rare in this country. In examining microscopically the periosteum in a case of acute periostitis unaccompanied by osteomyelitis, the author found that the inflammatory changes were chiefly situated in the deeper parts; the fibrous layer was intact, though infiltrated, and new bone was developing in it. There was no active inflammation of bone or medulla. The changes observed in the latter the author considered to be due to disintegration and breaking down of the tissues, owing to the cutting off of the vascular supply. The leg in this case had been amputated on the nineteenth day. Other specimens showed that the inflammation spread from the outer to the deeper parts, chiefly around the smaller vessels. The author remarked that usually, no doubt, when these cases were met with, it was not uncommon to find periostitis, ostitis, and osteomyelitis all existing together; yet it was none the less important to distinguish them from each other as far as possible, and also from the form of disease attacking the outer cellular layer of the periosteum; for, when modified by early treatment, the ultimate results were very different.

VASCULAR TUMOUR OF THE FACE. BY R. CLEMENT LUCAS, F.R.C.S.

MR. CLEMENT LUCAS exhibited a case of vascular tumour of the face, which had been under treatment for three years, and was gradually increasing. The patient, a man aged 28, was healthy up to the age of eighteen, when the swelling began on the right cheek, beneath the eye, with much pain, attributed to carious teeth which were extracted. Three years ago, a pulsating tumour reached from the ear to the side of the nose and upper lip, and from the orbit to the jaw. A harsh bruit was heard over it. Mr. Lucas tied the external carotid (with difficulty, owing to the large size of the veins), and the pulsation ceased for some weeks, then recurred, and the tumour increased in size. Electrolysis was then tried—first with one pole within, and the other outside the tumour, and then both inside. Some consolidation followed, but was not permanent. Then galvano-puncture was used, which produced considerable bleeding. He then tried excision of some portion; but hæmorrhage, to the extent of two pints, occurred, and fourteen or fifteen ligatures had to be used. The coronary artery had been tied, and the galvanic cautery used, and altogether he had operated fourteen times. The eyeball was now projecting, and the whole side of the face was occupied by the vascular mass. He had not tried injections, fearing ill results, for he had seen a child die suddenly after the injection of a nævus.—Mr. HOLMES would hesitate to inject any material to promote coagulation in a growth so closely connected with large veins, and suggested that some of the larger vessels, veins as well as arteries

entering the mass, might be ligatured, and that, in the rapidly growing portions, the galvanic wire might be passed into and beneath the tumour in various directions, so as to produce cicatrices, in all parts. The late Mr. Travers, jun., once treated a case on this plan. The patient remained well for some years; then bleeding recurred, and the carotid was ligatured; but the man died of hæmorrhage whilst the ligature was still on.—Mr. H. MORRIS saw Mr. Lucas's case eighteen months ago, and suggested that, in addition to tying a large vessel entering the growth, the left external carotid should also be tied, owing to the free anastomoses between the two sides. If at the same time, continuous cold was applied by means of Leiter's tubes, coagulation might be promoted.—Mr. LUCAS asked whether ligature of the common carotid would be advisable, seeing that the chief supply seemed to be from the ophthalmic artery.—Mr. HOLMES thought it better to wait for more decided evidence of the implication of the ophthalmic artery.—Dr. DOUGLAS POWELL suggested that the condition might be largely one of dilatation of the superficial vessels from some nerve derangement. It would be worth while to try the effect of continuous cold.—Mr. LUCAS had not yet tried the application of cold, nor the plan of dividing the mass in various directions by the galvanic cautery, as suggested by Mr. Holmes. Certainly the growth began with extreme pain—thought to be toothache.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DILATOR OF THE CERVIX UTERI.

THE annexed sketch represents a new form of instrument for gradually dilating the uterine neck. It was planned by Dr. James of the Chelsea Hospital for Women, and made under his instruction by Messrs. Maw, Son, and Thompson. The main feature of the contrivance consists in the employment of a flexible tube which glides along the stem of the



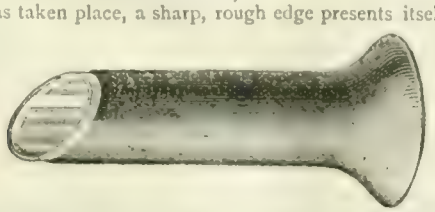
sound into the uterus, the handle of the sound having been taken off, and then, after the tube has been placed on the stem, re-applied. The smallest tube has the diameter of No. 5 catheter, the next tube that of



No. 6, and so on in succession up to No. 12; altogether there are eight tubes. It is stated that very satisfactory results have already been obtained from the use of this instrument in certain cases of cervical stenosis.

MODIFIED FERGUSON'S SPECULUM.

THIS modification was suggested by Dr. J. H. Aveling to Mr. Hicks, of Hatton Garden, in consequence of the frequency with which the ordinary speculum is rendered useless and dangerous by its bevelled edge becoming denuded of its protective covering of varnish. Friction, and the chemical action of solutions, are the causes of this peeling. Where it has taken place, a sharp, rough edge presents itself. In this

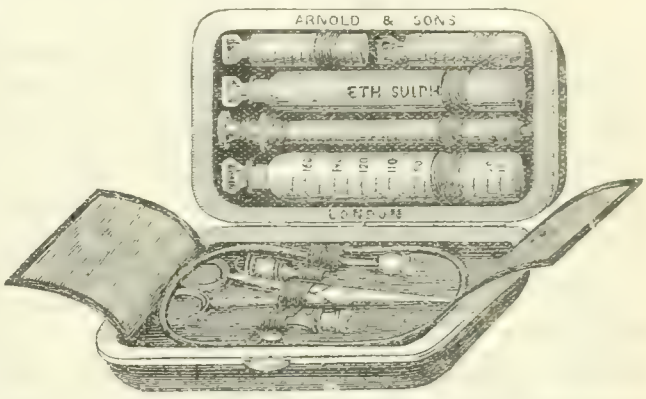


modification, instead of having the bevelled edge ground, it is fused, and being thus made smooth, no covering of varnish is required. The silvering and varnishing are stopped an eighth of an inch from the edge, leaving a bare polished rim of glass, which cannot be affected by any ordinary usage.

Cleanliness and economy are secured by this modification. It is more cleanly, because the slightest flaw in the varnished edge of the ordinary instrument offers a home for septic or specific discharges. It is more economical, because the speculum cannot be rendered useless by its bevelled edge becoming roughened and sharp.

A NEW POCKET OBSTETRIC CASE.

MESSRS. ARNOLD and Sons have recently constructed, for Dr. Murphy of Sunderland, a new pocket obstetric case, made of leather on steel frames, like an ordinary cigar-case, which takes up much less room than those made of wood. It contains on the one side two three-drachm bottles, two one-drachm bottles, and a hypodermic syringe; on the other side are the usual scissors and catheter, and two nozzles for the syringe, which are fastened to a sort of lid that can be raised up; and behind it is a pocket for ligatures, and a smaller one for pins.



One of the large bottles is for liquor secalis, or whatever preparation of ergot is preferred; the other for sulphuric ether, for hypodermic injection in cases of extreme collapse. One of the smaller bottles is for a solution of morphia for hypodermic injection, and the other for a solution of ergotin for intramuscular injection in cases of hæmorrhage. For this purpose, one of the nozzles is made a little longer than usual. The liquor secalis bottle is marked in five minim doses, thus rendering a measure-glass unnecessary. The morphia-bottle is also marked, should it be desired to give the solution by the mouth. The accompanying drawing gives a good idea of the case.

OPEN SPACES AND PUBLIC BENCHES IN BROAD THOROUGHFARES.—The National Health Society being desirous of carrying out the suggestions contained in Lord Brabazon's letter with reference to seats in public thoroughfares, which we publish in another column, invites ladies and gentlemen interested in the subject and willing to become subscribers of £10, to join the sub-committee, which is in process of formation, for the purpose of carrying his lordship's suggestions into operation. Lord Brabazon has headed the subscription list by a donation of £50.

HOW TO RESTORE THE SCALE OF THERMOMETERS.—The *Canada Medical Journal* says, physicians are frequently troubled by the scales of their thermometers becoming indistinct, the pigment in the marks wearing out. The scale may be made distinct again by painting it with an alcoholic solution of any aniline colour. Make two or three applications, let the colour dry, and then rub off with a dry cloth. The aniline will fasten itself on the roughened glass of the scale alone, making each line show distinctly. Water will not remove the colouring matter, which, when it fades, may be easily renewed.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 2ND, 1881.

CONVALESCENT HOMES.

THE Charity Organisation Society has had to contend with many prejudices and to overcome many obstacles. The supporters of our charitable institutions are, for the most part, persons who do not like to submit to organisation. Their cry is—"May I not do what I will with my own?" But, notwithstanding the difficult and unpopular task which it has undertaken, the Charity Organisation Society is evidently gaining the confidence of the public, and acquiring an ever-increasing influence. It is no wonder that such should be the case, when the valuable work which they are doing is once understood. That charity, in many of its departments, needs to be systematised, no thoughtful person can doubt; and yet there has hitherto been no agency which could grapple with this difficult problem.

The reports upon convalescent homes which the society has recently issued is an illustration of what it can accomplish. In October 1878, a special committee was appointed to consider the arrangement of the existing convalescent homes, with a view to suggesting increased facilities for dealing with convalescent cases. The grounds for undertaking this inquiry were, the difficulties in obtaining letters of recommendation to suitable convalescent homes, and in making arrangements for the patient's journey; and also the statement that, in the overcrowded out-patient departments of the hospitals, there were many persons for whom change of air and good food, and not a casual dose of medicine, were the only proper cure.

Much care was used in preparing a classified catalogue of convalescent homes, which is to be found in the appendix to the report. This list contains particulars concerning 157 institutions. The better known homes are generally full in the summer months, and admission cannot be obtained without waiting for four or five weeks, or even longer; while at many other homes there is always accommodation available. Thus it will be seen that there is great inequality in the pressure on the accommodation in the homes.

Another point brought out in this list, is the special class of convalescents for which each home is intended; some being limited to men, some to women, some to children, etc. But, besides this, it brings prominently forward the fact that there are very few institutions, indeed, in which patients can be received who still require some degree of surgical or medical treatment. In like manner, for the blind, for cripples, and for those who are incapable of looking after themselves, there appears to be little or no accommodation at all.

With regard to infectious cases, almost the same may be said; and yet this is a class for whom they are specially needed.

The next subject which occupied the attention of the special committee was the variety in the mode of admission to the 157 institutions tabulated in their list. To 23 of these the admission was absolutely free; "at 52 homes a payment has to be made, as well as a subscriber's letter procured; at 91 admission is obtained either by letter (free or with payment), or by an extra payment without a letter". Thus it will be seen that great differences exist on this important matter.

Inquiry was made at most of the leading hospitals as to the number sent by each to convalescent homes, and the remarkable fact was elicited that, of all the patients sent by these hospitals to such homes, more than half were sent by the three hospitals which have homes affiliated to them—viz., St. Bartholomew's, St. George's, and King's College. From this it may be inferred that, if more convalescent accommodation were available for all the greater hospitals, a very much larger number of patients would be sent to the homes.

The special committee invited a few persons, whose official position was likely to give them an insight into the question, to express their opinions on the subject, and thus they have obtained some valuable suggestions. In particular, we would call attention to the opinion of the house-surgeon of the Royal Hospital at Portsmouth. He writes as follows. "The rules of many of the existing homes require much alteration, especially those regulating the class of patients admitted. Many cases are admitted into homes as convalescents which are really incurables; and in some institutions cases are refused admittance because they have 'open wounds', although they are in a state of convalescence. In consequence of this, many operation cases, and cases of accident, which are discharged from the general hospitals to make room for other patients, and which are refused admission to a home because their wounds are not quite healed, become neglected, fail to attend the out-patient rooms regularly, or to look after their dressings, and at last either sink exhausted, or go to swell the number of incurables. If each hospital had in connection with it some convalescent home, to which it could send a regular and continued supply of its patients, much of the abuse now existing would be remedied."

The conclusions arrived at in this admirable report may be briefly stated as follows. The supply of convalescent accommodation for hospital cases, *i.e.*, for cases requiring continued medical or surgical treatment and nursing, is insufficient; therefore, more *convalescent hospitals* are needed; and these convalescent hospitals should be either affiliated to several of the existing hospitals, or be an outlying department of each hospital.

Further, new homes are required for crippled children, and for infectious cases. With regard, however, to the ordinary convalescent cases, the committee do not think that, until some plan for the better organisation of the existing homes has been attempted, any addition should be made to their number.

In order to bring about such organisation, the committee would propose that an office should be established for information regarding vacancies, etc., and for the interchange of particulars connected with the arrangements of such homes. In the first instance, they suggest that the offices of the Council of the Charity Organisation Society might be used for this purpose; that the Council should undertake the necessary expenses, and that the *Reporter* should be the medium of intercommunication. Eventually, if it should be found necessary, a special society might be formed as a Convalescent Home Union, with its own machinery and offices.

There is great need of early organisation in the matter of convalescent homes at once, since it often happens that there is great pressure upon a particular home intended to relieve one kind of cases; at the same time, there are a considerable number of vacancies in others of a similar character. The number of convalescent hospitals is very great, though probably not yet equal to the need for them. But the means of filling them, and making known reciprocally the capacities of hospitals and the wants of patients, need systematising. If the Special Committee of the Charity Organisation Society is able, as it promises, to effectually carry out this work, it will have added another to the great services which it has rendered to society. A Bureau is now established by the Convalescent Committee, at which can be registered vacancies on the one hand, and requirements on the other; and information wil be given as to the specific conditions under which patients are received at the various convalescent hospitals. The following is the second report of the Committee just issued.

"In the concluding paragraph of the first report of the Special Committee on convalescent homes was the recommendation, adopted by the Council, 'that at the expiration of the next twelve months, or

thereabouts, the committee should report on the expediency of establishing a separate association to carry out the work now undertaken by the committee'.

"The committee believe that a statement of the work which they have done, and are now engaged upon, will show that it is better to continue it in its connection with the Charity Organisation Society—for the present, at least.

"With regard to their work in the year 1880, the committee have circulated the following statement, which they now desire to bring to the notice of the Council:—Last year, for the first time, the particulars required by persons desirous of sending cases to convalescent homes were collected, regarding about 125 homes, in the catalogue published by the Special Committee of the Charity Organisation Society.

"It was then found 'that there was great variation in the pressure upon convalescent institutions, owing both to some being better known and more conveniently situated than others, and in consequence of the greater need of change in the summer months. It was desired, therefore, to use the existing accommodation to the fullest extent for suitable cases, to prevent delay in getting those in need to a suitable home, to make it comparatively easy for the charitable to learn where there was accommodation available, and what would be the cost of admission and maintenance, of the railway fare, etc., and to place at their disposal ready means of obtaining any medical or other certificates that might be required.

"For this purpose the following proposals were adopted:—To establish an Office of Information regarding vacancies in convalescent homes, and to supply homes with post-cards, to be forwarded to the office periodically, so that the vacancies may be registered and made known. To keep in type and correct to date as complete a catalogue as possible of convalescent homes. To collect and diffuse information on the subject of convalescent homes, based on the experience of those practically acquainted with the subject. To endeavour to obtain reductions in the railway fares, and by this and other means to make homes as easily accessible and available for the poor as possible. To give facilities for obtaining medical certificates regarding cases. To give information regarding the boarding-out of convalescent cases.

"To the first of these suggestions, about thirty-six homes gave their adhesion. Numerous vacancies were from time to time reported to the officers of the Charity Organisation Society, and notices of these were circulated. This plan it appears to the Committee desirable to continue.

"This year their action has been directed to forming a plan of co-operation between the convalescent homes, on the one hand, and the out-patient departments of the hospitals on the other, through the intervention of the District Committees of the Society. In the Report of 1880, it was shown that the hospitals ought to provide adequate convalescent accommodation for their in-patients, that a large number of out-patients required rest, good food, good air, and change, instead of, or more than, medicine, and that for them no provision was made. In accordance with this, one of the leading conclusions of their report, the committee have been endeavouring to organise convalescent accommodation for out-patients.

"The following arrangement has been proposed, and has been accepted already by Guy's Hospital, St. Thomas's, University College Hospital, Middlesex, and St. Mary's:

"1. That the hospital authorities should forward daily to the local Committee of the Charity Organisation Society a list of patients requiring *bonâ fide* convalescent accommodation, and should give such patients letters, in a certain form, to be taken to the committee of the district in which they reside.

"2. That the committees should ascertain that the persons so referred are suitable on other than medical grounds for convalescent assistance.

"3. That if the cases referred require any further charitable assistance, the committee should obtain it, as well as the admission to a convalescent home.

"To facilitate admission, and to secure extra accommodation, the convalescent homes have been asked to receive cases sent by the Society on a fixed scale of payment, so that the search for letters may be dispensed with; and to engage extra rooms, so that patients may be boarded out under the supervision of the authorities at the homes. The homes within easy reach of London have been visited, and many of them have acceded to these proposals, so that it may be concluded that adequate provision is forthcoming. It is, however, also proposed that, by a letter to be shortly sent to the Press, persons should be asked to receive children in cottages under proper supervision; and to receive into their own homes girls and women who may require change and good food, and air, and would be suitable for this form of help. Lady Brabazon has generously placed £100 at the disposal of the Society for these purposes.

"Efforts have also been made, with partial success, to induce homes to take 'hip-joint' cases, and cases of still unhealed wounds.

"It will be seen from this that the committee are about to deal with a class of cases which do not, generally speaking, come within the province of the hospitals, and that the work—especially as some guarantee as to the suitability of the applicant is necessary—is closely connected with the work of District Committees. The Convalescent Committee is now composed of persons who are especially informed on this subject, both in relation to the homes and the hospitals, and they consider that, at present at least, the arrangements are such as the Charity Organisation Society may most properly complete; so that, until the plan which has hitherto been in operation, and which is now to be extended, has been elaborated still further, they do not think that the question of the transference of their work to another body can be said, properly speaking, to arise. They would point out also that, under any circumstances, the District Committees must be engaged in helping many convalescent cases, which they could not relegate to another association, and that the work of the committee naturally interests many persons in the work of the Society generally.

"The committee propose to issue to District Committees, with the approval of the Administrative Committee, a circular explanatory of the above arrangements."

IRREGULAR BURIAL OF INFANTS.

An inquest was held last Monday on the body of an infant, which had been exhumed for the purpose, at Wybunbury, near Nantwich. It was stated in evidence that the child was born on the 10th June, lived only twenty-four hours, and that its grandmother, who attended the mother, wrote a certificate for burial, stating that the child had been "still-born". The father took the body of the child to the sexton of the parish church, but did not produce the certificate; and the sexton but said: "Never mind; it will do another time." The child was buried, it was not till eight days afterwards that the irregularity was discovered, in consequence of the friends incidentally mentioning it to a neighbour. A *post mortem* examination was made by Dr. Atkinson of Crewe, who gave it as his opinion that the child had died from natural causes. The coroner (Mr. Churton, surgeon) strongly censured the old woman who had given the certificate, the father, and also the sexton, for their conduct, and said that it was a most reprehensible proceeding. The jury returned a verdict in accordance with the medical evidence.

This case confirms the remarks made in the JOURNAL a few weeks ago. In the present case, the child appears to have been legitimate; and the only motive for burying the child as still-born was probably to save expense, the burial-fees being generally greater in the case of children born alive than those of still-born. This irregular conduct has resulted in what must have been a most unpleasant exposure to the parties concerned, while the county has been put to a most unnecessary expense. It is satisfactory to observe that this and other cases have been brought to light; but it is lamentable to think how many escape inquiry, and what ignorance still exists as to the law. It will be seen from the following extracts, taken from the Births and Deaths Regis-

tration Act, 1874, that the woman who gave the false certificate, the father of the child, and the sexton, were all liable to penalties.

Clause 40 runs: "Any person who commits any of the following offences; that is to say (3) wilfully makes, gives, or uses any false statement or representation as to a child born alive having been still-born...or falsely pretends that any child born alive was still-born shall, for each offence, be liable, on summary conviction, to a penalty not exceeding ten pounds; and, on conviction on indictment, to fine or to imprisonment, with or without hard labour, for a term not exceeding two years, or to penal servitude for a term not exceeding seven years."

Clause 18 runs thus: "A person shall not wilfully bury or procure to be buried the body of any deceased child as if it were still-born. A person who has control over or ordinarily buries bodies in any burial-ground shall not permit to be buried in any such burial-ground the body of any deceased child as if it were still-born, and shall not permit to be buried or bury in such burial-ground any still-born child before there is delivered to him either (*a*) a written certificate that such child was not born alive, signed by a registered medical practitioner who was in attendance at the birth, or has examined the body of such child; or (*b*) a declaration, signed by some persons who would, if the child had been born alive, have been required by this Act to give information concerning the birth, to the effect that no registered medical practitioner was present at the birth, or that his certificate cannot be obtained, and that the child was not born alive; or (*c*), if there has been an inquest, an order of the coroner. Any person who acts in contravention of this section shall be liable to a penalty not exceeding ten pounds." Nothing can be clearer than the law on these points; and there is literally no escape from the conclusion that all the three persons implicated were liable to penalties, and would most probably have been convicted. It is also more than probable that the father might have been convicted under another section of the Act, for not registering both the birth and death of the child. It is much to be regretted that steps are not taken to make the provisions of the Registration Act known to all sextons, too often very ignorant and unscrupulous persons.

HAY-FEVER.

At the present season of the year, when this distressing affection is prevalent, the following remarks by M. de Budberg may be found interesting. M. de Budberg stated, at the Société Vaudoise de Médecine, that hay-fever is prevalent in Switzerland, as much amongst the Swiss as amongst the English, and that its frequency seems to increase at the present time. The clinical description of this disease has been known since the time of Phœbus. Dr. Blackley has demonstrated the majority of the causes of it; but we have not yet found any certain method for its cure. The object of M. de Budberg's work is to draw the attention of his colleagues to a method of treatment discovered by Helmholtz, and employed successfully by Dr. de Budberg, but as yet but little known. The first case was observed by M. de Budberg in an Englishwoman, who had suffered from it for twenty years. The treatment employed consisted of nasal irrigations of solution of quinine, recommended by Helmholtz (1 part in 750 of water.) This irrigation brought away masses of brownish mucus, in which were found small round yellow corpuscles, of smaller dimensions than the blood-corpuscles. It did not contain either vibrios or bacteria. After two or three douches, the patient was perfectly well. The attack was arrested from that time. A solution of chlorate of potash was employed, and no relapse occurred, although the patient frequently passed flowering meadows. Every time that she attempted to suspend the treatment, a relapse occurred, which, however, was promptly ameliorated by the use of the douche. M. de Budberg thinks that the yellow corpuscles found in the nasal mucus of this lady were pollen-corpuscles. The nasal douche freed the mucous membrane from them; hence its curative effect. In cases in which the mucus contained bacteria, Helmholtz's solution of quinine would probably be indispensable. In all cases, it is necessary that the douche should be made most carefully, so as to entirely wash out the whole of the nasal mucous membrane. Dr. Blackley, in his excellent monograph, relates that he induced hay-fever in his own person by the introduction, on the nasal mucous membrane, of various kinds of pollen. He cites more than sixty different kinds of them—as a rule, graminaceous pollens.

The resolution proposing to censure the conduct of the Local Government Board in connection with the small-pox epidemic has been placed on the paper again, in almost identical terms, by Lord R. Churchill.

Owing to domestic bereavement, Mr. Cadge will, we regret to learn, be prevented from presiding at the dinner of the Fellows of the College of Surgeons.

A general meeting of the friends and pupils of the late Professor Rolleston will be held at the house of Dr. Shepherd, 17, Great Cumberland Place, Hyde Park, W., on Wednesday, July 6th, at 3 P.M.

During the past twelve weeks of the current quarter, the metropolitan death-rate averaged 20.2 per 1,000, against 22.2 and 18.9 in the corresponding periods of 1879 and 1880.

A medical paper at Leipsic has been fined 100 marks and costs, at the suit of 75 homœopathic doctors, for publishing a lecture delivered to a Berlin medical society in which homœopathy was denounced as quackery and swindling.

We are glad to state that the proposition to fill one of the vacant nights of the approaching Congress by a fête at the Botanical Gardens has been favourably considered by the Reception Committee and by the Council of the Botanical Society, who have referred the application to a Committee. It will be seen that the Corporation of London will, at a cost of £2,000, entertain the Congress at a *soirée* in the Guildhall.

Dr. R. S. Sutton reports in the *American Journal of Medical Science* the cure of an aneurysm of the descending portion of the arch of the aorta by absolute rest, restricted diet, ergot, and potassium bromide. The patient, at the end of fifteen months, was greatly emaciated and anæmic, but his aneurysm was not to be found.

It will have been seen that the society for the total abolition of biological investigation by experiment upon living animals has now enlisted the active support of Lord Coleridge, who invests it with a specia weight by calling the meeting at his house, described in the reports as the residence of "The Lord Chief Justice of England". The current misstatements were glibly repeated; and it is time that papers setting forth the truth were made more accessible than they now are.

A report by M. Rendu on the maternity department of the Tenon Hospital in Paris shows that, notwithstanding all possible precautions, as well as the isolation and the good arrangement of the buildings appropriated to that use, an epidemic of puerperal fever has broken out, and sixteen women have been attacked by it. M. Rendu has discovered that the wind during the days in which the fever made its appearance came from the east—that is to say, from the *post mortem* room.

The congress of the French Association for the Advancement of Science, which met at Algiers in April last, expressed the wish that one of the streets of Algiers should be named after Dr. Maillot, formerly President of the Council of Military Hygiene, and the introducer of the use of sulphate of quinine into Algeria. The General Council of the Department of Algiers have carried out this wish, by conferring Dr. Maillot's name on one of the principal thoroughfares in the city of Algiers.

Among the distinguished Canadian and American visitors expected to visit the forthcoming International Medical Congress are: Drs. Osler and Howard of Montreal; Dr. Gordon of Portland; Drs. Carter,

Bigelow, and Lyman, of Boston; Drs. S. Gross, jun., T. Morton, Horatio Wood, Thomson, Goodall, W. W. Keen, Cohen, and Miners Hay, of Philadelphia; Dr. Yandell of Louisville; Dr. Hutchinson of Brooklyn; Drs. Austin Flint, Fordyce Barker, Otis, Sayre, Weir, Metcalf, Saunders, Lefferts, Lincoln, Bosworth, Jacobi, and Goodville, of New York.

THE Legislature of Colorado has passed a stringent measure against the practice of medicine in that State by unauthorised and unqualified persons. The assumption of medical titles, without adequate ground, is rendered punishable by fine and imprisonment; the fines ranging from £20 to £100. A permanent board of examiners has been appointed to examine the diplomas of all practitioners claiming to be "duly qualified", and to give certificates of competency after examination to those who do not hold any diploma or other evidence of medical study. The retrospective clauses of the Bill are limited to ten years.

A VERY brilliant and extensive, and unusually successful *conversazione* was given on Wednesday evening at the South Kensington Museum, by the Harveian Society of London, in honour of its fiftieth anniversary. Two thousand guests were invited, ladies and gentlemen. The musical arrangements included Kalozdy's admirable Hungarian band—of its kind, unrivalled in Europe; the band of the Grenadier Guards; glees, sung in the theatre, and a company of hand-bell ringers. Excellent refreshments were served to the numerous and very brilliant company which assembled. The guests and members were received by Mr. Power, Mr. Field, and Mr. Malcolm Morris, the executive officers of the Society. The new statue of Harvey by Mr. Joy, which is to be unveiled in August with great public ceremony at Folkestone, was much admired.

ON Thursday next takes place the annual election of members of Council of the College of Surgeons. We have already referred to the lists of various candidates, and their qualifications and probable chances. From what we hear, however, the caution which we gave last week to those who consider that the great provincial schools and centres ought to have an adequate representation in the College Councils certainly did not err on the side of excessive emphasis. The resignation of Mr. Wheelhouse deprives the Council of the College of an able member, and provincial surgery and provincial educational centres of one of their most sound and judicious representative men. Mr. Reginald Harrison has been put forward by a very large body of provincial Fellows as a surgeon who has had a lifelong connection with teaching and the extra-metropolitan medical schools of England, and who has a large share of organising and administrative power, as well as an excellent scientific reputation. Against these, it is alleged, however, especially by those who have always a tendency to obstruct the admission into the Council of country Fellows, that Mr. Harrison has not yet reached the age at which conscript fathers are appointed. What the precise limit of age may be, or how far back the baptismal certificate should date, to reach this standard, we are not in a position to state; but any plausible excuse is, in the mind of many, sufficient reason for voting against a provincial Fellow; and we hear that in some quarters, something like a dead set is being made against this candidature on the avowed ground of juniority. Few provincial surgeons, if any, have had greater experience on the questions of education and medical organisation than Mr. Harrison. It is certain that he would be a valuable member on the Council; and those who desire to see this principle once more triumphant, will do well to make special exertions on the present occasion.

SMALL-POX AND MEASLES IN LONDON.

THE fatal cases of small-pox in London, which had been 59 and 82 in the two preceding weeks, further rose to 88 last week, and exceeded the corrected average number in the corresponding weeks of the last ten years by 49; 66 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, 4 in the Highgate Small-pox Hospital, and 18 in private dwelling-houses. Of the 88 persons whose deaths were registered last week within registration London, 35 had resided in the South, 21 in the East, 14 in the West, 11 in the North, and 7 in the Central groups of registration districts; 10 fatal cases belonged to Shoreditch, 6 to Camberwell, and 15 to Greenwich and Deptford. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had been 1,644, 1,633, and 1,612 on the three preceding Saturdays, was 1,578 on Saturday last, of whom 531 were inmates of the Convalescent Camp Hospital at Darenth; the number of new cases admitted to these hospitals, which had been 293 and 358 in the two previous weeks, was 321 last week. The fatal cases of measles, which had been 64 and 66 in the two preceding weeks, further rose to 71 last week, and exceeded the corrected weekly average by 31; they included 11 in Islington, 5 in Hackney, 5 in Shoreditch, 6 in Bethnal Green, and 5 in St. George-in-the-East. The largest proportional fatality of measles occurred in East London.

VACCINATION IN THE PORT OF LONDON.

FOR many weeks past the Port Sanitary Authority of the Corporation of London has been actively engaged, through its medical officer, Dr. William Collingridge, in vaccinating or revaccinating, free of cost, all sailors or others employed within the limits of their jurisdiction. This has been done steadily and quietly, without causing any undue panic by posting bills, etc. This action has doubtless been one great cause of the comparative immunity of the port of London from the disease.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.

A DISCUSSION in connection with the above on the "Practical Treatment of Dipsomania" has evoked considerable interest; and on Friday, June 24th, was again adjourned until Friday, July 8th, at 4 P.M., at 11, Chandos Street, Cavendish Square, W. All interested in the subject are invited to attend.

THE VICTORIA CROSS.

THE *London Gazette* of Tuesday last contains a notice that the Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross upon Surgeon John Frederick M'Crea, of the 1st Regiment Cape Mounted Yeomanry, whose claim has been submitted for Her Majesty's approval, for his conspicuous bravery in South Africa, as recorded against his name. The act of courage for which Mr. M'Crea was recommended, is thus described:—"For his conspicuous bravery during the severely contested engagement with the Basutos, on the 14th January, 1881, at Tweefontein, near Thaba Tsen, when, after the enemy had charged the Burghers in the most determined manner, forcing them to retire with a loss of 16 killed and 21 wounded, Surgeon M'Crea went out for some distance, under a heavy fire, and, with the assistance of Captain Buxton, of the Mareteng Contingent, conveyed a wounded Burgher named Aircamp to the shelter of a large ant-heap, and having placed him in a position of safety returned to the ambulance for a stretcher. While on his way thither, Surgeon M'Crea was severely wounded in the right breast by a bullet, notwithstanding which, he continued to perform his duties at the ambulance, and again assisted to bring in several wounded men, continuing afterwards to attend the wounded during the remainder of the day, and scarcely taking time to dress his own wound, which he was obliged to do himself, there being no other medical officer in the field. Had it not been for this gallantry and devotion to his duty, on the part of Surgeon M'Crea, the sufferings of the wounded would undoubtedly have been much aggravated, and greater loss of life might very probably have ensued." We learn that Surgeon M'Crea, for whose great gallantry under fire, this coveted and well deserved decoration has been bestowed by the Queen, was a student of Guy's Hospital.

POISONING BY BITTER ALMONDS.

IN another column, we publish a full report of a case in which alarming symptoms arose soon after eating a quantity of bitter almonds. The nuts themselves do not, as is well known, contain prussic acid; but,

when triturated in mastication, and subsequently mixed with a watery fluid, as in the stomach, the poison is evolved. The patient in this case presented the symptoms ordinarily attributed to prussic acid poisoning—namely, insensibility, convulsions, and rapid failure of the heart. For some time, the man's state appeared to be quite hopeless, but the vigorous treatment resorted to was happily finally successful. The poisonous properties of bitter almonds, which are well exemplified by this case, cannot be too widely known, as "almond flavouring", or the almonds themselves, are frequently used in cookery.

THE LIBEL ON THE COUNTESS OF LONSDALE.

MR. LUDLOW BRUGES, a magistrate for the county of Wilts, surrendered at the Central Criminal Court on Thursday, the 30th ultimo, to answer a charge of having libelled the Countess of Lonsdale. When called on to plead, he answered, "Guilty, but unconscious of the act"; and his counsel, Mr. Montague Williams, who, with Sir John Holker, appeared for him, proceeded to justify this apparently Hibernian statement. He said that Mr. Bruges acknowledged, with the deepest regret, that the libel was in his handwriting; and he desired to offer the most complete apology to the Earl and Countess of Lonsdale; but, at the same time, he wished to explain that he had no recollection of writing the libel, which must have been penned when he was in a state of temporary insanity. The facts of the case bore out this version of the affair. Mr. Bruges had never seen Lord or Lady Lonsdale, and had had no communication of any kind with them; and he could not, therefore, wish to inflict injury or pain. He wrote the libel in the post-office of his own village, and handed it, addressed to Lord Lonsdale, to the postmaster, so that detection was certain. Mr. Bruges was unfortunately a member of a family in which insanity existed. His father had died of disease of the brain, and he had himself suffered to some extent in the same way; and averred that he was not in his right senses when he committed the offence with which he was now charged. Mr. Walter Long, M.P.; Mr. Sotheron Estcourt, M.P.; and Mr. Lopes, Chairman of the Wiltshire Quarter Sessions, then testified that they had known the prisoner for many years, and that at times he was not, in their opinion, responsible for his actions. Dr. Crichton Browne said that, in his official capacity as Lord Chancellor's Visitor of Lunatics, he had visited the prisoner's elder brother, who is a congenital idiot. He had also examined the prisoner, who is now suffering from partial paralysis of the right side, due to organic disease of the brain. He had no doubt that he was liable at times to attacks of mental aberration, in which he did not know what he was doing, and could not exercise self-control. The Recorder intimated that the evidence adduced was amply sufficient to satisfy his mind that the prisoner was not really accountable for the offence he had committed. Mr. Bruges was therefore discharged on his own recognisances in £300 to come up for judgment when called on. Dr. Bucknill, Dr. Ferrier, and Dr. Forbes Winslow were in court, prepared to testify to Mr. Bruges' unsoundness of mind if required to do so; and Dr. Lauder Brunton was also in attendance to give evidence as to the composition of zoedone, to which Mr. Bruges had been greatly addicted; and to express an opinion as to the probable effects of this beverage when taken in excess by persons labouring under disease or disorder of the brain and nervous system.

HOSPITAL CONVALESCENTS.

LORD TEMPLETOWN, Almoner, and Mr. James Gildea, Sub-Almoner, of the Order of St. John of Jerusalem in England, write as follows.

It is now fourteen years since a scheme was set on foot by the English branch of the Order of St. John of Jerusalem for the supply of such diets as are medically ordered by the hospital surgeons, and so to continue the work of the recovery of the patients after leaving the hospitals as to enable them to return at the earliest possible time to the business of life and the support of their families. It is, unfortunately, too often the case that an accident to, or illness of, the bread-winner is the beginning of debt and distress in a family; and that, generally, he returns from the hospital to his home to find his wife and children in straitened circumstances, and unable to provide him with the nourishing food which then, of all times, he requires most to enable him to resume his work. As the funds at the disposal of the Order have been supplied exclusively by its own members, this work has hitherto been limited to the Charing Cross and King's College Hospitals; but we believe, if the movement were more generally known, that we should receive such support from the public as would enable us, not only to extend it in the above hospitals, but to include in its benefits the patients of every hospital in London. The object of the Order in this as in all its works is purely unsectarian, its only aim being the alleviation of suffering without distinction of sect or party; and it need hardly be stated that the services and time of its members are purely honorary. We might add that the diet system has the cordial approval and support of the medical profession. All communications should be addressed, and cheques and post-office orders crossed Coutts and Co., made payable to the sub-almoner, at St. John's Gate, who will be glad to supply every information that may be desired.

MEDICAL ACT COMMISSION.

THIS Commission met at 2, Victoria Street, Westminster, on the 24th, 25th, and 27th instant. The evidence of Dr. A. H. Jacob, Dr. Glover, and Dr. R. Scott Orr was taken. There were present the Earl of Camperdown (chairman), the Bishop of Peterborough, the Right Hon. W. H. F. Cogan, the Master of the Rolls, the Right Hon. G. Sclater-Booth, M.P., Sir William Jenner, Mr. Simon, Professor Huxley, Dr. McDonnell, Professor Turner, Mr. Bryce, M.P., and Mr. John White (secretary).

ANTI-VIVISECTION MEETING.

ON Saturday the annual meeting of the Victoria-street Society for the Protection of Animals from Vivisection was held, by invitation of the Lord Chief Justice of England, one of the vice-presidents, and of Miss Coleridge, at his lordship's town house, 1, Sussex Square, W. The Earl of Shaftesbury presided, and amongst the guests, numbering about 150, were Cardinal Manning, Lady Belcher, Lady Bunbury, Lord Talbot de Malahide, Lord and Lady Mount-Temple, Sir J. E. Eardley Wilmot, M.P., Lady Malet, General Grant, General Colin Mackenzie, Professor Sheldon Amos, Mrs. Livermore (of Boston, United States of America), Mr. R. H. Hutton, Mr. Lewis Morris, and the honorary secretary, Miss Frances Power Cobb. The secretary, Mr. C. Warren Adams, presented a report, which was adopted on the proposition of Cardinal Manning, seconded by Sir E. Wilmot, M.P., who is in charge of the Society's Bill for the Total Abolition of Vivisection, which, he stated, would be down for second reading in the House of Commons on July 13th. It prohibited the vivisection of animals, with or without anæsthetics. A second resolution, declaring the meeting's endorsement of the Bill, was moved by the Lord Chief Justice, who avowed himself a complete and absolute convert to the Victoria Society's view of the question, and a hearty advocate of Sir E. Wilmot's Bill. The motion was seconded by General Grant, supported by Professor Amos, and unanimously carried.

SCARLET FEVER CONVALESCENT HOME.

AN influential meeting was held on Tuesday week, in the saloon of the Mansion-house in furtherance of the establishment of a Scarlet Fever Convalescent Home. The Lord Mayor, M.P., presided, and there were present, among others, Mrs. and Miss Gladstone, Mrs. W. H. Gladstone, the Earl of Aberdeen, Sir Rutherford Alcock, Sir J. Risdon Bennett, Sir Joseph Fayrer, Dr. Andrew Clark, General Boileau, Mr. Puleston, M.P., Hon. A. F. Kinnaird, Sir E. H. Currie, and the Hon. Francis Maude. Sir Rutherford Alcock moved—"That in view of the great mortality from scarlet fever in the metropolis, and the spread of infection from patients in varying states of convalescence, especially among the working classes, where isolation from the healthy was impossible, the establishment of convalescent homes for such cases is of the greatest importance, as a means of checking the spread of infection and as an aid to the more rapid recovery of the patients themselves; and the meeting pledges itself to promote the establishment of such homes." He quoted from the Registrar-General's reports proofs of the great malignity of the disease, from which there were last year in London alone 3,073 deaths, 1,820 being among children of less

than five years of age. These represented about 20,000 separate cases of the disease in one year. He urged that these statistics and the experience of doctors and others testified to the great need of establishing some such homes as the resolution referred to. The Earl of Aberdeen seconded the motion, which was carried unanimously. Sir E. H. Currie moved, and Dr. Andrew Clark seconded, the appointment of a committee headed by the Lord Mayor to carry out this object, Dr. Clark saying that the experience of every practical physician was crowded with most painful illustrations of the necessity for establishing convalescent hospitals for contagious diseases, and the records were so harrowing that no one could hesitate to support so desirable an object. At the instance of the Hon. and Rev. E. Carr Glyn, a medical council was appointed to advise on all medical and sanitary matters, and other resolutions in favour of the project were carried, the speakers including Sir J. Risdon Bennett, Sir Joseph Fayrer, and Dr. Brewer, all of whom warmly approved of it from a medical point of view. A vote of thanks to the Lord Mayor closed the proceedings.

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE committee engaged in organising the exhibition to be held at South Kensington on and after July 16th have decided to set apart a considerable space for the purpose of illustrating the various appliances in ordinary use in the treatment of the sick at the chief London hospitals. Their request to exhibit a bed, with its full equipment of ward-furniture, with splints and other apparatus in common use for fractured limbs at each hospital, has been readily acceded to by the governing committees of the twelve hospitals associated with medical schools, as well as by the medical departments of the army and navy and Local Government Board. It was felt that, although the surgical appliances could be best shown on the living model, it would have been unwise to introduce such into a miscellaneous exhibition; and considerable difficulty has been experienced in providing efficient substitutes, since lay figures are expensive, and unobtainable in sufficient numbers from commercial sources; while the papier-maché figures used by costume-makers are jointless, and are otherwise ill adapted for the purpose indicated. This difficulty has now been surmounted by an appeal to the members of the Royal Academy for the loan of their lay figures during the time the exhibition is open. Sir F. Leighton, Messrs. Millais, Calderon, Frith, Leslie, Yeames, etc.—in fact, all the leading Academicians—have responded so generously to the request made to them, that the number of patients at the present time exceeds the number of beds at the disposal of the committee. It is proposed to have the hospital appliances arranged in saloons in the Albert Hall, contiguous to and in direct communication with the exhibition buildings; and it may be confidently predicted that the department, which will possess a scientific and humanitarian interest apart altogether from the speculative character of the rest of the exhibition, will prove especially attractive to foreign and country visitors, who will thus have an opportunity of seeing within a small compass what is done at the best hospitals, without having to make a tour of the metropolis.

ACTION FOR ALLEGED MALTREATMENT.

MISS ANNIE MORGAN has began an action in the American Supreme Court, against Dr. Lewis H. Sayre, to recover 25,000 dollars, for alleged maltreatment. The complaint recites that Miss Morgan was in 1878 under the professional care of Dr. Sayre, who administered to her nux vomica or strychnine in such excessive doses, that her life was put in jeopardy and her constitution impaired for life. Miss Morgan says that she was unable, for a period of eighteen months subsequently to the treatment by Dr. Sayre, to perform any work, and was compelled to go to Europe to regain her health, the expenses of the journey amounting to 2,005 dollars. Dr. Sayre, in his answer to the complaint, makes a general denial. Justice Donahue has denied a motion made on behalf of Dr. Sayre, for an order to appoint Drs. T. G. Thomas, Thomas A. Emmet, Montrose A. Pallen, and H. D. Nicoll, a commission to examine Miss Morgan, with a view to ascertain the real nature of her illness, and the causes of her alleged disability. The motion was opposed on the ground, among others, that it was not made in good faith, but only to annoy the plaintiff, and to shock her sensibilities to such a degree that she would desist from further prosecuting her action. It was also argued that the granting of the motion would expose the prosecution to a surprise on the trial, since technical names and terms and matters of professional knowledge would be brought into the controversy, which the counsel for Miss Morgan would require time to properly meet.

SANITARY INSTITUTE OF GREAT BRITAIN.

AT the ordinary meeting of the Sanitary Institute of Great Britain, held at 9, Conduit Street, on Tuesday, June 21st, Dr. Alfred Carpenter in the chair, a paper was read by Professor W. H. Corfield, on "The Present State of the Sewage Question." In the discussion which followed, Mr. W. C. Jellar, Mr. E. F. Bailey Denton, Mr. Douglas Onslow, Mr. R. W. P. Birch, Mr. G. B. Jerram, and Mr. Wilson Grindle took part. Several of the speakers spoke favourably of various methods of precipitation and downward filtration of which they had had experience, and mentioned some of the difficulties in the way of sewage irrigation, such as obtaining suitable land, cost, etc. The chairman made a few remarks relative to the successful working of the sewage farm at Croydon, and said that, if we continued to waste our sewage, we should soon have the question of famine to contend with. Dr. Corfield replied briefly to the remarks relating to precipitation schemes and other points raised in the discussion.

PNEUMATIC TREATMENT OF LUNG-DISEASE.

THE Registrar of the Middlesex Hospital writes to us:—The review in your last issue of Dr. Waldenburg's book, and especially its concluding remarks, induce me to state that the pneumatic apparatus has been for some months in use at the Middlesex Hospital, in Dr. Cayley's wards. The conditions which have seemed, so far, to derive the most benefit from this method of treatment, have been of compression of lung after pleuritic effusion, of phthisis with rapid contraction of lung, and of emphysema. The cases, however, have been hitherto too few in number to justify any present publication of results.

LECTURES TO MEDICAL PRACTITIONERS.

THE next annual course of lectures to medical practitioners in Berlin will commence on September 21st, and terminate at the end of October. Courses of lectures and demonstrations will be given in Normal and Pathological Anatomy and Histology, by Professor Hartmann, and Drs. Jürgens, Friedländer, Grawitz, and Wernicke; in Physiology and Medical Physics, by Professor Christiani; in Materia Medica and Toxicology, by Dr. Steinauer; in Medicine and Physical Examination, by Drs. A. Fränkel, Guttmann, Litten, Riess, B. Fränkel, Tobold, Zülzer, and Lazarus; in Psychiatry and Diseases of the Brain, by Drs. Sander, Schneider, Gnauck, Binswanger, and Moeli; in Diseases of the Nervous System and Electro-Therapeutics, by Drs. M. Bernhardt, Remak, and Werneck; in Surgery, by Drs. Hahn, Küster, and Wolff; in Ophthalmic Surgery, by Professor Hirschberg; in Diseases of the Ear, by Professor Lucae and Dr. Trautmann; in Obstetrics, by Professor Fasbender and Drs. Martin, Runge, and Landau; on Dermatology and Syphilis, by Professor Lewin and Drs. Lassar and Zülzer; in Forensic Medicine and Hygiene, by Drs. Falk and Zülzer.

UNIVERSITY MEDICAL TEACHING.

THE following are some of the announcements in connection with the summer courses of the medical faculty of Cambridge. Lectures on Botany will be given by Messrs. J. W. Hicks, Vines, Saunders, and Hillhouse. Dr. Vines' lectures in the Michaelmas Term will be on the Physiology of Plants, with practical work, at Christ's College. Professor Newton and the Demonstrator of Comparative Anatomy, Dr. Michael Foster, and the corps of lecturers, Professor Humphry, Mr. Creighton, and Mr. Balfour, will give their usual series of lectures and demonstrations during the Michaelmas Term. Mr. Lea will give advanced lectures on Digestion and Chemical Physiology, and Mr.

Langley will lecture on the Histology and Physiology of Muscle, Nerve, and the Nervous System. Dr. Bradbury will lecture on Pathological Anatomy, Professor Latham on General Therapeutics, Professor Paget on Clinical Medicine, and Mr. Carver on Clinical Surgery. Compare this with the lack of energy and comprehensiveness, and the melancholy want of arrangement of classes in connection with the medical curriculum at Oxford; and are we right or wrong to urge that the teaching of the lost medical school at Oxford requires urgently a considerable reform?

THE ORIGIN OF THE VOLUNTEER MOVEMENT.

ASSISTANT-SURGEON PYCROFT, 1st Devon Artillery Volunteers, has published a very lively and well written account of the Volunteer movement of 1852, and history of the first Volunteer Rifle Corps (London: Hamilton, Adams, and Co.), showing by whom it was raised in the year 1852. This pamphlet, with its documents, establishes beyond doubt that the first of the Volunteer Corps, the Exeter and South Devon Volunteer Rifle Corps, was founded in virtue of a project brought before his friends by Dr. J. C. Bucknill, F.R.S., on January 27th, 1852. A facsimile copy of the rough draft of Dr. Bucknill's admirable letter to the Lord-Lieutenant accompanies the pamphlet. This letter is a statesmanlike document, which accurately defines the conditions, objects, and organisation, which has now become so great an institution, and would now be accepted as a wise and complete definition of its scope, character, and objects. Sir George Grey's acceptance of the offer was dated February 16th; this was confirmed by Mr. Secretary Walpole, and approved by the Queen, March 26th; and the first muster in uniform was on October 6th. Dr. Bucknill, who had throughout acted as honorary secretary, now fell into the ranks as a private in the corps. This pamphlet conclusively shows that it was by a member of our profession that the Volunteer movement of 1852 was begun, and that his proposals, carefully thought out and well worded, for the establishment of the first Volunteer corps, were those accepted and acted upon by the Government, and approved by Her Majesty the Queen.

A MEDICAL QUESTION IN THE BEND OR CASE.

SIR JAMES SIMPSON used to relate an anecdote of a farmer who bitterly complained that, for attendance on himself and his child, his medical man charged him three shillings and sixpence a visit, his cow-doctor only requiring five shillings. This is but in accordance with a well known peculiarity in human nature. Men are ever readier to be liberal in matters relating to their property, than in questions concerning any service of direct utility to themselves. The more that the property is of a "fancy" value, the more lavish men become; the more the expenditure relates to public benefit, to "doing good to humanity", the more wilful or unintentional parsimony is displayed by those who can give and pay. The Bend Or libel trial shows very plainly how much more a man can ask and get for curing a stud of horses than for attending a body of human beings, whether servants, soldiers, or otherwise. Mr. Barrow, the plaintiff, stated in his evidence that he had received, by contract, £200 quarterly for attendance, in his capacity of veterinary surgeon, on a nobleman's stud. Nobody can blame either employer or employed for giving what is asked, and for charging what will be paid in this or in any similar case. Only let us imagine the effect of hinting to a board of guardians that some wild philanthropist may think that, if £800 *per annum* be fair pay for attending a stud of horses, surely an overworked Poor-law doctor should receive something more than an honorarium not amounting to as many shillings for relieving a parish full of the lower social grades of humanity. We apologise for harrowing the proverbially tender feelings of even a hypothetical board with this suggestion.

CARYATIDES FROM CADAVERA.

A NEW method of inhumation has, according to the *Cronica Medica Quirurgica Havana*, lately been recommended by an engineer, named Crulz. It is a procedure by which the bodies of the dead are encrusted in an artificial stone, which is perfectly impermeable to gases, and which consequently will not permit the escape of the slightest mephitic emanations. Before proceeding to the operation in question, the cadavera are submitted to the following treatment. The body is placed in a bath composed of equal parts of lime and clay, dissolved in a sufficient quantity of water. Upon the removal of the body, which is found to be covered with a thick layer of the above-named substance, it is covered with another layer of natural cement, destined to absorb the excess of water, after which the cadaver is submerged in a bath of pitch, and covered, finally, with a layer of lime; the contact, only, between the lime and the calcareous cement being sufficient to solidify the pitch rapidly, a thick coating being formed in this manner, which possesses the same properties as the pitch of Judea, a substance to which the Egyptian mummies owe their peculiar indestructibility. As can be readily understood, a subject so prepared can exhale no marked odour; the different layers of lime, clay, and pitch forming around it a kind of solid wrapping, which is opposed, effectually, to the disengagement of gases. A cadaver, after being treated in this manner, is deposited in the interior of a mould, which is filled with the following mixture, that very soon solidifies, and is transformed into stone:—Cement, five parts; sand, three parts; ashes, two parts; water, a sufficiency. The stones which are obtained by this process acquire a remarkable solidity. Obituary inscriptions can be engraved upon them; they can be placed in mausolea, or may serve for the construction of sepulchral monuments of various forms.

REFORM AT OXFORD.

WE learn with pleasure that, in the new arrangements to be made at Oxford, the Linacre Chair of Physiology and Anatomy, which, in the hands of its late able incumbent, was practically a chair of comparative zoology, will be split in two; and that it will be succeeded by chairs of anatomy proper and physiology proper, and will have henceforth a more direct relation to the teaching of these subjects as part of a preliminary medical education, as was intended by Dr. Linacre. It may be hoped that in this may be detected the first germ of that reform in the restoration at Oxford of the elements of a school of teaching, such as that in which Cambridge justly glories; and that the exile of medicine from the University of Oxford, and the perversion of its great medical endowments, which we have felt painfully impelled to denounce, will before long come to an end.

DISSEMINATION OF PLAGUE BY CORPSES.

IT is well known that for many years the plague has been endemic in Mesopotamia and in the province of Bagdad. Sporadic cases are rarely absent, and epidemics are not unfrequent. The question of causation is not definitely settled; but, according to the *National Board of Health Bulletin*, the general opinion among those who have investigated the subject inclines to the belief that the disease is due to the custom of transporting immense number of corpses, in all stages of decomposition, to the sacred vaults of Nedjeff and Karbella. With this view, the International Sanitary Council has used all its influence to induce the Turkish and Persian governments to abolish or modify the custom.

LATENT MENINGITIS IN PNEUMONIA.

FIRKET of Liege has observed three cases of meningitis in the course of pneumonia, which were only recognised at the necropsy. The subjects were not otherwise affected by any special predisposition. Purulent exudation was found under the pia mater of the brain and spinal cord, and the thoracic serous membrane was also affected; the hepatic cells were likewise pathologically changed. The coexistence of meningitis with pneumonia, pointed out by Guersant in 1826, is particularly interesting from the pathogenic point of view. Firket does not accept the theory of the mechanical origin of the disease by venous stasis, or by embolism, any more than that of infection by the microscopic organism of epidemic cerebral spinal meningitis. He would be disposed to admit a general infection showing itself by the latent inflammation of the pleura, of the pericardium, and of the meninges. Ulterior observation could

alone elucidate this question, on which Klebs has thrown a new light by laying down for discussion the problematic data of pneumonic alterations of parasitic origin. The etiology of this insidious complication is yet unknown; it is, however, according to Firket, not rare to meet with it; he gives an average of one case in every two hundred and fifty patients (*Annales de la Soc. Méd.-Chir. de Liège*, September and October 1880).

A CENTENNIAL CELEBRATION.

THERE is probably only one medical society in America which is in a position to celebrate its centennial anniversary. This is the Massachusetts Medical Society, which has just entered upon the second century of its existence, having been incorporated on the 1st of November, 1781. In honour of this event, the *Boston Medical and Surgical Journal* has published a special number devoted to centennial recollections and documents relating to the foundation of the Massachusetts Medical Society, including *fac-simile* letters, summaries, portraits, and other medical documents of the last century relating to the history of the society. Among others is a *fac-simile* of a certificate of fumigation after small-pox in 1776. It runs thus: "These Certify that Eabenesor Stimpson has been so smoak'd and cleaned as that in our Opinion he may be permitted to pass into the Country without Danger of communicating the Smallpox to any one." The number is one which is of great interest, and does credit to the patriotism and culture of our American colleagues. The *Boston Medical and Surgical Journal* is itself an excellent type of much that is most commendable and respectable in journalism—reserved, accurate, polished in form, and carefully noting all that is most promising and trustworthy in contemporary research. Its pages can never be consulted without profit and satisfaction.

SCOTLAND.

THE SANITARY ASSOCIATION OF SCOTLAND.

THIS Association held its seventh annual meeting on the 22nd instant, in Glasgow. There was a very good attendance of members, and several matters of importance were discussed. Chief among these was the question of how best to form district associations throughout the country. The matter was referred to the next meeting, so as to admit of full consideration. From the address given by the President, Mr. Shaw, it is evident that the Association is carrying out efficiently the objects for which it was established; and, by means of its publication, the *Sanitary Journal*, is making its influence felt in the promotion of sanitary reform. The next meeting of the Association is to be held at Greenock.

ANDERSON'S COLLEGE, GLASGOW.

AT the annual meeting of the trustees of Anderson's College, held in Glasgow last week, it was stated that the late Dr. John Stenhouse, F.R.S., of Rodney Street, Pentonville, London, had bequeathed the sum of £900 for the purpose of forming a scholarship in the chemical classes of the College. During the year, Dr. Wilson, the Professor of Midwifery, had died, and Dr. Abraham Wallace was appointed his successor; while Dr. David Taylor had been appointed lecturer on dental anatomy. The managers are at present in communication with the managers of the Glasgow Royal Infirmary, for the purpose of negotiating an amalgamation of the two medical schools; but the result will be submitted to the trustees before any definite arrangement is concluded. The total number attending all the classes was stated to be 2,082.

A HUSBAND'S LIABILITY FOR HIS WIFE'S MEDICAL ATTENDANCE.

IT is not a frequent occurrence—a suit in a Scotch law court for a doctor's bill, and especially of the importance of the one now alluded to. Last week, Dr. Dionysius Wielobycki, residing in George Square, Edinburgh, sued Isaac Atkinson, tailor and clothier, residing in Portobello, before Sheriff-Substitute Hallard, for the sum of £107. The total account was £128, of which £21 had been paid, and was for services as professional attendant on Mrs. Atkinson, wife of the defender, and extending over a period of nearly ten years. Payment had been refused on the ground that Dr. Wielobycki had never been employed by the defender, and that he had made the attendance solely on the personal credit of Mrs. Atkinson, and that she had separate means, exclusive of the defender's rights as husband. The Sheriff took some days to consider the matter, and ultimately decreed in favour of Dr. Wielobycki for the sum of £90 and expenses. In a note, he says that on the main issue there was no reasonable ground of doubt.

MEDICAL CHARGE OF BALMORAL.

HER MAJESTY has appointed James Reid, M.A., M.D., Ellon, Aberdeenshire, to take temporary charge of the Royal Household at Balmoral, until the completion of new arrangements, rendered necessary by the resignation, on the ground of ill-health, of Dr. Marshall.

KILMARNOCK FEVER HOSPITAL.

A DONATION of £200 has been sent to the extension fund of the Kilmarnock Fever Hospital and Infirmary by Lady Harriet Bentinck, who recently succeeded to the Portland estate at Kilmarnock.

SMALL-POX ON A SHIP AT ARBROATH.

THE Public Health Committee of the local authority, Arbroath, at a meeting held on Tuesday, had before them the case of a vessel, a Norwegian, called the *Rap*, from Revel, on board of which, according to the opinion of the medical officer of health, there was an undoubted case of small-pox. After hearing the circumstances of the case, the Committee unanimously resolved not to allow the patient to be brought on shore, but to order the vessel immediately to leave the dock, and to go into quarantine in the roadstead outside. The clerk was instructed to communicate this resolution to the Collector of Customs, so that immediate effect might be given to it, while the medical officer was instructed to see that none of the crew of the vessel were allowed to come on shore while the vessel remains.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending June 18th, it appears that the death-rate in the eight principal towns was 21.6 per 1,000 of estimated population. This rate is 1.0 above that for the corresponding week of last year, and 2.9 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 14.0 per 1,000; and the highest in Paisley—viz., 29.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000, or 0.7 above the rate for last week. Acute diseases of the chest caused 110 deaths, or 15 more than the number recorded last week. The mean temperature was 52.7°, being 4.9° above that of the week immediately preceding, and 4.7° under that of the corresponding week of last year.

IRELAND.

DR. AQUILLA SMITH has resigned the King's Professorship of Materia Medica and Pharmacy in the School of Physic, University of Dublin.

THE special appeal in aid of the funds of the Hospital for Women and Children, Cork, has obtained, up to the present, subscriptions amounting to £170.

A FATAL case of poisoning by mis-adventure is reported from Belfast, a police-constable having swallowed a quantity of chlorate of potash in mistake for a seidlitz powder.

SOCIAL SCIENCE CONGRESS.

THE next the twenty-fifth congress of the National Association for the Promotion of Social Science will be held in Dublin from Wednesday, October 5th, to Wednesday, October 12th next, under the Presi-

dency of the Right Hon. Lord O'Hagan, Lord High Chancellor of Ireland. The following are the special questions suggested for discussion in the health department of the Congress, by the Standing Committee of the department. 1. Is it desirable that hospitals should be placed under State supervision? 2. Is it desirable that hospitals be established for paying patients? and, if so, on what conditions? 3. What is the best mode of enforcing the isolation of cases of infectious disease? 4. How far has the prevalence of disease been affected by the administration of the Public Health and other Sanitary Acts? 5. What, if any, additional legislation is necessary for the preservation of the health by those engaged in industrial occupations? 6. Is any further legislation desirable in order to more effectually prevent the overcrowding of houses, which were originally constructed as residences for one family, but which have been subsequently occupied by several families? The Local Committee have suggested the following additional subject: Is it desirable that there should be a system of compulsory notification of infectious diseases? if so, what is the best method of carrying such a system into effect? Dr. Cameron, Superintendent Medical Officer of Health for Dublin, and Dr. Stewart Woodhouse, have been appointed secretaries to the department.

THE NOTIFICATION OF INFECTIOUS DISEASES BILL.

It may be remembered that Dr. Lyons, M.P. for Dublin, counted out the House of Commons on May 23rd, on the order of the day for going into Committee on this Bill, without his having given any intimation of his intention to oppose the Bill to the honourable member, Mr. E. Dwyer Gray, who had charge of it (BRITISH MEDICAL JOURNAL, May 28th, pp. 861 and 868). Subsequently, Dr. Lyons placed a notice on the paper of the House, that the Bill be referred to a Select Committee. Mr. Gray, anxious that some progress should be made in the matter, told Dr. Lyons that he consented to his proposal for a Select Committee; and Mr. Gray himself—as he states in a letter published in the *Freeman's Journal* of the 25th ultimo—put on a notice discharging the order, and referring the Bill to a Select Committee, with a view of hearing all sides, and introducing a Bill next session, based on the recommendations of the Committee. In this course, Dr. Lyons acquiesced. Mr. Gray ascertained that the Government would not object to it; and Mr. Meldon, who was opposed to some of the proposals in the Bill, cordially supported it. Mr. Gray accordingly put the notice down for June 22nd, and assumed that it would pass unopposed. But, without a word of previous communication to Mr. Gray, or the slightest intimation that he had changed his mind, and was about to veto his own proposal when adopted by Mr. Gray, Dr. Lyons opposed the motion. This course appears to be very unusual as a matter of parliamentary procedure. It is deeply to be regretted, as an opposition to parliamentary inquiry into what all must admit to be a subject which urgently calls for some legislative adjustment, in the interests alike of the profession and of the public. What may be the right or best mode of notification of infectious diseases, may be open to doubt; that such notification must form part of any complete sanitary system for the protection of life and health, does not appear open to any doubt.

SANITARY CONDITION OF IRISH DISTRICTS.

In the recent quarterly report of the health of Ireland, the registrar's notes are often interesting, as showing the prevalence of disease and the sanitary conditions under which the inhabitants of their respective districts are placed. Many refer to the accumulations of manure and the existence of cesspools as causes of disease, more especially typhoid fever. For example, in Ballymoney, a rather severe epidemic of typhoid was attributed to defective sewage arrangements; in Tandragee, 209 cases occurred, clearly traceable to water contaminated with dejecta from a typhoid patient; and at Bailieborough an outbreak arose from bad water and defective sewage. The registrar of Inishowen states that he has reported more than 400 nuisances since the Sanitary Act was passed, but has not succeeded, save in one or two instances, in having them removed. Another draws attention to the filthy and loathsome condition of the town of Killeshandra; and in Killala district, it is stated that the sanitary arrangements, particularly in the town, are not good, there being no connection between the main sewers and the yards and houses. During the winter and spring months of the year, there is always an epidemic of some kind in Glengariff, the cause of which the registrar declares his inability to account for, unless it is due to the practice which exists in most of the houses of having the cattle, horse, and in many cases a pig, sleeping in the same apartment as the family. At Castlemaine, in Tralee Union, the dispensary medical officer had to treat some patients suffering from typhus fever in a room about twelve feet square, where eight others slept during the night.

CHARGE AGAINST A MEDICAL OFFICER.

A SWORN investigation was held at Lismore Union last week, by Dr. Brodie, inspector under the Local Government Board, in respect of certain charges preferred against the medical officer of the workhouse, by a man named O'Brien, who had been an inmate of the house. One of the charges was that the medical officer had neglected him whilst in hospital; but several witnesses were examined who contradicted O'Brien's statements. The evidence will be forwarded to the Local Government Board; but Dr. Brodie intimated that the medical officer had given a very satisfactory explanation of the charge brought against him.

PROVINCIAL URBAN DISTRICTS: THE CENSUS OF 1881.

By the return of the recent census, it appears that the net increase in the provincial urban districts was, 33,956, or at the rate of 7.4 per cent.; the population having increased in Belfast, Londonderry, Newry, Dundalk, Sligo, and Clonmel; and decreased in Cork, Limerick, Waterford, Galway, Drogheda, Kilkenny, Wexford, Lurgan, and Queenstown. The greatest proportional increase in any of the fifteen provincial urban districts was in Belfast, being 33,259, or 19.1 per cent.; and the greatest proportional decline was in Drogheda, viz., 994, or 7.4 per cent. The increase in Sligo was only 0.9 per cent., and the decline in Cork and Wexford but 0.4 and 0.2 per cent., respectively.

LONGEVITY IN DUBLIN.

During the March quarter, among the deaths registered, were eight at the alleged age of 100 years, one each at 101 and 102 respectively, three at 106, two each at 107 and 108, and one each at 112 and 114 years. One of the deaths at 100 years is believed, by the registrar who returned it, to have been correct; and another at 107, which took place in Headford district, is also supposed to have been trustworthy. In the latter instance, the man, it is remarked, was never so ill as to require medical attendance during his life.

WHITBY.—During the quarter ending March 31st, there were registered in this district 74 deaths—37 males and 37 females. Of this number, 9 were of children under twelve months, 11 between one and five years of age, and 27 persons above sixty, the age of the oldest being eighty-six. The births during the same period were 112—56 males and 56 females. These figures correspond to a death-rate of 20 and a birth-rate of 32 per 1,000. With the exception of a single death from scarlatina, which was imported from a neighbouring township, there is little to comment on, the other deaths being of the ordinary character. Whooping-cough was somewhat prevalent among children, but fortunately without fatal results. The exemption of the district from fevers of all kinds is noteworthy, and must be a matter of congratulation to the authority.

WATFORD.—The general health of this district during 1880 is reported by Dr. Brett as having been good, though diphtheria, mostly of a mild type, was more frequent than it should be in a place that has the advantages of air, soil, and water that Watford enjoys. Whooping-cough was very fatal, partly on account of the cold weather. The birth-rate was 31.05, and the corrected death-rate 18.3 per 1,000. There were 25 deaths from the seven principal preventable diseases, as against 14 last year. Dr. Brett urges the need for more land for irrigation purposes, and for an infectious hospital; and expatiates on the importance of devising better houses for the poor. The absence of tables from the report is to be regretted.

THE CORPORATION OF LONDON AND THE INTERNATIONAL MEDICAL CONGRESS.

On Thursday at a meeting of the Court of Common Council held in the Council Chamber of the Guildhall, the Lord Mayor (the Right Hon. W. E. McArthur, M.P.), presiding, the question of the International Medical Congress came before the Corporation.

Mr. S. T. Day (Chairman of the City Lands Committee) moved the following resolution:—"That this Court, having learnt with great satisfaction that the International Medical Congress is to be held this year in London, and recognising the great importance of a National Congress in relation to so vital a science, do invite the members to a *Conversazione* to be held in the Guildhall on a date to be fixed early in the month of August. And that it be referred to the City Lands Committee to carry the same into effect at an expense not exceeding £2,000." He said: My Lord Mayor,—The International Medical Congress has met from time to time, I believe bi-annually, in the various capitals of Europe; and crowned heads and the municipal bodies of these capitals have vied with each other in entertaining the members of the Congress. This year the Congress is to be held in London, and it is to be on a grand and a more important scale than ever has been attempted before. Over 4,000 invitations has been sent out to various medical men all over the world; and, from the replies already received, between two and three thousand are expected to be present. Several hundreds of the most eminent medical men from France, Germany, Italy, Russia and the United States have signified their intention of coming, and altogether it will be one of the most important gatherings that has taken place in this country for many years. Amongst the patrons of the Congress are Her Majesty the Queen, and His Royal Highness the Prince of Wales. This Corporation has been always famed for its great hospitality on all great occasions, and I think we shall be agreed that this is a great occasion, and by giving a *conversazione* at the Guildhall the Corporation will be able to aid in the success of the Congress. When we consider the boon which medical science confers upon us poor toilers in the city, and when we remember the fatigue and labour of those who come to be present on this occasion, in order to assist by their thought and their experience to make the boon still greater, and our sufferings less, truly it is a very small thing for us to try to give them some relaxation after their day's toil, by enabling those who come from the Continent and elsewhere to be present at a *conversazione* at the Guildhall, and to see our beautiful library. Knowing that this is to be seconded by an Alderman much better versed in this subject than I am, and this resolution having met with the approval of a Committee of the whole Court held yesterday, I shall content myself with moving the motion that stands in my name.

Mr. Alderman Stone: My Lord Mayor, I beg to second this motion, which has been so clearly and definitely stated by the Chairman of the City Lands Committee; but I do not intend, after the way in which it has been brought before the Committee, to take up any large portion of your time in the few observations I have to make. I do not hesitate to say, that this International Medical Congress will be one of the most interesting gatherings that has been held in this country for many years. I am informed, and I believe upon good authority, that most of the governments of Europe have agreed to send delegates from their countries; that it has been taken up by Her Majesty the Queen, and patronised by her; that His Royal Highness the Prince of Wales will be present at its inauguration; and that it will be presided over by Sir James Paget—all of which shows that there will be great interest taken in it by those occupying high places. The object of the meeting is not merely to visit this country for the purpose of enjoyment; but, as in their six previous visits to other countries, these distinguished medical men, surgeons, and scientific men, will meet to consult together upon various matters connected with their profession; and I think when I tell you that fifteen sections have been already organised, with a view to their meeting together in conference upon matters which nearly relate to the welfare of the people all over the world, then I think we must all admit that they come over here for a very useful purpose. I have no doubt whatever that the result will be very much to improve the science of medicine, not only in this country, but in all parts of Europe and of the world. I think the matter is one of very great importance. I may also say, my Lord Mayor, that over four thousand invitations have been sent out, and nearly two thousand already accepted. These responses have come from men who are well known and distinguished in the countries where they now are. The main object, I believe, in this matter is, that it is intended to do good; and, when people of that character come over here from another country, having previously received that esteem, that respect, which always attends their visits, then, I think, this Corporation, that has always been distinguished for holding out the right hand of fellowship, and giving a cordial reception to distinguished strangers, will be only doing their duty by entertaining them at this *conversazione* in the Guildhall. This is a matter which it will be an honour for the Corporation of the City of London to take up, and will give another opportunity of making those who reside abroad feel that this great Corporation has not fallen back in the hospitalities for which it is distinguished.

Mr. T. Loveridge: My Lord Mayor, I may add to what has been said, that a large number of gentlemen are coming over from America and Canada in order that they may attend this gathering. Surely no better seconder of the motion could be found than a gentleman (Mr. Alderman Stone) who during his mayoralty entertained in a most hospitable manner the representatives of various nationalities.

The motion was carried unanimously in a full Court.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

The annual show of additions made during the past twelve months to the museum of the Royal College of Surgeons, will be held in the Council-room, and not in the theatre as in former years, from July 5th until July 13th. Professor Flower's annual report will shortly be issued, and will contain full lists of the new specimens. The pathological additions are the largest ever known, excepting in years when a private collection has been presented entire to the College, as in the case of Dr. Peacock's series illustrating heart-disease. A prominent feature among the additions would probably have been viewed with, at the least, indifference, a year ago; but since Sir James Paget's Cambridge Address on Elemental Pathology, so well known to members of the Association, it should, and we believe will, be looked at with great interest. We refer to Mr. Shattock's preparations illustrating the repair of wounds, cicatrisation after the fall of the petiole, the union of grafts and other processes observed in vegetables. The pathologist, hitherto only too devoted to disease in man, need not sneeringly ask if the specimens illustrate bronchitis in a birch, or rheumatism in a radish, for he will find much to arrest his serious attention in these vegetable specimens. The fine series of bones of syphilitic, rickety, and cretinous infants, presented by M. Parrot, Drs. Barlow and Herman, and Messrs. Parker and Shattock were mentioned, a few months since, in the pages of the Journal; they will now be, for the first time, exhibited, as a series, in public, although, in detail, they are already familiar to the members of the Pathological Society. Sir Joseph Fayrer's series of dysenteric intestines and abscess of the liver are interesting, not only in relation to his Lettsomian lectures of last winter, but also in having each a distinct history. Dr. Bantock and Mr. Thornton contribute some remarkable specimens of morbid conditions of the female organs, including a series illustrating the pathology and effects of twisting of the pedicle in ovarian cysts. Mr. W. Adams contributes a portion of the vertebral column of the late Dr. Mantell, showing extreme rotation of the bodies of the vertebræ in the lumbar region; this case was the subject of a paper in the *Medico-Chirurgical Transactions* many years ago. Mr. Hutchinson has presented two specimens showing the well-known changes in the articular extremities of bone, described by Charcot. Dr. Goodhart has added to the collection some instructive specimens of visceral disease; and two examples of tubercular disease, presented by Dr. Creighton, are intended to illustrate his special views on the subject.

In the anatomy series are a beautiful preparation of the muscles of the abdominal wall, and a dissection of the arteries of the female pelvis. The famous manatee of the Brighton Aquarium now stands as a monument raised to himself, but in detail, for nearly every separate part of his anatomy, prepared by Mr. Pearson, will be seen in glass bottles at the show. The Barnard Davis Collection is now a thing of beauty, completely cleaned, renumbered, and permanently arranged in the Museum. Mr. W. R. Kynsey, Principal Civil Medical Officer and Inspector-General of Hospitals in Ceylon, has presented a series of skulls and skeletons of the Veddahs, or aborigines, of that island. Drs. Shortt, Mackenzie, Bennett, and others, have also contributed valuable crania of Indian races, etc. A large number of Egyptian skulls, from Captain R. Burton, Her Majesty's Consul at Trieste, have arrived too recently to be ready for this year's show. Mr. H. Mansel has presented the largest elephant-seal's skull ever seen in a British or European museum.

During the past year, an unusual number of art-students have availed themselves of the advantages of the Museum. The new catalogue of the pathological series is slowly approaching completion. We have referred elsewhere to the new appointment of pathological curator, for which several gentlemen who have distinguished themselves in pathology

are candidates; and we would urge our readers to show their interest in this great national collection by forwarding specimens of pathological rarity or importance, as they may meet with them in practice.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

On May 30th, Inspector Anniss was called in and examined by Mr. Osborne Morgan, being afterwards cross-examined by Messrs. Stansfeld and Hopwood.

Inspector Anniss belongs to the Metropolitan Police Force, and is specially charged with the carrying out of the Contagious Diseases Acts in the Plymouth and Devonport district. His official experience of the district is great, as he has superintended the execution of the Acts since 1864, a period of sixteen years; previous to which he served for twelve years as a police-officer there. During the year 1864, in pursuance of instructions, he ascertained that there were 2,020 prostitutes in the district, which at that time consisted only of Plymouth, Devonport, and Stonehouse. Since that time, the boundaries have been extended, and the Acts are now applied to all the villages within a ten-mile radius of Plymouth; and also to Dartmouth, which is fifty miles distant; while the population of Plymouth itself has increased by about 9,000. Nevertheless, since 1864, the number of prostitutes has fallen from 2,020 to 411; while the number of brothels, which in that year was 356, is now only 70. For this reduction he was unable to assign any other cause than the Contagious Diseases Acts, as the duties of the local police were performed in just the same manner as before. He considered that the daily visits alone of himself or one of his staff, which consisted of a sergeant and six constables, to the brothels, had great effect in diminishing their number; while the women were constantly being withdrawn from them, some being sent to hospital, and others restored to their friends and a decent life. Before the Acts came into force, it had formed part of his duty to visit the brothels almost daily, for the apprehension of deserters and stragglers, and also for the detection of thefts of dockyard stores; but he did not find that his visits in this capacity had any effect in closing the houses in question. With regard to juvenile prostitution, his evidence was very strong. On December 31st, 1865, there were no fewer than 212 prostitutes of fifteen years of age and under, 434 between sixteen and eighteen, and 414 between eighteen and twenty years of age, making a total of 1,060 under twenty. At the present time, there is not a single prostitute under fifteen years of age, only 2 between sixteen and eighteen, and 32 under twenty, making a total of 34 under twenty. This good result he attributed entirely to the working of the Acts, which enabled him to reach the poor girls before they became hardened and accustomed to their wretched life. Residence in hospitals in many cases did great good, and the influences there brought to bear on them were the means of reclaiming a large number. The constables who carry out the Acts see the girls when first they go to the brothels; and, if they are young, their parents are at once communicated with; while, if they are orphans, as many are, every persuasion is employed to induce them to enter one of the homes. He stated that the friends or parents of girls who have run away from home, or been dismissed from their situations, constantly applied to him for information as to the whereabouts of their children; and he rarely failed to restore the runaways to them. In illustration of this, he cited a large number of cases, which were of daily occurrence, showing how brothel-keepers got hold of such girls and kept them out of the way until their moral sense had become deadened. Before the Acts came into force, this system prevailed to a fearful extent; but, since he had had the right to see every prostitute who frequented a brothel, the keepers of such establishments rarely dared to conceal any girl he might be in search of. In fact, now, every female who finds her way into a brothel has to be seen within twenty-four hours, and thus little chance is allowed for such practices to be carried on.

Previous to the passing of the Contagious Diseases Acts, the amount of immorality among young people was fearful; and, before the Acts had been three months in operation, it became apparent that the greatest amount of disease was among the juvenile prostitutes. There were a number of houses frequented actually by lads from twelve to eighteen years of age, some being set apart for drovers' and butcher boys, others for drummer boys and sailor boys; and these houses had been known to contain as many as fifteen or twenty girls. Such establishments as these collapsed immediately when the police commenced to visit them once or twice daily, and required immediate information as to young girls coming to reside in them. For the working of the Acts, the district was divided into five subdistricts—each being under the charge of a constable, who visited every brothel, and thus ascertained what women resided there, and also their names and the circumstances of their case. This was all reported to Inspector Anniss, who then took the necessary steps either to place the woman on the register, or to aid in her reclamation. In opposition to this evidence, it was urged, in cross-examination, that these beneficial results were not owing in any way to the Acts, as there was nothing in them directly enjoining any such interference; but it was strongly maintained by Inspector Anniss that, without the Acts, it would be impossible to bring all these beneficial influences to bear, as there would be no means of reaching the women; and, therefore, that these collateral advantages were really owing to their operation. Inspector Anniss repeatedly expressed his strong opinion, that the fear of being brought under the Acts was a most valuable deterrent, particularly to those girls who were wavering on the borderland between levity and actual prostitution; and he stated most explicitly, that no female was placed on the register before she had been given a fair opportunity of discontinuing her mode of life. The plan adopted is briefly this. Every female found in a brothel is at once informed of the character of the house she is in, and warned that, if she remains there, she will be placed on the register of common prostitutes. She is also told that, if she desires to reform and is without means of returning to her friends, that the means will be provided for her. In the case of very young people—and many of these poor creatures are mere children—they are at once ordered to depart; their parents are communicated with; and, if possible, they are placed in temporary lodgings, which have been provided by some benevolent persons, until they can either be taken home or provided for in a suitable manner. Thus, every unfortunate woman is brought to understand that, if she has made a false step, a helping hand will be held out to her; and the inspector mentioned several instances showing the good results of the system. In the case of a regular prostitute—a stranger to the district—her name and address is taken; she is told that she will either have to attend at the examination-room on the following day, or a summons will be applied for against her. Prostitutes often come into the district from other towns, and remain a few days before they are found in such circumstances that the police could get at them; but, unless they were very cunning, they rarely eluded the constables for any length of time.

He was of opinion that many infectious diseases, besides venereal, were often checked by the operation of the Acts. Formerly, cases of small-pox and scarlet fever might exist in brothels, quite unknown to the authorities; and thus the infection might be communicated to a large number of persons—especially to members of the services. Under the present system, such a case could not remain unnoticed by him on his visits; and he would order the brothel-keeper at once to send the patient to the hospital, and to have the room properly disinfected; otherwise he would take measures to have the house placed "out of bounds", *i.e.*, that soldiers and sailors should receive strict orders not to enter it.

With regard to the prostitutes themselves, he stated that their behaviour and language, even at their own residences, had greatly improved; moreover, almost every woman had now a room to herself, and was at any rate fairly decent and cleanly in appearance. Solicitation had become quite a thing of the past, and people could now walk through the streets without being accosted by the drunken and disorderly creatures who formerly roamed about there. If any woman was observed soliciting, she was cautioned the first time she appeared at the examining-room, and this was usually quite sufficient. Very strong statements had been made as to the indecorous way in which women presented themselves at the examining-room—in bands of four or five, often intoxicated, and followed by men and boys—to the great scandal of the neighbourhood. Inspector Anniss declared this to be absolutely false; as a general rule, the women were most orderly in their behaviour; and when occasionally, at rare intervals, any such conduct as that described took place, he at once warned the offenders about it, and it was never repeated. He himself, of course, was not actually present in the examining-room; but he had access to the waiting-room, and knew what transpired there. He saw the women arrive, and would not fail to see any improper conduct, or hear any noise that occurred. Questioned as to the dress of his constables, he stated that they were in plain clothes. He believed that the Royal Commission of 1871 had recommended that they should wear uniform; but the recommendation had not been carried out. He himself thought it far better that they should be in civilian dress, as, not only were they thus better able to work as detectives, but they were also able to take young girls and others from brothels, and restore them to their friends, without attracting observation.

He drew attention to one point, where he considered that the Contagious Diseases Acts fell short. After a woman had been examined and found diseased, a certificate to that effect was given her, and she was ordered to repair to the hospital at once. But, being free to do this at her own convenience, she very often did not present herself at the hospital until the following day, and spent the night in drunken-

ness and debauchery. He thought that such women as were found, on examination, to be diseased, should be escorted to the hospital at once, in order to make sure that they did not communicate their malady to others.

On the 13th of June, Inspector Anniss was recalled; and, though he was cross-examined at great length and with great minuteness, his evidence was not shaken in any material particular.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 13th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 16th, 1881.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—President for 1880-81, S. O. HABERSHON, M.D.; President elect for 1881-82, EDWIN SAUNDERS, F.R.C.S. The twenty-ninth annual meeting of this Branch will be held at the Crystal Palace on Tuesday, July 12th, 1881, at 4 P.M. Business: 1. Election of new members of the Branch. 2. Report of retiring Council; and treasurer's report. 3. At 5 P.M., Address by the new President, Edwin Saunders, Esq. Subject, "Specialism; and the Influence of Medical Science on Modern Civilisation". Dinner at 6.30; Edwin Saunders, Esq., President, in the chair. Tickets 12s. 6d. each (exclusive of wine). Members intending to be present at the dinner are requested to give notice at latest on Friday, July 8th.—ALEXANDER HENRY, M.D., 134, Highbury Hill, N.; W. CHAPMAN GRIGG, M.D., 5, Curzon Street, W.

MIDLAND BRANCH.—President, T. WRIGHT, Esq., M.D.; President-elect, W. ELGAR BUCK, Esq., M.D. The annual meeting will be held in the Board-Room of the Infirmary, Leicester, on Thursday, July 14th, at 2 P.M. After the transaction of the usual business of the Branch, the following papers will be read and discussed. 1. Ophthalmoscopic Illustrations, with brief Clinical Notes from cases of General Disease, by M. Macdonald McHardy, F.R.C.S.Ed. 2. A Case of Cock's Operation for Impermeable Stricture, by C. H. Marriott, M.D. 3. Experiences of Placenta Prævia, by G. C. Franklin, F.R.C.S. 4. Notes of two recent Ovariotomies with somewhat unusual Features; and 5. Remarks on Colotomy bearing on five cases, by G. Elder, M.D. 6. On the Advantages of the Lateral over the Median Operation for Lithotomy, by G. Pearce, M.D. 7. On Section of the Vascular and Nervous Trunks which attach the Eye to the Brain as a substitute for Enucleation in cases of Sympathetic Ophthalmia, by C. Bell Taylor, M.D. 8. On a mode of using Plaster-of-Paris to secure Immobility of Fractures and Injured Joints—learnt on a visit to Normandy, by Wm. Newman, M.D. 9. Bronchocele, Acute Suppuration of the Gland after Typhoid; and 10. A Case of Traumatic Tetanus, by G. T. Willan, Esq. Dr. Pearce will show a case of Excision of the Elbow-Joint; Mr. Hodges a case of Saemesch's Incision for Hypopyon Ulcer, and one of Inoculation for Corneal Pannus. Messrs. Joseph Wood and Co., of York, will exhibit surgical instruments of the newest patterns; and Messrs. John Richardson and Co., of Leicester, some of their latest improvements in pharmaceutical preparations. Luncheon will be provided by the President-elect at the Infirmary. Dinner at the Royal Hotel, at 5 o'clock.—C. HARRISON, Honorary Secretary Midland Branch.—Lincoln, June 20th, 1881.

WEST SOMERSET BRANCH. The annual meeting of this Branch will be held at the Taunton and Somerset Hospital, on Thursday, the 21st instant, under the presidency of G. W. Rigden, Esq. The chair will be taken at 2 P.M. Business: Minutes; Report of Council; Treasurer's Report; Election of Officers; Place of Meeting and President-elect for 1882; President's Address; Papers and Communications. Dinner at the London Hotel, at 5.30; 5s. 6d. a head, exclusive of wine.—W. M. KELLY, M.D., Honorary Secretary.

THAMES VALLEY BRANCH. The annual meeting of this Branch will be held at the Board-Room of the Richmond Hospital, on Thursday, July 7th, at 2 P.M. Gentlemen desirous of bringing any subject before the meeting are requested to give notice to the Honorary Secretary. Dinner at the Station Hotel, Richmond, at 7 P.M.—EDWARD L. FENN, Honorary Secretary.—Richmond, June 15th, 1881.

BORDER COUNTIES BRANCH.—The annual meeting of this Branch will be held at Melrose, on July 21st. Members who intend to give communications are requested to intimate to one of the Secretaries.—J. SMITH, M.D., J. KENDALL BURT, M.B., Honorary Secretaries.

NORTH OF ENGLAND BRANCH. The annual meeting will be held at the North Eastern Hotel, Darlington, on Thursday, July 7th, at 3 P.M. The retiring President, G. B. Morgan, Esq., will introduce the President-elect, J. W. Eastwood, Esq., M.D., who will deliver an address. Dinner at the North-Eastern Hotel, at 5.30 P.M.; charge six shillings (exclusive of wine). Gentlemen intending to be present are requested to give early notice to the Secretary.—T. W. EASTON, M.B., Honorary Secretary. Durham, June 11th, 1881.

NORTHERN COUNTIES (SCOTLAND) BRANCH.—The annual meeting will be held at Strathpeffer, Dingwall, on Saturday, July 9th, at 12 noon; Dr. Bruce (Dingwall) President. Members intending to make any communication are requested to give intimation as soon as possible to the Secretary.—J. W. NORRIS MACKAY, M.D.—Elgin, June 20th, 1881.

IT is reported that Professor Hackel, of Jena, intends to go to Ceylon for the purpose of making biological researches.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting was held at the County Hospital, Huntingdon, on Friday, June 24th. In the absence of the President, Professor HUMPHRY was voted to the chair, and introduced the President-elect, Mr. HERBERT LUCAS of Huntingdon, who, on assuming office, addressed a few words of welcome to the members, and noticed the successful meeting of the Association, in connection with the Branch, at Cambridge last August.

Communications.—The following communications were read.

1. J. T. Walker, M.D.: 1. Specimen of Hair removed during life from the Bladder of Female. Dr. Walker was unable to account for their occurrence with certainty, but offered some suggestions. 2. Specimens of Horse Hair Needles.

2. P. W. Latham, M.D., F.R.C.P.: Treatment of Rheumatic Fever by Salicilic Acid.

3. G. M. Humphry, M.D., F.R.S.: 1. Loose Cartilages removed from Knee-joint. 2. Os uteri Detached in Labour.

4. George Wherry, M.B.: A Short Report on Six Months' Ophthalmic Practice.

5. Dr. Gaskell, of the Physiological Laboratory, Cambridge, gave a Demonstration of the Influence of the Vagus Nerve on the Heart of a Frog.

6. Dr. Roy also gave an Explanation of his Method of Observing and Recording the Movements of the Spleen.

7. B. Anningson, M.D.: Infantile Summer Diarrhœa.

The following gentlemen were elected members of the Association and of the Branch: Mr. Edward Knowles of Cambridge; Dr. M. Eade of Melbourn, Cambridge; Mr. Neate of Stilton; Mr. M. Craig of Peterborough.

Representatives on Council of the Association elected.—Dr. G. W. Bacon; Dr. Bradbury; Mr. Stear; Mr. Hodson. *Honorary Secretary:* Dr. Anningson.

Visit to Hinchingbrook.—After the meeting, the members adjourned to view Hinchingbrook House, at the invitation of Lord Sandwich.

Dinner.—About thirty members and guests afterwards dined together at the George Hotel.

BORDER COUNTIES BRANCH: SPRING MEETING.

THE spring meeting of the Border Counties Branch was held at Penrith on Wednesday, May 25th. The chair was taken at 1.30 P.M. by the President, Dr. CAMPBELL; and thirteen members were present.

New Members. The following gentlemen were elected members of the Branch: James Robinson, L.R.C.P.E., Ulverston; J. W. Eastwood, M.D., M.R.C.P., Darlington; T. L. Montgomery, L.R.C.P.E., F.R.C.S.E., Penrith.

Representatives to the General Council. The following members were elected representatives to the General Council: T. B. Grierson, Esq.; S. Lockie, M.D.; R. B. Macbean, M.B.; J. Smith, M.D.; M. W. Taylor, M.D.; and R. Tiffen, M.D.

Communications.—The following were read:

1. Dr. Taylor: Clinical Observations on the Fungoid Origin of Disease.

2. Dr. Eastwood: On the Working of the Habitual Drunkards' Act of 1870.

3. Dr. I'Anson: Embolism, or Burst Hæmatoma?

4. Dr. Maclaren showed the following preparations, and read notes of the cases: *(a)* Cast of Kidney Abnormality; *(b)* Hairs from a Dermoid Cyst; *(c)* Glass Tube removed from a Male Bladder; *(d)* Vesical Calculi; *(e)* Specimen of a Renal Calculus.

Each of the papers was followed by an interesting discussion.

Dinner.—After the meeting, the members, with their friends, dined at the Crown Hotel; Dr. Taylor (in the absence of the President) occupied the chair, and Dr. I'Anson the vice-chair.

AN AGED SMALL-POX PATIENT. A correspondent writes that on Thursday last there was admitted into the Small-pox Hospital at Fulham a patient of the patriarchal age of ninety-one. The last accounts speak favourably of the old lady.

A COTTAGE HOSPITAL was formally opened at Llandudno on Monday, by the Bishop of Bangor, in the presence of a large number of the local gentry.

IN the district of Kottbus, in Prussia, it has been the custom of midwives to follow, in addition, the occupation of laundresses. In consequence of their liability to communicate infection to lying-in women, they have been prohibited from carrying on [illegible] conjointly.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

The Medical Benevolent Society.—Mr. Gamgee.—The Ingleby Lecture.—The Queen's College.—The Skin and Lock Hospital.—Mr. Berry's Retirement.—Improvements.

THE annual general meeting of the Medical Benevolent Society was held on Friday, May 27th, at the Grand Hotel; Mr. W. H. Spreston in the chair. Dr. Sawyer read the annual report, which showed that the invested funds of the Society now amount to £9793, an increase of £523 during the past twelve months. This society was founded sixty years ago, with the object of establishing a fund out of which temporary pecuniary assistance and annuities might be granted to necessitous members of the medical profession or their widows and children. The benefits of the fund were limited to subscribers and their families. The total number of ordinary members of this society is only 249, although it is open to all medical practitioners residing in Birmingham, or within a radius of fifty miles, in which area they number about two thousand. As medical men are not usually rich, and unfortunately, as the mortality-tables show, stand more in need of provident arrangements than most classes, it seems that either providence is not so general amongst them as it should be, or other institutions offer better terms for their money. But there is no other institution in which, by the annual payment of one guinea, they can secure an annuity of £30 a year for their widows. But this annuity, though practically safe, is not guaranteed, and may be refused if the funds be insufficient to admit another annuitant. It may be that this uncertainty has something to do with the failure of the society to attract a greater measure of support. It has been said with truth, that it is neither a charity nor a provident institution. If the former, its good deeds should not be confined to its own members; if the latter, a definite contract would of course be essential. There are not wanting signs in the times of a disposition to merge these charitable institutions, which had their origin in mediæval habits of thought, into provident institutions which are more in accord with modern ideas; and I have reason to believe that the present officers of this society would not oppose an inquiry to elicit how far such a change in its constitution would be at once possible and desirable.

The retirement of Mr. Sampson Gamgee from the staff of the Queen's Hospital is a matter for much regret, especially as the step has been unfortunately demanded by his personal health. It is the unanimous hope of the profession that, being relieved of his public duties, Mr. Gamgee may be able for many years to devote his valuable talents to the benefit of suffering humanity, though in the necessarily narrower circle of his private practice.

It looks as if we were not going to have any Ingleby Lectures this summer. No lecturer has yet been appointed, or rather, I ought to say, has accepted the appointment; but I have the best authority for saying that attempts have been made to induce an eminent London specialist to accept the duty. I know he refused the first application, but I hear he has been asked again, with leave to put off the lectures to the winter, if it will suit his convenience. It seems strange that on such a subject as the diseases of women, in which Birmingham may justly feel that she is especially strong, the Council of Queen's College should have found it necessary, in the fifth year of the institution of this course, to pass over many whose names have certainly far more than local celebrity. A meeting of the professors of the college has been called to consider the action of the Council.

The Skin and Lock Hospital has not yet achieved a financial success; it is already £300 in debt, and I have heard rumours of other misfortunes. Its supporters have endeavoured to repair their first false step, to which I alluded in my last letter, of appointing medical officers without public advertisement, by nominating some of our leading local physicians and surgeons consultants to the charity. I think its Lock department will secure it a certain amount of support; but there is not room for a special department for skin-diseases. The multiplication of special hospitals is a great evil so far as medical education is concerned; but undoubtedly the fault has been with our older charities, which have been unwilling to allow the formation of special departments; and I fear the opponents have usually been the medical staff.

By the removal of Mr. Berry to the neighbourhood of London, on his retirement from practice, the profession here has lost one of its oldest members. Mr. Berry was a very general favourite, and enjoyed a large and lucrative practice. He was Professor of the Diseases of Women in the Queen's College, and delivered the first series of Ingleby Lectures five years ago. He was consulting surgeon-accoucheur to the Queen's Hospital, consulting-surgeon to the Children's Hospital and Women's Hospital, and honorary surgeon to the Magdalen Asylum. In his retirement, he carries with him the good wishes of the whole profession in this town and neighbourhood, and we trust that we have by no means seen the last of him.

The town improvements have recently demolished one corner of the old Square, formerly occupied by medical men, and Temple Row is falling piecemeal into the hands of building speculators, who are converting the old private houses into shops. Very few men now live in the town, as there are so few houses left; and unless some are built, of which there is not much probability, in a few years there will not be a consultant to be found in the town after five o'clock. On the whole, this is a result which I do not deplore, as the gain in personal comfort to the doctors concerned is undoubted; and, as there are few consultations which cannot be foreseen and arranged for, it will not be a misfortune if the unseemly practice of hurried consultations comes to be given up.

CORRESPONDENCE.

REPORT OF THE COLLECTIVE INVESTIGATION COMMITTEE.

SIR,—A very important series of resolutions, affecting the Association in its financial and scientific aspects, will be brought forward at the next meeting of the Association at Ryde. I desire to direct the attention of the members to the full report of the Committee, as published in the JOURNAL of April 30th, 1881; and to submit for their consideration some observations on the proposed scheme, so that, by free ventilation in your columns before the meeting, it may receive wholesome criticism. It is too often the case, at all public meetings, that reports are adopted without discussion. If not careful, the Association may find itself pledged to an unwise scheme, and may afterwards regret the precipitancy with which it was adopted.

I shall, as briefly as possible consistent with the magnitude of the interests involved, consider the scheme in its financial and scientific aspects.

1. Financially, the Association will be asked to pledge itself to a permanent expenditure of £300 a year on a secretary—£200 salary, and £100 for travelling and other necessary expenses. It is possible, if not probable, that at least another £200 or £300 will be required for incidental expenses; as, for instance, "to make some remuneration to those persons who shall be found to have given the time and attention which are requisite to make careful observations and record them well", or to pay the registrars who may assist in the work. This is a large sum to ask the meeting to pass as an annual toll; so that, on this ground alone, the members should take the scheme into thorough consideration before the meeting, and ask themselves the questions: Will scientific medicine be benefited to a proportionate extent by this disposition of our funds? Is such an outlay required to secure the results foreshadowed in the report? Would it not be better to leave the solution of the questions mentioned in the concluding portion of the report to private scientific workers?

2. The report suggests that a committee of seven shall be appointed annually by the Committee of Council, to direct the work of combined observation. The Committee recognises the difficulty of combining a number of men in the systematic and careful observation and record of facts, and especially so in the case of medical men, whose irregular and harassing avocations disincline them to enter upon and continue a labour of this kind. Provincial medical men could not well sit on this committee, unless at a serious expense both of time and money; so that there is danger of centralisation of this work of the Association in London. Naturally, it would be easier and cheaper to appoint seven medical men resident in London for this committee. Is this desirable? Theoretically, a committee which shall combine the skill of the anatomist, the analytical power of the chemist, and the varied knowledge of the histologist, physiologist, physicist, pathologist, and therapeutist, with the diagnostic aid of the physician, is a very desirable formation; but, practically, it will be found that the report issued by such a committee will depend on the labours of one or two workers. Take, for instance, the report on the Action of Mercury on the Biliary Secretions, of August 7th, 1868. This report owes its value to the facts obtained and recorded by, and to the zeal, endurance, and courage of, Drs. Rutherford and Gamgee, on whom the entire labour of the experiments devolved. It would be an insult to both these eminent men to doubt but that they could have drawn up

a report without the fictitious aid of the other eminent men whose names were associated with them in this inquiry. All who have been on committees will agree with me that, as a rule, the work falls upon one or two of the willing attenders. The Committee, I am pleased to see, recognise this truth, as the report states "that the success will much depend upon the energy, perseverance, ability, and judgment of the secretary". I have no doubt the largest share of work will fall upon him; and he ought to be an histologist, physiologist, physicist, therapeutist, hygienist, for such a position. I do not desire to offer any captious criticism; but I would respectfully urge the following considerations on this part of the scheme.

Admirable scientific work and original research have been done in England by private workers, without subsidy from any fund. Stimulated by ambition or love of science, men such as Ferrier of London, Ross of Manchester, Allbutt of Leeds, have contributed to the elucidation of problems of disease at their own expense, and have published the results of their researches on the usual marketable terms. Other workers have done the same; and in the future, as in the past, there will always be found men ready and willing to throw themselves into scientific work, in order to clear up some of the problems which disease opens out. Private workers will be handicapped by the devotion of the funds of the Association to such a scheme as the one now proposed; and private effort will be to a certain extent discouraged. This certainly is not the aim of the Association. I believe individuals will do the work of investigation better than committees; in all cases the individual worker can secure the co-operation of some fellow-worker, should the inquiry lead him into ground with which he is not familiar; where information has to be collected, he can send out circulars, as was done by Dr. Crichton Browne when he wished to gather some data upon left-handedness. Upon these grounds I object to the scheme. If the Association is financially in such a good position as to be able to afford a permanent outlay of from £300 to £600 a year, I think the money might be better expended by giving three prizes annually, of £100 each, and a gold medal, for the best essay on any of the subjects they desire to have cleared up, as osteo-arthritis, the origin of contagious diseases, the incubation of infectious diseases, cancer, tubercle, etc. Thus they will encourage private workers; all members of the Association will have a chance of distinguishing themselves; and they will obtain even better results, because they will secure competitors stimulated by a love of science and research, or by ambition, and will not have to depend upon the service of a paid officer, who may not have his heart in his work.—I remain, yours faithfully,

Horton House, Halifax, June 17th, 1881. T. M. DOLAN.

WOOLSORTERS' DISEASE.

SIR,—I dislike very much to write to the Press in any case, but most of all when, in doing so, I must differ from opinions expressed by a friend and colleague. I have, therefore, waited a week, in the hope that some of your readers would reply to the letter of Dr. Tibbits in the JOURNAL of June 18th. No one having done so, I must write a few lines, because I am anxious that the prevalence of the disease (bronchial anthracæmia) should be correctly estimated, that its nature should be known, and that erroneous opinions should not be entertained respecting it.

In the first place, allow me to say that the tone and temper of the letter, its positive statements, unsupported by carefully recorded facts, and its general denials, in opposition to the exact observations of experienced workers, are not favourable to the scientific investigation of a disease, concerning which there is yet much to learn.

The statements to be noticed are—1. That "Dr. Greenfield could not mention one single character which separated the bacillus found in anthrax from any other." Surely, Dr. Tibbits is mistaken. No one who knows anything about bacilli will say that there are no characters (physical, as regards size; and physiological, as regards effect on inoculation) which separate the bacillus anthracis from the bacillus septicæmiæ, and other well-known bacilli. Their appearances have been repeatedly figured in our medical periodicals and other works within the last two years (Koch on *Traumatic Infective Diseases*, plate ii). I really cannot understand such a statement.

2. Dr. Tibbits has seen bacilli "in blood and fluids taken from bodies after death" from various diseases, and also under other circumstances. He states "That the bacilli observed under all those circumstances are indistinguishable from so-called 'anthrax bacilli' has been proved by several independent and well-known authorities". If he had given the names of these "several independent and well-known authorities", the statement would have been more complete, if not more valuable. It is well known that some of the bacilli mentioned do appear the same as the bacillus anthracis; but I am not aware that any well-known authority, excepting Dr. Tibbits, believes that they are *all* alike. For myself, I prefer other "independent and well-known authorities", who are able to distinguish differences between most of these bacilli—namely, Pasteur, Cohn, Klebs, Koch, Bollinger, Toussaint, Lister, Tyndall, Burdon-Sanderson, Klein, Greenfield, Ewart. When Davaine, in 1863, pointed out the presence of bacteria in the blood in cases of malignant pustule, other observers soon found what they considered to be identical organisms in the blood of those who had died from many other diseases; and they further satisfied themselves that these organisms did not cause the disease referred to. The question was discussed by the French Academy with all the warmth, determination, and ability which have distinguished some of the most memorable debates of that learned body. Why Dr. Tibbits has not referred to the labours of his predecessors in this field of inquiry, I will not presume to say. It is sufficient to know that the advocates of these opinions have long been silent respecting them.

3. Dr. Tibbits appears to rejoice in what he considers to be an indication of the "explosion" of the idea: that the inhalation of these organisms, or their spores, was the cause of woolsorters' disease. For one, I believe the "original idea" is unquestionably correct. No facts have been published to the contrary. Perhaps Dr. Tibbits can supply them.

4. Two cases were referred to, which were published in the JOURNAL of June 11th. One died after thirty hours' illness; the other, forty-seven hours after leaving work. A quarter of a drop of blood from the more rapid case, given to a mouse, produced death in twenty-eight hours. The same quantity of blood from the other was fatal to a mouse in thirty-six hours. The fluids of the tissues of these animals, examined a few hours after death, were crowded with bacilli. Dr. Tibbits, who did not see the cases on which he favours us with his opinion, writes:—"It seems to me that there was no difficulty in diagnosis. Most probably they were cases of congestion or inflammation of lung or lungs." This appears to be his opinion as to the nature of woolsorters' disease. I need scarcely say that such an opinion, which was not satisfactory to the profession and the public forty years ago, is not likely to be more so now.

It is suggested that the virus of anthrax could not exist in effective quantity in the soapsud and material these men were handling when at work. The man who succeeded one of these at the machine, soon after he commenced work grazed his forearm slightly, and washed the blood off with a bit of wool wet with the warm sud-water. This caused external anthrax, from which he died after a few days' illness. Blood and serum taken during life contained bacilli similar to those found in the other cases after death. The soap-sud was also found to contain numerous bacilli. Dr. Tibbits discreetly says nothing about this case, but inquires, "Is this evidence sufficient to satisfy the scientific mind of the medical public?" I think it is. I do not know what more can reasonably be expected.

The letter is altogether out of date, and of no scientific value. It will not mislead those who are moderately acquainted with the literature of anthrax.—I remain, yours etc., J. H. BELL, M.D.

Bradford, June 26th, 1881.

MANAGEMENT OF HOSPITALS.

SIR,—On reading over your report on the Management of Hospitals, page 1019 of last week's JOURNAL, I find that your reporter misunderstood the few observations I addressed to the meeting. My remarks referred to a state of things that existed for many years at Charing Cross Hospital, but happily, and chiefly through my efforts, has for the last ten or twelve years ceased to exist. At the present time, happily, there is a medical committee, which exerts its due influence over the affairs and management of the hospital; and the medical school is no longer called upon to hand over a considerable portion of its fees towards the support and maintenance of the hospital.—I remain, sir, your obedient servant,

June 28th, 1881. JABEZ HOGG.

OPIUM TRAFFIC.

SIR,—Under the above heading, Dr. Murrell suggests the desirability of arriving at some "more definite opinion as to the effects of the system of the habitual use of opium". But this is hardly fair. The question of "the opium traffic" is a twofold one. It is (1) a question whether, in the eighty years of conflict betwixt the Chinese Government and our own on this subject, the former has received the last upright dealing it had a right to claim on a point which [illegible] to be of vital importance to its people. And (2) it is a question of the morality of physical and moral injury to [illegible] habitual use of opium, as affecting it [illegible]

England, in her relations with heathen China, should wipe her hands clean of all connection with the traffic.

I think with Dr. Murrell that it is highly desirable that we should have further information from practitioners resident in China on the effects of opium-smoking. They (I refer especially to medical missionaries) have ample opportunity for observation of its effects, both on the healthy and on the diseased body, and a series of carefully made and tabulated observations from different parts of China would be of great value. In a purely Chinese practice of seven years' duration, I saw nothing to warrant the conclusion that opium-smoking acts as a prophylactic against malarial fever. It would be well, however, to have a tabulated series of comparisons; and I should hope that the expression of this desire may elicit, ere long, such information as is required to set this particular question at rest.

Living in a large Chinese city, and brought into daily contact with the people, I came to the decided opinion that the habitual use of opium is most disastrous, alike in its physical and moral results. Hundreds of men came to me asking help in order to deliverance from the habit. These men, mostly of the working classes, would be earning about a shilling a day, and from a third to a half of their earnings would be spent on the luxury of the pipe. This brings out a characteristic difference between the use of alcoholic drinks and opium. It is but a small amount of opium that is represented by fourpence or sixpence a day; but once the *habit* is contracted, so tight is the hold it takes upon a man, that when, through stress of circumstances, or dread of a still deeper entanglement, or conviction of the evil of the practice, he desires to escape from it, he is fain to seek all possible help to mitigate the extreme physical distress resulting from disuse of the drug. The *ordinary* consumer of alcoholic liquors requires no such help in giving them up. Whoever heard of the *ordinary* beer-drinker coming to a doctor for help in order to give up his beer? The two practices are not to be compared in respect of the intensity of grasp exercised by the two drugs respectively upon the *moderate* consumer.

Then, again, I would say, without any hesitation, that a characteristic feature of even moderate opium-smoking amongst the Chinese working classes is loss of flesh. So much is this the case, that the rapid putting on of flesh is one of the marks by which we recognise whether our patient is truly abstaining from the drug. Even considerable suffering from the loss of the pipe does not hinder this rapid fattening. If it were not quickly apparent, we would conclude that we were being deceived.

Dr. Murrell is not justified in saying: "It is well known that the Chinese are a nation of opium-eaters." We are certainly doing our very best to make them so. But there is a great mass of the Chinese people which loathes and abominates the drug for the deadly influence it is exercising on the nation, and which would greatly rejoice to check and diminish, and finally abolish, its consumption. Dr. Murrell is, perhaps, unaware that up till the last year of the eighteenth century opium was admitted to China only as a medicine, and that at that time it was the recent rise of the import to something like five thousand chests (a chest contains 133⅓ lbs.) that led the Canton Government to draw the attention of the Imperial authorities to the dangerous fascinations the drug was beginning to exercise upon many of the Chinese. In the year 1800, the Emperor Kia-king forbade the trade. From that time it became contraband; but, alas for the Chinese, and alas for us, our Indian Government deliberately yielded itself to the patronage of a long-continued course of smuggling, ending, in 1839, in Commissioner Lin's gigantic seizure and destruction of twenty thousand chests of opium, and, as a consequence, in the first opium war. A second war had as one of its issues the legalisation of the trade; and now, year by year, we are pouring into China about ninety thousand chests of opium. If the Chinese are fast becoming a nation of opium-smokers, it is simply because, in the teeth of emperors and statesmen of successive generations, the power of England has been used to counteract every effort to restrain the trade.—I am, sir, your obedient servant,

JAMES L. MAXWELL, M.D.

26, Heath Street, Hampstead, N.W., May 23rd, 1881.

SIR,—In answer to my inquiry as to the effects on the system of the habitual use of opium (BRITISH MEDICAL JOURNAL, May 21st, 1881), I have received from Dr. Elliott of Whittlesea a communication which throws considerable light on the subject. Dr. Elliott has for many years resided in Cambridgeshire, in the midst of the Fen district, where opium-eating is very common, and has had unusual opportunities of forming an opinion on the subject. In Whittlesea alone, the consumption of opium is enormous, its sale forming the chief support of the druggists, of whom there are five in a town of not more that 3,700 inhabitants. The quantity taken by a habitual opium-eater is very variable; but the average is about half an ounce a week of the solid opium, or from four ounces to half a pint of the tincture. A local druggist of considerable experience, whom Dr. Elliott consulted, assured him that these quantities were often very greatly exceeded, and that he had many customers who came in and had their four or six ounces of laudanum in the morning, and the same in the evening; the quantity taken being often limited solely by their funds. He knew a woman who had for years habitually taken two quarts of laudanum a week, apparently without any ill effect. The best opium is invariably used, and the pharmacopœial strength of the tincture is frequently exceeded. The opium-eater is generally a woman, the proportion being at least three women to one man.

Dr. Elliott is convinced that the ill effects of opium-eating are much exaggerated. It is certainly easy to recognise the opium-eater by the peculiar yellow wrinkled skin; but these people live to a great age, frequently until they are eighty or ninety. Their only trouble is constipation, and this they overcome by taking large doses of jalap. The moral consequences are also slight, and are due chiefly to the fact that opium-eating is emphatically a secret vice. The opium-taker is always ashamed of the habit, knows that he is wrong, and will tell any amount of lies rather than confess his weakness. It is ridiculous to compare opium with alcohol, which, when taken in anything like excess, ruins the health and fills our jails and workhouses. We should be inclined rather to class opium with tobacco in its ill effects (in excess) as regards the body. It is a noteworthy circumstance, that phthisis is uncommon in the Fen district, and is rarely met with amongst opium-eaters.

The difficulties in the way of a thorough investigation of the subject are very great, owing to the secrecy with which the habit may be practised; but Dr. Elliott considers that it is proved beyond all doubt—1. That the habit is extremely prevalent; 2. That the quantity consumed is very great; 3. That, after all, it does very little harm.—I am, sir, your obedient servant,

WILLIAM MURRELL, M.D.,
Lecturer on Materia Medica and Therapeutics at the Westminster Hospital.

SIR,—In a recent number, Dr. Murrell has questioned whether the general impression regarding the deleterious effects of opium-eating is justified by experience. Perhaps the description of a case of habitual administration of morphia in large quanties by hypodermic injection may assist in leading to a correct conclusion.

The case was that of a lady rather over forty years of age, to whom, at the time she first came under my notice, ten grains of morphia were daily administered. She was under my observation for about eighteen months, during which time the amount was gradually increased to fifteen grains *per diem*. The morphia had been given at first on account of a painful affection of the spinal column, which had resulted in paraplegia. The following symptoms were apparently due to morphia, or at least had developed and gradually progressed as the amount of morphia was increased. There was constant thirst, with great dryness of the mouth and gums, and frequent slight bleeding from the edges, so that in the morning the teeth were covered with sordes. Considerable craving for alcohol existed; and at the time I first saw her, she was consuming a bottle (twenty-four ounces) of port daily, together with occasional half-glasses of brandy. Her appetite was poor, and digestion often painful. Constipation was habitual, varied occasionally by attacks of diarrhœa. Very severe vomiting and retching were extremely frequent, occurring most generally in the morning, but sometimes throughout the day. Such attacks were frequently accompanied by distressing headaches. Severe neuralgia existed often, especially in the head and face. Somnolence alternated with periods of vivacity; intervals of rational quietude occurred, but not of long duration. In talking, she was quite coherent and rational; in writing letters, words were so frequently omitted, that the meaning was often obscured, or even lost entirely. She was subject occasionally to a most curious form of attack. Without any warning, and mostly always immediately after an administration of morphia by hypodermic injection, she had a sensation of tingling and burning all over her body. The skin became hot, flushed quite red, and swollen; the face very much puffed, and the eyes injected; the breathing rapid and panting. She complained of most intense agony all over the skin, as if every part were burning; the head felt as if ready to burst, and there was a sensation of suffocation. After lasting sometimes fifteen or twenty minutes, these symptoms gradually passed off, leaving considerable temporary prostration.

During the period she was under my observation, all the symptoms described became progressively more severe. Recently, I have met with another case, the particulars of which I am not at present at liberty to publish. I can say, however, that substantially the symptoms resemble very closely indeed those described above; and as in the latter case no organic disease whatever exists, strong confirmation

is afforded that the symptoms in the former case were really due to the morphia.

In conclusion, I have to say that never in my practice have I met with two persons who were more miserable themselves, and a greater source of discomfort to their friends, than these two victims of a morbid and insatiable craving for morphia.—I am, etc.,

Belsize Park, N.W., June, 1881. ALBERT WESTLAND.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE FIRS HOME, BOURNEMOUTH.

THIS Home is intended for the reception of "cases of advanced consumption". It appears to be conducted upon excellent principles, and it has now carried on its beneficent work for twelve years. During the year 1880, forty-nine patients were admitted; sixteen died; seventeen were discharged; and sixteen were under treatment on December 31st. On an average, there were seventeen patients in the Home all the year round. The expense per head, calculated on this average, would be £69 11s. 4d. a-year, or £1 6s. 9d. a-week. Considering the nature of the illness with which the patients are afflicted, its severity, and the necessity there is to provide extra comforts, and keep a proportionately large nursing staff, the committee believe this to be an extremely moderate expenditure. The patients have chiefly been admitted from the Sanatorium. It seldom happens that they belong to Bournemouth, or the neighbourhood. They consist almost entirely of persons who have been attracted from a distance in search of health, and have then been overtaken by severe illness. Thus the managers feel that they may fairly appeal to the general public for assistance.

THE BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

THE fifty-ninth annual meeting and anniversary festival of this Society were held in the Grand Hotel, Birmingham, on May 27th, under the presidency of Mr. W. H. Sproston. In the annual report, the directors congratulated the members upon the continued prosperity of the Society. The invested funds now amounted to £9,793. During the year, sixteen annuitants had received grants, which varied in yearly value from £20 to £40. One new annuitant, a disabled member, had been added, and a grant at the rate of £40 a-year had been made to him. The total sum spent in grants in 1880 had been £395, and the whole working expenses of the Society had only been £23. Eighteen new members had been elected, while six members had been lost by deaths and resignations, leaving the present number of members at 262. Among the cases cited in the report, as showing the great advantages offered by the Society, were the following striking instances—namely: one case, by which a member had paid in subscriptions £14 14s., and, after his death, his widow had received £1,125; and another, in which a member's payments having been £15 15s., his widow had benefited in grants to the aggregate value of £1,247 10s. The directors appealed to the members generally to aid them in getting new members, and in spreading the useful ministrations of the Society throughout the midland counties. Dr. Fitch of Chaddesley was elected President for the ensuing year, and Dr. Bassett of Birmingham President-elect. Mr. Haslehust of Claverley, and Dr. Savage of Birmingham, were chosen as vice-presidents. Mr. Bartleet was re-elected Treasurer, and Dr. Sawyer was appointed as his colleague, in the vacancy arising from Dr. Wade's resignation of his treasurership upon his acceptance of the office of trustee. Dr. Sawyer was also re-elected Honorary Secretary. Dr. Baker of Leamington, and Dr. Russell and Dr. Wade, were elected directors. The annual dinner followed the meeting. The annual subscription to the Society is one guinea, and this payment ceases after the completion of twenty-one subscriptions. A composition fee of sixteen guineas frees a member from all future payments. The Honorary Secretary will be happy to give information to gentlemen desiring to join this old-established and prosperous Society.

A PROVIDENT DISPENSARY FOR THE HOLBORN DISTRICT.

A CONFERENCE of delegates and collectors of the Hospital Saturday Fund, and the members of the Metropolitan Provident Medical Association was recently held in the Holborn Town Hall. Mr. James Stansfeld, M.P., occupied the chair. The chairman said the working man could not, as a rule, afford to employ a family doctor as the higher classes did. He was obliged to have recourse to sick clubs and friendly societies and hospitals. But in all those there were defects, and particularly with regard to hospitals, the out-patients of which burdened the doctors who could not properly attend to the number of out-patients who presented themselves, moreover, the relief obtained was tainted with charity. In order that the working man might be able to obtain proper medical attendance, it was proposed to establish self-supporting provident dispensaries in all parts of London, and in doing this, the promoters of the movement sought the co-operation of the Hospital Saturday Fund, which was founded on a principle somewhat similar, inasmuch as the object of that establishment of the fund was that working men, who had the benefit of the hospital, should contribute to their support.—Mr. Bunn said the plan of operations would be that, after having procured suitable premises, they would invite the assistance and co-operation of the leading medical men in the neighbourhood, and pay them for their services; and that any person joining the association would be allowed to select from these his own family doctor. The doctor would prescribe, and the association would find the drugs and dispense. The subscription would be 1s. a month for a man and his wife and children under 16 years of age. Single men or women would pay only 4d. a month. That these subscriptions would be sufficient was shown, he said by the experience of a number of such associations which were in operation in the provinces. The meeting was then addressed by Sir Wilfred Lawson and Mr. Hodgson Pratt, who moved and seconded a resolution, declaring the proposals of the Metropolitan Medical Provident Association deserving the support of the working classes and of the Hospital Saturday Fund, which was carried unanimously. The meeting closed with a vote of thanks to the council of the Hospital Saturday Fund and to the chairman.

MILITARY AND NAVAL MEDICAL SERVICES.

VOLUNTEER SURGEONS.

THE *Volunteer Service Gazette*, referring to the alterations made in the Memorandum on the changes which the Government propose to make in army organisation, quotes the following as one.

"Surgeons of volunteer corps will, after twenty years' service, be granted the honorary rank of surgeon-major, tenable while serving or on retirement."

SIR,—I do not see what good "Acting Surgeons'" complaints about relative rank in the Volunteer Medical Service can do himself or any of us. Our work has been very light indeed; with few exceptions, almost next to nothing. We know well what trouble our brethren of the army and navy departments have to obtain any alleviation of their real and undoubted want of consideration and proper treatment by the authorities. I think that all volunteer acting and honorary surgeons, under the old administrative battalion system, should apply for commissions, if they have not already obtained them, and also ask to have boards of medical officers made available at convenient stations for examination of [illegible] pass certificates. I hope that the majority of our medical officers will unite in a petition to headquarters that each and every volunteer officer may be allowed to wear the uniform of his corps, according to his relative rank, and not be doomed to be crushed beneath the abominable and uncomfortable cocked hat and bunch of quills. We have no claim, I consider, to the uniform of the Army Medical Department, which, by-the-bye, is rarely seen now a-days. In my opinion, the nearer we keep to the old regimental system, with regard both to uniformity of dress and local *esprit de corps*, the better for our particular branch of the service.

As to the matter of promotion, I think we may leave that alone [illegible] as Mr. Childers is evidently well disposed to give fair consideration to everything affecting the Volunteer Medical Service, and he has every means of acquiring the necessary information thereupon. I remain, dear sir, yours faithfully,

Newport, June 9th, 1881. PASSED SURGEON.

NAVAL MEDICAL SERVICE.

SIR,—In virtue of the new warrant, it is quite plain that a medical officer with less than twenty years' service may now find himself quietly discharged to the shore with a double qualification of an undesirable nature, namely, physical disability and professional inability to practise on land. He will receive a gratuity in lieu of all claims for himself and those dependent on him. In other words, he will get the sack, with a few hundred pounds stuffed into it, and away go to [illegible] where else whenever it suits him. No invidious distinctions are to be made; those who entered before, and those who may enter after, the 1st April, 1881, all fare alike. This gratuity business is something quite novel in the service, except in the case of unfortunate blue-jackets and marines, who, after spending the heyday of their lives in the service of their country in foreign climes, may be found in country fairs and village streets singing the songs they learnt in the forecastle of Her Majesty's ships of war. Perhaps some of their quondam shipmates, in the persons of surgeons and staff surgeons may be [illegible] ing you for your continued interest in an unfortunate service. I am, yours truly,

N. [illegible]

P.S.—Candidates with spare [illegible] [illegible] [illegible]

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE CARDIFF UNION WORKHOUSE: DR. SHEEN'S ANNUAL REPORT.

We have received an able and interesting report of the state of the Cardiff Workhouse for the year ending March 1881. The writer complains of the overcrowded state of the sick, infirm, and other wards; a condition of things not to be wondered at, when we note that the house is only licensed for 382 inmates; that the population of this rapidly growing town was, in 1871, 76,701, and has now probably reached 90,000. This complaint will, however, shortly be met, as the guardians are building a larger house; certainly not before it was needed. On looking over the pages of the report, we are painfully reminded that the evils which we had so much reason to condemn in the metropolis, now sixteen years ago, are still rampant in this large provincial town—such as overcrowding, imperfect isolation of the infectious sick, and defective nursing.

In his analysis of the various classes of inmates, Dr. Sheen draws attention to the number of women and children whose husbands and fathers have deserted them, and gives expression to a not uncalled for regret, that they should be compelled to enter a workhouse, with all its social and moral contaminations, ere the father, etc., can be proceeded against. Dr. Sheen gives a satisfactory account of the recoveries of those confined in the house; agreeing, as that does, with our experience of other workhouses. In his report of the zymotic diseases which have come under observation, and which is creditably small, he draws attention to the large mortality (mostly arising from chest complications) from an outbreak of measles which took place last November. This is not an unusual experience in workhouse infirmaries, and mainly arises, at least in our judgment, from the unavoidable dampness of the children's wards, proceeding from the continuous daily washing of the floors. This may be obviated by polishing the floors, or by dry rubbing; but if, as is not impossible, the authorities should decline to do this, then, should Dr. Sheen have to contend with a similar outbreak, let him remove all the children to a small warm room, and let him cause fires to be kept up day and night; *id est*, if he can induce the guardians to tolerate such apparent extravagance in the curative treatment of pauper sick children. Dr. Sheen draws attention to the diminution that has taken place in the consumption of stimulants; a fact (*per se*) of not much value. To commend itself to other minds than guardians' it should be shown that the sick poor have recovered earlier in consequence. Passing to the hours during which the sick can be admitted, Dr. Sheen shows that, practically, there is no let or hindrance to their admission at any period of the day or night which squares with the convenience of the district medical, the relieving officers, or the friends of the sick; and properly argues for some rule being laid down as to such admissions. He then proceeded to comment on the growing abuse of the use of workhouses on the part of the police, who now make the infirmary a sort of continuous police-cell; and which, as he points out, might be met if proper accommodation was provided at the police-stations. This one day will have to be dealt with. Finally, he complains, and with justice, of the inhumanity implied in the existing custom of sending persons in a dying state into the house, and properly argues against such removals.

Our notice, however, of this report would not be complete, if we failed to call attention to the tabulated list of the more interesting forms of disease, which exhibits the large field of a medical, surgical, and pathological investigation, which our various urban workhouse infirmaries provide; and which, under our existing imperfect central and local control, is utterly thrown away, save by a few zealous workers, such as Dr. Sheen has shown himself to be.

HEALTH OF CALCUTTA.

We have before us the annual report and returns regarding the health of Calcutta for the year 1880, presented to the corporation of the town by Surgeon-Major K. McLeod, M.D., F.R.C.S.E., health-officer of Calcutta. It is a concise, interesting, and important report, giving in clear language all the information we have a right to look for in such a document, without having to wade through pages of irrelevant or unimportant matter. The year 1880 appears, in many respects, to have been a fortunate one; the temperature was moderate, humidity high, the rainfall plentiful, and well distributed over the year. Food was abundant and cheap, more particularly when compared with the years 1877, 1878, and 1879. The birth registration, not a bad index of the prosperity of the people, shows a decided excess over the decennial averages. The death-rate was lower than that of any year since 1874. There was an absence of epidemic disease. Cholera and small-pox, "the most frequent and fatal epidemics in Calcutta", presented very moderate figures. The mortality is classified according to locality, race, and age. The riparian and southern sections of the town are the healthiest; the central and eastern the least healthy. The preponderance of the male element in the population has a decided relation to the death-rate, the sections having the largest proportion of males being the healthiest. "A low birth-rate, and small proportion of children, coinciding generally with a low death-rate, and *vice versâ*." The high death-rate of mixed races, whose permanent home is in Calcutta, among whom there is a preponderance of women, and whose birth-rate is highest, is striking—amounting to 41.6 per 1,000 of population; the death-rate of non-Asiatics being 20, that of Hindoos 27.5, Mahomedans 26.5, per 1,000. Now, as always, the death-rate among European sailors is very high, "double that of their countrymen living on shore". This is probably due in part to the reckless mode of living of their class; and, we strongly suspect, to the impurity of the water-supply to which they have access, as long since pointed out by Dr. Norman Chevers. The infant mortality is very high, particularly among natives. Tetanus accounts for about one-half of the total causations; fever, convulsions, and bowel complaints make up the remainder. According to the report, fevers of various kinds constitute about one-third of the registered mortality of Calcutta. Mahomedans present the highest rate of fever mortality (10.54) per 1,000 of population; mixed races come next (9.7); Hindoos (8.4); non-Asiatics (2.1); other classes (2). Females suffered and died from this cause in higher proportion than males. The fevers are thus classified: under the head of typhus 26 deaths appear; 451 under enteric; 2,077 under simple continued fever; 31 under ague; and 1,210 under remittent. Dr. McLeod doubts whether the "enteric fever", under which 451 deaths were registered, is true enteric fever. It occurs to us to "doubt" whether a large number of the 2,077 deaths put down to simple continued fever were not true enteric fever; 240 of the deaths were infants under one year of age—due, as Dr. McLeod significantly adds, "to a combination of fever and diarrhœa".

The report contains a notice of the epidemic of dropsy which prevailed in Calcutta and its suburbs in 1877-78-79, spreading to Thillong, Cachar, Sylhet, the Khasia Hills, and some of the districts of Assam proper. The disease appears to be identical with that known in Madras and Ceylon as *beri-beri*; and is characterised by swelling of the limbs, with fever, diarrhœa, burning pain in the affected limbs, difficult breathing, palpitation, emaciation, exhaustion, and anæmia. The duration of the disease is about two months, and death is always preceded by great disturbance of the functions of respiration and circulation. Dr. McLeod is unable to give more than negative information as to its causation. Though most prevalent among the poorer classes of Mahomedans and Hindoos, Eurasians, Armenians, and natives in good circumstances also suffered. It could not be traced to poverty of living, or any dietetic condition. No special insanitary conditions were associated with its prevalence. As regards infectiousness, Dr. McLeod seems to think the evidence points that way, although on certain points rather conflicting. "The gradual spread northwards, the pronounced localisation, and the seizure of whole families, are the most remarkable circumstances in the natural history of the malady, considered from an epidemiological point of view." The returns for the first quarter of the year included 143 deaths from this cause. It is a notable fact that there was no death from this disease among Europeans, and only one among mixed races. This appears to have been the first epidemic of this disease in the history of Calcutta. An epidemic of the same disease visited the Mauritius in the years 1877, 1878, and 1879.

As regards cholera, Dr. McLeod records that in no year of the preceding decade, except 1871, were deaths from cholera so few as in 1880. If fresh evidence was wanting to prove that, wherever cholera prevails with special severity in any place, there influences unfavourable to health are sure to be found, this report would furnish it. Dr. McLeod gives some striking examples of cholera cases, grouping themselves around sloughs of impurity, and amidst surroundings of fæculence and filth. We are glad to see that Dr. McLeod is vigorously following up the movement, instituted by Dr. Payne, of filling up the tanks which, time out of mind, have been used by the natives indiscriminately for drinking, washing, and bathing places—the water being little better than sewage, pure and simple.

The year 1880 was remarkable, also, as a non-epidemic small-pox year. This year (1880) will be memorable as the first year of compulsory vaccination. This law imposes upon the Corporation of Calcutta the function of making proper arrangements for vaccination in that

town; and we are glad to see that this great measure is to be carried out under the superintendence of such a capable and energetic officer as Dr. McLeod. If success crowns this effort to grapple with this terrible disease, we may look for similar legislation for the rest of India.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Tuesday, June 28th.

An Alleged Death from Vaccination.—Mr. P. A. TAYLOR asked the President of the Local Government Board, whether his attention had been called to a paragraph stating that a child at Plymouth had died from exhaustion indirectly due to vaccination.—Mr. DODSON said the verdict of the jury was that death was from natural causes, in accordance with the independent testimony of the medical man, who had stated in a public letter that vaccination had nothing whatever to do with death.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Dental Surgery of the College, at a meeting of the Board of Examiners on June 27th.

Messrs. Francis Ewbank, Queen Anne Street, W., Charles E. Truman, Southwick Street; U. A. C. Harris, Brighton; Charles D. Davis, Kilburn, members of the College; John S. Amoore, Balham; William Hern, St. Mary's Square, W.; William Matthews, Hereford Road; Archibald H. Oakley, Tunbridge Wells; William J. Pilgeon, [illegible] Pool; [illegible] Price, Blythe Road, W.; Frederick Rose, North Crescent, W.C.; Thomas J. Stuck, Gower Street, W.C.; Walter Tothill, North Crescent, W.C.; and Henry F. White, Hill Street, S.W.

Only two candidates failed to acquit themselves to the satisfaction of the Board of Examiners.

UNIVERSITY OF DUBLIN.—At the Trinity Term Examination for the Degree of Bachelor in Surgery (B.Ch.), held on Monday and Tuesday, June 20th and 21st, the successful candidates passed in order of merit as under.

Francis John, [illegible]; James M. Irwin; Louis T. Young; Thomas Myles; Thomas Donnelly; Donald St. J. Grant; Edward G. Hull; William S. Elliott; Edward C. Nu[illegible]; William F. M'Carthy; John W. Macquillan; Thomas W. O'Hora-Hamilton; James J. Robinson; Alfred Miller; Charles Gloster; Reginald H. M[illegible]; [illegible] Carmichael.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRADFORD INFIRMARY—[illegible] for eight weeks. Salary, £[illegible].

CHARING CROSS HOSPITAL MEDICAL SCHOOL—Teacher of Practical Physiology. Applications by July [illegible]th.

CHELTENHAM GENERAL HOSPITAL—House Superintendent. Salary, £[illegible] per annum. Applications by July [illegible].

CHESTERFIELD FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION—Physician and Surgeon [illegible]. Salary £[illegible] per annum. Applications by July 4th.

EXETER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Junior Medical Officer. Salary £[illegible]. Applications to Mr. W. D. Newton, Secretary, 37, Parr Street, St. James's, Exeter.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July [illegible]th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—House-Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—LECTURESHIPS in Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, [illegible]. Applications, by July [illegible]th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—[illegible].

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications by 9th July.

HOSPITAL [illegible]—[illegible] £[illegible] per annum, with board and residence. Applications, by July 19th, to the Secretary.

KILKENNY UNION—[illegible] Dispensary District. Salary, £[illegible] per annum. Applications by July [illegible].

LYDDINGTON UNION—[illegible] Medical Officer of Health. Salary £[illegible] per annum. Applications by 5th July.

MINEHEAD DISTRICT HOSPITAL—Medical Officer. Salary, £[illegible] per annum, with [illegible]. Applications to Mr. W. Hobbs, Inspector of Poor, Bridgwater, by July [illegible].

NEWTON ABBOT UNION—Medical Officer [illegible] Salary £[illegible] per annum. Applications by [illegible].

OSWESTRY UNION—Medical Officer to the Llansilin District. Salary, £35 per annum. Applications by July 4th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND—Pathological Curator. Applications by July 4th.

SOCIETY OF APOTHECARIES, London—Twelve Examiners. Applications by July 1st.

SOMERSET AND BATH LUNATIC ASYLUM, Wells—Medical Superintendent. Salary, £500 per annum. Applications by 20th July.

ST. BARTHOLOMEW'S HOSPITAL—Two Casualty Physicians. Applications by July 8th.

ST. THOMAS'S UNION—Medical Officer. Salary, £60 per annum. Applications by 7th July.

ST. PETER'S HOSPITAL FOR STONE AND URINARY DISEASES, etc.—Second Assistant-Surgeon. Applications by July 1st.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £200 per annum. Applications by 9th August.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Dental Surgeon. Applications by July 9th.

WILTS PAUPER LUNATIC ASYLUM—Medical Superintendent. Salary, £600 per annum. Applications by July 5th.

MEDICAL APPOINTMENTS.

BATTERBURY, Richard Legg, M.B., M.R.C.S., L.S.A., appointed Medical Officer to the Berkhamsted District, and Workhouse of the Berkhamsted Union, and Public Vaccinator, *vice* A. Dennis, M.R.C.S., resigned.

BROWN, Martin L., M.B., appointed Junior Assistant Medical Officer to the Hayward's Heath Asylum, *vice* Allan Maclean, L.S.A., resigned.

CHRISTIE, J. W. Stirling, L.R.C.P Ed., appointed Junior Assistant Medical Officer to the Leavesden Asylum, near Watford, Herts, *vice* F. H. Walmsley, M.D., appointed Senior Assistant Medical Officer.

FOSTER, N.S., M.D., appointed Medical Officer to the Shepton Mallet Union.

FOTHERBY, H. A., L.S.A., appointed Resident Clinical Assistant to the East London Hospital for Children.

GAMGEE, J. S., M.R.C.S.E., appointed Consulting Surgeon to the Queen's Hospital, Birmingham.

HOPE, E. W., M.B., appointed Resident Medical Officer to the Netherfield Fever Hospital, Liverpool, *vice* W. R. Parker, M.B.

KELLAND, James, M.B., appointed Medical Officer to the Alderbury Union, *vice* F. C. Bennett, M.R.C.S., resigned.

MORGAN, W. L., L.R.C.P., appointed Surgeon to the Radcliffe Infirmary, Oxford, *vice* John Briscoe, F.R.C.S., resigned.

ORAM, A. Murray, M.D., appointed Clinical Assistant to the Royal South London Ophthalmic Hospital, *vice* Alfred Pain, L.R.C.P.L., resigned.

THISTLE, F. T., L.R.C.P., appointed Junior House-Surgeon and Dispenser to the Torbay Hospital, *vice* R. D. Cameron, L.R.C.P., resigned.

THORP, Sidney, M.R.C.S., re-elected Medical Officer to the Halstead Union.

TWEEDY, John, L.R.C.P., appointed Professor of Ophthalmic Medicine and Surgery to the University College, *vice* Professor T. W. Jones, F.R.C.S., resigned.

WHALFORD, J. H., L.D.S.R.C.S.Eng., appointed Honorary Dental Surgeon to the All Saints Convalescent Hospital at Eastbourne, and also to the Provident Dispensary, Eastbourne.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

LEE.—At The Elms, Heckmondwike, on the 27th June, the wife of Francis Boynton Lee, F.R.C.P.Ed., of a daughter.

MARRIAGES.

COLT—NICHOLSON.—On June 27th, at St. Paul's Church, Southsea, by the Rev. E. H. Dutton Colt, B.A. (brother of the bridegroom), assisted by the Ven. Archdeacon Wright, the Rev. O. J. Vignoles, M.A., Vicar of Christ Church, Littlehampton, and the clergy of St. Paul's parish, Thomas Archer Colt, L.R.C.P., M.R.C.S., younger son of Thomas Archer Colt, of Maidencombe, Torquay, Esq., and grandson of the late Sir Edward Vaughan Colt, Baronet, of Trowscoed, Radnor, to Mabel Aileen, second daughter of the Rev. Horatio Langrishe Nicholson, D.D., Vicar of St. Paul's, Southsea.

EMERSON—AINSWORTH.—On Wednesday, June 22nd, at Rivington Church, by the Rev. T. Lowe, M.A., assisted by the Rev. W. Ritson, B.A., Peter Henry Emerson, Esq., M.R.C.S., etc., of Clare College, Cambridge, eldest son of the late H. E. Emerson, Esq., of the La Palma Estate, Sagua, Cuba, to Edith Amy, youngest daughter of the late J. Ainsworth, Esq., of the Thorns, Bolton-le-Moors.—American, Cuban, and colonial papers please copy.

DR. LITTON FORBE has been appointed a corresponding member of the Société d'Anthropologie of Paris.

DR. Alfred Stille has lately resigned his chair in the Medical Faculty of the University of Pennsylvania.

DR. ROSENHAUER, director of the Mineralogical and Zoological Collection at Erlangen, has lately died at the age of 67.

UNIVERSITY OF BERLIN.—The medical classes of this university are attended by 570 students; in the last winter session, the number was 504. The total number of students in the university is 3,770, against 3,365 in the winter term. There is an increase in all the faculties.

BEQUESTS AND DONATIONS.—The Sussex County Hospital, Brighton, has received £1,000 under the will of Mrs. Stennett.—Mr.

Robert Moon has given £50 to the Samaritan Fund of the Charing Cross Hospital.—Mr. John Jameson has given £50 to the Coombe Lying-in Hospital, Dublin.

On Sunday last, Princess Mary of Teck, accompanied by her children, and by the Duke of Teck, after attending the flower service at Berkeley Chapel, visited the Victoria Hospital for Children, and distributed a large quantity of flowers in the wards.

Public Health.—The annual rate of mortality during the week ending Saturday, June 18th, in twenty of the largest English towns, averaged 19.5 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bristol 15, Leicester 16, Leeds 17, Portsmouth 17, Nottingham 17, Birmingham 17, Bradford 17, Brighton 18, London 19, Sheffield 19, Hull 19, Salford 20, Sunderland 20, Newcastle-on-Tyne 20, Oldham 20, Manchester 21, Norwich 21, Wolverhampton 22, Liverpool 24, and Plymouth 27. Measles showed the largest proportional fatality in Sheffield, Liverpool, and Bristol; scarlet fever in Wolverhampton, Hull, and Nottingham; and whooping-cough in Leicester, Plymouth, and Liverpool. In London, 2,480 births and 1,403 deaths were registered. The deaths exceeded the average by 19, and gave an annual death-rate of 19.1. The 1,403 deaths included 82 from small-pox, 66 from measles, 36 from scarlet fever, 10 from diphtheria, 28 from whooping-cough, 2 from typhus fever, 8 from enteric fever, one from an undefined form of continued fever, 30 from diarrhœa, and not one either from dysentery or simple cholera; thus, 263 deaths were referred to these diseases, being 33 above the average. The deaths referred to diseases of the respiratory organs were 225, and exceeded the average by 8; 116 were attributed to bronchitis, and 78 to pneumonia. Different forms of violence caused 57 deaths; 40 were the result of negligence or accident, among which were 21 from fractures and contusions, 4 from burns and scalds, 6 from drowning, and 7 of infants under one year of age from suffocation. Fifteen cases of suicide were registered, exceeding the corrected average by 7. At Greenwich, the mean temperature of the air was 60.4°, and 1.1° above the average. The mean degree of humidity of the air was 74, complete saturation being represented by 100. The direction of the wind was variable, and the horizontal movement of the air averaged 7.3 miles per hour. Rain fell on two days of the week, to the aggregate amount of 0.57 of an inch. The duration of registered bright sunshine in the week was equal to 22 per cent. of its possible duration.—The annual rate of mortality during the week ending Saturday, June 25th, in twenty of the largest English towns, averaged 18.5 per 1,000. The rates of mortality in the several towns were as follow: Plymouth 9, Wolverhampton 11, Nottingham 13, Sunderland 14, Brighton 14, Hull 14, Salford 15, Oldham 15, Newcastle-on-Tyne 16, Leicester 16, Portsmouth 17, Bristol 17, Birmingham 18, Leeds 18, Manchester 18, London 19, Sheffield 20, Bradford 20, Norwich 21, and Liverpool 23. The general fatality of measles, scarlet fever, and fever showed a decline, and was considerably below the average. The 23 deaths from diphtheria in the twenty towns included 14 in London and 6 in Portsmouth. Small-pox caused 93 more deaths in London and its outer ring of suburban districts, 4 in Liverpool, one in Bradford, and not one in any of the seventeen other large towns. In London, 2,504 births and 1,399 deaths were registered. The deaths were 7 below the average, and gave an annual death-rate of 19.1. The 1,399 deaths included 88 from small-pox, 71 from measles, 24 from scarlet fever, 14 from diphtheria, 33 from whooping-cough, 2 from typhus fever, 7 from enteric fever, one from an ill-defined form of continued fever, 14 from diarrhœa, 2 from dysentery, and not one from simple cholera; thus, 286 deaths were referred to these diseases, being 52 above the average. The 9 deaths referred to puerperal fever exceeded the corrected weekly average by 5, and included 2 in Islington, and 2 in St. Luke's. The deaths referred to diseases of the respiratory organs, which had been 216 and 225 in the two preceding weeks, declined to 210 last week, but exceeded the average by 7; 109 were attributed to bronchitis and 75 to pneumonia. Different forms of violence caused 44 deaths; 31 were the result of negligence or accident, among which were 15 from fractures and contusions, 6 from drowning, and 4 of infants under one year of age from suffocation. Twelve cases of suicide were registered, exceeding the corrected average by 5. At Greenwich, the mean temperature of the air was 60.6°, and 0.5° below the average. The highest temperature in the sun, as shown by a self-registering thermometer, with a blackened bulb in vacuo placed on the grass, was 145.2° on Friday. The mean degree of humidity of the air was 75, complete saturation being represented by 100. The general direction of the wind was south-westerly, and the horizontal movement of the air averaged 12.3 miles per hour, which was 2.3 above the average. Rain fell on three days of the week, to the aggregate amount of 0·19 of an inch. The duration of registered bright sunshine in the week was equal to 40 per cent. of its possible duration. The recorded amount of ozone considerably exceeded the average on each of the first four days of the week.

Health of Foreign Cities.—The Registrar-General's last weekly return furnishes a table, from which are derived the following facts, indicating the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate, according to the most recent available weekly returns, averaged 34.3, and ranged from 23.4 in Calcutta, to 39.4 in Madras. Cholera caused 27 deaths in Calcutta and 34 in Bombay, while 53 fatal cases of small-pox were recorded in Madras. The fatality of cholera in Calcutta and of small-pox in Madras showed a decline from previous weekly numbers. The rate in Alexandria was equal to 32.7, and 3 fatal cases of small-pox were reported. According to the most recent weekly returns, the annual average death-rate in twenty European cities was equal to 29.0 per 1,000 of their aggregate population, showing the usual marked excess upon the average annual rate in twenty of the largest English towns, which during last week did not exceed 18.5. The rate in St. Petersburg was so high as 62.7, and showed but a slight decline from the high rates in recent weeks; the fatal cases of typhus and typhoid fevers were 143, against 153 in the previous week. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 21.4; four of the 72 deaths in Stockholm were, however, fatal cases of diphtheria. The Paris death-rate was equal to 24.8, showing a further considerable decline from the rates in recent weeks; small-pox, however, caused 24, and diphtheria and croup 43, deaths during the week. In Brussels, the death-rate did not exceed 22.0, and in Geneva it was only 13.7 per 1,000. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates ranged from 16.4 in Rotterdam to 25.6 in the Hague. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 28.9, ranging from 22.5 and 23.1 in Hamburg and Dresden, to 33.2 in Munich and 35.9 in Buda-Pesth. Small-pox caused 15 deaths in Vienna and 9 in Buda-Pesth; 13 deaths were referred to typhus in Buda-Pesth. The death-rate was equal to 25.1 in Venice, 25.6 in Rome, and 26.6 in Turin, averaging 25.9 in these three Italian cities; 10 of the 123 deaths in Turin were referred to diphtheria. In four of the principal American cities, the death-rate, calculated upon the population in 1880, averaged 22.7, and ranged from 17.7 in Baltimore to 28.5 in New York. Small-pox caused 27 deaths in Philadelphia and 20 in New York; diphtheria was also fatally prevalent in New York and Brooklyn.

Birmingham.—For this borough, Dr. Hill has to report an improved death-rate in 1880, which makes last year the most favourable one in the sanitary history of the borough for the last sixteen years. The reduction in the death-rate is attributed to the absence of any serious epidemic, to the favourable state of trade, to cheapness of the necessaries of life, the mild weather at the close of the year, and lastly, to the sanitary improvements by the corporation. The death-rate, although satisfactorily low, is unduly swelled by the number of deaths among infants under one year of age; the total number of these deaths being 2,601, equal to a death-rate of 17.8 of the births registered. The death-rate among infants is always high in Birmingham, and indicates either gross neglect or lamentable ignorance, or both; but the main cause of the exceptional fatality in 1880 was the great prevalence of diarrhœa in the summer quarter. Dr. Hill's explanation of the prevalence of this disease is, that high temperature, in addition to acting directly on the system, has the effect of setting up putrefaction in food and other organic matters, thus leading to the injection and inhalation of hurtful solids, liquids, and gases. Altogether, a total of 777 deaths occurred from diarrhœa, after which, the most destructive of the zymotics was whooping-cough, which caused 217 deaths. Scarlet fever and continued fevers showed a marked decline. Some interesting particulars are given of an outbreak of diphtheria at a boys' school, attributed to polluted water, the only source of water-supply to an establishment receiving 400 boys being described as "concentrated oxidised sewage". After the closure of the well, no other cases occurred. On an examination of the workhouse, Dr. Hill found many startling unsanitary conditions, which call for immediate attention. Thus the boys' school is provided with so-called earth-closets, which are, from a sanitary point of view, "the most barbarous" Dr. Hill has ever seen. A further inspection of the 280 slaughter-houses of the borough confirms Dr. Hill in his opinion of the necessity of a public *abattoir*. The Dairies, Cow-sheds, and Milk-shops Order of 1879 has been adopted in the borough with good results. Speaking of the fever hospital, Dr. Hill states that the institution has been regarded by the public much more favourably than formerly. Improvement is reported in the removal of nightsoil and refuse disposal, but a considerable number of the old midden privies still remain.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. W. F., 2; Ear, S., 1.30; Skin, Tu., 1.30; S., 9; Throat, Th.; 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by Mr. Heath, Dr. Godson, and others. The following papers will be read. Dr. James Braithwaite: Non-capsulated Fibroids resembling Retained Placenta. Dr. Galabin: Case of Labour with Cancer of Cervix, followed by Septicæmia, with symptoms simulating Diphtheria. Dr. Godson: Four Cases of Spasmodic Dysmenorrhœa, with Sterility, successfully treated by Dilatation.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

STREET ADORNMENT AND RECREATION.

SIR,—All who visit the Continent for the first time are struck by the number of open gardens (not closed squares), of shady boulevards, of little unexpected oases of green turf and foliage in odd corners, all provided with comfortable seats for the accommodation of the weary pedestrian, and inviting him to rest awhile and be thankful. Perhaps the traveller may remember some hot sultry day when, jaded with trudging over scorching pavements, and wearied with the fatigue of sight-seeing, he may have thrown himself into one of these comfortable benches, and shaded by the overhanging boughs of maple, plane, or chestnut, and lulled by the plashing sound of some neighbouring fountain, he may have enjoyed a few moments of peaceful rest. If so, did he ever ask himself whether in his own country, under similar circumstances, he could, outside the recognised parks, have found such sweet repose? The only answer, alas! which could possibly be returned to such a query would be a negative one. Neither our Government nor our municipal authorities as yet consider themselves called upon to provide boulevards, and seats, and bands, and fountains, for the enjoyment and amusement of the people. Public opinion has of late years advanced in this direction, but it is still unprepared to sanction the expenditure of public money on objects which, in this country, would still be considered luxuries. The time will doubtless shortly come when, owing to the growth of London, and the impossibility of large masses of the people obtaining the means of quiet recreation in the open air so needful to health, it will be found necessary for some strong central authority to take action in the matter, and save to the people the small open spaces which may still remain uncovered by bricks and mortar. But in the meantime, and until this much-to-be desired millenium shall have arrived, it is to be hoped that they who consider that action in the matter should be taken at once will put themselves into communication with the National Health Society, a body which has been quietly working on these lines for some years, and which deserves to be better known. It has already formed a subcommittee for the special purpose of endeavouring to supply London with these little refinements of civilised town life—refinements which may, indeed, be almost considered necessaries, inasmuch as they conduce in so great a degree to health. London still possesses many broad thoroughfares, which might with advantage be turned into smiling boulevards, and many small but unoccupied spaces which, instead of being gaunt deserts only tenanted by stray cats, and covered with fluttering pieces of dirty paper, could at small expense be made into little harbours of refuge from the turmoil of the city, where a few flowers, a bench or two, a shady tree, would enable the overworked city clerk and artisan to take his book or his pipe, and in quiet enjoy the pleasure of simple rest after a hard day's toil. May I hope that through your kindness some may be induced to come forward and aid the society in its efforts to brighten the aspect of our streets and to increase the health and enjoyment of our city population? Gifts of seats, or donations in money, will be gratefully received by the Secretary, whose office is at 44, Berners Street, W.—Believe me, sir, your obedient servant, BRABAZON.

Travellers' Club, Pall Mall, S.W., June 10th, 1881.

FACOMNIA.—Barnes, Leishman, and Bandelocque.

HOMŒOPATHY: ITS PRINCIPLES AND PRACTICE.

SIR,—It would seem to me to be utterly impossible to argue with regard to the merits or demerits of homœopathy, unless we know what are its present peculiar guiding principles. As far as I can learn, it would appear that homœopaths have given up the old dogma of "Similia similibus curantur", and discarded also the idea of infinitesimal doses. They still, without question, prescribe fewer drops of their solutions and tinctures than ordinary medical men do of the like pharmacopœial preparations; but then it must be remembered their preparations are a great deal more concentrated. Dr. Farquharson asserts that the homœopathic solution of camphor is stronger than spiritus camphoræ of the *Pharm. Brit.*, in the proportion of 7.2 to 1. The mother tincture of aconite is about equal in strength to our lin. aconiti. Ten drops, he says, of the homœopathic tincture of belladonna, taken at night, cause dryness of the throat, disturbed sleep, and dreaming, whereas fifteen to twenty minims of the *Pharm. Brit.* tincture may be given for some time without the induction of physiological symptoms. Arsenicum album., the dose of which is labelled as from one to five drops, contains one grain of arsenious acid in 102 minims of water; whereas the preparation of the *Pharm. Brit.* contains one grain in 120 minims. Mercurius cor., the dose of which is labelled as from one to five drops, contains about one grain of the amido bichloride of mercury in two drachms of spirits of wine; and this about four times the strength of the *Pharmacopœia* solution.

No one, I think, can question the fact that there are several things which tend to give one a bad estimate as to the real value of homœopathy. 1. There is no man among them who has had a world-wide reputation, with the exception of Hahnemann, the founder. 2. The homœopaths have no real library of their own. 3. They have few schools. 4. They have few or no men of great scientific reputation in their professional ranks. 5. They have done literally nothing for the scientific advancement of the profession, either in the investigation of disease or the discovery of new remedies.

I have often asked myself the question How is it that certain medical men are led to take up with homœopathy? and, after consideration, have come to the following conclusions. 1. Some take up with Hahnemann's original views because they are led really to believe in them, owing to their not being possessed of good reasoning powers, and consequently not being able to recognise the fallacies involved in the arguments. 2. Others are followers of Hahnemann because they are ignorant of their profession, and find more satisfaction in the do-nothing treatment than in the happy-go-lucky use of remedies to which they were previously compelled to resort. 3. Others pretend to practise homœopathy because they find that it is mostly patronised by the nobility and upper classes, and they are likely to obtain light work, good pay, and good society.

Some men assert they make use of homœopathy in specially selected cases. If by this they mean that in certain cases of mental depression they use little or nothing, why not speak out and say so? The only thing is, they would then soon deprive homœopathy of its present [illegible] and have to enrol themselves in the ranks of the orthodox practitioners. If the above be a correct statement as to the principles and practice of homœopathy, I [illegible] any orthodox physician or surgeon [illegible] with [illegible] with anyone professing to [illegible] homœopathic views. I am, sir, your obedient servant,

M.D

VETERINARY SURGEONS.

SIR,—The members of the Royal Veterinary College are trying to get a Bill passed this session, which will [illegible] Veterinary Surgeon" who is not a member of the College. I think we should use our influence we may possess to forward the object of the Bill, as many of the profession use horses, and are interested in the question. I enclose my card, and remain, yours obediently,

H. H.

CALF-LYMPH.

SIR,—In your issue of the 21st May, Mr. Robert Barker writes concerning his experience with the use of calf-lymph, for vaccination, which he says has in every case proved inert. But others, in the issue of the 4th May, wrote more favourably of it. Having had an extensive experience in the use of this lymph, and in its propagation, perhaps you will suffer a few words by way of explanation.

A primary vaccination can alone be accepted as a fair test of the activity of any virus. Secondary vaccinations cannot be considered; they may or may not prove successful. A successful vaccination can only be defined to be the reproduction of one or more characteristic cow-pox vesicles on the subject; and if the virus be very active, numerous vesicles may appear over the body at points distant from the point of infection, all of which will be characteristic, and run the regular course. This extra eruption is a common sequence of vaccination with good active bovine lymph. All beginners find the same difficulty in the use of animal lymph, unless care be taken by the propagator to produce lymph easily absorbed, and in this way to provide against failure. Failures with animal-lymph may be accounted for in three ways. 1. It may be the fault of the operator, and not of the lymph, failure being due to want of skill or to carelessness in its use. 2. It may have been imperfectly preserved; it is rigid in its demand for care in this matter, and must be preserved in a cool, dark, dry place, it cannot be kept too cool. 3. The method adopted in collecting it may be imperfect. It should be taken from well formed characteristic vesicles only; but a difference requires to be made between the collection of lymph to be used on the human subject and of that intended for animal propagation. For the latter use, it must be allowed to mature fully, in order to prevent degeneration; but for the former use, owing to the quantity and greater viscidity of the bovine albumen over the human, it is necessary to secure absorption of the virus by the human vessels—which have not the capacity of the animal—that the lymph be extracted from the bovine vesicle at an early stage, or whilst the lymph is thin and watery, or before it has become too viscid. The results on the human subject are equally satisfactory, and I do not have one failure in a hundred since adopting this precaution. Moreover, I always guarantee lymph sold by me, and will always replace any failures if reported to my agent, Mr. N. Faulkner, 16, Endell Street, London, within fifteen days from date of purchase. There is also a good deal of difference in the rapidity with which the disease develops on different animals, so that it is needful for a producer to become such an expert as to be able to judge just when, from the appearance of the vesicles, the lymph is at its best, and should be extracted. Calves are (as a rule) not sufficiently vigorous to produce the best quality of lymph; and male animals do not seem to answer at all.

The suggestion of your correspondent Dr. R. H. Hilliard, that the serum of a vaccinated animal should be as potent as the lymph from a vaccine vesicle, seems to me to be quite fallacious. If it be remembered that the animal is only the soil in which the vaccine germs are sown, and that these germs are only active when taken from a properly developed vaccine vesicle, in the serum of which they float, and not active when taken from the pus of an imperfect result or mere vaccinal sore, there will appear no room to suppose that any lymph not extracted from a characteristic vesicle would contain active vaccine germs.

Believing animal vaccination the only form of vaccination worthy of the name, and absolutely the only safe method to avoid the conveyance of blood-contamination from individual to individual, I trust it may become the universal practice.—
Yours, etc., W. E. BESSEY, M.D., Senior Public Vaccinator, Montreal,
Montreal, June 10th, 1881. Canada.

SIR,—Mr. E. Stanley Smith's letter, which appears in the BRITISH MEDICAL JOURNAL of the 18th June, conveys the impression that I attribute occasional failures in the use of Dr. Warlomont's calf-vaccine in tubes, to the fact that it is mixed with glycerine. Though my conversation with Mr. E. S. Smith certainly justifies his statement, that statement does not convey my ideas; and if you will permit me to make a few remarks, I shall be much obliged.

Anyone who will read the article by Dr. Warlomont, which is to be found in the JOURNAL of the 25th September, 1880, will, I think, come to the conclusion that it is necessary to mix glycerine with liquid calf-vaccine when preserved in tubes, and that calf-vaccine in tubes must be more liable to fail than when it is used upon points. But the simple fact that this vaccine in tubes is mixed with glycerine is not, in my opinion, the cause of frequent failures. It is a fact that, although Dr. Warlomont advises (in his "Directions for Use", sent from this office) a tube for each vaccination of three vesicles, professional men have added more glycerin and glycerin, and have attempted as many as ten vaccinations from a single tube, and then complain of failure. Another way of (1) economising calf-vaccine is to arm a number of points from a single tube, with a view of using a fraction of the vaccine found necessary for a satisfactory vaccination.

I have often asked why tubes have been preferred to points, and have often received an answer to this effect: "Oh, my patients wont have points; it hurts them to rub the point upon the scratches." But this rubbing (and rubbing briskly) the vaccine well into the scratches is perhaps the most important part of a successful vaccination. If this is so, it will appear that the superiority of the point over the tube follows as a matter of course; for with the point a sufficient quantity of vaccine is used, and that quantity well rubbed in. Still, I am bound to admit that some assert that they always fail with points, and always succeed with tubes; and this leads to the question of skill in the vaccinator. With the same vaccine used in a number of cases, the same results (good or bad) will be obtained, providing equal skill is employed. Take the experience of Dr. Thomas Wakefield (which is not exceptional), as given in his letter (BRITISH MEDICAL JOURNAL, June 18th). The books of this office show that the seventy-eight points of which he speaks were supplied to him between March 25th and June 1st inclusive, and in twelve different small lots. They were not selected in any way, and yet that gentleman, no doubt by superior care, has produced results which alone would lead one almost to doubt the efficacy of the present stock of human-vaccine.

I trust you will agree with me in thinking that it would be better in those who complain of want of success in the use of calf-vaccine, to give full particulars as to their mode of using it, so as to enable others to suggest the remedy; for it is an established fact that, when calf-vaccine is properly prepared and properly used, whether in tubes or upon points, failures must, in exceptional cases only, be attributed to the vaccine.—Your obedient servant, EDWARD DARKE.
3, Henming's Row, London, W.C.

SIR,—As I have for some time been desirous to vaccinate patients with animal-lymph, and finding the supply from private sources too expensive, I wrote to the National Vaccine Establishment, asking for one or two tubes. To my surprise I received for answer, "that the arrangements for the supply of animal-lymph are not complete". I apprehend that the above establishment was brought into existence for the express purpose of supplying medical practitioners with pure vaccine-lymph; and as humanised lymph has fallen into disrepute, I think the National Vaccine Establishment should have been the first in the field to supply the admitted want. It is rather hard for medical men to be required to pay 2s. or 2s. 6d. a tube for lymph when there is such an institution in existence.—I am, sir, yours
[illegible] M.D.

SIR, My experience in vaccinating with lymph from the calf has been similar to that of your other correspondents. I have had more failure than I care to own that have proved successful, and now we are told in the JOURNAL (June 11th) that "success has been exceptional" by "using lymph in capillary tubes", the secretary of an association "attributing it to the fact that the lymph is diluted with glycerine". In what event am I responsible for selling an adulterated article which is not of the nature and substance required by the purchaser? If the effect of the lymph is affected by such dilution, there seems to me to be ground for an officer of health interference just as much as he would with a vendor of adulterated drugs.
I remain, your obedient servant, M. O. H.

NASAL CATARRH.

SIR,—Will some of your readers kindly inform me what is the pathology of the state known as sneezing and constant secretion of glairy odourless mucus from the nostrils? A patient of mine in all other respects in good health, a very careful man, does not drink to excess, has never had syphilis; but on getting out of bed, he begins to sneeze, and more or less during the day, he is troubled with violent fits. The catarrh (for I cannot help thinking that there is a catarrhal state of the mucous membrane of the nostrils) does not extend downwards. He rarely or ever suffers from ordinary colds. I shall be grateful for any suggestions in the way of treatment.—Yours faithfully, SNEEZE.

SIMPLY PURGATIVE.

SIR,—In reply to "W. A.", I beg to say that the pilula [illegible] mentioned (from Wyeth, not Hall) is that of the *Edinburgh Pharmacopœia* of 1805. I should not bring before the profession by Dr. Druitt, in a [illegible] column, as I have done, with [illegible] to [illegible] it duly in the morning. If a quicker [illegible] opponent than this be needed, I only know of [illegible] a form which I have [illegible] follows: ℞ Olei tiglii gtt. iij–iv; pulv. scammon. comp. (*P. L.*) [illegible] pulveris zingib. 3ss; extracti glycyrrhizæ 3ss. This is well mixed, and divided into sixty pills, one of which is taken every day early in the morning. [illegible] daily.
Reading, January 1st, 1881. T. L. WESTWOOD.

ANSWERS TO CORRESPONDENTS.—The feeding-bottle can be procured from Mr. James Edmunds, 31, Stamford Street, S.E.

COMMUNICATIONS, LETTERS, etc., have been received from:—
Dr. Graham Brown, Edinburgh; Dr. Ogilvie Will, Aberdeen; Dr. T. Moinet, Edinburgh; Rev. E. D. Colt, Portsea; Dr. James Neal, Sandown; Dr. F. P. Atkinson, Kingston-on-Thames; Dr. R. Harrison, Philadelphia; Dr. Kelly, Taunton; Dr. J. C. Steele, London; Mr. H. Chapman, Leavesden; A Subscriber; An Indignant Member; Dr. T. S. Maguire, Stony Stratford; Mr. T. R. Allinson, London; Dr. E. J. Tilt, London; Dr. James Adam, London; Dr. W. Wilton, Pembleton; Dr. Charles Maclean, Fort Augustus; The Medical Registrar; Dr. Pitta, Madeira; Mr. Lowndes, Liverpool; Mr. H. Philpot, London; Dr. Michael Taylor, Penrith; Mr. Jabez Hogg, London; M. O. H.; Mr. C. Haydon White, London; Our Dublin Correspondent; Mr. Stephen S. Alford; London; Mr. G. A. Herschell, London; Dr. Henderson, Helensburgh; Dr. F. E. Lee, Heckmondwike; Mr. Nettleship, London; Dr. Haughton, London; Our Glasgow Correspondent; Mrs. Sarah E. Dawn, Witney; Dr. J. Hickinbotham, Birmingham; Dr. Joseph Coats, Glasgow; Dr. J. Langmore, London; Mr. B. Barrow, Ryde; Dr. M. Williams, Liverpool; Dr. J. Marion Sims, Paris; Dr. Ward Cousins, Southsea; F. W.; Dr. J. H. Bell, Bradford; etc.

BOOKS, ETC., RECEIVED.

A Practical Treatise on the Medical and Surgical Uses of Electricity. By George M. Beard, A.M., M.D.; A. D. Rockwell, A.M., M.D. Third edition. Revised by A. D. Rockwell, M.D. With nearly two hundred illustrations. London: H. K. Lewis, 136, Gower Street, W.C. 1881.

In Memory of E. Seguin, M.D. Twelve copies in paper cover, and two bound in cloth. 1881.

Charitable and Parochial Establishments. By H. Saxon Snell. London: B. J. Batsford, 52, High Holborn. 1881.

Myodynamics. By J. S. Wight, M.D. New York: Birmingham and Co. 1881.

A Dictionary of Chemistry. By H. Watts. London; Longmans, Green, and Co. 1881.

A Guide to the Use of the Laryngoscope in General Practice. By Gordon Holmes, L.R.C.P.Edin. London: J. and A. Churchill, New Burlington Street, W. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post Office, High Holborn. Small amounts may be sent in postage stamps

CLINICAL OBSERVATIONS
ON THE
SUBCUTANEOUS LIGATURE OF VARIX AND VARICOCELE.

By JOHN DUNCAN, M.A., F.R.C.S.Ed., etc.,
Surgeon to the Royal Infirmary, Edinburgh; Lecturer on Surgery.

GENTLEMEN,—I show you to-day a case of varix, which may serve as a text for some remarks on subcutaneous ligature. When the patient was admitted to the infirmary, his leg was much swollen, the veins stood out like large tortuous knotted cords, and an ulcer lay above the ankle. There remain now only a scar and its surrounding pigmentation.

The treatment has been rest, with the leg elevated, appropriate dressing to the ulcer, and subcutaneous ligature of the veins. To the last I desire to draw your attention. Some years ago I pointed out a mode of applying Dittel's elastic ligature to the treatment of nævus. It consists in the passage of the ligature round the nævus subcutaneously. With the aid of whipcord this can be easily accomplished, and it has the effect of cutting off the tumour from all blood-supply, except that which may reach it through the skin. I have since employed this method occasionally in suitable cases; not often, because other forms of treatment are usually more appropriate. Thus, when a scar is unseemly, electrolysis is safe and certain; when the cicatrix is of little moment, external ligature and excision are speedy and effectual. But in very large nævi in very young children, subcutaneous ligature is less tedious than electrolysis, less dangerous and disfiguring than other operations.

To appreciate the advantages of subcutaneous surgery, it is only necessary to compare a bruise with a bruised wound, a simple fracture with a compound. Antiseptics have done much to minimise the difference, but they are themselves irritants, and their use is subject to manipulative errors. The result, therefore, must be more perfect if, by operating through a wound, small and speedily healed, we can at once avoid the contact of antiseptics with a raw surface, and prevent the admission of septic influences.

My experience with the elastic ligature is in this respect instructive. The ends of the India-rubber thread must be left out that it may be tightened as required, and withdrawn when it has cut its way through. The operation is not, therefore, truly subcutaneous, because there is a persistent possibility of the entrance of putrefactive influences to the injured tissue. In some cases, pretty severe suppuration occurred; and although this inflammatory action is undoubtedly beneficial in obliterating the nævus, it contains an element of danger, especially in connection with the imperfect drainage, which, under the circumstances, cannot be avoided. In later operations, I employed the usual antiseptic precautions with marked advantage. If, then, the ligature be entirely embedded in the tissues, one source of evil will be avoided.

So long, however, as the material thus embedded may cause irritation, either from its own nature, or from the conveyance of septicity in its texture, the wound is not in a rigid sense subcutaneous. There has, in this respect, been a curious variety of experience. On the one hand, the cutting short of the silk used for the ligature of arteries on the face of a stump has been tried, but abandoned on account of the frequency with which the knots suppurated out. On the other the intraperitoneal method of ligature has proved most successful in ovariotomy. The explanation doubtless lies in the fact that the human tissues are capable of neutralising or destroying noxious influences when not presented in overwhelming amount, and that, the healthier the tissue, the smaller the quantity of septic material, and the drier and less suitable the soil for its growth, the more certain is the action of this germicide power. But the introduction of a ligature capable of absorption and in itself harmless, has altered the nature of the problem; and experience has established the use of carbolised catgut, or some similarly prepared material. I have accordingly utilised it for subcutaneous ligature. It has not the elasticity or the strength which is necessary in nævi of large dimensions; but I have passed it with perfect success round one of the size of a walnut. The swelling slowly dwindled away, without suppuration, and with little tenderness. There are other diseases, however, in which it will, I think, be found more satisfactory, and of which the case before you is an example.

The treatment of varicocele always presents a certain difficulty to the surgeon. This disease is not dangerous to life, nor does it seriously interfere with ordinary functions and avocations; but it is a source of harassing if not severe pain, is a matter of solicitude to the patient, and in some cases leads to wasting of the testicle. The former considerations have led some to recommend palliation by suspension, the vein-truss, and the cold douche; while the immense number of operative measures which have been devised, and which are not devoid of danger, bear witness to the importance of the latter. In the subcutaneous ligature by catgut we have a means of meeting the difficulty. It is singularly easy of application, free from risk, and very certain in its results. The mode of applying it is as follows. The veins are carefully separated by the fingers from the artery and vas deferens, and a needle armed with catgut is thrust through at the point of separation; it is again introduced at the orifice of emergence, made to pass between the veins and the skin, and finally brought out at the original entrance. The two ends are then firmly knotted with as much force as strong catgut will bear, and cut short. By traction on the loose skin of the scrotum, the knot is made entirely to disappear, and the punctures are covered with salicylic wool saturated with collodion. The same manœuvre is repeated at a distance of an inch or a little more. I have now performed the little operation six times with complete success. In two cases, three ligatures were applied; but, in the others, to tie the vein at two points has been found sufficient. The effect is the formation of a hard lump of coagulum between the ligatures, at first slightly tender, but which soon becomes perfectly callous. I have just examined a patient on whom I operated more than a year ago. He gives me the most satisfactory assurances of complete relief. A small hard nodule is still to be felt; the testicle is a little larger than its fellow; and the superficial scrotal veins are somewhat distended. But he feels no inconvenience, and has given up the suspensory bandage which he wore before the operation. The other cases have turned out equally well, and in one of them there has also been a year's probation. In two of them there had been previously some wasting of the testicle; but I hear that this has not as yet progressed further.

The success of the treatment of varicocele by this means induced me to apply it also in varix of the leg. So long as a varicose vein is not a source of inconvenience or danger to the patient, the general opinion seems to be that the use of the elastic stocking is all that is necessary. If that be not effectual as a cure, at least it prevents further deterioration. I should be inclined to say that, even in advanced cases, the stocking ought first to be tried; but when solid œdema and eczema and ulceration cannot thus be kept in check, or perpetually recur, some more radical measure becomes plainly desirable. There are also cases in which a limited portion of a single vein is greatly distended, and in which, although giving rise to little inconvenience at the time, it is, from its high situation, difficult to control by pressure, and likely, therefore, to spread and increase. In such cases, if a radical remedy be simple and safe, it ought to be applied. Some have objected to all operations involving the obliteration of a vein, that there is a likelihood of others becoming varicose; and that the deep-seated varicosity thus induced is apt to be painful. But I [illegible] Undoubtedly the same causes which were originally at work may be allowed to continue their action in other veins through want of care; but it is not consistent with experience that, when one vein or set of veins is obliterated, others become varicose. On the contrary, veins on which backward pressure is thrown tend to varicosity; but parallel channels only enlarge and dilate. There is a long step between varicosity and simple dilatation. Large portions, for example, of the femoral vein often become obstructed in fever and other blood-diseases. The leg may afterwards remain permanently enlarged; but the veins are little more prone to varicosity than in the sound limb. But, even if such were the case, a problematical future evil would not justify abstention from what otherwise is beneficial; and the improvement that follows obliteration of a varicose vein is rapid and distinct.

The operation is performed precisely as for varicocele. The needle is passed first under the vein, and then between the vein and the skin, entering and emerging by the same punctures. It is not so easy to draw the skin over the knot after ligaturing as in varicocele; and this will be facilitated by slightly enlarging the puncture by means of a tenotomy-knife. When, as is sometimes the case, the limb is swollen and brawny, and the veins run, as it were, in [illegible] the solid œdema, the difficulty of operating is considerably increased. In such cases I have, as a preliminary, kept the patient at rest, and applied the India-rubber bandage for a few days. It is likewise of advantage, during the operation, to have the limb gently compressed by a bandage above the point of ligature, in order that the veins may be distended with blood, which afterwards coagulates.

I have now operated on eight patients with very satisfactory results, so far as obliteration of the veins and improvement in the condition of the leg are concerned. Perhaps, instead of going into the dry details of the cases, involving much repetition, I shall best fulfil my object of appraising for you the value of the operations by a few general remarks upon them. And, first, those of you who were present would notice that I performed the operation under the spray. I believe this may almost be regarded as a work of supererogation. Nevertheless, in dealing with veins, it is impossible to be too cautious, and it adds little to the difficulty or trouble. For the same reason, I applied to each little puncture some layers of salicylic cotton and flexile collodion. I find this a most admirable antiseptic dressing for small wounds of all kinds. After carefully cleansing the wound with carbolised oil, the least irritating solution, I cover it with the wool and collodion, with the most perfect faith that, when the covering drops off, the wound will be healed. I have several times referred to points in the treatment of nævus. Let me do so once more. If a nævus be ligatured in the usual manner, it drops off after a little inflammatory action, and leaving a sore to heal. But if, after ligature with carbolised silk, it be covered with a broad shield of cotton-wool and collodion, when it is ready to come away (the period varying with the size), it will be found that there has been no suppuration, and that the wound has healed. It is a very perfect imitation of the method of healing under a scab. In subcutaneous surgery of all sorts, I therefore regard the application as one which adds distinctly to the certainty of success.

I find that some care must be exercised in the selection of the spots to be ligatured. A single ligature cannot be relied upon to obliterate a vein. To produce a permanent solution of continuity in the lumen at any one point, it is necessary to apply two ligatures, with perhaps an inch between them. Now, it is essential that no branch be given off between the ligatures. I have twice had to repeat the operation from, as I believe, not attending to this point. It is necessary also to study carefully the map of the veins which are varicose, and to ligature at judiciously selected places. In one intricate, but by no means unusual case, after double ligature at four separate spots, I found that a zig-zag channel of previous varicosity still remained, which I had not afterwards an opportunity of attacking. These difficulties, however, have to be met, whatever the mode of treatment; and, so far as my experience goes, they do not prove more troublesome with this than with other methods.

On one occasion, suppuration occurred at a ligature applied over the patella. It happened in this wise. The patient (who was afterwards dismissed for unruly conduct) got up contrary to orders four days after operation, and thus caused the dressing to loosen, and a little blood to flow from the puncture. It immediately inflamed. I expected to find the suppuration which followed septic; but, careful microscopic examination showed that the pus was quite free from organisms. It was, therefore, allowed to drain from the little puncture, under antiseptic dressing, and healed in three days.

These are the accidents I have met with in eight cases. Otherwise, there has been no general or local trouble whatever; and, except in the incomplete case already mentioned, the success has been perfect.

It only remains to compare the operation with other methods—to consider which of the many modes of obliterating a vein is most certain and safe. Now, although excision of the whole vein is certain, it seems to me needlessly severe. You have, therefore, to choose between the introduction of a coagulant into the vein, its ligature, or its division.

Division of the vein subcutaneously is inefficient; the lumen is often reproduced. Division otherwise involves an open wound, and a risk of hæmorrhage. External ligature may be performed by many ingenious contrivances, metallic and others; but to them also the same objection applies as to external division. The coagulants which may be introduced are, practically, two: perchloride of iron and carbolic acid. With due precautions in temporarily arresting the circulation, I believe there is practically little objection to be made to them. I have used carbolic acid with very satisfactory results, only once having had excess of action, and that from an error of procedure. I confess, however, to a lurking fear that, after the temporary ligature is removed, a clot might be carried off, with what serious results we know; and I am not altogether sure that the coagulum might not sometimes melt away, and the lumen of the vessel reopen. At all events, in the subcutaneous ligature, we have a mode of producing adhesion and a coagulum, which must be free from the former risk, and little liable to the second. I believe there are cases of hard and brawny limb in which it would be impossible to apply this ligature. In these cases, I should inject; but, in those to which it can be applied, we have no safer or surer treatment for varicocele and varix than the subcutaneous ligature with catgut.

ABSTRACT OF LECTURES

ON THE

ANATOMY, PHYSIOLOGY, AND ZOOLOGY OF THE CETACEA.

Delivered at the Royal College of Surgeons of England.

By W. H. FLOWER, F.R.S., LL.D.,
Hunterian Professor of Comparative Anatomy.

Lecture IX.—The Toothed Whales—(*concluded*).

The Narwhal (*Monodon monoceros*) is an inhabitant of the Arctic seas very closely allied to the *Beluga*, from which it differs chiefly in its extraordinary dentition. This latter character separates it from all the other toothed whales, and shows that in some instances the teeth may be greatly modified, while in other respects an animal may differ in no way from the other members of its group; thus indicating clearly that, in the classification of animals, too great stress must not be laid on dental characters. The lower jaw of the adult narwhal is entirely edentulous, and the upper jaw of the female also, as a general rule at any rate, exhibits no teeth externally; there are, however, two rudimentary teeth which do not protrude above the surface of the gum, but remain throughout life embedded in the maxillary bone. The male does not possess teeth in his lower jaw; but in the upper jaw, besides some rudimentary deciduous teeth, there are two of considerable size, of which the right lies concealed from view in its formative socket during the whole life of the animal; but the left grows to a large size, frequently reaching a length equal to half that of the entire body of the animal. It is spirally twisted from right to left, and the pulp-cavity extends almost to its anterior extremity. Its formative socket is very long, reaching nearly to the nasal passage. The skull is slightly twisted to the right side, so that the axis of the tusk is in a line with that of the body. The purpose for which the tusk is developed is apparently entirely as a weapon of offence or defence, and not for obtaining food, as that consists of cephalopods, and the like. About eleven instances have already been recorded in which both incisor tusks have been developed in the same skull; and in all of these cases it has been found that each tusk is spirally twisted in the same direction—namely, from right to left. No instance has yet been observed where the right tusk has been developed while the left remains rudimentary, although it is stated in Professor Owen's catalogue that in one skull in the museum this abnormality is present; reference to the specimen itself will show that it is the left tusk which is developed, and that the right is rudimentary.

The next family of the cetacea contains only one genus, of which the *Platanista*, or the fresh-water dolphin, is the only member. It differs from most of the other cetacea in frequenting large rivers, which it does not appear to leave, as it has never been found in the sea. It inhabits chiefly the upper parts of the Indus and Ganges, and some of the American rivers. The anatomy of this creature has been most elaborately described by Dr. J. Anderson, in a large and valuable monograph. The peculiar features of the animal are its long rostrum, constricted form of neck, and broad pectoral fin. The symphysis of the mandible is much prolonged, the temporal fossa is deep, the orbits are small, and there is a great development of the maxillary bones. The cervical vertebræ are proportionately longer than those of other cetacea; the scapula is broad. The eyeball is extremely small, being about the size of a pea, and quite rudimentary, with no lens, and with an optic nerve only of the size of a thread. The aperture of the eyelids only measures about two millimètres. The sense of smell seems to be absent also. The animal appears to grope about at the bottom of the water for its food, which consists of fresh-water fish and crustaceans. The teeth are numerous, and undergo great changes in appearance during their growth. The base or root of the tooth enlarges with osteodentine, while the thin extremity of the crown gradually wears away; this gives an appearance to older animals of having much larger teeth in proportion to those of younger animals. There is, of course, no second set of teeth developed. A cæcum, which does not occur in any of the other cetacea, is present in the *Platanista*.

Two other animals, similar in many respects to the *Platanista*, occur

in some of the American rivers; those are the *Inia* and the *Pontoporia*. Of these animals, unfortunately, no skeletons have yet reached the museum. The *Squalodon*, a toothed whale, occurring in the Miocene period, seems to have been, at least in dental characters, of a more generalised type than those nearest allied to it are which now exist.

The last group of the toothed whales are the *Physeteridæ*. This contains the sperm whale and its allies. There are no teeth available for functional purposes developed in the upper jaw; but, in the mandible, well-developed teeth are present. In no member of this group are the sternal ribs ossified. The ribs are attached to the vertebræ in a different manner to what takes place in the delphinidæ, in which the diapophyses to which the ribs are attached throughout the whole series of the anterior vertebræ are higher up on the neural arch, but gradually descend towards the posterior dorsal vertebræ till, finally, they are attached to the centra of the vertebræ. In the *Physeteridæ*, the diapophyses parapophyses of the anterior vertebræ articulate with the angles of the ribs, while their heads are attached to the bodies and neural processes of the vertebræ. The posterior ribs articulate with the diapophyses by thin heads, and have no attachment to the centra.

The *Physeteridæ* are divided into two subgroups—viz., the *Ziphioidæ* and the true *Physeter*. Of the first, the hyperoodon is a familiar form. A specimen of it was dissected and figured by John Hunter with very great care. It attains the length of twenty-five or twenty-six feet; the males are larger than the females. It is rarely found on our coasts; and, when found, it is usually a female and young one, apparently migrating to the Arctic coasts, where they go during the summer months. The only English name for this animal is the bottle-nosed whale, a term applied to several species. The head is round, and the pectoral fin is small. The back of the skull is raised behind the blow-holes. The maxillary crests are very thick and greatly developed—so that they almost meet in the middle line. Between and in front of these crests lies a large mass of fat. There are no teeth developed in the upper jaw, which penetrate the gum, though there is one rudimentary tooth at the anterior extremity of the lower jaw.

The *Mesoplodon* is another genus of the ziphioid whales. It is peculiar in having only one tooth developed on each side of the lower jaw. The size of this tooth varies. In *Mesoplodon Layardii* it attains an immense size, the tooth of the one side sometimes growing upwards over the animal's snout until it meets that of the other in the middle line, so that the animal is unable to open its mouth. The cartilage between the maxillaries in the centre of the skull ossifies into very hard bone, and forms the ziphioid rostra so often met with in the fossil state.

The sperm whale or cachalot, *Physeter macrocephalus*, is an inhabitant of the temperate and tropical seas. It is principally found in the Pacific Ocean, though occasionally met with in the seas of the warmer latitudes all over the world. The male attains a length of from fifty-five to sixty feet. The female is, however, much smaller, having never been found to measure more than half that length. The lower jaw is long and narrow, with a row of teeth on each side. In the upper jaw, the teeth are entirely absent. The soft parts of the head rise perpendicularly upwards from the anterior extremity of the upper jaw. The skull is long and narrow, flat in front, and rising posteriorly into a great crest, in front of which is an enormous reservoir of liquid fat called spermaceti, which is contained in large cells. This spermaceti chamber forms the whole anterior portion of the head of the animal. It is homologous with the large development of fat in the front of the skull of the porpoise. The height to which the supra-occipital crests rise causes great want of symmetry in the skull, especially about the nasal passage.

A peculiar fin-whale recently discovered is the *Kogia*. It somewhat resembles the sperm-whale, but differs from it particularly in the form of the head, which is very short. Of this species, there are two skulls in the museum.

The earliest cetacea in time known at the present day belong to the genus *Zeuglodon*, which existed as far back as Eocene times. Its teeth resemble somewhat those of *Squalodon;* the hinder ones are double-rooted. The brain-cavity is small and narrow; the snout is long; the nasal bones are more like those of ordinary mammals. The small brain-cavity is characteristic of all the other animals existing at a corresponding period, and indicates that in the cetacea, as in them, there has been a gradual increase in the size of the brain and its cavity, as ages have rolled on till the present time. *Zeuglodon* seems to be perfectly distinct from all other known forms of whale, and must, therefore, be put in a group by itself.

The animals constituting the order *Cetacea* are thus highly specialised, and strongly differentiated from other mammals. It is very difficult, if not impossible, in the present state of our knowledge, to say to which of the other groups they are most nearly related.

ON HÆMORRHAGE AND EXCESSIVE SICKNESS DURING PREGNANCY: AND ON ABORTION, IN CONNECTION WITH INFLAMMATION OF THE UTERUS AND OF ITS CERVIX.

BY J. HENRY FENNET, M.D.,
Formerly Obstetric [illegible] to the Royal Free Hospital.

IN the first edition of my work on *Inflammation of the Uterus*, published in 1845, I brought forward facts, new to the profession, respecting the frequent existence of inflammation of the neck of the uterus during pregnancy, as a cause of hæmorrhage and of abortion (page 63, *et seq.*). I stated that this fact, first brought to light by Messrs. Boys de Loury and Costilhes at the St. Lazare Hospital, Paris, and confirmed by my own experience, threw considerable light on the diseases of pregnancy.

In the second edition of my work in 1848, in the third in 1852, and in the fourth in 1861, I extended this clinical remark to the body as well as to the neck of the uterus; and applied it to the entire period of pregnancy, to parturition itself, and to the subsequent or puerperal state. I developed also, at considerable length, the clinical, pathological, and therapeutical data on which these doctrines were founded. They have guided me, during a long professional career, through the difficulties of practice, and have proved the key to many obscure morbid phenomena, as also to their successful treatment. I am anxious to give this final testimony to their correctness and value. As far as I know, they have not penetrated as yet into gynæcological and obstetric practice. I have found little or no notice of them in the various recent works on diseases of women which I have consulted.

The field covered by the title of this essay is so vast that it would easily give material for a dozen interesting memoirs; but I am obliged to confine myself all but entirely to the mere enunciation of clinical facts, and of the necessary therapeutical deductions.

It is now universally admitted that the pathological facts, which I was one of the first to announce in 1845, are true—viz.: that the mucous membrane covering the cervix uteri, its cavity, and that of the uterus, and the mucous follicles of which they are the seat, are frequently attacked by inflammation and by inflammatory ulceration. I had formerly a hard battle to fight to establish this fact, and encountered an amount of opposition amounting almost to persecution; but that is a matter of the past. I, and those who sided with me, have succeeded in establishing uterine surgery as a branch of general surgery, having as good claims to recognition as anal, rectal, or vesical surgery.

A great clinical fact—to which I drew forcible attention in the successive editions of my work, and which I have constantly taught—is: that many women become pregnant while suffering from inflammatory and ulcerative disease of the uterine cervix, or from chronic inflammatory disease of the body of the uterus. Thence arise a whole train of erratic and morbid phenomena, modifying the usual course of pregnancy, of parturition, and of the subsequent puerperal state. We will examine briefly the influence of such concomitant disease in each of these three periods of the child-bearing phase of female life.

During Pregnancy.—The ordinary result of uterine inflammation, during the pregnant state, is to give rise to what is termed laborious pregnancy; to intractable sickness; to abundant leucorrhœal discharges; to erratic, periodical, or constant hæmorrhage; to the formation of moles or blighted ova; to abortion, and to its concomitants and sequelæ.

Under such a morbid condition, the pregnancy is truly laborious—that is, attended by all kinds of aches and pains, and by all kinds of sympathetic reactions. If the patient have had previous healthy pregnancies, she recognises at once the difference, and will say herself: "I am very different from what I was during my former pregnancies." This difference in the patient's condition, as recognised by herself, is an important element in diagnosis. The state of general suffering is especially marked when chronic inflammation exists in the body of the uterus; but is constantly met with when the cervix alone is the seat of inflammatory disease. Sickness, intractable sickness, in my experience, is one of the most constant symptoms of uterine inflammation. Without wishing for a moment to [illegible] I am certain that diseased conditions of the uterus, very frequently of the cervix, are among the commonest causes of intractable sickness during pregnancy. They are so common, that every woman thus suffering should

be carefully examined if the sickness do not give way, or moderate, under ordinary medicinal treatment. This is the more necessary, as the sickness generally does give way, or becomes bearable, if inflammatory lesions be discovered and cured. I have saved very many women from abortion, and even from inducted abortion, as a last resource, by the application of this knowledge.

An abundant leucorrhœal discharge during pregnancy, especially if it be yellow or purulent, is a very suspicious symptom, and should lead to a surgical examination, especially if the general health suffer. Even if it do not, such a discharge should be traced to its cause and cured, as it may give rise to purulent ophthalmia in the new-born child; indeed, it is the most frequent cause of this terrible disease. Purulent leucorrhœal discharges, in the parturient female, are often occasioned by inflammatory and ulcerative disease of the cervix.

Slight or severe erratic or more or less regular hæmorrhage, during pregnancy, both in its earlier and later periods, is constantly the result of inflammatory ulcerative disease of the cervix. A mere excoriation at the time of conception soon assumes, as pregnancy advances, a fungoid bleeding character. As the cervix and uterus enlarge, the granulations of the ulcerated surface become larger, more vascular, and assume, by the third or fourth month, quite the fungoid character—bleeding at the slightest touch. Thus, marital connection, exercise, jolts, the hæmorrhagic nisus of the menstrual period, still slightly felt during the early months of pregnancy, all give rise to hæmorrhage, more or less abundant. A great deal that has been written on this subject, in treatises on the diseases of pregnancy, is altogether erroneous and fanciful, for want of a knowledge of these facts. I myself have nearly always traced the so-called "menstruation during pregnancy" to this cause: the unsuspected existence of inflammatory disease of the cervix, the origin of the bleeding. Before concluding this memoir, I purpose giving a remarkable case illustrating these facts, which occurred to me abroad last winter. Hæmorrhage from inflammatory disease of the body of the uterus is usually the precursor and concomitant of abortion. Inflammatory disease of the body of the uterus is more frequently a cause of the death of the ovum, leading to the formation of moles, than inflammatory disease of the cervix. I have, however, frequently known the latter to be followed by such a result—death of the ovum, retention and growth of the membranes, and the formation of an intra-uterine tumour or mole.

Lastly: abortion, or premature parturition, is a constant result of the existence of chronic disease of the cervix or body of the uterus. Indeed, I may safely say that, in my experience, following up my cases as I have always done, both before and after parturition, it has been the most frequent cause of abortion.

During Parturition.—I believe that I am fully warranted in stating, that many of the accidents of parturition are owing to the coexistence of uterine inflammation. The most prominent are: hæmorrhage, rigidity of the os, laceration of the cervix, retained placenta, *post partum* hæmorrhage. It stands to reason that, if the cervix, at the time of confinement, be the seat of a large fungoid bleeding ulceration, the loss of blood is likely to be much increased; and so it is. I have frequently examined women, confined under my care, six weeks after the confinement, because they had lost much more blood than they should have done during the labour, and have found extensive ulcerative disease of the cervix, previously unsuspected by myself or by others. In all cases of rigidity of the os uteri during labour, I have followed the same course. I have examined my patients six weeks after confinement, and have so constantly found chronic inflammatory disease of the cervix, hypertrophy and induration, and often laceration of the cervix, that I am led to the belief that rigidity of the os is nearly always to be thus explained. If I am right in this opinion, there is a deal to modify or erase in most works on midwifery.

My private midwifery practice, during the active period of my career, was all but confined to consultation cases, and to attendance on females whom I had previously attended for uterine disease, generally inflammatory affections. Among these, retention of the placenta, from adhesion to the uterine walls, was so common that I quite expected it. My line of practice was to wait an hour, and then to remove the placenta, which I nearly always found attached to the uterine walls. In those cases, and sometimes in others in which no interference was required, *post partum* hæmorrhage was frequent and troublesome.

During the Puerperal State.—Following out the practice I have described, examining (six weeks after parturition) all my midwifery patients who had had uterine accidents of any description during the puerperal period—hæmorrhage, metritis, puerperal fever, phlebitis, prolonged red or purulent lochial discharge, prolonged inability to stand or walk—I have been able to connect these pathological phenomena, in very many instances, with the previous existence of cervical or uterine inflammatory disease. The cervical lesions, however, are by far the most frequent. Nor is it singular that such should be the case, if the uterus, cervix or body, be actually the seat of inflammatory mischief at the time of parturition. How can we expect a diseased organ to safely pass through all the ordeals and changes connected with parturition? Often, the confinement fires the train, as a match does gunpowder. The disease of the already inflamed cervix—bruised, torn, lacerated—is much aggravated. Chronic inflammation becomes acute, extends to the uterus and ovaries; and we have acute metritis as a result, if it extend to the body of the uterus; phlebitis, if it extend to the veins and lymphatics; hæmorrhagic and purulent discharges, if it be confined to the mucous membranes. In all these cases, the physiological process of involution is arrested; and the uterus, instead of fining down to an ounce and a half, remains at eight, six, four, three ounces, followed by inevitable displacements.

The connection between these morbid phenomena and uterine inflammatory disease cannot be traced at the time of parturition, or in the first few weeks that follow. If, therefore, the attendant take leave of his patient soon after the confinement, as is usually the case, the existence of such disease is not recognised. Sometimes, no doubt, parturition acts therapeutically. Lesions, which may have existed before, during, and after parturition, are spontaneously cured by nature alone. As she sets the human tenement to rights, after the great volcanic eruption, she removes and cures the previously existing mischief. I am persuaded, however, from long observation, that such is not usually the case; that, in the great majority of cases, the inflammatory disease of the cervix or uterus, which existed before pregnancy, persists after parturition and the puerperal state, assuming the chronic form, and usually reappears in an aggravated shape.

Thence the following rule of conduct, which I always followed. On taking leave of my patient, I used to say to the husband: "Your wife's confinement, being a natural function, ought to do her good. Two months after it, she ought to feel at least as well, if not better, than before the pregnancy. She ought to walk and stand as well, to be properly menstruated, and to have no pains. If she do not attain this standard, send for me, and we will talk the matter over. During her confinement, she may have received some internal injury, not appreciable at first, but easily recognisable later. Any such injury can easily be treated and cured a couple of months after a confinement. If, on the contrary, it be allowed to continue untreated for months or years, it will undermine her health; and, when she is at last forced to apply for assistance, it will prove most difficult to cure." This advice was generally followed; and thus I saved my own patients from the years of uterine suffering which often follow labours that appear, at the time, to be the most favourable, and in every sense satisfactory.

The pathological facts which I have enumerated would be merely questions of theoretical interest, had they not a direct bearing on practice; but that direct bearing they most decidedly have.

The questions which at once present themselves are these: Are we justified in surgically examining pregnant women, to ascertain whether or not they are suffering from uterine inflammation, either of the cervix or of the body of the uterus? If such disease be found to exist, are we warranted in resorting to surgical treatment during pregnancy, in order to cure the disease? To both these questions, I gave, thirty-six years ago—and now, after a life-time of observation, again give—an affirmative answer. Not only are we thus justified to interfere, but surgical interference, if required,—is a positive duty, as by it only, generally speaking, can existing inflammatory disease be treated, controlled, subdued. If not treated, it develops itself *pari passu* with the uterus; and, what is a mere slight lesion at the epoch of conception, becomes extensive, serious, formidable disease; later on, giving rise to one or more of the morbid conditions and symptoms enumerated. Once the pathology of uterine inflammation during pregnancy, as above developed, is accepted, the necessity of surgical examination for diagnosis and treatment follows, as a necessary sequence.

A digital examination alone will show whether the uterus is the seat of chronic local inflammation; but the speculum is necessary to elucidate the condition of the vagina, cervix, and its cavity. Owing to the relaxation of the vulva and vagina, which accompanies pregnancy even in its early stages, either a full speculum, or a conical bivalve speculum, such as the one I formerly introduced through Coxeter, is required. With the ordinary bivalve, the vagina, passing between the valves, obscures vision after the second or third month. I consider that my conical bivalve is the best instrument for pregnant women. By its power of expansion, it separates the lips of the cervix when diseased, hypertrophied, or ulcerated, and allows the eye to penetrate into the morbidly dilated cervical canal. By its conical form, it effectually holds back the vagina when the instrument is expanded; it thus

enables the cervix to be fully exposed up to the seventh month of pregnancy.

According to my own experience, it is difficult to thoroughly bring into view the diseased cervix, and to separate its lips, in a pregnant woman, in any other position than in the dorsal or lithotomy one, with a good low natural light. The pelvis can be easily raised on a hard pillow, so as to allow a flood of daylight to penetrate to the bottom of the instrument. I am not myself satisfied, unless I can see the entire cervix as well as the palm of the hand, and recognise a diseased follicle no larger than a pin's head.

The most frequent lesions are inflammatory conditions of the vaginal and cervical mucous membranes, as is the case in all parts of the human economy where a mucous membrane exists, excoriation, ulceration of the cervix, and of its cavity.

Inflammatory disease, once recognised, should be treated exactly as in the non-pregnant woman, by emollient and astringent injections, by vitality-modifying caustics—such as nitrate of silver, nitric acid, or acid nitrate of mercury. In the third and subsequent months of pregnancy ulceration of the cervix uteri is apt, as I have stated, to be attended with the formation of fungoid granulations, which bleed on the slightest contact. This bleeding, indeed, is so free, that the mineral acids, cautiously used as they always should be, are of no use at first; they are washed away by the blood. The best plan is to introduce the full non-expanded speculum, so as to cover the granulating surface; and then to work a piece of solid tough nitrate of silver over the granulations, so as to form a kind of blood and caustic magma over the surface. This can be washed away with wet sponge before the speculum is removed. Two or three applications of this kind, at five days' interval, will generally clean the granulating surface, destroying the fungoid granulations, and leaving a clean ulceration; and then we can use the nitric acid, or, rather, the acid nitrate of mercury, after seven days' interval. The cicatrisation generally proceeds rapidly, more so than in the non-pregnant woman. The use of the nitrate of silver is always followed by free bleeding for several days, which I meet by strong alum and zinc injections; that of the acids never occasions bleeding, but is generally followed by a serous discharge.

I may incidentally mention that, when I first went to Paris in 1836, forty-four years ago, I found the acid nitrate of mercury generally applied in the hospitals to ulcerated states of the uterine neck, as also to the fauces and elsewhere. It was preferred to pure nitric acid, because it did not fume, and because it was thought to be a better detergent. I myself tried all the acids, especially the nitric and the acid nitrate of mercury, and abandoned the habitual use of the former for the reason given, which I thought correct. But I have, during all my professional life, used pure nitric acid whenever I had not the other at hand. I explained these facts at length in the second edition of my work (1848), describing the application of the acids in the uterine cavity. Thus, the use of fuming nitric acid, either to the cervix or to the uterine cavity, cannot be said to have originated with the Dublin School of Gynæcology. I may add, that I have never once, during forty-four years' experience, seen a case of salivation from the use of the acid nitrate of mercury, although I have seen it applied, or applied it myself, I may say, thousands of times. Such cases have occurred, but so rarely as to be merely curiosities of medical practice.

When the cervix is healthy, but the uterus itself is the seat of disease, of partial localised chronic inflammation, the knowledge acquired by examination, although valuable, does not lead so directly to curative treatment. The region of the uterus, which is the seat of disease, not being accessible surgically, we are confined, in a great measure, to general treatment, and to expectancy. It is a valuable factor, however, even in general treatment, to be aware of the nature of the case, to be acquainted with the exact cause of the "laborious pregnancy", and of all its painful symptoms. We are both forewarned of, and forearmed against, all the accidents that are likely to take place in the nine months' journey of a damaged vehicle, with the tire off, the spokes broken, or the axletree damaged.

In these cases, as in those of simple cervical disease, unaccompanied by hæmorrhage, I have repeatedly applied leeches to the cervix, when unacquainted with the existence of pregnancy; and that not only without any harm resulting, but with decided benefit. Still, I am not prepared to advise their application as a means of treatment in such disease, even in the early months of pregnancy. I consider such a course allowable, but each case must be judged by itself.

In the obstinate sickness of pregnancy, it has always been a rule with me to examine the uterine organ, if ordinary medicinal treatment failed to control it. As already stated, I have generally found the above described morbid conditions of the cervix uteri accompanying, and evidently occasioning, the sickness. I say evidently occasioning, as, all but invariably, their removal has been followed by the subsidence of the sickness. Sometimes, this result has been obtained by the application of the solid nitrate of silver to the cervix and to its cavity, when there has been merely erythematous inflammation of the mucous membrane. I have said to the cervical cavity, because I have never hesitated to apply either the solid nitrate of silver, or the mineral acids, to the cervical canal in pregnancy, if clearly required. I have never used the stronger caustics, my cylinders of potassa fusa, or the actual cautery, to a pregnant woman; I should fear the shock to fœtal life.

I would here give a practical hint to those practitioners who may think proper to follow in my footsteps. It is well to tell the pregnant patients, when surgical examination and treatment of the uterine organs are initiated, that the fœtus is perhaps dead at the time, or may die later, notwithstanding all our efforts to save it. Such being the case, if abortion, with or without hæmorrhage, occur during treatment, it must not be attributed to the means of treatment used, but to the actual disease for which it is resorted to. Such a statement is perfectly true, and saves the practitioner from the imputation of having occasioned the abortion, should it occur. I have saved the life of scores of fœtal children by the adoption of the above sound and rational treatment; but I have also had cases in which abortion has occurred during my ministrations, and in which this simple precaution has saved me from blame.

The following case, which occurred to me last winter at Mentone, will illustrate in a forcible manner some of the facts above described.

I was applied to in February, by a Polish lady, "to bring on abortion". She was thirty-six years of age, the mother of several children, and had nearly lost her life a year before, at Warsaw, from uncontrolable sickness, and constant and profuse hæmorrhage, during pregnancy. She had the best consulting advice to be obtained at Warsaw; and, after every ordinary means had been tried in vain, abortion was induced at the end of the sixth month to save her life, as she was rapidly sinking. She came south, partly to recruit. When she sent for me, she considered herself about three months gone, and had had bleeding for a month. Latterly, the loss had been hæmorrhagic, and she was becoming anæmic. There was constant sickness, and she was blanched and weak. All these facts were placed before me by her relatives, and my assistance demanded on the lines laid down by her previous Warsaw physicians. I refused to accede to the request until I had ascertained that such a course was imperatively necessary, demanding an examination. This was allowed; and I found a hypertrophied cervix, with fungoid bleeding ulceration. These lesions were treated as described. In a fortnight, the bleeding ceased entirely; in less than a month, the sickness had ceased; and in two, she was quite well, and in fair general health—five months gone in a then all but normal pregnancy; the fœtus vigorous. She left me to go home in this state in April; and has since been happily confined of a live healthy child. Her obstetric physicians at home were much surprised at the treatment of her case, and at the results.

The existence of inflammatory lesion of the cervix or uterus, at the time of parturition, does not give the accoucheur any particular clue for any special treatment; but it prepares him for accidents. He should know that he has a bad case in hand; that rigidity of the os; slow, painful labour; laceration of the cervix; hæmorrhage, during or after parturition; adherent placenta; metritis; ovaritis; hæmorrhagic, purulent, long-continued lochial discharges—in a word, a bad labour and a bad getting up may be expected, in the natural course of things.

Such women often do well, however, for two or three weeks after their confinement, and then flag, and become weak, feverish, and ill. Six weeks or two months after their confinement, as I have stated, their uterine condition should be carefully investigated; and, if any disease exist, it should be treated and cured before they are restored to their ordinary duties, as I stated at the commencement of this essay. By always following this course, when actively engaged in midwifery practice, I shielded my patients from the illnesses which often follow confinements. In ordinary practice, I believe the accoucheur takes leave finally of his patients three weeks after the confinement, and hears no more about them.

Such are my opinions; such has been my practice. Both being, however, well known to the profession through my published works, I should not have now brought them before the Association, had I not reason to believe that they are not generally known or followed in obstetric practice. I am anxious to contribute, as far as lies in my power, to establish a code of doctrine for obstetricians in general, with reference to the questions I have discussed.

Silico Wafer Works.—These works are [illegible] for the sum of £28,000, the money which will be expended will be found to be ample for all necessary purposes.

ON DIFFUSE INFLAMMATION OF THE EXTERNAL AUDITORY CANAL.

By E. CRESSWELL BABER, M.B.Lond.,

Surgeon to the Eastbourne and Sussex Throat and Ear Dispensary.

INFLAMMATION of the structures forming the wall of the external auditory canal may be of two varieties—circumscribed and diffuse. In the circumscribed form, the inflammatory action is limited to certain portions of the canal, and results in what is commonly known as abscesses, or boils, in the meatus.

In the diffuse variety, the inflammation, on the contrary, although it may commence in a limited portion of the canal, has a tendency to become diffused over a large extent of its walls, and may affect not only the whole of the auditory canal, but also the outer surface of the membrane tympani.

It is the latter form only *(otitis externa diffusa)* on which I propose to make a few practical remarks to-day, based on the notes of about a dozen cases of the affection which have been under my care during the last few years.

Diffuse inflammation of the external auditory canal may be broadly divided into the *acute* and *chronic* varieties; but as the one form frequently passes over into the other, they may with advantage be considered together. The disease is farther divided into *primary*, when it occurs independently of disease of the middle ear, and *secondary*, when it takes place in the course of an already existing tympanic affection. The degree to which the soft structures of the auditory canal may be affected, varies from a simple erythema of the cutis lining the canal to a periostitis, representing the severest form of the disease. It is, in fact, usually impossible to say with certainty in what structure the inflammation has its seat.

Causes.—The causes of this disease are cold, wounds, or injuries to the meatus (especially the impaction of foreign bodies, irritation with ear-picks, pins, etc.), the exanthemata, acute inflammation of the middle ear, eczema of the auricle, erysipelas of the head, etc. One variety of the secondary form of the disease occurs on slight provocation in cases of chronic purulent inflammation of the middle ear, probably from the irritable state of the meatus, induced by the long-continued discharge. A very obstinate case of primary diffuse external otitis of both ears related below, was under my care some time since, in which the gouty diathesis appeared to be the exciting cause. Special forms of the disease, attributable to diphtheria, syphilis, vegetable fungi, and pemphigus, are described by authors. From want of time, I shall be unable to allude to these any further in this short paper.

Symptoms.—The most prominent *subjective symptoms* of the acute form are pain, tinnitus, and deafness. The pain is often very intense, keeping the patient awake at night. It is increased by movement of the jaw, which may prevent his swallowing solids. The deafness is not usually very great, if the meatus be not quite occluded, and the middle ear be unaffected. When a case of acute diffuse inflammation of the auditory canal first comes under observation, the *objective symptoms* are usually uniform swelling and redness of the walls of the meatus; often, indeed, to such an extent that the smallest speculum cannot be introduced, and, therefore, a view of the deeper parts is unobtainable. There is also great tenderness, on pressure over the tragus, or on the walls of the meatus. The tissues around the external orifice are often swollen, and the glands below the ear may be enlarged.

In the course of time, or in a milder case at the commencement of the attack, a small speculum can be carefully introduced between the swollen walls, and the membrana tympani inspected. This structure is often only recognisable by its position, for nothing can be seen of hammer or light spot, owing to the outer coat of the drumhead participating (from continuity of tissue) in the inflammation of the cutis of the meatus. In these cases I have found a speculum, of which the inner end is more flattened than a Gruber's speculum (measuring 5½ by nearly 4 millimètres in diameter), useful in obtaining a view of the deeper parts. The returning view of the membrana tympani is very interesting in these cases. The appearance, first, of the small process of the hammer, followed by that of its handle, and of the cone of light in the normal position, may often be observed in the space of a few days. In an acute case, in a short time a secretion takes place from the walls of the canal, and in chronic cases it is often large in quantity, being sometimes yellow and creamy, at other times black and tenacious (perhaps an altered secretion of the ceruminous glands). Complications may occur, in the form of abscesses and granulations on the walls of the canal, and of periostitis of the mastoid process. Some authorities consider that perforation of the membrane frequently occurs from without inward, in diffuse inflammation affecting the inner portion of the meatus. I have not myself observed this result.

Diagnosis.—The disease under consideration can only be confounded with boils in the meatus, when they encroach very much on its lumen, and with eczema. The presence of eczema in other parts of the body, and the watery nature of the discharge in this disease, will usually suffice to make the diagnosis clear. It is not, however, always possible to distinguish between the two affections, nor is it practically of importance to do so, as their treatment is very similar. The point of chief consequence in these cases is to ascertain the state of the middle ear, as to whether the membrane be perforated or not. If the parts be too swollen to allow a satisfactory inspection of the membrane, the diagnosis must be made by inflation of the tympanum by the usual methods, combined with auscultation. The extent to which the hearing remains impaired after the canal has been fairly cleaned, is often a good indication of the implication or not of the tympanic cavity.

Treatment.—In the acute stage, the application of one or more leeches just in front of the tragus, or below the ear, and the instillation of an anodyne solution are, one or both of them, required for the relief of the pain. In prescribing a leech, it is advisable to mark with ink the exact spot where it is to be applied, or one may subsequently find that it has been applied at some distance from the ear, without, of course, having the desired effect. Before using the leech, the patient should be directed to plug the ear with cotton-wool, and it is well to show him how to stop the hæmorrhage from the bite when required, as leech-bites close to the ear are apt to bleed rather freely. Local depletion by incision of the walls of the meatus is recommended by some authors. I have not employed it in this affection, as I have found leeching answer all the purposes, whilst it is decidedly less formidable to the patient. If leeching, however, failed to relieve the pain, and there appeared any risk of the bone becoming implicated, I should certainly advise incision. For anodyne drops, I prefer a strong solution of morphia, as recommended by Burnett. Four grains of acetate of morphia to two drachms of water, of which five to ten drops are to be instilled, lukewarm, into the ear every hour or so. Burnett recommends sulphate of morphia. I happen to have used the acetate, and have found it answer very well. For children, especially if the membrane be perforate, I use a weaker solution; and in adults I do not employ the solution of full strength unless the pain be very severe; but I have found the pain yield to the strong solution when a weaker one had no effect. Foreign bodies in the meatus, of course, require removal, although this is not always practicable until the inflammation has subsided. The ear should be cleansed as far as possible, either by a gentle stream of water from a syringe, or a Clarke's aural douche, or by small mops of wool on a cotton-holder, under good illumination with the head mirror. The cotton-holder consists essentially of a straight piece of wire, slightly roughened near the tip, around which any absorbent cotton-wool, such as Strutt's, is twisted. Scales of loosened epidermis may be removed either by angular forceps or by the aural scoop.

In the chronic stage the cleansing is very important, and is, I think, best done by the surgeon with cotton-wool as often as practicable, for too much syringing only increases the swelling and irritation of the meatus. In addition, the instillation, two or three times daily, of a few drops of a weak solution of glycerine of borax (half a drachm to 7½ drachms of water) is very useful. After a trial of several varieties of drops, I have found this mildly alkaline solution the most serviceable. Some simple ointment, containing morphia if necessary, may be inserted on a long-shaped plug of wool at night; and by plugs thus carefully inserted, a dilatation of the canal may often be effected. Granulations, if large, must be removed by Wilde's snare, and subsequently touched with some caustic (such as nitrate of silver or chromic acid). Weak solutions of lead are recommended by some authors, and others speak highly of the instillation of strong solutions of nitrate of silver for arresting the discharge.

Prognosis.—In the acute form of the affection, occurring from cold or injury, unless the inflammation spread to the bone, the prognosis is favourable, and, under suitable treatment, complete recovery ensues in a few weeks. The chronic forms are apt to be more obstinate; but, under persevering treatment, the result, as far as I have seen, is almost always satisfactory. I allude, of course, to cases in which the membrana tympani is not perforated, and the bone is unaffected.

The following case (much condensed from my notes) shows the obstinate character of some of these cases, and the necessity for perseverance if a good result is to be obtained.

A middle-aged lady, the wife of a medical man, became affected with discharge from the ears and deafness, in August 1878. She was of

* Read before the East Sussex District of the South-Eastern Branch.

gouty diathesis, and had for years suffered from uric acid gravel in the urine. On November 7th of the same year, the hearing distance for the watch was one inch with the *right*, and three inches with the *left ear*. The right meatus was swollen, and contained bright yellow discharge. The left was more swollen, but contained less discharge. Both tympanic membranes appeared red and swollen, so that the malleus could only be indistinctly made out on the right side—not at all on the left. After removal of the discharge, no perforation-sound was obtained in either ear on inflation. Treatment, consisting locally of frequent cleansing, the application of iodine to the mastoid processes, insertion into the auditory canals of Gruber's gelatine globules (containing sulphate of zinc and tannin), instillation of drops of bicarbonate of soda, and of tannin and opium, and the internal administration of anti-gouty remedies, was employed for four months without much effect, the walls of the meatus still remaining much swollen, and discharging. Drops of glycerine of borax were then ordered on March 6th, and on March 26th, the ears felt much better, and there was only a very little discharge in each meatus, of a thick, white character. On April 16th, there was no fluid discharge in the ears; only a few scales. The small process of the hammer was coming into view on both membranes, and the latter were resuming their normal grey colour. On May 8th, the right meatus was clear, and the left only contained a small quantity of thick, blackish material. Both membranes were normal, with the exception of being slightly dull on the surface, and there was scarcely any swelling of the canals. The hearing also (the patient reported) was as good as it ever had been. Eleven months after this date this lady was again seen, and it was found that the ears had continued quite well.

The borax drops certainly appear to have acted very satisfactorily in this case; but it is possible that the removal of the patient from this town to London, to different surroundings, which took place about the time that these drops were commenced, had a good effect on the disease.

I will conclude with very a brief account of an acute case, of which the course contrasts markedly with that just described.

Elizabeth H., aged 23, was admitted a patient at the Throat and Ear Dispensary on January 31st, 1879. The history was, that sixteen days before, after a very bad cold in the head, violent pain began in the left ear, which had been aching ever since. Deafness came on in the left ear at the same time; also a noise like something drumming or spinning. Her own voice sounded louder in the left ear. She had previously never had anything the matter with the left ear. Movement of the lower jaw produced pain, rendering her unable to eat solids. The watch was only heard in the left ear, on contact with the auricle, temple, and mastoid; and the tuning-fork applied to the median line was heard louder on the *left* side. There were tenderness and swelling in front of the left tragus, and the left mastoid was slightly tender on pressure, but not swollen. The walls of the meatus were much swollen. One of Gruber's morphia globules was inserted into the left ear. The patient was seen again at seven o'clock the same evening, when it was found that the pain became easier after insertion of the globule, but had grown worse again. Ten drops of a solution of morphia (one grain to one drachm) were ordered to be instilled into the ear every hour, until the pain was relieved. The following day (February 1st) she reported that she had had a better night, and the pain was easier. Much sodden epidermis was removed from the canal; but even after removal of this the drumhead was not visible. Morphia ointment was inserted on cotton-wool, and a leech ordered to the front of the tragus. On Politzerising, there was no perforation-sound. The mastoid process was not tender. To make a long story short, the swelling of the walls of the meatus gradually subsided, the pain ceased, and the membrana tympani began to resume its natural appearance. On February 7th (*i.e.*, a week after she was first seen), the hammer was first slightly visible, and the hearing for the watch had risen to nine inches. On the 19th, the watch was heard at a distance of three feet, and a whisper could be repeated across the room, so that the hearing was practically restored. A few days after this, the patient ceased attending, the left membrana tympani still being slightly dull, and the hammer indistinct. There was evidence in this case that the tympanum was also slightly affected; and indeed it is probable that, in such an acute case, affecting the osseous meatus, the middle ear would, to a certain extent, participate in the congestion.

In conclusion, I must ask your indulgence for the necessarily imperfect character of this sketch; but, without unduly prolonging the paper, I was unable to enter into further details. I trust, however, that I have touched on most of the practical points connected with the subject.

THE honorary membership of the New York Medico-Legal Society has been conferred on Mr. Jabez Hogg, Consulting Surgeon to the Royal Westminster Ophthamic Hospital.

EXTRACTION OF CATARACT.

By P. H. MULES, M.D.,

[illegible]

IN publishing these notes of all the cases operated on by me during the past two years, I trust no apology is needed. I am indebted to Mr. A. Hill Griffith for verifying all save the first nine, which were completed before his connection with our hospital; and for his care in testing the vision, and corroborating the results.

The operation known as the "modified linear of von Gräfe", with such further modifications as the nature of the complication demanded, has been adopted in each case.

The first portion of the table refers to complicated, the remainder to uncomplicated, cases. Of the complicated cases—including cases of locomotor ataxy; diabetes (very feeble, one eye lost from spontaneous irido-choroiditis); sympathetic cataract, with matted iris (rheumatoid arthritis bedridden, and double senile cataract); besides nine others of less apparent gravity—all recovered satisfactorily. Of the uncomplicated, the sixty-ninth (aged 78) was lost by panophthalmitis; the remainder gave satisfactory results.

Vitreous humour was lost in two of the uncomplicated cases, and in two of the complicated, making four losses of vitreous humour in seventy-seven cases, two of which were unavoidable. Secondary capsular troubles were needled in seven cases, but it is probable that distant vision of many would have improved if the films had been systematically divided. Iritis attacked six eyes, which were treated satisfactorily, the vision being respectively 1 and 6.12; 1 and 6.18; and 1 and 6.12. The wound was enlarged with scissors for the passage of the lens in six cases. This appears infinitely preferable to the introduction of traction-instruments, or excessive pressure for the extrusion of the lens. The spoon was used in four cases. Closed pupil recurred in the sympathetic case, when iridotomy gave 10 J. + 18 D. The pupil was enlarged three times: once for arrest of glaucoma; once to obtain a pupil opposite a clear portion of cornea; once to lower the pupil in a case of ptosis.

The number of patients operated on was seventy-two. Five double extractions brings the number of operations to seventy-seven. Of these, fifty-nine read No. 1 Jäger (brilliant), seven read 2 to 6 Jäger (bourgeois), eight read 6 to 20 Jäger; two count fingers; and in one vision was lost. Thus, out of seventy-seven extractions, seventy-six were surgically successful, and more or less visually so; sixty-six having good distant vision.

Cylindrical lenses were only occasionally added to the sphericals, their cost precluding their general adoption.

The comparative absence of iritis may appear to be somewhat unusual. This may be fairly attributed to the manner in which the iridectomy is performed, and to the care with which the wounded iris is freed from cortex and capsule.

The method of performing the iridectomy which I find best is not new; but, as it is in direct opposition to the views of one of our latest writers, I am tempted to give it *in extenso*. The iris is grasped by forceps as near as possible to either angle of the wound, gently stretched, cut through about four-fifths of its length; the forceps, with the cut iris in its grasp, being immediately carried over to the opposite angle of the wound, the iris is again gently stretched, and the iridectomy completed. By this manœuvre, all fear of entangling the iris in the wound, either before or during the extrusion of the lens, may be dismissed. The coloboma is perfect—small at the pupillary margin, broad at the base. Weiss's forceps-scissors are particularly handy for this operation. The objections to this mode of performing the iridectomy can only be theoretical; as in my own practice, and others, incarcerated iris was an element of danger and trouble, oftimes necessitating removal of small portions from each angle of the wound: whilst, since its adoption, I have not had one case of disentangling or removal. The final clearing of the pupil from cortex, admirably described by von Gräfe, is the most difficult as well as the most important [illegible]

after removal of the speculum.

[illegible]

upper lid for the first few days, all examination being conducted by depressing the lower lid. The hospital happily rejoices in trustworthy and intelligent nurses, who have been long there, and to whose promptitude in relieving the earliest [illegible]

parative immunity from those secondary troubles which are occasionally so disastrous.

No. of Case				Complication.	Result.		Remarks.
							No difficulty in the case but the paralysis. He did well.
				Nebulous cornea	2	6.36	Bad keratitis some years since. Result
				Irritable			Stump removed same time.
		Good		Traumatic	4		
				Locomotor ataxy	1		Vitreous at once appeared on com- relieved tension; vision remained as shown.
				Lac. obs.	1		Wound small, enlarged with scissors.
		Good		Corn. perf. synec.	1	6.18	
				Traumatic complete synechia			Badly damaged, but was anxious for removal.
4		Good	July	Old irido-chor., pyram.	Fingers		Nutrition very bad from old disease. No difficulty, but only counts fingers.
			Sept.	Sympathetic	10		As bad an eye as could be, from sympathetic disease. Iridectomy gave useful vision.
				Diabetes	20	6.60	Vision lost from spontaneous irido-choroiditis. Vitreous humour came on introduction of knife; spoon used.
				Traumatic cat.	1		Needle used.
		Bad		Rheumatoid arth.	1		Very bad case of rheumatoid arthritis,
		Good		Uncomplicated.	1		
			April	—	1		
			April	—	1		
		Good			1		
		Good	May	—	1		
		Bad	April	—	1		Double extraction.
				—	1		Iritis.
				—	1	6.18	
1		Good			1		Needle used.
			July		1	6.24	
		Good	July	—			Iritis; synechia posterior.
		Good		—	1	6.6	
		Good		—	1	6.24	
		Good		—	1		Iritis; synechia poster.
		Good	Aug.	—	1	6.18	
		Good	Aug.			6.9	
		Good	Sept.	—	1	6.24	
		Good	Sept.	—	1		of iritis, but left no ill effects. Scissors; enlarged wound.
		Good	Mar.	—	1		Needle used. Vitreous humour appeared before completion of section; spoon used; no trouble.
		Good	—	—	1		
			Sept.	—	1	6.9	
				—	4		
				—	1	6.24	
			Mar.		1	6.36	
		Good	Feb.		2	6.36	Double operation.
		Good	Oct.	—	1	6.9	
		Good			1		
		Good	June		1		
		Good	April	—	1		of Iritis.
		Good	May		1		
					1	6.36	
		Good	June		1		
					1		
				Traum. cat.	10		Very unruly; struck the knife out of eye. Operation deferred. No ill effects, but vision dim, although pupil appears clean.
4					1	6.36	Wound enlarged with scissors.
46	28	Good	July	Traum. cat.		6.	
					1	6.18	Needle used; slight iritis; no ill effects.
							Double extraction.
							Needle used.
				—	1		
				—	1		Needle used. Dense scattered nebulæ; both lenses opaque. Ptosis.
		Good	Sept.	—	1		
				—	1	6.60	Double extraction; quite illiterate, counts badly.
			Sept.		1		
		Bad			1	6.6	
		Good	Oct.	—	1		I operated on the right eye three years ago; excellent result; both.

TABLE—*continued.*

No. of Case				Complication.	Result.		Remarks.
61	70	Good	Dec.		1		
		Bad	D	—			
					1		
				Traum. cat.	1		
				Nuclear, senile	1		
				—	1		
					1		
					1	6.18	
	78	Bad	Mar.	—			
				—	1		Slight iritis.
	76	Good	April	—	1	6.18	
72				Doubtful	1		Small separation of retina, extending to almost complete.
73	75	Good	April		1	6.9	Scissors; enlarged wound.
		Good	April	Senile	1		
75		Good	April		1	1	Capsule to be cut.
				—	1		
		Good	April		1		

THE USE OF ALCOHOL IN RELATION TO PUBLIC HEALTH.

By LEWIS SHAPTER, M.D.Cantab.,

Physician to the Devon and Exeter Hospital, and to the West of England Institution for the Deaf and Dumb.

ONE of the vexed questions of the day, bearing prominently upon the preservation of public health, is undoubtedly the popular use, and consequent abuse, of alcoholic stimulants. That the wide spread abuse of alcohol has developed into a national danger, is a proposition scarcely open to question: but it must at the same time be admitted that we have not yet arrived at a remedial measure of prevention and cure for this abuse which can be rendered generally acceptable, either from a scientific or a logical point of view. Medical men have, for example, very generally held aloof from entering upon the controversy upon which the admission of this abuse inevitably leads them, because, in all probability, as the cautious and logical advisers for the public welfare, they have not seen their way to propound total abstinence or any doctrine of totalism as a remedial measure for want of moderation or intemperance; and because, moreover, to adopt total abstinence from alcohol, is to throw over a remedial agent which may be not only curative but preventive of disease. Whereas, therefore, on the one hand, medical men should not shrink from grappling with a national evil prejudicial to health, and boldly offering measures remedial and preventive, yet, upon the other hand, it becomes them to act with such extreme circumspection as shall render their views clear and reasonable for the present as well as fruitful for the future.

The question which underlies the whole matter of the popular use of alcohol appears to be this: Is there a general necessity for the use of some restorative beverage; and, if so, does alcohol fulfil the requirement with safety and efficiency? If it do not, and the necessity remain, we must clearly look for a substitute; but if it do, we have only to deal with its abuse, and not with its acceptation.

Medically speaking, the chief remedial use of alcohol is as a food, and as a present stimulant to a circulation which without its temporary aid might disastrously fail. As a food, there is probably no other substance which can effectually perform the same functions. In typhoid fever for example, a fever of protracted, but limited duration, where the vital functions tend proportionately to fail, and endanger the power of resistance until the close, alcohol may confidently be looked to as the most readily assimilated food, and the most effectual temporary stimulant.

Like other kinds of heat-giving foods, alcohol undergoes oxidation within the body; and, in yielding up its carbon and hydrogen in the formation of carbonic acid gas and water, it induces the development of heat, and proportionately diminishes tissue waste and checks the necessity for other kinds of food. The other action of alcohol is that it excites the vascular system and stimulates for present purposes a failing circulation, so as to carry it through the limited duration of the attack, but, like all indirect excitants to the nervous system, it subsequently depresses. The necessity for the stimulating action of alcohol to the vascular system arises more especially towards the close of a prolonged acute illness like typhoid fever; but prior to this period, so long as the assimilative and

digestive functions continue in comparative vigour, and there are no indications of failing circulatory power, nitrogenous food rather than stimulants will more confidently be looked to, and alcohol as only heat-giving food will be only justified, even in small quantities as an adjunct to other food, or as a means of preventing over-taxation of digestive functions. The same form of reasoning will also show itself in the use of alcohol in other ailments of a minor character, where it is remedial in its action. In some cases, where a sluggish circulation is a prominent feature or primary cause of existing disease, the use of alcohol as a stimulant is undoubtedly advisable; and, failing it, we probably have recourse to other medicinal agents to induce similar ends, such as spirits of ether, sal volatile, or carbonate of ammonia. In some cases of feeble digestion again, alcohol is prescribed with a view of stimulating the mucous membrane and the digestive functions, dormant from atony or want of vital activity. Beyond, however, a stimulating action on the peripheral vessels supplying the coats of the stomach, alcohol has probably no therapeutic position in improving digestion—rather the contrary. Many articles of food are rendered less soluble, and therefore more indigestible, by the presence of alcohol, and much will therefore depend, in cases of this kind, as to the time prescribed for taking the alcohol medicinally; if taken before meals, it tends to become absorbed more readily, and to act more surely as a local stimulant and tonic to an enfeebled stomach; but if taken with a meal, its mechanical effects on food might prove as deleterious as the effect of increasing blood-flow by local stimulation proves beneficial. Other cases occur, again, where alcohol is advisably used dietetically as an adjunct to food with a view of preventing overfeeding; this especially occurs in those given to much mental labour, and, if alcohol be not taken in moderation, there is a tendency to a greater consumption of animal food, and of heat-giving food such as starch and sugar, than can be deemed beneficial or advisable.

All this is the medical aspect of the question; and although it will be seen that to the mind of the practical physician it is a matter almost beyond dispute that the oxidation of alcohol within the system can effectually take the place of food and the wasteful combustion of tissue-elements, and so become a preservative of vital force in its action as a respiratory food; so, again it must be observed, this same fact has its bearing upon our practical treatment of diseases which are more or less chronic—for here the readiness with which alcohol becomes a heat-giving food may become a source of danger; and in health, as well as in a class of diseases associated with plethora, the use of alcohol as a stimulant, local or general, has to be balanced against the impediment which its introduction into the system will of necessity offer to the stimulation of the less readily oxidisable materials taken in as food, or already stored up within the body, as overplus or waste, and which may be the hidden cause of disease.

There are yet two more points which should not be lost sight of, as influencing to a certain extent the medical use of alcohol: (1) the fact that alcohol is very generally used in the form of compound liquors pretending to special therapeutic properties, such, for example, as rum and gin, and (2) that it forms a constituent of drinks, at least such as wine and beer, which are often described as nutritious. With respect to the sudorific properties ascribed to rum, and the diuretic properties and derivative action to the uterine functions popularly ascribed to gin, it is only right to assert that these can be obtained with a greater degree of certainty with remedies less complex and more certain in their composition; and consequently, were the use of alcohol in any way to depend upon results attributable to these compound spirits, they can be at once safely discarded without any loss to our remedial resources. The remaining question, however, as to whether wine can properly be considered nutritious in its character, will in all probability continue to remain a much more vexed one. This is in a great measure due to the fact that many who will willingly give up the use of brandy, whiskey, or similar direct alcoholic liquors, will, nevertheless, be slow to acknowledge that harm is likely to follow in the wake of the moderate use of the more luscious and agreeable wines—it would be yielding up, without sufficient cause, as great a luxury as the occasional cigar, because, forsooth, on the same line of reasoning, smoking to excess is deleterious; and as to the stomach, which, as the normal result of daily avocations becomes, towards the close of the day, debilitated and exhausted, shall a glass of good, generous wine be denied it to enable it more efficiently to perform its digestive functions?

Wines consist, properly speaking, of the fermented juice of the grapes, and this composition may, strictly speaking, be said to be: alcohol varying in quantity from 18 to 30 per cent. of proof spirit, grape-sugar, bitartrate of potass, tartrates of lime, aluminum and iron, phosphate of aluminum, chlorides of sodium and tannin, essential oils, which give flavour, and œnanthic ethers, which give aroma. When perfectly fermented and free from unconverted sugar, wines are termed "dry". In many wines where sugar is in excess, such, for example, as Sauterne, the production of alcohol, after a certain point, preserves the wine and arrests the fermentation, a certain amount of unconverted sugar being left to add to the sweetness of the wine. With the same end in view, spirit is often added artificially to wines as a preservative against further fermentation, and in order to produce a required richness and fulness of flavour for the market. This is very generally done in the manufacture of port and sherry, and the red Tarragona wine of Spain. Other wines, such as the tent wine of Spain, are not fermented at all, the grape-juice being simply concentrated to a syrup by simmering; but, in this instance, there are really no vinous or alcoholic properties. Effervescing or sparkling wines are partially fermented, the fermentative action being checked at a certain point to preserve the requisite degree of sweetness or dryness. The acid flavour of wine, mostly found in claret or Carlowitz, ought to be due to the malates or tartrates as normal constituents, and acidity in natural wines ought neither to be marked nor excessive; but very generally marked acidity is due to the presence of acetic acid. The colour of wine is of very little practical importance; it is, of course, obtained normally from the skin of the grape, the bruised fruit being fermented instead of the expressed juice; but more commonly, as in sherries, the colour is an artificial production, for which reason alone pale sherries are often preferred to brown or golden.

These few remarks on the composition and treatment of wines are intended to show that, as the natural products of the grape and vine, wines have much to recommend them, and might very harmlessly remain as agreeable adjuncts to the table and as useful medicines: but, unfortunately for the proper estimate of such an important question, we have to consider so generally the artificial manufacture, and doctoring, and adulteration of wines, that their properties become so changeable and variable as to stand neither the requirements of the medical adviser in search for a wholesome remedy, nor those of the guarded epicure in search for an adjunct to the table. Surely the medical man who finds sherries and hocks markedly diuretic; ports and sherries so strongly alcoholised as to be scarcely inferior in strength to brandy; and clarets, Bordeaux, and Marsalas, full of crude acidity, will have his confidence in recommending natural wines sorely shaken; and what shall be said, too, of the epicure or consumer for pleasure's sake? Will it be pretended that the flavouring called "dry", which has been found in sherries, champagnes, hocks, and most other wines, has been a natural production? and, if so, how comes it that, when the taste has a little changed, the same class of wines suddenly appear again with sweetness, fruitiness, and body? If it be the fact that we are dealing with the art of the manufacture to cope with the fashion of the day, and not with wine as a natural production, only in different states of natural maturity and fermentation, can it be expected that it will hold its place either as a remedial agent or otherwise?

In whatever way, indeed, we look at the question of the modern use of alcoholic drinks, we shall probably admit that it comes back to this, that alcohol in all the shapes and forms in which it is presented to the public must be looked at, popularly speaking, as a stimulant alone; and the question arises, Is there a general requirement for a stimulant, and if so, should alcohol in any of its shapes or forms be used? Medically speaking, we have already seen that alcohol, even as a stimulant alone, is a valuable aid to our resources; and, admitting this, it must also be remembered, that the public are very much their own physicians in the majority of minor ailments, and whether rightly or wrongly, they adopt their own remedial measures. Instead, for example, of submitting to being bled once a month, as of yore, the seeker after health prefers to purge himself once or twice a week with quack pills: and, instead of taking wine in moderation, it has suddenly become more fashionable to load the system with saccharated iron and phosphorus drinks; whilst the most potent medicines which are named in the *British Pharmacopœia* are everywhere vended, under the title of patent medicines, by grocers and co-operative stores, just in the same way as a pound of sugar, or some spice or condiment, is vended. The most remarkable feature, however, of the popular use of powerful drugs, is certainly the fact that temperance men, and even scientific teachers, have found it reasonable to rush violently into the untempered use of iron and phosphorus, with the view of curing the abuses of such a thing as alcohol. If, however, it shows anything, it shows that there is a physiological demand for something else but water for the system even amongst tectotalers. The teachers of temperance would surely do well to reconsider their position, as public advisers, and, rather than decry generally the use of alcohol as an obnoxious thing, admit, once and for all, that there is a national danger to be met, and join with the body of medical sanitary reformers, and all logical thinkers, in promulgating, in detail, such measures as affirm—1, that the body in health requires no stimulant; 2, that alcohol is essentially a direct stimulant to the circulation, and, therefore, is not required; 3, that the study of alcohol, as a medicinal agent, shows it to be a remedy of varied [illegible]

according to the [illegible] which it is used; and, 4, that alcohol, in conjunction with the mass of patent medicines now in use, should be classed as poisons to systems that do not require them. The last three questions have already received consideration adequate to the scope of this paper; but, as to the first, let us briefly consider its bearing upon the tendencies of the time and progress of the age.

We are living in an age when mental power is rapidly supplanting the necessities for manual labour. In agricultural pursuits, the devices of machinery are predominant, and that part of the population which gains its livelihood by sedentary occupations in banks, counting-houses, and other offices, is largely on the increase—everywhere education is telling its tale, and is gradually tending to uplift all the working classes of the community in the social scale at the same time, as it is tending to make subordination comparatively scarce. Education also carries with it its results amongst the higher classes. The young man and growing youth are made the victim of competitive examinations, which, in other words, may be rendered as feats of memory; cramming literally, everything into the growing brain, at high pressure, is the system at our schools, and the test of highest capacity for our public services and learned professions is capacity of memory. The professional man, again, in the midst of busy pursuits, must, in spare hours, keep apace with the growing literature of the day; and, as to the female part of the population, it is even lusting after the highest resources of mental labour, with all its anxieties, instead of being satisfied with the improvement of the mind to a requisite degree, and the subsequent position of being a true helpmate for the man, and the builder up and stamp, so to speak, of the coming generation. All this tells us, that the tendency of the day is to work the brain at high pressure, and to look to the artificial manufacture of memories, and the individual store of book knowledge, rather than to the practical resources of a mind properly instructed in the rudiments, but built up into power by the practical resources of the individual and the characteristic marks of self education. All this tells us, also, that, if the tendency of the day be to overwork and weary and exhaust the brain and nervous system, there is an abiding need for a restorative, which will entail no work on the digestive functions; but to offer a temporary stimulus to the circulation with alcohol, when we ought to be invigorating, calming, and sustaining, is not only adding fuel to the flame and inducing nervous depression instead of vigour, but it is also in its continuance most assuredly sowing the seeds of disorder which may end in disease. Alcohol, in stimulating the circulation and promoting a sudden rush of more nutrient material to the brain and nervous system supplies them, may be with a temporary means of support for further work, but the agent is a delusive one; there is no manufacture of fresh nutrient material to supply demand, and that wearied brain shall yet become more exhausted just in the same way as those blood vessels, or the simple carriers of nutrient material, for a time stimulated to overwork, shall become correspondingly exhausted with the temporary degree of undue vigour so unwisely imposed upon them.

Let us remember, too, that in speaking of the normal circulation of the blood, we have to view something more than a mere mechanical force pump, represented by the heart, and a system of elastic carrying tubes, represented by the vessels. The nervous system is a most important factor in both central and peripheral circulation, and may very properly be considered the controller, regulator, and co-ordinator of all, making uniformity and regularity, where in disordered conditions of the nervous system we find irregularity and want of uniformity, and insuring the due supply of nutrient material requisite for healthy function, where otherwise there would be want. Both nervous exhaustion and failure of circulatory vigour, whether arterial or cardiac, may therefore have to be met by restoratives or tonics to the nervous system. The constant repetition of food is unwise, because it makes too great a demand upon digestive functions, and consequently tends to weaken them; and we have, therefore, medically speaking, to recommend (1) regularity of meals, or food at regular intervals to admit of complete digestion before more food is taken; and (2) to support a wearing nervous system, a nervine tonic or restorative, and not a stimulant to force the heart and vessels to overwork themselves.

Now, the only restoratives to the nervous system which have stood the test of time, popular acceptation, and practical usefulness are infusions of tea and coffee and such like beverages. It needs no medical knowledge to speak of the increased sense of respiratory power and muscular vigour; the promotion of general comfort and warmth; the cooling of the body, the result of the slight increase of perspiratory functions; and the general restorative feeling when the body is overcome with fatigue, which is so generally and justly attributed to the use of tea, or as will be presently shown, its active principle theine, in the daily experiences of life.

Failing, however, popular acknowledgment, medical and scientific research point to one and the same conclusion, that infusions of tea and coffee are restoratives to the nervous system, and indirectly act as sustainers to the circulation. Chemistry has shown that this action is dependent not upon the multiple constituents of the infusion of the leaf and berry, not upon any complex association of materials, but simply and entirely upon the presence of one substance—theine—which is the active and essential principle of all these and allied substances, and is known to us in the form of silky prismatic crystals soluble in water. The quality of tea or coffee is, therefore, properly determined by the percentage of theine it contains, which varies from three to six per cent., and not by the delicacy and fulness of flavour which is imparted by the volatile oil. Medically speaking, this theine has a totally distinctive action, from the infusions of which it forms a part. In the form of an infusion of tea or coffee, we have to deal with a large proportion of astringent matter, in the form of tannic acid, and with the presence of the essential oil, which is an excitant to the nervous system, and is the substance to which must be ascribed disorders of the nervous system, which result from tea-drinking, such as palpitation of the heart and sleeplessness. The theine, upon the other hand, of which there is about one tenth of a grain in an ordinary cup of tea, is the restorative agent to the nervous system, and is opposed in its therapeutic properties, to the action of the essential oil. The infusion, therefore, of tea may induce palpitation in a heart liable to excessive or inco-ordinate action; but theine, on the contrary, may be looked to therapeutically, to quiet palpitation; the infusion, by being an excitant, may prevent sleep. Theine, by being a restorative and an indirect sustainer and regulator of the circulation, may induce sleep. Individual medical investigators have, more than this, attempted, from time to time, to show that the action of theine is allied to that of quinine, as, in medicinal doses, the one has proved curative in allied diseases as well as the other, and, moreover, that the nutritive value of theine may bear comparison with that of kreatine, one of the principles of meat.

All this is sufficient to show that theine is already a tried and proved agent with a recognised dietetic position; and, if it has not hitherto occupied a place supplanting the abuse of alcohol, it is because (1) it has remained unrecognised as the active and essential principle upon which all the good qualities of tea and coffee, as restorative beverages, really depend, and (2) it has not been presented to the public in a form which would tend to render it acceptable or agreeable. In the form of an aërated water, theine offers the means of supplanting the abuse of alcohol. It forms an agreeable beverage, imparting a somewhat dry flavour to a distilled water, which may be sweetened and flavoured to taste, and it offers a means for awakening scientific thought to the study of a simple remedy for a national abuse.

OBSTETRIC MEMORANDA.

"THE DIRECT METHOD" WITH STILL-BORN CHILDREN.

HAVING just had an opportunity of trying this plan, I am glad to be able to speak to its efficacy, and to thank Dr. Howard for his valuable suggestions, published in late numbers of the BRITISH MEDICAL JOURNAL. The case was a footling, with delay of the head, and consequent prolonged pressure on the cord, in which there was very feeble pulsation at birth; the child, to all appearance, was born dead. Alternate pressure and sudden relaxation of the thorax, in the position advised, were persevered with for nearly half an hour before respiration was established, when the additional stimulus of cold water and quick rubbing produced the welcome cry. The "lowered head" position is certainly a most sound and important element in the treatment.

JAMES CROCKER, M.R.C.S., etc., Bingley.

SUGGESTIONS AS TO THE MODE OF USING THE FORCEPS.

IN a long experience of midwifery practice, certain points in regard to the use of the forceps have, by degrees, impressed themselves upon me which I think I may now submit to my medical brethren. Briefly, they are as follow.—1. Traction should be made in the intervals, instead of during the pains. 2. When traction is not being made, the handles of the forceps should be allowed to lie as far apart as they will. 3. During the pains the handles should be merely gently managed, so that they may not be expelled or do hurt. 4. During the passage of the head through the vulva, the forceps should be used, when necessary, as a restraining power during the pains, and labour completed by traction during an interval.

1. That traction should be made during an interval is most important, when we have to use the forceps before the cervix is completely dilated. If we make traction then, during a pain, the blades are tightly compressed between the head and the cervix, and, practically, we are tugging at

both the child and the womb. Both the child's head itself, and the cervix itself, must, during the pain, be in a most favourable condition for receiving injury from the blades of the forceps. If regular pains do not exist, I should, as is generally recommended, wait a reasonable time between each act of traction. Again, we all know how, when we are making traction during a pain, with the head high up, the perinæum is apt to force the handles forward, and so prevent us from pulling in the axis of the pelvis. By making our traction in an interval, this difficulty is to a great extent removed. Where the pelvis is capacious, and we have only the opposition of yielding structures to overcome, the traction should always be gentle, and may generally be performed with one hand. If it be so conducted, and, as I have ventured to suggest, during an interval, and with a complete relaxation of the handles when they are not being used, and with no more pressure on the handles during traction than is necessary to prevent slipping, then we need not fear injury to the head, or to the mother, even in very protracted cases. In two recent cases in primiparæ, where the membranes had ruptured at the beginning of labour, I made traction with the forceps for considerably more than an hour, with hardly an indication on either head that instruments had been used.

2. In the second point I have mentioned above, there is no novelty, but it is a thing apt to be imperfectly carried out.

3. The third point arises naturally from the first one.

4. It is in cases where we have to do with a damaged perinæum, where perhaps there has been loss of substance imperfectly remedied by operation, that we find the value of the forceps as a restraining power. Here the head passing out of the pelvis may be propelled violently by the natural efforts and destroy everything; but if the forceps are used, it can be held back, in a great measure, during the pains, and gently and safely drawn forward during the intervals. A case occurred to me some time ago, in which by these means and the induction of premature labour, a viable child was born without injury to a very imperfect and rudimentary perinæum, which, although but frail, was the skilled work of an able surgeon.

In all cases of first labour, when the forceps is used at all, the same mode of treatment is expedient. HENRY LOWNDES, M.R.C.P.I.,
Consulting Surgeon to the Liverpool Northern Hospital.

CLINICAL MEMORANDA.

THE HEART'S ACTION IN EPILEPTIFORM CONVULSIONS.

WITH reference to the heart's action in epilepsy and epileptiform convulsions, it may be worth while to record a case in which occurred phenomena exactly opposed to those described by Dr. Moxon, and more recently by Dr. Sinclair, in reference to one of his cases. My patient was a woman, aged 50. Last January, she suddenly fell downsfairs; and, on inquiry, it was found that she had lost consciousness at the time. She had never had a fit before. The nature of the fit was not observed, and no accurate description could be obtained. She was put on bromide of potassium, and appeared to improve for a short time; after which, she sent for me, saying she felt "queer", as she had done before the last attack. The pulse showed marked high arterial tension; and, as the heart appeared to be labouring with great difficulty to overcome the consequent obstructions, I prescribed nitro-glycerine, which she took for a week, with great relief. She continued well in the interval, until I was again sent for, at 5 A.M., on Sunday morning. I learnt that she had suddenly lost consciousness while in bed; had drawn up her legs, and grasped convulsively with her hands, gasping at times for breath. She had also foamed at the mouth. These details were volunteered to me without any questioning.

I found her in a dreamy unconscious state; the eyes open and wandering, but, apparently without perception. I was feeling her pulse, when suddenly it began to intermit, and the arterial tension rose perceptibly. I at once auscultated the heart, and found it rolling and beating violently and irregularly. On looking at her face, I found both corners of the mouth drawn, and froth on the lips, and she soon began to struggle in the manner described above; the heart, meanwhile, becoming more and more forcible and violent. I caused her to inhale nitrate of amyl, which I had previously decided to use, should the attack occur again, and the effect was rapid and satisfactory: the pulse softened and dilated, the heart became more regular, and she drew a deep sigh, and returned to consciousness. Two other similar, but successively feebler, attacks were speedily subdued, on again resorting to the amyl.

There is no kidney-mischief, the urine being free from albumen and casts. She had, however, only ceased to menstruate since the first attack in January.

KENNETH W. MILLIGAN, B.A., Kineton, Warwick.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.

CASE OF SPINA BIFIDA; OPERATION.

(Under the care of [illegible])

FOR the notes of this case, we are indebted to Mr. WAYLAND C. CHAFFY, M.R.C.S., House-Surgeon.

E. T. was brought to the hospital [illegible] which she was only a few hours old. On examination, a pendulous tumour was found in the lumbar region, about the same size as the infants' head. The tumour fluctuated, and its volume was reducible on pressure. It appeared to be a spina bifida of large size, the cavity of which communicated freely with the cavity of the membranes of the cord. Although, on pressure, no obvious pressure-effects (such as dilatation of the pupils) were noticed, there was distinct increase of tension at the fontanelles. The child was weakly, and it seemed improbable that it would live many days; no special line of treatment, therefore, was adopted, but the nurse was directed to bring the child again in the course of a few weeks, if it survived. Eight weeks later the child was again brought to the hospital, and was taken in. It had never been suckled, but was nevertheless fairly well. The tumour had increased in actual, but not in proportionate, size. It was attached to the trunk in the lumbar region, a little to the left side, and in the position shown in the drawing; it had a distinct pedicle, with a firm, resisting, cord-like substance in the centre, which could be traced deeply towards the vertebral canal. The pedicle was about the thickness of a man's thumb, was covered by healthy skin, and measured a little less than an inch in length. The tumour was fluctuating throughout, and was about the size of a child's head at birth. It obviously contained a good deal of solid tissue, but at two places the walls of the sac were very thin and translucent. The size and vascularity of the tumour varied from time to time. Firm pressure appeared to reduce it; but there was no respiratory or other pulsation, and pressure on it did not produce any cerebral effects. The feet were in a condition of slight talipes calcaneus, but nothing else abnormal was noticed about the child.



On September 15th, the tumour was removed under chloroform. The pedicle was secured [illegible] by means of a needle and ligature; sufficient force to strangulate the tissues. The tumour was then removed by a [illegible] leaving the [illegible] attached to the trunk. The [illegible] oiled lint, and lightly bandaged. No immediate ill effects followed. At the time of [illegible] caped in a stream from the cut end of the pedicle in connection with the tumour. [illegible] fluid (abundant chlorides, a little albumen, no sugar). The infant continued to take nourishment well, though the temperature commenced to rise [illegible] on the 20th, and [illegible] rose to 103 on the morning [illegible] became normal [illegible] on the 25th.

it again rose to 103°, after which it gradually subsided; and after the evening of the 25th, it was never again 100°.

On September 22nd, four days after the operation, the clamp was removed, and the stump dressed as before, with carbolised oiled lint.

On September 30th, the slough had completely separated. The general condition of the child was good, though the complexion was sallow, and there was some looseness of the bowels. Healthy granulations covered the wound. The deformity of the feet had somewhat subsided. On examination of the tumour after removal, it was found to consist of two sacs lined by a smooth membrane like the spinal arachnoid. The necks of both were continued into the pedicle, so that they were widely opened in the removal. There was no trace of nervous structure found. The solid part of the tumour appeared to consist of simple fibrous tissue.

REMARKS BY MR. PYE.—There can be no doubt that the tumour in this case was a true spina bifida, and that its cavity at birth communicated freely with the arachnoid or subarachnoid space; the appearance of the lining of the sac pointing rather to its being a continuation of the sac of the arachnoid, though this is stated to be by far the least frequent form of the disease. It would seem that the communication of the sac of the tumour with the spinal canal was, at the time of the operation, nearly, or quite, obliterated. That the closure of the canal was complete appeared unlikely, as the tumour was still slightly reducible on pressure, and varied in size from time to time. The improvement, too, in the club-foot, after operation, pointed to the previous existence of pressure or irritation of the cord.

The operation was performed because the tumour was growing, and because in two places it was becoming so thin that it would soon have burst. The method employed, namely, clamping the pedicle and cutting the tumour off at once, was preferred to simple tapping, followed by injection of Morton's fluid, on account of the large quantity of solid tissue present; and to the elastic ligature, in the hope of reducing to a minimum the amount of sloughing tissue.

Cases such as these are, as a rule, so unsatisfactory to treat, and the results of operating are so frequently disastrous, that it seemed worth while to put on record one case in which a slight departure from the ordinary rules of treatment was attended by success.

BRISTOL GENERAL HOSPITAL.

TWO CASES IN WHICH TUMOURS WERE REMOVED FROM THE PROXIMITY OF THE SUBCLAVIAN AND BRACHIAL ARTERIES RESPECTIVELY.

(Under the care of Mr. NELSON C. DOBSON, F.R.C.S.)

CASE I. *Fibroma in the Neighbourhood of the Subclavian Artery.*—H. W., a widow, aged 48, was admitted on October 28th, 1878, with a large tumour occupying the right subclavian triangle. She had also a smaller tumour, apparently of the same character, on the palm of her right hand. Her skin also was thickly covered with a multitude of softish warty excrescences, varying in size from a pin's head to a large horsebean (molluscum fibrosum). The patient's grandmother, father, and two brothers suffered from the same warty growths, though in other respects they were healthy and long-lived. Nineteen years ago, she first noticed the large tumour of which she was now complaining; it was then as small as a pea; it increased very slowly until three months ago, but since then rapidly.

When admitted, the tumour measured three inches and a half in the vertical, and four inches and a half in the transverse diameter; it extended from the clavicle to close upon the angle of the jaw. It was fairly movable, and the skin glided freely over it. It was firm and elastic, somewhat tender, but non-pulsating. There was numbness and tingling down the arm and in the hand, with increasing difficulty in swallowing and breathing. The tumour was overlapped on each side by the borders of the trapezius and sterno-mastoid.

The tumour was diagnosed to be a simple fibroma; but, looking at the fact that it was now growing rapidly, and giving rise to great discomfort from numbness of the arm, and difficulty of breathing and swallowing, it was deemed proper to remove it.

On October 31st, the tumour was removed by a vertical incision nearly five inches long. Several branches of the superficial cervical plexus were flattened out on the face of the tumour; these, with the external jugular and the muscles, were pulled aside by retractors. The growth was easily removed, without much hæmorrhage, by using the handle of the scalpel freely; and, when using the blade, keeping close to the tumour. The firmest point of connection was to the transverse process of the fifth or sixth cervical vertebra. When the tumour had been removed, these processes were plainly visible; as were also the brachial plexus of nerves and the subclavian vessels.

After the operation, there was considerable inflammation of the deep cervical fascia, and irritation of the brachial plexus, which gave rise to some loss of power in the arm, though no nerve was divided during the operation. The patient left the hospital on December 18th, before she had perfectly recovered the use of her arm; and, as she lived a long distance from Bristol, she has since been lost sight of.

At the same time as the major operation, the smaller fibroid tumour was removed from the hand. The microscope showed the tumour to consist chiefly of fibrous tissue.

REMARKS BY MR. DOBSON.—The chief points of interest in this case are, (1) the general tendency to adventitious fibrous growths in connection with the skin in so many situations, a tendency which had been present in her family for three generations; (2) the development of the large tumour in such a dangerous neighbourhood, and the comparative ease and freedom from hæmorrhage in its removal; and (lastly) the partial paralysis of the arm, due, as I believe, to inflammatory thickening of the sheath of the nerves forming the brachial plexus.

CASE II. *Fibro-Sarcoma in the Neighbourhood of the Brachial Artery.*—A. G., aged 34, single, a dressmaker, was admitted into the hospital on November 4th, 1879, suffering from a large tumour situated on the inner side of the arm, close to the axilla.

There was no family history of malignant disease, and the patient herself had hitherto always enjoyed good health. Nearly two years ago she noticed a small growth by the side of the armpit, which gave her no pain. This growth increased in size very slowly during the first year; it then began to grow rather more rapidly, and during the last three months it increased very rapidly. It was still painless, and she had not lost flesh. On admission, a tumour about as large as the two fists was found on the inner side of the arm, extending from the axilla downwards for three or four inches, and covering the brachial vessels and nerves. When the arm was flexed, the inner border of the biceps stood out, a sharp ridge being elevated by the tumour; the biceps could be traced into the tumour from below, but was lost in the swelling, though the inner head of the muscle could be felt stretched above the tumour, giving the impression that the biceps was incorporated in the mass; the brachial artery was readily felt pulsating above the tumour, but below, pulsation was absent in all the vessels. There was occasionally numbness in the hand, but no swelling nor œdema of the limb. The tumour was fairly movable, elastic to the touch, and in one place so soft as to give the impression of fluctuation; but the insertion of a grooved needle gave only negative information. The tumour was somewhat "knobby" in parts; the skin over it was healthy and fairly movable, with a few large veins coursing over the surface. There was no glandular enlargement in the axilla. Mr. Dobson had some difficulty in defining the nature of the tumour; but, considering it to be a sarcomatous growth connected with the biceps, he would not undertake any operative interference without the patient consenting to allow him to do whatever might be necessary—even to amputate at the shoulder-joint. On November 6th, Mr. Dobson removed the tumour by an incision, about six inches long, over the course of the brachial vessels, having previously applied over the shoulder an elastic band commanding the axillary artery. The tumour was found intimately connected with the biceps, the inner border of which had to be severed below, and the short head above, before the tumour could be completely removed. The tumour was fairly circumscribed and encapsuled, except where it was connected with the biceps; the brachial vessels and nerves were exposed for a long distance, but there was no hæmorrhage. On section, immediately on removal, the tumour was thought to be a lipoma, probably undergoing some myxomatous degeneration; but subsequent microscopical examination verified the original diagnosis, and showed the tumour to be of a sarcomatous character. There were a large number of round and oval and spindle-shaped cells, with large quantities of fibrous tissue in patches, which here and there were undergoing myxomatous degeneration. The tumour thus proved to be a fibro-sarcoma, growing probably from the fascia investing the biceps, and from the fascia separating that muscle from the origin of the brachialis anticus.

REMARKS BY MR. DOBSON.—The points worthy of notice in this case are the difficulty of ascertaining the exact nature of the tumour, its unusually intimate relation with the muscle, the misleading characters of its naked-eye appearance as contrasted with its actual microscopical structure, and lastly, the little trouble experienced in the removal of such a growth in such a situation.

The patient made a good recovery.

On April 1st, 1880, the patient presented herself with a diffused new growth in the site of the old cicatrix. It evidently involved the brachial vessels and nerves. Mr. Dobson amputated at the shoulder-joint, dissecting out the two heads of origin of the biceps, and dissecting out also in the flap the axillary vessels to the lower border of

the clavicle. In August there were signs of reappearance of the sarcoma in an inaccessible situation; and on February 20th, 1881 (fifteen months after the primary operation), the patient died of an enormous sarcoma of the stump.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 1ST, 1881.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Depression of Child's Head by Forceps.—Dr. GODSON presented a cast of the child's head, showing a depression after delivery by forceps, which he had shown at a previous meeting of the society.

Microscopical Sections of Cancer of Uterus.—Dr. GALABIN showed microscopic sections from two cases, illustrating the histology of cancer of the internal surface of the body of the uterus. They showed a transition from cylinder-epithelioma to carcinoma. The tissue was removed by curette. In the first case, in which the uterus was movable, and but slightly enlarged, there was proliferation of glands, with upgrowth of processes from their walls filling up the lumen. In the second case, in which the uterus was fixed and nodular, there was, in addition, infection of the stroma with epithelial masses. He had found cancer of the body of the uterus relatively not uncommon in virgins, but had hardly ever met with the ordinary cancer of the cervix, where there was proof of virginity.—Dr. WILTSHIRE related a case in which, after thorough removal of the malignant growth, and the use of perchloride of iron, the patient, a lady 60 years of age, lived three years all but one month. When cancer of the body of the uterus was diagnosed, removal was desirable where practicable.—Dr. CLEVELAND hoped that the time would come when such an exact diagnosis of the disease in its early stage might be established as to warrant recourse to more radical measures than had been carried out by Dr. Wiltshire; namely, the entire removal of the uterus.—Dr. HEYWOOD SMITH added his testimony to Dr. Galabin as to the relative frequency of cancer of the body of the uterus in virgins, and cited a case of a lady aged 50. He considered that when such cases could be diagnosed early enough, the uterus should be removed, leaving the cervix as a stump.—Mr. DORAN urged the importance of the fact mentioned by Dr. Galabin, that cancer of the cervix was almost peculiar to impregnated women, since it was among such that the numerous forms of erosion were so frequently found. The cure of erosions homologous to cancerous eczema of the nipple might absolutely avert cancer.—The PRESIDENT considered that total extirpation of the uterus was, at present, too dangerous an operation. He had known a case of cancer of the cervix in a virgin.

Utero-Vaginal Rupture.—Dr. WILTSHIRE showed the uterus, fœtus, and placenta from a case of utero-vaginal rupture. The placenta, which was prævia, was found in the vagina, and the head, which was low down, was delivered by the obstetric house-surgeon. The patient rapidly sank. The uterus was large and thick, containing many small fibroids.

Cyst of Omentum.—Mr. ALBAN DORAN showed, for Dr. BANTOCK, a large, thick-walled, single cyst of the great omentum, removed by operation. The symptoms had resembled those of ovarian cyst. Once the cyst had ruptured and filled again, and it had been tapped several times. At the operation there was great difficulty in separating the cyst from its connections. A fold of mesentery separated the cyst from the pelvic organs, which were absolutely normal. The patient was doing well four days after the operation.

Feeding Bottle.—Dr. GODSON showed "Marshall's patent sectional feeding-bottle", which had a movable front, enabling the fingers to be introduced to clean the interior.

Placenta Prævia, complicated by Large Myoma.—Dr. HICKINBOTHAM related this case. The patient was a delicate primipara, of small stature, at full term. She had previously aborted. She had been in labour six hours, and had lost much blood. The os was dilatable, large enough to admit two fingers. The placenta presented completely; no edge could be felt, and through its centre, which seemed to be the inner part, a rounded mass was felt, and supposed to be the fœtal head. The author decided to break through the centre of the placenta, with the view of turning. Having torn through it, he discovered that the round mass was a large tumour, upon which the placenta was attached. The delivery of the placenta was therefore completed; after which the hæmorrhage greatly abated. Version was performed, the after-coming head perforated, and extraction effected, with the aid of the crotchet. A terrible attack of septicæmia followed, and for a fortnight the patient's life was almost despaired of. The tumour sloughed, and became protruded through the os. On the tenth day, a softened and fœtid portion was extracted, and the remainder painted with pure carbolic acid. In three months the uterus was freely movable, and its cavity of normal length; but the patient had not again menstruated after eleven months. If the placenta had not been prævia, the author would have preferred Cæsarean section.—Dr. BARNES said that no general rule could be laid down for labour complicated by fibroid tumours. Sometimes necrosis occurred, when the tumour did not obstruct delivery, and the cases might do well. Sometimes the tumour might be pushed out of the way, and delivery effected by craniotomy or twining, or enucleation might be available. In extreme cases, Cæsarean section might be necessary; and in such cases it should be considered whether Porro's method of removing uterus and ovaries would not be best.—Dr. HICKINBOTHAM said that the size and wide base of the tumour precluded enucleation. He did not agree with Dr. Barnes as to the advisability of removing the uterus, considering that the results of the operation had been very unsatisfactory; but he thought it would be sufficient to remove the ovaries and Fallopian tubes in performing Cæsarean section.

Myxœdema.—Dr. MANSELL-MOULLIN described the case of a patient, aged 38, mother of four children. At the commencement of her last pregnancy, she had been troubled with swelling about the eyes, which continued for a month or two. Shortly after delivery, the swelling about the eyes reappeared, and from this period she dated her present symptoms, which were those characteristic of myxœdema, as recently described, the urine being free from albumen.—Dr. GERVIS had had three cases of myxœdema referred to him, to examine the pelvic organs, but found nothing abnormal. Two had passed the climacteric, but one had not.—Dr. WILTSHIRE suggested that the patient should be shown. The affection was, he believed, degenerative, and often occurred about the approach of the climacteric.—The PRESIDENT had two examples of the disease now under his care. One was a married lady, under 40, who had borne children, but came to him on account of amenorrhœa. In the other patient, aged 40, the periods were regular and copious; but the disease was described as beginning with exophthalmos and amenorrhœa for a year.

Lithopædion.—Dr. R. BARNES read a note on the so-called lithopædion, being a supplement to the author's paper on so-called "missed labour". The author had examined the specimen in the Hunterian Museum, from Dr. Cheston's historical case—undoubtedly one of extra-uterine fœtation—and it had been minutely examined by Mr. Doran. The abdominal viscera and thoracic organs were quite soft, but impregnated with lime-salts. The skin and subcutaneous tissue of the front of the thorax and abdomen were thick, and infiltrated with lime-salts, so as to feel gritty and friable. The same structures in the posterior part of the body were very thin, and converted into calcareous plates. Another specimen in the Hunterian museum, without a history, but apparently a fœtus of not more than seven months' development, had also been examined by Mr. Doran. It showed a more advanced calcification of the shrunken soft parts. The surface was brittle, and not remarkably hard. The lungs were powdery, and effervesced with hydrochloric acid. In a specimen in St. Thomas's museum, the cyst-wall was calcified, and there were calcareous plates in the skin. The viscera and muscles were soft.—The PRESIDENT said that the paper impressed him with the necessity for greater care than he and other authors had used in applying the word lithopædion. The observations confirmed the remarks which he made on the reading of Dr. Barnes's paper, that there was never a stone-child really, but only petrifaction of the membranes and adjacent fœtal parts.

WOLVERHAMPTON.—Although Mr. Love reports this borough as "not in an unhealthy condition", the rate of mortality in it during the first quarter of this year was unusually high. That the variations in the state of the atmosphere contributed largely to this result is shown by the number of deaths from phthisis and chest-affections—viz., 152; while scarlet fever, which, owing to its rapid dissemination by means of schools, has hitherto baffled the energies of the sanitary staff, proved fatal in 18 instances. Sixty-five cases of this disease came to light, and were personally visited by the medical officer of health; and, where practicable, isolation has been employed. The ease with which such cases are concealed has no doubt aided in the spread of the disease; while the want of a suitable hospital for the reception of infectious cases, which Mr. Love has repeatedly urged, has no doubt been a still more important factor in augmenting and sustaining the violence of the outbreak. It is lamentable to think that a place of the size and with the class of population of Wolverhampton should be still unprovided with a proper infectious hospital.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 9TH, 1881.

THE WOUND OF THE PRESIDENT OF THE UNITED STATES.

ALTHOUGH the telegraphic messages regarding the condition of the President of the United States continue to be remarkably favourable up to the present date (July 6th), the probable issue of the wound that has been inflicted upon him cannot be regarded with any feelings but those of deep anxiety. The primary dangers which attend a penetrating bullet-wound of the abdomen, with visceral lesion, seem to have been, so far, escaped from, and the wound of the liver—the organ chiefly implicated, according to the telegrams—appears to have been happily unaccompanied by those other lesions which frequently complicate wounds of this organ, when they are caused by projectiles. There is no account of fracture of a rib; the lung has escaped from injury; the kidney, gall-bladder, colon, and small intestines, all seem to have evaded the passing bullet. The absence of all these complications, one or more of which are such common concomitants of gunshot injuries in the hepatic region, are all favourable elements in the case. The symptoms of the shock which followed the injury, though marked, were not so profound as is usual in abdominal gunshot-wounds, and the reaction which occurred took place gradually and favourably. According to most of the reports, consciousness was not lost at any time by the patient. The most alarming symptoms which followed the wound, were the increased frequency and feebleness of the pulse, depressed temperature of the surface, tendency to syncope, and general sinking condition, which were observed on the afternoon of the first day, naturally leading to a suspicion of serious internal hæmorrhage taking place; but, judging from the manner in which these alarming indications were rallied from, it seems questionable whether they were not in a great degree due to the morphia which had been administered subcutaneously, between twelve and one o'clock, for the purpose of allaying pain. The projectile must have come into collision with some of the nerves forming the lumbar plexus, judging from the severe pain which was felt, being chiefly referred at first to the right leg and foot, and subsequently, according to the telegrams, in similar situations on both sides. The pricking sensations experienced were described by the President as resembling the action of "a tiger's claws".

The particulars of the wound have not yet been furnished in sufficient detail to afford an opportunity of forming a judgment on the course taken by the missile, with anything like precision. It has been stated that the bullet entered the President's body between the tenth and eleventh ribs on the right side of the spinal column; but the exact distance from the spine has not been mentioned. It is said then to have passed forward and downward into, and through, the lower end of the right lobe of the liver, and finally to have lodged "in the anterior portion of the abdomen". We should presume from this statement that the bullet was felt somewhere in the abdominal walls. There appear to have been several attempts made to discover the bullet through the opening of entrance in the back of the chest. The medical officer who first arrived after the President had been shot, introduced his finger into the wound for the purpose of examining it; and another ineffectual attempt to trace its course is reported to have been made shortly after his arrival at the White House. The site of lodgment of the bullet appears to have been discovered on the morning of the day following the infliction of the wound. We can hardly believe, however, that the expression in the telegram, concerning the place of lodgment of the bullet, can have been intended to convey the exact meaning which it seems to have. If the fact of its lodgment in the anterior wall of the abdomen had been positively known, an incision would in all probability have been speedily made for its removal. The risks attending the continued lodgment of a projectile in a part of the parietes of one of the cavities of the body are too well known for steps not to be taken for its extraction, as soon as its situation had been determined, or as shortly afterwards as circumstances would permit. No additional mischief would be done by the incision, so far as the principal wound was concerned; while the serious hazards that might follow its escape from its place of lodgment, under the influence of swelling, the recumbent position, and restless movements of the patient, would be avoided. We are therefore inclined to believe that the situation of the bullet has been rather inferred than positively ascertained. Its extraction would have added greatly to the probability of the continuance of the favourable course the wound has hitherto followed.

The distinguished patient could not be under better surgical care than is to be found at Washington. The vast experience gained during the war of the rebellion in the United States has diffused an immense amount of knowledge concerning gunshot-wounds and their treatment among the army surgeons in that country; and several of the most eminent among them are connected with the Surgeon-General's Office at Washington. The information regarding the special description of wounds from which General Garfield is now suffering was greatly enlarged during that conflict. In the history of the war, no fewer than one hundred and seventy-three gunshot-wounds of the liver are recorded as having been under treatment in the United States hospitals. Among this number, sixty-two recoveries are reported to have taken place: twenty-five in cases where the wound of the liver formed the dominant lesion; thirty-seven in cases where the wound of the liver was complicated with fractures of the ribs, lesions of the lung, diaphragm, and wounds of other neighbouring parts. The special lesions and complications reported in a few of the instances of recovery were open to some doubt; but Dr. Otis, the surgical historian of the war, after the closest examination of all the cases, has declared that at least thirty-two of the recoveries are "not to be excluded by the most rigorous analysis from the category of recoveries from shot-wounds of the liver". The results of this large experience, joined with the many favourable features in the case of General Garfield, are, then, of a very encouraging nature. At the same time, there are many dangers, common to all such wounds, still to be encountered; and, although the state of the President has hitherto been as favourable and promising as it could have been after such an injury, his condition cannot be regarded otherwise than as a very precarious one.

EXCESSIVE MORTALITY IN INDIAN GAOLS.

WE cannot regret that the attention of Lord Hartington has been called in Parliament to this most serious question. A very calm and well-informed official authority truly describes the picture of the sickness and mortality which occurred among the prisoners confined in Indian gaols during the year 1879, as presented in the Report of the Sanitary Commissioners of the Government of India for that year, as "most appalling". The general death-ratio for the whole of India was 73.73 per 1,000, against 81.31 in 1878, 61.95 in 1877, and a mean rate for the thirteen years 1863-75 of 58.4. The admission-rate was 1,294, and the daily sick-rate 49; that is to say, very nearly one-twentieth of the prison-inmates were constantly under medical treatment; and the rate of death was such as to empty the gaols in less than fifteen years, if there were no accessions.

The *Indian Medical Gazette*, in discussing these figures, points out that Bengal contributes more than half of the gaol population of India, and thus mainly governs the annual ratio. The figure rendered by this

presidency is 77.9. Madras presents a lower rate, namely, 56.30; and Bombay a much higher—109.50. The provincial rates included in the Bengal total fluctuate from 19.66 in Oudh to 140.08 in the Punjab. The provinces of Bengal and Assam are above the presidential average, amounting to 97.57 and 85.80; the rest are below it. Some individual gaols present results to which the Sanitary Commissioner with justice applies the term deplorable. The death-rate of the Rawal-Pindee Gaol was 350.04 per mille, of the Umballa 332.79, and of the Rupar 283.18. In the Dinagepore Gaol, 344.37 died; and in the Baraset and Julpigoree Gaols, 281. The mortality of the Belgaum Gaol, in the Bombay Presidency, was 25.13; and of the Gokak gang, 377.71. In Madras, the Vizagapatam Gaol furnished a rate of 226.36. Our contemporary admits that these are extreme cases, but points out that it becomes a very serious question how it is possible that nearly half the inmates of a gaol should be carried off in a twelvemonth, and a very important one whether such a result is inevitable, or whether there is anything capable of reform or alteration calculated to reduce the death-rates of prisons. The analysis of death-causes furnishes a very simple result; not far from one-half of the deaths were due to bowel-complaints—dysentery and diarrhœa—which together contributed a rate of 27.66 per 1,000. In the most unhealthy provinces, these take a prominent position, the Punjab alone excepted; here fevers stand first, rendering a rate of 47.62; dysentery and diarrhœa being represented by 43.99. The death-rate from fevers in all gaols was 11.10—about a sixth of the whole. Malarious Bengal presents a modest 2.80; the gaols of Agra and Central India furnish a rate of 19.31, and the Bombay gaols 14.76. Next to fevers come chest-diseases, which caused 9.38 deaths per 1,000.

Practically, the question narrows itself into this: What is the cause of the excessive prevalence and mortality of fevers and bowel-complaints in Indian gaols? In the Native Army of India, bowel-complaints caused only 5.5 deaths per 1,000, and fevers 6.19. Cholera rendered an almost identical figure; respiratory diseases were rather more fatal than in gaols, and atrophy and anæmia and dropsy considerably less so. The two classes—native troops and prisoners—live under very different circumstances of existence; but these are hardly, in the opinion of the *Gazette*, so diverse as to justify an *à priori* expectation of such marked differences in death-rates generally and from particular diseases. There is no doubt that the unfavourable circumstances which existed outside of gaols in 1879 and the two preceding years, go far to explain the enhanced death-rates which these years present. These circumstances are summarily referred to by the Sanitary Commissioner in the following terms. "During the first of these years, 1877, the results in both Madras and Bombay were very seriously affected by the famine, from which so large a proportion of the population in these presidencies suffered. The number of prisoners was doubled, and the sickness and mortality among them was very great. The consequences of the distress did not disappear at once, but were still marked both in Madras and Bombay during the subsequent year; while the area over which they were felt was now more extended, and included a large part of Bengal; so that the results for 1878, as a whole, were worse even than those of 1877. It seems evident that in many districts, in various parts of India, scarcity of food and high prices have continued more or less during 1879; and these, with other unhealthy influences, have materially affected the health of the prisoners during the year." The high mortality among new arrivals and short residents gives additional weight to this explanation, and it may and must be admitted as an element in the production of these excessive death-rates; but it is a doubtful point, whether famine and general unhealthiness outside gaols account for the whole, or even for the greater share, of the slaughter which was committed in 1879 by bowel-complaints and fever. There are two subjects, however, of very great importance, which the Sanitary Commissioner discusses; namely, the scale of diet prescribed by the "Prison Conference" for use in all Indian gaols, and the nature of the fevers which committed such havoc in the Punjab gaols. We are reminded that the Lieutenant-Governor of Punjab ascribed the increased mortality of Bengal gaols in 1879 to the use of the Conference diet-scale. Dr. Cuningham discusses the matter with his usual caution. He shows that the new scale is in some cases more generous, and in others less so, than those which had been hitherto in use in different provinces. But it is surely a mistake to prescribe an uniform scale of diet for people of different races, *physique*, dietetic habits, and weights; and is it not the case that more work has been exacted of prisoners in late years than formerly? And what of penal diets? In the face of the terrible mortality from bowel-complaints which the statistics above quoted show, this question is one which demands thorough practical investigation. As regards fevers, Dr. Cuningham shows that much doubt exists regarding the diagnosis of those fevers of remittent and continued type which have more than decimated several Punjab gaols. That they are not malarious, seems pretty clear; and a very interesting table, showing their seasonal distribution, establishes a very marked contrast between these fevers and the ordinary autumnal intermittent.

It is impossible to conceal from ourselves that much of this mortality, as to which we have been content to quote the words of our valuable contemporary, is strictly preventable, and is due, apparently, to administrative defects which call for careful inquiry and severe checking.

THE DEATH OF THE EX-SULTAN ABDUL AZIZ.

UNDER the existing circumstances and in the absence of any judicial examination of the physicians who examined the body of the Ex-sultan, it seems desirable that we should recall attention to the special report on the death of that potentate which was furnished to our columns in detail by Dr. E. D. Dickson, physician to the British Embassy, Constantinople, who was one of the nineteen medical men summoned to examine and report on the body at the time. To those who do not know Dr. Dickson, it is only necessary to say that he is a physician of great acuteness, of uncorruptible integrity, and of a most highly developed independence of character. Dr. Dickson has passed his whole life in the East, and a large part of it in the official position as physician to the British Embassy; and if there be any man likely to entertain profound suspicions under circumstances such as those of the death of Abdul Aziz, and little likely to be blinded or hood-winked, it would certainly be a man of Dr. Dickson's experience, character and local knowledge. We cannot quote the whole report, but those who will turn to our volume for 1876 and will read on page 41 the detailed report which Dr. Dickson furnishes, will see that it was supplied as an answer to objections which had been urged in our columns to the report of Dr. Dickson and his colleagues, and a statement of *primâ facie* doubts. Dr. Dickson opens his statement by saying:—"Remembering the tragic end of many of his majesty's predecessors, the recent *coup d'état* and the critical circumstances of the moment, I must own that my first impression when invited to assist at the inquest was that I was going to inspect the victim of an act of foul play. It was, therefore, only after having carefully considered all the facts of the case which came to my knowledge, that I became convinced that the death of Abdul Aziz was caused by his own hand, and in the manner described, though unsatisfactorily, in the official account given of that sad event." After discussing the circumstances in detail, Dr. Dickson relates the facts of the examination as observed and appreciated by himself. The following is the most important passage. "The body of Abdul Aziz was dressed in a loose gauze-shirt, with wide sleeves, and wide silk drawers; in fact, in his night garments. A muslin handkerchief tied round his face upheld the lower jaw, and a sheet of white calico covered his person. The sleeves and the drawers were soaked with blood. The fingers of both hands, especially round the insertion of the nails, were stained with blood. The arms presented two gashes; one at the bend of each elbow, in front. The direction of both of these wounds was oblique, from above downwards, and from within outwards; and their edges were jagged. That on the [illegible] was deep. I passed my [illegible] into the very [illegible]. The [illegible] vessels, and the intervening tissues

were cut through, and the ulnar artery laid open, but not entirely divided. The wound on the right elbow-joint was superficial, cutting only across the skin and superficial veins. No other injury whatever was discovered on his person. The surface was cold; but rigidity had not yet supervened. There was hardly time for it to manifest itself, as the ex-Sultan died at about half-past nine in the morning, and the inquest was held at two o'clock in the afternoon. His skin was very pale, and entirely free from bruises, marks, or spots of any kind whatever. There was no lividity of the lips, indicating suffocation, nor any sign of pressure having been applied to the throat. His features were placid, and resembled those of a person who had expired tranquilly; but his beard had been removed, leaving only the moustache on the upper lip untouched. Considering the veneration in which the beard is held by all Mohammedans, cutting it off can only be explained by an act of madness." It will be seen that Dr. Dickson explicitly states, that no injury whatever was discovered on the person of the ex-Sultan; and that the skin was bloodless, and entirely free from bruises, marks, or spots of any kind. This statement is in direct contradiction to that made at the recent trial, and to the accounts given of the alleged murder, which include details of stabbing about the heart. It would seem impossible that, if this were a true account, those marks should not have been seen by Dr. Dickson and his colleagues.

THE NAVAL MEDICAL DEPARTMENT.

We have been put in possession of the Admiralty Regulations for entry of candidates, dated June 20th, 1881, which complete, we would hope, the series from April 1st, commencing with the Order in Council, which is now preceded by the chapter of requirements from candidates, drawn up as if the naval service were actually in possession and control of the sources of supply; which, we fear, is far from being the case.

The body of this circular is that uncertain and somewhat ambiguous series of regulations for actual officers, on the principal features of which we lately remarked that they are only to be learned in their future workings, in which we would hope for the best; while we confess to ourselves that the idiosyncrasies of naval spirit maintain as strongly as ever the differences that have kept down the naval under the army service in too many respects; but, as we have said, nothing save "instances" will teach what is really intended, and revision will, we believe, follow on revision, until the rules become fixed more in accordance with those of the army. Thus far, there is only a compromise, offered by authority, and not to those officers who have seen service, which we consider cannot be a very lasting one. Still, we admit that judgment can only be given from events still to come; and, therefore, we recommend patience so far as regards active service and cabin accommodation, and retirement, with collateral action on interests of relicts.

The circular professes a desire to correct some old grievances which would benefit retired officers; to wit, Art. 22, which, if sincere, should give employment, as in the army, on the Coast Guard, in all naval colleges, schools, prisons, and under the Contagious Diseases Act, with voidance of all such at the ordinary retiring age, as non-attention to these points would become more and more dwelt on by the increased proportion of officers to be retired within working ages.

Errors, too, have been patent in the difference of treatment, on some grounds, received by naval in comparison with army officers; and it would be well that such should be effaced from the memory of the service. But we, especially in looking at the future, desire to see the question of retirement made less involved; and the claims of widows and fatherless children of retired officers, by marriage when on full- or half-pay, distinctly recognised and fully admitted. With such changes, we would expect good results to eventuate from the recent unsatisfactory and detrimental period of turmoil the public services have gone through. We hold it to be an impossibility to dissociate the claims of the sister services, as if they were naturally things apart, without injury to the naval branch.

SUNSTROKE AT ALDERSHOT.

When H.R.H. the Duke of Cambridge volunteered to give some explanation to the Peers of the lamentable loss of life at the sham fight at Fox Hill, near Aldershot, on Monday, His Royal Highness is reported to have said: "When I came back from Aldershot, everybody said, 'What a dreadful day you have had'. I said, No, it was warm, but not unpleasantly warm. I asked my staff, who gave the same answer." His Royal Highness then added, we suppose after reconsidering the subject: "It certainly was a very hot day". If our readers will refer to the article we published in our issue of the 25th June, on the "Desirable Precautions for the Volunteer Review", they will find an all-sufficient reason for the fact that the Commander-in-Chief and his staff were little incommoded by the heat, which was fatal to four men in the ranks, and sent more than twenty to hospital in a more or less dangerous condition. "Among cavalry soldiers, heat-stroke happens more rarely than with infantry, because the muscular efforts, and, therefore, the elevation of temperature, are less with them, and because they move at wider distances apart than men marching on foot." We need not quote the passage which points to the very different condition of the marching soldier in the ranks on such a day as Monday last, when the thermometer in the shade was above 90° F.

The remark with which the Duke closed his very curious speech on this painful subject, has astonished, not medical men only, but the public. "I do not know", said the Commander-in-Chief of the British Army, "how such things are to be prevented!" We believe that the youngest surgeon who has just passed out of Netley could give his Royal Highness some information that might be useful to him and to his staff on this subject. For our part, we cannot do better than commend to the attention of the Commander-in-Chief, and all whom it concerns, the extract from the Army Sanitary Regulations of Germany (*Kreigs-Sanitäts-Ordnung*), quoted above, and printed, as we have said, in the British Medical Journal of the 25th June. We published this, thinking it might be useful to volunteer officers on the occasion of the coming review; we never thought that the authorities of the Horse Guards needed instruction in such elementary matters.

The Princess Frederica of Hanover (Baroness von Pawel-Rammingen) intends to found a small Convalescent Home at Hampton Court for poor women who have been recently confined.

During the thirteen weeks ending last Saturday, the metropolitan death-rate averaged 20.2 per 1,000, against 21.9 and 18.9 in the corresponding periods of 1879 and 1880.

The Prince and Princess of Wales opened a new infirmary for the sick poor of Marylebone parish last week. The building has been erected by the Board of Guardians, at a cost of £113,000, to accommodate about 760 sick persons.

French science has to deplore the death of an illustrious chemist, M. Saint-Clair Deville, whose discoveries and inventions in the metallurgy of aluminium have made his name known beyond the regions of pure science, in which he was greatly distinguished.

On the 13th October, on which day Professor Virchow will have completed his sixtieth year, a fête will be held in honour of his having completed the twenty-fifth year of his professorship. Virchow was appointed, in May, 1856, ordinary Professor of Anatomy in the University of Berlin, in which chair he has since continuously taught.

On the 21st June, an Austrian Sanitary Society was established at Vienna. Professor Billroth has been chosen president. Professor Nowak has contributed an instructive paper on the sanitary aspects of tobacco-smoking. The society will regularly commence its work early next autumn.

MR. SHAW LEFEVRE has, we believe, promised to do what he can to help the National Health Society in its praiseworthy effort to diminish the smoke nuisance. There is an old saw which says "example is better than precept". Why, then, may a column of thick black smoke so often be seen rising from the pinnacles of the Palace of Westminster?

A SPECIAL general meeting of the Medical Society of London will be held on Monday, the 11th instant, to elect the following gentlemen as Honorary Fellows in connection with the International Medical Congress: Professor Bamberger, Dr. J. H. Billings, Dr. Bigelow, Professor Billroth, Professor Charcot, Professor Da Costa, Dr. Emmett, Professor Haller, Professor Nussbaum, Professor Tarnier, Professor Verneuil, Professor Volkmann. It was also intended to elect Professor Raynaud; this intention, however, is frustrated by his sudden and lamented death.

THE wife of the Grand Shereef of Morocco has, it is reported, succeeded in inducing the Moors to accept vaccination. Every Thursday she operates upon children, whom their mothers bring from long distances, and she recently vaccinated as many as fifty in one day. The Shereefa, as she is styled, is an English lady, and, although retaining her Christian faith, is held in high reverence by the Mahommedans, of whom, in Morocco, her husband is the head.

THE Municipal Council of Paris has recently made a great improvement in the arrangements of the Morgue by adopting the refrigerating apparatus of M. Mignon and Rouart at a cost of 53,000 francs. The bodies on view will thus be enabled to be preserved for any length of time within reason, and the sanitary conditions of the Morgue will be greatly altered for the better, while the longer period of exposure will frequently further the ends of justice and give more frequent opportunities for identification.

THE endowment of research at Owens College, Manchester, has now taken definite shape. The Council propose to appoint five fellowships in science or literature, each of the value of £100, tenable for one year, but renewable for two years further. The appointment, it may be noted, will be made, not on the results of the examination, but after consideration of documentary and other evidence. Every holder of a fellowship will be expected to devote his time to the prosecution of some special study approved by the council. This is the first attempt in this country to carry out systematically the plan of awarding fellowships, which has been so successfully inaugurated by the Johns Hopkins University, Baltimore.

UNIVERSITY COLLEGE is setting a good example by providing very thoroughly for the teaching of ophthalmological science. As we announced some time ago, Mr. Tweedy, whose attainments in some of the more abstruse branches of the science, on the subject of astigmatism especially, are well known, has been preferred to the systematic chair; and we now hear with great pleasure that Mr. Streatfeild has been appointed Professor of Clinical Ophthalmic Surgery. Twelve beds have, we believe, been assigned to Mr. Streatfeild, who will thus have a wide field for demonstrating his well known skill as an operator, and be in a position to afford instruction of high value to the pupils of the College.

WE have received from Paris the sad intelligence of the death of Professor Maurice Raynaud, who was to have delivered the address in medicine at the International Medical Congress, and had chosen for his subject "Scepticism in Medicine, Past and Present." M. Raynaud died on the night of Thursday, June 30th, from an attack of angina pectoris. His funeral obsequies were solemnised at Père la Chaise on Saturday last. The funeral oration was delivered by M. Féréol, and in it he made a touching allusion to the pleasurable interest felt by the deceased in the position which he was to have occupied as the representative of French medical science at the approaching International Congress. M. Raynaud was a learned physician, a distinguished writer, and an incessant worker at the hospital and at the Académie de Médecine, as a teacher, and as a practising physician. He had returned home to his country-house, full of hope, happiness, and activity, and had passed an evening of happy family life, playing with his children. His sudden death has produced a profound impression of painful regret among the profession in France.

THE French medical profession has also to lament this week the death of M. Chantreuil, an accomplished obstetrician, who had been, up to the moment of his death, lecturing to the Faculty on obstetrics in the place of M. Pajot. He was engaged in the publication of an extensive treatise on obstetric science and practice, in conjunction with Professor Tarnier, of which the first part had been published. Dr. Chantreuil, still a young man, just entering on the path of brilliant success, having already achieved a considerable position both in science and in practice, died from intestinal perforation. Many of our associates will remember having met Dr. Chantreuil at the annual meeting of the Association in Cork, when his amiable and sympathetic qualities were much appreciated.

OBSTETRICS AND ANATOMY.

AT the meeting of the Obstetrical Society last Wednesday, some of the Fellows showed marked signs of impatience during the reading of a long anatomical paper, in itself meritorious, but somewhat beyond the scope of obstetric medicine, and rather tediously prolonged. Tact as well as knowledge are often needed in the construction of such papers, and in the determination of the limits within which the patience of an assembly of experienced practitioners can be properly taxed with the details which belong more naturally to the school and the amphitheatre.

DEATH OF MR. STEPHEN ALFORD.

WE deeply regret to learn that Mr. Stephen Alford, whose unwearied efforts in promoting movements aiming at professional and public objects of worth is well-known throughout the Association, has met with a fatal railway injury. Just at this moment, when a Home for dipsomaniacs was being organised, under the auspices of the Committee of our Association and its allies, in the immediate neighbourhood of Mr. Alford's residence, with the view of the advantage of his personal supervision, the loss of his enthusiastic services will be most severely felt.

SOME RECENT OPERATIONS BY PROFESSOR LISTER.

TWO cases in which Mr. Lister cut down upon and sutured together the severed fragments of a fractured patella were recently recorded in our Hospital Reports. In both these cases, the fracture was of old standing. Our readers will be interested to learn that there is now in Mr. Lister's male ward at King's College Hospital a man, rather more than middle-aged, on whom the operation was performed very shortly after the occurrence of the accident. The joint was laid open with antiseptic precautions by a mesial incision, the extravasated blood evacuated, and the fractured pieces of the patella brought into apposition by a strong wire suture. Up to the present time, the case has done remarkably well. In the same ward is a young man, upon whom the ordinary operation of lateral lithotomy was performed for the extraction of a large calculus from the bladder; but the curious part of the case is, that there were, in addition, several calculi in the prostate, and two, larger, in the scrotum: all these were also removed at the same sitting, and the patient since has not had a bad symptom.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.

THE first annual meeting of the above association was held in the divinity lecture-room of the University of Durham, on the 28th ult., when a code of by-laws was framed, and other business transacted. The members afterwards dined together (by the kind permission of the Rev. the Master of University College) at the high table in the hall of University College. The next annual meeting will be held in London. The following are the officers for the ensuing year, 1881-1882:—*President*—G. H. Philipson, M.A., M.D., F.R.C.P. *Vice-Presidents*—Luke Armstrong, M.D.; W. Travers, M.D., F.R.C.S.Eng. *Council*—W. C. Arnison, M.D.; H. T. Bowman, M.D., M.S.; W. J. Tyson,

M.D., F.R.C.S.Eng.; Bedford Fenwick, M.D.; Shadforth Morton, M.D.; W. S. Porter, M.B.; D. Drummond, M.A., M.D.; W. Robinson, M.D.; R. H. Wilson, M.D.; J. R. Dodd, M.D.; S. Fielden, M.D.; G. P. Goldsmith, M.D. *Honorary Secretary for the North and Treasurer*—W. P. Mears, M.B. *Honorary Secretary for the South*—R. H. Milson, M.D.

THE PARKES MUSEUM OF HYGIENE.

THE International Medical and Sanitary Exhibition, to be held in connection with this museum, at South Kensington, from July 16th to August 13th, 1881, will be opened with a public ceremony at the Royal Albert Hall on Saturday, July 16th. The President, the Right Hon. Earl Spencer, K.G., will take the chair at 4.30 P.M., supported by the Right Hon. Earl Granville, K.G., the Right Hon. John G. Dodson, M.P., Sir James Paget, Bart., D.C.L., LL.D., F.R.S., and John Eric Erichsen, Esq., F.R.S. The admission on the opening day will be by season ticket, five shillings; after the opening day, one shilling. The exhibition will be open from 10 till 7 P.M.

THE OPHTHALMOLOGICAL SOCIETY.

THE first annual meeting of this Society was held on Wednesday last (July 6th). Mr. Streatfeild, Treasurer, read a report which showed the finances of the Society to be in a satisfactory condition. The President (Mr. Bowman), in a short address, passed in review the history of the Society during the past year, the first of its existence; he referred in congratulatory terms to the debate on optic neuritis, and to the report of the Committee on Colour-Blindness; and stated that one hundred and forty-one members had now joined the Society, and that of this number about fifty were physicians not specially engaged in ophthalmic practice. The meetings had been well attended, both by the members and by visitors; and the supply of papers and cases had been well kept up. The plan of showing specimens and living patients by card had been found to work well. The following gentlemen were elected to fill the offices of the Society in the ensuing session. *President*—William Bowman, Esq., F.R.S., LL.D. *Vice-Presidents*—George Critchett, Esq.; *J. W. Hulke, Esq., F.R.S.; J. Hughlings Jackson, M.D., F.R.S.; *Argyll Robertson, M.D. (Edinburgh); *Frederick Mason, Esq. (Bath); *Augustin Prichard, Esq. (Clifton). *Treasurer*—J. F. Streatfeild, Esq. *Secretaries*—Stephen Mackenzie, M.D.; E. Nettleship, Esq. *Other Members of Council*—James E. Adams, Esq.; *Edwyn Andrew, M.D. (Shrewsbury); W. A. Brailey, M.D.; R. Brudenell Carter, Esq.; *Thomas Buzzard, M.D.; *John Couper, Esq.; W. R. Gowers, M.D.; C. Higgens, Esq.; Henry Power, Esq.; J. Vose Solomon, Esq. (Birmingham); Waren Tay, Esq.; *T. Shadford Walker, Esq. (Liverpool). The gentlemen whose names are marked with an asterisk (*) were not in the Council, or did not hold the same office during the preceding year. It is hoped that the first volume of the *Transactions* will appear in October.

POST MORTEM EXAMINATIONS IN PRISONS.

WE learn that recently, at a meeting of a conference on prison management, it was moved, "That all *post mortem* examinations in prisons be made by an independent medical man". This resolution was forwarded to, and strongly urged on the attention of, the Home Secretary. The proposition has much to recommend it, both from the professional and public point of view. If, however, prison-surgeons, as has been suggested to us, are likely to feel insulted instead of protected by the proposition, it would be desirable that their views be stated and fully considered.

MIDWIFERY IN THE PARIS HOSPITALS.

AT the sitting of the council of the "Assistance Publique", held on June 30th, the following resolutions were adopted. A special "concours" will be instituted for the appointment of physicians-accoucheur to a certain number of the general hospitals. The obstetric physicians will superintend the labours attended by the midwives in the town as well as in the hospitals. In the hospitals to which obstetric physicians are appointed, the lying-in wards will be under their care. Lying-in women in the Paris hospitals will now no longer be treated by the physician or surgeon under whose care they may fall. This reform has long been necessary, and has not come too soon.

VELUTI IN SPECULO.

"THE Nineteenth Century seen through the Speculum" is said to be the title of the memoirs of his time which M. Ricord has prepared as his final literary legacy. These memoirs, like those of many other public men, are not to be published till thirty years after his death. But, says the chronicler of the *Union Médicale*, "when, to a select and friendly audience, he reads a few pages, it is Rabelais, Brantome, or one of the stories of the amiable Queen of Navarre, to which the hearer seems to be listening."

CESSATION OF THE PLAGUE.

THE following is a copy of a highly satisfactory telegram from Her Majesty's Consul at Baghdad, dated July 5th: "Deaths from plague within cordon have been ten during eight days. Disease may be considered to have terminated."

THE LATE CZAR ALEXANDER II.

DR. TALKO, one of the physicians who was called to the assistance of the dying Czar, states, in a letter to the *Petersburger Medicinische Wochenschrift*, that the cause of death to Alexander II was not only loss of blood, but also cerebral concussion. He describes punctiform effusion of blood on the ledge of the left upper eyelid, together with convulsive cramp of the left eyeball: a diagnostic indication which points to concussion of the brain, with the probability of slight effusion of blood along the course of the fourth and sixth pair of nerves. This movement of the eyeball did not cease when, under the influence of sprinkling of water on the head and chest, inhalation of oxygen gas, and hand-pressure of the blood from the periphery of both feet and the right hand to the centre, the power of the heart was improved, and the breathing became deeper, and the Emperor opened his eyes. The effort of swallowing had a reflex character. Ecchymoses, with burns of the face, the right hand, and the abdomen, as well as the compression of the ring and the scattering of the lower extremities, pointed to an extraordinary expansion of the air, which also aided the concussion of the brain. Dr. Talko thinks that there is no doubt, that, on the one hand, the excessively severe loss of blood, and, on the other hand, the severe shock causing small extravasations in the brain, caused the death of the Imperial patient.

PRESIDENT GARFIELD'S PHYSICIANS.

RESPECTING the calamity which befel President Garfield, it is gratifying to know that, within five minutes after his fall, an ambulance was on the scene; and Dr. Bliss, his family physician, by his side. On his reaching the White House, Dr. Bliss was joined by the Surgeon-General of the American Army, Dr. Barnes, and Dr. Woodward and others of the staff of the Surgeon-General's Office. The following day, Dr. Frank Hamilton, the author of the classic work on *Fractures*, and Dr. Agnew of Philadelphia, were sent for, and remained at the White House until the 5th.

DEATHS FROM ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 59, 82, and 88 in the three preceding weeks, declined to 52 last week, but exceeded the average by 10; 28 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, 2 in the Highgate Small-pox Hospital, and 22 in private dwelling-houses. Of the 52 persons whose deaths were registered last week within registration London, 21 had resided in the South, 14 in the East, 10 in the North, 5 in the West (exclusive of one at Acton), and one in the Central groups of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had declined from 1,644 to 1,578 in the three preceding weeks, further declined to 1,408 on Saturday last, of whom 421 were inmates of the Convalescent Camp Hospital at Darenth; the number of new cases admitted to these hos-

pitals, which had been 358 and 321 in the two preceding weeks, further fell to 254 last week. The fatal cases of measles, which had been 66 and 71 in the two preceding weeks, declined to 64 last week, but exceeded the corrected weekly average by 27; they included 4 in Fulham, 4 in Chelsea, 7 in Islington, 6 in Hackney, 5 in Clerkenwell, and 5 in Bethnal Green. The largest proportional fatality of measles occurred in Central and East London. The 35 deaths from scarlet fever showed an increase of 11 upon the number in the previous week, and exceeded the average by 2; 4 occurred in Marylebone. The deaths referred to diphtheria, which had steadily increased from 8 to 14 in the five preceding weeks, further rose to 18 last week, which exceeded the average by 10; 2 were returned in Pancras, 2 in Islington, 4 in Bermondsey, and 2 in Deptford. The 43 fatal cases of whooping-cough also showed a further increase upon recent weekly numbers, and included 5 in Islington. The 72 deaths referred to diarrhœa showed a further increase upon recent weekly numbers, and exceeded the corrected weekly average by 12; no fewer than 52 were of infants under one year of age.

REPORT ON VIVISECTION.

A REPORT from the inspectors, showing the number of experiments performed on living animals in 1880 under licenses, was this week issued as a Parliamentary paper. It shows that the total number of experiments performed under the licences and certificates was about 311. The certificates held by each licensee are of five kinds. The only experiments in which there is the least reason to believe that any appreciable suffering would be caused, are among those enumerated under certificates permitting experiments without anæsthetics, and under certificates dispensing with the obligation to kill the animal before recovery from anæsthetics. Under the former head the total number of experiments was 79, of which, however 69 consisted in simple inoculation (no more painful than ordinary vaccination), which in 38 cases was followed by no ill effect whatever. But in about 30 instances—namely, 19 guinea pigs, and 10 or 12 mice—disease appears to have ensued, which, during the brief period the animals survived, may have caused slight suffering. In the remaining 10 experiments under the certificate, either no operation of any kind involving pain was performed, or one consisting merely in the passage of a needle through a fold in the skin of rabbits, and attended with no more pain than would be thus caused. In the 35 experiments performed under certificates of the other class, 18 also consisted in simple inoculation, or the hypodermic injection of morbid secretions, with the view of tracing the development of morbific germs in the blood; and no painful effect from the proceedings appears to have been produced during the two or three days during which the animals were kept alive. In the remaining 17 cases, in which incisions through the integument were required, as these, which constituted the only painful part of the proceeding, were made under anæsthesia, and the animals afterwards suffered nothing beyond confinement until the wounds healed, or until killed, no appreciable suffering can be said to have been inflicted. All the other experiments were performed on animals previously rendered insensible, and were necessarily painless.

[illegible]

WE have received, from an authentic source, interesting details of the circumstances under which Her Majesty has been graciously pleased to award the Albert Medal (first class) to Dr. Lowson, late of Huddersfield, for sucking the throat of a diphtheritic patient. Last November, in the evening of the 16th, Dr. Lowson was sent for in a hurry to see a patient, about five minutes' walk from the surgery. On getting there, he found the patient [illegible] years of age. She was almost black in the face, and breathing with the greatest difficulty, struggling, and clutching at her throat. The complaint had lasted three days. He saw that tracheotomy was urgently called for, so he hurried home, got his instruments, hurried back with all speed, accompanied by Mr. Smith, his assistant. Dr. Lowson opened the windpipe, and introduced the ordinary double silver tube without any difficulty. Mucus and loose membranes [illegible] the danger of death from asphyxia being imminent, he sucked out the obstructing material, immediately washed out his mouth with water, and, on returning home, he repeated the process with a solution of carbolic acid. The child got on very well for a day and a half; after which the wound became affected with the disease, which also extended down the air-passages; and, notwithstanding every effort to keep the tube and trachea clear, the little patient gradually sank. On the evening of the fourth day after the operation, Dr. Lowson's throat became affected; and the disease, spreading from the right tonsil, involved gradually the palate, uvula, and left tonsil, as well as the epiglottis. Six days afterwards, the membranes began to separate, and on the eleventh day he was able to sit up. Six weeks from the beginning of his illness, he became affected with anæsthesia of both hands and feet. This lasted for two months. He returned to work in February; but remained so very weak and unfit, that he examined his condition a little more minutely, and he found marked evidence of diabetes. He immediately gave up work, and took another holiday for a month; at the end of which time, being still affected with diabetes, he felt himself compelled to give up practice; and, in the middle of May, he started on a voyage in the Mediterranean, which, it may be hoped, will have the effect of completely restoring him. Dr. Lowson is at present at Palermo. Dr. Allbutt of Leeds was kind enough to use his influence in procuring the medal. The sequel of Dr. Lowson's act has thus involved loss of health and of practice, and has caused him considerable expenditure of money, which he can ill afford; and yet, no doubt, his is only a solitary example of the numerous sacrifices made by medical men in the cause of humanity, many of which are unheard of; and the medical profession are grateful to Her Majesty for recognising this example of self-sacrifice to considerations of humanity and eagerness to effect a cure.

SCOTLAND.

THE GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL.

THERE is at present a movement on foot, in Glasgow, to raise sufficient funds to provide the above school of medicine with proper accommodation, and in other ways to improve its financial position. The present class-rooms have for long been found quite unsuitable for the requirements of the school, and it has been felt that they must be improved if the school is to make progress, and compete successfully with its numerous rivals. From the appeal which has been issued, we gather that the sum of £10,000 is required to suitably equip the school, and place it on a satisfactory financial basis. Nearly half that amount has been already voluntarily subscribed, and no doubt the remainder will be forthcoming. It may be mentioned that the Royal Infirmary school of medicine is modelled on those carried on so successfully by several of the large London hospitals, and so far it has worked with most encouraging results.

[illegible] CONVALESCENT HOME FOR CHILDREN, EDINBURGH.

ON Monday last was opened by Mr. G[illegible], [illegible], a convalescent home that has the special feature, that it is intended exclusively for children. The want of such an institution has long been experienced, and this will be a valuable auxiliary to the dispensaries, and Sick Children's Hospital, Edinburgh, as it will be open free to the children of the poor. Admission to its advantages can be obtained by parents taking their children to the Livingstone Memorial Medical Mission Dispensary, 39, Cowgate, Edinburgh, on Wednesdays, at two o'clock, where, after examination, the most necessitous cases will be approved. The committee of management, which is the same as that of the contiguous Ravenscroft Convalescent Home for Adults, is to be congratulated on being able to open so useful an institution as this Children's Convalescent Home free from debt, and with a balance in [illegible]. It may be [illegible] contributions.

THE CASE OF SMALL-POX ON BOARD-SHIP.

IN the JOURNAL last week, there was a notice of a case of small-pox on board a vessel at Arbroath, and of the resolutions taken by the local authority in the matter. The ship was hauled out into the harbour, and a nurse was sent on board; and the ship was visited by the medical officer of health of the local authority. The patient, who was mate of the ship, was first observed to be ill on Monday, June 27th. The case was a bad one, and on Monday, July 4th, he died. None of the rest of the crew have as yet exhibited symptoms of the disease, and a strict quarantine has been enforced. It is unfortunate that there was no hospital for contagious diseases suitable for receiving such a case, as shipboard is certainly not the most comfortable as regards the patient, nor of a model type as regards hygiene. The Norwegian consul-general at Leith communicated with the Board of Supervision, but the Board was unable to act in the matter. This is not the first instance in which, owing to alleged want of suitable premises, patients on board-ship suffering from infectious disease have been compelled to remain on board, or have been detained so long there, that on their removal, or shortly afterwards, they died.

FEVER IN THORNTON AND RUTHERGLEN.

THE scarlet fever epidemic in Thornton, reported in the JOURNAL a fortnight ago, shows no evidence of abatement. In a portion of the village nearly every family is infected, some dangerous cases exist, and at least three deaths have occurred. The village school, which had been closed for three weeks on account of the disease, was re-opened on Monday, but only to be closed again, as there were only twenty-nine scholars present, out of a total of 230 on the school-roll. On Monday, Dr. J. B. Russell, as medical officer of health, reported to the Glasgow Town Council that there had been a sharp and very fatal epidemic of typhus fever in Rutherglen. Of fifteen cases admitted to the hospital, five had died. It was also reported that a female emigrant—a Russian Pole—had been found by the shipping company's medical officer to be convalescent from small-pox, and, considering that she was dangerous to those around her, she had been removed to the hospital.

MEDICAL MISSIONARY SOCIETY, EDINBURGH.

NO fewer than nine medical missionaries are being sent to different parts of the globe, under the auspices of the Edinburgh Medical Missionary Society, and other similar societies. A farewell meeting in connection with them was held in Edinburgh on Sunday, under the presidency of Dr. Wm. Brown. Those nine gentlemen—whose names and destinations are Messrs. Neave of Brighton, to India; Ridgely of Huntingdon, to New Guinea; Main, to China; Deans of Sunderland, to Blantyre Mission, Africa; Aitken of Edinburgh, to Rome; Osborne, to India; Johnstone, to Africa; Scott, to Smyrna; and Christie, who will remain at the Cowgate Dispensary—have received a thorough training, not only as missionaries, but have gone through a regular medical curriculum, and possess degrees from the University, or diplomas from recognised qualifying corporations.

TINNED MEAT AS AN IRRITANT POISON.

THE public occasionally receives a warning as to tinned meats, which is apt to be magnified unduly; but a case that occurred in the village of Crossmyloof was of considerable severity, and required prompt treatment. A tin of "roasted turkey", purchased in the village, was partaken of by four people, who soon afterwards became seriously ill. They were attended to by Dr. Walker, and three recovered speedily; but the fourth remained very ill, and was confined to bed for some days.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health states that, during the fortnight ending June 25th, there were 483 deaths registered, representing a death-rate of 24 per 1,000 living. The deaths from zymotic diseases were 34 per cent. less, while those from diseases of the lungs were 13 per cent. more, than in the same period last year. The number of deaths from pulmonary diseases was 174, representing a death-rate of 9 per 1,000 living, and constituting 38 per cent. of the total deaths. There were 7 deaths from enteric fever. There have been admitted to the Belvidere Hospital from the burgh of Rutherglen 15 cases of typhus fever, of which 5 died. The medical officer remarks that the outbreak of fever in Rutherglen is of the most marked and malignant type he has seen for many years.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending June 25th, it appears that the death-rate in the eight principal towns was 19.6 per 1,000 of estimated population. This rate is 0.9 under that for the corresponding week of last year. The lowest mortality was recorded in Aberdeen—viz., 11.8 per 1,000; and the highest in Paisley—viz., 30.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.7 per 1,000. Acute diseases of the chest caused 114 deaths, or 4 more than the number recorded last week. The mean temperature was 56.4°, being 3.7° above that of the week immediately preceding, but 1.0° under that of the corresponding week of last year.

METEOROLOGICAL OBSERVATORY ON BEN NEVIS.

THERE has recently been established on the top of Ben Nevis, by Mr. Wragge, a member of the Scottish Meteorological Society, an observatory, where provision has been made for daily records of temperature, pressure of the atmosphere, moisture, force of the wind, and fall of rain. Considering the height of Ben Nevis, and seeing that the mountain is peculiarly open to weather influences, the data furnished by these daily meteorological records will, no doubt, be of much value in forming forecasts as to the coming weather. Mr. Wragge deserves great praise for his enthusiasm in thus helping on meteorological science, seeing that he has to make a daily ascent and descent of the mountain to obtain the daily readings of his various instruments, there being as yet no suitable shelter for any prolonged stay on the summit of the mountain.

IRELAND.

DR. CHRISTOPHER NIXON, Physician to the Mater Misericordiæ Hospital, and Lecturer on the Institutes of Medicine in the Medical School of the Catholic University of Ireland, took the degree of LL.D. at the recent commencements of the University of Dublin.

THE KING'S PROFESSORSHIP OF MATERIA MEDICA AND PHARMACY.

DR. HENRY KENNEDY has been appointed by the King and Queen's College of Physicians a *locum tenens* to take the clinical duties of Sir Patrick Dun's Hospital, pending the election by the College of a King's Professor of Materia Medica and Pharmacy in succession to Dr. Aquilla Smith, whose resignation of the chair—with the *ex officio* hospital physicianship attached thereto—we announced last week. Dr. Aquilla Smith, who has been the representative of the College on the General Medical Council since 1858, has filled the chair of Materia Medica in the School of Physic for seventeen years, with—as a resolution of the College, adopted unanimously on receiving his resignation, testifies—great ability and credit. He leaves his successor one of the finest museums of materia medica in the kingdom, collected and arranged entirely by himself. According to the School of Physic (Ireland) Act, Dr. Smith's successor cannot be elected for three months. We trust that he himself will long be spared to give his valuable services to the College of which he is so useful and respected a Fellow.

THE ROYAL UNIVERSITY.

IN answer to a question put in the House of Lords on Monday last by Lord Emly, a member of the Senate of the Royal University, Lord Carlingford stated that the Government have determined to introduce a short Bill for the purpose of "charging upon the Irish Church Fund such an annual sum as, in the view of Her Majesty's Government, will

be sufficient to enable the Royal University of Ireland to perform its work, as they hope, with efficiency and success". He also stated that this is with a view to enabling the Royal University to commence its operations this year. According to the scheme for the organisation of the University, as adopted by the Senate and submitted to Parliament, all candidates for matriculation this year must send in their names and addresses to the secretaries of the University on or before the 15th of next August. As that is only five weeks from this, viewing the pressure of the Land Bill upon the time of both Houses of Parliament, and the probability of lengthy discussion of the scheme submitted to the Government, it would appear hardly possible to have the matriculation examination upon the date originally fixed. It is, consequently, very probable that it will have to be postponed.

THE MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

THE governors of this hospital have had, reluctantly, to reduce the number of beds in it available for use, in consequence of the financial state of the hospital. A Convalescent Home at Bray, furnished and fitted up, has been kindly given by Lord and Lady Brabazon for the use of the patients of this hospital.

REGISTRATION AND ATTENDANCES OF MEDICAL STUDENTS.

A CONFERENCE, consisting of delegates from the University of Dublin (Rev. Dr. Haughton and Dr. Macalister), the Queen's University in Ireland (Drs. Banks and Redfern), the King and Queen's College of Physicians in Ireland (Drs Hayden and Harvey), the Royal College of Surgeons in Ireland (Drs. Barton, Vice-President, and A. H. Jacob), and the Apothecaries' Hall, Ireland (Drs. Collins and C. F. Moore), with Dr. J. Magee Finny as Honorary Secretary, was recently convened, at the instance of the College of Physicians, for the purpose of considering the advisability of introducing an uniform system of registration of the entries in, and the certificates granted by, the various medical schools and clinical hospitals in Ireland. The conference held two meetings, and unanimously adopted the following resolutions, the substance of which will doubtless be brought by the bodies interested under the notice of the General Medical Council; and it is to be hoped that the effort thus made to check most gross and flagrant abuses will receive the active support of that body. 1. It is advisable that the last day of entry for students in schools and hospitals shall be the fifteenth day of the winter, and the tenth day of the summer sessions. 2. It is desirable that a return should be made to the Branch Medical Council for Ireland of the names of all students entered at any school or hospital, together with the courses for which they are severally entered, within three days after the days specified above. 3. It is desirable that within fifteen days after the close of each session each school and hospital should furnish a return to the Branch Medical Council for Ireland of the several attendances of each student; and that the Branch Council be requested to print, and forward to each licensing body in Ireland, a copy of the foregoing returns. 4. It is desirable that the undermentioned qualifying bodies pledge themselves not to admit to examination any student whose attendance has not been duly returned as sufficient to the Branch Medical Council, viz., the University of Dublin; the Queen's University in Ireland; the King and Queen's College of Physicians, Ireland; the Royal College of Surgeons, Ireland; and the Apothecaries' Hall; and that no attendance on medical lectures or clinical instruction be deemed sufficient which does not at least include two-thirds of the course.

CORK DISTRICT LUNATIC ASYLUM.

AT a monthly meeting of the governors, held last week, Dr. Eames, having served the specified term of years as resident medical superintendent, made an application to the governors for a recommendation to His Excellency the Lord-Lieutenant for the good service-pay of £100 *per annum*, in addition to his present salary, in accordance with the twenty-ninth clause of the Rules and Regulations passed by His Excellency in Council for the Management of Lunatic Asylums in Ireland. A formal notice of motion having been considered necessary, one of the governors stated his intention to move at their next meeting that the application of Dr. Eames should be acceded to. We may add that, when Dr. Eames was appointed, eight years since, the inmates numbered 646; but now there are 811, and the building has been enlarged to accommodate over 1,000 patients.

LIMERICK WORKHOUSE.

THE half-yearly report of Mr. Bourke, Inspector of the Local Government Board, shows that the financial condition of the union is far from satisfactory, being about £5,000 in debt. Although the workhouse is not especially overcrowded at present, yet it is barely sufficient for the numbers requiring relief. With regard to the water-supply of the workhouse, Mr. Bourke states that the quantity is sufficient, but that it is imperfectly filtered, and only fit for domestic use. The ventilation of the hospital also is not complete or effective, and the drainage of the workhouse requires a thorough overhauling.

HOME FOR INCURABLES, CORK.

A FANCY fair was held last week at Lismore, in aid of the fund for endowing a bed in the home in memory of the late Mrs. Welsted of Ballywalter, who took a great interest in the institution. Owing to the aid she has given to the home and other charitable institutions, a number of her friends have determined to endow a bed there as a suitable mark of their appreciation of her work. The arrangements were admirably carried out, and it is expected that a large sum was obtained for the desired purpose.

HEALTH OF CORK.

DURING the four weeks ending June 18th, the total number of deaths registered amounted to 133, of which 14 were due to infectious diseases, and 9 were infants under one year. During the same period, 174 births were recorded. The annual death-rate per 1,000 inhabitants gave a total ratio of mortality of 21.98; and, deducting 27 deaths which took place in the workhouse, the urban mortality amounted to 18.79, an infant mortality of 1.4, and a birth-rate of 28.76. These statistics contrast favourably with the returns of the corresponding period last year. There were last week 69 patients in Cork Union Fever Hospital; and Dr. Cremen, one of the visiting physicians to the workhouse, states that the disease is increasing; and, if some energetic means be not adopted by the sanitary authorities, it is probable that an epidemic will ensue, and that additional accommodation for fever cases will become necessary. The primary cause, Dr. Cremen remarks, of typhus fever is overcrowding; and no steps, he alleges, have been taken to remedy this existing evil. He urges on the corporation the great necessity for proceeding with all possible despatch with the artisans' dwellings.

HEALTH OF BELFAST.

FROM the report of Dr. Browne, medical superintendent officer of health, for the month of June, it appears that 44 cases of zymotic disease were returned by the medical officers of health of the several subdistricts. This number included 15 cases of small-pox, while 9 cases of typhus and typhoid fever were removed to the Union Workhouse Hospital for contagious diseases—the houses and premises from which these patients were taken being carefully cleansed, fumigated, and lime-washed; and some clothing and bedding were destroyed by fire, when found unfit to be washed or fumigated. The total births registered in the four weeks ending June 25th were 584, and the deaths 327, showing a natural increase of 267. Sixty deaths were registered from phthisis, and 58 from diseases of the respiratory organs, making a total of 118 from lung diseases in the four weeks. The average death-rate for the four weeks was 20.4 per 1,000 inhabitants. During the month, 15 cases of small-pox were reported by the medical officers of health, and promptly removed to hospital; while due precautions were taken to prevent the spread of the contagion. Typhus fever has not spread, as only 3 cases have been reported by the dispensary medical officers as having occurred among the poor. Typhoid fever and other principal

zymotic diseases have not been prevalent. The population of Belfast is now accurately known as 207,671, which, although not up to the estimate made in accordance with the increase of the former census period —1861 to 1871—is still satisfactory, being an increase of 33,259 in the ten years, the largest increase of any town in Ireland. The death-rate for 1880, adopting the new census as a basis of calculation, was 24.5; the zymotic death-rate 3.8, and lung diseases 9.7; while the total number of births was 6,946, and the deaths 5,340, showing a natural increase of 1,606.

THE HARVEY TERCENTENARY MEMORIAL.

A MEETING of the subscribers to this fund was held, by permission of the President of the Royal College of Physicians, at the College, on Wednesday, June 29th. There were present Sir George Burrows, Dr. Owen Rees, Dr. Sieveking, Dr. Fincham, Dr. R. Barnes, Dr. Begley, Mr. John Simon, Mr. Prescott Hewett, Mr. John Gay, Mr. Edwin Saunders, Mr. N. Stevens, Mr. J. B. Tolputt (Mayor of Folkestone), Mr. R. W. Boarer, Mr. J. Stainer, and Mr. George Eastes and Mr. W. G. S. Harrison, the Honorary Secretaries. Sir George Burrows was unanimously asked to take the chair.

Mr. EASTES read a statement respecting the arrangements sanctioned and carried out by the Executive Committee, from which it appeared that that Committee was appointed in June 1878; that Mr. A. B. Joy's model (which was marked "B" when the models were exhibited in competition at the South Kensington Museum) was selected by the Committee, and that the statue itself was now completed in bronze, and ready to be placed upon the pedestal, a full-sized bronzed plaster model being now on view at the Exhibition of the Royal Academy. It was suggested that the statue should be unveiled at Folkestone on Saturday, August 6th, during the meeting in London of the International Medical Congress. Sir E. Watkin, Bart., M.P., had kindly promised a special train for conveying from London to Folkestone and back the guests invited from London to take part in the ceremony; and Lord Radnor had granted a site for the statue on the Leas, Folkestone, which had been selected by Mr. Joy, and approved by the Folkestone Committee. This meeting was summoned to make the final arrangements for presenting the statue to the future care and custody of the Mayor and Corporation of Folkestone; to designate some eminent person to unveil the statue and make the presentation in question; and to settle any other matters having reference to the Memorial Fund. As regarded funds, there was then a sum of £358 in hand, whilst the amount still to be paid to the sculptor and for other purposes was about £530. There was thus a deficit of about £172 which would require to be collected before the receipts and expenditure quite balanced, and before the fund could be closed. But thirty-three promised subscriptions, probably good for about £80, were still unpaid, and the remaining sum of about £90 or £100 it was thought would be collected within the next few weeks. The report concluded by stating that there had been 571 donations of very varying amounts subscribed to the fund.

It was proposed by Mr. PRESCOTT HEWETT: "That the report be received and adopted." This proposal was seconded by Dr. SIEVEKING, and carried unanimously.

It was proposed by Dr. SIEVEKING, seconded by Dr. FINCHAM, and resolved: "That the statue of Harvey be presented to the Mayor and Corporation of the borough of Folkestone, as the elected representatives of that borough, to be preserved by them in honour of the memory of William Harvey, the discoverer of the circulation of the blood."

The MAYOR OF FOLKESTONE (Mr. J. B. Tolputt) returned thanks on behalf of his fellow-townspeople for the honour done them by this committal to their custody of the statue of Harvey, and said that it would always be highly valued and well cared for by them.

It was proposed by Mr. JOHN SIMON, C.B., seconded by Dr. OWEN REES, and resolved: "That Professor Owen, C.B., be invited to unveil the statue at Folkestone, and to make such presentation on behalf of the subscribers to the Harvey Tercentenary Memorial Fund." Mr. Simon, in introducing Professor Owen's name, said he was the patriarch of British physiologists, a master of much learning and eloquence; and that he (Mr. Simon) was sure it would be agreed upon all hands that Professor Owen was most eminently qualified in all respects to undertake the duties connected with the unveiling of the statue. The proposition was carried unanimously with much applause.

It was proposed by Mr. EDWIN SAUNDERS, seconded by Dr. ROBERT BARNES, and unanimously resolved: "That the Executive Committee, consisting of Sir George Burrows, Mr. Prescott Hewett, Dr. Quain, Dr. Owen Rees, Mr. John Simon, Mr. E. H. Lushington, Mr. J. J. Lonsdale, the Mayor of Folkestone, Mr. W. Bateman, Mr. W. G. S. Harrison, and Mr. George Eastes, have full power to act in the future, on behalf of the subscribers, in all matters connected with the fund, and with the settlement of the accounts, and in the final closing of the fund."

It was [illegible] by Dr. [illegible], seconded by Mr. [illegible] HEWETT, and resolved: "That Dr. J. G. Glover and Dr. J. C. Hare be requested still to act as auditors to the fund, to make the final audit, and to present a report upon the fund to the above-named Executive Committee."

Mr. J. B. TOLPUTT proposed, Mr. W. G. S. HARRISON seconded, and it was unanimously resolved: "That the best thanks of the subscribers to this fund be given to the President of the Royal College of Physicians of London for the use of the room on this and other occasions."

It was proposed by Mr. JOHN SIMON, seconded by Dr, SIEVEKING, and unanimously resolved: "That the best thanks of this meeting are due, and that they be given, to Sir George Burrows for presiding." Sir G. BURROWS thanked the meeting for the resolution.

It was proposed by Dr. SIEVEKING, seconded by Mr. PRESCOTT HEWETT, and unanimously resolved: "That a cordial vote of thanks be, and is hereby, given to Mr. George Eastes for his energy and ability in all matters connected with the Harvey Tercentenary Memorial Fund, and the deep obligation of the subscribers is due to him for originating the fund, and perseveringly bringing it to a successful issue."

After a few words of thanks from Mr. EASTES, the meeting separated.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

ON June 17th, the Rev. Thomas Tuffield was called in, and examined by Mr. Osborne Morgan; being afterwards cross-examined by Dr. Cameron, Mr. Hopwood, and Mr. Stansfeld. Mr. Tuffield is a "Congregational" minister, residing at Woolwich, and a member of the board of guardians, as well as of most other local bodies. He has for years taken great interest in the Acts, and has had ample opportunity of observing their operation in the Woolwich district.

He commenced by stating his conviction that the Acts had had a most beneficial effect on the town. Having been familiar with the locality before the Acts came into force, it was impossible not to be struck with the much more orderly condition of the streets, the diminished number of common women, and the more decent and cleanly appearance of such few as were now seen—a result he could not attribute to any other agency than the Acts, as all other police regulations remained precisely the same. The operation of the Acts was also a most valuable means of getting at the women with a view to their reclamation; and he mentioned one particular case, out of many he knew, of a young woman (a member of his own congregation), who, quite unknown to him, was leading an immoral life, and who one day accosted an inspector of the special police. The inspector reported the matter to Mr. Tuffield; and, at his request, forbore to proceed further until an opportunity had been given him to try the effect of his persuasive influence. The result was that the girl at once reformed, and was shortly afterwards respectably married. On the other hand, he mentioned a case showing the difficulty, previous to the Acts, of dealing with such women as were diseased. A servant of his was seduced by a soldier, and afterwards became a prostitute in spite of the special and earnest efforts that were made to restrain her. She was attacked by a virulent form of disease; but still nothing would induce her to enter a hospital until she was at the last extremity, and she died shortly after her admission. He considered that, under the Contagious Diseases Acts, that girl's life might have been saved.

With regard to the oft-repeated statement, that it was unsafe for respectable women to walk about the streets for fear of interference from the officials appointed to carry out the Acts, he said that, on the contrary, the order and decorum established in the streets now rendered it possible for respectable women to go out with perfect security. Moreover, he had always been known as one willing to assist those who had grievances of any kind, and particularly he was known as the champion of poor people; but he had never once, during all these years, had any complaint of an attempt to subject a virtuous woman to the working of the Acts; and he particularly wished to bear testimony to the wise and just manner in which the regulations had been carried out in the Woolwich district.

Mr. Tuffield was a guardian of the Greenwich Union, and he described the deplorable condition of many of the women previously to the Acts. So loathsome had many of them become that no one would go near them, much less admit them to their houses; and

these wretched outcasts had been picked up in holes and corners whither they had crept to hide. This evidence, by the way, corroborates with curious exactness the statement of Mr. James Lane, as to the severity of the disease in the women sent up to the London Lock Hospital, previously to the Acts, from the Greenwich Union; and the fact, that such cases are no longer seen, is a very strong argument in favour of the Acts. The word "rottenness", used by Mr. Tuffield, was strongly objected to by Dr. Cameron, who took the witness severely to task for it; but the reverend gentleman had evidently read extensively on the subject, and was able amply to justify his employment of the term. It was the word used by Mr. Lane with regard to the very case in question; and, in his opinion, and in that of many others, it describes very accurately the condition of the genital organs of those wretched creatures who used to hang about the camps previously to the passing of the Acts.

With regard to juvenile prostitution, he thought it had decidedly diminished; he considered that the fear of the Acts was a most wholesome deterrent to many young minds. Clandestine prostitution had also decidedly decreased; and the class known as "officers' girls", if they did still exist, were, at all events, not seen flaunting themselves on the parade.

On the question of voluntary hospitals, he gave it, as his decided opinion, that women would not be got to enter them. Others might think differently; but the result of his own experience was the conviction that women would not listen to advice now, any more than they did in former days, until it was too late.

He thought that the objection to these Acts, on the part of many Nonconformists, was founded on religious grounds. They considered the Acts to be a human attempt to oppose a God-made punishment for sin, and this idea prevailed extensively among the fervently religious; but there was a sort of religious fervour possessed by some that did not always lead to the best practical results. In supporting these Acts, as he did, he was taking a view quite opposed to that held by many other Congregational ministers, and no little loss of popularity was involved. But he was unable to resist the strong conviction that had forced itself upon him; and he felt sure that, if other ministers had had his opportunities, and seen what he had, they would be of his opinion. Many of them, however, before they had given themselves time to study the operation of the Acts, had allied themselves with a certain branch of a political party, and had thereby acquired a strong bias, which prevented them from obtaining a fair and broad view of the question. Of course, bias was possible on the other side, but he emphatically disclaimed any such bias for himself. Without exception, all the points he had dealt with had been matters of his own personal observation, owing to his official position. They had come under his notice without his seeking; and, to use his own phrase, "the facts had mastered him." It is impossible, in this short space, to do justice to his evidence, which was most clear and forcible, or to convey an idea of the admirable way in which it was expressed.

Dr. Coleman Barr, from Aldershot, was then called; and, after a few questions from the Chairman and Mr. Osborne Morgan, was cross-examined by Mr. Stansfeld and Mr. Hopwood.

Dr. Barr, in his previous evidence, announced himself a strong believer in "mediate contagion"; but, he said, further experience has led him to think it is of by no means such frequent occurrence as he formerly imagined. Being the surgeon appointed under the Acts to examine the registered women in the Aldershot district, he was able to explain, at some length, the system as carried out by him. He said that, when a woman came before him for the first time, he always talked to her and made himself acquainted with the circumstances of her case, and did not examine her unless he was satisfied that she had been justly placed upon the register. There was a nurse present, who assisted the women to undress, and placed them in the proper position for the local examination; after which a minute inspection was made of the skin, throat, lips, and all spots where evidences of disease were commonly seen. If the woman presented the slightest symptoms of disease, she was informed of the circumstance, and detained; otherwise, she was free to depart at once. Two days a-week had been originally appointed for examination; but, to suit the convenience of the women, Dr. Barr held examinations every day—so that they were enabled to come up singly, or in very small numbers. The examinations averaged from sixty to seventy a-week; they began at ten o'clock in the morning and terminate about one, during which time he was able to examine about thirty women. During the last thirteen years, from May 1st, 1868, to March 31st of the present year, he had conducted 54,848 examinations. In the early part of this period, the number of women found diseased averaged about seven-eighths of the whole; this large proportion, however, has now greatly diminished. For instance: during the past year there were 3,217 attendances, and 539 women were detained—giving a proportion of about one-sixth. As in former days, so now, he still found gonorrhœa to be the most prevalent form of disease among the women; and, next to that, venereal sores, either complicated or uncomplicated. For instance: during the period of thirteen years above referred to, 7,667 women were treated in Dr. Barr's hospital, of whom 4,941 suffered from gonorrhœa, 2,085 from venereal sores, while only 641 had constitutional syphilis. When a woman left the hospital, she was free, and no longer subject to the authority of the police, until some fresh act of prostitution brought her again under their notice.

Dr. Barr declared positively that there had been no complaints from the women of harsh conduct on the part of the police engaged in carrying out these Acts. He made a point of asking the women, when they came before him, if they had any complaint to make, and he had never once heard of anything of the kind; he thought that these unfortunate women looked to him as to a friend who would help them in every way, and he would never tolerate police tyranny.

He remembered several instances, during the early part of his residence at Aldershot, of women (by no means common prostitutes, in the ordinary sense of the word), who had come into the district and voluntarily subjected themselves to the regulations of the Acts, in order to obtain the medical treatment they could not get elsewhere.

With regard to the reclamation of the women, he testified that everything possible, under the circumstances, was done to secure this; and he was himself secretary to the local refuge in connection with the Diocesan Home at Basingstoke.

Dr. Barr was cross-examined with great severity; but he confined himself strictly in his evidence to matters with which he was personally acquainted, and his testimony was not shaken in the least degree.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election of Fellows into the Council of the College took place on Thursday last. The ballot was opened at 2, and was closed at 5 P.M. There were three vacancies to be filled, caused by the retirement in rotation of Sir James Paget, Mr. Haynes Walton, and Mr. Wheelhouse of Leeds. Sir James Paget and Mr. Walton sought re-election, but Mr. Wheelhouse did not again present himself for election. Four other Fellows were also duly nominated—viz., Mr. J. W. Hulke, Mr. John Croft, Mr. Christopher Heath, and Mr. Reginald Harrison of Liverpool. Mr. Erichsen, the President of the College, presided; being accompanied by the two Vice-Presidents, Messrs. Erasmus Wilson and Spencer Wells. The polling at first was brisk, but the voting towards the end was somewhat slow. At five o'clock, the President announced the close of the poll; and, after counting the votes, at about six o'clock, he declared that, as the result of the voting, Sir James Paget, and Messrs. Hulke and Heath had been elected into the Council. The following is a record of the votes:

Sir James Paget, Bart.	228,	including	1 plumper
Mr. J. W. Hulke	137	,,	8 plumpers
Mr. C. Heath	133	,,	4 ,,
Mr. J. Croft	113	,,	18 ,,
Mr. R. Harrison	87	,,	12 ,,
Mr. H. Walton	72	,,	5 ,,

On this occasion, 313 Fellows voted. The large proportion of votes given to Sir James Paget was quite a feature of the election. Excluding the 47 votes plumped for the other five candidates, there were 266 Fellows who exercised their franchise, of whom no less than 228 were favourable to a "third term" of office for the popular head of the surgical branch of the profession.

PHILADELPHIA MILK. Dr. Leidy, writes an American contemporary, obtained last April some milk from the female elephant who gave birth to a calf at Philadelphia last spring. This milk has been analysed by Professor Doremus; it approached the composition of cream, but it did not have its consistency. It was pleasant in flavour and odour, and very superior in these respects to goat's milk, and fully equal to cow's milk. The elephant-calf weighed two hundred and thirteen and one-half pounds when born, March 10th, 1880, and gained seven hundred pounds on this milk-diet in a year.

RECTAL ALIMENTATION. In a report on the progress of gynæcology Dr. W. R. Wilson quotes from a paper written by Professor H. F. Campbell, of Georgia, on rectal alimentation in the nausea of pregnancy. Professor Campbell observed intestinal movements after the administration of every nutritious enema, and became satisfied that their direction was upward, carrying the food from the rectum to the upper intestinal tract, where digestion and absorption are actively carried on. He styles this action "retrosalivation", and compares it to vomiting and the function of rumination. This theory is reasonable and far more satisfactory than the commonly accepted one of rectal absorption.

THE INTERNATIONAL MEDICAL CONGRESS.

THE following programme of the arrangements for the International Medical Congress, to be held in London next month, has been issued.

[illegible] will take place [illegible] College of Physicians, Pall Mall East, [illegible] with the [illegible] the members of the Congress; at the Congress will be held in St. James' Great Hall, [illegible] Regent Street and Piccadilly. The other general meetings will be held in the theatre of the University of London. Entrance in Burlington Gardens. The Sections will meet [illegible]

The offices of the Reception Committee [illegible] the College of Physicians, Pall Mall East, at the north-west corner of Trafalgar Square. The Reception Committee will meet daily during the week, at 3 P.M., in the Censor's Room of the College of Physicians. The office of the Reception Committee at the College of Physicians will be open for the Registration of members on and after Monday, July 18th. Members are requested to call as soon as possible after their arrival in London, to enter their names and addresses in the Register, when they will be supplied with programmes of business and tickets for membership, excursions, and entertainments. Every possible information will be given as to the prices and situation of convenient hotels and lodgings.

Members wishing to take part in any excursions, or to visit any of the private and public places of interest open on the occasion, must enter their names in the proper book, at the College of Physicians, at the earliest opportunity, in order that the necessary arrangements may be made.

Facilities will be afforded every day during the session of the Congress, between the hours of 2 P.M. and 3.30 P.M., to members desirous of visiting the London hospitals and medical schools, and their museums. Special arrangements have been made for afternoon hospital visits on Thursday, August 4th, and Friday, August 5th, when the members of the staff of each hospital and school, so far as is practicable, will attend. The officers of the Sections will afford information respecting visits which members may desire to make to other hospitals than those mentioned in the programme.

Members of the Congress are admitted free, on presentation of their tickets of membership, to view the International Medical and Sanitary Exhibition at South Kensington, at which will be exhibited the various materials and apparatus employed in the prevention, detection, cure, and alleviation of disease.

Sections.—The sections will meet in the following places from 10 A.M. to 1 P.M., and from 2 P.M. to 3.30 P.M.

1. *Anatomy:* Linnæan Society's Council Room, Burlington House. 2. *Physiology:* Royal Institution, Albemarle Street. 3. *Pathology:* Chemical Society's Meeting Room, Burlington House. 4. *Medicine:* The Theatre, University of London, Burlington Gardens. *Diseases of the Throat (Subsection):* Astronomical Society's Meeting Room, Burlington House. 5. *Surgery:* The Library, University of London, Burlington Gardens. 6. *Obstetric Medicine and Surgery:* South-East Examination Hall, University of London. 7. *Diseases of Children:* Antiquaries' Society's Meeting Room Burlington House. 8. *Mental Diseases:* The Asiatic Society's Meeting Rooms, Albemarle Street. 9. *Ophthalmology:* Royal Society's Meeting Rooms, Burlington House. 10. *Diseases of the Ear:* The Assembly Room, Royal Academy of Arts, Burlington House. 11. *Diseases of the Skin:* Linnæan Society's Secretary's Room, Burlington House. 12. *Diseases of the Teeth:* Linnæan Society's Meeting Room, Burlington House. 13. *State Medicine:* Royal School of Mines, Jermyn Street. 14. *Military Surgery and Medicine:* The Graduates' Meeting Room, University of London. 15. *Materia Medica and Pharmacology:* Geological Society's Meeting Room, Burlington House. *Museum:* Geological Society's Museum, Burlington House.

The following is the *Daily Programme.*

Tuesday, August 2nd. 10 A.M. to 6 P.M.—Registration of members and issue of tickets at the office of the Reception Committee in the Royal College of Physicians, Pall Mall East. 3 to 6 P.M.—Reception of the members of the Congress by the Executive and Reception Committees at the Royal College of Physicians.

Wednesday, August 3rd. 8 A.M. to 6 P.M.—Registration of members and issue of tickets at the Royal College of Physicians. 11 A.M.—First general meeting, St. James's Great Hall: Address of welcome by the chairman of the Executive Committee; secretary-general's report; election of officers, and constitution of the Congress; election of honorary presidents of the Congress; election of honorary presidents of the Sections; inaugural address by the President of the Congress. 3 P.M.—Meeting of the Sections: Constitution of the Sections; and other business. 9 P.M.—*Conversazione* at South Kensington Museum (entrance Exhibition Road), given by the English members of the Congress to the foreign members.

Thursday, August 4th. 10 A.M. to 1 P.M.—Sectional meetings. 1.30 to 3.30 P.M.—Visits to hospitals: Guy's Hospital, London Hospital, St. George's Hospital, St. Mary's Hospital, St. Thomas's Hospital, Westminster Hospital. 2 to 3.30 P.M.—Additional meeting time for the Sections. 4 to 5.30 P.M.—Second general meeting, theatre of the University of London. 6.30 P.M.—Banquet given to a certain number of the members of the Congress by the Lord Mayor of London, at the Mansion House.

Friday, August 5th. 10 A.M. to 1 P.M.—Sectional meetings. 1.30 to 3.30 P.M.—Visits to hospitals: Bethlem Hospital, Charing Cross Hospital, King's College Hospital, Middlesex Hospital, St. Bartholomew's Hospital, University College Hospital. 2 to 3.30 P.M.—Additional meeting time for the Sections. 4 to 5.30 P.M.—Third general meeting, theatre of the University of London: Address by Dr. Billings, Washington, U.S., on "Our Medical Literature". 9 P.M.—*Conversazione* at the Royal College of Surgeons.

Saturday, August 6th. 10 A.M. to 1 P.M.—Sectional meetings. 4 to 7 P.M.—Reception of a certain number of the members at Kew Gardens by Sir J. D. Hooker. 4 to 7 P.M.—A garden party will be given by Mr. and Mrs. Spencer Wells, at Golder's Hill, Hampstead. 6.30 P.M.—The United Hospitals Club will entertain a party of the members of the Congress at dinner at the Star and Garter, Richmond Hill.

Sunday, August 7th. 10 A.M.—A service will be held in Westminster Abbey; sermon by the Very Rev. Dean Stanley, D.D., F.R.S. 3.15 P.M.—A service will be held in St. Paul's Cathedral; sermon by the Rev. Canon Liddon, D.D., D.C.L. 2 P.M.—The Royal Botanic Society's Gardens, and the Gardens of the Zoological Society, in the Regent's Park, will be open free to members on this, and on every day of the week, on presentation of their tickets. The Royal Gardens at Kew may be visited on Sunday, from 9 A.M. till sunset; and Hampton Court Palace and Gardens from 2 P.M. till sunset.

Monday, August 8th. 10 A.M. to 1 P.M.—Sectional meetings. 2 to 3.30 P.M.—[illegible] Dinner given to a certain number of the foreign members of the Congress by the Worshipful Master and Wardens of the Society of Apothecaries, in their Hall in [illegible] Sanitary Exhibition, South Kensington.

[illegible] —Fifth general meeting, theatre of the University of London. Address by Professor Huxley, F.R.S., D.C.L., London, "The Connection of the Biological Sciences with Medicine". 3 P.M.—Concluding meeting of the Congress.

After the concluding meeting, the members, accompanied by their friends, will proceed to Victoria Station, for High Level Station (London, Chatham, and Dover Railway), where special trains will be in waiting at four o'clock to convey them to the Crystal Palace. After a visit to the Palace and grounds, an informal dinner will take place in the concert room, about seven o'clock. At dusk, the fountains will play during a display of fireworks, which may be viewed by members of the Congress from the Queen's Corridor.

The following places of interest may be visited by members of the Congress, on conditions which can be ascertained at the office of the Reception Committee.

The Hunterian Museum of the Royal College of Surgeons, Lincoln's Inn Fields, 8 A.M. to 5 P.M. The Library of the Royal College of Surgeons, 10 A.M. to 4 P.M. The Library of the Royal Medical and Chirurgical Society, 53, Berners Street, W., 1.30 P.M. to 6 P.M. The Tower of London, 10 A.M. to 4 P.M. The Royal Mint, Tower Hill. The Bank of England. The Royal Botanic Society's Gardens, Regent's Park, 9 A.M. till sunset. The Gardens of the Zoological Society, Regent's Park, 9 A.M. to sunset. The Royal Gardens at Kew, 1 P.M. till sunset. Hampton Court Palace and Gardens, 9 A.M. till sunset. Newgate Prison, Old Bailey. The General Post Office, St. Martin's-le-Grand. The British Museum, Great Russell Street, Bloomsbury, W.C., Monday, Wednesday, and Friday, 10 A.M. to 6 P.M.; Saturday, 12 noon to 8 P.M. The National Gallery, Trafalgar Square, W.C., 10 A.M. to 6 P.M. The South Kensington Museum, S.W., Monday, Tuesday, and Saturday, 10 A.M. to 10 P.M.; Wednesday, Thursday, Friday, 10 A.M. to 6 P.M. The Soane Museum, Lincoln's Inn Fields, W.C., daily, 11 A.M. to 5 P.M. The Dulwich Gallery, Dulwich, S.E., daily, 10 A.M. to 5 P.M. The Natural History Museum, Cromwell Road, South Kensington, S.W., daily, from 10 A.M. to 6 P.M. Stafford House, the residence of the Duke of Sutherland, St. James's, S.W. Apsley House, the residence of the Duke of Wellington, Hyde Park Corner, W. Bridgewater House, the residence of the Earl of Ellesmere. Hertford House, the residence of Sir Richard Wallace, Manchester Square, W. Dudley House, the residence of the Earl of Dudley, Park Lane, W. Dorchester House, the residence of R. S. Holford, Esq., Park Lane, W. Messrs. Barclay and Perkins' Brewery, Southwark, S.E. Messrs. Maudslay's Works, Westminster Bridge Road, S.E., daily, 2 P.M. to 5 P.M., except Saturday. Messrs. Penn's Engine Factory, Greenwich, S.E. Messrs. Siemens' Telegraph Construction Works, Woolwich. The Royal Arsenal, Woolwich. The Docks. Buckingham Palace. Windsor Castle. Hampton Court Palace and Gardens. The Houses of Parliament.

Clubs.—The following clubs are, by the courtesy of the committees, open to such foreign members as shall inscribe their names in the book lying for the purpose at the office of the Reception Committee, at the Royal College of Physicians. German Athenæum, 93, Mortimer Street, W. Hanover Square Club, 4, Hanover Square, W. Société Nationale Française, 20, Bedford Street, W.C.

Excursions.—Friday, August 5th. 12.45 P.M.—Mr. John Penn will receive a certain number of the members of the Congress on board a special steamer at Charing Cross Pier, in order to proceed down the river to Greenwich, and, after luncheon there with Mr. Penn, to visit the engine works of the Messrs. Penn, returning either by water or rail to Charing Cross.

Saturday, August 6th. 2 P.M.—A certain number of members will leave Charing Cross Station by special train, provided free of cost by the South-Eastern Railway Company, to witness the unveiling of the Harvey Memorial Statue at Folkestone. After the ceremony, the Mayor and Corporation of Folkestone will entertain the visitors at a banquet in the Town Hall. 2 P.M.—Under the guidance of Dr. Langdon Down, a party will visit Hampton Court Palace and Gardens, proceeding thence by river to Hampton Wick, where they will be entertained by Dr. Down at a garden party at his residence, Normansfield. The members can reach Hampton Court either by the road, the river, or the rail. A special train will leave Waterloo Station (South-Western Railway) at 2 o'clock.

Sunday, August 7th. 1.30 P.M.—A special train will leave Victoria Station (Brighton and South Coast Railway) for Boxhill, situated in a beautiful part of the county of Surrey. At Burford Lodge, close to the station, Sir Trevor Lawrence, Bart., M.P., will receive a party of the members of the Congress at luncheon. The train will return from Boxhill to London at 6 P.M.

Monday, August 8th. 11 A.M.—Visit to the Docks, under the guidance and hospitality of Sir George Chambers, Chairman of the London, St. Katherine's, and Victoria Dock Company. A limited number of members will proceed to St. Katherine's Dock House on Tower Hill at 11 A.M., where the indigo and tobacco floors will be inspected; and, in the adjoining London Dock, the ivory, drug, spice, and wool floors, and also, the largest wine vault. From the Shadwell Basin, a steamboat will then take the party, for whom Sir George Chambers will provide luncheon on board, down the river to the Victoria Docks. Having passed through the Royal Victoria and Royal Albert Docks, the party will return by the river to Charing Cross Pier.

ZENANA AND MEDICAL MISSION.—The first annual meeting of the Zenana and Medical Mission (Home and Training School for Ladies), was held last week at the National Club, Whitehall-gardens, Mr. C. S. Raikes, C.S.I. (late Commissioner at Lahore), occupying the chair. The object of this society is to train ladies to be missionaries, and at the same time to give them a fair knowledge of medicine. The chairman said that during his residence in India he became intimately acquainted with the sufferings of the women, who numbered in that country 120,000,000, and he found that, owing to the entire ignorance of the Indian nation, all the laws of health were neglected, and the Indian nurses did more harm than good. Major Cooper Gardiner read the financial statement, and Sir Arthur Cotton, Dr. Sinclair Patterson, M.D., and other speakers having addressed the meeting, the report was adopted.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 13th day of July next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, June 16th, 1881.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH.—President for the year, S. O. HABERSHON, M.D.; President-elect for the year, JONATHAN HUTCHINSON, F.R.C.S. The twenty-ninth annual meeting of this Branch will be held at the Crystal Palace on Tuesday, July 12th, 1881, at 4 P.M. Business: 1. Election of new members of the Branch. 2. Report of retiring Council; and Treasurer's Report. 3. At 5 P.M., Address by the new President, Edwin Saunders, Esq. Subject, "Specialism; and the Influence of Medical Science on Modern Civilisation". Dinner at 6.30; Edwin Saunders, Esq., President, in the chair. Tickets 12s. 6d. each (exclusive of wine).—ALEXANDER HENRY, M.D., 132, Highbury Hill, N.; W. CHAPMAN GRIGG, M.D., 6, Curzon Street, W.

MIDLAND BRANCH.—President, T. WRIGHT, Esq., M.D.; President-elect, W. ELGAR BUCK, Esq., M.D. The annual meeting will be held in the Board-Room of the Infirmary, Leicester, on Thursday, July 14th, at 2 P.M. After the transaction of the usual business of the Branch, the following papers will be read and discussed. 1. Ophthalmoscopic Illustrations, with brief Clinical Notes from cases of General Disease, by M. Macdonald McHardy, F.R.C.S.Ed. 2. A Case of Cock's Operation for Impermeable Stricture, by C. H. Marriott, M.D. 3. Experiences of Placenta Prævia, by G. C. Franklin, F.R.C.S. 4. Notes of two recent Ovariotomies with somewhat unusual Features; and 5. Remarks on Colotomy bearing on five cases, by G. Elder, M.D. 6. On the Advantages of the Lateral over the Median Operation for Lithotomy, by G. Pearce, M.D. 7. On Section of the Vascular and Nervous Trunks which attach the Eye to the Brain as a substitute for Enucleation in cases of Sympathetic Ophthalmia, by C. Bell Taylor, M.D. 8. On a mode of using Plaster-of-Paris to secure Immobility of Fractures and Injured Joints—learnt on a visit to Normandy, by Wm. Newman, M.D. 9. Bronchocele, Acute Suppuration of the Gland after Typhoid; and 10. A Case of Traumatic Tetanus, by G. T. Willan, Esq. Dr. Pearce will show a case of Excision of the Elbow-Joint; Mr. Hodges a case of Saemesch's Incision for Hypopyon Ulcer, and one of Inoculation for Corneal Pannus. Messrs. Joseph Wright and Co. will exhibit surgical instruments of the newest patterns; and Messrs. John Richardson and Co., of Leicester, some of their latest improvements in pharmaceutical preparations. Luncheon will be provided by the President-elect at the Infirmary. Dinner at the Royal Hotel, at 5 o'clock.—C. HARRISON, Honorary Secretary Midland Branch.—Lincoln, June 20th, 1881.

WEST SOMERSET BRANCH.—The annual meeting of this Branch will be held at the Taunton and Somerset Hospital, on Thursday, the 21st instant, under the presidency of G. W. Rigden, Esq. The chair will be taken at 2.30 P.M. Business: Minutes; Report of Council; Treasurer's Report; Election of Officers; Place of Meeting and President-elect for 1882; President's Address; Papers and Communications. Dinner at the London Hotel, at 5.30; 5s. 6d. a head, exclusive of wine.—W. M. KELLY, M.D., Honorary Secretary.

[illegible] Branch will be held at Melrose, on July 21st. Members who intend to give communications are requested to intimate to one of the Secretaries.—J. SMITH, M.D., J. KENDALL BURT, M.B., Honorary Secretaries.

[illegible] (Southern Division) will be held at Strathpeffer, Dingwall, on Saturday, July 9th, at 12 noon; Dr. Bruce (Dingwall) President. Members intending to make any communication are requested to make intimation [illegible] to the Secretary, J. W. N[illegible], M.D. Elgin, June 20th, 1881.

[illegible] will be held at [illegible] requested to forward the titles to the undersigned, by the 29th instant.—ALF. SHEEN, Honorary Secretary.—Cardiff, June 3d, 1881.

[illegible]

EDINBURGH BRANCH.

THE annual general meeting was held at 5, St. Andrew Square, on Tuesday, June 28th; Dr. D. WILSON, in the chair.

The ordinary business was transacted, and Drs. Wilson, A. G. Miller, and J. Playfair were elected members of the Council of the Branch in the room of those who [illegible].

Dr. Argyll Robertson gave notice of the following motion, which will come up before the next general meeting: "That, for the future, members of the British Medical Association may join the Edinburgh Branch, on the payment of five shillings; and that no annual contribution be exigible for the Branch membership."

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

THE forty-fifth annual meeting of this Branch was held at Preston, on Wednesday, June 29th.

President's Address.—The President, Dr. R. C. BROWN, delivered an address on the causes of the high mortality of Preston—29 per 1,000.

Report of Council.—The SECRETARY read the annual report of the Council.

"The Council of the Lancashire and Cheshire Branch congratulate the members on the prospect of a most successful meeting on the present occasion, when they again visit Preston, after an interval of eleven years. They regret that Dr. Gilbertson, who was made President-elect at our last annual meeting, found himself compelled by his state of health to resign his office. In consequence of his resignation, the Council requested Dr. R. C. Brown to accept the office; and they have much satisfaction in meeting here under the presidency of one who has been so long known as the local Secretary for this town.

"The Council regret to have to report a very large number of deaths and resignations during the past year. Fifteen have died, thirty-three have resigned or left the district, and two have been struck off the list for non-payment of their subscriptions—in all, fifty. Among the deaths, they regret to mention the names of Messrs. John and Job Harrison of Chester, formerly and for so long a time among the active members of the Branch; and the name of Dr. C. E. Lyster, one of their own number, who was pre-eminent for the constant interest he took in all that concerned the British Medical Association. Against this great gap in our numbers, the following additions to our membership have to be placed. During the year, thirty have been elected members of the Association and Branch, and sixteen who were already members of the Association have joined the Branch, making a total of forty-six, against fifty losses. This brings our membership down from 740 to 736.

"When it is remembered that there are 160 or more members of the Association in the two counties who are not members of this Branch, and that, of the total number of medical practitioners in Lancashire and Cheshire (estimated at over 2,000), there remain considerably more than one-half who have not joined the Association at all, it may be seen how much room there is for increasing our numbers. Such increase can only be expected to take place if the members of the Branch, and especially the office-bearers and members of Council, use their personal influence in persuading others to join; for experience has shown that mere official invitations, however frequently circulated, do not avail much in this direction.

"Though the Council has met frequently during the past twelve months, the members have been entirely occupied during these meetings with the transaction of the ordinary business of the Branch; they have, therefore, no communication to make on any matter of general medical politics. An application was made to them by the editor of a new Liverpool medical journal, for permission to report more fully than has hitherto been done the proceedings at these Branch meetings. The Council, after fully considering the matter, assented to this request, but intimated that their sanction must be considered to be without prejudice to the rights of the authors of the papers, or the publication of the proceedings elsewhere.

"Since our last annual meeting at Manchester, two intermediate meetings of the Branch have been held; the first of these at St. Helen's, last October, at which, owing to the extreme inclemency of the weather, the attendance was small; but in all other respects the meeting was a most successful one. The other meeting was at Crewe, in May. On this occasion, your Council sent an invitation to the Staffordshire Branch to attend, and a large number of members of both Branches were present. All were most hospitably entertained by Mr. Atkinson, and had an opportunity, after the meeting, of visiting the works of the railway company.

"The financial report is highly satisfactory, the subscriptions received during 1880 being £88 7s. 6d., and the expenditure £66 8s. 8d., leaving a balance of nearly £22, which, added to the balance in hand at the beginning of the year (£33), makes a total balance in hand on January 1st, 1881, of £55.

[illegible] 1882 Dr. J. W. [illegible] invitation from the medical profession in Chester that the annual meeting in 1882 should be held in that city, with Dr. McEwen as President. This was agreed to.

[illegible] W. [illegible], M.D., and L. [illegible], M.D. [illegible]

A. Davidson, M.D. *Local Secretaries*—C. E. Glascott, M.D., Manchester; J. Taylor, Esq., Chester; W. Hall, Esq., Lancaster; J. E. Garner, M.B., Preston; H. A. Cheesbrough, M.D., Blackburn.

Members of Council.—The following members were elected by ballot:—*Representatives in General Council*—F. J. Bailey, Esq., Liverpool; G. Barron, M.D., Southport; L. Borchardt, M.D., Manchester; H. Briggs, M.D., Burnley; C. J. Cullingworth, Esq., Manchester; W. Macfie Campbell, M.D., Liverpool; W. Carter, M.D., Liverpool; J. Dreschfeld, M.D., Manchester; J. H. Ewart, Esq., Manchester; J. Farrar, Esq., Morecambe; W. H. Fitzpatrick, M.D., Liverpool; C. E. Glascott, M.D., Manchester; T. R. Glynn, M.D., Liverpool; A. Godson, M.B., Cheadle; J. Harker, M.D., Lancaster; R. Harrison, Esq., Liverpool; J. Howie, M.B., Liverpool; C. Johnson, Esq., Lancaster; L. Jones, M.D., Blackpool; J. Lambert, M.D., Birkenhead; D. J. Leech, M.D., Manchester; D. Little, M.D., Manchester; J. Dixon Mann, M.D., Manchester; H. Colley March, M.D., Rochdale; G. W. Mould, Esq., Cheadle; J. Parks, Esq., Bury; Chauncey Puzey, Esq., Liverpool; E. Rayner, M.D., Stockport; D. Lloyd Roberts, M.D., Manchester; T. L. Rogers, M.D., Rainhill; J. Ross, M.D., Manchester; H. Simpson, M.D., Manchester; C. Thorp, Esq., Todmorden; A. T. H. Waters, M.D., Liverpool; J. W. Watkins, M.D., Newton; C. White, Esq., Warrington; W. Whitehead, Esq., Manchester. *Ordinary Members*—E. Adam, Esq., Liverpool; J. J. Ayre, Esq., Colne; J. A. Ball, M.B., Heaton Norris; R. Caton, M.D., Liverpool; J. Corns, M.D., Oldham; A. Gamgee, M.D., Manchester; J. Haddon, M.D., Eccles: A. Hodgkinson, M.B., Manchester; J. B. Hughes, Esq., Macclesfield; H. R. Ley, Esq., Prestwich; E. Lund, Esq., Manchester; W. Mathews, Esq., Nantwich; M. G. B. Oxley, M.D., Liverpool; Rushton Parker, Esq., Liverpool; W. Pountney, M.B., Lytham; A. Ransome, M.D., Manchester; S. Spratley, M.D., Rockferry; A. W. Stocks, Esq., Salford; G. Thomson, M.D., Oldham; E. Waters, M.D., Chester.

Assistant Financial Secretary.—Dr. Leech proposed that an Assistant Financial Secretary be appointed. It was agreed that Mr. C. E. Steele be appointed Local Secretary for Liverpool, and that he assist the General Secretary in collecting the subscriptions and managing the finances of the Branch.

The Scheme for Combined Investigations.—Dr. Ransome called attention to the scheme for combined investigations proposed by the Committee of Council, and suggested that a committee of the Branch should be formed. Dr. Borchardt advised that no action should be taken at present. The proposal was withdrawn.

The meeting then separated into a Medical Section, with the President; and a Surgical Section, Mr. Lund presiding.

Communications.—The following communications were read.

1. Dr. Grossman: On Ophthalmia Neonatorum, and its Prevention.
2. Dr. Dixon Mann: On Electro-Diagnosis.
3. Mr. W. Whitehead: Case of Excision of Thyroid Gland; and on a New Method of Amputating the Leg.
4. Dr. A. T. H. Waters: An Analysis of a Series of Cases of Pneumonia.
5. Dr. Lloyd Roberts: Piliferous Cyst of the Ovary.
6. Mr. Rushton Parker: Plastic Operations for Extrophy of the Bladder with Epispadias.
7. Mr. Farrar: Case of Simulated Tumour.
8. Dr. Walter: A New Portable Battery, with Uterine Electrode, for Treatment of *Post Partum* Hæmorrhage.
9. Dr. Wallace: Two Typical Cases of Successful Enucleation of Fibroid Tumours of the Uterus.

Dinner, etc.—After the meeting, the members and visitors dined at the Bull Hotel. A large number of the medical profession of Preston and its neighbourhood, not members of the Branch, were present as guests of the President.—Lunch was also provided by the President, before the meeting, for all the members and visitors.

SOUTH MIDLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Anchor Hotel, Newport Pagnell, on Thursday, June 9th, at 2.30 P.M., under the presidency of Mr. H. C. ROGERS, who entertained twenty members previously at his house to a very handsome luncheon. Dr. Buszard, ex-President, introduced Mr. Rogers to the chair, and a vote of thanks was given to the former; and, after reading and signing the minutes of last committee meeting, an able and interesting address was read by the President.

Papers.—The following papers were read:

1. Mr. C. J. Evans read a case of Obstruction of the Bowels with Perforation, lasting five or more days, with strong symptoms of rallying. In the discussion, remarks were made by Drs. Buszard, Bryan, Bower, and Messrs. Harday, Bull, Moxon, and Spurgin, and the President. The principal remedies used were extract of belladonna, fomentations, and enemata.

2. Dr. Arthur Jones read a paper, principally on the use of the Resin of Copaiba as a Diuretic in Cases of Dropsy. It was given in ten-grain doses (with digitalis), particularly in cases of mitral disease of the heart. Remarks were made by Dr. Buszard, who suggested the remedy.

3. Mr. Charles Terry described a case of Sudden Death after Labour without any apparent cause. Remarks were made by Dr. Bryan and Mr. Moxon.

4. Mr. H. Bull described the case of an extensive Hairy Mole nearly covering the abdomen and back of a child. The child was present, and examined by members.

5. Dr. Bower read a paper on the means provided by law for the Non-Pauper Lunatic, and its safeguards.

6. Dr. Buszard read some notes of Pseudo-Hypertrophic Paralysis.

Votes of Thanks.—A vote of thanks to the President was then moved by Dr. BRYAN, seconded by Mr. HARDAY, and carried.—A vote of thanks to the Honorary Secretary, Mr. G. F. Kirby Smith, and to Dr. Bryan, Honorary Treasurer and co-Secretary, as representatives to the Committee of Council, was also carried.

Dinner.—The gentlemen present adjourned at 5.30 P.M. to an excellent dinner.

New Members.—The following gentlemen were admitted as new members, viz.: Mr. Charles Bond, Bedford Infirmary; Mr. Fredk. N. Heygate, Wellingborough; and Mr. F. W. S. Culhane, Priors Marston, Warwickshire—making a total of 102 members to the Branch.

The next Autumnal Meeting is to be held at Leighton Buzzard, in September.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE twenty-seventh annual meeting of this Branch was held at the Grand Hotel on Tuesday, June 28th, under the presidency of Mr. BARTLEET. There were ninety-four members present.

Report of Council.—Dr. MALINS read the report of the Council, which showed that the Branch now consisted of 259 members; 25 had been elected during the past year, 6 had resigned, and 2 had died. Six ordinary meetings had been held during the session, at which the average attendance had been 42. The report of the treasurer showed a balance in hand of £63 7s. 8d.

On the motion of the PRESIDENT, seconded by Dr. FOSTER, the report was adopted; and ten guineas each was voted to the Medical Institute for the purchase of books, and to the Medical Benevolent Society.

President's Address.—The PRESIDENT delivered an inaugural address, which is printed in the *Birmingham Medical Review* for July.

Vote of Thanks.—A vote of thanks was moved by Dr. T. UNDERHILL, and seconded by Mr. CHARLESWORTH HEATH.

Officers.—The following officers were appointed. *President-Elect*—Dr. Dewes, Coventry. *Treasurer*—Mr. A. Oakes. *Secretaries*—Dr. Malins and Dr. Rickards.

Council of the Branch.—County members: Dr. Ager, Henley-in-Arden; Dr. G. F. Bodington, Kingswinford; Mr. F. E. Manby, Wolverhampton; Dr. Monckton, Rugeley; Dr. J. Underhill, West Bromwich; Dr. Tibbits, Warwick; Mr. John Manley, West Bromwich; Mr. C. A. Newnham, Wolverhampton. Town: Dr. Foster, Dr. Johnston, Mr. Lloyd Owen, Dr. Saundby, Dr. Russell, Dr. Savage, Dr. Sawyer, Dr. Wade.

Representatives of the Branch in the General Council of the Association.—Mr. Bartleet, Dr. Bassett, Dr. Dewes, Dr. Foster, Mr. Gamgee, Mr. Greene, Dr. Johnston, Mr. Ker, Mr. F. E. Manby, Mr. John Manley, Mr. Morgan, Mr. Newnham, Mr. Oakes, Mr. Prosser, Dr. Thompson, Dr. Totherich, Dr. T. Underhill, Mr. T. W. Williams.

Dinner.—The members and their friends afterwards dined together to the number of seventy-two, a pleasant evening being spent.

GLASGOW AND WEST OF SCOTLAND BRANCH.

THE annual meeting of this Branch was held in the Faculty Hall, Glasgow, on Friday, the 24th June; Dr. YELLOWLEES, the President, in the chair.

The Report of the Council referred to the institution of a Medico-ethical Committee in connection with the Branch. A constitution for the Committee was submitted and approved, and the members of the Committee nominated by the Council were elected.

The Financial Statement showed that there was £39 of accumulated revenue at the credit of the Branch.

At the election of office-bearers, Professor George Buchanan was chosen President-elect.

At the close of the business, the members drove out to the Royal Asylum, Gartnavel, where Dr. Yellowlees, the President, gave his address. The address dealt with the general subject of insanity, and with its comparative neglect by the profession in past times, which, he said, was mainly due to insanity being deemed a disease of the mind as mind, and therefore beyond the sphere of ordinary medical remedies. He showed that more enlightened views now prevail; and that the derangement is but a symptom of the brain-disorder which underlies it, and which is the essential disease. The various modes in which this brain-disturbance is induced were pointed out, and the various forms of mental disorder which they occasion. He afterwards conducted the members through a portion of the House, and showed many illustrative cases of insanity.

The members were then driven back to town, and sat down to dinner, to the number of twenty-six, in the Bath Hotel. This brought a most interesting and profitable meeting to a close.

CORRESPONDENCE.

THE REPORT OF THE COLLECTIVE INVESTIGATION COMMITTEE.

SIR,—It would be difficult to name an object to which the surplus funds of an Association like ours could be devoted with more propriety, or with likelihood of greater benefit than the one which this Committee have in view. Do the funds permit? is quite another question which does not need to be discussed in the pages of the JOURNAL. I think we need not fear that the Association will be "pledged" to an expenditure which it cannot afford.

"Would it not be better", Dr. Dolan asks, "to leave the solution of the questions mentioned in the concluding portion of the report to private scientific workers?" It is undoubtedly true that "admirable scientific work.....has been done in England by private workers..... stimulated by ambition or love of science"; and that there always will be such workers there is every reason to believe. But the question is, whether it is not possible to improve upon the *status quo*. The problems are numerous and complicated, their solution is urgent, the data must be manifold and must come from widely scattered sources, and, hitherto, the progress of discovery has been painfully slow. The advantage of combined and organised action therefore is beyond a doubt, and private research is almost necessarily casual, fragmentary, limited. Still it may be granted that if the investigator be endowed with a mind of very rare judicial quality, and be generally very well informed, and if, moreover, he can secure the co-operation of a very numerous band of observers in different parts of the country, there is no doubt that, though he might still be called a private worker, the results would probably be much the same as those obtained by a publicly organised Committee. But as a matter of fact, we know that the private investigator is apt to be biassed in his inquiries by preconceived opinions or pet theories, to which perchance he may have already committed himself. Much good work has, no doubt, been done by private workers, but what shall be said about the bad work—the hasty generalisations, the partial views, the false conclusions that have so much retarded the progress of knowledge? It is a mistake, I think, to suppose that private effort will be discouraged by the Committee's scheme. If private effort stands aloof from such an organisation, it will have itself to blame. I am sure it will be no discouragement to many to feel that their labours do not expose them to the risk of personal loss, and hence we may expect that the scheme would actually enlist as workers many who would never spontaneously undertake such systematic observations at all. Moreover, it cannot reasonably be said that the scheme would neutralise the motives of ambition or love of science, or put the attractions of mere filthy lucre in their place. The modest sums proposed to be expended are surely not sufficient to offer much temptation to the sordid, or impair the scientific value of the results. The suggestion made by Dr. Dolan to substitute three money prizes and a medal, is not, I think, a happy one. "All members", he says, "will have a chance of distinguishing themselves." True, but if we divide the total number of members (about 8,000) by three, the chance, I fear, will not be found to be encouraging. But the object of combined investigation is not to gratify personal vanity or ambition, but to discover truth; nevertheless, we need not fear that really good work will fail of recognition, and the workers worthy of reward will certainly be more than three.

The [illegible] the appointment of the working Committee are not, I think, of any weight. It need not be a large one, for as Dr. Dolan justly observes, the work would probably fall upon a very few, and especially upon the secretary. Neither is it needful to exclude provincial medical men from the Committee, on account of the expense of time or money. I presume there would be no necessity to meet more frequently than once a year, the bulk of the work would surely be done with less palaver and better result by correspondence through the post than by many conferences *in propriâ personâ*. If it should be found therefore that the sum considered necessary by the Committee cannot be spared; it may be worth consideration whether a smaller sum might not suffice.

One point in connection with this subject of Collective Investigation appears to have been overlooked. The Committee have remarked that "to combine a number of men in the systematic and careful observation and record of facts, is difficult under any circumstances, and especially so in the case of medical men whose irregular and harassing avocations necessarily disincline them to enter upon and continue a labour of this kind". This is perfectly true; but, I venture to think that it is not only because his avocations are irregular and harassing that the medical man is disinclined to take a part in such investigations. It is also because such work appears to him to have no immediate bearing on his daily duties, and he therefore feels that it is not his business; and seeing he is merely employed and paid to treat disease, he cannot feel much interest in its prevention.

In my letter on "General Practitioners and Preventive Medicine" in the JOURNAL of November 13th, 1880, I recommended for adoption a scheme, which by the simplest means would place a practitioner in such a relation to the public that it would be to his interest to further in every way the discovery of truth that has any bearing on prevention. Any one who wishes to know how this desirable result can be obtained will find the information in that letter together with these words: "To employ him in the manner I have indicated would stimulate him to investigation and reflection. Much in this department (the causation of disease) would be observed and noted, that now escapes detection; every practitioner would be encouraged to contribute data, and if this were done under an organised system, which would then become as easy as it is at present difficult, those generalisations that are now wanting in the science of causation would be arrived at with more certainty and speed, and the art of prevention would undergo a correspondingly rapid development".

Under the system which I have described in that letter and elsewhere, and which I am now striving to establish as far as it is applicable, the practitioner's work would soon become more regular and less harassing; and not only so, for nothing I can think of could so pave the way to an easy and effective system of combined observation.

The report of the Committee already referred to makes mention of nine suitable subjects for investigation, and of these all but one have a more or less direct connection with the prevention of disease. Especially useful however would be the "records of the medical life-history of patients, including the sequelæ of various diseases", and these under the system I propose, would be regularly kept as a matter of routine by the medical practitioner. Combined observation is a simple and feasible thing under such a system of medical practice as that which I am advocating.

W. F. PHILLIPS.

St. Mary Bourne, Andover, Hants, July 4th, 1881.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—[illegible]

Superannuation of Poor-law [illegible]. Mr. [illegible] asked the President of the Local Government Board whether his attention had been called to the anomalous condition of the existing law and practice relative to the superannuation of Poor-law officers, by recent cases which had occurred in the two adjacent unions of Farnham and Alton, a superannuation allowance having been granted in the former union, and refused in the latter to an officer of advanced age and long service; and whether he had it in contemplation to propose an amendment of the law with a view to greater uniformity in future.—Mr. DODSON: My attention has been called to these two cases, and I cannot but regret that they were not dealt with by the guardians of the two unions on the same favourable principle; but, as the right hon. gentleman is aware, the grant of superannuation allowance is entirely within the discretion of the guardians, the Board having no jurisdiction to require them to grant a superannuation in any case; and it would be a matter requiring very serious consideration, to undertake to propose any amendment in the law which would deprive the guardians of their discretionary power.

Tuesday, July 5th.

The Census.—Lord CARRINGTON, in laying the preliminary report of the census of England and Wales on the table, said—The Census Act requires that the preliminary abstract of the census taken on the 4th of April last should be laid before Parliament within three months after the 1st of June. It is satisfactory that the Registrar-General has been able to complete this abstract at so early a date. This is not the time to go into particulars, but it may be interesting to know that the total population of England and Wales is now 25,968,286, being an increase since 1871 of 3,256,020. The rate of increase was higher than in any decennium since 1831-41. The birth-rate was unusually high, whilst the death-rate was still more unusually low. The higher birth-rate in 1871-81, as compared with 1861-71, implies the addition of 26,774 persons beyond the number according to the previous rate; whilst the lower death-rate implies that 299,385 persons survived, who, according to the previous rate, would have died—a result which seems to show that modern sanitary legislation has produced useful and important effects. It may be added that the population of the metropolis is now 3,814,571, showing an increase of 560,311; whilst the population of the City of London, has decreased by 24,414.

The Deaths from Sunstroke at Aldershot.—The Earl of CAMPERDOWN asked the Under-Secretary of State for War as to a statement appearing in the morning papers that at the review at Aldershot, two men died from the effects of the heat, while two more are not expected to survive, and a number of others were admitted to the military hospitals suffering from the effects of the heat. He would be glad to hear any facts with regard to the matter, and any explanation of how it was that the troops were exposed several hours to the greatest heat of the day.—The Earl of MORLEY: I regret to say that a certain number of the men who took part in the review at Aldershot yesterday, were admitted to the hospital suffering from the extreme heat. I regret to add that of these men no less than four have since died. On this sad occurrence becoming known to the Secretary of State, he at once telegraphed to the officer commanding at Aldershot, but at present we have not such full information as we should like, and if my noble friend will renew his question on Thursday, I may be able to add something. —The Duke of CAMBRIDGE: I was actually present at Aldershot yesterday, and I had no idea that anything of the kind had occurred. I was so astonished when I heard it, that I did not believe a word of it. When I came back from Aldershot, everybody said, "What a dreadful day you have had". I said, "No; it was warm, but not unpleasantly warm". I asked my staff, who gave the same answer. It certainly was a very hot day, but there was a very fair breeze on the hill, and it only became unpleasantly warm as I came towards London. I have certainly been out on a much hotter day, and I can assure your lordships that there was nothing unusual; and as for falling out, I never saw so few men fall out on a field-day. There was no review at all; it was a simple field-day. The troops were all ready to advance when they arrived, and the whole affair was over in a short time; there was no standing in the sun for a long period. The troops only marched past on their way home, and did not even come round again. I never was so surprised in my life; and I do not see how these accidents are to be prevented.

Vaccination.—Mr. BURT asked the President of the Local Government Board if he would be good enough to state whether a person who had been once fined under section 31 of the Vaccination Act of 1867 was liable to be again fined within twelve months under the same order; whether the magistrates had power to grant as many fresh orders as might be demanded by the local guardians; and, whether there was any analogy in other statutes for a repetition of fines under the same magistrate's order, or for a repetition of identical orders for an identical purpose, such repetition of fines or orders not being specially provided for by the statute.—Mr. DODSON: A person who has been once fined under section 31 of the Vaccination Act of 1867 is not liable to be again fined within twelve months under the same order; but the magistrates have power, when one order has not been complied with, to make a fresh order, and so on from time to time, on the application of the guardian. The Local Government Board have, however, frequently pointed out the expediency of discretion in the exercise of prosecutions thus repeated. It is not correct to say that the fines are repeated under the same magistrate's order, as a fresh order must be made before a second fine can be imposed; and the orders are not identical, as a fresh time is prescribed for the performance of the operation in each case.

THE appointment of a successor to Professor Heschl in the Chair of Pathology in Vienna is exciting much attention in professional circles. The name of Dr. Klebs is prominently put forward; and there can be no doubt that he would be a valuable acquisition to the University.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE PLOMESGATE POOR-LAW GUARDIANS AND THE MEDICAL OFFICER OF ALDEBURGH.

IT will be remembered that, in our issue of May 21st, we drew attention to the refusal of the Board of Guardians of the Plomesgate Union to pay a fee to Mr. Hill, the district medical officer at Aldeburgh, for amputating the leg of a lad who had sustained serious injury, and to whose case he had been called on the urgent order of an overseer; and to the correspondence which had taken place between Mr. Hill, the Board of Guardians, and the Local Government Board thereon; and we suggested that a question should be asked in the House as to the correctness of the allegations contained in the statement supplied to us, on which our annotation was founded. Our article coming under the notice of Mr. Firth, M.P. for Chelsea, that gentleman, on Thursday, the 23rd ult., put to Mr. Dodson a series of questions, which elicited from the President the accuracy of our information. Mr. Firth's question has led to the happy result, that both boards have altered their tone, and we now learn that the Plomesgate board have been prevailed on to pay. We congratulate Mr. Hill, that he will be now remunerated for his services, though he is mulcted in some costs, for his solicitor's charges. We, however, congratulate the service still more, because Mr. Hill has, by his determination not to submit to his board's injustice, secured an authoritative decision on the validity of overseers' orders.

Had Mr. Hill been compelled to take legal action against the Plomesgate Board of Guardians, his expenses would have been met by the Council of the Poor-law Medical Officers' Association, who had written to and guaranteed him his outlay; for the Council felt that his case, apart from its obvious injustice, was a crucial one, and if decided favourably would settle several questions, where the parsimony and unfairness of boards of guardians had operated to the serious prejudice of the service.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

CHELTENHAM.—In this borough, the general birth-rate for 1880 was 23.9 per 1,000, whilst the total number of deaths was 886; 48 cases, however, being those of persons who came to the town or its public institutions with their fatal diseases upon them. This reduces the total mortality to 838, equal to a death-rate of 18.6 per 1,000. Of these deaths, 63 were from zymotic diseases (44 from diarrhœa), and 72 from tubercular disease. The deaths among young children were somewhat large, 230 infants dying under one year, and 300 under five years of age. In alluding to the prevalence of infantile diarrhœa, Dr. Wright expresses an opinion that, from independent observations made last summer, he is convinced that "the meteorological conditions, and the varied electrical state of the atmosphere, over which man possesses no control, have had much to do with its production". The causes of 25 deaths are not specified, or are ill-defined—a circumstance which might be remedied if strict attention were paid to the true cause of death, and the name given in the nosology adopted by the Registrar-General used for the certificate. An interesting chapter is given on the value of the Delancey Fever Hospital for the isolation of infectious cases; and a spirited appeal is made for an annual contribution towards its maintenance—an appeal, in view of the real value of the hospital to the borough, we trust that the Council will accede to without question.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL DEPARTMENT.

SURGEON-MAJOR W. Crisp, late on half-pay, died at Aix-les-Bains, in Savoy, on the 14th June from the effects of an accident. He joined the Army in August, 1858, and was promoted to the rank of surgeon-major on the 1st April, 1873.—Surgeons G. M. Russell, M.D.; T. Dorman, M.D.; E. H. Myles, M.B.; and D. Williams, M.D., have passed the lower standard in Hindostance.—Surgeons-Major P. Murtagh and T. W. Jackson, having returned from field service in South Afghanistan, have been appointed to the Poona Circle.—Surgeon-Major J. D. Edge has been granted leave of absence to England for six months on private affairs.—Surgeon-Major J. Walker, M.B., has taken up duty at Gosport from Portsmouth.—Surgeon J. Martin has been transferred to Queens-

town for duty from Futtevant.—Surgeon A. H. Anthouisz, M.B., has left Newcastle-on-Tyne for Preston for duty there.—Surgeon W. B. Miller, M.B., has left Perth for Aberdeen for duty at that station.—Surgeon T. J. Gallwey, M.D., has assumed duty at Dover on transfer from Aldershot.—Surgeon-Major W. J. Campbell has been appointed to Woolwich for duty.

THE LAHORE MEDICAL SCHOOL.—The Lahore Medical School, says the *Indian Medical Gazette*, is, to judge from the Report of the year 1879-80, rendering excellent service in training native youths of the North-Western Provinces and Punjab for the medical profession. The English class numbered 68, of whom 48 remained at the close of the session. Eleven completed their five years of study, passed their final examination and entered the service of Government as assistant-surgeons. The Hindustani class numbered 140, of whom 90 remained; 21 were passed out after having been examined and found qualified. Fifteen of the recently-passed assistant-surgeons on the Punjab establishment volunteered for special duty with the Cabul forces, and did good service in base hospitals, and on the several lines of communication. Four women who attended lectures on midwifery for three years, passed a final examination in that subject with credit.

THE NAVAL MEDICAL SERVICE.

SIR,—With regard to the Naval Medical Warrant issued by you, in your comments on it in the issue of the 2nd instant, you have, well said, that several points are truly intricate; and as it is well that intending aspirants to our service should view matters in their true light, allow me to call your attention, and theirs, to one portion, which may not have been noticed, but is, nevertheless, of the greatest importance.

Under the head of Promotion, paragraph (*a*), the rank of fleet-surgeon will be granted to staff-surgeons on completion of twenty years' full-pay service, subject to certain conditions, provision being made under the same paragraph (*b*) for a few special promotions. Then, on turning to paragraph 12, it will be seen that a fleet-surgeon may retire after twenty years' service (including proportion of half-pay time) on £1 sterling; *pro diem*, to obtain which rate the rank of fleet-surgeon must be held. Now this is calculated to mislead; for supposing, for instance, an officer has nineteen years' and ten months' service and six months' half-pay time, and wishes to retire, he cannot obtain the retirement of £1 *per diem*, as he will not have attained the qualifying rank under [illegible] of the lucky few promoted under clause 4 (*b*), though it is distinctly stated in the scale of retirement after twenty years' service ("including proportion of half-pay time"), which in this instance would be two months, so that, practically, no half-pay time can be counted for retirement till the rank of fleet-surgeon is reached, owing to those seemingly insignificant words at the foot of the scale for retirement "to obtain this rate, an officer must hold the commission of fleet-surgeon." I am, etc.,

A NAVAL MEDICAL OFFICER.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 4th instant, and when eligible will be admitted to the pass examination.

Messrs. Granville Jameson, and Fitzgerald U. Anderson, students of the Edinburgh School; H. St. John Tredinnick, and George R. M. Graham, of the Dublin School; Thomas G. Lyons, [illegible] Hospital; Thomas R. Dippnis, of Kingston, Canada; Richard R. West, of the Aberdeen School; Rankine Davidson, of Stoke's Cottages; Muwanji D. Kanekar, of the Bombay School; Victor L. Stallibrass, of the Leeds School, and Herbert Whyte, of Guy's Hospital.

Seventeen candidates were rejected.

The following gentlemen passed on the 5th instant.

Messrs. Ernest Annacher, H. E. Hamerton Matthews, Septimus Palmer, J. McFarlane Clarke, and William Carmichael, of the Manchester School; William H. Dutton, and Arthur W. Hare, of the Edinburgh School; Alfred Fisher, and Frederick Mercer, of the Liverpool School; William J. Tilley, and Alfred Hanson, of University College; William M. Buxton, of the Newcastle School; Albert Smith, of St. Thomas's Hospital; George A. T. Walton, and Robert W. Quennell, of St. Bartholomew's Hospital; Allan Percy, of the London Hospital; and Edwin C. Garman, of the Birmingham School.

Twelve candidates were rejected.

The following gentlemen passed on the 6th instant.

Messrs. John L. Parkinson, and George H. Hewett, students of the Newcastle School; Walter Hurst, and William F. Dearden, of the Manchester School; George F. Stericker, and Robert Smailes, of the Leeds School; Alfred P. Rainford, and Herbert J. Hillyard, of Guy's Hospital; Robert Beattie, of the Belfast and Galway Schools; Horace Hodgson, of St. Thomas's Hospital; Robert P. Wilde, of the Liverpool School; John Jenkins, of the Bristol School; and Thomas J. G. Whitmarsh, of the Birmingham School.

Twelve candidates were rejected.

UNIVERSITY OF DURHAM.—At the Final Examination for the Degrees in Medicine, concluded on June 24th, the following candidates satisfied the Examiners.

Degree of Doctor in Medicine and Master in Surgery.—Fifth Division: Henry [illegible], Andrew Dean, L.R.C.S.; Edgar Cumming Lovell, B.Sc.Lond., M.R.C.S., L.S.A.; Charles Orton, M.R.C.P.Ed., M.R.C.S., L.S.A., Thomas Sorma Reed, M.R.C.S., L.S.A.

Degree of Doctor in Medicine.—Hugh Torrington Bowman, M.B., M.S., M.R.C.S.; John Richard [illegible], M.B., M.R.C.S.; Stafford [illegible], M.B., M.R.C.S.; Sydney Kyle [illegible], M.B., M.R.C.S.; William [illegible], M.B., F.R.C.S.Edin., L.R.C.P.; William Edwin Wilkinson, M.B., M.R.C.S., L.S.A.

Degree of Bachelor in Medicine.—Henry Hall Austin, M.R.C.S.; [illegible] Baker; Francis Hodgson [illegible], M.R.C.S.; Herbert Alfred Clowes, M.R.C.S.; Charles Couper Cripps, M.R.C.S.; Frederick William East, L.S.A.; William Henry Kempster; William Adam Kennedy, L.R.C.P., M.R.C.S.; Edwin Longstaff Prowde, M.A.Cantab; William Robinson; William Harvey Smith, M.R.C.S.; George James Crawford Thomson; Basil Woodd Walker, L.R.C.P., M.R.C.S.

Degree of Master in Surgery.—Henry Hall Austin, M.R.C.S.; Herbert Alfred Clowes, M.R.C.S.; Charles Couper Cripps, M.R.C.S.; William Robinson.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on 23rd and 30th June, 1881.

Clark, William, Wotten, Gloucester.
Inger, John William, Nottingham.
Kilham, Charles Speight, Millhouse, near Sheffield.
Pike, Charles James, Hobart, Tasmania.

At the recent examination for the prizes in botany, given annually by the Society to medical students, the gold medal has been awarded to James Rocheid Forrest, of St. Bartholomew's Hospital, and the silver medal to William Ayton Gostling, of University College, London.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BRADFORD INFIRMARY—[illegible] Salary, £—.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum. Applications by July 23rd.

CHARING CROSS HOSPITAL MEDICAL SCHOOL—Lecturer on Comparative Anatomy. Applications to Francis Hird, Dean, Agar Street, Strand, by July 16th.

CHARING CROSS HOSPITAL MEDICAL SCHOOL—Teacher of Practical Physiology. Applications by July 13th.

COUNTY INFIRMARY, Stafford—Honorary Physician—Applications by the 20th July.

DARLINGTON HOSPITAL—Assistant House-Surgeon. Salary, £100 per annum. Applications to Charles I'Anson, Esq., Fairfield, Darlington.

DEWSBURY AND DISTRICT GENERAL INFIRMARY AND DISPENSARY—House-Surgeon. Salary, £— per annum. Applications to C. Jabbs, Secretary, Dewsbury.

DONCASTER INFIRMARY—Assistant House-Surgeon and Dispenser. Applications to the House-Surgeon.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Shadwell, E.—Resident Medical Officer. Salary, £60 per annum. Applications by July 11th.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—House-Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teacher of Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, and Mental Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

HAVERSTOCK HILL AND MALDEN ROAD PROVIDENT DISPENSARY—Resident Dispenser. Salary, £80 per annum. Applications to the Honorary Secretary, 132, Malden Road, N.W.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistant. Applications by 9th July.

HOSPITAL FOR WOMEN, Soho Square, W.—House-Physician. Salary, £75 per annum, with board and residence. Applications, by July 19th, to the Secretary.

KENSINGTON WORKHOUSE INFIRMARY—Dispenser. Salary, £— per annum. Applications by July 20th.

KILKENNY UNION—Medical Officer for Tiscoffin Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 18th instant.

KILMALLOCK UNION—Apothecary for Charleville Dispensary District. Salary, £35 per annum. Election on the 16th instant.

LEEK FRIENDLY PROVIDENT DISPENSARY—Assistant Medical Officer and Dispenser. Applications, with carte, to W. Bull, Secretary, 12, King Street, Leek, Staffordshire.

LONDON HOSPITAL MEDICAL COLLEGE, Turner Street, Mile End, E.—Curator's Assistant and Librarian. Salary, £— per [illegible]. Applications by 14th instant.

MASON SCIENCE COLLEGE, Birmingham—Assistant Lecturer on Chemistry. Applications to be before the 15th July.

NEWTON ABBOT UNION—Medical Officer and Public Vaccinator. Salary, £— per annum. Applications by July 12th.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-upon-Trent—Assistant Surgeon. Salary, £— per annum. Applications by August 1st.

OMAGH UNION—Medical Officer for No. 4 District, Carnteel Dispensary Division, exclusive of vaccination fees. Election on the 18th instant.

OWENS COLLEGE, Manchester—Lecturer in Mental Diseases and Forensic Medicine. Applications to the Registrar by the 20th July.

ROCHDALE INFIRMARY—House-Surgeon. Salary, £— per annum. Applications to Mr A. Molesworth, Spotland, Rochdale.

SOMERSET AND BATH LUNATIC ASYLUM, Wells.—Medical Superintendent. Salary, £[illegible] per annum. Applications by [illegible].

SOUTH DUBLIN UNION.—Medical Officer. Salary, £[illegible] per annum, with vaccination fees. Election on the 12th instant.

STAFFORD GENERAL INFIRMARY.—House Physician. Applications by July 20th.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY.—House Surgeon. Salary, £[illegible] per annum. Applications by 8th August.

UPTON-ON-SEVERN UNION.—Medical Officer. Salary, £[illegible] per annum, with [illegible].

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Dental Surgeon. Applications by July 9th.

WORCESTER AND MALVERN UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Salary, £[illegible] per annum. Applications to Mr. A. Jones, 17, Lowesmoor, Worcester.

MEDICAL APPOINTMENTS.

AMOORE, John S., L.D.S.Eng, appointed House-Surgeon to the National Dental Hospital, 149, Great Portland Street, *vice* R. D. Ashby, L.D.S.Eng.

G[illegible], W. H[illegible], appointed Demonstrator in the Physiological Laboratory of Owens College.

G[illegible], Charles, M.D., appointed House-Surgeon to the Bristol Infirmary and Dispensary, *vice* Alfred Golland, M.R.C.S., resigned.

GORSUCH, R. G., M.R.C.S., re-elected Medical Officer of Health to the Newton Heath District, Newton Heath, Manchester.

LLOYD, Jordan, F.R.C.S.Eng., M.B., elected Casualty Surgeon to the Queen's Hospital, Birmingham, *vice* Bennett May, L.R.C.S., appointed Surgeon.

MACKINLAY, J. G., L.R.C.P.Lond., M.R.C.S.Eng., appointed Ophthalmic Surgeon to the Royal Free Hospital, *vice* C. A. Critchett, resigned.

MCLEAN, Chas. A., M.B., appointed House-Surgeon to the Bootle Borough Hospital, *vice* H. E. Wright, L.R.C.P.Ed., resigned.

ROSS, David, M.D., appointed Medical Officer to the Portree Parish, Isle of Skye, *vice* Daniel Carmichael, M.B., resigned.

ROWLEY, Charles, M.R.C.S., appointed Public Vaccinator to the Penistone Union, Sheffield, *vice* Wm. Gruggen, L.K.Q.C.P., resigned.

THOMSON, John, M.D., appointed Assistant Medical Officer and Dispenser to the Lambeth Infirmary, *vice* J. E. Lynch, L.K.Q.C.P.I., resigned.

WILLIAMS, J. Alexander, M.B., C.M., appointed House-Physician to the London Hospital, *vice* A. Rice Oxley, B.A.(Oxon.), M.R.C.S.E., L.S.A.L., whose term of office has expired.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

NAPIER.—On July 2nd, at Strathwye, Tiverton, Cheltenham, the wife of J. W. A. Napier, M.P., C.M., [illegible].

MARRIAGE.

WATHEN—[illegible].—On the 5th inst., at Stoke Bishop Church, near Bristol, by the Rev. D. Claxton, John Hancocke Wathen, L.R.C.P.E., of Coburg Villa, Clifton, eldest son of William Dean Wathen, Esq., M.R.C.S., of Fishguard, Pembrokeshire, to Edith Mary, eldest daughter of Alderman George William Edwards, of Sea Walls, Stoke Bishop, near Bristol.

DEATH.

ALFORD.—On the 5th instant at 61, Haverstock Hill, N.W., from injuries received on the Midland Railway, Stephen Shute Alford, F.R.C.S., aged 60. American papers please copy.

PUBLIC HEALTH.—The annual rate of mortality last week, which was the twenty-sixth week of this year, in twenty of the largest English towns, averaged 19.5 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Plymouth 13, Salford 13, Hull 14, Nottingham 16, Sheffield 16, Birmingham 17, Sunderland 18, Norwich 18, Wolverhampton 18, Manchester 18, Brighton 18, Bristol 18, London 19, Portsmouth 19, Newcastle-on-Tyne 20, Leeds 21, Leicester 22, Bradford 22, Oldham 24, and Liverpool 25. Measles showed the largest proportional fatality in Liverpool and Bristol; scarlet fever in Leicester and Nottingham; and whooping-cough in Birmingham, Leicester, and Portsmouth. The 24 deaths from diphtheria in the twenty towns included 18 in London, 3 in Liverpool, and 2 in Portsmouth. Small-pox caused 56 more deaths in London and its outer ring of suburban districts, 5 in Liverpool, one in Brighton, one in Oldham, and not one in any of the sixteen other large provincial towns. In London, 2,486 births and 1,440 deaths were registered. The deaths exceeded the average by 42, and gave an annual death-rate of 19.6. The 1,440 deaths included 52 from small-pox, 64 from measles, 35 from scarlet fever, 18 from diphtheria, 43 from whooping-cough, 2 from typhus fever, 8 from enteric fever, 2 from ill-defined forms of continued fever, 72 from diarrhœa, 2 from simple cholera, and not one from dysentery; thus, 298 deaths were referred to these diseases, being 41 above the average. The deaths referred to diseases of the respiratory organs, which had been 225 and 210 in the two preceding weeks, further declined to 181 last week, and were 7 below the average; 83 were attributed to bronchitis, and 71 to pneumonia. Different forms of violence caused 56 deaths; 47 were the result of negligence or accident, among which were 21 from fractures and contusions, 2 from burns and scalds, 9 from drowning, and 0 of infants under one year of age from suffocation. Eight cases of suicide were registered. At Greenwich, the mean temperature of the air was 61.9°, and 0.1° above the average. The mean degree of humidity of the air was 68, complete saturation being represented by 100. The general direction of the wind was westerly, and the horizontal movement of the air averaged 9.0 miles per hour, which was 1.4 below the average. Rain fell on one day of the week, to the amount of 0.01 of an inch. The duration of registered bright sunshine in the week was equal to 43 per cent. of its possible duration. The [illegible] showed a marked excess on Monday and Friday.

HEALTH OF FOREIGN CITIES.—The following facts, indicative of the recent health and sanitary condition of various foreign and colonial cities, are derived from a table published in the Registrar-General's last weekly return. In the three principal Indian cities, the annual death-rate, according to the most recently available weekly returns, averaged 33.2, and was equal to 22.2 in Calcutta, 36.4 in Bombay, and 39.4 in Madras. Cholera caused 19 deaths in Calcutta, showing a considerable decline from the numbers in recent weeks; and the 301 deaths in Madras included 53 from small-pox, and 60 from fever. The rate in Alexandria was equal to 33.8, and no fatal cases of small-pox were reported. According to the most recent weekly returns, the annual death-rate in twenty European cities averaged 30.7 per 1,000 of their aggregate population, showing the usual marked excess upon the average annual rate in twenty of the largest English towns, which during last week did not exceed 19.5. The rate in St. Petersburg was so high as 61.4, and showed but a slight further decline from the excessive rates in recent weeks; the fatal cases of typhus and typhoid fever were 133, against 153 and 133 in the two previous weeks. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 24.8; the rate in Copenhagen was, however, equal to 26.2, and four fatal cases of scarlet fever were recorded. The Paris death-rate was equal to 26.8, showing an increase upon the rate in the previous week; the deaths included 23 fatal cases of small-pox, 38 of typhoid fever, and 46 of diphtheria and croup. In Brussels, the death-rate was only 20.7, and in Geneva not more than 17.5; measles caused 4 deaths in Brussels. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates averaged only 19.4, and ranged from 16.3 in the Hague to 21.8 in Amsterdam. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 31.3; the lowest rates in these towns were 22.4 and 23.9 in Dresden and Hamburg, and the highest 31.6 in Vienna and 33.0 in Buda-Pesth. Small-pox caused 15 deaths in Vienna, and 4 in Buda-Pesth; 8 deaths were referred to typhus in Buda-Pesth, and 4 in Hamburg. The death-rate averaged 30.8 in the four Italian cities contributing to the table, and was equal to 27.7 and 39.5 respectively in Turin and Naples; measles showed fatal prevalence in Naples, and diphtheria in Turin. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 22.0, and ranged from 17.3 in Brooklyn, to 27.3 in New York. Small-pox caused 29 deaths in Philadelphia, and 15 in New York; and diphtheria showed fatal prevalence in Brooklyn and Baltimore.

THE ANATOMICAL SEAT OF THE FUNGUS IN TINEA TONSURANS.—Dr. A. R. Robinson, in a paper (*New York Medical Journal*, March, 1881), on this topic, gives the results of his studies for the past two years. In one case he excised a portion of skin, in such a way that part was affected by the disease, and part was normal skin. On studying sections, the fungus, consisting of spores and mycelia, the former more abundant than the latter, was found to be lodged in some cases in the upper, in some, in the lower layers. In the stratum corneum the greatest number was observed, where this structure surrounds the hair, and forms parts of the internal root sheath, that is, from the neck of the hair to the free surface. In the rete Malpighii both spores and mycelial threads were present. The spores were either isolated, in groups or in rows. Rarely more than five or six were found in any group or row. In the corium, the spores varied in quantity, but were disposed in the same general way already described. Their shapes were either round or cylindrical. In the subcutaneous tissue the spores were also found in great number, surrounding empty hair follicles, in fact they were as plentiful as in the corneous layer. Dr. Robinson would conclude that the anatomical seat of the fungus in this disorder, differs in different cases. It may be seated only in the corneous layer and hair-shaft, or may extend into the subcutaneous tissue. Where a large number of hairs fall out entire, the fungus is seated deeper than when the hair is only stubbed.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names, of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

AN "Indignant Member" should bring the matter under the notice of the Council of his Branch, who are the proper parties to deal with it in the first instance.

M[illegible] E[illegible].

SIR,—In your JOURNAL some time since, you recommended a medical botany. Would you be good enough to let me know which it was, as I want good plates, and the uses of the plants now explained; in fact, a botany on medicinal plant only. Apologising for the trouble I have given you, etc., A

*** Bentley and Trimen's Medicinal Plants. Four volumes. J. and A. Churchill. Price 11 guineas.

THE STATUS MEDICUS.

SIR,—Every one agrees with the quotation from the Latin Grammar to the effect that "To have learnt the liberal arts (or possibly scholarship) faithfully, softens the manners, nor suffers them to be brutal". When that was written, such was perhaps possible; now it is not, for the arts and sciences are too numerous. In my opinion, the difference in the degree and sort of education allowed by the existence of the nineteen licensing and examining corporations is, in its tendencies, good and useful; for some persons may have a good aptitude for the medical profession, but unwilling or unable from some cause, such as weak health, to undergo the course of study required by the curriculum of the most exacting of the corporations—for instance, of the University of London, or of such as may perhaps be the [illegible] aptitude and the mental ability and bodily health to undergo the study and ordeal. Such persons are, of course, in every way qualified. Each might choose according to circumstances those one or two or more licences or degrees which would best suit their minds and inclinations.

Rules which would exclude a medical Stephenson, the two Hunters, or Sir Astley Cooper, from the profession, or would have thrown any difficulties in their way, could not be good. I do not, of course, know exactly what figure these gentlemen might have made had they sighted the "preliminary", but I think that they might have "fought shy of it". Preliminary education might be all that could be desired when attainable, and certainly I consider apprenticeship at the usual time is most useful; certainly not after obtaining the qualifications to practise.

Botany [illegible] of weak health may like and use nature's endowments better than merely human acquirements. Who pretends to affirm that the learned medical men of to-day occupy really a higher or more useful position than the quite as really learned elder practitioners? The "One Portal System" may, perhaps, be comparable to the co-operative stores as opposed to the [illegible] competition. Over the doors of the one portal system might be written, if not in the vulgar, yet in some known language, "wholesale, retail, and for exportation". No doubt in this case, although the school and hospital education would be as costly as now, the licence would be granted on the easiest possible monetary terms; and, although this cheapness would no doubt be consistent with a good article—and I do not imagine that any quality proverbially associated in idea with cheapness would pertain to it—yet I think that we should really miss the wholesome rivalry of the nineteen examining bodies, which might advantageously still continue. Now, or lately, or formerly, everyone had his own place—whether as teacher or student; his own hall, or college, or university; every student and practitioner his own Alma Mater. Each and all, from rivalry and excusable pride of possession, anxious to do their best. If such as this was not in every way or at all times the case, yet it might be so with former or existing arrangements; for I believe that the improvement in medical education, and the security for a good one, will more likely come from the culture of ethics, and the nurture of such sentiments, and the imbibing of such principles, and the line of such studies, as those of the Rev. Dr. Isaac Watts on the Mind, of Watts's Logic, and of Christianity, which is the Divine development of the human mind. Fitness for any profession is as much or more a matter of natural aptitude, and gentlemanly and human, and humane and Christian feeling, as of what is usually meant by education. Our Saviour's declaration, "That is the true light which lighteth every man who cometh into the world", may be extended from Divine things and heavenly hopes to mental endowments and worldly aptitudes.

I think it is not certain that many work better for a very first-rate or superior education, unless those of very robust health and vigorous constitutions. These may do so; not so they who are too much weakened by their studies. A highly educated man will very likely, on occasions of urgent necessity or danger, or in cases where he can be of chivalrous help, exert all his powers, and do wonders. There are, no doubt, many such cases; but in very few of such learned people will the exertions be life-long, or even very continuous. Undoubtedly the learned often are much stirred by the recollection of old worthy examples, and of both mythical and of real achievements.

None will seriously say, on consideration, that the nationality of any genuine degree [illegible] tions on this subject are complete; but they express my own opinions, and I hope that many people have similar views on the subject of medical education and [illegible] dency—if not the downward one—nor convert the very if not too learned sceptic as to the good of the development of old institutions, and the manifold dangers which I think I see in the contemplated new ones. People, not excluding professors, [illegible] the examinations which may more easily be bestowed by the professors and teachers of a more limited standard, such as now aggregate at [illegible] the nineteen examining and licensing boards.

[illegible] vant.

A [illegible] Head Professor Henry Maley's [illegible] and Mr. Lucas Stephen [illegible] a common one.

THE PETIT MAL IN [illegible]

SIR,—Permit me to state, in reference to Dr. Neale's query in your last edition, that I have met with two cases lately of slight attacks of "le petit mal" occurring during [illegible] to [illegible] merely [illegible] to [illegible] young [illegible] medulla oblongata, the seat of sudden exhaustion [illegible] your obedient servant, HARVEY L. PUSEY, L.R.C.P.

66, Warwick Road, Maida Vale.

[illegible] IN THE SPECIMENS OF [illegible]

SIR,—No [illegible] the [illegible] the Specimens of [illegible] Royal [illegible] the [illegible] and [illegible].—Yours truly, A MEMBER.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 10IA, Strand, London, and not to the Editor.

W. H. A. Has been received, and has been attended to. We are unable to publish letters than a small proportion of the communications we receive, and that only after careful consideration.

A HOUSE OF WORKS IN LONDON.

SIR,—Although a layman as regards the sanitary profession, I would beg to draw attention through your columns to what is, it seems to me, a most flagrant sanitary want in London. It is only a few days since that I and a friend were discussing a residence of some years abroad, and I dwelt with some satisfaction upon the immunity from dysentery. Now, sir, I venture to say that in London the arrangements for outdoor [illegible] are not to be found in Paris, Vienna, Berlin, and the other capitals of Europe, and amply attest the progress which the profession of hygiene has made in those cities. I admit that matters are much worse than they were a few years ago; but, for myself, I would point out that the [illegible] Metropolitan and other railway companies are, through [illegible]. At certain hours, it is impossible to travel in them without [illegible] for nature by appealing to the sympathies of a publican or a shopkeeper. Yet such is the fate of many [illegible] throughout so long a stretch of them, for example, as that extending from the Bank to the Mansion House. Let us take this as an example. At the West End, and in the City, the same state of things prevails. There is no accounting for squeamishness in the matter; the necessity exists for the accommodation among other classes than those of the proverbial tropic-returning grandfather. Why, then, should it not be provided for. If I might venture to make a suggestion, it would be that, as in many parishes the authorities have provided public baths, they might, on the same principle, cause to be erected a series of public closets, in the form in Paris, a small fee being charged for use at the stations, but then due and due keeping in order, which I feel sure would amply pay expenses.

While on this subject, I may also draw attention to the fact that, in many districts, urinals are far too few in number, placed in too inconspicuous positions, and, from a sanitary point of view, very badly kept. So far as sanitation is concerned, they are, in fact, in many instances, not only insufficiently cleansed, but imperfectly constructed.

As a private individual, it would be vain for me to raise my voice in this matter; but I trust it you will raise your powerful editorial voice some result may follow. Speaking with all due submission to better instructed authority, it seems to me the question is one which might well be taken up by the Local Government Board.—I am, sir, yours, etc., B. P. L., F.Z.S.

SOIL PIPES.

L. A. ASKS what valid objections there are to putting syphon-traps at the foot of vertical soil-pipes?

*** We have referred the question to Mr. W. Eassie, who stands in the first rank as a practical sanitary architect. His reply is as follows. "The best practice in dealing with soil-pipes is to disconnect them at the foot by a short inclined open portion of pipe before they pass into the trap-connection. At this open space fresh air is taken in, and this courses up the soil-pipe, and is delivered into the atmosphere at the ventilating continuation of the soil-pipe. This ventilating continuation should be the full diameter of the soil-pipe, and be six feet away from, if possible, but, at all events, six feet above, all windows, and as remote as can be from chimneys. The disconnection-traps, or syphons with fresh air inlets for soil pipes, are now very numerous in the market, and among the best of them may be named those of Potts, Buchan, Weaver, Hellyer, and Doulton. As a rule, it is unwise to trap the foot of a soil-pipe, and certainly so when there is a long length of drain between the trap at foot of the soil-pipe and the outfall. For, given the latter condition of things, the foul air will press against the hydraulic seal of the trap, and will rise up the pipe, and find, likely enough, an exodus into the house when the closet is being flushed. This chance of danger will be enhanced when the closet is of the foul pan order of apparatus, with large iron contained and filthy D-trap underneath. On no account should a soil-pipe be trapped at foot and not ventilated above. Some sanitary practicians even disconnect the soil-pipe at foot, and also deliver the soil over an open hopper head just outside the closet above. The main thing sought for is a certain disconnection between the soil-pipe and the house-drain, and this safest rule cannot be kept if there is simply a common water-trap at the foot of the soil-pipe."

LEUCODERMA IN SOUTH AFRICA.

SIR,—In answer to a question put by Mr. Balmanno Squire in your number for April 2nd, allow me to state that I have not had leucoderma under my care in South Africa, but that it is common among the coloured people, who believe that it is never recovered from. They say, however, that each year it passes away, only to appear again after a sort of desquamation. In the case of a woman who is reported to have become piebald after a severe fright, I have heard that this reappearance takes place annually on the anniversary of the occurrence—viz., of her being dragged into a river by a "caiman".

Leprosy being incidentally mentioned in Mr. Squire's letter, I may give as a therapeutic hint, which I (perhaps from oversight) have not seen in print, the treatment adopted in this country by some who have little reliance on gurgun oil. It consists in the external and internal use of an infusion of blue gum leaves, and certainly seems to be of some efficacy:—I am, etc.,

Cape of Good Hope, May 24th, 1881. COLONIAL PRACTITIONER.

JENNER AND JESTY.

SIR,—Whilst on a visit in the county of Dorset, I was surprised to find on a gravestone in the churchyard of Puddletown the following memorial: "In memory of George Jesty, who departed this life June 23rd, 1745, aged 63 years, youngest son of the late Mr. Benjn. Jesty, of Downshay, Isle of Purbeck, discoverer of the memorable vaccine inoculation." Afterwards, I found in the churchyard of North Matravers, a memorial stone with the following inscription: "Sacred to the memory of Benjamin Jesty, of Downshay, who departed this life April 16th, 1816, aged 70 years. He was born at Yetminster, in this county, and was an upright honest man, particularly noted for having been the first person known that introduced the cow-pox by inoculation, and who, from his great strength of mind, made the experiment from the cow on his wife and two sons in the year 1774."

If this date can be relied upon, Jesty's experiment preceded Jenner's on the boy Phipps by twenty-two years. I was informed that Mr. B. Jesty was a large dairy farmer. Thinking the above may be of interest to the readers of the JOURNAL, I place it at your disposal.—I am, sir, yours faithfully,

Shrewsbury, June 20th 1881. F. WHITWELL.

Mr. [illegible] has drawn our attention to the fact that the rule at the annual meeting of the Association, which limits the length of any paper to be read in the Section to a [illegible] especially to those [illegible] at the meeting at Cambridge, and especially to the [illegible] in the Surgical Section, of which he gives examples. He [illegible] observations to be strictly observed. He [illegible] "If papers [illegible] are to be [illegible] at all, they [illegible] men, the papers [illegible] their general character [illegible] attention, and in the subsequent discussion gentlemen might refrain from giving their personal experience provided observations have been made in all respects similar to those they have to offer. Moreover, as there is [illegible] upon a first paper, [illegible] the speaker, and the President [illegible] approach him, whoever that [illegible] be."

SPIRITS SPILT.

SIR,—I was [illegible] to read a child [illegible] "three" [illegible] it is here [illegible] "three". Accompanying what treatment had been employed, I was shown the [illegible] in a cupful of water, which [illegible] had commenced the [illegible] the [illegible]. I was very much [illegible] I believe [illegible] treatment, and [illegible] and [illegible] I [illegible], was told by the mother that neither old she [illegible] "screened" under it.—Yours, etc., J. C. B.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. R. Tudor-Risk, Harrow; Dr. J. Dixon Mann, Manchester; Dr. Myrtle, Harrogate; Mr. G. [illegible], Leeds; Mr. C. Robinson Watson, Sandwich; Mr. Francis C. Jones, London; A Member; Our Edinburgh Correspondent; Dr. R. Bruce Low, Helmsley; Mr. Rayner W. Butters, Gloucester; Dr. P. H. Mules, Manchester; Dr. T. M. Bloodwood, Liverpool; An Old Subscriber; Our Dublin Correspondent; Dr. J. M. Williamson, Ventnor; Mr. W. E. Green, London; Dr. John G. McKendrick, Glasgow; Dr. Henry Corby, Cork; Mr. F. F. Clarke, Stanmore East; Medico Chirurgicus; Mr. T. Alford, London; Our Glasgow Correspondent; Mr. R. M. Mann, Manchester; Mr. M. Coates, Salisbury; Our Aberdeen Correspondent; Mr. T. Jackman, London; Vigilant; Mr. J. A. Williams, London; Mr. W. Mears, Newcastle-on-Tyne; Mr. W. H. Jalland, York; Dr. C. E. Glascott, Manchester; Mr. S. Wilson Hope, Sussex; Dr. David Lowson, Palermo; Dr. Stirling, Aberdeen; Dr. Jenkins, Ruthin; Mr. R. Heather Bigg, London; Dr. W. Henderson, Exeter; Our Paris Correspondent; Dr. W. Wilson, Pendleton; Dr. Richard Ryder, Gloucester; Mr. James Crocker, Bingley; A Member of B. M. A.; Dr. R. Cory, London; Dr. Dr. Eames, Stoneclough; Mr. W. Prowse, Cambridge; Dr. Herbert Page, London; Mr. Douglas Hemming, Bournemouth; Mr. W. Harvey, Teignmouth; Dr. Robert Saundby, Birmingham; Mr. Reginald Harrison, Liverpool; Mr. W. F. Phillips, Andover; W. B. H.; Mr. Robert Bentley, London; Mr. W. Russell, Carlisle; Dr. Hunter Powell, Cleveland; Dr. James Neal, Sandown; Mr. Francis E. Jones, London; Dr. Cresswell Baber, Brighton; Mr. A. W. Mayo Robson, Leeds; Sir E. H. Currie, London; Dr. J. Johnston, Bolton; Mr. J. Duncan, Edinburgh; Mr. J. Newton, London; Mr. E. Stevens, Ilminster; Dr. Tibbits, Bradford; Mr. M. F. Ryan, Dover; Mr. F. W. Lowndes, Liverpool; Dr. G. W. Crowe, Worcester; Mr. W. E. Green, Sandown; Dr. F. P. Atkinson, Kingston-on-Thames; Mr. J. S. Grubb, Waterlooville; Mr. G. Ledman, Wisbech; Dr. Joseph Hatchett, Ravenstone; Dr. McCall Anderson, Glasgow; Dr. W. Rossiter, Croydon; etc.

BOOKS, ETC., RECEIVED.

On Cancer, its Allies, and other Tumours. By T. A. Purcell, M.D., M.R.C.S. London: J. and A. Churchill, New Burlington Street, W. 1881.

Rheumatism. By J. Maclagan, M.D. London: Pickering and Co. 1881.

The Retrospect of Medicine: being a Half-yearly Journal. Edited by W. Braithwaite, M.D., and J. Braithwaite, M.D. 2nd. Vol. lxxxiii. January to June 1881. London: Simpkin, Marshall, and Co. 1881.

A Journal of Mental Science. By T. S. Clouston, M.D.; D. H. Tuke, M.D.; G. H. Savage, M.D. July 1881. London: J. and A. Churchill. 1881.

A Treatise on Comparative Embryology. By F. M. Balfour, LL.D., F.R.S. In two volumes. Volume ii. London: Macmillan and Co. 1881.

Royal London Ophthalmic Hospital Reports. By J. Tweedy, F.R.C.S. Part II. June 1881. London: J. and A. Churchill. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,,	20 ,,
,, 26 ,,	25 ,,
,, 52 ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office, High Holborn. Small amounts may be sent in postage stamps.

NOTES
OF
ONE HUNDRED CASES OF CHOREA TREATED IN THE WORCESTER INFIRMARY.*

By WILLIAM STRANGE, M.D.,
Senior Physician to the Infirmary.

CHOREA, as you are doubtless aware, is much more frequently seen in the out-patient rooms of our hospitals than elsewhere. This is as much as to say that the poor are more prone to the disorder than the rich or well-to-do; and from this fact we obtain the first clue to its nature and predisposing causes. It is a disease, to a considerable extent, of poverty.

Agreeing with its usual origin, we shall generally find the subjects of chorea to be ill nourished, or of weak organisation, or both; for the former, in respect of children, implies the latter. It is during the period of active growth, or, if not, during that second period when, the growth having been finished, often prematurely, the constitutional powers have not yet acquired a proper degree of consolidation, and the nervous centres sufficient steadiness, that chorea attacks its victims. Taking my own cases, I find that the ages varied from six or seven to eighteen, or even twenty, years; a larger number at the earlier ages, a smaller at the later. As regards sex, females are found to be more susceptible than males, as their constitutions are more nervous, and their temperaments more excitable. Accordingly, when chorea attacks young persons just arrived at puberty, you will find that the girl is more prone to it than the boy.

Season of the year, situation as to town or country, healthy or unhealthy dwelling, have not shown much difference in the development of chorea. I think I have noted that the subjects have often belonged to large families; but then, of what disease affecting the poorer classes may not this be said? As regards temperament, a majority were of what is called the nervous temperament; with dark hair, sallow complexions, and thin wiry frames. I do not pretend in this paper to give you absolutely exact statistics, but the impressions of, at least, an unbiassed mind, looking at the curious phenomena of this disease with no desire to establish or to overthrow any theory of its nature or causation, or to vaunt any course of treatment for its cure.

I agree with those who regard chorea, along with some of its congeners or allies, as a pure non-organic neurosis; and a review of these one hundred cases fixes that belief firmly on my mind. The term implies, of course, that chorea has no anatomical or true pathological basis, *post mortem* examinations not having given to it any definite morbid anatomy. We must look upon it, therefore, as the outcome of a merely functional disturbance, with a substratum of that undefined, and perhaps for ever undefinable, alteration in nutrition of the nervous centres which, we must suppose, underlies all defects of their functions. It has alliances, no doubt—such as with pre-existing disease of the heart, with rheumatism, with hysteria, and perhaps with disordered blood from malaria, etc. Out of one hundred cases, I have not had one fatal. Chorea, therefore, does not derive any of its interest from its fatality. But perhaps my experience has been somewhat exceptional in this respect.

The phenomena of chorea are so variable, that they may be the most trivial, or amongst the most distressing of all affections of the nervous centres. From a mere twitch of the face, or a blinking of the eyelids, to the horrible contortions and dangerous jactitations sometimes witnessed, is indeed a long cry. The cases are also often of a mixed nature, then rendering the diagnosis, and even the prognosis, very difficult. In most of my cases, the symptoms came on gradually; mildly at first, then deepening in a few days or weeks into the severer forms. In some cases, however, the access was sudden and severe, and was evidently due to the aggravated nature of the cause. I have seen a severe form of the disease instantly develop itself in a girl admitted for something else, the moment she saw another case of chorea in the ward.

Chorea also contracts alliances with other nervous affections; with epilepsy and hysteria, for example. With true epilepsy, however, I have never seen it blended, although others have; with hysteria, I have often. Now and then, partial paralysis accompanies the disease, coming and then going again, perhaps in about one-twelfth of the cases. Rigidity of some of the limbs, or of a group of muscles, such as we see in spinal meningitis, is occasionally intercurrent in the progress of the case.

If I search my note-books for the causes, predisposing as well as exciting, of my cases of chorea, for proofs of their alliance with other diseases, such as rheumatism or heart-disease; for the relative number showing unilateral or bilateral manifestations; for their connection with convulsions or hysteria; I think the following remarks will be a fair outcome of the search.

First, as regards the predisposing causes: Looking upon chorea as essentially a disease of debility, we are not surprised to find, in almost every case, a state of supermotility, a want of power to restrain, as well as duly to co-ordinate muscular movement. Not only are the muscles insufficiently under the control of the will as to movement, but as to inhibition also. Now in all this there is surely debility, or deficiency of nerve-power. Over-action, we know, always indicates weakness, pre-existing or consecutive. Children and young persons are more mobile than older persons; and hence the age at which we find chorea most frequently to occur ranges from six or seven, to fifteen or eighteen years. These ages, are they not those when poverty presses hardest? Whilst the infant is at its mother's breast, it generally gets food enough, whatever may become of the mother. It is when the child comes to partake of the harder fare of the parents that chorea begins to crop up. Or, if it come on later, it is when puberty, and the consolidation of the newly made tissues, make an extraordinary demand upon the constitution, requiring it to be well sustained by good and plentiful nourishment, which is frequently wanting. In my mind, therefore, chorea is doubly associated with poverty. To poverty we may, of course, add an originally defective organisation, shown in the puny frame, and the unsteady nerve or muscle, derived from feeble parents and from unwholesome surroundings. Hence chorea is essentially a disease of heredity. The sins of the parents, as Dr. Handfield Jones has well observed, are indeed here handed down to the third and fourth generation.

Chorea often follows upon a severe attack of some one of the zymotic diseases, such as measles; but here, again, chiefly in the children of the poor. That vicious habits on the part of the children themselves are a predisposing cause, is highly probable; but it has never been proved in any of my own cases that masturbation, in either sex, was indulged in, at least to an extent to arouse our suspicions. Other predisposing causes of chorea are said to be the syphilitic taint, irregular action of the heart after rheumatic endocarditis, miasmata, and exposure to great solar heat. I cannot remember one case in which either of these circumstances, except the endocarditis, was well established.

With regard to the existing causes of chorea, I need only say that, when the mobile frames of young children have been subjected to the influences indicative of poverty and weakness, it requires but a slight additional disturbance to throw the nervous apparatus out of gear, and to cause its movements to escape from the control of the will. Chief amongst the exciting causes, I am persuaded, is fright. All authors lay stress upon this point. I think I may say that I can establish the effect of fright, or terror, as the immediate determining cause of the chorea in quite two-thirds of my cases. Fright may operate in various ways, some simple, some more continuous and complicated. It need not be sudden, although that is generally the case. There is a kind of fear or fright to which children are exposed for long periods of time. Ill-tempered parents, especially the mother, may keep a child in perpetual trepidation and dread of punishment for unavoidable disasters. Again, the coming home of a drunken father must often be a source of continual terror to a delicate and sensitive girl. Ghost stories, and foolish threats of "Old Bogie", and the like, so constantly used by ignorant mothers and nurses, need only to be mentioned to be severely reprobated.

Amongst other exciting causes, I have found worms in the intestines in several instances; but, when these were got rid of, the chorea they set up had still to be cured. In a few cases, overwork at school was to be blamed, and once the anticipation of delight from the visit of a friend. But we need not multiply exciting causes. Anything which suddenly adds to the pre-existing debility caused by long-continuing predisposing conditions, will arouse the disease. It is only the last straw that breaks the camel's back!

Now a few words on the general symptoms. I have invariably found the muscular power impaired whenever the case has been of some standing. Likewise, hebetude, or feebleness of intellect, is nearly always observed. Partial anæsthesia of parts, or of the whole of the surface, is also common; whilst loss of memory, absence of interest in play, etc., are equally common. In severe cases, we have had to

* Read before the Worcestershire and Herefordshire Branch.

deal with—the involuntary discharge of the fæces, and more often of the urine, which add much to the undesirability of nursing such cases with others in the wards of a hospital. Sometimes we have had to resort to the strait-waistcoat to restrain the excessive jactitations; but this did not appear to add to the distress of the patients. Occasionally a choreic patient will be found lying in bed in an almost cataleptic condition. The eyes are fixed and staring; the limbs rigid, with almost total loss of sensibility; so much so as to lead one to fear that cerebral effusion had taken place; but, after some hours, this condition generally passes away.

Other interesting forms of chorea are those in which some one muscle, or a small group of muscles, are alone affected. In two cases, all that could be called chorea consisted of an almost rhythmical jerking of the head to one side, about every twenty or thirty seconds. I remember, also, a case of chorea of the diaphragm, the patient every two or three minutes, except when asleep, giving a sharp, jerky hiccup. No other muscle was affected. The case lasted several weeks; and, although many drugs were administered—amongst others, belladonna, time, as usual, was the chief healer. There is another form affecting the external muscles of the abdomen, together with the levator ani muscle. The movement, which could easily be seen when the patient was undressed, consisted of frequent, but irregular, contractions—a sort of lifting-up of the recti muscles, and also of the levator ani. But I need not further dilate upon the vagaries of this strange disorder.

As regards hemichorea, I am surprised at the frequency with which this form is mentioned by systematic writers. For many years I had not seen a case in this hospital. Latterly, we have had a few; but our proportion is much below the usual average, as recorded in books. I account for this discrepancy by the fact, that one side of the body is frequently more severely affected than the other; but in almost all cases of so-called hemichorea, I believe that careful observations would detect some movements on the better side. Also, as is mentioned by Trousseau, some cases begin as one-sided, and, after a time, both sides become affected.

As regards the pathology, or true nature, of chorea, as distinct from its morbid anatomy, there is something to be said. The comparatively few fatal cases on record afford no clue to the true pathology of the disease, because, in the first place, it is seldom that chorea is fatal at all. In most of the necropsies related in our standard works, such as those of Watson, Trousseau, and Handfield Jones, it is clear that the complications with other distinct diseases with the chorea were answerable for the more considerable of the morbid changes observed. I have not known a single fatal case of uncomplicated chorea, so I cannot tell what might, or might not, have been found, if any such had proved fatal.

When complicated with previous heart-mischief, or when violent convulsions have preceded death, congestion of the membranes and partial hæmorrhage, or other crude injury to the nervous centres, have appeared; but it is a fair question to ask, whether these appearances were not rather *caused by* the chorea, by its violent disturbance of the circulation, than that they were the cause of it. Softening, and thickening, and opacities, have been sometimes found, but in no particular situation. The fact is, there is no constant lesion, or any which does not frequently appear on the inspection of those who have died of other diseases. The small hæmorrhages into the substance of the brain, sometimes found, had been attributed to emboli carried from the diseased cardiac valves. But, then, would chorea be so easily and soon cured as it is, if this were often the case? The question may now be asked, whether chorea is frequently dependent upon previously existing disease of the heart, rheumatic or other? In some fatal cases—notably some related by Dr. Broadbent—fibrous vegetations had been found on the cardiac valves; and some minute particles of these have doubtless become emboli, and given rise to minute hæmorrhages in the brain. But if any such dislodgment were of frequent occurrence in cases of chorea, we ought to find signs of embolism in various other organs, including the skin; but such are, I believe, almost unknown. The combination which I have observed in a few—a very few—cases, is as follows. First, there has been acute rheumatism in early life. The heart has become affected. The patient recovers—at least, so far as such patients ever recover. Some time afterwards—perhaps two or three years—the same young person is brought to the hospital suffering from chorea. In this case, it is impossible to say that minute vegetations—or, more correctly, minute fibrinous particles—have *not* been detached from the cardiac valves, or from the tendinous chords of the ventricles. But we have no proof of it. Indeed, if this were a frequent cause of chorea, symptoms of this disorder ought to follow more quickly after those of the heart-affection than is generally observed; when, in fact, these minute fibroids are soft and fresh, and easily detached from their bases. Well, the chorea is cured, or relieved, and the patient ultimately dies of the original mischief done to the heart. Is it not more reasonable to conclude that the chorea is the result of disordered nutrition of the nervous substance, caused by the irregular and defective circulation which almost always obtains in such cases?

Nevertheless, it must be confessed that there is a difficulty in accounting for cases of hemichorea, as those other cases where only a small group of muscles is affected, upon the general principles of defective nutrition to which I have attributed the great majority of cases of chorea. Defective nutrition, unless it be caused by some local circumscribed obstruction, should operate upon the whole nervous system alike; or, at least, upon the two sides equally. It will scarcely, therefore, adequately account for the cases named above. To interpret their pathology, we may have recourse to embolism if we like. Small emboli, pushed off the cardial valves by the force of the circulation, are easily sent along a single carotid artery, and these *may* be the cause of those partial cases where a small group of muscles, or even a single muscle, is thrown into choreic action.

To sum up the pathology of chorea, then, which I gather from these one hundred and more cases, everything points, with slight exceptions, to defective nutrition of the cerebral substance, and, perhaps, of the spinal cord also. In any bad cases, and with other complications, especially with epilepsy, we may expect it to prove fatal; and then the result of starvation of the brain will very likely be seen in softening, in hæmorrhage, or in some low inflammatory product. The symptoms are those of inco-ordination and defective inhibition. These are the result of brain-starvation, caused by morbid products, which strangle the vessels, cutting off the proper supply of blood to the nerve-cells. What then happens entirely agrees with this view. Instead of an easy and rapid recovery, the case goes on into a chronic, or permanent, condition, indicating that the morbid changes in the nerve-cells are such as cannot be removed. Speaking subjectively, the condition of the cerebral system is one of unstable equilibrium, in which the power to act, and the power to inhibit action, are alike defective. In physics, this condition may be likened to a steam-engine, set to go without a proper amount of steam up—enough to cause vibration or oscillation, but not to send the engine along in proper working order. Compared with electricity, it is as though the battery would not generate a sufficient current, or that the wires connecting it to the rheophores were out of order, and that the current were not conducted to the point of operation. The force residing in the brain-cells is defective, owing, probably, as Andral put it, to their defective aggregation, or to want of firmness in the conducting white substance, or to both. The rapidity with which proper food and medicines calculated to give tone to the nervous system act in curing the disorder, is the proof from treatment which comes to confirm the verity of this view of the pathology of chorea. A few words on this treatment, and some few illustrative cases, must finish these somewhat crude notes on a very interesting disease.

[*To be concluded.*]

BINGHAM RURAL DISTRICT.—The report on this district for 1880 is long, and painfully tedious; but it at least shows Mr. Poyntz Wright energetic in his work as medical officer of health, and earnestly desirous for the sanitary improvement of the district. He reports of the water-supply that it is not entirely satisfactory, either as to quantity or quality. There seem to be difficulties in the way of providing proper supplies in consequence of the geological character of the soil; but the question must evidently be faced by the authority without delay. Mr. Wright has formed a wrong estimate of the usefulness of water-analysis, when he urges the "extreme necessity of an analysis of every suspicious water", apparently on the ground that it is, in "very many cases, utterly impossible to detect disease-germs by any other means than a proper analysis". No method of chemical analysis has yet succeeded in detecting these germs, and it is usually by far the more sensible plan to judge of the purity of the water from its physical surroundings than from the figures given by chemists. The drainage of the district seems to be slowly progressing, and additional privy accommodation has been provided. Mr. Wright estimates the birth and death rates at 30.54 and 19.91 per 1,000, both of which were higher than the rates of 1879. The mortality amongst infants, especially of those under one year, is much in excess of what it should be, and is attributed by Mr. Wright to the impoverished condition of the labouring classes, owing to the general agricultural depression; to ignorance and neglect; and to the deprivation of children of their natural food. His remarks under this head are very interesting and suggestive. Zymotic diseases showed an increased fatality, though no disease was particularly prevalent. Mr. Wright deplores the absence of hospital accommodation for the isolation of infectious patients, and urges the necessity of compulsory notification of all cases of zymotic disease.

SIX CARDIAC AND VASCULAR CASES: WITH REMARKS AND ENGRAVINGS.

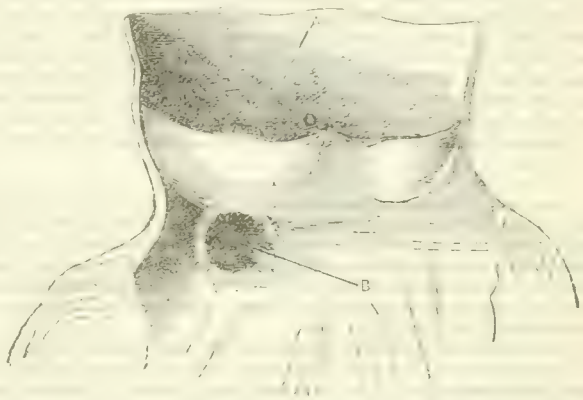
By EDWIN RICKARDS, M.A., M.D.,
Physician to the General Hospital, Birmingham.

CASE II. *Communications between the Aorta and Pulmonary Artery and between the Left and Right Ventricles: two Aortic Segments.*—W. P., aged 30, married, with four children, was admitted into the General Hospital on September 24th, 1877. He had been in the hospital previously, in 1801, for a month, and was treated for rheumatism. None of his relatives were rheumatic. Except on the occasion referred to, he had never been off work through illness. He had, as long as he could remember, been subject to a feeling of discomfort about the chest, amounting occasionally to pain. He followed his employment, that of a brass-founder, with ease, until the beginning of April 1877, when he found himself becoming day by day short of breath. He worked on till September 19th, when his legs began to swell. On September 24th, he came to the hospital. He was then very pale; his legs were œdematous; the large arteries throbbed visibly; he had decided dyspnœa, and an occasional dry cough. He said his appetite was very good, and that he slept well. On examining his chest, his heart was found to be much enlarged, its area of dulness extending two inches to the right of the sternum; its impulse was heaving; its apex-beat three inches and a half below the left nipple. Two loud rough murmurs, systolic and diastolic, were heard over the front and back of the chest; the two murmurs seemed to run into one another, so as to constitute one continuous murmur; they had their maximum intensity over the sternum, between the third costal cartilages. The systolic murmur was the louder of the two; it was heard in the carotid arteries, and with diminished intensity at the apex of the heart. The diastolic murmur did not seem to be conducted in any particular direction. At the apex of the heart, though heard, it was subdued; in the carotid arteries, it was inaudible. Both murmurs were so loud that they could be heard distinctly through the bedclothes. Over an area of the size of the hand, in the cardiac region, was felt an intense vibration—a so-called purring tremor—which was double in character, and synchronous with the murmurs.

While he was in the hospital, œdema invaded his scrotum and trunk; his pallor increased; dyspnœa became great; he had epistaxis, pulmonary hæmorrhage, and congestion of the lungs. His urine averaged thirty-two ounces in twenty-four hours; specific gravity 1015; it contained a considerable quantity of albumen and hyaline casts. Pulse full, resilient, 100 per minute; its sphygmographic tracing was typical of aortic regurgitation with hypertrophy.

At first, he was treated by rest in bed, a milk-diet, and one drachm of infusion of digitalis every four hours. Two days after this treatment was commenced, his general symptoms were worse, and he had epistaxis and pulmonary hæmorrhage. Digitalis was then changed for two-grain doses of quinine three times a day. Subsequently he took a dry and generous diet, with stimulants. The latter treatment helped him considerably for a time. In November 1877, he died from œdema of the lungs.

POST MORTEM EXAMINATION.—The trunk and lower extremities were anasarcous. The serous cavities contained a considerable quantity of fluid. The liver weighed fifty-eight ounces. The spleen was enlarged, and its capsule thickened. The kidneys were small, granular, and contracted; the two weighed seven ounces. The microscope showed that the liver had undergone pigmentary degeneration, and that the kidneys were cirrhotic. The lungs were œdematous. The heart weighed twenty-three ounces; all its chambers were dilated, and their walls hypertrophied. The dilatation was greatly in excess of the hypertrophy. The auriculo-ventricular valves were free from disease. The aorta was dilated, and above its valve was sound. Its valve was constituted of two segments only. One was nearly twice the size of the other. Both were dilated and thickened, but were soft and membranous and perfect, and were on the same level. The larger segment represented the anterior and left posterior segments; the smaller one was the right posterior segment. The former, at its attached margin interiorly, had a ridge indicating an attempt at division; but its unattached margin showed no signs of the blending of two valves into one. There were two aortic sinuses corresponding in position and size to the two segments. The smaller one admitted two fingers; the larger one readily admitted three fingers. In the latter was an aperture of communication with the pulmonary artery, through which the little finger could be passed; it was circular, and the tissue forming it was smooth, membranous, and funnel-shaped. In the septum ventriculorum, immediately below the larger segment, and encroaching on it, was an aperture through which the tip of the little finger could be passed into the right ventricle; this aperture was circular, and formed by smooth and membranous tissue. The pulmonary artery above its valve was sound, but dilated. The segments of its valve were free from disease; two of them were pushed asunder at their attached margins by the abnormal opening from the aorta. Immediately below this opening was the aperture in the septum. The engraving shows the two segments of the aortic valve. The probe A is placed in the communication between the aortic sinus and the pulmonary artery; the probe B in the aperture in the septum ventriculorum.



REMARKS.—In reviewing this case from a pathological standpoint, it is requisite to consider the causes of the abnormal communications, the circulation through the abnormal heart, the hypertrophy and dilatation of its chambers, and the association of the renal disease with the cardiac condition. Of the mode of origin of the two abnormal apertures of communication two explanations are offerable: that they were flaws in development; that they resulted from local inflammation, leading to necrobiosis, ulceration, and perforation. The character of these apertures would seem to balance probabilities in favour of their being defects in development. The fact that the septal aperture was situated where congenital defects of the septum are most frequently found, and, in reference to the aperture in the aorta, the absence of disease elsewhere in that vessel, appear to be additional evidence of their being due to defective development, and not to ulcerative endocarditis and endarteritis. As to the absence of an aortic segment, the absence of any signs of the blending of two segments into one, and the absence of any gap between the two existing segments, and the fact that these two occupied the same level, would make it appear that only two segments were developed.

It is reasonable to suppose that the three abnormalities, situated so near to each other, arose from a common cause. Whatever may have been their mode of origin, what was the circulation through the heart? and how may the hypertrophy and dilatation of its chambers be accounted for? Most of the blood of the left ventricle would, by each ventricular systole, pass into the aorta; and, by virtue of the left ventricle being more powerful than the right, it is reasonable to suppose that a portion of blood from it would be driven through the septal aperture into the right ventricle, and another portion into the pulmonary artery through the opening between that vessel and the aorta; and, as the latter opening was between, and not below, the pulmonary valve, the right ventricle would receive the distending force of the two abnormal currents. Also, during ventricular diastole, blood from the aorta would regurgitate into the right ventricle through the abnormal communication between the aorta and pulmonary artery; and thus also the right ventricle would be subjected to overdistension, leading to its dilatation and hypertrophy. The two segments of the aortic valve having to perform the work of three, it is probable that they, despite their dilatation, were unable to prevent regurgitation into the left ventricle; and, as the heart and aorta increased in size with the growth of the patient, the regurgitation would become greater, and lead to dilatation and hypertrophy of the left ventricle.

Granular kidney is a common complication of aortic insufficiency from disease of the aortic valve. The connection in such cases is not at present clear. They may arise from a common cause; or the defect circulation may give rise to conditions in the economy conducive to nephritis; or the granular kidney may be the result of an imperfect circulation through the kidney; or a blood-dyscrasia from renal disease

may cause the valve-lesion. The evident chronicity of the cardiac condition, even assuming that it was not congenital, would seem to point to the renal disease being secondary in this case; but, when established, it would react on the heart, causing hypertrophy of its left ventricle.

W. P.'s history favours congenital malformation of the heart. He had always had cardiac symptoms. He had never had any sudden onset of severe symptoms, such as mark communications between the two sides of the heart from ulcerative perforation or the giving way of a segment of the aortic valve. The renal disease doubtless increased the cardiac embarrassment, and probably was the penultimate cause of death. The murmurs, which were very loud, and the purring tremor, which was intense, were characteristic of a communication between the aorta and pulmonary artery; they were probably due in this case, in chief part, to the to-and-fro current of blood through the aperture of communication between the aorta and pulmonary artery; the systolic murmur being heightened by the flow of blood through the septal aperture; the diastolic by regurgitation from the aorta into the left ventricle.

I have to thank Mr. Harvey Smith for assisting me in taking notes of this case.

CASE III. *Communication between the Two Ventricles of the Heart: Two Aortic Segments.*—W. S., aged 8, was brought to the hospital May 27th, 1880, in a moribund condition with enteric fever, of which he died shortly after admission. His mother said that, up to the time of the fever, he had been a strong boy, and had had no illness except an attack of bronchitis the previous winter. He had always complained of coldness of the hands and feet.

Post mortem, the heart weighed seven ounces. On laying open its left side, the ventricle was seen to be dilated and hypertrophied; the mitral valve was sound; the aorta free from disease. The aortic valve had but two segments; these were greatly dilated and one was a third larger than the other. The larger one showed no signs of subdivision. A small portion of both segments was thickened; the thickened portion was at their attached margin, where they formed part of the boundary of an aperture in the septum ventriculorum. The rest of the segment was sound. In the aortic sinus corresponding to the larger segment was the origin of the two coronary arteries. In the septum ventriculorum, between and below these two segments, was a smooth, round, membranous aperture, around which were some small vegetations; one, resembling a polypus, arose on the rim of the aperture, and permitted of being pushed to and fro from one ventricle to the other. On laying open the right side of the heart, the ventricle was seen to be slightly dilated and hypertrophied. The tricuspid and pulmonary valves were sound. The aperture in the septum was half an inch below the pulmonary valve. On the inner surface of the wall of the ventricle, over an area the size of a sixpenny-piece, was a cluster of vegetations; they were situated exactly opposite to the septal aperture. The ventricle elsewhere was free from vegetations. The spleen was enlarged and soft; the intestines ulcerated; the other viscera normal.

The explanation I would offer of this case is, that one aortic segment was congenitally absent; that, during fœtal and infantile life, the two segments by dilatation were competent, or nearly so; but that, as the heart and large vessels increased in size, regurgitation took place, causing hypertrophy and dilatation of the left ventricle. The aperture in the septum I regard as a flaw in development, looking upon the septum as an "imperfect septum". The vegetations around the septal aperture, and the thickening of that part of the two segments which helped to form it, were, I venture to think, the result of extraordinary strain on that part, and the loitering of blood about it consequent on the lateral current through the abnormal aperture. Increased tension of the two aortic segments from the absence of one segment would explain the dilatation of these segments. The vegetations in the right ventricle being confined to a limited area, and being situated exactly opposite to the septal aperture, would make it appear that they had been caused by blood driven through that aperture, and impinging on the wall of the ventricle. This case seems to come into the category of those cases where congenital malformations of the heart are followed by morbid changes in that organ. The abnormality of the circulation probably leading to the disease, the morbid changes may take the form of dilatation, or thickening of valves, or vegetations, or aneurysmal dilatation of congenital apertures, or alterations in the walls, or capacity of the chambers of the heart—a class of cases exemplified also by Cases I and II. I would point to certain features common to this case and Case II: 1. The existence of but two segments of the aortic valve; probably the result of defective development. 2. One of the existing segments is larger than the other, and is subjacent to the sinus of the aorta giving off the two coronary arteries. 3. The existence of an aperture in the septum ventriculorum; probably congenital. 4. The presence of morbid changes in the aortic segments and in the heart; probably secondary.

I have to thank Dr. Barling, the pathologist, for an account of the *post mortem* of this case.

THE NEW YORK AMBULANCE SYSTEM.

By BENJAMIN HOWARD, A.M., M.D., F.R.C.S.E.

IN the system for the care of emergency cases within the Metropolitan district of New York, there are observable a promptness, ease, and thoroughness not only interesting, but suggestive. This system unites municipal authority with voluntary effort, and affords an exceptional illustration of the efficiency and harmony possible to such combination.

Although not so designated, practically the Chief of the Ambulance System is the Chief of Police. The principal general hospitals which have been placed at his service, accept the regulations imposed, and thus the hospitals in question supplement the single government "House of Relief," and these together form a circle of hospitals at the centre of which is the office of the Chief of Police in telephonic communication with them all. The Chief of Police at any moment, day or night, can have an ambulance from any or every one of these hospitals, at any given spot, as certainly and as quickly as the Chief of the Fire Department can have a fire-engine from any Fire Brigade station at a designated point in a corresponding emergency. For the sake of conformity in this plan, the hospital-buildings erected since the organisation of this system, have included the most careful adaptation to it; while the older hospitals have received corresponding alterations.

On the occurrence of a surgical or medical emergency, information, whether by a policeman or a civilian, is at once given at the nearest police-station; this is telegraphed to the central head-quarter police-office. The officer receiving the telegram can see a chart before him, in which hospital district the emergency in question has occurred, and telephones the call and address to the hospital to which that district belongs.

While I was talking upon this subject in the office of the superintendent of the recently built New York Hospital, the conversation was stopped by a shrill whistle. A telephonic message having been received, and as quickly answered, the superintendent remarked that the message was an emergency call. Following him on a run down a flight of stairs, and under a covered way across an inner courtyard, a surgeon was seen to step into an ambulance, which passed almost noiselessly along the concrete way under the arch and into the street. As the superintendent had telephoned both driver and doctor, before he had explained to me the nature of the interruption in our conversation, while we were simply putting on our hats, the ready harnessed horses had been put in, the doctor had got the start of us, and I had nearly missed the performance the superintendent had asked me to witness.

The ambulance, on returning, comes in from an opposite direction, and stops under the large *porte cochère* on the opposite side of the court, at the door of the reception or accident ward. This room, is supplied with every surgical convenience: operating table, instruments, dressings, hot and cold water, and beds, while opening into it are bathrooms and small bedrooms, all at a constantly agreeable temperature. According to expediency, the patient may remain a longer or shorter time comfortably where he is, be put into a private room adjoining, or be transferred on the lift direct from the table to an ordinary ward above. If, on the other hand, the case be a trivial one, the ambulance takes him at once, or as soon as he may wish, to his own home.

The ambulance-surgeon, immediately on returning to the hospital, according as the case may be surgical or medical, notifies the house-surgeon or house-physician, who then takes entire charge of the case. Before attending to any other duty, however, the ambulance-urgeon enters in a book, kept for that purpose, time of call, start, srrival, departure, return, and such details of history and diagnosis as a coroner's jury might possibly require.

The ambulance-wagons are drawn by two good horses, with light harness; and on the street the driver, by common consent, has the right of way. The vehicle pretty uniformly adopted is in every particular as light as is consistent with its use. Its floor is very low, and the bed, which is on rollers, is by means of sliding handles used as a stretcher also. The roof and curtains are of white duck, which is so extended as to afford good shelter to the driver. Within is a comfortable seat for the doctor, where, if he wish, he can watch the patient *en route*. In the box of the ambulance are all such stores and appliances as are deemed expedient for possible use.

This system seems to have the merit of great equality of advantage.

1. To the municipality, it offers relief from all care of the cases in question, and without cost for horses, ambulance, or treatment.

2. To the hospital surgeons, it supplies the kind of cases especially desired by those who are teachers.

3. To the patients, it secures prompt help, and the most skilful attendance.

The municipal element in the system maintains in all concerned the consciousness of accountability, while the voluntary element in the system quickens between the several hospitals a lively emulation. Take it all in all, the ambulance system of New York is creditable, both to the medical and to the municipal authorities of the city, presenting an unique example of an efficient and harmonious combination of municipal and voluntary effort, which seems to yield satisfaction to all concerned.

As the city which, for the protection of property, boasts the best fire department in the world, must sooner or later follow its higher instincts and traditions in having a system correspondingly complete for the protection and care of human life also, it is possible that some of the above facts will afford memoranda which may be of service in the organisation of the future Ambulance Department of London.

THE USE OF ELECTRICITY IN EAR-DISEASE.*

By E. WOAKES, M.D.

In discussing the subject of the use of electricity in diseases of the ear, I shall refer to it—first, as a means of diagnosis; and secondly, as a remedial agent.

As regards the value of electricity for the purposes of diagnosis in ear-disease, you will at once recall the experiments of Dr. Brenner at St. Petersburg, first made known about twelve years ago by the publication of his work on *Electro-Otiatrics*, a very fair *résumé* of which is given in Dr. Burnett's treatise on the *Ear*, and also in Dr. Roosa's last edition. You will remember that this work was the result of ten years of careful study, and therefore the conclusions arrived at are entitled to the weight which such exhaustive examination by a competent observer must always demand. The outcome of this study was, that the auditory nerve could be excited by the electric current, which in the normal state responded to it by certain constant phenomena; and that these phenomena were reduced to exact formulæ for the guidance of others, who would ascertain by means of electricity the state of the nerve of audition.

That Brenner's conclusions should meet with opposition, is only what may have been expected. Without desiring to prejudice the discussion, I shall state very briefly two points which seem to my mind fatal to the sufficiency of the experiments, and therefore to the conclusions deduced from them.

The conditions of the experiment make it probable that the auditory nerve is not reached by the current at all. The reasons for this conclusion are, that, when a nerve is superficially placed, covered only by integument—*i.e.*, when the electrode is applied to it—a very considerable portion of the current is diffused in the surrounding tissues. Bone being a bad conductor, this loss of electricity, de Watteville and Hitzig argue, not taking place, increases the probability of the current reaching the auditory nerve. (The electrode is placed in the external canal, previously filled with water.) But the current must previously affect other nerves within reach—the branches of the fifth—and reflexly excite spasm of the tensor tympani, before it reaches the auditory nerve. Now, the effect of exciting a powerful contraction of the tensor tympani is to make pressure through the stapes on the intralabyrinthine fluid. Dr. Weber-Liel of Berlin has pointed out to me that direct pressure over the stapes, when this bone is exposed by means of a probe, is accompanied by a sound which the patient experiences, resembling "ting-g-g". The correspondence between this sound and that produced by Brenner, and understood by him to imply a normal reaction to galvanism of the auditory nerve, is very significant. At any rate, it leaves one's mind in a state of doubt as to whether Brenner's normal reaction was not the result of inducing contraction of the tensor tympani in a healthy ear, seeing that such contraction, when in excess of what occurs in response to ordinary stimuli, is undoubtedly associated with a sound; that is to say, the sound is due in both cases to mechanical pressure, and not to electric excitation of the auditory nerve.

Another point, which stands somewhat in the light of a corollary to the preceding, is this: the supporters of Brenner's hypothesis attach great importance to the fact that, when the test is applied to a badly diseased ear of long standing, the phenomena do not occur in that ear, but in the opposite one, to which no electricity is applied; or they occur in both ears in a reverse order. The current is here supposed to pass along the partially paralysed auditory nerve of the diseased side, and to be transferred to the other and unaffected nerve by communications at their origin. Now I think there is another explanation, and a more reasonable one. It is very rare for an old-standing case of ear-disease to be free from paresis of the tube-muscles on the affected side. Now, if the conclusion at which I have already arrived hold good—viz., that the sound in question is the result of contraction of the tensor tympani—it is very obvious that, if this muscle be paralysed, or only partially paralysed, on the side to which the galvanism is applied, it will fail to react to the stimulus, or will react partially, or differently from what it would do otherwise. It is not improbable, under these circumstances, that the current would travel to the opposite branches of the fifth nerve; and that contraction of the tensor tympani of the opposite ear would ensue, and give the ordinary result in this, the unaffected side. That such cross action of a stimulus in the case of the fifth nerve does occur, is borne out by the following suggestive fact. A lady about fifty years of age, suffering with deafness and paresis of the tubal muscles of the right ear, not of an extreme type, states that, when she bites a crust or hard substance on her *left* upper second bicuspid tooth, she gets a distinct momentary ringing sound in her *right* ear. She is an intelligent common-sense person, not at all likely to imagine the symptom; and the statement I have repeated was volunteered to me. I need not stay to point out that the connection here can only be through the fifth nerve, and that it was transferred to the opposite side; thus establishing, as far as it goes, the possibility of a sound being excited through this nerve in the opposite ear.

"Professor Hughes's audiometer is an instrument for exactly measuring the power of hearing, and chronicling the progress of recovery from deafness." In the *Practitioner* for May 1880, Dr. Richardson is reported to affirm that it "may be used to differentiate between deafness through the external ear and deafness from closure of the Eustachian tube—throat-deafness; or to determine the value of artificial tympanums in instances of deafness due to imperfection or destruction of the natural tympanum." Others speak of it as an expensive and imposing toy. I cannot say that I am in a position to throw any light upon these extreme views, though I trust the discussion may do so.

I now have to consider the value of electricity in ear-disease, considered as a curative agent simply. I do not know how far the experience of other otologists corresponds in this respect with my own, but I am quite free to confess to a growing recognition of the paramount import of muscle-paresis as a chief factor in the causation of deafness and its concomitant symptoms in a very large proportion of those cases of the disease which occur in adult life. To Dr. Weber-Liel of Berlin is undoubtedly due the credit of having first pointed out this important fact in his work entitled *Progressive Schwerhörigkeit*, published in 1873. Three years ago, before I became acquainted with this work, I had quite independently arrived at the conclusion that paresis of muscle was in some way concerned in the production of the symptoms referred to, because I met with quite a number of cases in which these symptoms were associated with marked paralysis of the palato-tubal muscles. It is true that most of my cases presented some marked divergencies, as regards simply aural conditions, to those described by Weber-Liel; and I presented the first *résumé* of them to this Section in a paper which I had the honour of submitting to it last year at Cork. It would be beside my duty on this occasion to occupy your time with further details on this subject; suffice it to say that there appear to me two distinct phases of paralytic affections of the auditory apparatus—viz., that described as "progressive" deafness by Weber-Liel, and that which I have elsewhere described as "paretic" deafness. Now the importance to our present purpose of these observations, resides in the fact that it is in these paretic aural affections that galvanism will be found of essential service. That is to say, it is in the treatment of deafness in adult life, when this acknowledges a more deeply seated constitutional lesion of the nervous system, that the true province of electro-therapeutics, as it relates to otology, will be found to lie. Speaking strictly within the limits of my own experience, I have to regret that, even in this large class of cases, the use of electricity is essentially a limited one. The reason of this resides in the fact that we seldom meet with uncomplicated cases; for it is inherent in the nature of any affection which interferes with the function of the Eustachian tube—as paralysis of its muscles does—to induce a greater or less degree of passive congestion of the middle ear. Now it has been conclusively shown by the experiments of Morant and Dastre, a detailed account of which will be found in the *Comptes Rendus*, 1878, that, after galvanising motor nerves, there follows considerable hyperæmia in the tissues to which the branches are distributed, which condition

* Read at Cambridge to introduce the discussion on the subject at the Otological Section, August 1880.

will endure for some days. This effect is due to the circumstance that nearly all such nerves [illegible] or fibrillæ, and is owing to the dilating influence of the galvanism on the vessels to which these vaso-motor filaments are ultimately distributed. Therefore, while the application of the electric current will tend to restore the motor power of the muscles to which it is applied, it will at the same time perpetuate, if not increase, the already existing congestion of the middle ear.

This, I take it, is the reason why deaf patients subjected to the treatment in question fail to afford results proportionate to the restoration which we know has accrued in the muscle-power of the tube in consequence of their successful electrisation.

Obviously, therefore, the question of the use of electricity in a given case of ear-disease is one not to be decided without due deliberation and the exercise of considerable discrimination. These are points on which, doubtless, much information will be elicited from the discussion of the subject. Other points, respecting which the experience of each practitioner will give valuable hints, are, the kind of current suitable to the case to be treated, whether the continuous, the interrupted, or the induced current; also the strength of the current and the frequency of application. Speaking on these points from my own experience, I may say that I have nearly abandoned the constant battery for therapeutic purposes, and use most frequently a very weak induced current, and never repeat the application oftener than once a week.

Respecting the instruments necessary for the purpose, the simpler they are the better, providing efficiency be not sacrificed to obtain this end.

Galvanisation of the tensor tympani muscle with certainty can be best accomplished by means of Weber-Liel's intratubal electrode. It consists of a delicate gum-elastic catheter, which is introduced into the Eustachian tube to the desired length through an ordinary catheter. Through it runs a platinum wire, which is exposed for a short space near its distal end by means of an opening at the side of the elastic tube. The near end of this wire is attached to a ring, to which the cord communicating with the battery is hooked. The other pole can be applied by means of a sponge-holder either to the mastoid process or to an indifferent part.

It has been objected by Burnett, that the benefit resulting from the above procedure arises from the mechanical effect of the intratubal electrode acting as a bougie, rather than to the electricity applied through its means. Practically, I have found some difficulty in introducing Weber-Liel's instrument, from its exceeding pliability. Others, however, may have been more successful.

For galvanising the extratubal muscles I have long used a very simple electrode, consisting of an ordinary vulcanite catheter tipped with a metal rim, to which, inside and isolated by the vulcanite tube, is attached a wire, which at the opposite end joins a ring for connection with the battery. With this the remote portions of the tensor palati can be readily reached. The circuit is completed by the sponge-holder applied to the mastoid process. I have occasionally got very good results from this arrangement as regards increase of hearing power; and, as there can be no question of this instrument acting as a bougie, for it certainly does not get beyond the mouth of the tube, such improvement may fairly be attributed to the influence of the electric current. So far as this fact goes, it would seem to weaken Burnett's objection to Weber-Liel's instrument.

Looking to the important part which the tensor palati muscle plays in securing the functions of the Eustachian tube, it being the principal dilator of this canal; and seeing that the section of this muscle after leaving the hamular process is readily accessible on the anterior surface of the soft palate; and seeing that it is chiefly to paresis of this muscle that those objective signs of paresis of the palate are due, to which reference has been made,—it is my frequent practice to galvanise this muscle through the mouth—a proceeding which is very easy of performance. For this purpose, I use an ordinary laryngeal electrode, but somewhat larger than this instrument is now made; applying it over the soft palate in the course taken by the muscle on each side of the uvula, the circuit being completed by placing the sponge-holder attached to the other pole over the mastoid process of that side corresponding to the side of the palate to which the laryngeal electrode is being used.

AT the last sitting of the select council on the Artisans Dwellings' Act, the medical officer of the parish of St. George's-in-the-East, stated that in a district between the London Docks and the Thames there were houses, occupied by the lowest form of labourers, with only two rooms, in which as many as twelve persons were living. In others there were six in two rooms of about 750 cubic feet each. The death-rate in the worst part of this district was thirty-one per 1,000, and the rate all over the district was 25 per 1,000.

TWO CASES OF STRANGULATED HERNIA: WITH SOME NOTES ON THE OPERATION.*

BY PAUL W. SWAIN, F.R.C.S.,

Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

I HAVE selected strangulated hernia as the subject for a paper, partly because, within the last fortnight, two cases presenting some peculiarities have occurred in my practice, and partly because it is a subject of such universal interest, that few members of our Branch can fail to contribute material information during the discussion which, I trust, will follow the reading of this paper.

On December 22nd, I was asked by Messrs. Miles and Stamp of Plympton to see a lady, aged 55, with symptoms of strangulated femoral hernia. On the previous day, she had been quite well up to the time of her late dinner, when, after a fit of coughing, she was seized with sudden pain in the abdomen, and vomiting. She also had an idea that, shortly before, she had strained herself by lifting a heavy music-book. She was seen at once by Mr. Stamp, who found that she had a tense and painful swelling in her left groin, which he naturally concluded to be a hernial protrusion. Up to this point, the case seemed clear; but here came in a bit of previous history, which at once introduced an element of grave doubt. Two years ago, this lady had been engaged in selling at a bazaar, and had been standing about more or less all day. The next day, she complained of pain and swelling in her left groin, accompanied with sickness. The medical man, under whose care she then was, considered that the swelling was due to an enlarged gland; and she was treated for some weeks by rest and iodine. As to whether the swelling had ever entirely subsided from that time to the present, there was no clear history. I arrived on December 22nd, at 5.30 P.M., just twenty-four hours after the primary attack of pain and vomiting. Her pulse and temperature were both normal, her countenance tranquil, and her tongue moist but furred. She had no abdominal tension or tenderness. There had been an evacuation from the bowels that morning after an enema. Twice or thrice during the day she had vomited green bilious matter, with no suspicion of stercoraceous vomit. The swelling in her left groin was about the size of a small hen's-egg, very tense, somewhat painful on pressure, and decidedly resonant on percussion. I had not the slightest doubt in my own mind that it was a hernial protrusion. Looking, however, to her previous history, and at the same time taking into consideration the absence of urgent symptoms, we determined to violate one of the golden rules of surgery, and to wait. We, therefore, decided on giving a quarter of a grain of extract of belladonna, every four hours; to apply ice to the swelling; and to feed her on small quantities of lime-water and milk, and Brand's essence of beef. She was also to have another simple enema. I heard no more of the case for the next forty-eight hours, when I was again requested to see her. The change in her condition, although not great, was very decidedly for the worse. She had had no motion from the bowels; the sickness of the same character was still present. Her countenance was somewhat more anxious, and the abdomen rather tense. No further delay was admissible; and, the patient consenting, the operation was performed under the influence of methylene. You will doubtless agree with me that no two operations for the relief of strangulated hernia are ever alike, and this one did not fail to have its peculiarity. We are taught in the books that, when fluid escapes upon puncturing one of the layers of tissue, you may feel confident that you have entered the sac of the hernia; and, as a rule, doubtless this is the case. But, on the present occasion, I divided three successive layers of tissue, from under each of which a large quantity of fluid escaped. The last one was the sac itself, and within it there was no difficulty in recognising the knuckle of intestine. The difference in colour is so striking that a mistake can hardly be made. The sac is of a pearly white colour, whereas the intestine varies from bright rose to coal-black, according as it has been strangulated a shorter or a longer time. For the rest, I may say that the patient made a perfect recovery, without a bad symptom—the wound healing by the first intention, and that without the intervention of Listerism.

You will naturally ask: Why, if you were convinced you had to deal with a constricted knuckle of intestine, did you wait? My answer is, that I had in my mind an acute recollection of a very instructive case, which happened to a colleague of mine, in the practice of the Royal Albert Hospital. A woman whom I myself sent into hospital, with what I thought to be a strangulated femoral hernia, fell to the lot of my colleague (Mr. Bulteel), who, agreeing with me, operated; and, having removed an enlarged gland, could find no sign of intestine. Upon

---

* Read before the South Western Branch.

that the patient recovered, all the symptoms of strangulated hernia subsiding. Remembering this case, and seeing how slight were the constitutional symptoms, I felt justified in delaying the operation. At the same time, I must strongly enforce the rule for early operative interference in strangulated hernia. The plea for delay must, indeed, be a strong one to be admitted. The danger to the patient lies, not in the operation itself, but in the too frequent delay in performing it.

By one of those odd coincidences, which happen so frequently as almost to become a rule, I was asked by the same surgeon, within two days, to see another case of strangulated hernia: this time in an old gentleman, a retired member of our profession. The old saying, that "the cobbler's children are worst shod", was illustrated in his case. For years he had been subject to a left inguinal hernia, but had never worn a truss. His Nemesis overtook him on December 26th. I saw him on that day at noon. His hernia had been strangulated for twelve hours, and he had all the usual symptoms. It was very large and tense. We tried to reduce it by suspending him head downwards, but failed. He then consented to an operation, which I performed without the use of any anæsthetic, as his heart was exceedingly feeble. The operation was a particularly easy one, except that there was some little trouble in returning the bowel, owing to its large distension. He did well until about midnight, when, having previously loosened his bandages, he persuaded his attendant to allow him to get to the side of the bed. He then had an action of the bowels with violent forcing. The result was, that a large quantity of intestine was forced down into the scrotum, very soon causing enormous œdema of the penis and scrotum, and necessitating the removal of the stitches. Both Mr. Miles and Mr. Stamp tried in vain to return the bowel; and I saw him at 2 A.M. He was lying on his back, with a coil of intestine about six feet long protruding on his belly, forming a tumour nearly of the size of his head. We gave him ether, and I enlarged the opening; and, with infinite trouble, returned the bowel. I trust such an occurrence will never happen in your practice; but, should it do so, I think I can give you a practical hint which will assist you. Remember that you have to deal with a loop of intestine, passing through a small orifice. The first thing to be done is to fairly unravel the loop, and trace the two ends to the orifice. Make up your mind which end you intend to commence returning. Then, with your two forefingers, begin steadily to pass that end, with a sort of kneading motion, into the abdominal cavity; and never leave that end until you have passed the entire loop back in an orderly manner. Pricking the intestine is, I know, recommended; but I very much doubt if, in dealing with so large a mass, it would be of much service. I should prefer to use rather a small trocar, or else to aspirate. The enlarging the opening may be done freely and with impunity, provided you assure yourself, with the point of your forefinger, that no artery is in the way.

I regret to say that this case terminated fatally. He went on quite well until 8.30 the following night, when he suddenly became collapsed and died, doubtless from perforation.

In conclusion, I wish to direct your attention to one point in this operation. You know the ordinary method of operating is, after the first incision through the skin, to pinch up a bit of tissue with the forceps, nick it with the scalpel, cutting on the flat; then, passing a director through the opening thus made, to divide the layer of tissue on the director with the scalpel. I consider this to be both a clumsy and a dangerous proceeding. In the first place, unless your scalpel be very keen, the tissues, instead of being divided, recede before the knife, and it is very difficult to keep your deeper incisions as large as the superficial one. Again: the scalpel is very apt to slip off the director; and I have often felt no little concern, especially when standing by as a spectator, as to where its point might go. All this is avoided by the use of scissors. The scissors I use are those commonly employed for extirpation of the eyeball, blunt and slightly curved. With this instrument, the use of the director (in itself a danger) is dispensed with; and I am quite certain that the operation is performed with greater rapidity, neatness, and safety, than with the scalpel and director.

ATTENTION has been called to the condition of some of our city churches in a report just published by Mr. Wright, the honorary secretary of the City Church and Churchyard Protection Society. It appears that some of these last resting-places of the dead are mere depositories for rubbish, walled in by advertisement hoardings. Those which are singled out for special comment in the report are St. James's, Duke's Place; St. Martin Outwich; St. Mary Somerset; St. Mildred's, Bread Street; St. Anne's, Blackfriars; and St. Peter's, Westcheap. One is used as a lumber yard, by a churchwarden, as also is the church steeple; in another, an iron company deposits castings and bars; a third is seemingly appropriated by a dust contractor; whilst a fourth, we are told, is in a most wretched state of filth and desolation.

A CASE OF DISTOMA HEPATICUM (LIVER-FLUKE) IN MAN.*

By WM. EDWARD HUMBLE, MD., Corfe Castle; and WM. VAWDREY LUSH, M.D., M.R.C.P.

AT the present time, when flukes are so common in sheep, we think that some account of a case in which the same parasite was found in man may prove of especial interest. We propose, first, to give an abstract of the case; secondly, to give an account of the development of flukes, such as is commonly accepted; and, lastly, to suggest some difficulties which, in our opinion, militate against the acceptance of the same.

Richard Gover, of Corfe Castle, a labourer, aged 52, first came under the care of Dr. Humble about November 6th, 1879, complaining of vomiting, with pain at the upper part of the abdomen; and his general state was such as to lead to the supposition that he was suffering from gastric and hepatic cancer, although there were some difficulties in the way of the diagnosis. As his wife was suffering from very severe pneumonia and pleurisy, and his daughter from acute anasarca, he was recommended for admission into the Dorset County Hospital, and was received on November 21st.

On admission, his abdomen was somewhat distended with flatus, intensely tender at the upper part of epigastrium. His pulse was 72; respirations 20; temperature 98°. At that time, there was no vomiting, but he stated that he had been suffering from vomiting for two months, which had increased to such a degree that he had been unable to retain any food, either liquid or solid. Four days later, there were increased pain and tenderness at the epigastrium, right hypochondrium, and right ilium, and his pulse had risen to 102, his temperature to 101.3°. The next day, the right side of the abdomen looked a little larger than the left, but no increase of hepatic dulness could be detected. There was some diarrhœa. On November 28th, evacuations were passed involuntarily on coughing. The breath was very offensive. In this state he continued for some days, and, on digital examination, the upper part of the rectum appeared blocked up by some mass. On December 5th, there was much delirium. On December 6th, he vomited half a pint of coffee-ground fluid, with a dark greenish scum. The delirium continued more or less for several days, and subsided about the 11th. The next day, a large ash-coloured stinking slough, about five inches by three, was discharged *per rectum*. Though quiet and sensible, his motions were passed involuntarily; so he continued for some weeks, his appetite improving greatly, taking fowl, fish, rabbit, mutton, and even bread and cheese, for which he had an especial desire. At length, fistulous abscesses formed in the neighbourhood of the rectum; and, on March 9th, he was transferred to the care of the surgeon. He continued to sink, had rigors, and died three weeks afterwards, March 31st, 1880.

At the necropsy, the upper part of the rectum was found thickened and narrow, and fistulous abscesses opened into it. The liver was of a greyish red, tense, smooth, greasy, and easily broken down. The hepatic ducts were considerably thickened and enlarged, and contained about twenty-six fully developed distomata hepatica. The weight of the liver when cut open and drained of blood was 3 lbs.

REMARKS.—We can throw no light on the question, how the patient contracted the disease. His widow states that he rarely ate animal food, never sheeps' liver, nor rabbit. He occasionally ate calves' lungs, but not the liver, and his diet was chiefly bread and cheese; he frequently ate watercress. Before applying to Dr. Humble, his symptoms appear to have been great and increasing fatigue on exertion, attacks of faintness and pallor, and loss of appetite. His widow says that, before any symptoms of illness, he became much stouter; and that she had to let his clothes out some inches. Does this correspond to the fattening of sheep mentioned by Simmonds?

We proceed to give some account of the development of the fluke. 1. The mature fluke contains and lays many thousands of minute eggs. 2. Under favourable circumstances, each egg gives vent to a ciliated spherical embryo. 3. These ciliated embryos swim or move about, and may attach themselves to the body of some aquatic insect, and gain access to its interior. 4. Here these embryos lose their cilia, are transformed into a large cyst, and give rise to a brood of little tailed worms called cercariæ. 5. Now these cercariæ may be received into the bodies of quadrupeds either whilst in the bodies of their mollusc or insect hosts, or, having escaped from them, may be received by drinking water, etc. 6. Either in the bodies of

* Read at the meeting of the Dorset District

the quadrupeds or in the bodies of the mollusces themselves, the cercariæ pass into a pupa state, rolling themselves into a ball, and emitting a quantity of mucus, which hardens into a shell-like covering. (Cobbold, *Intellectual Observer*, 1st vol. Simmonds, quoted in *Medical Times and Gazette*, 1862.) Lastly, they find their way into the duct of the liver, cast off their tails, and develop into perfect flukes, producing enlargement and thickening of the hepatic duct, and all the train of symptoms occasioned by impoverished and watery blood, as shown by the general emaciation, the watery eye, pale gums, serous effusions, falling of the wool, etc. (Dr. Edwards Crisp, the *Times*, April 1880).

To resume: From the fluke come, 1. The eggs; 2. The ciliated embryo, which enters a mollusc; 3. The spore-cyst; 4. Cercariæ; 5. The pupa, and then the fluke again. The pupa stage is regarded as the penultimate stage in the series of transformations which result in the development of the perfect fluke; and it appears probable that it is only when entering the organism of vertebrate animals in the pupa stage, that the entozoon will be fully developed. Professor Simmonds administered a large quantity of ova to a sheep, but, on killing the animal six months afterwards, not a single fluke was found. The cercariæ have been administered with like results.

That sheep are especially the subject of the disease is probably explained by their feeding close to the ground, cropping the short grass where the pupæ or mollusc abound. A curious confirmatory fact is related by Cleeve in an essay on Diseases of Sheep. In a Devonshire parish, all the sheep depastured in the marshes were attacked with "rot" and died, with the exception of four. These four were all "hog-mouthed", that is, the lower jaw was shorter than the upper; they consequently could not bite near the ground. And it was stated that sheep may be fluked in two hours by turning them into certain wet meadows, where they get the baby-fluke (*Medical Times and Gazette*, 1862).

Dr. Budd quotes the following striking instance: "A sheep belonging to a lot of twenty, was lamed in consequence of a broken leg, in getting out of Burgh Fair in Lincolnshire. The nineteen were suffered to range on a common at the end of the town, until a cart could be procured to carry the maimed sheep home. The nineteen all died rotten, while the sheep with the lame leg continued perfectly free from the disease."

Besides sheep, flukes are found in hares, rabbits, oxen, the deer, and the pig, and occasionally in man, but the instances are not numerous. In man, they are generally found in the duodenum, the hepatic ducts, or the gall-bladder.

Lastly, we see some difficulty in the acceptance of the doctrine that the fluke passes up the ductus communis into the liver.

Taking the liver of a sheep just killed, and cutting the edge of the liver where no bile-ducts were visible to the naked eye, scraping a little of the juice on the point of a penknife, Dr. Humble found, under the microscope, over one hundred eggs. Now, how did they get there? If laid by the flukes, surely these flukes must have been so far mature, as not to be able to occupy capillary tubes; and then how did the eggs get into these minute ducts (if indeed they were in the ducts) against the current and without cilia? This experiment was several times repeated, with the same results, in different livers. And Dr. Budd relates an authentic case, where M. Duval of Rennes found flukes in the portal vein, and asks how the flukes got into the vein. There were no flukes in the gall-ducts, nor any signs of them. And suppose they grew in the vein, how did their eggs or larvæ, which are so much larger than the blood-corpuscles, get there?

Now, might the parasite enter the liver through the blood, and find its way down through the common ducts into the intestine? as the embryo of the tænia are said to penetrate a mesenteric vein; and, being swept onwards by the course of the blood to the portal vein, pass into the minute ramifications of the portal system, and find a resting-place in the liver, and then develop into cysticercæ (Aitken, *Science and Practice of Medicine*, vol. ii, 2nd edition, p. 186).

The remedies which seem to offer the most hope of success are the sulphocarbolates, carried to such an extent as to keep the system saturated with carbolic acid, which may be done with perfect safety; or perhaps the alkaline or earthy sulphites.

INTERNATIONAL VETERINARY CONGRESS.—It has been decided that the sittings will take place on Wednesday, July 20th, and Thursday, July 21st; and (at the discretion of the constituents) the Congress may extend over July 22nd. The meeting will take place in the Society of Arts' Rooms, John Street, Adelphi. Among the subjects to be discussed will be: Questions of Soundness and Unsoundness of Domesticated Animals; Influence of Diseases of the Lower Animals on the Health of Man; Cruelty to Animals from a Veterinary point of view; Effective Legislation against Contagious Diseases of Animals.

RÖTHELN: ITS SYMPTOMS AND NOSOLOGICAL POSITION.*

By JOHN W. BYERS, M.A., M.D., M.R.C.S.E.,

On May 13th, I was asked to see an intelligent boy, aged 9, of whom I learned the following particulars. On the previous morning, he had been perfectly well; but he told me that, soon after going to school, he felt "very tired" and sick, and had a severe headache. He did not shiver, and there had been no tendency to vomit. On returning home in the afternoon, he still continued unwell, and, during the evening, his friends noticed that he was "hot and feverish". He passed a restless night, getting little continuous sleep. I ascertained that, when an infant, he had suffered from an attack of measles, but he had never had scarlatina.

When I first saw him, at 10 A.M. on the morning of May 13th, his condition was as follows. He was lying in bed, with a dry hot skin; temperature 104° Fahr.; pulse 130, full and strong. The conjunctivæ of both eyes were injected, but this was not accompanied by any lachrymation. He had no cough, no tendency to sneeze, and there was no running from the nose. The tongue was fairly clean, except for a slight furring along the centre. The posterior part of the soft palate, including the uvula and tonsils, was bright red, the congestion being uniform, and not punctated. An examination of the chest and abdomen revealed nothing abnormal in these cavities.

On the forehead, cheeks, neck, and upper part of the chest, there was an eruption, which had been first observed on the face shortly before my visit. On the face, this eruption was in the form of a series of small isolated rose-coloured papules, which, on running the finger over the skin, were felt to be slightly raised. On the chest, the spots were larger, and resembled the eruption of measles, except that there was none of the crescentic outline often seen in that disease. There was no enlargement of the lymphatic glands, except those at the back of the sterno-mastoid (in the same position as in porrigo); but these, the lad explained, had been in that condition for some time before the attack. Although the throat was markedly hyperæmic, he did not complain much about it. At 8 A.M., he had taken a dose of castor-oil. He was now ordered a diaphoretic mixture. 3 P.M. The bowels had acted freely since the morning, and he was in a profuse perspiration. The temperature had not fallen, being still 104°; and the pulse 140. The rash was now all over the chest, abdomen, and back. 5 P.M. He was now wandering and delirious, and did not know me when I was at his bedside. At 10 P.M., the temperature had fallen to 99° Fahr., and the pulse to 100. He seemed markedly better, and was talking quite sensibly. The rash was now at its maximum, and covered the greater part of the trunk and extremities. On the body, as I have stated, it resembled the rash of measles; but, on the arms and legs, from the spots having become confluent, and from the colour being brighter, it assumed more the appearance of scarlatina.

May 14th. He had a good night, and slept well. He took a lightly boiled egg for breakfast. The temperature was normal night and morning. The rash had disappeared from the face and neck, but was still present on the trunk and extremities.

May 15th. The temperature was again normal. The rash was quite gone from the abdomen and front of the chest, but was present on the back and on the limbs.

May 16th. Temperature was again normal. The rash was only to be seen on the gluteal region and in the cleft between the hips, where it was very like the rash of scarlatina.

May 17th. The rash was now quite gone; and, on the 18th, he was convalescent.

The eruption was not at any time accompanied by itching, and was not followed by desquamation. The urine which I examined during the attack was acid, of specific gravity 1020, and did not contain any albumen.

On the third day of the boy's illness, I was informed for the first time that there had been a case of "German measles" in an adjoining house, and that there had been communication between the inmates of the two houses a few days before the beginning of the boy's illness. I mention this, but do not rely on it as the source of the infection, as it would make the period of incubation very short; and, as there was an epidemic of rötheln prevailing in the neighbourhood, the contagion was more probably derived from quite another source.

* Read at the Annual Meeting of the North of Ireland Branch.

REMARKS.—It will, I think, be generally admitted that the above case, the clinical features of which I have endeavoured to describe, was rötheln. The following points in connection with the case are noteworthy.

1. *The Severe Character of the Eruption during the Stage that the Rash was developing.*—During this period, the quick pulse and high temperature, taken along with the constitutional symptoms, made me apprehensive that a much more formidable disease was being ushered in.

2. *The Character of the Fever.*—The temperature remained steadily at 104° Fahr. during the greater part of the second day; while, in the evening, coincident with the maximum development of the eruption, there was a very sudden defervescence, the thermometer registering 99° Fahr. at 10 P.M. With this marked crisis, there was also a lowering of the pulse, and a decided improvement in the condition of the patient. The next morning, the temperature was normal, and did not rise again.

In looking over the literature of rötheln, one meets with contradictory statements as to the character of the fever that accompanies the disease. For example, Wunderlich, in his classical book on *Medical Thermometry*, in speaking of rubeola (rötheln), says: "It does not necessarily entail any fever at all, or only a slight transient attack before or during the eruption. The elevations of temperature are generally subfebrile, or, at the worst, moderately febrile. And although, in isolated cases, more considerable elevations of temperature may be met with, they depend, no doubt, either on complications or on the peculiar mobility of temperature which is characteristic of very young children." (*Medical Thermometry*, New Sydenham Society, p. 351.) Vogel, in writing of this disease, says: "In most instances, it appeared and ran its course without the least catarrhal symptoms, and without fever." (*Diseases of Children*, p. 495.) On the other hand, Dr. Edward Long Fox states, from what he has seen of this disease, that "the rule certainly is that, on the first two days of the disease, whilst the eruption is coming out and advancing to its maximum, the temperature is rather high". He gives the thermograph of one case in which the temperature rose above 104° Fahr., but adds that this was a higher point than usual, and that more frequently the highest point is 103° Fahr. (Clinical Observations on the Temperature of Disease, *Medical Times and Gazette*, April 2nd, 1870, p. 360.) Very full statistics relating to the temperature of rötheln are given by Dr. Lewis Smith of New York, in his book on the *Diseases of Infancy and Childhood;* and his conclusions are as follows. "The observations, therefore, of Dr. Reid in the Foundling Asylum, and my own in private practice, show that the febrile movement is constantly mild in most cases of uncomplicated rötheln, but that certain patients have temporary exacerbations of fever, in which the temperature is as elevated as in scarlet fever or severe measles.' '(*Diseases of Infancy and Childhood*, by Lewis Smith, M.D., 4th edition, p. 195.) Thomas, in his monograph on Rötheln in Ziemssen's *Cyclopædia* (vol. ii, p. 145), while he holds that in the majority of cases there is no fever, states "that the course of the temperature during rubeola (rötheln) is a very varying one; for there occur cases with normal temperature throughout; cases with fever during the whole eruption, with a rapid initial increase, and a defervescence with crisis or lysis; and, finally, cases with an initial fever, and a defervescence concluded before the expiration of the eruption."

In the case of which I have given the notes, the temperature seems to have run unusually high for rötheln, and there were no complications present to account for it.

3. *The Eruption.*—This came out on the second day; appeared first on the face on May 13th; spread thence over the body and extremities, and had quite disappeared on May 17th. In character, it resembled measles on the face and trunk; on the extremities and in the cleft between the hips, it was scarlatiniform. As I have stated, it was not attended by itching, and was not followed by desquamation.

"There is scarcely another disease upon which the views of authors differ so vastly as upon rubeola" (rötheln). So wrote Vogel; and although, since the time these words were penned, very great advances have been made in our knowledge of this disease, its exact nature and position among the exanthemata do not seem to be absolutely determined, as is evidenced by the fact that, in the section devoted to diseases of children at the forthcoming International Medical Congress, one of the subjects that the committee have selected for discussion is the real position of rötheln, and its relation to scarlatina and measles.

Nothing has caused more confusion than the number of names under which this disease has been described. Thus it has been called rubeola, German measles, scarlatina morbillosa, hybrid measles, epidemic roseola, rose-rash, rötheln, etc.

Is rötheln merely a mild form of measles, or of scarlatina, or a combination of both (a sort of hybrid)? or is it a disease *sui generis*? In the *Dictionnaire Encyclopédique des Sciences Médicales*, it is described under the head *Roséole;* and the writers of the article think that those cases which have been published as cases of rötheln are to be regarded either as measles or abnormal forms of scarlatina, or as combinations which they term rubeolo-scarlatinas (*rubéolo-scarlatines*). These writers state that cases of rötheln are exceptional in private practice, and occur only in the course of certain epidemics; and that they are but little observed except in children's hospitals, where, from the crowding together of patients suffering from the different exanthemata in different stages of their development, hybrid products arise, which are deviations from the normal type of the fevers—in fact, pathological monstrosities (*monstrosités pathologiques*).

I think there can be no doubt that many cases of rötheln are diagnosed as mild or abnormal varieties of measles or scarlatina, especially when epidemics of these fevers are prevailing. Many so-called second attacks of these diseases are probably also cases of rötheln. That, however, rötheln is a specific disease quite distinct from either measles or scarlatina, and having definite features of its own, has long been held in Germany; and this view has been steadily gaining ground in England, where it has been supported, among others, by Aitken, Murchison, Bristowe, Liveing, Duckworth, etc. That it is quite distinct from measles and scarlatina seems to be established, apart altogether from its own peculiarities, by the fact that a previous attack of measles or scarlatina does not give immunity from rötheln (and this was exemplified in my case), and that having had rötheln does not prevent one from taking measles or scarlatina.

It is only by the careful observation and reporting of cases that our knowledge of rötheln can be rendered complete; and, when this is done, it is probable that rötheln will occupy a position as distinct as measles or scarlatina. These were for many years regarded merely as varieties of one and the same disease, and were only finally separated about the middle of the eighteenth century.

CLINICAL NOTE AND REMARKS ON A DISEASE OF THE EYES PECULIAR TO COLLIERS.*

By WILLIAM SYKES, M.R.C.S., L.R.C.P., Mexborough.

THE reasons which induce me to bring the paper I am about to read to your notice are these. 1. The observations it contains are entirely original; for though, since preparing it, I have been informed that the disease in question has been previously described, I have never met with any work bearing upon it. 2. It is not even mentioned in any of the text-books devoted to diseases of the eye which I have consulted (Carter, Walton, Macnamara, Lawson, etc.); neither is it given in those other works devoted to the diseases caused by unhealthy trades which I have read. 3. A large number of colliers (at least one-half or quarter per cent.) are affected by the complaint. The case which first drew my attention to the question was the following.

E. N., a collier, aged 29, consulted me for the first time in August, 1877. His eyes were in the following state: the left pupil was widely dilated, and perfectly insensible to the stimulus of light; the right one was also dilated, but to a less extent, and was slightly sensible to light. Nystagmus to a marked degree was present, both eyes oscillating, or, as the patient's wife described it, "flickering", at a tremendous rate. With the left eye, he could only distinguish light from darkness, but could not discern objects at all; with the right eye, he could distinguish my features, but could not read the largest-sized print. The patient said that he first noticed any failure in his sight when he observed, as he used to walk homewards at night the previous January, that the gas-lights in the streets looked dim, and jumped and flickered about—(and I may here remark that, in all, or nearly all, of the cases I have since examined, this failure of sight at dusk, as the first symptom of the disease, has been present). He had been to a local infirmary, and the surgeons there had discharged him as incurable—telling him that there was cerebral disease, and he would ultimately become quite blind. He had also attended a school for the blind, and the physician to that institution had told him he would not recover. I diagnosed the case as one of atrophy of the retina, and told the man he would surely never be any better. I prescribed tincture of perchloride of iron, with liquor strychniæ, as a medicine, without either perceiving, or indeed expecting, any improvement during its administration. The poor fellow collected sufficient money to purchase a horse and cart, for he hoped, with assistance of his little boy, that he could still manage to get about sufficiently well to gain a livelihood by selling coals, etc. His eyes, he said, however, were deteriorating very fast during the last few months, and he feared that before long he would be entirely blind.

Six months after he had commenced this mode of living, I met him, and asked him how his sight then was. "Nearly well", he replied; and, to my surprise, on examining the eyes, I found that the nystagmus had almost entirely disappeared, the right iris answering freely and the left slightly to the stimulus of light. The left pupil was also less dilated. I may summarise the after-history of the case by saying, that I have seen this man frequently since, and that the eyes have continued to improve, so that, at the present time, he can read small print fairly well. I will not weary you by relating any more cases of the kind, of which I have several, but will merely make the following remarks in conclusion.

1. *Pathology.*—I have examined the optic disc with the ophthalmoscope, but do not feel sufficiently satisfied in my own mind to record my opinion here. I will just remark that the history of the above case shows that there is probably no grave permanent lesion of the retina which would lead to there being visible anatomical changes, else the rapid improvement of vision described would not have taken place.

2. *Cause of the Disease.*—The miners themselves give the credit of it to the insufficient light cast by the safety-lamp. This may be the case; but, since we do not find the disease mentioned as occurring in other classes of miners who work in almost as dark places, I am inclined to attribute it to the inhalation of the poisonous gases which are found in the coal, which probably alter the composition of the blood; and thus not only interfere with the nutrition of the eye, but also produce a local venous congestion. This question is of importance; for, if the complaint be produced by insufficient light, it is the duty of Government to encourage the invention of a lamp as safe as, and more effective than, the one in use at present. If, on the other hand, the disease originate in the cause I have suggested, better ventilation seems to be urgently required.

3. *Treatment.*—Little or no treatment appears to be necessary. In all the cases I have observed, very marked improvement took place on exposing the patients to free light and air; in many, complete cure was effected; in all, a great improvement was perceived.

NOTES OF A CASE OF INTRA-UTERINE AMPUTATION.

By R. J. ANDERSON, M.D.,
Demonstrator of Anatomy, Queen's College, Belfast.

CASES of intra-uterine amputation, although by no means common, yet present features of interest sometimes that have more direct relation to the cause of the accident. The following example has been thought worth recording, as an opportunity was afforded of dissecting the parts, so that the condition of the muscles after a period of many years was examined.

A female subject, aged 55, was brought to the anatomical rooms early in the session 1880-81. The left upper extremity presented no variation from the natural condition as far as the middle of the arm; below this point, a constriction existed; and in the region of the stricture the skin was darkly pigmented. A large cutaneous fold extended from a point six inches above the elbow to a point four inches below. It was two or three inches in breadth at the elbow-joint, and consisted of two portions of skin placed back to back. The distal phalanx of the thumb, and all the metacarpal phalanx except the base, were wanting. The proximal phalanx of the index finger was all that remained of that digit. The flexor profundus digitorum in the index finger was inserted a little above the flexor sublimis, near the distal extremity of the first phalanx. The flexor longus pollicis was inserted into the base of the metacarpal phalanx. The middle, ring, and little fingers were entire; the latter, however, was bent, the second and third phalanges being placed at right angles to one another. The tendon of the extensor communis digitorum to the index finger was attached to the distal extremity of the first phalanx. The extensor secundi internodii pollicis was attached to the remains of the proximal phalanx of the thumb. Nails were not present on the first and second fingers.

In the right upper extremity, the second phalanx of the thumb and a portion of the first phalanx had been removed. The last phalanx, and the middle, except the base of the index finger, the third, and three-fourths of the middle phalanx of the middle finger, were absent. Nails were absent on these; a nail was present on the ring finger, at its extreme end its distal phalanx had disappeared. The little finger was perfect. The flexor longus pollicis was inserted at the distal extremity of the first phalanx. The tendons of the flexors were inserted together into the base of the second phalanx of the index finger, that of the superficial flexor splitting. The tendons of the same muscles to the middle finger were inserted into the base of the second, that of the flexor profundus being placed between the two parts of the sublimis. The common extensor tendon was inserted into the base of the second phalanx, and the arrangement in the case of the third and fourth was similar. The extensor primi internodii pollicis was inserted into the base, the extensor secundi internodii into the distal extremity of the first phalanx. A slip from the tendon of the extensor primi internodii passed to that of the latter muscle, and was inserted with it.

The right lower extremity presented few features of interest. An almost complete web extended between the fourth and fifth toes; a less marked cutaneous fold was present between the second and third.

The left lower extremity presented an interesting case of talipes varus. The toes had suffered as in the case of the hands. The inner aspect of the gastrocnemius was composed largely of fibrous tissue, and was much smaller than the outer. The other parts did not differ materially from the condition usually found in similar cases.

In a case referred to in the *Medico-Chirurgical Review* (vol. xix), a constriction existed above the elbow. The parts were atrophied and œdematous. The radial side of the wrist was bent, and the fingers contracted. In the case above recorded, the parts beneath and in the neighbourhood of the constriction were not much affected, showing that the constriction, if it were ever present, must have passed away. No constrictions were present in the lower extremities, as in Frickhöffer's case, where, with a talipes varus, a constriction occurred at the left knee-joint.

In volume xxxii of the same journal, an abstract of G. Braun's views is published, with cases. The abnormal growth of the amnion produces definite bands, that are carried to the back of the embryo, and the bands, extending from both sides, coalesce. These bands produce a very marked effect on the development of the embryo. In one case given by the above-mentioned observer, there was a fissured palate. The frontal and occipital bones were undeveloped, and fibrous bands extended across the cranium. In another, the nose and upper lip were fissured.

ELECTRO-DIAGNOSIS.*

By J. DIXON MANN, M.D., M.R.C.P.

THE rapid progress recently made in the pathology of diseases affecting the nervous system, by demonstrating the relation between organic lesions and the resulting train of symptoms, has greatly enlarged the field of diagnosis, and has developed the use of systematic methods of investigating the physical conditions to which such diseases give rise. In seeking to ascertain the essential nature of a neurosis, many methods are used to test the functional activity of the affected muscles and nerves; and, by comparing the results with those obtained from an examination of corresponding and healthy structures, to localise the causal lesion, and to gauge its intensity. In investigations of this kind, much information is derived from comparative observations of the immediate effects produced by electricity on nerve and muscle, in health and in disease. The diagnostic powers of electricity are largely used by those specially engaged in the treatment of diseases of the nervous system; but, owing to an exaggerated estimation of the technical skill required for its practice, electro-diagnosis has not yet received the general attention due to its importance. The time approaches when the diagnosis of many diseases of the nervous system, hitherto considered obscure, will be a matter of ordinary routine; every practitioner, therefore, should be conversant with all the recognised methods of investigation.

The application of the constant, or voltaic current, to a healthy muscle, produces contraction only at the opening and at the closure of the circuit—that is, at the moment the current begins, and at the moment it ceases to flow; whilst the current is flowing, the muscle is passive. Different degrees of current-strength are required to evoke muscular contraction, in accordance with the fourfold manner in which the contraction may be produced—namely: at the closure of the circuit, and at its opening, with either the positive or negative pole. Beginning with a mild current, and gradually increasing it, the first normal reaction which occurs is that produced by making contact with the negative electrode—cathodal closure contraction (C. C. C.). Next comes the contraction produced by breaking contact with the positive electrode—anodal opening contraction (A. O. C). Almost synchronous with the last is the anodal closure contraction (A. C. C.); and, last of all, requiring a most powerful current, is the cathodal opening contraction (C. O. C).. When the current is very strong, the cathodal closure contraction assumes a tetanic character; if the current be still further augmented, the anodal closure contraction evinces a like tendency. The

* Read at the annual meeting of the Lancashire and Cheshire Branch.

diagnostic value of these reactions is derived from certain changes produced in their amount, order, and character, by different forms of motor paralysis. For the purposes of electro-diagnosis, paralyses may be divided into two primary divisions: 1. The electrical reactions are unaltered; 2. The electrical reactions deviate from the normal. The last division is subdivided into: *(a)* cases where electro-irritability undergoes simple increase; *(b)* cases where electro-irritability undergoes simple decrease; *(c)* cases where qualitative, as well as quantitative, changes occur.

1. Paralyses in which *electro-irritability is unaltered*. Cerebral: from apoplexy, embolism, or tumours. Spinal: from chronic myelitis. Peripheral: rheumatic, slight facial, and slight traumatic paralysis.

2. *(a)* Where there is *simple increase of electro-irritability*. (This deviation is of rare occurrence.) In the early stage of hemiplegia, in locomotor ataxy, and in the early stage of some peripheral paralyses, *ex. gr.*, facial paralysis.

(b) Where there is *simple diminution of electro-irritability* (more frequent than the last). In bulbar paralysis (rare); in spinal paralysis, accompanied with muscular atrophy; in progressive muscular atrophy.

(c) Where there are *qualitative, as well as quantitative, alterations in electro-irritability*, called by Erb "the reaction of degeneration". This deviation is characterised by quantitative changes in the electro-irritability of nerves, and in the farado-irritability of muscles; and by both quantitative and qualitative changes in the volto-irritability of muscles. The following is an epitome of the changes produced by an acute attack of average intensity. About the third day after the onset of the paralysis, there is diminution in the electro-irritability (faradic and voltaic) of the nerve; about the twelfth day, it is entirely lost. In cases of recovery, nerve electro-irritability gradually returns. The farado-irritability of muscles also diminishes, and eventually disappears. The volto-irritability of muscles falls during the first week; but, in the second week, it undergoes a remarkable increase and qualitative change. The feeblest current, slowly interrupted, produces a sluggish contraction, differing from the rapid movement of healthy muscle; a state of muscular tonus, more or less marked, persists as long as the current flows; rapid interruptions, even with a powerful current, fail to produce any muscular reaction. The anodal closure contraction equals, and occasionally exceeds, cathodal closure contraction; and cathodal opening contraction tends to equal, or surpass, anodal opening contraction. After a variable period, the opening contractions disappear, and the volto-muscular irritability diminishes (in cases of non-recovery) progressively to extinction. The inverted order of the reactions persists to the end; the last contraction is that caused by anodal closure. In cases of recovery, when a certain stage of diminished irritability is reached, regeneration sets in, and is followed by a rise of volto-irritability towards the normal. The improvement in muscular volto-irritability, and the restoration of the other normal faradic and voltaic reactions, do not take place until after the return of motility. These changes in electrical reaction are due to degeneration of the intramuscular nerve-fibres, and to certain histological changes undergone by the minute muscular structures. The stage of degeneration may be deduced from the degree of abnormal reaction present; when the reactions tend to resume their normal order and character, regeneration has commenced. The following paralyses are attended by the reaction of degeneration: severe traumatic paralyses; paralyses produced by pressure on a nerve, sufficiently severe as seriously to interfere with the performance of its functions; acute polio-myelitis anterior (infantile paralysis); hæmatomyelia; medullary paralysis; progressive muscular atrophy; and saturnine paralysis.

For the practice of ordinary electro-diagnosis, the disk electrodes, supplied with medical batteries, suffice; much more delicate reactions, however, may be obtained by the use of small olivary electrodes furnished with current-interruptors, by which the circuit can be closed and opened without changing the position of the electrodes. A pedal interruptor is a convenient accessory for producing slow interruptions with the induction apparatus. The following conditions are to be observed. The patient should be placed in a well diffused light; the limbs under observation should be arranged symmetrically, in an unconstrained position; and the patient should allow the muscles to be perfectly passive. If the paralysis be unilateral, care should be taken to apply the current equally to the two sides, both as regards strength and localisation.

As an illustration of the method employed in the practice of electro-diagnosis in its simplest form, take a case of infantile paralysis of one limb—say, the arm—a few weeks after the subsidence of the acute stage. Place a flat disk electrode, connected with one battery terminal, on the cervical spine, and fix it there. To the other battery terminal, by means of a double or branched conducting cord, attach two small electrodes, with current-interruptors; and, having selected a muscle, place the electrodes on corresponding points on the two arms. See that the electrode covers are well moistened with water, acidulated with a few drops of acetic acid; and, if the skin be very dry, pass over the arms and neck a sponge squeezed out of hot water. Let an induced current first be used. Complete the circuit with the interruptor on the sound arm, and gradually increase the current-strength until a well-marked contraction is produced; now, try the effect on the paralysed limb: there is no response. If the current-strength be increased to the highest bearable limit, and the interruptions be made to succeed each other very slowly, still there is no manifestation of faradic irritability. Change the induced for the constant current; commence with the paralysed limb; and, by means of the battery commutator, make the electrodes applied to the arms alternately positive and negative; add cell after cell, opening and closing the circuit, with the interruptor, several times after each addition to the current-strength, until a slight muscular contraction is seen; this is first produced, probably, by closing the circuit with the anode, though in many cases it is not easy to decide the priority of A. C. C. over C. C. C. If the same current-strength be now applied to the healthy limb, no reaction is perceived. As previously stated, the volto-irritability of the paralysed muscles is exalted at this stage; a much weaker current suffices to evoke contractions in them than is required in the case of healthy muscles. If the current-strength be increased until the opening contractions are produced in the paralysed limb, it will be found that C. O. C. is coetaneous with, if it do not precede, A. O. C. A medium current, producing, with slow interruptions, well-marked contractions of the affected muscles, with rapidly succeeding interruptions, fails to produce any muscular reaction. When the paralysis is paraplegic, there is obviously no opportunity of comparing the diseased muscles with the corresponding muscles of the opposite limb; in such cases, experience is the only guide. The operator must, therefore, draw upon his memory for the requisite data wherewith to make comparison.

In cases of partial motor paralysis, especially when restricted to isolated muscles, a more minute investigation is required. The localisation of the electrodes must absolutely correspond on the healthy and on the diseased limbs; more than one examination will probably be necessary for the formation of a reliable opinion.

CÆSAREAN SECTION.

By ARTHUR PERIGAL, M.D., Barnet.

A. S., aged 20, unmarried, fell in labour with her first child at 9 A.M. on February 9th, 1879, at the union hospital. I saw her at 11 A.M., and found pains at long intervals, and weak; the head was very high up, the pelvis much contracted antero-posteriorly, and the sacral prominence markedly developed. Her general state was comfortable. At 10 P.M., I was called to her; the pains were then strong, but not frequent; the head had descended slightly; the cranial bones felt very hard. There was no bleeding. As no advance was made during the next hour, I applied the long forceps, thinking thus to overcome the obstacle; they were adjusted with difficulty, traction was used for an hour and a half, but no advance made. I now introduced my hand to endeavour to turn (which I should have done at first had the membranes not been so long broken), but the sacral prominence so jammed my hand, that I could not get my wrist past it; and, although I got hold of a foot, I was obliged to desist. I then asked Dr. Livingston (whose case originally it was) to help me. He, too, tried the forceps, then turning, but failed. We now evacuated the head, and applied the forceps and hook, but to no avail. The patient being a good deal exhausted, we gave a full opiate, and left her at 6 A.M. in charge of a qualified assistant.

At 11 A.M., we met in consultation with Mr. Carter, who suggested a final trial. The parts were hot and painful, the discharge offensive. She had slept; there was no delirium; pulse 120, weak. She had taken plenty of beef-tea and milk. After a fair trial, all hope of delivering *per vias naturales* was abandoned, and we decided on hysterotomy as giving the only, but slight, chance of saving her life.

The patient having been put under chloroform, and the bladder emptied, Dr. Livingston sponged the abdomen with carbolic acid water, and made an incision from the umbilicus of five inches and a half, cutting through the abdominal walls, and dividing the peritoneum on a director. The mesentery being [illegible] dark serous fluid sponged away, the uterus was [illegible] inches and a half, and the child exposed. The [illegible] large, was easily removed; the placenta, [illegible] the left wall, coming with it. I may add that [illegible] before the operation. The uterus [illegible] ing into the abdominal cavity. Some fluid was sponged therefrom

the wounded peritoneum and abdominal walls were accurately closed with wire sutures; a drainage-tube was inserted at the lower angle of the wound; carbolic gauze-dressings were applied; and a binder completed the operation. The vagina was washed out with carbolised water, and a tube fixed in the uterine cavity. The hands of the operator and those assisting, as well as the instruments used, were all washed in carbolic water. A full opiate with ergot was given. At 7 P.M., the pulse was 130, regular; no vomiting. She rallied during the evening, and passed a fairly good night, taking fluid nourishment; but tympanites and prostration came on towards the afternoon of the second day, after the administration, contrary to all orders, of solid food by the nurse at the patient's urgent request; and, although there was no vomiting nor complaint of pain, she gradually sank and died comatose on the morning of the 12th, thirty-nine hours after the operation.

Necropsy, thirty hours after death. The body was fat. The left leg was two inches shorter than the right. On opening the wound, there were no signs of inflammation; the edges were in close approximation, and showed signs of healing. About half a pint of serous fluid was found in the cavity of the abdomen, having no fœtid odour. The uterine wound was closely approximated, and the body well contracted; it contained a clot of the size of a small apple, quite free from fœtor. There were one or two small lacerations on the cervix. On removal of the pelvic viscera, the malformation became very apparent. The right ilium was higher than the left; the bodies of the third and fourth lumbar vertebræ projected forwards to a remarkable degree, the intervertebral substance being three quarters of an inch thick, and the whole line of the true pelvis very irregular. The distance from the promontory of the sacrum to the pubes was two inches and a quarter; the transverse diameter hardly four inches, the right oblique being four inches and a quarter, and the left oblique half an inch less. At page 25 of Churchill's *Midwifery*, fifth edition, fig. 13 represents very much what we met with.

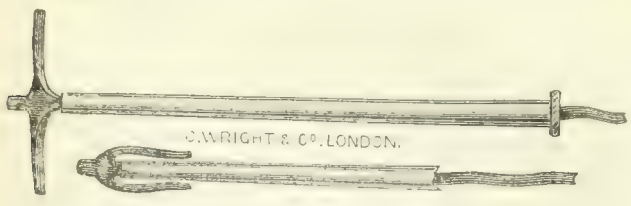
This case illustrates, if the operation is to be successful, it should be performed early. We certainly should have operated earlier, were it not for one of the Poor-law orders, which provides that, in all major operations, there must be a consultation with an independent medical man.

ON THE INDIA-RUBBER DRAINAGE-ANCHORS, FOR THE TREATMENT OF ABSCESS.

By RICHARD DAVY, M.B., F.R.C.S.,
Surgeon to the Westminster Hospital.

In surgery, as well as in agricultural improvements, no principle is more thoroughly admitted than that of good drainage, for the reformation of boggy areæ; any improvement, therefore, in the neatness and facility of practically carrying out such a principle is worthy of the attention of practitioners. At page 3 of New Inventions, 1872, I have illustrated some retentive drainage-wires and a hastate knife, for the treatment of abscesses; the drainage-anchors that are now under consideration are but modified drainage-wires. Experience proves that the projecting wire causes some inconvenience to patients, by reason of its non-flexibility, and by its catching in the dress, or causing pain on inadvertent motion. All the benefits of the wire, and none of its inconveniences, are secured by the use of India-rubber anchors.

The diagrams show well the India-rubber anchor expanded, and the wings depressed by the sides of the silver introducing cylinder. The whole appliances may be bought at Messrs. Wright and Co.'s, 108, New Bond Street, W.



Any abscess-sac may be laid open by the hastate knife, and the anchor immediately introduced inside the silver cannula; directly the wings reach the sac they expand, and the cannula withdraws itself from the India-rubber shank; leaving the anchor dropped, removable or not, at the surgeon's discretion. The wings must be clipped proportionately to the size of the abscess-sac.

The pliability of the rubber shank gives no trouble; the pus drains by its side freely; I am sure that in my own practice no mishap has ever occurred through its use. I have seen many hundreds of these anchors in abscess-cavities—in the face, neck, and other exposed quarters; the cicatrix that results is almost unnoticeable.*

Repeatedly have these anchors lain at rest, acting as drainage agents, for one, ten, to twenty-one days; a quick pull of the surgeon's hand on the shank, with a finger on either side of the wound, as counter-resistants, will weigh the anchor, and allow the wound to readily close.

ON THE USE OF IODOFORM IN THE TREATMENT OF DISEASES OF THE SKIN, AND OF CROTON-OIL FOR PORRIGO DECALVANS.

By W. FRAZER, F.R.C.S.I., M.R.I.A., Dublin.

The favourable results obtainable from using iodoform, as an external application in the treatment of cutaneous diseases, attended with excessive secretions, are so decided, that I feel convinced it will soon come into general use. It has been employed by me extensively, in private practice, for upwards of a year; and I am assured, by continued observation, of its safety, and the great advantages resulting from its action. It may be easily applied in ointment of any desired strength, mixed with either lard or vaseline; and it appears impossible to claim for either a decided preference. The strength of the ointment made use of has ranged usually from ten to thirty grains of iodoform to the ounce of cerate, but double this quantity can be applied. It has proved a most useful remedy in healing local eczematous eruptions, occurring in strumous children and young people, and in cases of impetigo; and I have also treated with it several unhealthy ulcers with fair success. The strong peculiar odour of the iodoform is seldom objected to, by some even liked; and in only one instance, that of a young lad attending school, was any obvious dislike shown to its continued application. He said he did not wish to use it during school-hours, on account of playing with his schoolfellows, who remarked the strong scent; but he admitted it was healing his eruption, and was quite willing to continue it if permitted to apply the remedy when at home in the evening.

I feel also desirous of directing special attention to the properties it possesses of promoting the cure of that very troublesome affection, porrigo decalvans. The best results that I have, as yet, obtained in this disease, have followed the application of vesicating collodion over the affected spot, and for a short distance around it. Previous to this it is well to epilate all diseased hairs over the spot; and, when the blister is healing, the ointment of iodoform should be applied night and morning, or oftener; and, by this treatment, the hair soon reappears in a healthy condition. A few weeks since, a case came under my charge, where croton-oil had been applied with exceptionally disastrous results, and which may serve as a caution against its use. The little sufferer, a strumous child of about six years of age, had some diluted croton-oil rubbed into the spots of porrigo scattered over her head; it produced violent local irritation, which extended over the entire scalp and the face, where confluent patches of exudation formed, and much of the back of the neck was also affected, the glands of the neck becoming swollen. The entire body and limbs became of a deep-red colour, like scarlatina or erysipelas, and studding this were numerous suppurating points. This affection may have originated through the child applying its hands to the scalp saturated with the croton-oil, and then transferring the irritant to the rest of the body; but I am inclined to think this would only explain some of the results, and that there was an outbreak of cutaneous rash, like what we see in acute eczema. At all events, the condition was one of extreme misery; and the poor sufferer was equally distressed in mind, declaring she would go "mad" with the constant burning pain, tingling, and irritation. I applied vaseline over all the body, as in a case of extensive burn; and, after a fortnight, the attack subsided, the cuticle desquamating. The ointment of iodoform was then used for the eruption of porrigo, which, it may be stated, was still increased and extending, dispersed through the hair in scattered patches; the result, after a time, was all that could be desired. It is needless to describe the constitutional treatment which was employed at the same time. It is well to be cautious in applying croton-oil, unless with great care and discrimination; some skins possess an exceptional degree of sensibility to the action of this irritant, which is quite capable not only of affecting the special parts to which it is applied, but, in such individuals, of originating an acute dermatitis over the entire body, as it did in this girl.

* In the wards of the Westminster Hospital at present is a case of submaxillary abscesses; two anchors are introduced, within two and a half inches of each other, for the perfect drainage of two distinct sacs.

THERAPEUTIC MEMORANDA.

INHALATION IN PHTHISIS.

SEVERAL papers having appeared in the JOURNAL upon inhalation in phthisis, perhaps some of my fellow-practitioners may be glad to know how they may try it as extensively as they please, without special apparatus, and at no cost. Cut from an ordinary roll of wadding two pieces large enough to cover the nose and mouth. A diamond-shape answers very well. Now, remove the skin-like substance which coats the pieces; put them together, and fold them in a piece of thin muslin, to the ends of which ribbons may be sewn; and your inhaler is made. I have used it for a couple of years, directing the patient to drop five or ten drops of creasote between the layers of wadding, fold it in the muslin, and to wear it for half-an-hour two or three times a day, or sometimes through the night. It is well to tell the patient to have two or three of them, as the moisture from the breath spoils the inhaler after a time. There are cases where, merely as a filter, it may be useful; and using it with creasote, I am convinced, is useful in many cases of phthisis, in some cases of chronic bronchitis, and in some cases of diffuse capillary bronchitis in young people.

S. WILSON HOPE, Petworth, Sussex.

THE TREATMENT OF HAY-FEVER.

INASMUCH as no certain method of cure has yet been found out for hay-fever, any contribution, however trivial, to the subject, I feel sure cannot but be welcome. I have lately had a very inveterate case under my care, which had previously, according to the patient's own statement, resisted almost every known kind of treatment. Insufflation of powdered quinine and powdered boracic acid, from which I expected most benefit, produced but little effect, and it certainly seemed doubtful whether anything would prove of service in mitigating the attack. However, I gave him a further trial, and told him to inhale the vapour arising from a teaspoonful of carbolic acid mixed up in a basinful of boiling water, frequently during the day. This afforded more relief than the powders, but it was not nearly so decided or permanent as I wished. I then ordered him to wash out his eyes with a (5 grain to the ounce) solution of boracic acid, and to syringe out his nostrils frequently with a 15 or 20 grain solution of the same acid. The improvement from this treatment was very marked, though whether it lasted I cannot say, as the man did not remain under my care. However, I trust that others will be led, from these remarks, to give boracic acid a fair trial for these cases, and report upon it. In the case mentioned, the difference between the use of powders and solutions was very marked, and I would certainly, with Helmholtz and de Budberg, recommend the latter method of treatment in preference to the former.

F. P. ATKINSON, Kingston-on-Thames.

CLINICAL MEMORANDA.

A PECULIAR CASE OF TETANUS.

THE following brief notes of a case I have been recently attending may prove interesting to some of the readers of the BRITISH MEDICAL JOURNAL.

H. T., aged 21, a strong healthy-looking man, of temperate habits, and with no family history of insanity, was placed under my treatment, June 17th, 1881. When I visited him, he was very excited, and his mind was rambling about six men, who, he said, were in his room the previous night, and had first tried to strangle him, and then to pull off his toe-nails. He had a very wild expression of face; and, as he threatened to kill one of these imaginary men, I was about to have him removed to the County Asylum. This excitement and delusion about the six men continued up to the 19th June. He then became quite calm, with his eyes fixed as if staring at some distant object, with his pupils fully dilated, and his lips quickly but inaudibly moving. He continued in this state till the 22nd, when he suddenly became quite rational, and began asking and answering questions on a slate. I then found that his jaws had become firmly locked, and it was with the greatest difficulty that he was enabled to suck a little milk or port-wine through a broken tooth. The muscles of the face and neck were perfectly rigid, and he complained of pain at the lower end of the sternum. I prescribed counterirritation over the cervical region, and drachm doses of succus conii, with five drops of the succus belladonnæ, to be repeated every four hours. When I visited the man next day, I found him able to open his jaws sufficiently to allow the end of his tongue to protrude. He remained quite free from tetanic spasms till the evening of the 26th June, four days from the commencement of the attack. He was then seized with two violent spasms, affecting the muscles of the spine, causing opisthotonos, with an interval of a quarter of an hour between; and, from that time, he has been steadily improving.

The peculiarity of the mode of seizure in this attack, and the absence to a great extent of tetanic spasms (which I attribute in some degree to the treatment adopted, and believe to be worthy of further trial), render the case, in my opinion, interesting.

RICHARD RYDER, M.D., Nailsworth, Gloucestershire.

A FIBROMA LOOSE IN THE PERITONEAL CAVITY.

THE *post mortem* examination of a man aged 85½, who had been under observation two years, detected a small rounded body lying quite free amongst the coils of small intestines in the pelvis; in form, an oblate spheroid, smooth on the surface, of cartilage-like consistence, and weighing 120 grains. On section through the middle with a sharp razor, it was seen to have a central nucleus, surrounded by fine concentric laminæ forming the greater mass of the tumour, and to be covered by a thin separable fibrous capsule. The measurement in the long diameter was one inch; in the short, seven-eighths of an inch. The nucleus, elliptical in outline, three-eighths of an inch in long diameter, yellowish, made up of caseous-looking brittle material, was found, on microscopic examination, to be amorphous granular *débris*, such as is found in an area of so-called caseous degeneration. The mass of the tumour was firm, dense, non-vascular, greyish-white, with faint yellowish streaks in the direction of the laminæ, non-fasciculated, resembling closely the figure given in Cornil and Ranvier's pathology of a fibroma—"à substance fondamentale amorphe et à cellules aplaties". A crescentic portion, next the nucleus, one line thick at the broadest part, was yellow in colour from infiltration with numerous microscopic calcareous particles; when these were removed by dilute hydrochloric acid, the structure was similar to that described above. The periphery of the nucleus was abruptly defined; it did not merge gradually in the surrounding substance.

In the pleura pulmonalis of the right lung, over the lateral aspect of the lower lobe, there was a calcareous plate of considerable size. This lung was adherent throughout to the chest-wall by connective-tissue adhesions.

Pain in the lower part of the abdomen had been occasionally complained of. This symptom might be referred to the abdominal tumour, but might also have originated in the troubles of an elongated and dilated gut—twenty-nine feet for the small, eight feet for the large intestine. There was no evidence of peritonitis, recent or remote.

The abdominal organs were carefully examined, in order, if possible, to find the history of the tumour; but without result. As we sometimes find an appendix epiploica with very limited pedunculated connection, it might be suggested that one of these, having become loose, formed the nucleus; and that the mass might then be compared to a loose body in a joint.

The patient suffered from emphysema of lungs, and the immediate cause of death was œdema of the lungs and distension of the right side of the heart.

JAMES ALLAN, M.A., M.D., New Wandsworth Infirmary.

SURGICAL MEMORANDA.

A CASE OF HEPATOTOMY FOR HYDATIDS.

THE following notes briefly give the details of the sixth case of this operation which I have performed; and, like the others, it has been remarkable for the speedy and complete recovery of the patient from the operation, and the thorough cure of the disease from which she was suffering.

A. M. S., aged 7, was admitted to the Women's Hospital early in May last, suffering from severe symptoms due to a tumour which existed on the right side and above the level of the umbilicus, which was clearly cystic, and in all probability connected with the liver. It gave the patient great pain; and I diagnosed it to be a hydatid tumour of the liver. She had been under the care of my friend Dr. Welch at the Children's Hospital, who has kindly favoured me with the following notes.

The child never was strong; on the contrary, she had always been regarded as delicate. A year ago, her mother noticed that her eyes were rather whites coloured. A swelling was noticed in the abdomen about November last, and she complained of pain across the back and shoulders. When she was admitted to the Children's Hospital, in

December 1880, there was a firm tumour just below the ensiform cartilage, the dulness extending round the side. It was noticed in February that there were some nodules on the surface of the liver, also that the tumour was more freely movable.

When she was admitted to the Women's Hospital, under my care, she had a tumour about the size of a foetal head, which was extremely tender to the touch. The child was very sick and ill, and altogether her appearance warranted interference. I therefore opened the abdomen on May 20th, making an incision about three inches long, an inch and a half to the left of the umbilicus, the lower end corresponding to the umbilical level. When the cavity was opened, it was perfectly clear that the tumour was situated in the liver, and was a hydatid cyst. I removed from it, by means of an aspirator, about twenty-six ounces of clear fluid containing a large number of scolices. I then enlarged the aperture in the liver to about an inch and a half, and secured its edges to the edges of the parietal wound by means of a continuous suture, and fastened in a wide soft India-rubber drainage-tube about six inches long. She went on perfectly well; her severe symptoms were immediately relieved, and on May 26th the mother-cyst came away entire. The drainage-tube was removed on May 30th; and on June 2nd she left the hospital with the wound quite healed, having gained greatly in weight, and having acquired a perfectly healthy appearance.

No attempt was made to conduct the case upon Listerian principles, the only dressings used to the wound being red lotion and absorbent wool. LAWSON TAIT, F.R.C.S., Birmingham.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

THREE CASES OF LOCOMOTOR ATAXY, IN WHICH THE DEVELOPMENT OF THE SYMPTOMS WAS SOMEWHAT UNUSUAL.

(Under the care of Dr. BRISTOWE.)

[Reported by Dr. G. STOKES HATTON, late House-Physician.]

CASE I. *Tabes Dorsalis commencing with Blindness, Lightning Pains, and "Crises Gastriques"; Great Incoordination of Movement of Lower Extremities, coming on at a later period, attended by Vomiting.*—Ellen F., aged 48, a married woman, was admitted into the hospital on September 28th, 1880. She applied for admission, complaining of "loss of power in the legs". Inquiry into her family history elicited that she had had twelve children, and that of these eight were dead; three had died of phthisis, one of scarlet fever, and the other four in infancy. The surviving children were healthy. There was no history of nervous affection in the family. She stated that she had suffered from rheumatism occasionally, but had never had an acute attack; with this exception she had been a healthy woman, and had never had any serious illness. Her present illness began eight or ten years ago. Without any apparent cause, she gradually lost her sight, and had been perfectly blind for at least eight years. For several years she had suffered from occasional attacks of vomiting. She called them bilious attacks, and said that at first they came on about every six months, and often lasted a fortnight; but that for the last few months "they had been more frequent—every month or so, and only lasted a few days, or a week". For two years before admission, she had noticed that occasionally while walking she felt giddy, and staggered a little; but this passed off in a few seconds. Three or four months before admission, she began to experience difficulty in standing, and staggered when she got up from a chair; this would pass off in a minute or two, and she could then walk without much difficulty. These symptoms gradually increased, until about seven weeks before admission, when one day she suddenly fell down, her legs appearing to slide from under her. She had not been able to walk since that time. For twelve months she had not been able, according to her own statement, to pass urine or fæces without much straining.

On admission to the hospital, the patient was seen to be very thin. The temperature was normal. The skin presented nothing unusual. The arms were small, but the muscles were firm, and fairly well developed. The muscles of the legs, on the other hand, were loose and flabby, and the legs were very much emaciated, and she stated that they had been wasting for some months previously. She could flex or extend the legs freely, and, considering the bulk of the muscles, with a good deal of force. She was unable to stand without help; and when attempting to walk she had very little control over the movements of the legs—one leg would be thrown outwards, or crossed in front of the other, and finally brought with the heel to the ground with great force. When lying in bed, if her legs were moved about, she could not tell their position without much consideration, and even then often failed. There was no loss of sensation, or delayed sensation. The patellar tendon-reflex was absent. There was no ankle-clonus, and reflex excitability was slight in each leg. She complained of a "pinching sensation" in the loins, but had no sensation of a cord tied round the body. The little and ring-fingers of each hand were numb, especially the left, in which the numbness had commenced three or four weeks before admission.

Mr. Nettleship examined the eyes, and made the following note: "Discs yellowish-white; vessels about normal; arteries, perhaps, small. I think she has no perception of light; can still direct eye fairly well, though blind for eight years. Pupils partly dilated." The hearing was good; taste and smell were normal. The pupils did not dilate when the battery was applied to the muscles of the neck.

October 16th. The patient complained of being unable to pass urine. She said she had tried to do so several times, but had failed. This, however, was a delusion, as she had passed a little on each occasion without knowing it. The same phenomenon was noticed with regard to the motions, but not to so marked a degree.

On January 13th, she complained of pain in the abdomen, and thought she had diarrhœa; she called for the bed-pan several times, but did not pass any evacuation from the bowels.

Besides these notes, others were made to the effect that she suffered while in the hospital from several attacks of vomiting, accompanied by much pain in the region of the stomach. They came on about once a fortnight, and lasted three or four days. On one or two occasions she complained of shooting pains in the legs.

She went out on February 12th, no material change having taken place in her condition.

CASE II. *Tabes Dorsalis: Impairment of Sight, Lightning Pains, "Crises Gastriques", Absence of Patellar Reflex, etc., without Inco-ordination of Movement.*—Henry B., aged 46, a baker, was admitted on January 26th, 1881. The family history was good, and there was no account of any nervous affection in the family. In early life, the patient had suffered from small-pox, and the usual diseases of childhood, but experienced no illness until twelve years ago, when he suddenly lost consciousness while at work, and fell down. His friends told him that he walked home with assistance, but he did not remember doing so, and stated that he remained in an unconscious state for three weeks. He could give no information as to his condition during that period; but, when he became conscious again, he had perfect control over his rectum and bladder. There was no loss of power in his limbs, but his face was paralysed, and the mouth drawn towards the right side. In ten days, he resumed his work, and felt perfectly well, but the paralysis of the face remained. Seven years before admission, he had dysentery in Ashantee, though he only spent three weeks in that country; he was never a great drinker, and there was no history of syphilis nor of masturbation. He stated that he had had no sexual desire for the previous two months, and that, for many months before that, he had been unable to have perfect connection. His present illness commenced five years and a half ago. While reading, the words began to "dance before him", and, in a minute or two, he could not see to read at all. He felt quite well at the time. Six months after this, he had severe paroxysms of pain in the abdomen, followed by jaundice. This disappeared in a few days, and he had no other similar attack before admission. His sight gradually became worse for two years and a half; then he attended at Moorfields, and, while at that hospital, the continuous current was applied to the head daily, above the orbit, and he was perfectly certain that his sight improved. For eighteen months he had suffered from shooting-pains in the limbs, and for twelve months from attacks of vomiting, coming on at intervals of about a week, and lasting three or four days. Three or four months before admission, he felt a numbness in the little and ring fingers of both hands, which had continued until the present time.

On admission, the patient was well nourished. There was no wasting of the muscles. He complained chiefly of failure of sight. He had a pain in the epigastrium, with a feeling of "tightness" round the body in that region. The numbness was worse in the fingers of the left hand. No difficulty was experienced in walking, and he could stand perfectly well with the eyes shut, and the feet placed close together. He was perhaps a little unsteady when turning quickly round, but no marked staggering was perceptible, and his walk was not peculiar. No impairment nor delay of sensation could be observed, but the patellar tendon-reflex was absent; and there was no ankle clonus.

There was no loss of co-ordination in the arms, and he could pick up small objects such as pins without any difficulty. Taste, hearing, and smell were unaffected. The mouth was slightly drawn to the left, apparently from old paralysis. The battery applied to the muscles of the neck had no effect upon the pupils. The eyes were examined by Mr. Nettleship. Vision: Right [illegible], and 20 Jager badly at 9 in. to 12 in. Left = bad perception of light.

Ophthalmoscopic Examination.—The discs were very grey, the arteries decidedly diminished, and some of them showed white lines. The lamina cribrosa was much exposed. The edges of the discs were somewhat irregular in the erect image; this was consistent with previous neuritis, but there was no other evidence of it.

While at Moorfields, the following note was made with regard to colour-blindness. "He confuses red, green, and yellow, calling them all yellow of different shades. Blue, pink, and canary-yellow he knows at once." At St. Thomas's, the defect was much the same; but, as regards "red", he could only say it was a dark colour.

While in the hospital, the symptoms already described continued. He had several of his ordinary attacks of vomiting, with pain in the epigastrium, shooting down legs, and lasting two or three days.

On Thursday, February 17th, he was seized with a severe pain in the epigastrium, with vomiting; the pain he described as being more severe than that which accompanied the usual attacks of vomiting; it was sharp and cutting in character, coming on in paroxysms, with intervals during which he had but little pain; it came on suddenly, and lasted the whole night. He had some pain the next day, but less severe.

On February 20th, he was noticed to be jaundiced. The urine contained bile-pigment; the motions were slightly pale, but apparently contained some bile. The motions were thoroughly examined after the jaundice commenced, but no gall-stones were detected. Until that time, nothing was suspected, as it was supposed to be one of his ordinary attacks. The jaundice disappeared in about four days.

CASE III. *Tabes Dorsalis: Lightning-Pains: "Crises Gastriques": Incoordination and Numbness, commencing in the Upper Extremities, and subsequently affecting the Lower Extremities.*—Thomas K., aged 47, an engine-fitter, was admitted on December 20th, 1880, complaining of inability to use his fingers properly as a "fitter". He found that things "slipped from his fingers". His family history was good; both his parents were living and healthy; and none of his relations had suffered from any nervous affection. He had himself suffered from all the usual diseases of childhood except whooping-cough. Until six weeks before admission to St. Thomas's, he had never left his work on account of illness for a single day.

For five years, he had suffered from occasional pains in the thigh, shooting down the legs: he thought he was suffering from sciatica, which he traced to having worked in a damp pit repairing engines. He dated the illness for which he sought relief from two years and three months earlier: he then noticed that the little and ring fingers of the right hand became numb: he called it a "stinging numbness", and said that it was constantly present. The shooting pains in the thigh continued. Two years before admission—three months, that is, after the numbness began—he suffered from vomiting, being sick on an average, three or four times a week: this vomiting always came on after food, and was accompanied by pain in the epigastrium, which, however, was not severe, and did not last long. He next noticed that all the fingers and the thumb of the right hand became numb in the same way as the little and ring finger of this hand had done previously. "The hand", he said, "also became weak".

Twelve months before admission, the symptoms became worse, and he had a sort of "bearing-down" sensation, which made him wish to sit down constantly. About this time, his *left* hand became "numb and weak"; these symptoms came on gradually, but did not commence in the little finger.

Nine months before admission, he noticed that his legs began to "give way under him", especially when he tried to hurry.

Four months, he had experienced difficulty in carrying food to his mouth, and about the same time had difficulty in walking upstairs; he said he could not "hit the step exactly". He had difficulty in walking in the dark, and felt generally weak.

For two months, his feet had appeared heavy, and, when walking, he felt as though he was treading on something soft.

Six weeks before admission, he was compelled to leave off work, as he had not sufficient control over his hands to compete with his fellows. While resting himself during this period, the vomiting, which had continued all along, was less severe, and only occurred in the morning. He felt stronger, and only had pains in the legs once. He never had any trouble with the rectum or bladder.

On admission, he was rather thin; the muscles of the arms and legs were loose and flabby. The power of flexion and extension of limbs was moderate compared with the development of the muscles. He complained chiefly of the loss of control over the arms and fingers, but also of some difficulty in walking, especially in the dark. The shooting pains in the legs and arms continued, and were worse on the right side; he had tingling in all the fingers of both hands, but no pains elsewhere. The difficulty in walking was not great, but, in doing so, he brought his heels rather forcibly to the ground. He could stand with his eyes shut, but was rather unsteady; he could not walk so well when the eyes were fixed on the ceiling. He could feel when pricked with a pin, but somewhat imperfectly, the defect being more marked on the left side; the sensation of the face and trunk was perfect. The patellar tendon-reflex was not present; there was no ankle-clonus, and the reflex excitability was not well marked. The grasping power was not good in either hand, but was greater in the right than the left. The loss of co-ordination over the muscles of the arms was much greater than in the legs; when the eyes were closed, he made a very bad attempt to bring his finger quickly to his nose; he was also unable, under the same circumstances, to bring the tips of his fingers together after they had been placed wide apart, neither could he judge well as to the position of his arms. He had much difficulty in picking up small bodies, and could not pick up a pin, or even a lead pencil, from a board with either hand. The left hand was worse than the right. The eyes were examined, and found normal.

While in the hospital, the hand improved slightly, so that he could pick up pins, but he had still much difficulty in doing so. There was no alteration in the other symptoms, but he felt rather stronger from the rest.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

WEDNESDAY, JULY 6TH, 1881.

WM. BOWMAN, F.R.S., President, in the chair.

THIS was the first annual meeting of the Society. The President, addressing an unusually large audience, consisting of many provincial as well as metropolitan members of the Society, and numerous visitors, spoke in hopeful terms of the future of the Society, and congratulated it on the large amount of good work done during the past year. The financial report, read by Mr. Streatfeild, showed the funds to be in a satisfactory condition.

The Relation of the Retinal Changes to the other Pathological Conditions of Bright's Disease.—DRS. BRAILEY and LEIPLNIS presented a paper on this subject. They said that in chronic Bright's disease, there is (as has often been described) a hypertrophy of the walls of the arteries throughout the body, especially affecting the middle and outer coats. In addition to this, there is, in the kidney and in the well-known white opaque patches of the retina, a thickening of the intima, leading to an occlusion of the majority of the arteries of the part. This condition is accompanied in each organ by degeneration and inflammatory changes. This degeneration affects in the kidney the epithelial cells of the tubules, and in the retina the nerve-cells, the nerve-fibres, and the fibres of Müller. The authors believed this affection of the arteries to be an exaggeration of the endarteritis often observed in the larger trunks of the body generally, where it gives rise to atheromatous patches; and that it precedes and gives rise to the other inflammatory and degenerative changes encountered in the kidney and retina.—Mr. POWER remarked that white patches might appear with great rapidity; in one case he had seen them develope in four days.—Dr. STEPHEN MACKENZIE thought it a matter of great interest to learn upon what the retinal changes depended. Dr. Brailey's explanation agreed with that given by Gull and Sutton of the general vascular changes in Bright's disease. It would be very interesting if Dr. Brailey could examine a case in which, when these changes in the retina occurred, the kidney remained unaffected; Dr. Mackenzie had seen cases in which the vessels of the pia mater underwent these changes without any kidney-change. He inquired whether the authors thought that there was a hypertrophy of the muscular coat of the arteries.—Dr. BRAILEY replied that there was a thickening and nuclear increase in the [illegible].—MR. BOWMAN remarked that the paper was of great value, to the physician especially.

[illegible] Mr. [illegible] WAY [illegible] six years of age, who came under his observation in 1879, with a staphy-

loma of the left eye, which burst under pressure on introducing the eye speculum. An examination of the eye, after removal, revealed a new growth of a sarcomatous character, occupying the fundus oculi, and springing apparently from the choroid. The child remained in fairly good health for about six years, though a discharge always continued to escape from the socket of the enucleated eye. In May of the present year she again came under observation; she had been very listless and heavy for some months, and the temperature was a little raised. After a time, there was a paralytic affection of the muscles of the other eye; coma, with stertorous breathing, supervened a little later, and the child died. No *post mortem* examination was allowed. It seemed, Mr. Watson thought, clear that some intracranial disease was present; though whether it was an extension from the focus of the original disease, was hardly satisfactorily proved. The discharge, which persisted from the socket of the eye, seemed to make it probable that orbital, and subsequently intracranial, disease were developed in relation with the new growth, which had originated in the choroid of the enucleated eye.

Central Amblyopia in Diabetes: Microscopical Examination of Optic Nerve.—Dr. WALTER EDMUNDS read a note, prepared by himself and Mr. NETTLESHIP, on this subject. The patient was a man who was admitted into St. Thomas's Hospital, under the care of Dr. Stone. He was a smoker, and suffered from diabetes. There was a central scotoma for red; the position of the amblyopia, and, in some respects, the ophthalmoscopic appearances, agreed with those commonly seen in tobacco amaurosis. One optic nerve was examined after death: a transverse section through the anterior part of the optic nerve showed a wedge-shaped area of sclerosis, in which the nuclei were increased in number, the trabeculæ thickened, and in which the walls of the blood-vessels were also thickened. This tract extended through the whole length of the nerve. At the time, the symptoms were attributed to the abuse of tobacco; but Mr. Nettleship had recently seen another quite similar case, in a woman who was the subject of diabetes, but did not smoke; this seemed to suggest that the condition might be connected with the diabetes, and not with the tobacco smoking.—Dr. STEPHEN MACKENZIE had seen only one case of diabetes in which there was distinct amblyopia; and this patient was a great smoker, and the vision improved when the habit was given up.—Mr. BOWMAN thought the case a most valuable contribution to an accurate knowledge of the condition.

Hemeralopia, with Peculiar Appearances on the Choroid.—A paper on this subject, by Mr. SIMEON SNELL, was read by Mr. Nettleship, the Secretary. All the cases observed by Mr. Snell had occurred in children; he had noticed patches on the conjunctiva, covered by a whitish frothy matter; when this was removed, the conjunctiva had a thickened striated appearance. With the disappearance of the spots, night-vision improved. The froth, when removed, speedily reappeared, There were no changes to be recognised with the ophthalmoscope. The paper referred to a family of five children, who all presented similar conjunctival patches, particulars of whose cases had been published. Each succeeding spring and early summer brought its quota of these cases of hemeralopia, with conjunctival patches. The patches were situated in the palpebral fissure on the outer side of the cornea, and frequently on the inner side also. Their relation to the hemeralopia was constant; they began with it and disappeared with it. In some cases, the disease recurred in the following spring, but no epidemic influence could be traced. The disorder appeared to be an acute simple hemeralopia. Betot and Netter had described a conjunctival disorder associated with night-blindness, and so had Soelberg Wells in cases exposed to a burning sun. The cases rapidly improved under cod-liver oil.

A Case of Vaccinal Ophthalmia.—Dr. KNAGGS (of Newcastle, New South Wales) communicated the case of a young woman who was accidentally inoculated by the nail of her infant. The child had scratched a vaccine vesicle on its arm, which was then at about the eighth day, and then scratched the mother's eye with the same finger. She experienced at the time a little lacrymation and smarting. On the third day after the accident, the eye felt hot and gritty, and there was a watery discharge. Dr. Knaggs saw her on the sixth day; the eyelids were then œdematous; there was phlegmonous chemosis, with intense congestion of the conjunctiva, and a muco-purulent discharge, but the cornea was unaffected; there were a well-marked phlyctenule on the inner side of the eye, and a vaccine vesicle on the side of the nose. The patient suffered intense pain. The conjunctiva was scarified, and bromides and mercurial purgatives given internally. On the two following days, the symptoms were all aggravated; on the tenth day, when it was possible to see the cornea, it was found to be hazy; and, on the following day, there was hypopyon. During the following nine days, improvement very gradually took place. Owing to ill-health, Dr. Knaggs then ceased to see the case, but learnt that another practitioner found it advisable to operate for the hypopyon. The patient finally recovered with an useful eye.—Mr. ANDERSON CRITCHETT referred to a similar case (published at the time it occurred), which had come under his notice. The patient was a surgeon, who was very myopic; he was wounded in the eye by the lancet with which he was vaccinating a baby. He also had hypopyon, but recovered with a leucoma; an iridectomy was done for this, and left him with good vision.

Sequel to a Case of Multiple Growths on the Irides.—Mr. NETTLESHIP read, for himself and Dr. WEBSTER FOX, a note on the after-history of a case shown to the Society at the October meeting. At that time the patient, a girl aged 13, had double iritis, and upon the left iris a large pinkish growth. An attempt to remove the largest growth was frustrated by the extent to which it extended backward. The growth again increased, and, the eye having grown painful and troublesome, it was excised. In the meantime, similar growths had begun in the other eye, and have since slowly increased so as now to occupy nearly all the anterior chamber. Examination of the excised eye showed confluent nodules of growth in the ciliary body, and upon the iris, the chief mass being as large as two or three small peas. In minute structure it was found to consist of small cells of two types: round, and elongated, with long nuclei. There were no giant-cells, and no reticulum; cheesy degeneration was always present at the centre of the nodules, and no vessels were seen in the growths. Some hesitation was felt in giving a name to the growths, which seemed, however, to belong to the group described as "granuloma iridis", and sometimes as "tubercular disease of the iris".—In reply to the PRESIDENT, Mr. NETTLESHIP added, that there had not been at any time any recession of the growth, and that the eyeball tension was never increased.—Mr. WALKER had seen some cases of this class which had improved under simple care and treatment in a hospital.

Improved Electro-Magnets for Removing Fragments of Iron from the Eye.—Mr. MCHARDY exhibited a very convenient electro-magnet, made by Hall of Boston, which was driven by a single bichromate element. Since the receipt of this magnet, Mr. Coxeter had made for Mr. McHardy a very convenient electro-magnet, which only weighed two ounces, and could be made to raise a weight of twenty-four ounces; with a small terminal, no larger than an eye-spatula, it could still sustain a weight of seventy-two grains. His experience with these magnets was recorded in the BRITISH MEDICAL JOURNAL for March 26th, 1881.

New Instruments: Specimens showing the Vitreous Humour.—Mr. MULES showed two instruments, made for him by Weiss. 1. A pair of scissors, provided with hooks for excision of the eye. 2. A needle-forceps, for putting sutures into a corneal wound. Mr. Mules also showed some beautiful specimens of the healthy vitreous body, and also specimens of the same body in various pathological conditions.

Specimens shown by Card.—By Mr. Brudenell Carter: Result of Optic Neuritis from Injury to Head. By Mr. McHardy: Case of Persistent Hyaloid Artery, extending from the Centre of the Disc to the Posterior Part of the Lens. By Mr. Juler: 1. Persistent remains of Pupillary Membrane—a living patient of Mr. Streatfeild's. 2. Persistent Pupillary Membrane in the form of Tags, which sprang from the anterior surface of the disc, and, becoming alternated, adhered to the anterior surface of the lens—a living patient of Mr. Henry Power's.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, JUNE 13TH, 1881.

THOMAS ARNOLD ROGERS, M.R.C.S., President, in the Chair.

Specimens.—MR. HILDITCH HARDING showed an upper central incisor which he had extracted from the mouth of a boy at St. Thomas's Hospital, on account of abscess about the root; half of the crown had been broken off by a fall some time before. After extraction, a splinter of wood was found projecting a quarter of an inch beyond the apical foramen. The boy said he had a habit of chewing wood occasionally, but had no idea how this piece got into the tooth.

Mr. COLEMAN showed an upper wisdom tooth which he had extracted for caries; one of the fangs was missing, and, on probing the alveolus, a hard substance was felt, which he at first took to be the missing root. It proved, however, to be a second wisdom tooth, coming down above the first, and which had by its pressure caused absorption of the root of the tooth which had been extracted.

Chronic Suppuration of the Teeth.—Mr. DAVID HEPBURN read a paper on this subject. After briefly referring to the most common form, that of ordinary alveolar abscess, in which a fistulous opening exists on the surface of the gum, communicating by a short canal with the root of a tooth, Mr. Hepburn proceeded to describe those more complicated cases in which the pus has pene-

trated to a part remote from the original source of the mischief. Of this, he related several instances which had come under his own observation, as where an impacted wisdom-tooth had given rise to a large abscess which opened in the neck. In most cases, the extraction of the tooth which had been the original cause of the mischief would be followed by the closure of the sinuses; but it was not always easy to discover which tooth was the cause of the mischief, and sometimes even when this had been extracted little improvement would result. This was generally due to the presence of a small piece of necrosed bone, and this again was often most difficult to discover, and might remain for months keeping up irritation before it could be removed. Mr. Hepburn related several cases illustrating these points. In one, the patient was under treatment for five months, and was then cured by the extraction of an upper lateral incisor. In another, the patient had been suffering, for seven months before he applied for advice, from a profuse discharge of offensive pus coming from the socket of an extracted lateral. Active treatment was persisted in for eight months with little result, when suspicion fell upon the central incisors; these were extracted, and, at the bottom of the socket of the right central, a piece of dead bone was found, and a canal, which communicated in a circuitous manner with the sinuses which had been so long discharging: immediate improvement followed. In the treatment of these cases, Mr. Hepburn spoke highly of the value of eucalyptus-oil; it was a powerful antiseptic, and an useful stimulant, whilst its taste and smell were not generally considered disagreeable: it was altogether far preferable to carbolic acid. Tincture of iodine was also useful; but the great point was, to find out and remove the cause of irritation as soon as possible.

An interesting discussion followed.

REVIEWS AND NOTICES.

BOVINE TUBERCULOSIS IN MAN: AN ACCOUNT OF THE PATHOLOGY OF SUSPECTED CASES. By CHARLES CREIGHTON, M.D., M.A.Cantab. Pp. 119. London: Macmillan and Co. 1881.

IN this interesting and elaborate essay, Dr. CREIGHTON raises a question of the utmost importance, and one which urgently calls for discussion and investigation from other points of view than that of the speculative pathologist. Tubercular diseases are in man, he says, a congeries of ill-assorted cases, a very "dust-bin of pathology". In the bovine species there is, on the other hand, a disease, now known as bovine tuberculosis, which possesses, says the author, "specific characters" sufficient to "satisfy the classification test of a systematic naturalist"; and it is the object of this work to bring out the resemblances between the morphological peculiarities of the bovine tuberculosis as it occurs in the bovine species and the appearances found in certain cases of tuberculosis in the human subject, resemblances which are thought to be sufficiently striking to warrant the conclusion of identity. In the bovine species, the most typical manifestations are found in the serous membranes; small villous outgrowths there occur, which rapidly tend to caseate, and in their subsequent development assume various forms, which are so characteristic as to have given rise to the names by which the disease is known in various countries. Sometimes the growths call to mind the floating mass of "duckweed" on the surface of a standing pond, whence the German name *Meerlinsigkeit;* in other cases, the growths assume a polypoid form, whence the common English name "the grapes"; in others, again, the predominance of small rounded masses has suggested the name most extensively used in Germany—*Perlsucht*. The lungs also are generally affected, the disease appearing as small semitranslucent tubercles, which, at a later stage, may aggregate together into round, oval, or wedge-shaped masses, having in their distribution a relation to the arterial supply. The outer layer in these growths remains vascular, and forms a kind of capsule, while the central portions undergo a process of calcification or necrotic softening, forming, in the latter case, smooth-walled cavities, which are not connected with bronchi, except where, in exceptional cases, subsequent ulceration opens up a communication. In the lymphatic glands, which are frequently and extensively affected, the tubercles make their appearance in a discrete manner; and though, as the disease extends, the various centres blend to some degree, they always remain so far distinct that, on making a section of an enlarged gland, several separate rounded nodules are seen. The liver, intestines, joints, and, a very important point, the mammæ, may also be affected. The microscopical appearances have been investigated by Schüppel. A single tubercle from the bovine disease may be described as consisting, in its early stage, of two zones; an outer, in which there is a plentiful supply of blood-vessels, and a central zone, in which few or no vessels occur; towards the periphery of this central non-vascular zone, numerous giant-cells are found. It is in this unusual vascularity of the periphery, and the great number of giant-cells, that the tubercles of bovine tuberculosis differ from those ordinarily seen in man. Dr. Creighton looks upon giant-cells as evidence of the "imperfect vascularity or difficult vascularisation of the new growth" (an opinion founded upon certain observations of his own on their occurrence in the placenta of the healthy guinea-pig); and he therefore regards both the above-mentioned peculiarities as evidence of a tendency towards vascularisation, a tendency so marked in all respects as to lead Virchow to point out that bovine tuberculosis had affinities with lympho-sarcoma. Heredity is, it is thought, the main factor in the spread of the disease in the bovine species; but Gerlach and Orth have clearly shown that, by inoculating tubercular matter from the cow, or by mixing it with their food, a disease can be communicated to calves, goats, and rabbits which has some points of agreement with tuberculosis as ordinarily seen in man, and some with bovine tuberculosis; the appearances, says Gerlach, "demonstrate to us the beginnings of *Perlsucht*."

This brings us to the main contention of the book. Since bovine tuberculosis can be communicated to other animals, has it ever been communicated to man? To this question Dr. Creighton gives unhesitatingly an affirmative answer, basing his conclusion entirely on morphological resemblances. To justify such a conclusion, we have a right to ask, not only that resemblances between bovine tuberculosis and certain cases of tuberculosis in man should be shown, but also that some well-marked points of difference should be pointed out between these presumed cases of bovine tuberculosis in man and ordinary human tuberculosis. Did Dr. Creighton rest his contention entirely upon the microscopical appearances, or upon the condition of the serous membranes, or the lungs, or the glands alone, we should have good reason, we think, to complain that he had not attempted to fulfil this condition; for we doubt whether he would find all pathologists willing to attach so much importance to the presence of a multiplicity of giant-cells, or the isolation of tubercular masses in the lungs or lymphatic glands, as he, though with some reservation, seems inclined to do. He calls upon us, however, to regard the pathological conditions as a whole.

In the clinical history of the twelve cases which he relates, there is nothing strikingly unusual, and of their etiology nothing is known. He brings forward a certain number of cases in which patients, previously apparently healthy, have succumbed to a tuberculosis which has run a rather rapid course. The *post mortem* examinations revealed growths on the peritoneal or pleural surfaces having some resemblance—in some instances a most striking resemblance—to the "duckweed" or the "pearls" of bovine tuberculosis; in the lungs were found isolated, often wedged-shaped, caseous-looking masses (resolved by the microscope into congeries of tubercles), or closed smoothed wall-cavities: in the lymphatic glands were nodules of the same structure. All of these conditions were present in some of the cases. Microscopically, the tubercle, both in the degree of vascularity and the number and arrangement of the giant-cells, agreed closely with the structure above described as occurring in the bovine disease. Dr. Creighton, as we have said, believes that these morphological resemblances are sufficient to establish an etiological identity; but his argument would be much less likely to carry conviction, were it not for the fact that tuberculosis has been experimentally transmitted from the cow to other animals. Schüppel believes, on the other hand, that bovine and human tuberculosis are manifestations of the same disease. "*Perlsucht*", he says, "is that anatomical form in which tuberculosis presents itself in bovine animals". The coloured plates at the end of this volume, reproduce very faithfully the original preparations, which we have had an opportunity of inspecting in the museum of the Royal College of Surgeons; they show conditions with which all who have witnessed many *post mortem* examinations on phthisical subjects must be more or less familiar: the white nodules shown in fig. 8, for instance, we have not unfrequently seen; and they are, we believe, identical with the masses which have received a very different explanation from Dr. Reginald Thompson. Whether, however, these cases be common or not, does not materially affect the question. Dr. Creighton seems himself to incline to the opinion that they are by no means unfrequent.

Dr. Creighton calls special attention to the relation which, he believes, holds between the milk-supply and epidemics of fever of a typhoid type: in one such epidemic, which occurred in an industrial school at Bristol, all the cases which died showed a tubercular invasion of the serous membranes, as well as [illegible] patches. He therefore inclines to believe that this was an epidemic of tuberculosis, and, by inference, of [illegible]; but he asks whether it [illegible] "an acute infective process, not like

tinguishable from typhoid fever, should be set up in isolated cases by the bovine tuberculous virus." This brings us to the question, How does the virus enter the system? Rindfleisch, following Schüppel, now teaches that "the 'scrofulous' gland is in all cases a genuine tuberculous gland, and that this gland holds an intermediate position between some catarrh or ulceration of a certain locality and the general tuberculosis, of which the patient dies. Dr. Creighton, on the contrary, insisting strongly on the tuberculous nature of the change in the gland, believes that there is no such causal relation as is here assumed; he is inclined to draw an analogy on this point with syphilis: the stages of the tuberculosis are "not subordinate, but co-ordinate, just as the primary, secondary, and tertiary manifestations of syphilis are co-ordinate with respect to the initial infection". And where, in tuberculosis, are we to seek the "initial infection"? Dr. Creighton would, we believe, answer—though he does not at all insist on this point—In the intestine; often perhaps in the ulcers, in whose floor he has found tubercles of the "bovine" type, though ulceration cannot be a necessity.

In conclusion, we would strongly commend the book itself to our readers' attention, as a work suggestive and thorough to an unusual degree.

The illustrations, which include coloured drawings of the naked-eye appearances, leave nothing to be desired; we wish we could say as much for the arrangement of the argument of the book, and the style in which it is set forth.

THE STUDENT'S GUIDE TO MEDICAL CASE-TAKING. By FRANCIS WARNER, M.D.Lond., M.R.C.P. "Student's Guide" Series. London: Churchill.

ON taking up any work in which an immense quantity of material is condensed into a small space, we always experience a fear that we may have to deal with another attempt to foster the injurious system of "cramming". From such a charge, this small volume is entirely free; it is intended as a guide to the student in his observation of cases in the wards of a hospital, and for this purpose it seems admirably adapted. The clinical-clerk or house-physician, whose duty it may be to write an account of a case, should take the *Guide* to the bedside, and there look up the particular disease which he is called upon to investigate. He will find arranged, on the left-hand page, a short account of the symptoms which he ought especially to search for, and will have his attention directed to the most probable causes of the disease; on the opposite page, a few explanations are given of the significance of the various symptoms noted, and a list of the complications most likely to occur. The volume is intended to supplement, and not to replace, the study of a systematic treatise, and it is necessarily dogmatic in tone; we are, therefore, not inclined to complain of some statements to which we might otherwise take exception. For instance, is it not a little misleading to say that there is "no motor paralysis" in locomotor ataxy; and that the urine, in amyloid degeneration, is "very albuminous"? Diseases of the nervous system are fully dealt with, as are also those peculiar to children. As a whole, the work, which must have cost infinite pains, seems to be accurate, well up to the present state of knowledge, and worthy of its author's reputation as an experienced teacher and accomplished physician.

NOTES ON BOOKS.

Surgical Cases, mainly from the Wards of the Stamford, Rutland, and General Infirmary. By WILLIAM NEWMAN, M.D.Lond., F.R.C.S., one of the Surgeons to the Stamford Infirmary. London: H. K. Lewis.—The most interesting part of Dr. Newman's work relates to cases of stricture of the urethra. In retention, puncture of the rectum is strongly advocated. If the urethra be absolutely destroyed as a canal for the passage of urine, then the author is of opinion that suprapubic puncture might be selected; but, for temporary relief, he thinks the aspirator may well take the place of the trocar; and the puncture *per rectum* has, for more continuous relief, many more advantages. In an appendix, we find some valuable observations on the electrolysis of nævi, with a series of rules for its satisfactory employment; it appears very useful in cases of nævus not amenable to excision or ligature. "It has", the author remarks, "often marked advantages over more frequently employed methods; but the exact place to be given to the process is, as yet, ill-defined." We hope for more conclusive observations, at a future date, from Dr. Newman on this subject, to which he has devoted much time and attention, and concerning which he can claim considerable clinical experience.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 16TH, 1881.

THE WOUND OF THE PRESIDENT OF THE UNITED STATES.

THE telegraphic accounts of the progress of President Garfield have continued to be most favourable. The pulse and temperature have, according to the daily bulletins, on no occasion risen so highly above the normal standard as to indicate the advance of serious disorder or to cause reasonable apprehension. The rise that has taken place has been sufficiently accounted for by the constitutional irritation accompanying the suppurative process, and has been little more than that which ordinarily accompanies the successive stages of any severe gunshot-wound. No indications of peritoneal inflammation have been mentioned, while the inflammatory action at the wound of entrance of the projectile and in its neighbourhood has been described as being limited and satisfactory. Food has been taken in sufficient quantity and with appetite, the bodily functions have been regular, the spirits good, and there has been no want of sleep and rest, notwithstanding the prevailing heat of the weather. This heat has, however, been controlled to a considerable extent by artificial means, so far as concerns the chamber in which President Garfield is lying. Altogether, then, from the reports which have reached us, the condition of the President appears to be exceedingly favourable from whatever point of view it may be regarded; whether judging, as regards the past, from the symptoms which have been successively presented since the date on which the wound was inflicted; or, as regards the future, from the known vigorous constitution of the patient, and the prospect this afforded of sufficient vital power being preserved to resist the effects of the confinement, of the suspension from active habits of life, and of the prolonged ordeal to which, under any circumstances, the President must still be subjected before his wound can become so far healed as to permit him to leave his bed for the advantage of out-door air and other means of assisting recovery.

The accounts which have been furnished by the recent telegrams appear to give additional force to the doubts which we were led to express, as to the correctness of the diagnosis mentioned in the early telegrams, regarding the nature and extent of the President's injuries. Had the bullet taken the course originally described—forward and downward through the right lobe of the liver, and lodging in the anterior portion of the abdomen, it is scarcely conceivable that other symptoms would not have been manifested, and would have been mentioned in the telegrams. There would have been some escape of bile mixed with the suppurative discharges from the wound. The appetite for nutriment could hardly have been maintained so strongly as it has been described to have been, even to craving for meat and solid food. There would very probably have been more pain experienced in the right side, or in the usual situations where pain is felt in hepatic lesions. A yellowish tinge of the skin has been alluded to from time to time in the telegrams, but this might be expected after a severe contusion, or a superficial wound, of the liver. The expression "yellowish tinge" would indicate that this sign only existed to a slight degree, not that a jaundiced hue was present, such as is frequently met with in grave wounds of the liver where life is prolonged. If the liver should

have been wounded in the manner originally mentioned, certainly the complete absence of a bilious discharge will be a remarkable feature in the case. May the bullet have merely injured the organ in passing, and be lodged somewhere in the spinal muscles, or near the lumbar plexus, a lesion of which has been strongly indicated by the pain experienced in the right leg and foot? Of late, however, this pain has not been referred to in the telegrams. If the bullet should happen to be lodged at no great distance from the aperture of entrance made by it between the tenth and eleventh ribs on the right side, we may hope that, during the suppurative stage, circumstances may move it sufficiently near to the opening for it to be detected and removed. If, unfortunately, it should be lodged deeply in the substance of the liver, there will still be the dangers of irritation and hepatic abscess probably to be encountered. It would hardly be possible to extract it by instrumental means from a deep position in the organ; nor are any efforts likely to be made with such an object in view. The risks, too, of secondary hæmorrhage, especially if the projectile should be lodged in the liver, can hardly yet be said to have been escaped, although they are daily becoming more remote.

We feel, in making the foregoing remarks on the wounds of President Garfield, that they are based on very imperfect data; the telegrams have been exceedingly meagre in respect to many professional points, which alone could have afforded the means of establishing anything like a precise view of the case. There has probably been throughout an absence of such positive signs as would enable the surgeons in attendance to get a reliable clue to the site and limits of the injuries which have been inflicted; and, under these circumstances, it may have been considered prudent to withhold any information beyond the general state of the pulse, respiration, and temperature, and on some other general points of a similar nature. Accepting these as a guide, the generally favourable aspect of the President's condition which has been expressed in the telegrams from Washington must be regarded as fully warranted; and we sincerely trust that there may be no interruption to equally satisfactory reports in the future progress of the case.

HOSPITAL REFORM.

THE question of hospital reform is just now, to use the common phrase, "in the air". The persevering efforts of the last dozen years, dating from the formation of the committee, presided over by Sir W. Fergusson, on the subject of out-patient practice, have at length attracted the attention, not only of the profession, but also of the public; and it is now admitted, on all hands, that some change is necessary. This change need not be in any way revolutionary. In fact, the abatement of the present nuisance of overgrown out-patient departments would be only a return to the system which prevailed in London during the memory of men of no very advanced age; and which still prevails in many of the most efficient hospitals of this and other countries. Nor need such change involve anything like State control; although it is, as far as we can understand, the fear of something of this sort which chiefly retards the movement in favour of a public inquiry into our hospital system, such as was advocated at the recent meeting of the Metropolitan Counties Branch of our Association. Let us see, therefore, how this matter stands. In order not to weary our readers with a twice-told tale, we assume that reform is urgently needed in many parts of our hospital system. The memorial, adopted by the meeting referred to, shows this plainly enough to any one who is disposed to doubt it, if there really be any such person. But those who oppose or fear inquiry are always ready with the objection, "Why, then, do you not introduce the necessary reforms yourselves? Why call down on yourselves the King Stork of a Government Commission?" No objection can, to our thinking, be feebler. In the first place, every one knows that no reform can be instituted so as to be at all efficient, except by the united action of the medical and lay governors of all or the great majority of the hospitals; and that, in many of the oldest hospitals, the action of the lay governors is fettered by Acts of Parliament, which might be applicable to a former state of things, but are now altogether antiquated; whilst, as to medical governors, they are simply non-existent. Then, again, as an appendage to the hospital system, there has grown up a vast mass of dispensaries, special hospitals, refuges, etc., some of which are genuine and useful institutions, while the rest shade off into every conceivable grade of irregularity.

The only hope of useful reform in such a state of things lies in the action of the public. It is mere mockery to tell the patient to cure himself. Nor is there any conceivable way in which the public mind can be authoritatively instructed, except by a public inquiry, in which the two sides of each question will be fully heard and investigated by men selected for their knowledge of the subject. That any such inquiry would lead to the establishment of a Government despotism over the hospitals, is surely one of the wildest ideas that ever entered a human head—so wild that it requires a stretch of charity to believe that the argument is used seriously, and in good faith. Government is already so overdone with official work, and so unequal to any work of legislation, that, of the five or six measures which are announced every year as urgent in the Queen's Speech, every one knows that not half will even be seriously considered. Is this a state of things in which any Government official would propose to his colleagues to add a new department to the existing offices? And the absurdity is greater, when we consider that no one wishes for any such addition. If all the treasurers, presidents, and other managers of all the voluntary hospitals in the country were unanimously to petition Parliament to found a department other than the Poor-law for administering hospital relief, we do not believe that they would have the faintest prospect of success. The first effect of any Bill for the purpose would be to kill the goose which lays the golden eggs; *i.e.*, to stop all the voluntary subscriptions on which the hospitals subsist. But, though no compulsory legislation is intended or could result from the action of the proposed Royal Commission, it would not therefore be without great results. The present defects in our hospital system do not depend (at least in any considerable measure) on wilful negligence or malfeasance, though a certain amount of corruption doubtless exists, for the cure of which no remedy could be devised so potent as public exposure. But by far the most of those defects are due chiefly to misdirected but perfectly pure benevolence; and they would be at once corrected if only their authors were better informed. Then, besides the benevolent or charitable functions of our hospitals, every medical man knows that their educational function has become of late years far more important than of yore. Since medicine has become so much more scientific, since diagnosis has acquired so much greater precision, and since the old apprenticeship system has passed away, the efficiency of hospitals as schools of medicine has become a matter of tenfold importance to the public; yet it is not too much to say that hardly any layman sees it in that light. Medical education is looked on as a "doctors' business", or the usual fallacy is entertained of regarding it as merely a question of examination. How few people there are who can see that efficient education must precede examination, if the latter is to be of any practical use; and that it is of far greater moment to the public how their doctors are trained than it is how they are examined. True, the technical details of the training must be left to medical men; but the general regulation of the relations between the hospitals and schools of medicine are matters on which laymen are possibly better qualified to judge than doctors, and which are, to say the least of it, as important as the composition of the Medical Council or the coy phantom of the conjoint scheme. To educate the public into recognising the public importance of the voluntary hospitals as schools of medicine, would in itself be a sufficient object for the proposed Royal Commission; but it is only one out of the many important branches of the subject set forth in the memorial to which we refer. If the profession, and especially those connected with the hospitals, are earnest in pressing it, we see no reason to doubt that the Commission will be obtained; and, as the only intelligible objection which we have ever heard urged against it is the imaginary one of the danger of Government control, we can hardly doubt that its members will soon be nominated.

A PROSECUTION FOR MALAPRAXIS.

We have much pleasure in inserting, on page 108, an appeal from Mr. Daniell of Blandford, in favour of Dr. Stainthorpe of Wareham, who has recently been made the subject of a prosecution, on account of the somewhat unsuccessful result of a case of fractured femur. So many of our associates have suffered from these prosecutions, that we feel there is little need to enlist the sympathies of our readers on behalf of another sufferer. One form of procedure is known to every one. A person, who either is a gratuitous patient, or who is next door to a pauper, is treated more or less unsuccessfully. A lawyer's letter is sent to the surgeon. The latter knows well that adverse professional opinions can be procured, and that the case will assume a serious aspect. Often, also, he knows that the plaintiff neither will nor can pay anything, and that his solicitors are acting on speculation. He is certain, in such a case, to incur very considerable pecuniary loss (a loss usually reckoned at from £300 to £500), and to suffer more or less in his professional reputation. Hence the temptation to compromise such actions is strong; and many of them are compromised, and many a plaintiff goes off with a fifty-pound note in his pocket, whose claim is a merely dishonest one. On the other hand, many of these cases have, at any rate, some foundation in reason; and it would be a strange doctrine indeed, that a man is to be debarred from proper compensation for maltreatment because he cannot bear the outrageous expense which is involved in a lawsuit under our present system. On the one hand, each case must be judged on its own merits; and, on the other, all honour is due to men who, like Dr. Stainthorpe, are sufficiently strong in the conviction of their own professional innocence, to face an action of this sort. Some part, at any rate, of the burden is in such cases usually and properly assumed by their professional brethren; and we hope that this may be the case in the instance before us. At the same time, we think that Dr. Stainthorpe owes to the persons who are called on to subscribe to his fund some further explanation of the medical aspects of the case. The surgeons who were called for the plaintiff are made to say what we can hardly believe any well-instructed surgeon could have said. For instance, Mr. Nunn of Bournemouth is quoted as saying that "he had set a great many thighs, and had never had a case of shortening of the limb". We wish that any hospital surgeon in London or elsewhere could say the same. The truth is, that a certain amount of shortening is usual, if not inevitable; and we incline to think that what the plaintiff's medical witnesses really did say, was that they rarely, if ever, turned out a fractured thigh with so much shortening as in this case. What makes this a matter of importance is the postscript, in which the defendant is made to say that, "finding there was no shortening", he adopted such and such treatment. Now, the defendant's witnesses agree with those of the plaintiff in stating that the shortening, after the completion of the case, was over two inches; and, if all this took place during the treatment, the action would assume a different complexion from that which it would have if the case had, from the first, been a more complicated and difficult one. There are, as every surgeon knows, cases of fractured femur in which shortening can hardly be prevented; where continuous extension cannot be borne, and where the fragments show an irresistible tendency to retraction and malposition. But the facts reported in Mr. Daniell's extracts from the local paper are not precise enough to enable us to judge whether this was such a case or not. We have, as we have said above, every feeling of sympathy with Dr. Stainthorpe, and are quite disposed to believe that his treatment was judicious, and the result to the patient as good as could have been expected; but we think this matter wants further elucidation, either from Dr. Stainthorpe himself, or some of his medical witnesses, before definite action can be taken upon it. That definite action would, we presume, involve the formation of a committee for the purpose of ascertaining the defendant's expenses, and collecting subscriptions.

AMBULANCE ORGANISATION FOR THE FIRST CARE AND THE TRANSPORTATION OF EMERGENCY CASES.

In connection with this important subject, an article on another page by Dr. B. Howard, who has had large experience on this question, both military and civil, is worthy of special attention, not only for what it states, but also for what, by contrast, it suggests. If there be a need for a good ambulance system anywhere, then, except on the battle-field itself, that place is our own metropolis of London. If such a system be practicable anywhere, it is so side by side with the admirable fire and police departments of our own city.

The necessity for a good system of this kind, while at once generally apparent, is, in extent of detail, not difficult to compute. For example, the street accidents from horses and vehicles alone, from liability to which none are exempt, have, during the past eleven years, averaged nearly three thousand annually, exclusive of two hundred others in which the victims have been killed outright—a number not likely to be diminished by the recent winding-up of the Society for the prevention of accidents of this class. Out of eighty-five hospitals in this metropolis, five of them, last year alone, received over twenty-two thousand patients, nearly half of the number in some of them being emergency cases.

Ask the nature of the accident or of the emergency in any of these cases, and the answer is not difficult to find. Ask, however, how any one of these unfortunate creatures managed to get from the scene of the accident or sudden illness to the hospital which received them,—and the answer has to be supplied by our own imagination, aided by what we have seen of the faithful but perhaps bungling policeman—the rude crowd eager to see and follow the supposed criminal—the loading and unloading of the compound fracture-making and perhaps fatal cab, or whatever else may arise from the accidental circumstances of the moment. On the other hand, let there be but a suspicion of fire threatening property of any kind, and within three or five minutes trained skill under the best system, takes complete control of the whole matter, accidental help being rigidly excluded. The result is satisfactory, and the cost of the fire department, though much, is not deemed too great.

When the protection of human life shall be esteemed only one-half as important as the protection of property, all that is necessary for the best system of relief will be freely provided. With the exception of a few ambulances for the use of the fever hospitals only—of a few others exclusively for conditional and pauper use—of some hand-barrow ambulances recently supplied to some of the police-stations, but which do not touch the question of prompt and skilful care, or of seclusion during removal—so highly desirable—the condition of London in this particular is one of absolute destitution.

In the entire police department, there is not one ambulance wagon.

In the entire fire department there is not one ambulance wagon.

In not one of the eighty-five hospitals referred to, is there an ambulance wagon.

The gulf between unfortunate sufferers and the hospitals intended for their reception can be bridged by some well-organised system of prompt and skilful transportation, more or less like that described by Dr. Howard, and apparently in no other way.

The utility of such a system would be evident every day; while, in the case of a great catastrophe, its value would be inestimable. Every day it would spare intense perplexity to those who need to go to the hospital, but have neither the money nor the information requisite to get there. It would daily alleviate the distress of many already suffering, and would afford to the entire community the comfortable assurance of the best first-care in case of sudden need.

We sincerely hope that this subject may receive the prompt, energetic, and substantial consideration which it deserves from all those interested in the general good, assured that any effort for the establishment of such a system will awake the appreciation, sympathy, and support of the whole community.

BACILLI IN TYPHOID FEVER EPIDEMICS.

Dr. Brautlecht of Brunswick, during several epidemics of typhoid fever in the Grand Duchy, repeatedly found a species of bacillus, which he believes to be pathogenic, in the water used for drinking by the inhabitants of the affected districts. Collections of this organism were readily procured by preserving some of the water for twenty-four hours in a test-tube closed with wool. An iridescent pellicle had by that time formed on the surface; this pellicle was skimmed off, and placed in a cultivating fluid, consisting of gelatine and phosphate of ammonia dissolved in spring water. With care, if the fluid do not include too many other species of bacteria, which form a creamy deposit on the surface, the special bacillus will be found to grow in abundance, but slowly, in the form of white flakes at the bottom of the glass containing the deposit. The microscope shows each flake to be a tangled mass of delicate threads, more or less jointed, and soon breaking off into small rods, which appear to dissolve into aggregations of spores, like rows of pearls. During further culture the threads disappear, shorter rods can be detected, these also breaking into spores, which in turn produce other rods. These bacilli varied much in diameter; they appeared about twice as thick as the bacilli found by Koch in septicæmia, and half as thick as a similar organism found by the author in the urine of typhus fever patients; half as thick as bacterium termo, but only one-third of the thickness of bacillus subtilis.

The difference in the effect of solutions containing this specific typhoid organism compared to water holding other forms, is very great. Such solutions are not fetid, like fluid containing great masses of bacterium termo, but smell somewhat like boiled milk. In a pure solution holding this organism, the reaction is neutral, not alkaline, as in the case of bacterium termo, nor acid as when the other common forms are present. A distillate from this solution, if made rapidly and in a small quantity, retains for a few days the property of producing fever, but is rendered harmless by prolonged boiling. The growth of the bacillus is quickly checked if the solution be, in the slightest degree, acidulated. At ordinary temperatures, it grows in spring water very slowly. These same bacilli and their spores were found to abound in the urine of typhoid fever patients. When the cultivating fluid was injected, subcutaneously, in rabbits, high fever followed; and great inflammation of Peyer's patches, injection of the vessels of the small intestine, swelling of the mesenteric glands, and other pathological signs of typhoid fever were found. On further cultivation, the specific bacillus becomes weaker in its infective power; animals that recover from the fever produced by the injection of fresh cultivating fluid suffer very little if more fluid be injected. Dr. Brautlecht strongly insists on the specificity of the bacillus he has discovered; since, though other germs existed in the water drunk by patients in the typhoid epidemics, still he could distinguish this one species, and by cultivating it in a special solution, could produce all the symptoms of typhoid fever in animals infected by the solution. Klebs and Eberth have recently found bacilli in the intestinal and mesenteric glands in typhoid fever; and Dr. Brautlecht naturally hopes that such bacilli may be cultivated, and compared with the specific typhoid fever bacillus, which he claims to have discovered.

The Prince of Wales has intimated his intention to open the New Hospital for Sick Children at Brighton on the 21st instant. The Princess will accompany him.

A somewhat alarming outbreak of small-pox, has occurred at Wokingham, in the vicinity of which a number of cases have from time to time been reported.

From the published results of the census in the Northern Province of Ceylon we learn that during the ten years' interval this province has been visited by epidemics of small-pox and cholera, and the result has been, that the increase in population had only been 7.52 per cent., instead of that generally universal throughout the colony of ten per cent.

Scarlatina is largely prevalent in the urban sanitary district of Calne, and as there are no means of isolation available the further extension of the disease is to be feared.

Those who take an interest in the baths of Mont Dore, will find a seasonable and able article on the treatment of asthma at that place, by Dr. Barney Yeo, in the current number of the *Practitioner*.

The subject of cremation is under the consideration of the Japanese Government, who have appointed a special commissioner (Mr. Monosuke Sano) to study the subject; he is now investigating the merits of the Italian system at Milan.

Intending members of the International Medical Congress are urgently desired to at once make known their intention to the Secretary General, Mr. W. Mac Cormac, 13, Harley Street; as a knowledge of the probable number of persons likely to attend the Congress is essential to the completion of the needful arrangements.

The suitability of Ceylon soil and climate to the finer and more valuable qualities of cinchona have been much disputed; but the result of experience obtained by planters in Maskeliya and Dimbula, seem to set the question at rest, as they have grown *Ledgeriana* in those districts with as great success as it has been cultivated in Java.

A serious outbreak of scarlet fever is reported at Heywood. Twenty cases have been reported to the authorities, and there have already been a number of deaths, two being in one house. The medical officer of health, is urging the erection of a new hospital for the reception of the cases.

The Medical Acts Commission met at 2, Victoria Street, Westminster, on the 8th, 9th, and 11th instant. The evidence of Mr. John Marshall, Dr. D. R. Haldane, Dr. T. S. Byass, and Dr. Edward Waters, was taken. There were present:—The Earl of Camperdown (chairman), the Bishop of Peterborough, Mr. W. H. F. Cogan, the Master of the Rolls, Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Professor Turner, Mr. Bryce, M.P., and Mr. John White (Secretary).

The members of the Bodmin rural sanitary authority have just adopted a course which might, with great advantage, be copied by other authorities. Each guardian has undertaken to give notice to the inspector of nuisances of all cases of infectious disease occurring in his parish. It would probably have been better if the notification had been made direct to the officer of health; but the practice of the members of local authorities thus interesting themselves in the checking of disease, in the parishes which they represent, is a good, if an obvious one, and deserves to be encouraged.

A remarkable impostor, of the name of Birini, has recently been condemned to four months' imprisonment in Switzerland for obtaining money by false pretences. Birini was a native of Wurtemberg, originally an attorney's clerk, then a chemist. In 1861, he announced in the German newspapers that he would sell for one thousand francs a secret vegetable composition, which had the power of turning worthless metals into gold. For this, he was sentenced to five months' imprisonment. In 1863, he went to Australia, and appears to have bought a diploma from an university in one of the colonies, and practised, advertising himself extensively in the colonial press. Shortly afterwards, he went to Hamburg, and attempted to set up a practice. He alleged that he had discovered in Central Australia a wild hairy race of savages, that lived among herds of ourang-outangs. Virchow exposed his fraudulent pretensions. In the autumn of 1880, the falsity of his alleged discoveries was more completely exposed; and attempting—at first not without success—to practise in Zürich, he has once more come within the clutches of the law.

SANITARY INSTITUTE OF GREAT BRITAIN.

The anniversary meeting of the institute was held at the Royal Institution, Albemarle Street, on Thursday July 14th, at 3 P.M. An address

was delivered by the Chairman of Council, Professor F. S. B. F. De Chaumont, M.D., F.R.S., entitled "Modern Sanitary Science"; and the medals and certificates awarded to the successful exhibitors at the exhibition at Exeter, in 1880, were presented.

MEDICAL DEFENCE ASSOCIATION.

We are requested by Mr. George Brown, Honorary Secretary to the Medical Defence Association, to state that that Association having been invited to give evidence before the Royal Commission on the Medical Acts, the Council of that body has resolved to hold a meeting of the medical profession at Exeter Hall during the present month, to discuss the question of medical reform, and to pass resolutions thereon. The date of the meeting will be duly advertised.

THE COMPULSORY NOTIFICATION OF INFECTIOUS DISEASES.

Mr. Sergeant, in his Report of the Health of Bolton, ending December 31st, 1880, states that the compulsory notification of infectious diseases in that borough during fifteen months has given every satisfaction, and proved of immense value in limiting the spread of contagion. The cases reported amounted to 1,646, of which 18 were of small-pox, 784 of measles, 702 of scarlet fever, 5 of diphtheria, 102 of typhoid fever, 17 of typhus fever, 13 of continued fever, 2 of relapsing fever, 3 of puerperal fever.

HIGH TEMPERATURES IN LONDON AND THE TROPICS.

The deaths of several soldiers lately at Aldershot, and the large number who fell out of the ranks, from the effects of the hot sun, have directed much public attention to this subject. A correspondence has been carried on as to the relative highest temperatures recorded in Bombay, Calcutta, and other tropical countries. In the course of the discussion, it has been stated that the highest temperatures recorded in London have exceeded those of Barbadoes and the Mauritius, and have been nearly equal to those of Bombay. Mr. Symons has given a table for the last seven years, showing that the mean of the highest in London, for each of these years, was in excess of that of the Mauritius by one-tenth of a degree, and the absolute highest (92.6°) was nearly four degrees above that of the Mauritius. The temperature recorded on Tuesday, the 5th (91.0° to 92.2°), has been rather frequently exceeded in London; but is nothing like so high as that observed in Calcutta, the Punjab, Melbourne and the interior of Australia, and other places. Thus, in Calcutta, in April and May, 1879, 104.7° and 105.3° were recorded; in Melbourne, in January, 1879, the thermometer reached 106.0°; in June, in the Punjab, 112.0°; and in the interior of Australia, temperatures of above 114° have been registered. It must not, however, be forgotten that these excessive temperatures in London rarely last, even for a few days; whilst, in the tropics, they continue for weeks. In London, the air is generally comparatively dry when excessive heat prevails; whilst, in Calcutta, it is nearly saturated with moisture, and consequently is more oppressive. The nights here are also comparatively cold. Two or three very hot days, in the early part of summer, do not increase the mortality to anything like the extent they do when occurring later in the year, as the comparative coldness of the nights counteracts, to a certain extent, the heat of the day. The range of temperature on the 5th was nearly 30°, so that the mean was not so excessively high.

TIP-CAT.

A very painful case of injury from this stupid and dangerous game, lately formed the subject of a trial at the St. Helen's County Court, Liverpool. In February last, a bricklayer went to the office of his employers to receive his wages, and while walking along the road, he was struck on the left eye by a "tip-cat". Such was the force of the blow that the eye-ball was knocked out of the socket, and lay on his cheek, the sight being completely destroyed. The inflictor of the injury was a lad named Winstanley, who was employed as an apprentice at a glass-works. Evans suffered intense agony from his injury, and was under the doctor's care for three months, and not being able to follow his employment, applied to the Winstanleys for some substantial assistance, which, however, was refused. He, therefore, brought an action against them, seeking to recover £20 damages, one half of which would have to go in liquidation of the doctor's bill. The judge awarded the full amount of damages claimed, with costs.

STATISTICAL SOCIETY.

The forty-seventh anniversary meeting was held in the Society's Rooms, King's College, Strand, on the 28th June; Dr. W. A. Guy, F.R.S., a past President of the Society, in the chair. The report of the Council submitted to the meeting was of a highly satisfactory character. Among the papers read during the session were the following. "The Tenth Census of the United States of America", by Dr. Mouat; "The Growth of the Human Body", by Mr. J. T. Danson; "The Number of Deaths from Negligence, Violence, and Misadventure in the United Kingdom and some other Countries", by Mr. C. Walford; "Temperature and its Relation to Mortality: an Illustration of the Application of the Numerical Method to the Discovery of Truth", by Dr. Guy, F.R.S. The following were unanimously elected to be the council and officers for the sessional year 1881-82. *President:* James Caird, C.B., F.R.S. *Council:* Arthur H. Bailey, F.I.A.; T. Graham Balfour, M.D., F.R.S.; Alfred Edward Bateman; G. Phillips Bevan; Stephen Bourne; Sir George Campbell, K.C.S.I., M.P.; J. Oldfield Chadwick, F.R.G.S.; Hammond Chubb, B.A.; Hyde Clarke; Right Honourable the Earl of Dunraven, K.P.*; Robert Giffen; Rowland Hamilton*; Frederick Hendriks; Noel A. Humphreys; Robert Lawson; Professor Leone Levi, LL.D.; Sir J. Lubbock, Bart., M.P., F.R.S.; John B. Martin, M.A.; Richard Biddulph Martin, M.P.; Frederic John Mouat, M.D., F.R.C.S.; Francis G. P. Neison; Evan C. Nepean*; George Palmer, M.P.*; Robert Hogarth Patterson; Henry D. Pochin; Frederick Purdy; Sir W. Rose Robinson, K.C.S.I.*; Thomas A. Welton; Cornelius Walford, F.I.A.; R. Price Williams, C.E.* (Those marked * are new members of council.) *Treasurer:* Richard Biddulph Martin, M.P. *Secretaries:* Hammond Chubb, Robert Giffen, John B. Martin. *Foreign Secretary:* Frederic J. Mouat, M.D. The usual vote of thanks to the President, council, and officers, for their services during the past year, to the scrutineers of the ballot, and to the chairman for presiding, were cordially given by the meeting.

DR. ANDREW CLARK ON ALCOHOL.

Dr. Andrew Clark delivered an address on alcohol on the 7th instant, in the Great Portland Street Schoolrooms, to a crowded and deeply interested audience. He said he purposed offering a few remarks upon the influence of alcoholic drinks upon health, upon work, upon disease, and upon the succeeding generation. This question of alcohol was of the first importance to us as a nation and as individuals, and hence a great responsibility rested upon the shoulders of those who professed to speak upon it with authority. The first requisite was, that such a person should know it; and the second, that, in the desire to forward a particular cause, he should not be led away from a solemn and reverent love of the truth. For twenty-five years he had been physician to the London Hospital; and there, as elsewhere, it had been a part of his business to ascertain the influence which alcoholic drinks exercised upon health. In the first place, alcohol was a poison, as were also strychnia, arsenic, and opium; but, in certain small doses, these were useful in special circumstances; and, in very minute doses, alcohol could also be used without any obvious prejudicial effect upon health. A perfect state of health (and it was rarely to be found) could not be benefited by alcohol in any degree, and in nine cases out of ten it was injured by it. It could bear it sometimes without perceptible injury, but could never be benefited by it. He said this not as a total abstainer, though he earnestly hoped that all the rising generation would be. Instead of the ideal state of health which might be enjoyed save for the nature of our surroundings, the sins of our parents, and our own sins, there was a sort of secondary health possessed by most of us; and what

did alcohol do for this? He had two answers to give. This sort of health bore, apparently, with the alcohol better than the other, and sometimes seemed as if benefited by it; and this was exactly the sort of health that formed the great debating-ground of different people with respect to the use of alcohol. Secondly, there were some nervous people—always ailing, yet never ill—for whom he had a profound sympathy, who seemed to derive great comfort from alcohol; and to them he had sometimes said, "Take a little beer or wine; but take great care never to go beyond the minute dose". As to the influence of alcohol upon work, Dr. Clark encouraged his hearers to try the experiment of total abstinence, and observe the result in regard to work. They should, however, try it fairly, and not allow themselves to be deterred from it by the evil prognostications of friends. He was certain that, if this experiment were tried, each individual present would come to the conclusion that alcohol was not a helper of work, but, on the contrary, a hinderer. As to the effect of alcohol upon disease, he had gone through the wards of his hospital, and had come, after careful thought, to the conclusion that seven out of ten owed their ill-health to alcohol. He did not say that these were excessive drinkers or drunkards. In fact, it was not the drunkards who suffered most from alcohol, but the moderate drinkers who exceeded the physiological quantity. The drunkard very often was an abstainer for months together, after a period of intemperance; but the moderate drinker went steadily to work, undermining his constitution, and preparing himself for premature decay and death. He had no means of finding out how many victims alcohol claimed each year; but certainly more than three-fourths of the disorders of fashionable life arose from the drug of which he was speaking. Finally, Dr. Clark dwelt upon the heredity of the alcoholic taint, and closed by saying that sometimes, when he thought of all this conglomeration of evils, he was disposed to rush to the opposite extreme, to give up his profession, to give up everything, and to enter upon a holy crusade, preaching to all men everywhere to beware of this enemy of the race.

SMALL-POX HOSPITALS AND INFECTION.

In view of the prevailing agitation against small-pox hospitals, the following notes by Dr. McCombie, the medical superintendent of the Deptford Hospital, concerning the distribution of the small-pox cases admitted during the year from the parish of Greenwich, in which the hospital is situated, and from the parish of Camberwell, which adjoins the hospital, will be found interesting. In Greenwich, the epidemic began a mile distant from the hospital, and has steadily advanced towards it, and has only now (March 1st) reached the district near it. In Camberwell the cases have been scattered over the parish generally, while the majority resided at a distance of over half a mile from the hospital.

THE MEDICAL ARRANGEMENTS AT THE VOLUNTEER REVIEW.

The arrangements in connection with the great gathering, which are described as having been of a very comprehensive character, and to have been worked in a very satisfactory manner, were planned by Surgeon-Major Shelton, of the Army Medical Department, the corps being under the command of Surgeon-Major Gasteen, A.M.D. Two field hospitals were established in the Great Park, one being placed under the shade of the trees at the rear of the rendezvous of the First Army Corps, between the upper part of the Long Walk and Queen Anne's Ride, and the second to the rear of the Army Corps, under General Sir Daniel Lysons, near Bear's Rails. Each hospital was composed of about seven tents, with sets of panniers and field-companions, bearers, water bottles, and other requisite appliances, three waggons, with six large stretchers, and twenty field stretchers, one general service wagon, two water carts, and all other appliances. Their services proved very valuable, as the number of cases receiving treatment during the assembly, parade, and review, amounted to one hundred and fifty, twenty-five of which were at the moment of a serious character. Ten of these were from sunstroke, the remaining fifteen casualties, being cases of faintness caused by exposure to the extreme heat, and the fatigue which had been endured by the volunteers during the long railway journeys. The other casualties comprised sprains, contusions, and faintings, most of which received immediate medical relief in the field, the more serious cases being removed to the hospitals for careful treatment. Out of the hundred and fifty casualties, all but eight were able to rejoin their corps, or leave for their homes in the course of the evening; the worst case, one of sunstroke, being eventually removed to the Guards' Hospital at Windsor; while Captain Sparkes, the adjutant of the 1st Surrey Artillery, who fell from his horse and received a severe contusion on the back, remained in the field hospital at the Cavalry Exercise Ground, until Monday afternoon, when he was removed to his own home in London.

WHOLESALE POISONING WITH LEMONADE.

A telegraphic despatch from New York reports that a whole boat-load of persons out for a picnic at Warrensburg partook of lemonade, and were poisoned by it; eight of them were dead, and a hundred others were in a critical condition. This is rather a startling addition to the records of mischief arising from the use of artificial beverages of the kind. The more common dangers of cheap artificial aërated drinks arise either from impurity of the water with which they are made, or from contamination with lead or other mineral poisons, or from the habitual use of drinks containing mineral substances of one sort or another, added with the view to their alleged tonic action. It is stated that, in this case, the sufferers were poisoned with the acid used in the manufacture of the lemonade.

IRREGULAR PRACTICE IN THE MAURITIUS.

Thirty-two medical men practising in the Mauritius have addressed a memorial to the Lieutenant-Governor, praying him to enforce the law respecting the practice of medicine by unqualified persons. It appears that the fashionable quacks at the present time are "sore-throat curers". A person of this description—a Mr. Floricourt—was recently brought before the district magistrate of Flacq, and fined for having unlawfully practised medicine by administering a certain secret remedy to a child that was suffering from sore-throat. The fine thus imposed was subsequently remitted by the Lieutenant-Governor; and, about the same time, two other charges of a similar kind, which were pending against two other individuals, were allowed to drop. Thus the law seemed in danger of being seriously relaxed; and any relaxation of the law upon this subject could not fail to act injuriously upon the medical profession and upon the community at large. Under these circumstances, the thirty-two medical men drew up their address to the Lieutenant-Governor, and a very temperate and cogent address it is. After referring to certain circumstances which might have induced His Excellency to show clemency in the particular cases in question, they go on to say:

> The fact none the less remains that, in a matter where the provisions of the ordinance which was enacted to prevent the illegal practice of medicine were attempted to be enforced by the police, which had to all appearances been set in motion by the chief medical officer, the Government seems to have upheld the cause of those who had openly violated the law, and to have granted them its powerful protection. The consequence, we fear, must be that all the quacks whom we have in the colony, believing that they have now secured immunity from prosecution and punishment, will carry on their trade on a larger scale than ever, and will more and more encroach upon the rights of the medical profession.

The memorialists then point out that it is not merely their own interests which are at stake. A much larger and more important question is involved, and the health of the whole community is placed in jeopardy if irregular practitioners are allowed to ply their trade unchecked. To this petition, a satisfactory reply has been received from the Lieutenant-Governor. His Excellency says:

> There is no intention whatsoever on the part of the Executive in interfering with the carrying out of the law regulating the practice of medicine in this colony. The remission of the fine imposed in the recent case of the Crown *versus* Floricourt was approved by the Lieutenant-Governor, with some hesitation, on the strong and repeated re-

presentations of the magistrate who tried the case, and who urged, among other arguments, that Floricourt had acted in ignorance of the law. After the publicity given to this case, such ignorance can, of course, no longer be pleaded.

The petitioners have done good service, and we congratulate them on the result of their effort. Quackery is one of the pests of medical practice, and it is highly desirable that the laws which restrain it should be kept in active operation.

THE ROYAL ACADEMY OF MEDICINE OF BRUSSELS.

THE following are the questions proposed by this Academy for competition. 1. Determine the nature of the influence of innervation on the nutrition of the tissues; prize, a medal of the value of 1000 francs (£40); essays to be sent in by January 1st, 1882. Determine experimentally the influence exercised by desiccation, employed as a preservative agent, on the simple medicines of the vegetable kingdom; prize, a medal of the value of 600 francs (£24); essays to be sent in by February 1st, 1882. Show the part played by live germs in the etiology of diseases, based on recent experiments; prize, a medal of the value of 2,000 francs (£80); essays to be sent in by January 1st, 1883. Prize given by an anonymous donor: Elucidate by clinical facts, and, if necessary, by experiment, the pathogenesis and therapeusis of diseases of the nerve-centres, and principally of epilepsy; 8,000 francs (£320 sterling); essays to be sent in by December 31st, 1883. Bonuses of from 300 to 1000 francs may be awarded to writers who may not deserve the prize, but whose labours may be considered worthy of recompense. A sum of 25,000 francs (£1000 sterling) may be given, besides the prize of 8,000 francs (£320 sterling), to the writer who shall have made decisive progress in the therapeutics of diseases of the nerve-centres—such, for instance, as the discovery of a cure for epilepsy. The programme of the competitions for the years 1881-1882 is as follows. Seutin prize for three surgical questions: 1. On the retention of urine studied in its largest expression, from the point of view of its causes and its curative and palliative treatment; the indications, the counterindications, the advantages of, and objections to, each plan of operation; prize, 500 francs (£20 sterling). 2. On the comparative value of different dressings now used for extensive surgical wounds; prize, 500 francs (£20 sterling). 3. Determine the indications and counterindications for the various surgical methods applicable to inguinal and crural hernial strangulations of every kind, deriving them from the anatomico-pathological and etiological study of these strangulations, and basing them on a critical and methodised discussion of all the methods of treatment known at the present time; show the advantages of these different plans, as well as the improvements to which they have given rise; prize, 2,000 francs (£80 sterling).

THE WORK OF THE LATE PROFESSOR RAYNAUD.

THE late Professor Raynaud, whose sudden death throws a melancholy shadow over the approaching Medical Congress, was a nephew of Vernois, the French surgeon, under whose auspices he entered the medical profession. He commenced his literary work by his thesis for the *doctorat*, which was on a new subject, *Local Asphyxia and Symmetrical Gangrene of the Extremities;* in it, he established that gangrene is a complex process, which he analysed from the histological and chemical aspects. Five months afterwards, he maintained, before the Paris Faculty of Letters, two theses for the *doctorat* in letters, one of which was in Latin, the subject being *De Asclepiade Bithyno, Medico ac Philosopho.* In the following year, he competed unsuccessfully for the office of *agrégé*, and maintained the thesis, *Sur les Hyperémies non Phlegmasiques;* but took his revenge in 1866, when he came in first. The thesis which fell to his lot became a part of his specialty; he had to treat of *Revulsion.* His historical retrospects were of a distinguished character. Besides the works above cited, M. Raynaud furnished a number of articles to Jaccoud's *Dictionnaire de Médecine*, of which the principal were: Arteries, Heart, Cachexia, Venæ Cavæ, Diathesis, Erysipelas, Gangrene, Hæmatidrosis, Albinism, Ill-health, etc.—a sufficiently varied list. He also sent frequent communications to the *Bulletins* of the Société Anatomique, to the Société Médicale des Hôpitaux, and to the various French medical periodicals. He was an ardent partisan of the treatment of cerebral rheumatism by cold baths. Dr. Raynaud also possessed the gift of verse, and some poems by him are in circulation; one, amongst others, *le Calotte*, was sung at a dinner of house-surgeons, and published in the medical papers. In the course of his medical career, M. Raynaud had to supplement the teaching of Piorry in the chair of clinical medicine at the Hôtel-Dieu, and that of Monneret in the chair of pathological medicine; he was also put in charge of the supplementary course of mental and nervous diseases. He was elected a member of the Academy of Medicine in 1879, having previously been made officer of the Legion of Honour in 1871.

DEATHS FROM ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 88 and 52 in the two preceding weeks, rose again to 73 last week, and exceeded the average by 44; 51 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, 8 in the Highgate Small-pox Hospital, and 14 in private dwelling-houses. Of the 73 persons whose deaths were registered last week within registration London, 27 had resided in the South, 17 in the North (exclusive of 2 in Kilburn), 16 in the East, 8 in the West, and 3 in the Central groups of registration districts. The number of small-pox patients in the Metropolitan Asylums Hospitals, which had declined from 1,644 to 1,408 in the four preceding weeks, further fell to 1,192 on Saturday last, of whom 314 were inmates of the Convalescent Camp Hospital at Darenth; the number of new cases admitted to these hospitals, which had been 358, 321, and 254 in the three preceding weeks, further fell to 141 last week. The fatal cases of measles, which had been 71 and 64 in the two preceding weeks, rose again to 70 last week, and exceeded the average by 32; they included 5 in Chelsea, 5 in Islington, 7 in Hackney, 10 in Southwark, and 4 in Newington. The largest proportional fatality occurred in Central and East London. The 41 deaths from scarlet fever showed a further increase upon recent weekly numbers, and exceeded the weekly average by 5; 6 occurred in Pancras, 4 in Islington, and 3 in Clerkenwell. The deaths referred to diphtheria, which had steadily increased in the six preceding weeks from 8 to 18, declined again last week to 8, but slightly exceeded the average. The 37 deaths from whooping-cough were 10 below the average. The deaths referred to diarrhœa, which had steadily increased from 13 to 72 in the six preceding weeks, further rose to 135 last week, and exceeded the average by 33; no fewer than 105 were of infants under one year of age, and 21 of children between one and five years.

WHOLE MEAL AND WHITENED FLOUR.

NOT every one is agreed as to the superiority of whole meal flour over whitened flour from which the cortex has been removed; and it is certain that the last word has not yet been said on that subject, either by physiologists or millers. We read in a review of the recent Millers' Exhibition, that in the opinion of food-judges it is only a superficial acquaintance with chemistry, that leads some persons to doubt whether the proper object in grinding ought to be production of the whitest and most finely granulated flour, holding that the entire wheat-berry, husk and all, is the fittest food for man when mechanically reduced, so that the bran becomes fine as the flour with which it is intermingled. But while it is true that the bran is rich in oil, in lime, and phosphoric acid requisite for building up the osseous parts of the human frame, it has been well established by experience that branny flour makes dough inferior in capability for rising light, and producing in the oven the most digestive and nutritious bread. In fact, recent scientific investigation of the processes at work indicates that an acid ferment, developed by the membrane which is present, in large quantity, in whole meal and dark flour, dissolves the gluten, greatly injuring the properties of the flour for making open and light dough. Mr. J. Harrison Carter, of Mark Lane, takes as the motto for his system of milling to avoid grinding the bran and mixing it with the white flour. He cracks open the wheat

grain by fluted rollers so lightly, that this first operation does not produce more than one per cent. of flour. The grain in halves is then divided by a second pair of fluted rollers, and passes through four or five breaks; the products of fine flour, middlings, and semolina being dressed and sized at each stage, and the middlings crushed through smooth rollers. The merit of the system is that the greater portion of the flour is obtained in that sharp granular form, though exceedingly fine, which is found better for mixing with the water in bread-making than is flour rubbed to a soft impalpable powder.

THE ACTION OF BELLADONNA.

PROFESSOR WHARTON JONES, in a communication upon this subject to the *American Journal of the Medical Sciences* for April 1881, maintains the view that the *modus operandi* of belladonna upon the human system is essentially different from that generally accepted, and which, in his opinion, is fundamentally erroneous. Taking the familiar experiment of dropping atropia upon the web of a frog's foot and demonstrating the fact that the venous stasis resulting is due to constriction of the small arteries from contraction of their muscular coat, as is evidenced by the increase in thickness of their walls, which retards the flow of blood and directly causes congestion, he concludes that the phenomena of belladonna-poisoning stand in this order: 1. Constriction of the small arteries by stimulation of their muscular coat; 2. The establishment of venous congestion in the brain and spinal cord; 3. The cerebral and muscular disturbance arising from the venous congestion in the brain and spinal cord. In considering the mydriatic effect of atropia upon the pupil, the elasticity of the iris is a factor which has been generally overlooked; thus, with the two sets of muscles, the circular and antagonistic radiating fibres, there is a certain amount of physical elasticity, which requires to be taken into consideration, without a proper estimate of which no correct analysis of the motion of the pupil can be made. Mr. Jones alleges that belladonna operates by directly exciting to action the radiating muscular fibres composing the *dilator pupillæ*, and not by paralysing the sphincter, and giving scope to unrestrained action of the dilator. This latter view, which physiologists continue to teach, is controverted by the fact that in paralysis of the motor oculi, the pupil is not widely dilated, but is restrained by the elasticity of the iris; it may, however, still be dilated by atropia. When the dilator and the sphincter are both inactive, as they are after death, the natural resiliency of the iris keeps the pupil at a medium degree of width. Calabar bean, although it exercises apparently a contrary effect upon the pupil, is not a real antagonist to atropia, for it acts upon the sphincter papillæ; in an analogous way it relieves congestion by stimulating the muscular coat of the venous radicles, but has no effect upon the arterioles.

THE NORMAL AXIS OF THE FOOT.

DR. BENJAMIN LEE, of Philadelphia, has studied this subject with more than ordinary consideration, and describes (in the *Transactions* of the Medical Society of Pennsylvania, 1880) the normal axis of the sole as being a curved and not a straight line, contrary to the universal popular belief. To the ignorance of this fact on the part of the laity, he ascribes the tortures resulting from an improperly made shoe. The aim of the shoemaker has been to make each foot symmetrical in itself, while the foot, being a double organ, follows the law of all double organs, and is symmetrical only with its fellow. If we could succeed in making both feet exactly alike, we should at once lose the beauty which comes from the comparison of two objects symmetrically unlike, one of the highest sources of gratification which the sense of sight is capable of appreciating. In carrying out this aim he has made the shoe, not simply what it should be, a covering for, and protection to the foot, but an *orthopædic instrument*, the object of which is to straighten out its natural curve. He furnishes diagrams, showing at what points the pressure is applied in order to produce this result. They are observed to be the inner side of the heel, the outer side of the middle of the foot, and the inner side of the great toe. At the same time that strong pressure is brought to bear upon the first or metatarsal joint of the great toe, its distal extremity is forced toward the middle line of the foot; the result of this is necessarily to convert the inner surface of the articular portion of the metatarsal bone into a fulcrum, against which the first phalanx is forced outward. The articular surface of the phalanx is thus uncovered; and, instead of remaining in contact with the opposite articulating surface of the metatarsal bone, it is in contact with the shoe, protected only by the integument. A provisional bursa is sometimes established, itself often the seat of inflammation; but this does not prevent the sensitive joint-surface and the synovial membrane from ultimately receiving injurious pressure, which results in the hideous and painful deformity known as a bunion. At the other end of the toe, the continued pressure against the matrix of the nail induces a suppurative inflammation of low grade, with fungous granulations, to which the name of ingrowing toe-nail is given; while the other toes, crowded together and overlapping, are not long in becoming knobbed with corns and callosities. Dr. Lee recommended the ready-made shoe known as the "Waukenphast", as the best which he knows as conforming to the principle which he has enunciated.

THE TSETZE FLY.

M. LEDOULX read a paper lately to the Geographical Society of Paris on the tsetze fly. All travellers in equatorial Africa have had occasion to deplore the terrible ravages caused by this fly, a bite of which is fatal to oxen, horses, asses, camels, and even dogs. Dr. Kirk, the British consul at Zanzibar, is preparing a work on this insect, which he considers as one of the most serious hindrances to the civilisation of Africa. To the extirpation or to the neutralisation of this affection most serious attention should be given. The tsetze, in fact, renders impossible the employment of beasts of burden in the regions which it haunts. It is a remarkable fact, that the *post mortem* examination of animals which have succumbed to the bite of the tsetze does not show any lesions of the spleen, liver, lungs, or brain. The premonitory symptoms of death resemble those of glanders. The disease is alleged to be communicable by contagion from one animal to another.

OPIUM IN THE UNITED STATES.

THE statements of many physicians that the opium habit is increasing are sustained, says the *New York World*, by the statistics of the opium trade. In 1876, 228,742 pounds of crude opium were imported into the United States. This showed an increase of 70 per cent. since 1867. During the fiscal year ending June 30th, 1880, the importations amounted to 533,451 pounds. Of this, 97,000 pounds came from China, 326,975 pounds from England, and 92,633 pounds from Turkey in Asia. This is an increase of 140 per cent. in four years. In 1876, 3,285 ounces of morphia were imported. In 1880 the amount received at New York alone was 8,822 ounces. In 1876 there were estimated to be 200,000 opium eaters in the United States, two-thirds of them being of the well-to-do classes. The figures indicate that there are now 400,000. They consume nearly 5,000,000,000 grains annually, the import value of which is over 2,000,000 dollars, for which consumers have to pay over 5,000,000 dollars. If opium is smuggled in large quantities, as is reported, the amount to be accounted for is of course increased. A prominent wholesale dealer observes: "There is no doubt that much of the increase in opium imports is absorbed in cigars and cigarettes. The opium is used in a liquid state, the tobacco being saturated with solutions of greater or less strength." A prominent druggist is reported in the *New York World* to have said: "The increased consumption of opium has followed very closely the increased use of the hypodermic syringe. A single instrument-maker told me he has sold enough of these instruments within two years to supply the whole profession in the city. I do not think the opium habit is increasing rapidly in proportion to the increase in population. You would be surprised at the great number of persons, especially women, who cannot take opium, even hypodermically, and in the smallest doses. It sickens them at once. The number of preparations in which opium is used, is annually increasing, and it forms an important ingredient in a large number of quack and [illegible]." The wholesale dealers and manufacturers concede that the use of opium is increasing with alarming rapidity, and say that it is worse in New

York, than in the other parts of the country. Albany consumes 13,500 pounds of opium and 550 ounces of morphia. Four-fifths of the consumers there are said to be females. The Vice-President of the Illinois State Temperance League, gives local statistics of towns in Illinois, Indiana, Ohio and Kentucky, in which there are from three to six opium eaters, for every hundred of population. Very little smoking opium has been received in New York, by importers, although San Francisco receives over 50,000 pounds annually. Little opium-smoking, it is believed, done, except by Chinese, east of the Mississipi. In Chinese laundries in New York, it is not unusual to see the long-stem opium-pipe in use.

SCOTLAND.

ABERDEEN UNIVERSITY COURT.

AT a meeting of this court held on July 8th, *inter alia*, it was agreed to petition Her Majesty in Council to alter the ordinances regulating graduation in medicine in this University, so that, in future, the degree of Bachelor of Medicine shall not be conferred on any person who does not at the same time obtain the degree of Master in Surgery. Dr. Aubrey Husband's lectures on Medical Jurisprudence were recognised as qualifying for graduation in medicine in this University.

BURSARIES AT ABERDEEN UNIVERSITY.

WE understand that the managers of Dr. Guild's Funds have agreed to extend considerably the basis of the fund, for bursaries under their charge. Sons of members of the incorporated trades in Aberdeen, may, if they choose, study two years in the Arts classes, and then proceed to the medical classes, and the £25 minimum bursary will be continued for other two years.

THE SCOTTISH CENSUS.

THE interim report of the Registrar-General for Scotland, which has just been issued, contains some points of interest. It shows that the population of Scotland on the 2nd of April last amounted to 3,734,441 persons, of whom 1,797,592 were males, and 1,936,849 females; and that, compared with the census numbers of 1871, there is an increase of 194,449 males, and 179,977 females, or a total increase of 374,423 persons in ten years. Hence there has been, in the course of the last ten years, an increase of 11.1 per cent. in the amount of the population of Scotland, or a increase of 12.1 per cent. among males, and an increase of 10.2 per cent. among females.

SUSPECTED MILK-POISONING IN GLASGOW.

ON the morning of the 7th instant, about forty of the children at the Orphan Home in Glasgow were suddenly taken ill with symptoms of irritant poisoning. They were attacked, soon after the morning meal, with violent purging and vomiting; and, though medical aid was quickly summoned, and many of those affected quickly recovered, some of them were left seriously indisposed. These last have now, however, quite recovered, and fortunately no deaths have resulted. Some article of diet was no doubt the cause of the outbreak; and, though nothing definite has yet been made out, the milk supplied to the institution has been suspected. Samples of it have been taken for analysis; and Dr. Russell has taken steps to investigate into the outbreak, and, no doubt, will shortly report upon it.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending July 2nd, it appears that the death-rate in the eight principal towns during the week was 20.9 per 1,000 of estimated population. This rate is the same as that for the corresponding week of last year, and 1.3 above that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 15.0 per 1,000; and the highest in Paisley—viz., 25.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.9 per 1,000, or 1.2 above the rate for last week. There was a slight increase in the number of deaths from diarrhœa; under which heading, various forms of bowel-complaint are included. Acute diseases of the chest caused 98 deaths, or 16 less than the number registered last week. The mean temperature was 55.8°, being 0.6° under that of the week immediately preceding, and 3.3° under that of the corresponding week of last year.

HEALTH OF EDINBURGH.

DURING the month of June, the death-rate in Edinburgh was 20.34 per 1000, rather higher than the average of the previous five years, which was 19.84. The respective mortalities of the three subdivisions of the city were: New Town, 18.37; Old Town, 22.95; southern suburbs, 15.03. There were 56 cases of zymotic diseases which proved fatal, of which 26 were due to scarlet fever, and 19 to whooping-cough, while there was only one due to erysipelas, and none to small-pox nor to typhus fever. For the quarter of year (ending June 30th), the death-rate was 20.30 per 1000, while, during the preceding five years, it was considerably greater, being 21.69. For the six months, the mortality was 20.92, being much below any of the previous five years, except 1879, when it was 20.53; during this time, there were 320 deaths from zymotic, and 781 from pulmonary, diseases. There had been notified by medical practitioners in the city 1,411 cases of infectious disease, of which fully the half were scarlet fever; and, among the remainder, there was no case of small-pox or cholera. The report containing the above statistics was presented by the medical officer of health (Dr. Littlejohn) to the Public Health Committee of the Town Council. The Committee are making arrangements for procuring public vaccination throughout the city in the event of small-pox appearing in the city; and a meeting of the representatives of the various dispensaries and the conveners of the Health-Committee was held in the Council Chambers on Wednesday afternoon. Several unsanitary houses in Stockbridge district have been shut up, and the burgh engineer has been instructed to examine and report upon the sanitary capabilities of others. Several cases of adulteration of milk have been reported by the medical officer of health; and in one case where milk supplied to a public institution was found to have six per cent. of adulterative water, a prosecution has been ordered. Faulty sewers in the Grange district, and pollution of the atmosphere by smoke, have also had special attention paid them by this energetic Committee.

IRELAND.

ON last Tuesday week, three women, while employed in a field at Crumlin, county Dublin, were struck by lightning, and one of them killed.

UNIVERSITY OF DUBLIN.

THE following rule, which will affect lecturers on materia medica, as well as future candidates for the degree of M.B. of the University, has just been made by the University Council: "That, instead of a course of lectures on materia medica and pharmacy, now required from candidates for the degree of M.B., a course of lectures on pharmacology and therapeutics be required."

THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

WE understand that the Registrar of the College has been instructed to state, in the evidence he may be called upon to give to the Royal Commission on the Medical Acts, that the College is prepared to accept legislation based upon the following lines: "1. That no person shall be allowed to hold a public appointment until he shall have passed a public examination conducted under the authority of the Government; 2. That no candidate shall be admitted to such public examination without the production of diplomas in medicine, surgery, and midwifery, from bodies authorised to confer the same."

SLIGO FEVER HOSPITAL.

A RESOLUTION was submitted to the Sligo Grand Jury last week from the Tieragh Presentment Sessions, praying for the removal of the County Fever Hospital as a county-at-large institution, because their workhouse hospital supplied the need in country districts. The grand jury, however, unanimously passed the presentment for the hospital (£250), stating that the institution was a most useful one, and could not be done without.

FEVER IN LIMERICK.

AT a meeting of the Urban Sanitary Board held last week, a communication was received from Dr. Barry, which stated that typhus fever was making its appearance in No. 3 and 4 districts; and that a serious outbreak had occurred in William Street. Disinfection of a primitive kind is carried on, but is powerless to stamp out the disease so long as no means exist for the disinfection of clothing, and no place of reception provided for the poor people, who have to remain in the rooms during the process.

BELFAST HOSPITAL FOR SKIN-DISEASES.

THE sixteenth annual meeting of the supporters of this charity was held on the 6th instant, in the board-room of the hospital, presided over by Dr. Hodges. The Committee, in their report, referred with satisfaction to the increasing utility of the institution. The bulk of the diseases are cured, and nearly half of them are of a contagious nature; so that the public are supporting in this hospital a benevolent institution, not only with the means of providing medical treatment, medicine and relief, for the poor generally, but it is also a valuable agent in promoting the general health of the town. The cases treated for the past twelve months numbered 1,080, the largest during one year since the hospital was established, which included 46 patients who were admitted to the wards; but the Committee regret that the funds do not increase in the same proportion as the work. During last year, two very successful concerts were given in aid of the hospital; and, from the funds thus obtained, the wards were furnished, and thirty patients admitted free. There is a very gratifying feature connected with the hospital; and that is, that the voluntary contributions by the patients—all of the poorer classes—have been steadily increasing. This is a clear proof of the esteem with which the institution is regarded by those for whose use it was originated. The subscriptions and donations from all sources during the year was £359 3s. 9d., which included a balance of £41 17s. 10d. from last year; and the expenditure £335 0s. 1d., leaving a balance of £23 16s. 4d. due to the treasurer. The chairman, in moving the adoption of the report, said that the amount of work that had been performed by the charity seemed very great, especially when they considered the very small sum that had been contributed in support of it. He observed that many patients had come from the country districts; and he thought that some effort should be made to make the claims of the hospital better known in the localities that had sent forward patients. The Rev. Mr. Roe, in moving the election of office-bearers for the ensuing year, said that there was one name connected with the institution for the last sixteen years, which was worthy of all honour—Dr. Henry Purdon; he had planted the seed, watered and nurtured it, and brought it up to its present position. Dr. O'Neill also moved a vote of thanks to Dr. Purdon, which was adopted, and the proceedings terminated.

BELFAST WORKHOUSE.

AT a meeting of the Belfast Board of Guardians, the half-yearly report of Mr. Hamilton, Local Government Board Inspector, relating to the present condition of the workhouse, was received. The report generally was satisfactory; but the inspector was of opinion that, although there would be sufficient accommodation in the workhouse to meet ordinary requirements when the new buildings in course of erection were completed, the accommodation would not be sufficient for an extraordinary pressure for relief, or for any serious epidemic. The report stated that parts of the institution were still more or less crowded, though not to any serious extent; and idiots and lunatics were at present located in the infirmary buildings, but that it was expected that they would soon be removed to the new infirmary which had been erected for their accommodation, the present arrangements not being satisfactory or suitable. Mr. Hamilton observed that there was sleeping accommodation in the probationary wards for twenty-seven men and twenty-two women, but there was no separate day-room for either sex; and the arrangements for bathing for both sexes appeared to be insufficient and unsatisfactory. Last winter, these wards were occasionally much overcrowded, and the necessity of providing probationary accommodation had been before the guardians, and plans of new wards had been proposed; but as no further steps have, up to the present, been taken in the matter, the Local Government Board request the guardians to take the subject again into consideration. For some time past, the union had been remarkably free from any epidemic; but, in the beginning of May, some sailors were landed in Belfast from a vessel on board of which there had been small-pox cases during the voyage; and, about the middle of the month, two of them were admitted to the hospital with the disease. Since then, fourteen more cases have been admitted; and it is stated that there were several scattered cases of the disease through the town in private houses. Two of the cases admitted to hospital died, one had been discharged, and thirteen remained under treatment. Suitable arrangements appeared to have been made for the separate treatment of the disease, and a convalescent ward had been fitted up for the patients to be removed to before obtaining their discharge. The mortality in the workhouse during the winter was lower than usual, the deaths for the half-year ended March 25th, 1880, having been 462, and 359 for the corresponding period in 1881; while of the 359 deaths, it was found that 211 had not been inmates of the workhouse for a period of three months; and it may be inferred that most of these persons were in bad health when admitted.

CORK WORKHOUSE.

THE special committee appointed to inquire into the condition of the female lunatic division, with a view of obtaining increased accommodation, last week reported that, in order to relieve the present overcrowded state of the female lunatic ward, application should be made to the governors of the Cork District Lunatic Asylum, to receive twenty-five female lunatics at present in the department, likely to derive benefit to their health by active treatment in the asylum; also that the guardians should consent to pay for their maintenance a sum of £8 *per annum* per head, being the difference between the actual cost of an inmate in that institution at present, and the Government capitation grant. Captain Fagan, in proposing the adoption of the report, stated that the committee had received great assistance from Dr. Brodie and Dr. Cremen. Though the committee found the place very clean and neat, yet it was much overcrowded, twenty-two patients having to lie on the floor every night, and several having to sleep two in a bed. The report was adopted, and a meeting of the governors of the Cork Asylum will take place this week, to consider the proposals made by the guardians. At the same meeting of the guardians, Dr. Downing appeared before the board, and stated that since the establishment of the Intercepting Hospital at Queenstown, the amount of labour had become so great that he could not continue to hold his appointment as medical officer, unless his salary of £[illegible] *per annum* were increased. The Local Government Board had decided that the hospital should be open for the reception of all cases of infectious disease, and that being so, his salary was totally inadequate to the duties imposed upon him. At the suggestion of a guardian, Dr. Downing consented to wait for some time longer before making an application for an increase, when, it is believed, his request will be complied with.

HEALTH OF DUBLIN.

THE report of the Superintendent Medical Officer of Health for Dublin, Dr. Cameron, for the month of June, shows a great improvement in the health of the city, compared with that during the same

month last year. The death-rate per 1,000 living in June 1880 was 39.35, but only 23.7 per 1,000 in June 1881. The deaths from zymotic diseases were 11.45 per 1,000 in June 1880, and only 1.96 in June 1881. In the suburbs, the death-rate was less. Dr. Cameron has had nearly seven hundred houses and two hundred and fifty cellar-dwellings unfit for habitation closed since he became superintendent health-officer two years ago. Last month, twenty-two houses and ten cellar-dwellings were closed, and orders to close forty-eight other houses were obtained. A large amount of food unfit for use was also destroyed, and a number of convictions for selling adulterated food also obtained. The deaths registered in the Dublin registration district during the week ending Saturday, July 2nd, represent an annual rate of mortality of 18.7 in every 1,000 of the population (unrevised by the census of 1881). Only eight deaths from zymotic diseases were registered; but, on the other hand, the decline in the number of cases of typhus fever admitted into the principal Dublin hospitals, as noted in some recent weeks, has not continued. No cases of small-pox were reported. The Registrar-General's weekly returns now contain an analysis of the public water-supplies in the Dublin registration district, furnished by Professor Hartley of the Royal College of Science for Ireland. The Vartry water, with which Dublin is supplied, gives, in parts per 100,000, as "total solid impurity", 5.12; as "total combined nitrogen", .029; as "chlorine", 1.77; and as "total hardness", 1.7; while the similar results for the Rathmines supply are respectively 22.04, .314, 1.93, and 16.2.

SANITARY PROGRESS IN DUBLIN.

THE Corporation of Dublin had before them this week a scheme for public and domestic scavenging, proposed by their Cleansing Committee, on the basis of a report from the recently appointed superintendent of cleansing. The total estimated annual expenditure will be £11,300 for domestic scavenging, and £16,500 for public scavenging—making a total, after deducting £800 for the sale of manure, of £27,000. The expense for domestic scavenging would represent a taxational increase of 5½d. in the pound; and for this new outlay every ashpit in the city would be cleansed free of cost to the owner. This proposal, which we trust will be adopted, is an outcome of the recommendations of the Royal Commission presided over by Mr. Rawlinson, C.B., recently held in Dublin, to inquire into the sanitary condition of the city.

LOCAL GOVERNMENT BOARD FOR IRELAND: ANNUAL REPORT.

FROM the ninth annual report of the Local Government Board, which has been recently issued, we learn that the average daily number of persons receiving indoor relief during the year amounted to 53,796, being 1,850 more than in the preceding year. The outdoor lists show an increase of 21,254, in comparison with the corresponding return of 1879-80, due to the exceptional distress which prevailed throughout the greater part of Ireland. The distress which existed was accompanied by an outbreak of fever in some of the unions of the west and south of Ireland, and it was at first alleged that this fever was of the same type as the fever which proved so fatal in 1847 and 1848, and which was commonly called "famine fever"; but this was not found to be the case, the cases being typhus, typhoid, and of a mild continuous character, but not the relapsing fever from which the poor suffered in the years above referred to. After careful inquiry as to the origin and spread of the disease, the board ascertained that the exciting causes were, in most instances, contagious; and that, where it had an independent origin, it was generally attributable to overcrowding and want of cleanliness in the dwellings and surroundings of the poor. During the year ended January 22nd last, the total number of deaths in the various workhouses was 12,940, showing a decrease of 204 deaths as compared with the number last year. Of these, fever caused 758, against 705; lung-disease 2,323, against 2,742; and deaths by small-pox 97, against 112 last year. There were, for the twelve months ending September 29th, 62,609 admitted into workhouses for sickness, being an increase of 4,026 as compared with the previous year; also an increase of 54,024 in the number admitted who were not sick; an increase of 768 in the number suffering from fever and other dangerous contagious diseases, and an increase of 63,284 in the total number relieved. In the various dispensary districts, the medical officers during the year attended 499,190 cases at the dispensaries, and 210,221 patients at their own homes, or a total of 709,411; and vaccinated 147,828. The vaccination returns show an increase of 20,835 as compared with the preceding year. Of these, 147,828 persons vaccinated, 116,402 were under one year old when vaccinated, 22,011 above one year old, while 9,415 were revaccinations. Last year, small-pox caused 97 deaths in workhouses, being 15 less than those recorded in 1879; and the number of cases treated in dispensary districts were considerably less, the numbers being 863 and 1,344 respectively; the total mortality in the whole of Ireland during 1880 amounting to 369, or a decrease of 292 from the preceding year. The disease was most prevalent, as in the previous two years, in the province of Leinster; it has continued during the years 1878-9 and 1880 as an epidemic in Dublin, though not to so great an extent as in 1879, and there has been latterly a marked diminution in the number of cases. As regards fever, there were 2,986 deaths from the disease, embracing patients treated in private practice as well as dispensary cases. Scarlatina was much more prevalent than in 1879, there being 4,835 cases treated by the medical officers of dispensary districts in 1880, against 3,058 in 1879, being an increase of 1,827. The disease was not very prevalent in Connaught, there being only 146 cases; in Ulster, 663; in Leinster, 1,792; and in Munster 2,234. The medical charities expenditure amounted to £153,375, under which heading is included the cost of medicines and medical appliances, salaries of medical officers and apothecaries, vaccination fees, and other expenses, showing an increase of £7,345 over that of the previous year. The Commissioners have recommended loans amounting to £199,252 to various towns in Ireland, principally for sewerage and water-supply; while the amount of sanitary expenditure in rural sanitary districts came, in the year ending September 29th, 1880, to £51,927, in comparison with £50,767 in the preceding year.

THE ANNUAL MEETING AT RYDE.

AT a meeting of the Bournemouth Medical Society, held on the 8th inst., it was unanimously resolved to invite some of the members of the British Medical Association, visiting Ryde during the August meeting, to an excursion to Bournemouth, on the Saturday of the meeting. It is intended to take any member so desiring by steamer from Ryde Pier to Bournemouth, where lunch will be provided by the Bournemouth Medical Society; after which some drives will be organised. The steamer will take back the members in the evening to Ryde.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the Council of the College was held on Thursday, July 14th.

The minutes of the ordinary meeting, held on June 9th, were read and confirmed. Sir James Paget was readmitted a member of Council, having been re-elected by the Fellows last week; Mr. J. W. Hulke and Mr. Christopher Heath, the other successful candidates, were also admitted as Councillors for the first time. Reports were received from the Board of Examiners and the Court of Examiners on candidates passed and rejected at the primary and pass examinations respectively during the collegiate year 1880-81. Reports were also received from the several annual committees, and from the Nomination Committee. The recognition of medical schools and hospitals in relation to the fellowship and membership was determined, and also the preliminary examinations for the ensuing year. The professors and lecturers and other officials were re-elected for the ensuing year. Mr. Erasmus Wilson, F.R.S., the Senior Vice-President, was elected President by a large majority. Mr. Spencer Wells and Professor John Marshall, F.R.S., were elected Senior and Junior Vice-Presidents respectively. The several annual committees and the Nomination Committee were appointed. Professor F. Roberts and Dr. Gee were appointed Examiners in Medicine, in addition to Drs. Bristowe and Dickinson. Drs. Herman and John Williams were appointed Examiners in Midwifery for the ensuing year. Mr.

Fred. S. Eve, F.R.C.S., was appointed Pathological Curator of the Museum. A letter was read from the Royal Commission on the Medical Acts; and a committee was appointed, consisting of seven members of the Council, and the Presidents and Vice-Presidents, to consider it.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

On June 20th, the Rev. E. P. Grant was called in and examined by Mr. Osborne Morgan, being afterwards questioned by Messrs. Stansfeld and Hopwood, Sir Henry Wolff, and Dr. Farquharson.

Mr. Grant has for thirteen years held the important post of Vicar of Portsmouth, and has made it his business to inquire carefully into the operation of the Acts. The conclusion arrived at by him is, that they have been of the greatest service in diminishing the number of prostitutes, and also of brothels, in checking disease, and in providing greatly increased facilities for the reclamation of fallen women. On this last point he gave positive evidence, as Chairman of the Hospital Committee since 1873. He was able to assure the Committee that the women sent to the Lock Hospital had all possible influence brought to bear on them to induce them to abandon their mode of life. A chaplain was appointed, who visited the wards every day, besides holding service there on Sundays, and was thus able to converse with the women individually, and to make himself acquainted with their different cases. Moreover, in appointing a matron, the Committee always carefully considered how far she would be competent to exert a wholesome moral influence on the girls under her charge, and to take a real active interest in them. In addition to this, persons connected with certain recognised homes and refuges were allowed to come on visiting days (they were not allowed to enter the wards) and see any girl whom they knew to be there, and to use their best efforts towards getting her to enter one of the asylums they represented. As a member of the council of the penitentiary at Basingstoke, Mr. Grant knew that during the last three years as many as sixty-eight girls had been received into the Portsmouth Refuge on leaving the Lock wards; and as, with two exceptions, all had since done well, he thought that a great success had been achieved, which was entirely due to the working of the Acts; for, unless those women had been subjected to hospital treatment, they would not have been brought under those good influences.

He confirmed the truth of one point, to which attention was drawn by Inspector Anniss and others—viz., the facilities afforded by the operation of the Acts for rescuing from ruin girls who were on the borderland between levity and immorality, or who had actually taken the first step towards prostitution. He mentioned the case of a young female servant, who, having exceeded the time allowed her for being out in the evening, was afraid to return home, and was induced by the soldier with whom she "kept company" to go with him to a house of ill-fame. The police were applied to, and within three hours she was brought back, as they knew at once where she would be found. He attributed the rescue of this girl to the operation of the Acts, inasmuch as the police, from visiting the brothels daily, were able to trace any missing girl with great accuracy.

Mr. Grant spoke to other good effects of the Acts—viz., the decided reduction in the number of juvenile prostitutes, and the great decrease in public solicitation in the streets; indeed, as to this latter point, he considered there was as little solicitation in the streets of Portsmouth as there could be. As to the general feeling in the town with regard to these Acts, he would say that the leading inhabitants, the majority of the clergy, the magistrates, and Town Council, were in favour of them; of course, there were some people who did not approve of them, but he did not know that the Mayor or a single member of the Town Council objected to them.

With regard to voluntary hospitals, he thought that girls would not be got to enter them, and therefore the opportunity of bringing wholesome influences to bear on them would be lost. Asked whether it did not seem to him a gross act for men to fetch in women and examine them compulsorily for the benefit of men, he said it did so seem to a certain extent; but, on the other hand, one had to remember that it was still more for the benefit of women, and particularly for that of posterity. No doubt the individual liberty of the women was interfered with to a certain limited extent; still, the remedy was always in the women's own hands, and they had only to give up the life they were leading.

Taking into account the machinery of the Acts, and that an information had to be laid before a justice of the peace, who would not make an order for a woman to attend for examination unless he was convinced of the truth of the charges against her, he thought it was impossible for an innocent woman to be brought under the Acts. During the thirteen years he had lived at Portsmouth, he had not heard of one single authenticated case of abuse by the police of the special powers entrusted to them; and he did not think that, if there had been such, it could have failed to come to his knowledge.

Evidence to the same effect was given by the Rev. Prebendary Wilkinson, D.D., for eleven years Vicar of St. Andrew's, Plymouth, who had also been induced actively to support the Acts by the good he had seen to result from them. He did not consider that immorality was in any way fostered among men, owing to a feeling of security given by the knowledge that these regulations were in force. He was decidedly of opinion that men did not enter into any cold calculations in this matter; moreover, if it were possible that such a feeling did prevail in a very slight degree, the absence of solicitation in the streets was an advantage that quite counterbalanced it.

THE WAR IN SOUTH AFRICA.

A correspondent writes from Newcastle, Natal, on May 25th:

The wounded officers and men in the base hospital here are all progressing very well. The climate has latterly been very favourable to the recovery of wounds. It is dry and cold, and the air quite crisp. I have to record an amputation at the shoulder in the case of Captain Lovegrove, 58th Regiment, who was hit through the upper part of the arm, the bullet passing through the axilla, and out through the blade of the scapula. The humerus becoming diseased, the arm was removed at the shoulder by Surgeon Smith, and the case is doing well. Several convoys have gone down to Maritzburg lately; but there are still 100 wounded here. Brigade-surgeon Watts has been ordered up here to assume the administrative charge of the base hospital. This will be an improvement in the administrative affairs at the base generally, and it will prevent the continuation of the present "mixture", to the avoidance of which it seems difficult for administrative medical officers, remembering the associations of a bygone period, to address themselves.

The enteric fever I mentioned in my last communication, as having occurred in the camp of the field-force, has wholly disappeared since the date on which the camp was changed to fresh ground at a distance; this fact being one of the many proofs, if such be really necessary any longer, that enteric fever arises almost invariably in stationary camps, and disappears simultaneously with a movement from the place of its origin. An opinion exists amongst some medical officers, that enteric fever is usually caused by drinking impure water on the march; but I am convinced this notion is not countenanced by the medical officers who have themselves accompanied troops *en route*, because there is no doubt that the water of the Transvaal is generally pure and wholesome, and the streams used on the march of troops for drinking purposes are met with too near their sources to be contaminated and fouled. There can hardly be any doubt that the enteric fever of camps is due to a defect in the ground sanitation; and there is a very strong likelihood of the *materies morbi* being taken into the system by the mouth and swallowed with the saliva, and of the disease being thus propagated, however it may have been originated at first.

I think a consensus of opinions of the medical officers who have seen something of the disease in camps should be asked for, as to the local circumstances within their knowledge which were known to attend the origin of typhoid in military camps.

The troops are to reoccupy Potchefstroom; four squadrons of cavalry and some infantry, in medical charge of Surgeon-major Smith. They travel in the lightest order, as they are soon to return.

The same correspondent writes from Newcastle, on June 8th:—Since the arrival of Deputy Surgeon-General Sinclair, our energetic and overworked chief has been materially assisted in the administrative duties, Dr. Sinclair having been promoted for special ability displayed in the Abyssinian campaign. He is expected at Newcastle soon, to inspect the advanced base, which requires looking into, as arrangements are somewhat mixed. The wounded are all doing well. Convoys are constantly leaving Newcastle for the coast; only the serious and the operation cases remain. Of these latter, twenty-seven major operations have been done in all; mostly amputations, and a few resections, all of them being secondary operations, with only three fatal cases resulting. Two of the latter were from amputations at upper third of the thigh, the third being from one of the leg. The operations were done chiefly by Surgeons R. Smith, Drury, and Browne. Captain Lovegrove, 58th Regiment, is progressing favourably, after his secondary amputation at the shoulder-joint. In nearly every instance, wounds with implications of the long bones or the joints, which were treated at first by natural reparative surgery, were eventually obliged to be operated on at the base hospital; so that it now appears that the conser-

vative mode of treatment adopted during the American war with such reputedly good results, and at the outset of the late campaign also, was not altogether successful, in so far as the practice obtained of leaving complicated wounds to the healing process of Nature alone; and in any future campaign, this fact should be remembered.

The climate, although diurnally very variable, favours recovery of wounds; but the sanitary condition of the base hospital, where the wounded are lodged, is not so good as it might be. The huts are built on the spur of a ridge, at the base of which soakage of the soft and swampy soil adjacent to the river, takes places from the surface drainage of the site of the hospital above, and from the presence frequently of dead oxen below. The hospital huts have been full to overcrowding, and there is hardly a doubt that so many wounded should never have been collected so closely together—an arrangement the danger of which in military field hospitals was staved away on this occasion by the beautiful climate, and the cleanliness so strictly adopted by Surgeon-major Scott. The necessity of establishing auxiliary hospitals for the accommodation of wounded in considerable numbers, requires to be impressed on the attention of administrative medical officers sometimes.

The camp of the field force having been shifted to fresh ground on the 5th ult., in consequence of enteric fever having occurred, only one case has been reported since then; but as this one came from a detachment four miles off, at Shuin's Hoogle, "enteric" may be said to have stopped. Dysentery, diarrhœa, and rheumatism are still the prevalent diseases in camp; but, indeed, the percentage of all diseases is low, being only 4.19, whereas provision is made for 10 per cent. in the field. A few cases of scurvy have appeared amongst the 92nd Regiment, consequent on the scarcity of vegetables in the men's diet. The great want of labour everywhere experienced is the chief cause of the scarcity of those articles of diet, such as milk, vegetables, cereals, fruit, etc., with which the whole country, with sufficient manual labour available, should abound. There have been several frosts lately, and the occurrence of the prevailing diseases referred to is attributable to the cold at night. However, a third blanket—after some little difficulty in obtaining the necessary sanction—has been lately issued to each of the troops, but only for so long as the force is stationary. The energetic sanitary officer (Surgeon-major Giraud) obtained this extra issue; and he has also insisted upon the men being obliged to wear their flannel waist-rollers always. The camp will now remain stationary for some little time, as the oxen have all been sent away to graze, there being no more grass in this locality.

A presentation of medals was a few days ago made by the principal medical officer of the base, to the Army Hospital Corps in camp here Many of these men are now on a second tour of active service in this colony, and their medals for the Zulu war have only just arrived. The whole of the detachment, including the bearer company, paraded under Surgeon-major Stafford, the senior officer present, on the ground in front of the field hospital; and the principal medical officer, Brigade-surgeon Sinclair, having pinned the medal on each man's breast, addressed a few encouraging remarks to all. He said that, although he himself had not been through the Zulu war, he had heard from Surgeon-major Stafford and others, who went through the entire campaign, how well the Army Hospital Corps had always behaved; and he knew that every man who received a medal there that day, had well deserved it. He rejoiced to learn that Lance-corporal Farmer, of the corps, had been recommended for the Victoria Cross, for gallantry in succouring the wounded under a heavy fire at Amajuba Hill, when he was shot through first one and then the other arm, whilst holding aloft the red-cross flag to save the wounded, although quite regardless of his own most imminent danger at the time. He felt assured that if the services of the bearer company, under the able command of Surgeons-major Johnstone and Faris, were called into requisition, sooner or later they would be found to maintain still untarnished the reputation for unflinching bravery in the discharge of their duties, which had been already acquired by the corps in the late Ashanti and Zulu wars. At the termination of this address, the parade was dismissed.

CHAILEY RURAL DISTRICT.—Mr. Gravely's report is brief, but to the point. He reports for last year a birth-rate of 32, and a death-rate of 14 per thousand. Fifteen deaths are attributed to zymotic causes, being three less than in 1879, and thirteen less than in 1878. Luckily, the wave of infantile diarrhœa left the district untouched. Attention is drawn in the report to the large number of deaths which, under the instructions of the Central Board, must be attributed to "other causes"; and Mr. Gravely expresses the hope that, if only for statistical purposes, some fresh arrangement will be made. The inspection of the district appears to have suffered in consequence of Mr. Gravely's continued indisposition; but minor improvements were made in excrement-disposal and drainage.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., F.R.C.S., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London. *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST 9TH, 1881.

2 P.M.—Meeting of Committee of Council.
2.30 P.M. Meeting of the Council of 1881-2.
4 P.M. Short service, with sermon by Rev. [illegible], M.D., Cantab.
5 P.M. General Meeting in the Town Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 10TH.

9.30 A.M.—Meeting of Council of 1881-2.
11 A.M. Second General Meeting in the Town Hall. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST 11TH.

9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting in the Town Hall. Reports of Committees.
11 A.M. Address in Surgery.
2 to 5 P.M. Sectional Meetings.
6.30 P.M.—Public Dinner in the Town Hall.

FRIDAY, AUGUST 12TH.

10 A.M.—Address in Obstetric Medicine in the Town Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall. Reports of Committees and other business.
4 P.M.—Garden party in the grounds of the Isle of Wight College, by the President-elect and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach.

2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

Professor Rosenstein of Leyden and Professor Ewald of Berlin will be present, and will take part in the discussions.

The following papers have been promised.

Ballard, W. H., M.D. Respective Paralysis of the Infant.
Dickson, E. S., M.D. On the Differential Diagnosis of Intracranial Tumour, General Paralysis of the Insane and Locomotor Ataxy.
Dyce Duckworth, C., M.D. On Suppuration of the Spinal Cord.
Edmunds, H., L.R.C.P. and S. Edin., R., M.D. On the Ophthalmoscopic Appearances of the Fundus Oculi in Chlorosis.
Finny, J. Magee, M.D. Notes on a case of Acute Ascending Spinal Paralysis.
Groves, J., M.D. The Treatment of Insanity.
Hassall, Arthur Hill, M.D. The Winter Climate of San Remo.
Kerr Newman, M.D. Three successful cases of the Treatment of Dipsomania.
Sutcliffe, E. Markham, M.D. A case of Subcutaneous Emphysema from Spontaneous Rupture of Lung.
Tibbits, E. T., M.D. On the Modern Theory of the Action of Digitalis.
Tyson, W. J., M.B. Rectal Alimentation.

Section B.—Surgery.

1. A discussion will be opened by Mr. Stokes of Dublin, on Resection of the Knee in Early Life.

2. Mr. Edmund Owen will open a discussion on the Early Recognition and Treatment of Spinal Caries.

The following papers have been promised.

Cheyne, F. Richardson, M.B. Antiseptic Incision and Drainage in Empyema.
Cooper, A. Bowes, M.B., M.S. Vaccinella.
Gant, Eyre, Nicholas, Esq. On the Treatment of Spinal Curvature by means of the Cuirass.
Galloway, H., Esq. The value of Suspension in Surgery.
Harrison, Reginald, Esq. Treatment of Stricture by Stretching.
James, Prosser, M.D. Stricture of the Œsophagus.
Lediard, H. A., M.D. On the Treatment of Fracture of the Lower End of the Fibula.
Mackenzie, C. J. F. The Causes of Chancre Infiltrated Disease.
Martin, H., M.D. (Boston, U.S.) A Novel Treatment of Synovitis.
McMahon, J. T., Esq. A case of Psoas Abscess.
Norton, A. T., Esq. A new and reliable Operation for the Cure of Web-Fingers.
Pye, Walter, Esq. Spina Bifida.
Spanton, W. Dunnett, Esq. A further series of cases of Immediate Cure of Inguinal Hernia.
Tait, Lawson, Esq. Some recent advances in Pelvic Surgery.
Teevan, W. F., Esq. Twenty-five Cases of Lithotrity at one Sitting.

Mr. Coates, President of the Section, in his opening address, will make some observations on the Treatment of Hæmorrhoids, and a New Operation for their Removal.

Professor Annandale will give a demonstration on Suspension as an Aid in Operative Surgery.

Section C.—Obstetric Medicine.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

Dr. Bantock will take part in the discussions.

The following papers have been promised.

Barnes, Fancourt, M.D. The Treatment of Puerperal Convulsions by Chloroform.
Cullingworth, J. Halliday, M.D. A Discussion on Ovarian Tumours, with Drawings.
Drysdale, C. R., M.D. The Physiology of the Syphilis of Women and Children.
Edis, A. W., M.D. On Sterility.
Hicks, J. Braxton, M.D. On Some New Methods of Uterine Therapeutics.
Hime, T. W., M.B. Extra-uterine Fœtation: Rupture of Ovisac into Uterus; Recovery; with description of a Specimen of Placenta.
Moullin, J. A. Mansell, M.B. The Treatment of Chronic Metritis by Intra-uterine Applications.
Muggeridge, H. H., Esq. Short and Practical Hints on Natural Labour useful to be remembered by young Obstetricians.
Murphy, J., M.D. The Treatment of Puerperal Fever, with short notes of 50 consecutive cases.
Reid, W. L., M.D. On the Adaptation of Pessaries to individual cases of Uterine Displacement; based on a number of drawings of the uterus and vagina taken from Cadavers.
Thomas, H. H., Esq. On the Relations of the Peritoneum to the Uterus, the Interior of the Uterus, and the Vagina. Puerperal Fever.

Section D.—Public Medicine.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

The following papers have been promised.

Buchanan, G. S., M.B. On the Connection between Outbreaks of Disease in connection with [illegible].
Davey, A. G., M.D. On the Prevention of Enteric Fever.
Dyce Duckworth, C. R., M.D. [illegible]
Evatt, Surgeon-Major G. J. H., M.D. The New Medical Organisation of the Army.
Groves, J., M.B. The Isle of Wight as a Health-resort.
Hodgson, G. F., Esq. On the Relations of Variola and Vaccina; especially as illustrated by the experiments of Mr. Badcock, formerly of Brighton.
Palmer, J. Foster, Esq. Cremation: remarks on some of the minor points connected with it.
Warlomont, E., M.D. (Brussels). Is it desirable that Vaccination by means of Calf-lymph should be encouraged in England?
Whitehead, J. L., M.D. The Climate of the Undercliff, Isle of Wight, as a place of Health-resort; deduced from forty years' consecutive meteorological observations.

Subsection—Otology.

The following British and foreign otologists have expressed their intention of being present, and taking part in the discussions: Messrs. Field, Gardiner Brown, Lennox Browne, Hodgson, Torrance; Drs. Duncanson, Barr, Pierce, Jacob, Loewenberg (Paris), Rumbold (St. Louis), Moure (Bordeaux), Reeve (Toronto).

Discussions on the following subjects will take place.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

The following papers have been promised.

Barr, Thomas, M.D. The Treatment of Purulent Discharge from the Ear, where the Source of the Secretion is in the Upper Part of the Tympanum and in the Antrum Mastoideum; with four illustrative cases.
Brown, A. Gardiner, Esq. Sclerosis of the Mucous Membrane of the Middle Ear.
Chicken, Rupert C., Esq. The Surgery of the External Auditory Passage.
Pritchard, Urban, M.D., Chairman of the Subsection, will open the proceedings with a short address on Aural Surgery as a branch of Medical Education.
Rumbold, T. F., M.D. The Relation of Diseases of the Nasal Passages and Naso-Pharynx to Aural Affections.
Sexton, Samuel, M.D. (New York). The Treatment of Acute Suppurative Inflammation of the Middle Ear, with reference to Perforation of the Mastoid.
Torrance, R., Esq. Remarks on Vertigo in Catarrhal Inflammation.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay to the Secretaries of the respective Sections.

The annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M.

Chairman, Alexander George Davey, M.D.

Honorary Secretary, Evelyn Rich, Esq., Temple House, Ryde, Isle of Wight.

The Directors of the Royal Pier Company have liberally granted the free use of the pier to members of the Association. A steam launch will be engaged for the use of members for water-excursions. An excursion will be made on Saturday, August 13th, which will give the members the opportunity of visiting Carisbrooke Castle and Roman Villa, the Roman Villa at Brading, and the towns of Newport, Sandown, Shanklin, Ventnor, and the Undercliff. The gentlemen whose names are as follows throw open their grounds one day each to the members of the Association: Sir William Clifford, Bart., Westfield; The Right Hon. Sir William Hutt, Apley Towers; and the Rev. Alfred Locock, Binstead House, daily. The Poet Laureate will open his grounds at Freshwater on Saturday, the 13th, to members of the Association and their friends. Arrangements will be made from day to day for visiting the Dockyards at Portsmouth. An excursion by water to Freshwater, with facilities for reaching Carisbrooke for luncheon, has also been arranged.

Dinner.

Notice is hereby given that, in accordance with the resolution passed at the last annual meeting, held at Cambridge, the Committee of Council have made arrangements for tickets inclusive and exclusive of wine. The price of the dinner ticket, exclusive of wine, but including aerated waters, 14s. The dinner ticket, inclusive of wine, £1 1s. The number of tickets is limited to 350. Applications for tickets to be accompanied by cheque or Post Office Order payable to F. Greening, Esq., Honorary Secretary to Dinner Subcommittee, Melville Street, Ryde.

Francis Fowke, General Secretary.

London, July 14th, 1881.

BRANCH MEETINGS TO BE HELD.

West Somerset Branch.—The annual meeting of this Branch will be held at the Lamb Hotel, Dunster, on Thursday, the 21st July, at 2 P.M. precisely, when the following papers will be read:—1. Notes on Cases, by C. W. Rice, M.D. 2. [illegible] Minutes; Report of Council; Treasurer's Report; Election of Officers; Place of Meeting and President-elect for 1882; President's Address; Papers and Communications. Dinner at the Lamb Hotel at 4.30 P.M. precisely. Members intending to dine are requested to send their names to the Secretary.—W. M. KELLY, M.D., Honorary Secretary.

East Cornwall Branch.—The annual meeting of this Branch will be held at Melrose, on July 21st. Members who intend to give communications are requested to intimate to one of the Secretaries.—J. SMITH, M.D., J. KENDALL BURT, M.B., Honorary Secretaries.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual meeting of this Branch will be held on Saturday, the 30th July next, in the rooms of the Branch, 198, Union Street, at 1.30 P.M.—J. URQUHART, M.D., 250, Union Street, Aberdeen, ROBERT JOHN GARDNER, M.D., 207, Union Street, Aberdeen, Honorary Secretaries.

SHROPSHIRE AND MID-WALES BRANCH.—The annual meeting of the above Branch will be held at the Salop Infirmary on Tuesday, the 26th instant, at 2.30 P.M. The dinner will be at the Lion Hotel at 4.30 on the same day. Members are requested to give notice to the Secretary if they intend to be present, and whether they will read a paper or bring forward subjects for discussion.—HENRY NELSON EDWARDS, Honorary Secretary.

SOUTHERN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the George Hotel, Portsmouth, on Wednesday, June 15th: present, Dr. W. STEWART FALLS, President; Dr. ERNEST ELLIOTT, President-elect; and forty-six members. Luncheon was kindly provided at the hotel by the President-elect.

Retiring President's Address.—The retiring President, Dr. FALLS, said a year had elapsed since they met at Bournemouth, and his term of office as President of the Southern Branch now expired. It must be a matter of satisfaction to the members of that Branch, to know that the annual general meeting of the British Medical Association would be held this year at Ryde. The question of consultations with homœopaths had come very much before the public lately, and the remarks in the public papers had induced the public generally to think the action of the medical profession in the matter was narrow-minded. He had always thought that, with regard to the practice of medicine and the treatment of disease, a practitioner was at liberty to use any remedy he chose, and to give whatever doses he thought fit, whether great or small, but he must not distinguish himself by any separate name or appellation, nor join any particular sect, else he separated himself from the main body of the profession, and became absolutely an outsider. It would be impossible for a conference to be held with any benefit to the patient, or to arrive at any satisfactory conclusion when principles were so diametrically opposed. He thought it would be desirable in the interests of the profession, that there should be some authoritative rule for guidance, laid down by the seniors of the profession for those just entering it. Dr. Falls then vacated the chair.

President's Address.—The President (Dr. ERNEST ELLIOTT), on taking the chair, said he wished Dr. W. H. Garrington had accepted the position, which was offered to him at the last annual meeting. During the period of thirty years he had known Dr. Garrington and had enjoyed his friendship, never once had there been a whisper against him. In the name of the Southern Branch of the Association, he bade all those who had come from a distance a hearty welcome, and he hoped they would receive it as sincerely as it was given, and that they might be induced before long to visit Portsmouth again. He did not think anyone could accuse their profession of wanting in liberality or lattitude of opinion, but there was a limit they must all observe, if they wished to keep up the respectability of their noble profession, and to make it not only a noble profession, but a profession of gentlemen—a profession whose object and aim was to set aside all consideration of themselves, in order that they might relieve the sufferings of those struck down by disease; and a profession of honourable men deserving extended confidence as the true friends of the suffering. After other observations, Dr. Elliott, in conclusion, thanked the members most sincerely for the honour which had been conferred upon him, and assured them that no member of their Association wished more heartily for its success than himself.

Next Annual Meeting: President-Elect.—Dr. AXFORD moved that the annual meeting for 1882 be held at Southampton, and that Surgeon-General Maclean be President-Elect.—Dr. GREEN seconded the resolution, which was unanimously carried.

Honorary Secretary.—The PRESIDENT proposed the re-election of the Honorary Secretary, Dr. J. Ward Cousins, which was seconded by Surgeon-General MACLEAN, and carried unanimously.

Vote of Thanks.—A vote of thanks was accorded to Dr. Elliott for his address; and the PRESIDENT, in reply, referred to the able manner in which Dr. Falls had carried out the duties of his office during the past year.—Dr. Falls acknowledged the compliment, which brought the proceedings of the meeting to a close.

Excursion.—A number of the members, on the conclusion of the meeting, proceeded to the Victoria Pier, and having embarked on board the *Fire Queen*, kindly placed at the disposal of the Association by Admiral A. P. Ryder, were taken by Captain Fawckner for a pleasant trip to Cowes, returning home round the forts, and disembarking at the South Parade Pier. Several paid a visit to the dockyard, and an invitation was also received from the medical officers at Hasler to an "At Home" that afternoon.

Dinner.—The dinner took place in the evening at the Royal Beach Mansion Hotel. The President, Dr. Elliott, occupied the chair, and Dr. J. W. Cousins the vice-chair. About forty gentlemen sat down to dinner.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting was held at the Green Dragon, Hereford, on June 28th, 1881. Present—D. EVERETT, Esq., President; H. Vevers, Esq., President-elect; Dr. Strange and Dr. Crowe, Honorary Secretaries; and twenty-two other members.

Complaint against a Member.—Dr. Cooke of Ross having made a complaint to the Branch that Mr. J. W. Norman, of the same town, had used the title of M.B.Edin., though not possessing this qualification, the following resolutions were put from the chair, seconded by Dr. SIDDALL, and carried unanimously:

1. "That Mr. Norman must admit that he had improperly used the title of M.B.Edin.

2. "That he express regret, and apologise to the members of the Branch for having done so, and promise not to offend again in this manner.

3. "That he withdraw all accusations of vindictiveness against those gentlemen who reported this matter to the Branch.

4. "That he agree to have his apology published in the BRITISH MEDICAL JOURNAL.

5. "That if Mr. Norman agree to these terms, he be permitted to continue a member of this Branch."

Mr. Norman, who was present, expressed his willingness to accede to these terms, and professed his great regret for having acted in such an unprofessional manner.

Officers.—The following gentlemen were elected officers and council for the ensuing year: *President*—H. Vevers, Esq., Hereford; *Vice-President*—W. Strange, M.D., Worcester; *Honorary Secretaries*—George W. Crowe, M.D., Worcester; H. C. Moore, Esq., Hereford. *Representatives on the General Council*—W. S. Batten, Esq; D. Everett, Esq.; S. S. Roden, M.D.; T. Turner, Esq.; and G. W. Crowe, M.D. (Honorary Secretary). The members of the Branch Council were re-elected, with the addition of Mr. Walsh, Worcester, Dr. Smith and Dr. Chapman of Hereford.

Annual Subscription.—It was decided that the annual subscription to the Branch be in future 4s. instead of 2s. 6d.

New Members.—Dr. Cooke, of the County of Worcester Asylum, and Mr. Rusher of Pershore, were proposed as members of the Association.

The Annual Meeting of the Association in 1882.—The following gentlemen were chosen as a deputation to the annual meeting at Ryde to formally invite the Association to hold their annual meeting in Worcester in 1882—viz., Dr. Strange, Mr. Everett, Dr. Roden, Dr. Siddall, and Dr. Crowe.

President's Address.—The President, Mr. H. Vevers, delivered an address.

Dinner.—The members afterwards dined together at the Green Dragon, Hereford.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

THE annual meeting was held at the Tol-house-hall, Great Yarmouth, on Thursday, June 16th; CHARLES PALMER, Esq., Senior Surgeon to the Great Yarmouth Hospital, President, in the chair.

Communications.—The following papers were read:

1. The President: An Address upon Syphilis: its Effects upon the Civil Population of Great Yarmouth, and an Inquiry into the Working of the Contagious Diseases Prevention Act.

2. Dr. Ryley (Great Yarmouth): An Address upon Syphilis.

3. Dr. Beverley (Norwich): A Specimen of Sarcoma of Tibia, with Notes.

4. Dr. Skrimshire: A Placenta with Calcareous Deposits.

5. Mr. A. C. Mayo (Great Yarmouth): Notes of a Case of Apparent Death from Chloroform successfully treated by the Inversion Method.

6. Mr. T. H. Moxon (Great Yarmouth): On the Habitual Drunkards' Act.

Representatives on Council of Association.—The following were elected: W. A. Elliston, M.D. (to represent Branch on Committee of Council); T. E. Amyot, Esq.; F. Bateman, M.D.; W. Cadge, Esq.; E. Crickmay, Esq.; G. C. Edwards, Esq.; R. N. Gorham, Esq.; F. S. Worthington, Esq.

Luncheon, etc.—The members were most hospitably entertained at luncheon by the President, and subsequently at afternoon tea by the President and Miss Palmer.

Dinner.—About thirty members and guests, including the President of the Association, Professor Humphry, the Mayor of Great Yarmouth, and the Vicar of Great Yarmouth, dined together at the Royal Hotel.

Autumnal Meeting.—It was decided to hold an autumnal meeting at Southwold on Friday, September 30th.

CORRESPONDENCE.

THE INTERNATIONAL MEDICAL CONGRESS.

SIR,—In your report of the proposed proceedings of the International Congress, you have omitted all reference to one of the excursions—viz., that to the Beddington sewage-farm. It is arranged that this farm be visited on Saturday, August 6th. Several foreigners have expressed a wish to visit this farm; and I have, therefore, arranged to conduct a party over it on that day, so that a personal inspection may be made of a place which has been irrigated for twenty-one years.

The party will be provided with luncheon, after the inspection, in the great hall of the Beddington Female Orphan Asylum; and they will have the opportunity of inspecting one hundred and fifty little children who live upon the very borders of the farm. The luncheon will also consist mainly of farm-produce.

I shall be glad of the names of proposing visitors, so that conveyances and viands may be provided in sufficient quantity.—I am, sir, your obedient servant,

ALFRED CARPENTER.

Croydon, July 9th, 1881.

THE COLLECTIVE INVESTIGATION COMMITTEE.

SIR,—At the Council meeting of the Yorkshire Branch, held at York on June 29th, I introduced the subject, and received such support that a paragraph approving of the scheme was omitted from our annual report, on an amendment proposed by me and seconded by Dr. Holdsworth. This incident proves that I am not singular in my views. I notice that the Lancashire and Cheshire Branch have not as yet formally adopted the scheme (JOURNAL, July 9th, p. 62). I hope that other Branches will consider it.

I regret that I cannot enter into a controversy with Dr. Phillips to amplify my views. I may say his letter appears to me to strengthen my position. I am not wedded to my own propositions; they were simply thrown out in order to suggest a better way of spending the money of the Association, and thus not only to contribute to the greatest happiness of the greatest number of the members, but at the same time to extract the greatest amount of scientific good. Mr. Jackson, Secretary to the Branch, assured us that only £300 a year would be spent, and that Professor Humphry desired to limit the expenditure to that amount. If the scheme be carried out effectually and according to the published report, over £300 a year must be spent. If the scheme were likely to be attended by all the advantages expected by Professor Humphry, I would say, pay the seven members liberally for any work they may do, and at the same time pay all who may contribute observations, or assist in any way in the elucidation of the questions on which light is wanted. The pecuniary question is insignificant, in comparison with scientific acquisitions. I differ not much about expense, but as to the results of the expenditure. A very influential member of the Yorkshire Branch on the General Council assured me that the principal work of this Committee would be that of collecting data. Simply to collect facts from all parts, and keep a kind of scientific ledger, in the hope that in time a balance of truth may be struck, is not, surely, what the promoters of the scheme aim at. This method of scientific bookkeeping is valuable to a certain degree; but it will surely be admitted that something more is wanted, and I cannot but think that Professor Humphry will agree with me in this.

In order not to take up your valuable space, I may briefly say that it is my intention to oppose the adoption of the report at the annual meeting at Ryde, and to explain in detail why I deem this scheme unadvisable. It would require a very long letter to go over all the ground; for instance, the questions proposed for investigation are open to criticism; many of them seem to me more suitable for our Epidemiological, Medical, and Surgical Societies, etc. The value of centralisation offers equal scope for discussion. I am sorry to have to differ with "men of light and leading"; but I have to fall back upon the old saying and excuse, "Amicus Plato", etc.—Yours faithfully.

Horton House, July 9th, 1881. T. M. DOLAN.

WOOLSORTERS' DISEASE.

SIR,—In order to do justice to myself, as well as the important subject now under consideration, I must again ask permission to trespass at some length on your columns.

And, firstly, I beg to state that this discussion was opened by me wholly and solely to prevent the general reception, upon weak and circumstantial evidence, of ordinary natural phenomena as extraordinary and thoroughly well-established scientific truths. Now, it so happens that, last year, one of the fatal cases of so-called woolsorters' disease was under my care, for several weeks, at the infirmary. In fact, the injudicious prominence given to this case in the local papers, as well as your observations in a leader on September 25th, compelled me to take up my pen, and express an opinion upon it; and, being thoroughly well acquainted with the patient and his history, I believe it was my imperative duty to do so. A simple relation of the case will, as I think, clearly indicate to your readers the necessity for taking such a step.

J. M., aged 40, a woolcombing overlooker, was admitted as an out-patient July 24th, 1880. He had suffered for six months from nausea, vomiting, and palpitation; and, during the last three months, he complained of cough, with scanty expectoration. The physical signs proved the existence of extensive valvular disease of the heart, and a certain amount of bronchitis. I believe I last saw him on August 28th. On September 10th, he was taken much worse, and sent for Mr. Denby, who, quite independently of me, diagnosed valvular heart-disease and great pulmonary congestion. He died suddenly the following day, about 6 P.M., and a certificate was given by Mr. Denby in accordance with the diagnosis. In your leader of September 25th, there was no reference made to the history of this man's illness; therefore, it would naturally be supposed that he was taken ill one day and died the next; and thus an erroneous impression would be created in the minds of your readers. On September 13th, forty hours after death, Dr. Bell happened to see the body of this man; and, because it was very much discoloured, he suspected woolsorters' disease. Forthwith, he took some blood, and fluid issuing from the mouth, and examined them. Bacilli anthracis were said to abound in both. The same day, fifty hours after death, a mouse was injected at the root of the tail with some of the fluid or fluids. It died on the second day, and in its body were found "swarms of bacilli".

Permit me to review the evidence upon which the diagnosis was based in this case.

1. The patient was a woolcombing overlooker, a comparatively healthy occupation.

2. In a close, crowded room, during warm muggy weather, forty hours after death, there was marked discoloration of the body. At the time, great importance was attached to this fact; for it was said to be characteristic of the disease in question. Taking all the circumstances into consideration, it was, I believe, simply a natural phenomenon. Moreover, in one of the cases detailed in the JOURNAL of the 11th ultimo, I notice the following passage: "Forty-eight hours after death the body did not present the appearances of rapid discoloration and decomposition, which are sometimes seen within twenty-four hours after death from this disease." That the above appearances are sometimes seen after death, under certain circumstances, from many other diseases, I think few men of experience would venture to deny.

3. Bacilli were observed in the fluid oozing from the mouth, as well as in the blood. It must not be forgotten that this was forty hours after death, the body being in an advanced state of decomposition. What could be more probable, or more natural, than the appearance, development, and growth of these peculiar little fungoids, which may be seen, if carefully looked for, in so many other tissues and liquids undergoing change?

4. The injection of some of the blood or fluid into a mouse produced death, and a few hours afterwards the body swarmed with bacilli.

It is only necessary to state that similar swarms of bacilli have been, and may be, seen in the dead bodies of mice and other animals, without any previous inoculation; in fact, in the absence of any disease at all. Notwithstanding the assertion that my letter of the 18th ultimo is altogether out of date, and of no scientific value, I am bold enough to

repeat the question: Is this evidence sufficient to satisfy the scientific mind of the medical public? And I still venture to answer, emphatically, No. Much work is expected, and reasonably expected, ere such a case as this can be correctly designated one of woolsorters' disease.

The diagnosis of the three cases detailed in the JOURNAL of the 11th ultimo is based upon evidence almost as unsatisfactory.

Firstly. It may be observed, in the so-called case of external anthrax, that, although serum containing bacilli was given (injected?) to a rabbit, three days in succession, no apparent result was obtained.

Secondly. On the fourth day, when the pulse was almost imperceptible, and the man evidently moribund, the serum given to mice was fatal. The question naturally arises: Why disregard the poor rabbit in favour of the mice? It will be noticed, moreover, that the blood, in the first case, was taken from a man at the point of death, a small dose also proving fatal to a mouse.

Thirdly. The evidence, as it stands, seems to be wholly antagonistic to any inherent poisonous properties of the bacilli. It rather points to some, as yet, undefined toxic qualities of the tissues and fluids of the body itself, brought about by an altered relationship of their physical, chemical, and vital characters. Bearing in mind the very frequent occurrence of bacilli in nature, the fact, that the soap-suds contained numbers of them, is, *per se*, valueless as evidence. Were they specific bacilli? and, if so, what distinctive characters did they possess? This is the kind of information we require, to arrive at anything like a satisfactory conclusion.

There is, as your correspondent remarks, much yet to learn concerning this disease. Moreover, our knowledge will not be likely to increase very rapidly, if we accept, in direct opposition to reason and the evidence of our senses, the popular dicta of ardent, but, unfortunately, misguided enthusiasts.

But, to proceed. In the presence of a large number of medical men, Dr. Greenfield distinctly stated, in answer to a question I had previously put in the *Lancet* and JOURNAL, that "typical bacilli" meant bacilli typical of anthrax, but that he would not commit himself. What is the meaning of such language? Is any one the wiser for it? Am I right in venturing to consider it evasive, or, at any rate, ambiguous? The natural and just inference was, that he could not point out any character or characters, by virtue of which the so-called bacillus anthracis could be distinguished from any other. If otherwise, why did he not give his medical brethren the benefit of such valuable information? In accordance with your correspondent's suggestion, and at the risk, I am afraid, of inevitably lengthening this epistle, I will endeavour to make my statements more complete by quoting authorities.

Nägeli, a botanist of the first rank, and Brefeld, do not see any absolute necessity for dividing bacteria even into two distinct species.

Cohn declares that hay-bacilli are identical, in form and size, with anthrax bacilli; and that the various stages in their development, including the spores, correspond in every particular—the only difference being the presence or absence of motility. That this distinction no longer exists, has been abundantly proved by Dr. Cosser Ewart and others.

Messrs. Lewis and Cunningham have found innumerable bacilli in healthy rats and mice, about twenty hours after death, in every way morphologically identical with anthrax bacilli. Moreover, they have discovered that these bacilli vary greatly in size. Such a distinction, therefore, is absolutely valueless. The same observers have noticed large numbers of bacteria in dogs killed by the injection of chemical irritants.

Dr. Burdon Sanderson, also, in experimenting upon a guinea-pig by the injection of boiled and cooled dilute solution of ammonia, made a similar observation; and he adds: "Other chemical agents will lead to the same results, and always under conditions which preclude the possibility of any infecting matter from without."

Dr. Bastian, one of the highest authorities on microscopic organisms, says, regarding the doctrine of contagium vivum: "Existing evidence seems to me abundantly sufficient for the rejection of this doctrine as untrue." And, as regards zymosis, he says: "The all-important point is, not whether latent ferments exist, but whether causes, or sets of unhygienic conditions, can rouse or modify, in certain special modes, the activity of any of these myriads of potential ferments, of which the human organism is so largely composed."

Dr. B. W. Richardson is another strong opponent of the contagium vivum theory. Dr. Beale thinks the germs of the schizomycetes exist in all tissues; "nor is the blood of man free from them". M. Signol, of the French Academy, has corroborated Messrs. Lewis and Cunningham's observations.

Leisering of Dresden states, that the bacilli found in splenic fever, and abdominal typhus of pigs, are identical. Other foreign authorities I forbear to mention, for want of space.

Professor Greenfield states that, after death, before decomposition commences, the presence of bacilli, of the size and form of anthrax bacilli, without other bacteria, is distinctive; but, after decomposition sets in, the presence of similar bacilli, with other bacteria, is inconclusive. How is it possible to discover the precise moment at which decomposition commences? For, without this knowledge, the diagnosis, even after death, is impossible. But, apart from this, one of the illustrative cases related in the fourth Brown Lecture militates against the above-mentioned theory. Case I is said to contain motionless rods and a few ordinary bacteria; therefore, this is not a distinctive case of anthrax. But, further, he says that the only certain test is inoculation; and that this is negative when decomposition sets in. His inoculation experiments were nine in number, and in four only were any results obtained. What about the other five? Where is the certainty of the test? An endeavour is made to explain it by taking into consideration the length of time which elapsed between death and the inoculation; but this will not carry conviction. Firstly, because the inoculation in Case II was unsuccessful, the *post mortem* examination being twenty-eight hours after death; secondly, because the inoculation in Case VI was successful, the *post mortem* examination being twenty-six hours after death.

Case II happened on May 21st, and Case VI on August 29th. *Cæteris paribus*, decomposition would, in all probability, be more advanced in that occurring in very hot weather—viz., Case VI. Surely the temperature would more than compensate for the comparatively slight difference in the number of hours.

By Brunell, Bouley, Bollinger, and others, it has been demonstrated that, in anthrax and septicæmia, the blood is just as poisonous when deprived of these organisms; and M. Bert has proved that the poison can be transmitted from animal to animal, with fatal results, without the appearance of any organism.

The question put by Dr. Allbutt to Dr. Greenfield, as to whether he considered these organisms to be the cause of the disease in question, was decidedly answered in the negative. Unless my ears deceived me, about this there could be no possible mistake. At any rate, this indicated the opinion of one well-recognised authority on the subject. As to the original idea being unquestionably correct, there is not, nor has there ever been, anything approaching to satisfactory proof of it. It was, and still is, a mere hypothesis, at present unsupported by trustworthy evidence.

Personally, I have never yet ventured to express an opinion as to the true nature of woolsorters' disease. That, as yet, has not been demonstrated by anyone. In the existence of some virulent blood-poison, which occasionally affects woolsorters with a rapidly fatal disease, I firmly believe. On the other hand, I am as fully persuaded that the disease is not as prevalent as it has been represented to be. In the words of Professor Greenfield, I would say "that the whole subject of anthrax is in a transitional state, and that the criteria hitherto accepted for its diagnosis are obviously inadequate".

There is much that is marvellous and fascinating in the study of these minute organisms. Its importance can scarcely be overestimated. At the same time, we must remember that, in this wonderful world of ours, there are other and probably far more prolific sources of disease at work than these attractive little favourites of the day, yclept "germs".

Lastly, may I be permitted to state that my object is not to mislead? It is simply to collect evidence, and get it well weighed by impartial minds. Calm and temperate discussion, in a matter of this kind, is absolutely essential. I infer that Dr. Bell is somewhat annoyed with me for venturing to express an opinion at variance with his own on this subject. That opinion, I have no hesitation in saying, is honest and candid, and supported by, at any rate, reasonable arguments. Moreover, it is one in which many of my medical brethren participate. Meanwhile, I am only desirous of obtaining a fair hearing. Sooner or later, we shall undoubtedly find in this, as in all other cases, the force of the good old adage, "Magna est veritas, et prævalebit".

Apologising for the length of this letter, which, I think you will perceive, is unavoidable, I am, sir, yours faithfully,

Bradford, July 6th, 1881. EDWARD T. TIBBITS, M.D.Lond.

SANITARY INSPECTION OF HOTELS.

SIR,—Might not the example set by the hotel-keepers in Rome be followed by those in English seaside hotels with great advantage?

Although the water-closets in most English hotels are superior to those in Rome and other continental cities, there is, as it seems to me, plenty of room for improvement; and I would call the attention of your readers and of others interested to it at the present time, when so many are contemplating a visit to the Isle of Wight. I could mention

at least one hotel, likely to be patronised by some, where the closet arrangements are most defective; while, on the other hand, I could name others which are models in all sanitary arrangements, especially in this most important respect.

What is the condition of many a hotel in this matter? Firstly: a most inadequate number of closets—one, or at most two, on each landing. Secondly: a small ill-ventilated apartment, filled with a stench, the inhalation of which, even for a few minutes, must be very hazardous. Thirdly: a badly constructed basin, often plastered with fæcal matter, with defective pan and trap, and most insufficient water-supply. When to all this are added the careless habits of many visitors, and other details which I need not specify, a condition of things exists which is a reproach to any locality which boasts of a medical officer of health and an inspector of nuisances. It is generally admitted now, that, to ensure perfect immunity from sewer-gas, there should be in every water-closet a "wash-out" basin, with an ample water-supply, and that the soil-pipe should be ventilated. From my experience of seaside hotels, I fear that this will be found to be the exception, proving the rule, which is what I have described. That it is no exaggeration, many of your readers will be able to testify.

Now, I would suggest that this would be a most useful and practical subject for discussion, in the Public Medicine Section, at the approaching meeting. I conclude with three questions.

1. Is it the duty of medical officers of health, or inspectors of nuisances, to make a periodical visit to, and inspection of, all hotels in their district?

2. Is it incumbent on visitors at any hotel to report, to the medical officer of the district, any sanitary defect they may observe?

3. May not many cases of typhoid fever, occurring shortly after arrival at home from a seaside resort, be referred to the defects I have described?—I am, etc.,

June 18th, 1881. A PROVINCIAL ASSOCIATE.

LUNATIC ASYLUMS IN VICTORIA.

SIR,—In an article on Victorian Lunatic Asylums, in your issue of January 22nd, I observe some remarks on the astonishingly small number of deaths from general paralysis, as given in the mortality returns. As it is barely credible that only eight deaths out of 225 were the result of general paralysis, it is natural to infer that the returns are not prepared with much diagnostic care; but a short explanation will suffice to show that at least the medical officers of the asylums are in no way responsible for this apparent negligence.

In every case of death in a Victorian asylum, a coroner's inquest is held, and the services of a pathological expert, unconnected with the asylum, are called in to determine the cause. Whatever, then, appears at the *post mortem* examination as the immediate or proximate cause of death, is entered in the Registrar-General's returns as such; so that what may be, *e.g.*, a clear case of general paralysis, is classified as disease of brain, or disease of brain coupled with that of other organs; or, similarly, a case of maniacal exhaustion may be set down as pneumonia, merely because it chanced to wind up with an inflammation of the lungs.

In the Metropolitan Asylum at Kew, for instance, seven out of the forty-one male patients who died in 1880 were general paralytics, but in no case was general paralysis returned as the cause of death. A very slight change in the mode of taking evidence at the inquests would at once remedy this anomaly; but, although representations have been made in the proper quarter, the authorities seem to prefer to let the matter stand.—I am, etc.,

DAVID SKINNER, M.A., M.B., C.M.,
Late Resident Medical Officer, Kew Lunatic Asylum.
The Alfred Hospital, Melbourne, March 15th, 1881.

ST. ANDREW'S GRADUATES' ASSOCIATION.—The thirteenth anniversary session of the association was held at the house of the Medical Society of London on Wednesday, the 6th instant. The following were elected officers and council for the year ending June 30th, 1882: *President of Council*—Dr. B. W. Richardson, F.R.S.; *Treasurer*—Dr. Paul; *Secretary*—Dr. Leonard Sedgwick; *Council*—Dr. Holman, Mr. Menzies, Professor Pettigrew, Drs. Seaton, Bransby Roberts, Christie, Cleveland, Dudfield, Macintyre, Royston, Wiltshire, Cooper Rose, Falls, Mott, Gramshaw, Semple, Samuel Hill, Dale, Kershaw, Archibald, Cholmeley, Davey, Gordon, C.B., Stedman, Crosby, W. H. Day, Griffith, Wynn Williams, Alderson, Cassells, Corner, Lush, M.P., Rhys Williams, Gillespie, Wilkinson, Longhurst, and Henty.

MILITARY AND NAVAL MEDICAL SERVICES.

THE Viceroy of India is about to appoint a certain number of honorary physicians and surgeons, as is the case with the Queen in this country. Brigade-Surgeon Marston is nominated for one of these appointments.

THE Greenwich Hospital pension of £50 a year, vacant by the death of Retired Deputy Inspector-General H. Jameson, has been awarded to Fleet-Surgeon Gerald Yeo, M.D.

BENGAL.—Intelligence has been received of the death, from fever, at Prahsu, of Surgeon Wilson, M.D., an officer who distinguished himself in the Zulu war, and accompanied Colonel Pearson to Ekowe. He has served in all the wars of late years in Africa and India, in which Great Britain has been engaged. Surgeon Wilson was a native of Sheffield.

THE ARMY MEDICAL SERVICE.

IN reference to various communications which we have received on the subject of "An Army Medical Corps", the following may be taken as a summary of changes suggested to remedy the grievances under which, it is said, the army medical service at present suffer. The army hospital is now freed from military control, and placed wholly under the medical officers. So far, their grievances were removed, but there, unfortunately, still remained much to be achieved by the army medical service. The principle underlying these changes was an endeavour to secure equality within the army with the combatants in everything relating to rank and reward, and to give way at other points, so that a *modus vivendi* might be arrived at. They had no feud with the combatant officers as a body, but they felt that many amongst their number were encouraged by the action of the authorities in treating them with a distinct determination to deprive them of all status in the army. Their aim is thus described.

1. The union of the army medical department officers, and the men of the Army Hospital Corps, into one body, to be called the Army (or Royal) Medical Corps, with an uniform, title, and tradition in common. The existing officers of orderlies to be the Quartermasters (with honorary rank as in the army) of the Army Medical Corps. This union was thought to be essential for the development of *esprit de corps*.

2. The existing system of dividing the officers of the army into combatants and non-combatants to cease. The officers now called combatants to be styled "Executive," and the existing non-combatants to be called "administrative"; and all rewards for campaigns to be equally shared by all officers of every branch of the service.

3. The existing system of giving an illusive relative rank, to be replaced by definite military rank with military titles, as in the pay department of the army. The officers of this department were wholly without command in the army, yet the War Office authorities had thrown over them the protection of definite military rank and status to secure them against injustice; and they were fully persuaded that it was the only way in which the departmental officers in the army could be protected against the arbitrary power of military command. They needed definite military rank in the medical corps and in the army to guard their position against the daily attempts of military authority to depress them. They proposed that the Director-General should be made an honorary Lieutenant-General, as well as Director-General of the medical corps. The Surgeons-General who now had the illusive and useless relative rank of Major-General, to be given definite honorary rank as Major-General, and to be designated as: Major-General Smith, Surgeon-General A.M.D. In like manner the Deputy-Surgeons-General to have their present relative rank as colonel in the army, converted into definite honorary rank, and to be designated as: Colonel Brown, Deputy-Surgeon-General A.M.D. The brigade surgeons to keep their existing titles for use within the department, but to be given, in addition, definite army rank as lieutenant-colonels. All the above grades being specially selected officers, and being always about the same age and service as the same ranks in the combatant grades of the army, no reconsideration of their rank could be permitted. It was, however, proposed that the rank of officer below the grade of brigade-surgeon might be reconsidered, while carefully guarding the existing pay and allowances of every kind and description, against any change. That was to say—all the existing pay, allowances, widows' pensions, forage, prize-money, batta, etc., would be considered as departmental, and be kept as at present, but the army rank would be placed exactly on an equality with the average of the combatants, as certified by the War Office actuaries, giving them five years to their credit for college service. Thus for example, a young medical officer entering the service would receive as at present, the pay and allowances of a captain, but he would have to

serve, say, for four years as a lieutenant in the medical corps, which, with his five years' college service, would make up nine years as a subaltern before getting his rank as captain. This plan, while preserving all the positive good points of the existing system of pay, would put an end to the anomaly now existing of young officer entering the service with an illusive captain's rank over the head of old subalterns. In the same way, at twelve years' service they would get all the pay, allowance, prize money, batta, forage, widow's pension, of a major, as a departmental matter, but would not get the army rank of major until about fourteen years' service; that was to say, about the average time when the combatants got it, crediting them with five years' for college service. In the same way, at twenty years' service they would get all the pay, allowances, and pensions, as a lieutenant-colonel as at present, but not the army rank of lieutenant-colonel until the average time the combatants get theirs, that was to say, after about twenty-one years' service as a medical officer. The senior rank they have already dealt with. Italy, America, Switzerland, Turkey and Roumania, had so organised their medical corps.

4. Brevet promotion, one of the greatest needs, should be given them exactly as in the combatant ranks. The departmental rank not to be increased, but should remain like their regimental rank, but honorary military brevet rank, carrying military titles, should be given them. Thus—if a captain in the medical corps distinguished himself in field service, it was suggested he should be made an honorary major, but his name kept still in the former place in the corps list. This would remove, in a great measure, the existing sense of wrong and neglect after war service, so universal in medical corps of the army, and which was injurious to the department, and to the whole army. It was impossible to exaggerate the bitter feeling this neglect had occasioned.

5. These changes had been forced upon their attention by the unfair treatment which, contrary to the wish of the country, they continually received from the officials who had the command of the army, and from many combatant officers who followed their example—treatment very uncalled for, and in the end, injuring the efficiency of the whole service. They claimed this defined military rank, not because they wished to ignore medicine, but solely to place themselves on a defined footing as part of the army, and to protect themselves by defined military status from the every-day recurring attempts to deprive them of all rank within the service. Their defenceless position within the service could be made strong only by this means. Italy, America, Switzerland, and other States had so organised their medical service, and they were fully convinced that it was the only existing way of accurately defining the army status, and putting an end to the treatment they endured at the hands of many military officers. The people of England, who had entrusted them with the care of their sick and wounded soldiers, never intended that their lives should be made unhappy by harsh discipline and the unfair treatment at the hands of old-world generals, and a narrow-minded profession, which their army unfortunately was. They had ever been in the past, and were to-day, the firm friends of the private soldier. For him they had, in the daily round of army life, struggled to secure good food, good clothing, rational treatment, good lodgings, and constantly had in that struggle to endure the opposition of antiquated military prejudice, and the desire to cling unchangingly to an old and worn-out past. To-day they lived in hopeful times, and England was herself reforming her army, abolishing the harsh discipline that crushed the service, and elevating as far as she could the status of the soldier. It was being done in direct opposition to the old-world notions of what was with them the most narrow-minded of professions. That same measure of justice which the people of England were giving to the private soldier, they, her army doctors, also needed.

The medical officers of the service were obtained with great difficulty, and for years few had come. The cause of their not coming to what should be an honourable service, was not the want of pay, for that was fair and good. It was said to be the unjust treatment they received at the hands of the authorities in the army; the refusal to grant them a just share of the reward and honour England meant for all her military servants, and this treatment by those in high places was copied and fully carried out in all its logical results in every garrison in the empire and in every camp in the field.

THE ARMY MEDICAL CORPS.

SIR,—In a recent number of your JOURNAL, I dwelt on the wants of the Army Medical Department. I now take up one point, viz., the necessity of welding together the medical officers and the non-commissioned officers and men of the Army Hospital Corps into one body, to be called, not a "Department", but a Corps. I take it to be absolutely essential to our *esprit de corps*, our internal discipline, and our status in the army, that the officers and men be blended together into one body. I would have an Army Medical Corps, a Militia Medical Corps, and a Volunteer Medical Corps. The first should be composed of the existing Army Medical Department, and the existing Army Hospital Corps, welded into one Army (or Royal) Medical Corps. The second should consist of the medical officers on the Militia Departmental Medical List; and the Volunteer Medical Corps should consist of the volunteer medical officers, and the [illegible] Volunteer and Militia medical officers becoming second [illegible]. I [illegible] that the uniform of all these should be [illegible] Army Hospital Corps, [illegible] Medical officers gold lace, the Volunteer [illegible], but otherwise resembling the Army Medical Department in every way.

It is very important that the officers of the medical corps of the army should be drawn close to the men of the hospital corps. It will develop a feeling of reciprocal attachment, and will give us a [illegible] and the [illegible] up a [illegible] and [illegible] would [illegible] and other [illegible] would supply [illegible] It is [illegible] the hospital corps to be put into red, as red is an unserviceable colour, and will not survive our first great European war. The tunic and the mess-jacket alone would require change; and [illegible] the [illegible] will [illegible]. We are [illegible] and tired of the [illegible] treatment [illegible] with [illegible] to [illegible] tion with oppressive regulations and unjust treatment. Besides, the word "corps" is an equality [illegible] put [illegible] with the [illegible] in the army. You [illegible] that with [illegible] Royal [illegible] composed of two bodies: the officers being Royal Engineers, the men being called sappers and miners. After the war, they were amalgamated into one corps. We want the same thing to be done to us. It costs no money to the State, and it will please the majority of our department.

We should have no friction with the Militia or Volunteer medical officers. They deserve just treatment and proper rank, corresponding to the Volunteer and Militia combatant officers. Our cause is quite the same, and we can fight for our profession without in any way weakening our relative position to each other. There is a widespread feeling in the Army Medical Department for corps organisation. I hope you will sympathise with it, and [illegible] that [illegible] to place the profession we honour and love in its due position in the army and in the world.—Yours,

I. V. R. C., Army Medical Department.

STATISTICS OF THE ARMY MEDICAL DEPARTMENT.

SIR,—[illegible] misstatements; inferences should be corrected by Surgeon-Major Boileau's letter in the JOURNAL of June 4th, and your readers be led to believe that promotion in the higher ranks of the Army Medical Department is likely to be rapid in consequence of the working of the Royal Warrant published in November 1879, I should like to be allowed a few remarks on the other side of the question.

A careful study of the figures on which his ideas are based may show that the prospect is not quite so alluring as a too sanguine temperament might be induced to believe. There is a fallacy to be got rid of at starting. It will be granted that the aim of the senior before the passing of the Warrant was administrative rank; and they are not nearer that goal consequent on the changes of the seventeen months under review, by one hundred places, but by half that number, the other fifty being as much in the way as ever, although under a different name—that of brigade-surgeon.

Having cleared the way so far, let us consider how it stands as regards the remaining fifty gains. The Warrant was looked for, anxiously and hopefully, for several years before it actually made its appearance; and a gradually increasing number of the seniors was waiting to see what the Warrant would give them before taking their retirement; chiefly, indeed, men who would one by one have retired before, and whose departure was virtually delayed by the Warrant, but who waited on, in order to share in any benefits it might be hoped to give. After its appearance, and the change of designation of forty-nine of them, with increased pay and retiring allowances, a number of those who had made up their minds to go, delayed doing so till ordered, or on the eve of being ordered, on foreign service. This had the tendency of spreading those retirements over a somewhat longer period, and it took about a year to get rid of them.

Now, let us take Dr. Boileau's period of seventeen months, and divide it into thirds, and it will be seen that, during two-thirds of it, the causes I have named were in operation. During the remaining third, retirement seems to have followed pretty much what may be considered natural laws.

I have before me the *Army Lists* of January and June 1881; and I find that the "toptapping", as Dr. Boileau expresses it, the gain to the senior ranks, amounts exactly to six steps. At this rate, it may well be asked, What are the prospects of the medical officer now one hundredth from the top of the surgeon-major's list, with a service of nearly twenty-three years, not of administrative rank, his former legitimate aim, but even of becoming a brigade-surgeon, and holding a hybrid position, without any increase of army rank, though with substantial additions to pay and retiring allowance.

The following table, constructed on the foundation of the *Army List* for January 1881, will be a slight guide, showing, I think almost accurately, but subject to correction, the retirements in all senior grades, rendered necessary under the age clauses of the Warrant for the next ten years.

Retirements of Medical Officers under the Age Clauses of the Royal Warrant of November 1879, from 1881 to 1890 inclusive.

GRADES.	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	Total.
Administrative	6	2	4	5	1	3	6	2	2	3	34
Brigade-surgeons	..	..	1	1	7	9	4	8	1	..	31*
Surgeons major	..	1	2	3	4	9	12	15	20	12	78
Total	6	3	7	9	12	21	22	25	23	15	143

* The 18 senior brigade-surgeons, who gradually take the places of the present administrative officers, will be able to extend service to 60 years of age; and, of these, none will have to go before 1889, and then only three of them; and, in 1890, two more.

However much the Royal Warrant of 1879 may have to recommend it, reasonable promotion among the seniors is not one of its provisions. This is yearly becoming slower, excluding its immediate effects, which I have endeavoured to explain; and soon, for many, promotion will apparently be out of the question altogether, as they will have to retire from age before they can struggle through the long list now before them.

Two remedies for this state of matters seem to me available: first, that the Army Medical Department administrative, like other staff appointments, should be held for a limited term of years; and, second, that all officers with twenty-five years' service, should be allowed to retire on the same conditions as brigade-surgeons do now. My reason for the latter suggestion is this: The original actuarial calculation (as was stated in the press at the time the recommendations of the Committee were published—showed a probability of the position of brigade-surgeon being attained in twenty-two years' service; whereas, at present, officers of more than twenty-five years' service are only looking forward to it as a future possibility. Contrast this with the rate of promotion in former years—with the periods of service after which our present surgeons-general attained administrative rank—and it must be allowed that the senior surgeons-major of the present day are, in that respect, certainly unfortunate.

I may be wrong in the conclusions which I feel compelled to form, after a careful study of the figures; and, as Dr. Boileau has evidently gone minutely into the subject, I shall feel grateful to him, as would, no doubt, many others, if he can explain them away. I trust it will prove an agreeable pastime to him to bring out the "colour of roses", as it is an invidious task to "put in the shade". After all, it would not require great concessions now, thanks to the previous exertions of our present chiefs, to make the military medical service of the British Army the finest in the world, if it be not so already.—I am, sir, your obedient servant,

June 14th, 1881. SENIOR.

ARMY MEDICAL PAY.

SIR,—Can a medical man live comfortably on his pay as an army surgeon from the time of joining, or should he have some private means? and would it be prudent for a young man to enter the profession with the intention of entering the Army Medical Service unless he had a private income?—Yours, ARMY.

*** Yes; any army medical officer of sensible and prudent habits can live comfortably on his pay and allowances from the time of first joining the service until he quits it. There are army surgeons still in the department, who have lived as officers and gentlemen on little more than two-thirds of the present rates of pay and allowances. The "comfort" connected with the position of a surgeon in the army depends more upon the character and education of each one concerned, than upon the possession of private income in addition to his official income. Experience sufficiently proves this.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THANKS TO A RETIRED MEDICAL OFFICER.

DR. W. S. THOMSON, for several years Officer of Health for the Urban and Rural Sanitary Districts of Peterborough, on resigning his appointments, was presented with the following resolutions, bearing the seals and stamps of the authorities: "That the thanks of the Council be accorded to Dr. Thomson for the ability and energy displayed by him in the discharge of his duty as medical officer of health for the city and borough from the time of its incorporation." "That the thanks of the Rural Sanitary Authority of the Peterborough Union be given to Dr. W. Sinclair Thomson, for the efficient manner in which he has discharged his duties as medical officer of health for the past five years."

During Dr. Thomson's time, Peterborough has been completely drained, and has a splendid supply of water. Many other sanitary improvements have been carried out by Dr. Thomson's suggestion; by his last report, he proved how the death-rate and cases of typhoid fever were favourably affected, there being almost an entire absence of fever, which at the time was so prevalent. It is satisfactory to see that Dr. Thomson's services have been appreciated by those with whom he had to co-operate.

ATTENDANCE FOR MEDICAL RELIEF.

SIR, When a woman who is on my books as receiving medical relief, and for whom consequently I have previously received a medical order, sends for me to attend her in her confinement, am I justified in refusing to attend her until she has sent me another order from the relieving officer? And, if this second order be necessary, within what limit of time must it be procured?

I fail to see why the guardians should demand a special order for midwifery cases, and to be given on the day of confinement, when they do not demand it for accidents, such as a broken arm. I am only speaking of cases in which the pauper is on the books at the time of the accident or confinement. Can a relieving officer issue a special midwifery order to a woman to whom, it may be a few days ago, he gave an ordinary medical order? And if he cannot, under the circumstances, I repeat, why should the woman be obliged to send many miles in the middle of the night to ask the relieving officer for an order which he has no power to refuse? The case is very difficult with women who are not on the parish, for then they might have to get an order. I am, sir, your obedient servant,

HERBERT DIXON, M.B.

Debenham, Suffolk, June 6th, 1881.

*** Under the circumstances mentioned in our correspondent's query, we advise that the attendance should be given, and that, subsequently, an application should be made to the relieving officer for an order. If this be refused, then the facts should be laid before the board of guardians, who can hardly support their officer in such refusal. It, however, such should be the case, let the circumstances be brought under the notice of the Local Government Board. Much difficulty and annoyance would be prevented if medical officers would insist upon women expecting confinement the necessity for obtaining an order. It should always be remembered that complete time to attend to every woman is apt to be used up by the promise of a few minutes, and it is somewhat unpardonable rashness to have done so.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, July 7th.

The Deaths at Aldershot. Answering the Earl of CAMPERDOWN, the Earl of MORLEY said, that the following are the facts:—A field day had been appointed for the 4th instant some days before, and the weather at Aldershot on Sunday and on Monday being cloudy, with a strong breeze on the Fox Hills, the troops went out as usual in field day order—that is to say, carrying nothing except their water-bottles—at half-past eight, after breakfast. The manœuvres were over before one o'clock, and until then there were no casualties, and few men fell out. About that time, however, the heat greatly increased, and, unfortunately, the usual anxiety to get back to their lines, led to the regiments hurrying the pace, and this in the heavy dust and increased heat, probably caused a good many men to fall out. Of the nineteen men who were sent into hospital, the greater part fell out then. Three died of sunstroke—one, a very stout man of forty-five, who did not fall out; and two men of long service, aged thirty-two and thirty-three, one of them found, on *post mortem* examination, to be highly predisposed to illness of this kind; the third was a healthy man. There was a fourth death of a driver from heart-disease, but he was riding on a wagon all day, and had undergone no fatigue, nor did he complain till later in the day. It is remarkable that from the brigade which went over the most ground, and did the hardest work, the smallest number of men, only twelve, fell out, and none went into hospital. At a time of exceptional heat all parades take place in the early morning, so that troops may be back in camp before the power of the sun becomes excessive. I do not think that beyond this well understood rule, attention to which has been especially called by a circular, issued on Tuesday, the discretion of commanding officers need be hampered.

OBITUARY.

MICHAEL FRANCIS WARD, L.K.Q.C.P.I.

INTELLIGENCE has been received of the death, at Demerara, Dr. Michael Francis Ward, M.P., for Galway, in the last Parliament. The deceased was the second son of the late Mr. Timothy Ward, merchant, of Galway, by his marriage with Catherine, daughter of Mr. John Lynch, of that city. He was born in 1845, and was educated at the College of St. Ignatius and at Queen's College, Galway, where he matriculated in 1861; he afterwards studied medicine at Steeven's Hospital, Dublin, and became a licentiate of the College of Surgeons, Ireland, in 1868. Dr. Ward was for some time curator of the Anatomical Museum of the Catholic University of Ireland, and he was also surgeon to the Infirmary for Children in Buckingham Street, Dublin. He was elected in the Liberal or "Home Rule" interest as member for the borough of Galway in June, 1874, in the place of Mr. O'Donnell, who had been unseated on petition. Dr. Ward went out about a twelvemonth since to Demerara, where he was employed in the Government Medical Service, and where his death occurred.

TAMWORTH.—For last year, Dr. Fausset reports, amongst a population of 5,360, the high death-rate of 22.0 per 1,000. Scarlet fever, which was fatal in ten cases, was prevalent throughout the borough; and its spread was mainly due to the absence of proper means of isolation and the carelessness of parents in allowing their children to associate with others whilst in a state of convalescence. Typhoid fever was prevalent during the greater part of the year, thirty-three cases (four fatal) having been heard of. The unsatisfactory state of the drains, the existence of filthy midden cesspits, and an impure water-supply, must be held responsible for this mortality. The disease was still spreading when Dr. Fausset wrote his report, and indeed is likely to spread whilst such monstrously insanitary conditions exist. Only four deaths were returned as due directly to diarrhœa; but several children, suffering from disease mainly due to a badly nourished system, died from inability to resist this further complication. The water-supply and the drainage of the borough are by no means satisfactory. Dr. Fausset says that "by far the greater number of the wells must be in a dangerously polluted state"; and in many cases the drains terminate in catch-pits without outlets. Overcrowding, especially of the lodging-houses, is not uncommon, and pig-nuisances still exist; the scavenging, moreover, needs attention. Isolation-accommodation is greatly needed; a cottage-hospital has been provided, but apparently not for infectious cases.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 8th instant, and when eligible will be admitted to the pass examination.

Messrs. Henry W. B. Saville, Richard E. Sidebottom, Ford Hall, and George H. Wilkins, students of the Manchester School; George E. Hughes, Leonard J. Kidd, and William L. Hodgson, of Guy's Hospital; John L. Bell, and Henry Bird, of University College; John M. Harper, and Alfred J. Hitchcock, of the London Hospital; Arthur W. Rowe, and Neville Masters, of St. Mary's Hospital; Everard Woods, of St. Bartholomew's Hospital; and Charles C. Ellis, of St. George's Hospital.

Nine candidates were rejected.

The following gentlemen passed on the 11th instant.

Messrs. George Kirkhouse, William Whitworth, William H. Starr, and John E. Rudd, of St. Bartholomew's Hospital; Charles L. Bean, Edward Shuckley, and Harry L. Jones, of Guy's Hospital; Herbert Edgelow, Harold A. De Vere, and Cuthbert G. Adams, of St. George's Hospital; Charles H. Taylor, of King's College; George E. Hales, of St. Mary's Hospital; James Watson, of the Charing Cross Hospital; and Norton G. Gilkes, of the London Hospital.

Ten candidates were rejected.

The following gentlemen passed on the 12th instant.

Messrs. Robert J. Cook, William J. Watson, Hugh E. Jones, and James Harvey, of Guy's Hospital; William L. Edwards, Edmund G. Howard, and Henry T. Brickwell, of the London Hospital; Hildyard W. Haydon, and Lewis A. Buck, of King's College; Charles W. Low, of St. Bartholomew's Hospital; Edward R. W. Carroll, of the Westminster Hospital; and William F. C. Rogers, of St. George's Hospital.

Thirteen candidates were rejected.

The following gentlemen passed on the 13th instant.

Messrs. Samuel R. Thomas, Edward Linnell, Herbert Howard, and Frederick W. H. Penfold, of Guy's Hospital; Robert E. Duke, Edward Clarkson, and Walter J. E. Sumpter, of University College; T. Cromwell Winn, and Herbert L. Parry, of the London Hospital; John Reeks, and Henry J. Hewer, of St. Bartholomew's Hospital; Montagu W. Rose, and W. Dunlop Anderson, B.A.Cantab., of St. George's Hospital; Harry Lockwood, and F. Wellesley Kendle, of King's College; and J. Rushworth Keele, of St. Thomas's Hospital.

Eight candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 7th, 1881.

Alexander, Alexander Charles Archibald, Ardrossan, Ayrshire, N.B.
Brewitt, James Bunning, Melton Mowbray.
Johnson, James Bovell, 364, Kingsland Road.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, July 4th, 5th, 6th, and 7th, the following candidates were successful.

For the First Professional Examination.—Mary McGeorge, London; Margaret Morice, London.

For the Licences to practise Medicine and Midwifery.—Howard William Acheson, New Ross, Co. Wexford; Louis Edward Anderson, Rathmines, Dublin; James Law Atkinson, Ballyshannon; Herbert Joseph Birmingham, Ballinrobe, Co. Mayo; Herbert Watson Brownrigg, Camolin, Co. Wexford; Arthur Gerald Chance, Dublin; Francis Philip Colgan, Kilcock, Co. Kildare; Annie De la Chevois, Belfast; Samuel Ernest De Lisle, Dublin; Thomas Mark Gallagher, Killala; William Percy Jones, Dublin; John Lilly Lane, Cabinteely, Co. Dublin; Francis John Lynch, Armagh; James Carnegie Macmullen, Dublin; Henry Greenwood Mahon, Sandycove, Co. Dublin; Adam Mitchell, Parsonstown, King's Co.; Edmond Murphy, Dublin; Arthur Hill Murray, Edenderry, King's Co.; George Nelis, Blackrock, Co. Dublin; Francis Randolph O'Brien, Ennis, Co. Clare; Robert Ignatius Power, Carrick-on-Suir, Co. Waterford; Frederick Robinson, Dublin; William Dakin Waterhouse, Kingstown, Co. Dublin.

For the Licence to practise Medicine only.—Alfred Adolphus Hayes, Dublin; Claude Henry MacSwiney, Dublin.

For the Licence to practise Midwifery only.—Patrick Joseph Dempsey, Dublin; Francis John Jencken, Kingstown, Co. Dublin; Augustus Nixon, Ardee, Co. Louth.

The following Licenciates in Medicine, having complied with the by-laws relating to Membership, have been duly elected Members of the College.

William Graham, 1868, Fleet-Surgeon Royal Navy; Michael Joseph Clune, 1872, Sydney, N. S. Wales; Damer Harrisson, 1876, Liverpool.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BRADFORD INFIRMARY—Locum Tenens for eight weeks. Salary, £20.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum. Applications by July 23rd.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by August 11th.

CHARING CROSS HOSPITAL MEDICAL SCHOOL—Lecturer on Comparative Anatomy. Applications to Francis Hird, Dean, Agar Street, Strand, by July 26th.

COUNTY INFIRMARY, Stafford—Honorary Physician—Applications by the 27th July.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teachers of Chemistry, Anatomy, Physiology, Materia Medica, Midwifery, Pathology, and Clinical Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

HOSPITAL FOR WOMEN, Soho Square, W.—House Physician. Salary, £— per annum, with Board and Lodging. Applications, by July 20th, to the Secretary.

HUDDERSFIELD INFIRMARY—Second Junior House-Surgeon. Salary, £40. Applications to the Honorary Secretary by July 25th.

KENSINGTON WORKHOUSE INFIRMARY—Dispenser. Salary, £— per annum. Applications by July 22nd.

KENT COUNTY LUNATIC ASYLUM, Chartham Downs, Canterbury—Locum Tenens, commencing July 26th. Applications to the Medical Superintendent.

KILKENNY UNION—Medical Officer for Tiscoffin Dispensary District. Salary, £100 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 18th instant.

KILMALLOCK UNION—Apothecary for Charleville Dispensary District. Salary, £35 per annum. Election on the 16th instant.

LONDON HOSPITAL MEDICAL COLLEGE, Turner Street, Mile End, E.—Curator's Assistant and Librarian. Salary, £— per annum. Applications by — to the Secretary.

MANCHESTER AND SALFORD LOCK AND SKIN DISEASE HOSPITAL—Honorary Surgeon. Applications by July 23rd.

MASON SCIENCE COLLEGE, Birmingham—Assistant Lecturer on Chemistry. Applications on or before the 18th July.

NATIONAL DENTAL HOSPITAL—Dental Surgeon. Applications by the 10th August.

NATIONAL DENTAL HOSPITAL—Lecturer on Dental Surgery and Pathology. Applications by 10th August.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent—House Surgeon. Salary, £120 per annum. Applications by August 17th.

NORTH STAFFORDSHIRE INFIRMARY—House-Physician. Salary, £100 per annum. Applications by 17th August.

OMAGH UNION—Medical Officer for No. 2 District, Carrickmore. Salary, £10 per annum, exclusive of sanitary and other fees. Election on the 16th instant.

OWENS COLLEGE, Manchester—Lecturers: Mental Diseases, Surgical Pathology, and Diseases of Children. Applications to the Registrar by the 20th instant.

QUEEN'S HOSPITAL, Birmingham—Resident Surgeon. Salary, £50 per annum. Applications by August 2nd.

SOMERSET AND BATH LUNATIC ASYLUM, Wells—Medical Superintendent. Salary, £500 per annum. Applications by 20th July.

STAFFORD GENERAL INFIRMARY—Honorary Physician. Applications by July 25th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street—Dental Surgeon. Applications by August 1st.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £200 per annum. Applications by 9th August.

UNIVERSITY COLLEGE, Bristol—Medical Tutorship. Salary, £100. Applications to Honorary Secretary by July 26th.

MEDICAL APPOINTMENTS.

BENNETT, W. C. S., L.R.C.P., appointed Assistant Dental Surgeon to the Middlesex Hospital.

BOWES, J. I., M.R.C.S.Eng., appointed Medical Superintendent to the Wilts Pauper Lunatic Asylum, *vice* E. M. Cooke, M.B.

CRAINE, R. E., L.F.P.S., appointed Medical Officer to the Charleston and Limekilns Medical Association.

HAMILTON, G. G., L.R.C.P. & S.Ed., appointed Senior House-Surgeon to the Northern Hospital, Liverpool, *vice* W. E. L. Batty, M.R.C.S.E., resigned.

HORNER, A. C., L.R.C.P.Lond., appointed Medical Officer and Public Vaccinator to the Tonbridge Union.

JEFFERSON, Arthur, M.R.C.S., appointed House-Surgeon to the York County Hospital, *vice* F. H. Weeks, M.R.C.S., resigned.

JONES, John T., L.R.C.P., appointed Medical Officer to the Llansilin District Oswestry Union, *vice* Walter Jones, L.S.A., deceased.

LAYCOCK, G. L., M.B., appointed Physician to the North-West London Free Dispensary for Sick Children.

MULLEN, J., L.K.Q.C.P.I., appointed Resident Medical Officer to the Wilton Fever Hospital.

PARKER, W. Rushton, M.B., appointed Assistant House-Surgeon to the Northern Hospital, Liverpool, *vice* G. E. Hamilton, L.R.C.P. & S.Ed., promoted.

PATERSON, W. D., L.R.C.P., appointed Medical Officer to the Mid and South Yell and Fetlar and North Yell Districts, Shetland.

PAYNE, Henry, M.R.C.S., appointed House-Surgeon to the Infirmary, Ashton-under Lyne.

PHILLIPS, M. F., L.R.C.S.Edin., appointed Medical Officer of Health and Public Vaccinator for St. Mary Bourne District, Whitchurch, *vice* H. Hemsted, M.R.C.S., resigned.

PRITCHARD, T., M.D., appointed Junior Medical Officer to the Exeter Friendly Societies' Medical Association, *vice* A. D. Macdonald, M.B., resigned.

THOMAS, E. Temple, M.R.C.S., appointed Resident Medical Officer to the Rochester and District Friendly Societies' Medical Association.

THOMPSON, Thos. William, M.R.C.S., appointed Medical Officer for Cooper's Lane District and Enfield Parish, *vice* James Wookey, M.R.C.S., resigned.

DR. JENKINS of Ruthin qualified as a justice of the peace for the county of Denbigh at quarter sessions on June 30th.

METROPOLITAN WATER-SUPPLY.—From Dr. Frankland's report upon the quality of the waters supplied to the metropolis by the various water companies, during June, it appears that the Thames water, delivered by the five companies drawing their supply from that source, was superior to its average quality, although somewhat inferior to that delivered in May. All the Thames waters had been efficiently filtered, except that sent out by the Grand Junction Company.

PUBLIC HEALTH.—The annual rate of mortality last week, which was the twenty-seventh week of the year, in twenty of the largest English towns, averaged 20.7 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Portsmouth 11, Bradford 12, Norwich 15, Bristol 15, Brighton 16, Sunderland 18, Salford 18, Leeds 19, Plymouth 19, Oldham 19, Sheffield 19, Leicester 20, Nottingham 20, Birmingham 21, London 21, Manchester 21, Hull 21, Newcastle-on-Tyne 22, Wolverhampton 23, and Liverpool 24. Measles showed the largest proportional fatality in Liverpool; scarlet fever in Norwich. Leicester, Nottingham, Sunderland, and Hull; and whooping-cough in Birmingham, Leicester, and Wolverhampton. The 12 deaths from diphtheria in the twenty towns included 8 in London and 2 in Portsmouth. The highest death-rate from fever occurred in Brighton. Small-pox caused 84 more deaths in London and its outer ring of suburban districts, 3 in Liverpool, 2 in Brighton, one in Hull, and one in Newcastle-upon-Tyne; no fatal case was registered in any of the other large provincial towns. In London, 2,408 births and 1,585 deaths were registered. The deaths exceeded the average by 171, and gave an annual death-rate of 21.6. The 1,585 deaths included 73 from small-pox, 70 from measles, 41 from scarlet fever, 8 from diphtheria, 37 from whooping-cough, 2 from typhus fever, 10 from enteric fever, 2 from ill-defined forms of continued fever, 135 from diarrhœa, 2 from dysentery, and 6 from simple cholera; thus, 386 deaths were referred to these diseases, being 98 above the average. The deaths referred to diseases of the respiratory organs, which had been 225, 210, and 181 in the three preceding weeks, were 195 last week, and exceeded the average by 16; 116 were attributed to bronchitis, and 59 to pneumonia. Different forms of violence caused 52 deaths; 38 were the result of negligence or accident, among which were 14 from fractures and contusions, 2 from burns and scalds, 10 from drowning, and 7 of infants under one year of age from suffocation. Thirteen cases of suicide were registered, being more than double the corrected average. At Greenwich, the mean temperature of the air was 65.1°, and 3.3° above the average. On Tuesday, the mean was 77.0°, and 15.5° above the average, whereas it fell to 57.1° on Thursday, and showed a deficiency of 4.8°. The mean degree of humidity of the air was 71, complete saturation being represented by 100; the air was, therefore, dry. The general direction of the wind was W.S.W., and the horizontal movement of the air averaged 12.4 miles per hour, which was 2.3 above the average. Rain fell on three days of the week, to the aggregate amount of one inch. The duration of registered bright sunshine in the week was equal to 36 per cent. of its possible duration. The recorded amount of ozone showed an excess on Wednesday and Friday, whereas very little was registered on the other days of the week.

HEALTH OF FOREIGN CITIES.—The following facts, derived from a table in the Registrar-General's last weekly return, afford useful indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate, according to the most recently available weekly returns, averaged 27.7 per 1,000, and was equal to 18.1 in Calcutta, 30.2 in Bombay, and 35.0 in Madras. Small-pox caused 37 deaths in Madras; the fatal cases of cholera in Calcutta were 9, showing a further decline from the numbers in previous weeks. The rate in Alexandria was equal to 43.3, but no marked zymotic fatality was noted. According to the most recent weekly returns, the annual death-rate in sixteen European cities averaged 31.2 per 1,000 of their aggregate population, showing the usual large excess upon the average annual rate in twenty of the largest English towns, which during last week did not exceed 20.5. The rate in St. Petersburg showed a further decline from the excessive rates in recent weeks, but was equal to 55.5; the fatal cases of typhus and typhoid fever, which had been 133 in the two previous weeks, declined to 104 in the week ending June 25th. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 24.8; the rate in Copenhagen was, however, equal to 26.2, and included four fatal cases of scarlet fever. The Paris death-rate was equal to 29.6, and showed a further increase upon the rates in the two previous weeks; the deaths included 38 from typhoid fever, 38 from diphtheria and croup, and 27 from small-pox. The death-rate in Brussels did not exceed 22.3, although four fatal cases of enteric fever were recorded. The rate in Geneva was 22.8. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates averaged only 19.4, and ranged from 16.3 in the Hague to 21.8 in Amsterdam. The Registrar-General's table includes seven German and Austrian cities, in which the death-rate averaged 29.4; the lowest rates in these towns were 23.1 in Hamburg and 26.2 in Dresden, and the highest 30.6 and 36.8 in Berlin and Buda-Pesth respectively. Small-pox caused 13 deaths in Vienna, and typhus 8 in Buda-Pesth, and 7 in Hamburg. Only two Italian cities contributed to the table under notice, the death-rate being equal to 28.0 in Rome and 40.7 in Naples! enteric fever caused four deaths in Rome, and the high death-rate in Naples was partly due to the fatality of measles and enteric fever. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 21.9, and ranged from 16.6 in Philadelphia, to 27.5 in New York. Small-pox caused 23 deaths in New York and 20 in Philadelphia; and diphtheria showed fatal prevalence in New York and Brooklyn.

RICHARDSON ON THE MICROMETRIC METHOD IN THE DIAGNOSIS OF BLOOD STAINS.—Dr. J. G. Richardson (*Gaillard's Medical Journal*), gives the following as the results of his latest studies and researches. 1. In unaltered blood stains, as ordinarily produced by the sprinkling of drops of blood upon clothing, leather, wood, metal, etc., we can, by tinting with aniline or iodine, distinguish human blood corpuscles from those of the ox, pig, horse, sheep, and goat, wherever the question is narrowed down by the circumstances of the case to these limits. 2. By the method I have devised, we can measure the size of the corpuscles, and apply the two corroborative tests of tincture of guaiacum with ozonised ether, and of spectrum-analysis to a single particle of blood-clot weighing less than one fifteen-thousandth part of a grain, a quantity barely visible to the naked eye. 3. Hence, when an ignorant criminal attempts to explain suspicious blood spots upon his clothing, weapons, etc., by attributing them to the ox, pig, sheep, or goat, or to any of the birds used for food, we can, under favourable circumstances, absolutely disprove his false statement, and materially aid the cause of justice by breaking down his lying defence, even if twenty years have elapsed. 4. But, if the accused person ascribes the tell-tale blood to a dog, an elephant, a capybara, or any other animal in Dr. Woodward's list, it is useless to attempt to dispute his story on microscopical evidence as to the size of the blood-corpuscles. 5. In cases of innocent persons wrongfully accused of murder, and really stained with the blood of an ox, pig, or sheep, testimony of experts founded upon measurement of the corpuscles would be valuable, but less conclusive—because, under certain circumstances, human blood-corpuscles may shrink to the size of those of the ox; whilst, under no known conditions do ox or pig corpuscles expand to the magnitude of those in human blood. 6. In order to do away with ingenious objections of lawyers, that the murdered person may have been affected with some disease which altered the size of his blood-discs; or that the articles of clothing, etc., upon which the stains were deposited had produced (chemically, or otherwise) some similar change in their magnitudes, it is very important to obtain promptly stains from the fresh blood of the victim, made in the presence of witnesses, upon portions of the prisoner's clothing or weapons, analogous to those upon which suspicious red spots are found when he is arrested. When this cannot be done, spots of the murdered person's blood sprinkled on white paper, and fragments of his lungs and kidneys should be carefully preserved—the former by rapid drying, and the latter by preservation in diluted alcohol. These little precautions, which may in any instance prove to be of infinite importance, should be earnestly impressed upon coroners, district attorneys, and policemen, throughout the civilised world.

BEQUESTS AND DONATIONS.—Mr. Charles Richard Cockerell, of Mortimore Road, St. John's Wood, bequeathed £1,000 each to the London Hospital, St. George's Hospital, and Seamen's Hospital Society; £500 each to the North London or University College Hospital, the Middlesex Hospital, St. Mary's Hospital, the Charing Cross Hospital, King's College Hospital, King's College Hospital Convalescent Home, and the Lock Hospital and Asylum; and £200 each to the Hospital for Women, the Hospital for Sick Children, the Hospital for Diseases of the Nervous System, Epilepsy, and Paralysis; St. John's Hospital, the Central London Ophthalmic Hospital, the Great Northern Hospital, the British Home for Incurables, and the Cancer Hospital.—Mr. G. B. Henderson has given £300 to the Cancer Hospital.—Mr. Spencer Chadwick has given £105 to the building fund of the new St. Peter's Hospital, now in course of erection.—"B. B." has given £100 to the proposed Scarlet Fever Convalescent Home, *in memoriam*.—Sir Walter Farquhar, Bart., has given £100, additional, to the Victoria Hospital for Children.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M. Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club, 8 P.M. Annual General Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

PROFESSIONAL PROSECUTION FOR MALPRACTICE: AN APPEAL.

SIR,—I trust you will allow me to make an appeal in your paper to the profession, on behalf of Dr. Stainthorpe of Wareham, who has lately been subjected to a vexatious prosecution. The following are the facts as given in evidence, and copied from a local paper.

The case was tried in the county court held at Wimborne [illegible] Mr. Serjeant Tindal Atkinson, the county court judge, and two assessors, Mr. C. H. Watts, Parkinson and Mr. W. Wyke-Smith, surgeon, of Wimborne, appointed by the judge with the consent of the two local gentlemen engaged in the case. Mr. Howard, of Wareham, for the prosecution, and Mr. G. Symonds [illegible] for the defence. The plaintiff, Jesse Sculpher, a merchant sailor, of Ward-on, claimed £200 damages against the defendant, Dr. Stainthorpe, for the unskilful treatment he had broken the left [illegible] on the 7th of June, [illegible]. The trial commenced on the 5th of March in the [illegible] and was concluded on the 1st, the judgment being delivered on the 2nd of April.

After the plaintiff had given his evidence, to which he stated he could walk a mile or two, and in fact was examined to that extent, he did not tell the Reverend Mr. Stokes (of Wareham) at the time that he was [illegible] but he did not tell him so, he did not tell him that he could not. Dr. [illegible] of Poole, was called, and stated that the fractured limb was two, or two and a half, inches shorter than the other. The fracture was an oblique one. He would not say the splints used were improper; but he had not seen such splints used before for an oblique fracture. It was more than possible that if a [illegible] had been used, the shortening would not have taken place. Mr. Nunn, surgeon, of Bournemouth, deposed that he found the limb which had been fractured two inches shorter than the other. To his mind, nothing had been stated to show that extension had been used. In his opinion [illegible] said: "Shortening of limb after fracture was the exception, and not the rule, so far as his experience of fifteen years taught him. It should be the exception, and was so. He had set a great many thighs, and had never had a case of shortening of the limb. If skilfully treated, it would be impossible for a limb to shorten through a simple fracture, like the one in the present case". Mr. Tudor, surgeon, of Dorchester, said he agreed with the last two witnesses as to the splints not being properly adapted for counterextension. He considered that, in the present case, the obliquity of the fracture rendered extension peculiarly necessary. Dr. Alveridge stated that the case in question was one in which he should most certainly have used the principles of extension. Mr. Woodruffe Daniel, surgeon, of Wareham, said that, living in the same town as defendant, he would rather say nothing about the treatment. Dr. Jumeaux, of Swanage, said he agreed with Mr. Nunn as to shortening of the limb being the exception, and not the rule.

For the defendant, Professor Longmore, of Netley Hospital, stated that the fractured limb was shortened over two inches, and under two and a quarter inches, which was above the average. With the exception of the shortening, the limb was in its normal position, and there was nothing to show any unskilful treatment. He did not believe that, whatever the mode of treatment was, there would be an uniting of the bone without more or less shortening, but he had seen cases of greater shortening than the present. He would say the man had an excellent limb. Mr. Emson, of Dorchester, and surgeon to the County Hospital, said the plaintiff walked remarkably well, and he did not think there had been any unskilful treatment. Dr. Leech, of Sturminster Newton, said the plaintiff walked in an easy and quick manner, and he could see nothing to complain of in the treatment the man had received. Mr. Lys, surgeon, of Bere Regis, was surprised to see the plaintiff walk so well after what he had heard; and he did not consider there had been any unskilful treatment.

The judge, on delivering his decision, read the report of the assessors at length, in which they exonerated the defendant from the charge of negligence and unskilful treatment; he stated he found no reason to differ from them in the conclusions at which they arrived, and that the evidence failed to satisfy him that the treatment had been negligently performed. The verdict was, therefore, for the defendant, with costs.

I may be allowed to mention that I am not acquainted with Dr. Stainthorpe in the slightest degree, and that I make this appeal on his behalf purely out of sympathy for him. I have reason to know that, in consequence of the plaintiff being a poor man, the trial has been the cause of considerable loss and anxiety, as well as expense, to the defendant. I venture to hope that the profession will come forward and help him with pecuniary support, which will carry with it the moral sympathy which is so precious and gratifying to us all when in trouble and anxiety. Subscriptions will be thankfully received by me, and acknowledged in the medical papers.—I am, sir, your obedient servant,

G. W. DANIELL.

St. Leonard's, Blandford, July 9th, 1881.

P.S.—The defendant, in his evidence, said that, finding there was no shortening, he put on a long splint on the outside, and a short one on the inside. The fact of his not using the long Liston's splint, with the perineal bandage, appears to be the cause of the action being brought against him.

A CONSTANT SUBSCRIBER.—*Medical Education and Practice in all Parts of the World.* By H. J. Hardwicke, M.D. London: J. and A. Churchill. Price 10 shillings.

CLEVELAND MEDICAL COLLEGE.

SIR,—The enclosed cutting has just been taken from a letter received by me from Kent, England. The letter was one of three, relating to the same subject, received by to-day's mail, from various parts of England—one from Derby, another from Birmingham. All three of the writers are labouring under the impression that there is an appointed agent of the "Cleveland Medical College" in London, authorised by the College to grant diplomas to medical men after an examination by two London physicians or surgeons. We have received other such letters; and no doubt many more will be received. You will greatly oblige our Faculty by giving publicity to the following statement. There is not now, nor has there ever been, any such authorised agent in London or elsewhere. No man can obtain the degree of M.D. of "Cleveland Medical College" without having complied with the requirements for graduation, and passed a satisfactory examination before the Faculty. Anyone professing to be an authorised agent of our College anywhere in Europe is an impostor.—Yours faithfully,

HUNTER H. POWELL, M.D.,
Cleveland, O., June 21st, 1881. Secretary of Faculty.

*** The cutting referred to is the subjoined, which appeared in the BRITISH MEDICAL JOURNAL of June 4th.

"AMERICAN DIPLOMAS.—INQUIRER asks: Does a diploma granted by the Cleveland Medical College, United States, after an examination by two medical men in London, enable a man legally to practise as doctor of medicine in this country? *** Certainly not; it being assumed that the person referred to has no British diploma."

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following were the questions in Anatomy and Physiology submitted to the candidates at the primary examination for the membership, held on the 1st instant. Candidates were required to answer four (but not more) of the six questions. *Anatomy.* 1. Describe the Ilium. 2. Describe the articulations of the dorsal vertebræ one with another, and also their articulations with the ribs. 3. Describe the course and relations of the ulnar artery, and its branches. 4. Describe the right auricle of the heart. 5. Give the dissection by which you would expose the whole of the anterior surface of the adductor magnus muscle. 6. Describe the brachial plexus of nerves, and its branches, so far as they lie within the abdomen.—*Physiology.* 1. Describe the distribution of the blood-vessels to the kidney. Under what physiological conditions does the blood pressure in the renal arteries vary. What effect have such variations on the secretion of urine? 2. How is the act of mastication performed? What nerves and nerve-centres are engaged in its performance? Give an account of the innervation of the heart. 4 What is the composition of the blood? How are the corpuscles renewed? 5. Describe the structure and uses of the pleura. How are the visceral and parietal layers kept in apposition? 6. Explain what is meant by sound vibrations, and describe the manner in which they are transmitted to the auditory nerve.

The following were the questions in Anatomy and Physiology, and Surgery and Pathology, submitted to the candidates at the written examination on the 9th June, when they were required to answer at least one of the two questions. *Anatomy and Physiology.*—1. Describe the course and distribution of the Arteries and Nerves which supply the Teeth. 2. What are the changes which the Food undergoes in the Mouth and Stomach? *Surgery and Pathology.*—1. Describe the causes, symptoms, and appropriate treatment of Ununited Fracture of the Lower Jaw. 2. What is meant by "Abscess of the Antrum"? How does it differ from common abscess, such as occurs in the cellular tissue? Give its symptoms, and the treatment which is generally adopted.

The following were the questions on Dental Anatomy and Physiology, and Dental Surgery, when the candidates were required to answer at least two out of the three questions. *Dental Anatomy and Physiology.*—1. Describe the Crowns of the following Permanent Teeth, viz.: upper central incisors, lower bicuspids, first molars, upper and lower; make special mention of those peculiarities of form which predispose to Caries. 2. Give a general account of the Dentition of Snakes: explain the mechanism by which they are enabled to swallow large objects: describe the special contrivances found in the Teeth of Poisonous Species. 3. Describe specimens 1 and 2 under the microscope; and state the manner of formation of the structures under observation. *Dental Surgery and Pathology.*—1. What are contour fillings? What is the rationale of their employment? Describe the relation of two contiguous teeth to each other, in a perfectly normal arch, pointing out the methods by which overcrowding of teeth tends to their destruction. 2. Explain the nature of Dentigerous Cysts; give their symptoms, diagnosis, and treatment. 3. Describe the operation of pivoting a recently fractured tooth. Mention the difficulties and complications ordinarily encountered.

MEDICAL QUALIFICATIONS.

SIR,—The letter of "Surgeon," in your issue of the 9th instant, touches on many points which are not, I think, of much practical import, and gives many out of the way peas for retaining old system. What we most want is simple enough, but it is not elucidated by his letter. We want a State minimum qualification, which must be such that the possessor of it shall not be dangerous to the public. And, as a corollary of this, we want an efficient law to prevent those who do not possess it from practising, and deceiving the public.

The other qualifications should be honorary, and might be left much as they are, and anyone would be free to take them; but they should be supervised by Government, and clear authoritative statements of their meaning and value should be accessible to the public; thus some should denote higher knowledge of surgery, others higher knowledge in medicine, and others higher knowledge of both, and of subjects [illegible] education.

The public at present do not and cannot distinguish the first from the nineteenth British qualification; all are medical men, and each is supposed to know all about everything, and to be incapable of doing harm. Then there is no clear line of demarcation between the possessor of the nineteenth qualification and the possessor of none, or the man who puts "Surgeon Dentist" after his name, and is trusted as being a member of the medical as well as of the dental profession.

All these evils would be removed at one sweep by a State qualification, and an efficient law to guard it: and, for the rest, men may form their own opinions as to [illegible] would or would not, at the end of a long life, have a more enlightened idea of his profession and its influences, or have more chance of justly appreciating causes and effects, and so of enriching it by discovery, than a man who started with only the three R.'s, and his professional knowledge. If they prefer to fight the battle for medical progress and discovery without these aids, that is their business; the State has only to see that the public do not suffer for their opinions. At present, I believe that the hope of getting the nineteenth qualification fosters idleness and slovenliness, and that such qualification is not sufficiently broad to provide for public safety, or for the professional self-respect of the candidates; and thus the "status medicus" is lowered for all of us, by the admission of these men to equal rights and privileges, [illegible] in the eyes of laymen.

Whether we are likely to get what we want is another matter; vested interests are powerful, and the public in general are too ignorant about medical affairs to bring any [illegible] I think we should all be aware to keep the matter prominently before [illegible] I am, sir, your obedient servant,

PHYSICIAN.

SHEFFIELD.—We are in doubt as to the advisability of making any [illegible] the Society under such circumstances. If payment is desired from the Society, authority should be obtained beforehand.

[illegible]

SIR,—Is there any reference to [illegible] the employment of the so-called Hair Restorers? What treatment is [illegible] the cause of any [illegible] why sufferers from [illegible] the right direction, with at times great depression of spirits in the morning, but is in every other respect perfectly strong and healthy? [illegible] the culture of hair?—Yours faithfully,

L.R.C.S.&P.E.

EXTRACTION OF CATARACT.

SIR,—I find information desired upon the following points omitted in my paper of July 9th. Perhaps you will kindly insert this letter.

Form of Dressing after Extraction.—We use a circular piece of coarse cambric on the closed eyelids; on that, pulled cotton wool sufficient to ensure firm equable pressure in the application of the bandage, which is shaped and made of thin flannel cut on the cross. No [illegible] precautions are taken except [illegible] circumstances.

Chloroform.—We do not give an [illegible] as a matter of routine, but only in those cases which we think require it.

Anæsthesia.—We use anæsthetics very rarely, four times only in my list of seventy-seven cases; but when obliged to do so we invariably prefer chloroform.

Length of Stay in Hospital.—An uncomplicated case is fit to leave at the end of fourteen days.—I am, etc.,

P. H. MULES, Surgeon to the Manchester Royal Eye Hospital.

MASKS FOR FACIAL DEFORMITIES.

SIR,—Will anyone kindly say whether there are such things as masks made to hide the hideous ravages of chronic skin-diseases of the face where the nose has been partly eaten away? and, if so, where such masks can be procured?—I am, etc.,

NOLI ME TANGERE.

*** Masks are made for persons who have lost the nose by disease. It is necessary that the maker should take the measurements of the face of the patient. We believe Mr. Hawksley, 300, Oxford Street, W., will undertake to prepare such a mask.

JENNER AND JESTY.

SIR,—Your correspondent will find much interesting information respecting Jesty, whose descendants are still in this county, in Trousseau's Lecture on Vaccination in the first volume of his *Clinique Medicale*.—Your obedient servant.

W. VAWDREY L. SH. M.D.

Weymouth, Dorset, July 5th, 1881.

DELTA.—Probably the best remedy for profuse night-sweating is [illegible], the alkaloid of cocculus indicus. The dose is one-sixtieth of a grain, and it should be made into small pills, one to be taken at bedtime, and another in the early morning. A full account of [illegible] and its properties will be found in the BRITISH MEDICAL JOURNAL, January 17th, 1880.

G. K.—1. To issue an advertisement, stating that the advertiser will be at a certain hotel on given days, and that he charges so much for consulting and visiting fees, is not consistent with medical ethics in such a case as that referred to. The town which is professed to be visited has a population of about 6,000, and is, according to the *Medical Directory*, provided with five medical men. In widely scattered places, without other practitioners, such an announcement might be excusable; but even here common report would generally do all that was necessary. 2. If there be no special agreement that the master is bound to provide medical attendance for the servant, G. K. would not do wrong in attending the latter at his request; but the master would not be liable for payment. If, on the other hand, such a special agreement exist, he should consult with the master and the ordinary medical attendant before undertaking the case. 3. The newly arrived medical man should follow, with respect to the older members of the profession, the same rule as obtains in the case of other older residents.

RETURN OF LOST SENSE OF SMELL.

SIR,—During the summer of 1871, I met with a somewhat severe accident, rendering me insensible for about twenty-four hours. On recovering consciousness, I had double vision, total loss of sense of smell, and partially of that of taste. Before leaving the hospital (St. Mary's, at which I was then a student, and to which I was carried on the occurrence of the accident), double vision had disappeared; but the loss of sense of smell remained until January in this year, 1881, when I was thrown in the hunting-field, my horse coming down with me. I fell on my left shoulder and left side of head in a turnip field; and though very much shaken was by no means insensible. Since this last occurrence, my sense of smell has gradually returned; and at the present time it is normal. Although I had entered on my professional studies, the accident in 1871 debarred me from qualifying. I am not able to define the cause of return of the sense of smell. Will any kind reader do so, and state whether my case is unique?—Yours faithfully,

A. I.

THE [illegible] OF THE FINGER.

SIR,—I fancy I have recently noticed in one of the medical papers the remark that "we have yet to learn the results of bicycling on various parts of the body". I have under my care at the present time a young gentleman suffering from severe [illegible]. I am firmly of opinion that this has been caused—or, at all events, greatly aggravated—by the [illegible]. I [illegible] members have had similar cases from the same cause.—Yours faithfully

W. J. [illegible]

[illegible], March [illegible].

DR. ROUÉ'S manuscript shall have early publication.

OCTOGENARIAN, SURGEON, AND POET.

PROFESSOR RICORD, now in his eighty-first year, has been [illegible] which gave reason for alarm, from which, however, he is rapidly recovering, and is, indeed, now convalescent. The *Figaro* published recently a long and flattering biographical sketch of M. Ricord, by a contributor who signs himself "Janus". The vigorous veteran addresses to the *Figaro* the following quatrain in thanks to the article of "Janus".

"[illegible]

[illegible]

[illegible]

[illegible]"

PAPOOSES IN [illegible]

SIR,—In the [illegible] of the [illegible] of Medicine, a case of poisoning from [illegible] fatal, a case of poisoning, from using a [illegible] unfortunately, is not unique. When I was a resident in the Royal Edinburgh Infirmary, a similar case occurred. The patient was a young woman suffering from tubercular meningitis, who had been under my care [illegible] I [illegible] by the [illegible] in young children, blisters should [illegible] the patients' control, which can be readily done by painting the part with blistering [illegible] I am, [illegible]

[illegible] W. M. [illegible] M.D. [illegible]

[illegible] Vera Street, [illegible]

PRISON MEDICAL OFFICERS AND PRISON DISCIPLINE.

In a paragraph "Prison Medical Officers and Prison Discipline" in the Lancet of July 9th, I read that "a prison surgeon has been suggested that [illegible] by prison discipline, the surgeon [illegible] three days' diet or solitary confinement, although [illegible] to prescribe the treatment he thinks most conducive to health, but only to interfere when he finds health is likely to be seriously affected [illegible] Parliament to the propriety of [illegible] the prison surgeon [illegible] duty. Such a proposal would [illegible] for the prison surgeon to [illegible] discipline [illegible] would be [illegible] prisoner [illegible] vast majority of cases which die in hospital of natural deaths, the surgeon's testimony [illegible] only testimony of [illegible] would thus be excluded.

Another reason why such a slur should not be cast on prison surgeons is, that there is no need for it. The prison death-rate is the lowest of any community in England, and (although I say it myself) reflects the highest credit on all concerned, from the authorities who are most liberal in granting all medical requisitions to the nurses who carry out the medical officers' directions. My own experience, and I have heard the same opinion expressed by a coroner, is, that many lives have been prolonged under prison treatment, which, out of prison, would have succumbed to neglect, exposure, or excess; or, in other words, the expectation of life for the criminal classes is greater in prison than out.

Instead, therefore, of there being any necessity to challenge the competency and trustworthiness of prison surgeons, it seems to me that it would be advisable to endeavour to follow their practice outside prison, and see if it be not possible to secure the same favourable sanitary results amongst the population at large; for there must be a fault somewhere, that a community collected from the dregs of society, with constitutions enfeebled by vice of every kind, should hold such an exemplary position in sanitary statistics, as convicts do when compared with the free population of England.—I am, sir, your obedient servant,

A PRISON SURGEON.

NASAL CATARRH.

SIR,—If your correspondent examine the nostrils of his patient narrowly, he will, perhaps, find the mucous membrane redder than usual, and covered more or less with silvery scales of epithelium. The affection may, however, be confined to parts not open to inspection; but from observations in those which included the lower part, I have come to regard such cases of nasal catarrh as a form of psoriasis identical in nature and origin with psoriasis of the skin, and to be dealt with on the same principles. Treatment, to be effectual, must of course be constitutional in the first place; and in many cases I have found that enough; but, as a local application, the nasal douche or sniffing-bath has been of benefit, beginning tepid, and with a pinch of common salt added to the water, and in time using cold water without addition of any kind. It is, however, through the digestive organs more particularly that good can be done, there being an intimate sympathy between these and the nose, as is demonstrated on the face of many a toper. Careful dieting, with a minimum of flesh meat, frequent perspirations with the Turkish lamp-bath or wet sheet pack, the nightly use of a wet bandage, and a fair amount of exercise in the open air, are indicated.—I am, etc.,

W. B. H.

SIR,—In reply to the question of your correspondent "Sneeze" in the JOURNAL of Saturday, the 2nd instant, allow me to suggest a remedy, or rather remedies, local and general, for his case of "summer catarrh" affecting the nasal passages. It is a frequent disorder just now, and is, I believe, induced by the common causes of catarrh in general.

The passages in question should be thoroughly cleared out, and well washed twice or three times in the day with a weak solution of salicylic acid or chloride of zinc (10 grains to the imperial pint of water). Either lotion can be supplied by means of the "siphon", or snuffed up the nostrils. Redistilled oil of turpentine is the internal remedy, diluted with nine parts of alcohol; of this solution, five to ten minims in half a wineglassful of water must be taken every four hours. Spruce beer is a useful adjunct, and the patient might be directed to take a wineglassful three times a day, as a substitute for the ordinary malt liquor.

A propos of your own "editorial" remarks on the treatment of "hay asthma", let me say that the treatment indicated above has been the most efficient and successful I have ever made trial of in this most distressing disease.—Faithfully yours,

WM. PROWSE.

Cambridge, July 4th, 1881.

AN ANÆSTHETIC CAR.

SIR,—Last summer I was in Paris, and had an opportunity of seeing Paul Bert's anæsthetic car at work. I was at the St. Louis Hospital one morning; the car was there, and some operations were to be done in it. We—the patient, doctor, and his students—went into the car; the door, air-tight, was closed, and air forced into the car; in a few minutes my ears began to feel strange, and I was told to swallow, yawn, and blow my nose, which I did every few minutes, and so made the pressure equal on both sides of the drums of my ears. The patient laid himself down on the operating-table, and the anæsthetic agent was given him. He took it very quietly, did not struggle, and was soon insensible. Whilst he was unconscious, an epithelioma was removed from his lower lip; after the wound was sewn up, the compressed air was allowed to escape; the patient got up from the table, walked out of the car, and lay down on the grass; he complained of no headache nor nausea, but said he felt just as usual. We also were glad to escape from the car, on account of the heat, which was very intense. During the operation, all the assistants and the surgeon pulled off their coats and waistcoats, and yet they perspired very freely. The car is on wheels, and is carried about from hospital to hospital; the hospitals being under Government, the car is a public one, and is taken all over Paris.—Yours truly,

T. R. ALLINSON, L.R.C.P.Ed.

2, Kingsland Road, E., June 27th, 1881.

FAMA PER URBEM.

THE following appeared in the *Limerick Reporter* for July 7th. "An operation for calculus was this day successfully performed on a patient in Barrington's Hospital by Dr. De Landre, assisted by Dr. Thomas Kane, J.P., Dr. Myles, and Dr. Holmes, resident. The instrument used was quite a new one by Weiss and Co., of London."

CAT LYMPH.

[illegible] Mr. W. [illegible] Bond Street. [illegible] during the [illegible] cessful.—Faithfully yours,

J. S. GRUBB.

Waterloo, Crewe, July 4th, 1881.

SIR, I have [illegible] supplied by the Association at [illegible] W.C. [illegible] lymph obtained from various [illegible] National Vaccine Establishment [illegible] for the [illegible] from my method of operating, and not the vaccine. I think most other medical men will arrive at the same conclusion after a little time.—I am, sir, your obedient [illegible].

E. P. A[illegible].

Ealing, June 27th, 1881.

UNQUALIFIED PERSONS.—The question is a legal one, and must be submitted to legal opinion.

VACCINATION.

THE *Daily News* [illegible] of Commons [illegible] vaccination [illegible] two [illegible] Dr. Hunter being [illegible] procured from the human arm, the hon. member will shortly have available a living calf, for which a stall will be found in a densely populated neighbourhood of the city, and where persons seeking vaccination may see the lymph taken direct from the calf".

A. W. O.—In the treatment of hay-fever, the injections of quinine do not, we believe, need to be made [illegible] three or four times a day.

LABOUR WITH UNRUPTURED HYMEN.

SIR,—In the JOURNAL of the 25th ult., Dr. Hickinbotham reported two cases of labour at term in which the hymen was unruptured; and as these cases are not common, I should like to mention a similar one which came under my observation a few weeks ago. My patient was a primipara, aged 25, thin, delicate, and generally depressed in spirits, suffering occasionally from semi-hysterical attacks. When I was summoned, labour had reached the commencement of the second stage, and the presentation was with some little difficulty ascertained, the whole of the vaginal orifice being occluded by the hymen, except at the anterior portion. Here there was an aperture of not sufficient size to admit the tip of the little finger, the rest of the membrane being more unyielding. After dividing the hymen, labour proceeded naturally.—I am, etc.,

WALTER ROGER, M.D.

Croydon, July 5th, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Thin, London; Mr. J. E. Ingpen, London; Dr. P. H. Mules, Manchester; Mr. G. F. Hodgson, Brighton; Dr. E. Drummond, Homburg; Mr. S. Bennett, London; Dr. J. E. Bullock, Tunbridge Wells; Dr. J. Goodhart, London; Mr. G. Eastes, London; Mr. A. H. Martin, Newcastle-on-Tyne; Dr. E. Rickards, Birmingham; Dr. A. Wallace, Parsonstown; Mr. E. Stephens, Ilminster; Mr. W. F. Teevan, London; Dr. A. Ogston, Aberdeen; Mr. Dolan, Halifax; Delta; Mr. G. W. Daniell, Blandford; Our Edinburgh Correspondent; Physician; Mr. C. R. Illingworth, Accrington; Mr. W. A. Smith, Clifton; Mr. E. White Wallis, London; Mr. F. W. Lowndes, Liverpool; Mr. Francis Vacher, Birkenhead; Dr. A. Duke, Dublin; Mr. T. Holmes, London; Mr. W. Stevenson, London; Mr. Hensman, London; Mr. J. W. Moore, Birmingham; Mr. G. Brown, London; Mr. J. Wickham Barnes, London; A Governor; A. W. O.; Dr. Howard Murphy, Twickenham; Mr. Clover, London; Mr. G. Barling, Birmingham; Mr. W. Whitehead, Manchester; Mr. W. Martindale, London; Mr. H. J. Davis, Brighton; etc.

BOOKS, ETC., RECEIVED.

Die Krankheiten der Frauen. Aerzten und Studirenden geschildert. Von Dr. Heinrich Fritsch. Mit 159 Abbildungen in Holzschnitt. Braunschweig: F. Wreden. London: Williams and Norgate. 1881.

Nature Parasitaire des Accidents de l'Impaludisme: Description d'un Nouveau Parasite trouvé dans le Sang des Malades atteints de Fièvre palustre. Par A. Laveran. Paris: J. B. Baillière et Fils. 1881.

Le Sommeil et l'Insomnie. Par le Docteur Angel Marvaud. Paris: J. B. Baillière et Fils. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0	3	6
Each additional line	0	0	4
A whole column	1	15	0
A page	5	0	0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office, High Holborn. Small amount may be sent in postage stamps.

NOTES OF FOUR CASES OF ACUTE ANTERIOR POLIOMYELITIS.*

By W. WITHERS MOORE, M.D., F.R.C.P.,
President of the South-Eastern Branch of the British Medical Association.

CASE I.—On the 25th September, 1879, Mr. Kempe (Shoreham) was sent for to a gentleman, whom he found suffering from pains in the back, with constant desire to pass urine, a very little passing at a time; the pains extended to the buttocks, over the hips, and down to the testicles, the right one especially. The urine, though clear, contained a copious deposit of red sand. Potash, opium, and rest in bed, were ordered, and were followed by marked relief of the pain; but the uric acid deposit continued for some time.

On the 26th, he was up, but loss of power in the legs had begun to be manifest.

On the 29th, paralysis was now complete in both legs. There was no pain. The urine was still charged with uric acid, and had to be drawn off with a catheter.

October 30th. The catheter had been used for about three weeks, but was now no longer needed. He had complete power over the sphincter ani. The urine was clear, and free from deposit. The interrupted current was now applied. There was no reflex action in the right leg, and very little in the left. Iodide of potassium and nux vomica were given internally.

On November 18th, 1879, I saw the patient for the first time—a short, stout, healthy-looking man, about forty-eight years of age. He had enjoyed good health until about two years ago, when he was treated for "weak circulation". During the last twelve months, he had suffered from pain in the back, and aching pains down the back of his thighs, which he attributed to standing about on wet ground. He had been a total abstainer for the last three years or more. There was a history of slight specific affection twenty years ago, which had not been followed by any secondary affection, save a slight thickening of the tongue.

Present State.—His general health was good. The bodily functions were regular. There was no paralysis of the bladder or of the sphincter ani; but he was unable to turn in bed without his legs and body being moved for him. Sensation was perfect in both legs, but reflex excitability was entirely gone. The right leg was wholly powerless; there was the slightest possible movement in the left one, but he could not raise it or shift its position. The interrupted current, although keenly felt, produced no contraction of the muscles, but they were not wasted, nor had he any pain now in the legs. There was no tenderness on percussion down the spine, nor did the hot sponge produce any special localised effect.

On March 8th, 1880, Mr. Kempe kindly furnished me with the subjoined report of the patient's state at that time. There was not much improvement up to the end of the year 1879, although he became able to move himself in bed. He would not use the constant current (which I had suggested to be used in addition to pushing the dose of iodide of potassium) any longer, but would try the interrupted current again, since which time he had improved much. He could now, when sitting up, drag his left leg up quickly when stretched out, and could extend it by working it on his toes, but could not lift it off the ground. The muscles contracted on the application of electricity, plainly in the left lower limb, but not much in the right, except the thigh. He could not move the right leg as a whole, but could move the muscles on the inside of the thigh at will. The muscles of the left leg were very slightly wasted. The right leg pitted on pressure. Sensation was acute. He had very great sexual desire, and nocturnal emissions about once a week. Since he had been under treatment for this illness, his tongue had become right—the first time for twenty years. He could raise himself in his chair sufficiently to alter his position when he wished, and could turn in his bed without assistance, with the help of a rope hung from the top of the bed. He did not smoke tobacco. The left arm, which had been weak, was now quite strong again. He was still taking the iodide of potassium.

On August 20th, Mr. Kemp wrote me: "The patient is much better. When he is in bed, he can draw up his left leg a little way, and put it down again, but cannot move the right leg much. He gets on crutches, and moves about by making a circular sweep with his left leg to bring it forward, and hitching his right leg forward by a jerk from the hip. Health very good."

CASE II.—On March 11th, 1880, I saw, in consultation with Mr. Salzmann, G. N., aged six months, the daughter of respectable parents. The family history showed a remarkable tendency to neuropathic disorders. The grandparents on the male side were cousins. Three or four of her uncles and aunts squinted, and several of her cousins. An uncle had infantile paralysis at one and a half years of age; and although he had recovered sufficiently well to walk without any assistance, the affected leg was still greatly wasted, and shorter than its fellow. A cousin died at two years, paralysed on one side; and another, a short time since, from cerebral disease.

The mother of G. N., while pregnant with her, had a severe mental shock, but the labour was rapid, and occurred at the full time. The infant was apparently well-nourished and healthy, save that the breathing from the first was markedly diaphragmatic; she had no special ailment until within two days of her death. She, however, never cried out, as other infants do, but gave a feeble wail; the power of sucking, too, was impaired. She never once was sick. Micturition and defæcation occurred at ordinary intervals. Sensation was perfect, so far as could be ascertained. She never "kicked about", but she moved her limbs a little occasionally, stretching them out. When I saw her, she was lying quietly in her mother's lap; the countenance was placid, and free from all appearance of discomfort. The body was well nourished; the limbs rounded, but flaccid, devoid of all tonicity, and if moved they followed the law of gravity. All the voluntary muscles of the body seemed paralysed, save those of the head and jaw. Respiration was carried on entirely by the diaphragm, which, on descending, drew the chest-walls downwards and inwards from lack of the countervailing force of the intercostals, the abdominal muscles paralysed. Expiration must have been effected by the elastic recoil of the lungs and diaphragm. Little could be attempted in the way of cure. The continuous current and a ferruginous tonic were ordered; and I ventured to predict that, if the little one caught a cold, death would soon supervene, as it could not cough, and already its feeble breathing was only just sufficient for Nature's wants. Three days after I saw the child, it caught its first and last cold. The dyspnœa was great, and much aggravated by inability to cough; and in two days death ended these symptoms.

CASE III.—F. W., aged 29, a Swiss cook, was readmitted into the hospital on July 7th, 1880, having left it after a few days' stay on June 9th. He remained for two weeks at business, but had all the time what he described as rheumatic pains, both in legs and arms. A week before his readmission, being unable to walk, he took to his bed, and remained there until he came to the hospital. This last change was sudden, and especially marked by pains in his back and limbs; there was also slight epistaxis for several nights, and some occasional sickness; but he had not lost much flesh. He owned to having drank a good deal, but did not give a reliable account of his previous state of health.

On admission, he was spare; his countenance was pale and anxious; his limbs tremulous; and he lay in bed in a weak, helpless condition. The skin was warm and moist. Evening temperature, 100.6°. The tongue was clean and moist; the bowels regular, and the sphincter ani competent. There was occasional involuntary micturition. The urine was of specific gravity 1020, alkaline, no albumen nor sugar. The voice was whispering. Deglutition was somewhat impaired. He was unable to walk, and scarcely able to turn in bed; he could, however, lift each leg from the bed; not so his arms, which he only wriggled along the bed, and if either were raised for him, it trembled and fell down. There was no marked wasting. Reflex excitability was exaggerated, tickling the soles of the feet causing movements, not only in both legs, but also in both arms and the body generally. The muscles reacted slightly to faradisation. Sensibility seemed everywhere perfect. Respirations 28. The lungs were healthy. The heart's action was hurried. Pulse 124. The area of cardiac dulness was not increased. A soft-blowing systolic bruit was heard all over the cardiac region, loudest at the base and to the left. The abdomen was swollen. Hepatic dulness was somewhat [illegible]. There was no pain [illegible] in the hepatic region; no enlargement of the spleen. On both tibiæ there were numerous faded patches of purpura. I ordered bark and hydrochloric acid.

On the 12th, his voice was still whispering, and there was still some dysphagia. The tongue was clean and tremulous. The pupils were equal; no nystagmus. He slept well. Pulse 120. Temperature 99.6°. He had a little more power in his arms, but could make very feeble resistance with them: being left-handed, the left was the stronger of the two. He could not feed himself, but took spoon-food fairly. The

* Read at a meeting of the Brighton Medico-Chirurgical Society.

urine was still alkaline and ammoniacal, but was passed voluntarily. I ordered five grains of iodide of potassium in an ounce of decoction of cinchona three times a day.

July 28th. He was manifestly wasting, more especially the muscles of the chest (pectoralis), shoulders, and upper arms. He had passed a restless night, and was not nearly so well. The temperature last night was 104.6°. Although free from pain, he had vomited everything he had taken. The tongue was moist and red. He had some thirst. The bowels acted freely. The urine was of specific gravity 1019, slightly alkaline; no albumen. Respiration 26. Pulse 140, soft, compressible. The pupils were equal, and acted fairly. He moved the left arm better than the right, but had a difficulty in opening his fingers. I ordered fifteen minims of extract of ergot every four hours.

July 31st. His condition was somewhat improved. Evening temperature 99.8°, and pulse 142. This morning, pulse 130, feeble. The first sound of the heart was now only mutlled at the base. He could walk with assistance, and sit up for a short time each day. The muscular wasting of the chest and arms increased. No fibrillar contractions were shown on percussion.

August 18th. He was much improved as to general health; was out of bed, and able to walk with but slight assistance. The arms were much the same. The continuous current was ordered to be applied daily to the spine and wasted muscles. He was ordered liquor arsenicalis and liquor strychniæ, five minims of each three times a day.

August 26th. He had held his ground well; and walked without assistance. His gait was a little tottering from debility. The muscles of the legs had increased in bulk. The voice was husky, but no longer whispering. His spirits were good. The bodily functions were regular.

October. The man has improved in health, and can walk fairly well. By swinging the arm, *i.e.*, by bringing into play the serratus magnus, he can raise the limb to his head. The trapezius and deltoid muscles react well; the extensor muscles of the forearm slightly; the biceps, pectoralis, and flexors of the forearm not at all.

Case iv.—A. P. M., aged 15, the offspring of cousins, had fair health until he had scarlet fever some years ago. He had always had healthy habits, and his moral tone was high. He was fairly nourished, and latterly had been growing rapidly. Two or three weeks ago, he returned from a tour with his father in Scotland, where he had walked long distances and done some climbing. Being considered a little overdone, he had come to Brighton for his health. On the morning of Monday, the 9th September, 1878, he awoke with a slight headache, and thought he had slept too warmly clothed; he believed a bath would do him good, and had a swim in the sea. He felt ill immediately afterwards, but recovered sufficiently to eat some dinner. He lay on the sofa with headache, and complained of being chilly all the afternoon. Towards night, he became very feverish, and complained of pain low down in his side. He had a good night; and on Tuesday morning seemed almost as well as usual, eating and drinking well and walking out.

On the afternoon of the 12th, he had a drive for about an hour and a quarter, the weather being fresh and the wind north; but he was warmly clad, and said he did not feel the cold. Immediately on his return home, soon after 6 P.M., he complained of being very cold and chilly; nevertheless, he ate a good tea, and soon afterwards headache came on, followed by increase of temperature and restlessness. At 9 P.M., he fell asleep, but awoke before 1 A.M. complaining of intense pain in the loins and all round the lower part of the body. The pain increased, and was at times almost intolerable, causing him to writhe about, and it continued during Friday, the 13th. He was made to inhale a few drops of nitrite of amyl, which produced a short hysterical spasm; after which time the pain in the back was never so severe, but he complained very much more of his head. The pain in the head and back continued to alternate, the one being always worse when the other was better.

On Saturday, September 14th, I saw him for the first time. He had passed a restless night, owing to severe racking pains in the loins. His countenance was anxious, expressive of intense pain, which was principally localised in the lumbar region, where there was great tenderness on pressure, most marked over the left kidney. Skin dry. Temperature 101.2°; pulse 120, of fair power and regular. The tongue had a white fur, with red tip and edges. He had some thirst, no vomiting, but unwillingness to take food. The bowels were constipated. The urine was clear, high-coloured, and contained an abundance of uric acid granules, no albumen. He was ordered hot poultices to the loins; a large enema with an ounce of castor-oil in it; some pills containing 1½ grains of camphor and 2½ grains of extract of henbane every two hours, together with a draught containing half a drachm of citrate of potash and two minims of tincture of aconite in cinnamon water. Barley-water, milk, lime or potash water, and plain water, were ordered, but beef-tea was prohibited. In the evening, the skin was moist; temperature the same; pulse 108. The enema had comforted him, but had brought away very little fæculent matter. An abundance of urine had been passed, with scarcely a trace of uric acid. The pains in the loins were greatly relieved; and he had had some sleep. There was some slight difficulty in swallowing, most marked when he first began to swallow. His head, too, was thrown back, and he required assistance to move it. This condition had been present some hours; but no complaint had been made of it. Sensation and motion in the limbs were unimpaired. The medicine was ordered to be given only every four hours.

September 15th, 8.15 A.M. He had passed a quiet night, sleeping well at intervals. Skin moist. Temperature 101.2°. Pulse 108. Respiration normal. He had no pains in the loins; no tenderness on percussion of the spine until the part about the fourth and fifth curved vertebræ was reached, where also a hot sponge gave a special burning sensation. The lower limbs were becoming powerless, more especially the right one; sensation was perfect, and reflex irritability somewhat exaggerated. Both hands had had transient sensations of pins and needles, and were somewhat feeble. The head was now thrown forward, but assistance was still needed to move it; he had also to be turned in bed. There was still some slight dysphagia. The pupils were equal, but contracted. No delirium; mental faculties unimpaired; voice feeble. The tongue was furred, with red tip and edges. He had taken liquid nourishment fairly. The bowels were still confined. Urine was abundant, and free from all deposits. Pulse 110, compressible. The heart-sounds were free, but the first sound was indistinct at the base. He was ordered half an ounce of castor-oil, to be followed in three hours by an enema, and twenty minims of liquid extract of ergot every two hours, two drachms of brandy every two hours, and milk and beef-tea alternately every two hours. An ice-bag was ordered to be applied to the nape of the neck; and he was directed to lie on the side, or better on the face, with the feet, if possible, below the level of the body.—Evening. He had passed a quiet day. The lumbar pains were gone, but there was some uneasiness in the cervical region, and inability to move the head or lower limbs, but he could work the toes of the left foot. At 11 P.M., Dr. Althaus of London saw him with me. He lay on the left side; there was no rigidity of any limb; sensation was acute; reflex excitability was gone, but irritation of the soles of the feet gave much discomfort, there being no reflex discharge (an interrupted yawn). The pupils were still contracted, and somewhat intolerant of light. There was no headache, but he had rambled a little on first awaking. His voice was feeble; clenching the jaw gave a little discomfort in the temporal region and the articulation of the jaw. Deglutition continued halting. The tongue was moist, with fur; he had but little thirst. Temperature 100°. Pulse 90, feeble. The first sound of the heart was indistinct. Respirations 30, feebly costal. There were no bronchial *râles*. The bowels had acted very freely, bringing away some old scybala. He had passed urine freely, but was slow in commencing to micturate. His legs were utterly powerless; the muscular power of the arms and hands was enfeebled. He was ordered to continue the medicine, stimulant, and diet, as before; to have a blister, four inches by four, applied to the spine opposite the cervical and lumbar enlargements of the cord; and the ice-bag to be continued between the two blisters.

Dr. Althaus confirmed my diagnosis of acute myelitis confined to the ganglionic cells in the anterior cornua, commencing in the lumbar region and spreading upwards; the posterior or sensory portions of the cord being intact, as also the strands which contain the trophic and vaso-motor fibres. There was no paralysis of the bladder, nor consequent cystitis; for, as pointed out by Dr. Althaus, these only go with myelitis affecting the posterior columns of the cord. The absence of twitchings of the limbs, or any convulsive movement, excluded meningitis of the cord. The acute lithiasis and myelitis had probably no connection with each other in the way of cause and effect, but were most likely both due to the same exciting cause—cold; but the proximate cause of the myelitis was probably over-exertion in a debilitated subject, disposed to a neuropathy. Dr. Althaus remarked that this form of disease was very, if not altogether, analogous to infantile paralysis. Ninety per cent. of these cases recover; and if, in the present case, the disease could be prevented from creeping upwards, and so involving the centres of respiration and circulation in the medulla oblongata, all might still be well for the present; but a certain amount of permanent paralysis possibly loomed in the distance.

September 16th, 9 A.M. He had not slept, probably owing to the blisters, which had risen well, and set up some irritation. The pupils were less contracted. He had more power in moving the head. Deglutition was much the same. He could use his arms more deci-

dedly, as also the left foot, which he now moved at the ankle-joint; he could also move the toes of the right foot. He was still unable to turn in bed, or to make any bodily movement whatever. The mental faculties were clear; reflex action was still in abeyance. Pulse 120, feeble; temperature 101.4°; skin dry. Two grains of ergotine were injected into the left leg. He was ordered to continue food, medicine, and stimulant, and ice-bag. The blisters were directed to be dressed. —9.15 P.M. He expressed himself as feeling better. He had slept at intervals during the day for two hours, but awoke confused and at a loss for the right word; this, however, passed away in a short time. He complained of a sense of disquietude, partly from a constrained position, which he was unable to change without assistance. He moved his arms freely, and for the first time volunteered to shake me by the hand. Pulse 98, soft; respirations 26; temperature 99; skin manifestly cooler, and inclined to be moist. He had taken food fairly, and passed urine freely.

September 17th, 9.20 A.M. He had held his ground; had slept well and taken nourishment more readily, swallowing being easier. Pulse 94, of fair power. The first sound of the heart was less indistinct at the base. Respirations 22, sighing in character. Temperature normal. The bowels had not acted. The urine was very acid, and contained again a pretty copious deposit of uric acid. He had more power in the arms, and could move his head a little without assistance. There was decidedly more power in the left leg—the hamstring muscles contracting, but not powerfully enough to flex the leg upon the thigh. The right leg was powerless; and reflex excitability was wanting.—7.30 P.M. Dr. Althaus saw him again with me this evening, and was more than satisfied with the progress made. His countenance was cheerful. The pupils were normal; there was no intolerance of light. Speech was natural. He had taken nourishment well, feeding himself, and asking for solid food. The movement of the jaw was unembarrassed. Deglutition was much easier. Tongue clean; bowels active. Urine clear, and free from sand. Pulse 92, more power. Temperature normal. He could move his head much better, and partially turn himself round in bed. The condition of the lower limbs was much as in the morning. He was ordered to have five grains of ergotine, five minims of tincture of belladonna, and fifteen minims of spirit of chloroform, every six hours, and a dose of castor-oil in the morning. Solid food was allowed. Dr. Althaus remarked that in these cases there was no trusting to nature; active treatment being imperatively necessary. The old practice of leeches, calomel, etc., was generally fatal to a cure, if not to the life of the patient. Two or three cases of withered palsied limbs, the outcome of defective treatment, were brought to him weekly. In cases like the present one, even if the disease were stopped short of the medulla oblongata, a permanent paralysis generally resulted. Dr. Althaus thought all fear of a fatal issue had now passed away; and that we might fairly count upon the progress already made as an earnest of a speedy and permanent cure. He considered this a typical case, and one that might well serve as an example as regards treatment to be advantageously followed in similar cases.

September 18th, 9.30 A.M. His appearance was cheerful; he swallowed well. He had passed another tranquil night, and held his ground in all other respects. The breathing, pulse, and temperature were normal. Tongue clean; appetite good. The urine was more abundant, of specific gravity 1022, superacid, and free from albumen; there was excess of phosphates, and uric acid sand. There being some tormina, an enema was ordered to assist the action of the oil.—6 P.M. He had passed an unquiet day, owing to nausea, vomiting, and the free action of the bowels; and was somewhat exhausted. Pulse 62, feeble, and slightly irregular. He had taken no stimulant or food all the day. Could all this be due to the action of the ergotine? The brandy was ordered to be persevered with every two hours, and liquid nourishment given in addition.

September 19th, 9 A.M. His condition was greatly improved. He could push down the left leg when flexed; reflex irritability also was restored in it to a great extent, but was absent in the right; irritation of its sole caused movements in the left leg, showing transference of force.

September 20th. He was going on well, save that he complained of pains in all his limbs, which were relieved by friction and change of position. He could move himself round, with the exception of his legs. Reflex excitability had fully returned to the left leg, but the right gave no response, save through its fellow. The dose of ergotine was reduced to two grains and a half, and that of the tincture of belladonna increased to seven minims and a half.

September 22nd. To-day the pains in the limbs, and also in the bowels, returned. The ergotine was stopped, and an anodyne mixture ordered; great relief resulting.

September 23rd. His general health was improved; but the lower limbs were still painful and tender on handling. The left arm did not squeeze as powerfully as the right. The arms and forearms responded well to the stimulus of faradisation; the left leg partially so. The rectus and hamstring muscles acted fairly, and the muscles attached to the fibula very well indeed; the other muscles acted but indifferently. There was no response to the strongest action in the right leg, though it was distinctly felt. The trophic cells were no doubt implicated; and myositis, chiefly of the right limb, was the result. He was ordered to have a gentle continuous current applied for a short time each day, and to take ten grains of iodide of potassium, three grains of carbonate of ammonia, and fifteen minims of spirit of chloroform, thrice daily.

September 24th. He had been rather restless, which he attributed to the faradisation of yesterday. Temperature normal; pulse 120, rather irritable. The condition of the limbs was much the same. The continuous current (Weiss'), fourteen cells, was applied for two minutes to the lumbar enlargement of the spinal cord, the negative pole being over the umbilicus. The pneumogastric nerve was also galvanised.

September 30th. All the remedies had been persevered with; but he had made little or no progress. He took abundance of food, but disliked the stimulant, as making him hot and restless; it had, therefore, been reduced almost to zero. There was more power in the arms and shoulders; the left hand was still a little the weaker. The legs were much as before.

October 8th. He was much the same. The power of the lower limbs had not increased, and their nutrition appeared impaired. The right calf measured half an inch less than its fellow. The muscles of the back were weak, and responded but slightly to a strong current. This was also the case with those of the legs, which required fifty cells, and the current to be interrupted, to produce any effect. He was ordered to continue the current. Iodide of sodium was substituted for potassium. Cod-liver oil and an additional glass of wine were ordered to be taken. He was allowed to sit up and go out of doors.

October 23rd. Dr. Hughlings Jackson saw him with me, and gave a gloomy prognosis. The treatment was continued. The muscular power had not increased; but the tenderness and wasting were lessened. The legs, however, were flexed and somewhat rigid, indicating that the lateral columns were implicated. Sensation remained perfect.

November 18th. But little progress had been made since last report. The legs were almost insensible to fifty cells; but the muscular tenderness was gone. The toes only of the left foot could be moved voluntarily. The muscles of the back were much stronger, and his general health was good. He now passed out of my hands into those of Dr. Roth, who was to try the movement cure.

Through the courtesy of Mr. Bernard Roth, I saw Mr. A. M. in the end of June, 1880. His state then was as follows. He could walk about and go up and down stairs with two sticks and a steel support on the right knee and foot. His appetite and bodily functions were good and regular. The muscular condition was as follows. The right serratus magnus was wasted, as compared with the left. The erector spinæ was very much wasted, so that the lumbar transverse processes were prominent; there was no difference between the two sides. Of the glutei muscles, the left was almost normal; the right was considerably wasted, but still with some voluntary power left. The extensors of the knees were practically *nil*, and almost completely wasted. The patient could just move the patella. There was slight reaction to slowly interrupted galvanisation; nothing to faradisation. The flexor of the right knee was very weak; of the left good. The flexors and extensors of the right foot were *nil;* of the left, almost normal. There was, however, still considerable reaction to slowly interrupted galvanisation in the right leg; none to faradisation. Sensibility was normal everywhere. Both lower extremities were easily kept at a normal temperature, but soon became cold and blue on exposure. The patient enjoyed swimming, and could do so very well without any help; and, although his legs were rather cold on coming out of the water, they soon recovered their warmth by friction.

BEQUESTS AND DONATIONS.—Mr. George Marples, of Bradford, Yorks, bequeathed £500 to the General Infirmary, £500 to the Eye Hospital and Dispensary, and £500 to the Hospital for Women, all at Sheffield.—Mr. William Miles, of Exeter, has bequeathed £1000 to the Exeter Living in Charity, and the West of England Home Asylum.—Mr. Jas. Nourse has given £15 to the Seaside Branch of the Metropolitan Convalescent Institution at Bexhill.—The Right Hon. W. E. Gladstone, M.P., and Mrs. Gladstone, having given £100 towards the proposed Scarlet Fever Convalescent Home, St. Peter's Home has received £100 under the will of Mrs. Mary Threlkeld, and £10 10s. from Mr. T. S. Bayley.—The Goldsmiths' Company have given £25 to the North Eastern Hospital for Children.

SOME REMARKS ON THE CLASSIFICATION AND NOMENCLATURE OF DISEASES.

By A. RABAGLIATI, M.A., M.D.,
Surgeon to the Bradford Infirmary.

My reason for writing on this subject—a very wide one—is, that it seems to be in rather a confused state.

1. A good classification ought to be, if possible, on a thorough-going plan or principle. The official Classification of Diseases, drawn up by a joint committee of the Royal College of Physicians of London, and adopted by the Registrar-General, "is based upon anatomical considerations". As a subservient division to this, we have the division into general and local. The impossibility of working out a classification on such a basis becomes apparent when we examine the classification, and find syphilis, *e.g.*, among the general diseases, and then find under local diseases those of the tongue, and among them syphilis. Again, an instance out of many, where the official classification fails to proceed on a thorough-going plan, is afforded by the arrangement of diseases of the respiratory system, where, under that heading, we find grinders' asthma and miners' asthma—a division which invokes etiology as an aid to the basis of anatomical considerations on which the classification is founded. Not only is this the case, indeed: the official classification actually founds in this case on a quite accidental, or non-essential, circumstance—namely, whether the patient is a miner or (steel) grinder,—and lays no stress on the dust which is equally the cause in both cases; although in one case it is given off by coals, and in the other by steel; and although this dust is also the cause of other asthmas not named—*e.g.*, stone-hewers',—which yet have no place in the classification. I would throw out here a question to which we shall recur at a future time—namely, is, or ought, asthma to be considered a disease at all? What, in fact, constitutes a true genus of disease?

2. A good classification should contain no cross divisions. The official classification, nevertheless, which confines the name "ophthalmia" to affections of the conjunctiva—a proposal, by-the-way, which oculists often treat with great contempt, by using it also for affections of the cornea,—goes on to divide ophthalmias into pustular, purulent, gonorrhœal, and chronic. This is much as if a man should divide his books into Greek and Latin, octavo and duodecimo; or his children into big, little, dark, and fair. It is as evident that an ophthalmia might be both gonorrhœal and chronic, as that children might be both big and fair. I hope to say something immediately about the terms acute and chronic; but pass on to, say that—

3. A good classification ought to be inclusive—that is, it should include all forms of disease. The official classification by no means fulfils this condition. How poor, for example, is the nomenclature of diseases of special organs, as those of the eye; and cirrhosis of the kidney we look for in vain, either as a name-in-chief or as a synonym. But where the official classification does succeed in naming the known conditions of an organ or part, it is rather by the method of simple enumeration than by a rigid adherence to methodical arrangement.

4. A good classification ought to be natural—that is, it should group together diseases which are allied to one another in their nature. The official classification attempts to do this by bringing together diseases of certain organs. It is, in my opinion, open to serious question whether a more natural division would not be formed if the general condition were named as the primary and more important disease, and the locality considered as a kind of accident, at the most being important enough to indicate the genus. Following out this view, I should, for instance, have preferred to see inflammation, or cirrhosis, or cancer (if the name is to be retained), forming a division, or natural order, and the locality of the disease forming a subdivision or genus. Thus order, inflammation, genus, of kidney, mamma, uterus, would seem to be preferable to naming inflammation of kidney among other affections of the kidney, having no real affinity with them except that they are conditions of the organ.

A good classification is much aided by—if, indeed, it be not an impossibility without—accompanying definitions. There certainly are some definitions given in the official classification; but how deficient these are will be evident, when it is reflected that there is positively no definition offered to us by which we may be able to distinguish a fever from an inflammation; and yet almost every other patient we see suffers from one or other of these affections. The official classification constantly commits the error of naming as diseases, conditions which are merely symptomatic of disease. If this is occasionally justifiable (as, for instance, when we use the term catalepsy, because we do not know anything about the part affected, or the mode in which it is affected), we get no hint of our ignorance from the classification, while that classification goes on using terms like neuralgia, syncope, paralysis, and even deafness and impaired vision, as names of diseases, when, in fact, they are names of symptoms whose significance can, in the majority of instances, be explained by a knowledge (already possessed by the profession) of the parts affected, and the nature of the cause affecting them.

Time does not allow my criticising other classifications offered for the acceptance of the profession, though in general it may be said that they are characterised by the absence of a comprehensive plan. The division into medical and surgical diseases, generally followed in medical writings, is not made use of by the official classification; and with justice, since, however convenient such a division may be in practical life, it could not be defended in logic. In the rough, the surgeon looks after external diseases, the physician after internal; but it is manifest that bones, ligaments, and joints may be affected by diseases, precisely as the lungs, liver, or kidneys, making the proper allowance for the differences in their structure and functions. Both sets of organs may suffer from inflammation, from injury, from deposit of pathological matter; both may suppurate, may ulcerate, may necrose, and, in short, be affected generally in similar ways. Whatever convenience, therefore, may attach to the division which obtains between these two sets of disorders in practical life, such a division is of no use from a classification point of view, and must be thrown aside at once.

Another division, of which we hear a good deal in practical medicine, is that said to have been introduced by Asclepiades of Bithynia, into acute and chronic. This division is made use of to some extent in the official classification, but on no thorough-going plan, and, I regret to say, without any attempt to define the meaning of the terms. I have already referred to *chronic* as applied to ophthalmia in the classification. Under "General Diseases", Division B, we find acute rheumatism, gonorrhœal rheumatism, synovial rheumatism, muscular rheumatism, and chronic rheumatism. This might have served as a good instance of cross division, since gonorrhœal rheumatism might be acute in its intensity, and chronic in its duration; and so might the muscular and synovial forms. But what does chronic rheumatism mean? (The term rheumatism, by the way, is one of which a definition is urgently needed.) Is it rheumatism of the ligamentous, or of the fibrous, or of the osseous tissues? And if so, why not have called it fibrous, or osseous, rheumatism, to distinguish it from the muscular and synovia forms? Is it not clear, however, from this instance, as well as from the use of the term by medical men, that neither the learned compilers of the classification, nor the bulk of the members of the profession, have made up their minds in what sense the terms acute and chronic should be employed; the consequence being that they are used without any system at all, and if correctly, only, so to say, by accident? I have once or twice already suggested certain definite significations in which these words should be employed. First of all, *acute* and *chronic*, although generally opposed to one another, are not logical opposites. Before Asclepiades was thought of, Hippocrates had used the term ὀξὺς of diseases which were severe; and he says of them (*Aph.* ii, 23), "they come to a crisis"—or perhaps a better translation of κρίνεται in this passage would be "a critical point occurs in fourteen days". In the treatise περὶ Κρισίμων, however, in a remarkable passage, Hippocrates seems to say that the acute diseases may last from thirty to forty, and even sixty days; "and when they exceed these numbers", he says, "the disease becomes chronic"—χρονίη ἤδη γίνεται. Here Hippocrates is not equal to himself, and confounds (as nearly all his successors have done) the intensity of a disease with the length of its duration. In other places, however, there is no confusion. Thus, in *Airs, Waters, and Places*, section 3, he speaks of "ophthalmias which were moist and not severe, but *oligochronic*"—οὐ χαλεπαὶ ὀλιγοχρόνιοι. Here, then, we actually have a distinction drawn by implication between long-continued diseases *(chronic)*, and diseases of short duration *(oligochronic)*; or, as the same meaning is expressed by Plato, *brachychronic* (βραχυχρόνιος). In *Aph.* ii, 37, Hippocrates uses the term πρᾶος = Latin *mitis*, for what we call *mild* diseases, or what might be called *praotic*, founding on this term. Galen proposes the twentieth day as the farthest limit of the acute diseases; and he makes, for the sake of method, some further subdivisions. Thus, he says, those diseases are *peracute* which last for seven days, but those which last for four days are *exactly peracute*. When the disease exceeds the seventh day, yet terminates within the twentieth day, he calls it simply *acute*; but it is *exactly acute* when it terminates in fourteen days. Celsus's view is expressed in these words, *Lib.* iii, cap. 2: "Breves acutique sunt qui cito vel hominem tollunt, vel ipsi cito finiuntur; ubi sine intermissionibus accessiones et dolores graves urgent, acutus morbus est." Chronic diseases are those *sub quibus neque sanitas in propinquo neque exitium*

est, which is certainly a curious definition, since, when chronic disease leads to death (*exitium*) it must cease to be chronic. The views of Asclepiades, who is credited with having introduced the use of the terms (though the opinions of Hippocrates have been too much overlooked by those who have given him this credit) seem to have been almost entirely theoretical. He thought the acute diseases were due to a constriction of the pores, or to an obstruction of them by a superfluity of the atoms; while chronic diseases he thought dependent on a relaxation of the pores, or deficiency of the atoms. Sydenham says, in the *Observationes Medicæ*, i, 1: "Morbi quos acutos appellamus velociter scilicet atque cum impetu ad statum moventur;" and he adds, "Isti etiam morbi pro acutis sunt habendi qui, licet respectu paroxysmorum, si omnes simul sumantur, tardius moveant, respectu tamen paroxysmi cujuslibet particularis *cito* atque etiam *critice* ad finem perveniunt, quales sunt febres intermittentes." Further, as regards chronic diseases, he says: "In his (chronicis) casibus vel tarde admodum ad coctionem pervenit materia vel non omnino," from which we may infer that, in his opinion, the length of its duration was the great feature of the chronic disease. Galen has an interesting passage, in which he discusses the question: What about a disease which begins like an acute disease—that is, severely—but does not come to a termination within the twenty days which he affixes as the limit of the acute disease? Can such a disease become chronic? Here is Galen's answer: "An acute disease exceeding the space of twenty days, without terminating in death, or health, and without changing into any other disease" (the three modes of termination recognised by the ancients), "but running on in the same manner, and almost with the same symptoms, it would seem hard to call such a fever on the twenty-second day long or slow, which, two or three days before, was reckoned among the acute, and still continues the very same disease, only running to a greater extent. In such a case the ancients called them indeed acute fevers, not simply so (ἐκ μεταπτώσεως ὀξέα), but extended." These passages show the confusion of thought on this subject among the highest medical authorities, the only one who clearly saw his way out of the confusion at any time being Hippocrates; while even he, as we have seen, fell sometimes into confusion also. It is clear to any one who will give attention to the matter that we have two notions, covered by each of two terms, viz., severity and brevity, as opposed to mildness and length. It would seem to be advisable to separate these two ideas, which are not *ideas only*, since they refer to *facts* in the course of diseases; and what I would propose is the following. Let us retain the term *acute* for disorders which run a severe course. Its opposite, then, would be mild, or praotic (Latin *mitis*, Greek πρᾶος), a term which is already in use in medical literature; while by the term subacute, we may indicate an intermediate group, whose existence is also recognised by the profession. *The* feature which appears most worthy of study in such diseases is the temperature; and I say this because heat production is the connecting link by which a larger and larger number of vital phenomena are being brought under the domain of the law of the conservation of energy, which is almost certain before long to vindicate its sway over all phenomena whatever. I propose, therefore, to define *acute* diseases as all those in which the temperature reaches any point over 102.5° Fahr. *Subacute*, I propose, should cover conditions in which the temperature is above 100° Fahr., but not above 102.5° Fahr.; while *mild* or *praotic* diseases would be all those in which the temperature, though rising above normal, does not exceed 100° Fahr. These seem to be the conditions to which these terms are at present generally applied, and they are conditions whose existence, at least, is matter of observation. These are, further, *all* the diseases of elevated temperature, and they are naturally opposed to diseases of diminished temperature—a set of phenomena which do not appear to have received the study they deserve, although numerous incidental references to them exist in current literature. Next, as to the term *chronic*. Properly speaking, this means *long-continued*. The better Greek form would, no doubt, be represented by the English equivalent *polychronic*, but it is well not to interfere with language more than is absolutely necessary; besides which, Hippocrates uses the term *chronic* as we have seen. In Attic Greek* the opposite of polychronic is *brachychronic*. Hippocrates also uses the term *oligochronic*, or brief. Letting *chronic*, then, stand as it is, we have its natural opposite in brachychronic, or oligochronic, of short duration. It will be well to give to these terms as much precision of signification as possible, and I, therefore, propose to define a brachy- or oligo-chronic disease as one which lasts not longer than twenty-eight days, which is the natural length of most (though not all) forms of typhoid fever—at least, if the period of subnormal temperature is reckoned, as it ought to be. A disease lasting longer than twenty-eight days would, on this definition, be chronic. This seems to be in keeping with observed facts. When typhoid fever, for example, has a course extending over forty days (or longer), as happens from time to time, it usually takes what in common language is called the *chronic* form. On this view it would be *chronic* in duration, while as regards severity it might be *acute*, *subacute*, or *mild*. It generally happens that the latter portion of such a disease is subacute, or even mild, in intensity. Hence no doubt the reason that the division into acute and chronic has held its own for so long a time in medicine, although both terms cover conditions which are entirely dissimilar from one another, but whose dissimilarity is overlooked because of a tolerably constant connection in fact. (I exclude from consideration the meaning of *recurrent*, which the term chronic is sometimes made to cover. Such a use of the term is manifestly erroneous.)

Now that we have stated the meanings in which the terms acute and chronic ought to be used, I would ask, To what does the division amount? Certainly, between the course of a disease such as pneumonia, and the slower course of Bright's disease of the kidneys, there is a wide difference; but when the differences between these diseases are analysed, it will, I think, be manifest that the differences resolve themselves into alterations of intensity on the one hand, and of length on the other. On these differences only a separation of variety or species, or, at the very most, of genus, and certainly not of order, can be predicated. If this is so, as I confess it appears to me, I venture to assert that the so-called reform of Asclepiades did not, at the most, amount to much; while to a great extent it has served to confuse ideas which were, sometimes at least, tolerably clear before his time.*

The definition of disease which it is proposed to adopt in this paper is, that it is any and every departure from health, due to any cause whatever. This in turn implies a definition of health; which, however, cannot be given in any serviceable form, except a more or less descriptive one. In health, let us say, the temperature ought not to be above 99°, nor under 98° Fahr. The respirations should number somewhere between 14 and 20 to the minute; and the pulsations from 60 to 90, and should be soft, rhythmical, and regular. There are other conditions of health of less importance; but these seem to be the main ones, and any variations beyond the limits mentioned we term disease. The first conception that we have of disease is that it is a subkingdom in the kingdom of conditions, the other subkingdom being that of health. After much consideration, it appears to me that the next step towards classifying must be etiological; and for the reason, that it seems impossible to distinguish from one another diseases which are nevertheless distinct, unless we refer to their causes. What difference can be stated, for example, between pneumonia and typhus fever, complicated as it often is by pneumonia, except etiology? A person comes home, shivers, becomes delirious, and, when seen by the doctor, has a temperature of 104°. The temperature changes a degree or two between night and morning, but remains above normal for twelve days or so, during which time there may have been, first dulness, and then crepitation in the chest; the latter now resolving. Supposing it to be a case of typhus fever, we look for rash from the fourth to the seventh day; but there are some cases of typhus where there is no rash, and there are some cases of pneumonia in which we find a mottling or duskiness of the skin. Is there anything in the course of the disorder, in the length of its duration, in the readings of pulse or temperature, which will separate typhus from pneumonia? If not, what is the difference between them, except that one is caused by exposure to cold or damp, and the other by organic matter in a state of change? If this is so, the first division of diseases into orders is determined by the action of inorganic matter on the one hand, and of organic matter on the other. In the former case, we have the inflammations proper; in the other, we have fevers, etc. Inorganic matter may act in virtue of its power to abstract heat; and, when it does so, it causes the inflammations proper. When it acts with momentum, it induces injuries: and when it acts simply as a foreign body—as, for example, when a particle of sand falls upon the eye—it acts as a mechanical irritant That is, inorganic matter sets up three orders of disease, of inflammation proper, or simple inflammation, injury (traumatic inflammation), and irritations (irritative inflammations).† Classes might be deter-

* In the [illegible] B, occurs the following passage: Λεγόμενος πολυχρονιώτερον χειμὼν ἢ βραχυχρονιώτερον δέκατος ἢ ἀπὸ γένος.

mined by the mode of action of the exciting cause; whether, that is, it acts from without or from within.

Those affections we have been considering belong to Class I, the inorganic causes acting from without. Diseases induced by inorganic matter acting from within would be represented by such cases as one reported from Italy, where a man swallowed a fork, and suffered accordingly; or, for example, when a mulberry calculus sets up inflammation of the bladder. The genus would be determined by the part affected; as, for example, right pneumonia, left pleurisy, enteritis, cerebritis, etc. The species would be determined by facts in the course of the disease; as, for instance, whether the temperature were high or not. Species would, therefore, be acute, subacute or mild, chronic or brachychronic. The variety might be determined by other facts in the course of the disorder; as, for example, the occurrence of suppuration in an inflammation; or soft pulpy degeneration, which we find in inflammations termed strumous. Inorganic poisons would come under the second division of this group. On the plan proposed, the species would very often be determined by the constitution of the individual, and the variety by his diathesis or heredity.*

Diseases caused by organic matter in a state of change depend upon the amount of differentiation or specialised constitution of the acting cause. If the organic matter have the lowest differentiation, it may set up what is called the specific inflammation, *νουσὸς καταξημωτικὴ* (if time permitted, *specific* is one of the terms which ought to be defined, since it has been used in several senses), in which the organic matter seems to attack or affect a given part. A good instance of this would be typhoid fever, which I rather look upon as a specific inflammation than as a fever; that is to say, its cause appears to have a lower differentiation—lower a good deal, probably, than that of typhus or small-pox. It may before long be generally thought by the profession that there is no difference between specific inflammations and fevers; but, in the present state of opinion, it seems necessary to give them each a place. When the organic matter has a higher differentiation or specialised constitution, it sets up in the economy fever proper. If it be so highly differentiated as to be an actual germ, the resulting disease is parasitic (*νουσὸς παρασιτικὴ*). Finally, pregnancy is the vanishing point between health and disease on this line, in which the most highly specialised germ reproduces the parent. In considering the affections caused by organic matter, we are almost out of the region of conditions, and find ourselves rather in that of entities: a proof, if proof were needed, that the classification is natural, since the aim of the physician who treats diseases due to inorganic matter ought to be the controlling of the resultant inflammation or superactivities; while that of him who has to do with the results of organic matter in a state of change, is both to find an antidote and to control the fever. I have little doubt that, if we could analyse the organic causes of specific inflammations and fevers, and, having analysed, could reproduce them or their analogues, we should soon be on the high road to combat those disorders more effectually than we can now, by some process similar to that which has proved so successful in the case of small-pox. No doubt, when sanitary arrangements are more thoroughly carried out than they are at present—when, in fact, they are perfect—we may hope for the entire disappearance of these affections; but for so long as they exist (all our time, I fear) must our efforts be used in the direction indicated, which will be the more successful the more thorough and exact is our knowledge. With diseases due to organic matter, as with those due to inorganic, classes are determined by the mode of action of the cause, whether it acts from without or from within. The former class contains those diseases we have just been considering; the latter includes such diseases as gout, due to the ingestion of improper food, either as regards quantity or quality, or both. Alcoholism should find a place here. From what has preceded, it will probably have been apparent that I am disposed to classify rheumatism rather among the inflammations than among the fevers. The chalk-stone rheumatic affection, being a disease of nutrition, would, however, probably be classified in the present group.

Diseases caused by anxiety must, I think, be classified by themselves. They are very numerous in times like the present, and must have obtruded themselves on the attention of us all. The genus would be determined by the part affected, as in the inflammations; and the species and variety on the principles already laid down.

What about cancer and scrofulosis and tuberculosis? Where are we to classify them? Time does not allow me to attempt a definition of *malignant*—a term used to a limited extent in the official classification. If I were to attempt the task, however, I should say that malignant is a name which includes a vast variety of conditions, some of which, I am certain, yield to proper treatment; while others do not, or at least not to any treatment known. I think, however, that the use of the term malignant very often means reasoning in a circle. First, this ulcer resists treatment; therefore it is malignant: second, this ulcer is malignant; therefore it is of no use to treat it. In the case of what is called cancer, very frequently the course of things is the same as we have seen occur in the inflammations, or in the suborder traumatic inflammations; it originates after a blow. Or it may succeed a long period of worry or nervous depression. That the affection is subacute in its symptoms and long continued in its duration, and that it does not tend to heal, seem to be facts in relation to its species and variety which the principles already laid down enable us to deal with.* But, lest it should be said that this is too revolutionary, let us retain cancer in the nomenclature. The same position I am not disposed to grant to scrofulosis, which is always set up by some slight exciting cause, as cold or damp, overwork, or the irritation of decaying teeth, or some sprain or other injury. The gelatinous degeneration of the resultant inflammatory exudation might, I think, be best classified as the variety of the inflammation whose species is almost always either subacute or mild. Tubercle, perhaps, requires a place by itself, like cancer; or perhaps it is more entitled to its own place.

Scientifically and strictly speaking, it seems to be more than doubtful whether tumour is entitled to a place in a classification. It seems, in fact, not to be a true genus. Tumour originates in one of the ways already considered, either as an injury or as an inflammation, or perhaps occasionally it is the effect of organic matter, and as such can be classified as we have seen. The reaction, after the primary depression, of these conditions is always associated with increased cell-production. This may take the form of fibrinous deposit, or of what is more properly called tumour-growths, viz., an excessive production of normal (or abnormal) tissue. Between fibrinous deposit due to inflammation and tumour-growth, however, there is no difference but one of degree, the processes by which both take place being very similar. An aneurysm is a tumour, yet it is not classified among tumours; an aneurysm would seem to find its place properly among the injuries, when the cause is the force of the blood-current acting against impaired vascular walls. Between defining tumour so widely as to include all tissue-increase (such as inflammatory deposit, aneurysm, and even the swelling at the base of a hard chancre, for instance), and an arbitrary exception of all tissue-deposits except certain named ones, there seems scientifically to be no intermediate course. The former plan would be so wide as to be useless; the latter would be arbitrary and unscientific, and hence tumour would seem scientifically to disappear from our classification. But perhaps it is unwise to insist on this, and it may be for the present better to continue the use of names to which we have been accustomed, and to speak of fibrous, fatty, and other tumours; even although, scientifically, it does seem that tumour-growth is an accident, rather than the essence of the condition of reaction. It is indeed difficult to throw aside names to which we have been accustomed; but I believe that, if anyone carefully turn the matter over, he will conclude that this view is the correct one to take, however unlikely it may seem at first sight.

The *kind* of deposit associated with the state of reaction in certain injuries, and of certain states of constitution in which they occur, is a fair basis for classification, no doubt; and it is here it seems to me that such facts as what are now called cancer and scrofulosis will have to be classified; that is to say, such conditions should be classified as varieties of the depresso-reactive process, termed inflammation, injury, etc., as the case may be.

I have incidentally made several references to nomenclature in the course of these remarks; and, though it cannot be asserted now that the subject is treated in an exhaustive manner (it has, in fact, been only touched upon), I should like, by way of illustration, to make one or two remarks, particularly on the naming of nervous diseases. Perhaps no domain of practical medicine shows so disorderly a set of names, or is so instructive as to the looseness of signification in which even medical men may use names, as the nomenclature of nervous diseases. In the naming of a recent authority, this is as striking as elsewhere, though the authority in question has recast this nomenclature. One

* The term constitution, diathesis, and heredity might, I think, be fairly applied to the different sets of facts in the history of a human being. Thus, *constitution* might be used to cover all the facts that go to modify him during his extra-uterine life. *Diathesis* might be used of any changes that occurred during the intra-uterine life, as those due to fright on the part of the mother, etc. *Heredity* might be appropriated to facts in the ancestral family history.

* Is not cancer simply a depresso-congestive condition, in which the original depression (corresponding with the collapse of injury) lasts for a very long time, sometimes for years, and the congestive hyperæmic tissue-forming stage also extends over a long period? Does the cancerous structure, when we have it, differ from other structures in any way which can be magnified into a difference of principle, or is it not different from others only in detail? Is not cancer, in fact, very often what may be called chronic injury, with mild symptoms at first, becoming later subacute, or even acute?

ought not to be hypercritical as to his first division of nervous diseases —general diseases, consisting of nervosity, eclampsia, epilepsy, catalepsy, hysteria, etc.—because, with few exceptions (that perhaps of epilepsy and hysteria), the lesions indicated by these names cannot yet be localised. It has seemed to me that hysteria is often excitement or hyperæmia, followed by exhaustion or spanæmia of the pneumogastric centre. But these names should set us thinking, inasmuch as nervosity is no more a disease than rapid breathing. The odd thing is that, though no medical man would dream of being satisfied with a diagnosis of *rapidity of breathing*—or *pneumatosis*, let us suppose its high-sounding title to be—still, hardly any medical man thinks of questioning the propriety of resting quite satisfied if an authority diagnose *nervosity* as the affection from which a patient is suffering! Take, again, the first section of Class IV of nervous diseases, according to the same authority. We have Section I, *Peripheral Paralysis*, and then follows a list of paralyses of the third nerve, fourth nerve, minor portion of fifth nerve, and so on. This list is gravely offered to the profession, and men are satisfied. Yet is it not the case that "paralysis" is no more a disease than dropsy, and that the mere use of the term opens up a world of unanswered, though not necessarily unanswerable, questions, as to the condition of the paralysed nerve; as, for example, whether it is hyperæmic or spanæmic, or subjected to pressure, or to gouty, rheumatic, or syphilitic deposit, besides many others, which are set aside, it is to be feared, by the mere use of the bad name for the disease. If men would but reflect that the use of a functional name—a name like *paralysis*, derived from alteration of function (lately, to be sure, we have had the name *paresis* re-introduced to our notice) or *neuralgia*—implies a darkening of counsel often without wisdom, and is at best but a stop-gap till the true nature of the condition is discovered, there might be some hope for us, and we might in time arrive at a knowledge, not only of what is the part affected, but also of what is the condition of the part, and what it is that has affected it. But, so long as functional names pass current as names of diseases, the art and science of medicine cannot advance. Chorea, hydrophobia, etc., are examples of names to which these remarks are applicable; and many others will suggest themselves.

One of the merits claimed for the classification whose basis I have thus ventured to lay down is, that no new disease can be discovered whose place is not already theoretically determined by the considerations advanced. In fact, the classification is so complete (theoretically), that no new disease can come on it as a new discovery, so far as its place is concerned in the system of classification; for every possible disease must fall into the subkingdom of disease and class, according as dependent on organic or inorganic causes. Then the genus can be readily discovered when it is determined what is the part affected, while the other characters determine the species, variety, etc. The questions of interest come to be such as these: Is it hyperæmic or spanæmic, if simple; and if specific, or due to organic matter, what is the nature or constitution of the organic matter, and what allied matter will be likely to affect it? Another proof of the value of the classification is, that affections of given organs or systems in the body can be arranged, if acquired, in accordance with its principles.

I will here recapitulate the claims which the classification makes for acceptance: 1. It is on a thorough-going plan, and, therefore, 2. There are no cross-divisions; 3. It is natural, bringing together diseases which are really allied, and not naming mere steps in the process of disease as new diseases; 4. It is inclusive, finding a place for all diseases; and, 5. When a functional name is employed, the question is at once raised, whether we know anything about the condition; which is at least a stimulus to industry and investigation.

BRANDON AND BYSHOTTLES.—Last year, the death-rate in this district was considerably augmented by the mortality from scarlatina, measles, and whooping-cough, which were prevalent in an epidemic form. Measles was responsible for 16 deaths, scarlatina for 29, and whooping-cough for 7, whilst diarrhœa claimed 22 victims; the excessive mortality from the latter disease is attributed, in the main, to improper and insufficient feeding, and to atmospheric changes. Many of the deaths occurred in the third quarter of the year; and Mr. Blackett states: "During this time, we had a condition of atmosphere, as regards warmth and moisture, which not only favoured the decomposition and putrefaction of the articles of food, but depressed the vital powers, poisoned the blood, and doubtless contributed to the mortality from diarrhœa and the other prevalent diseases of the district." The sanitary condition of the district was well looked after, and many improvements were made; but this part of the work suffers in consequence of the absence of any satisfactory record of the proceedings of the sanitary inspector.

TEN YEARS' SURGERY IN THE KILMARNOCK INFIRMARY.*

BY JOHN C. M'VAIL, M.D.

ON March 12th, 1880, I read before the Glasgow Medico-Chirurgical Society a paper entitled "Results of Surgical Treatment without Antiseptics in the Kilmarnock Infirmary". The publication of this paper in the BRITISH MEDICAL JOURNAL led to questions by letter from several well-known surgeons as to the method of treatment pursued.

I propose on the present occasion both to answer these queries and to state the results of a more extended inquiry recently made into the statistics of the hospital in question. The former paper covered only three years' practice; while, for the present one, I have examined the books from November 1869 till July 1880, a period of 10⅔ years; or, practically, since the opening of the institution, as, in the previous thirteen months, only a few chronic cases were treated. To those who read my former paper, I have to apologise for a certain amount of unavoidable repetition in this one. The chief reason for enlarging to ten years the time of which the paper treats, is the obvious one that ten years' work is of more value than three years'. A minor reason is, that in a leading article, supposed to be a summing up of the discussion on antiseptic surgery, of which my paper formed a part, the BRITISH MEDICAL JOURNAL entirely passed over the facts I had brought forward.

I shall begin by stating such facts regarding the hospital and its patients as have a bearing on the death-rate: and, secondly, give a very short account of the treatment; after which, I shall state the results of treatment, and compare them with those of antiseptic surgery.

The Kilmarnock Infirmary is the central hospital of a busy manufacturing and mining district. It overlooks, on one side, the poorest and most thickly populated part of a town of 25,000 inhabitants. The class of patients is such as might be looked for in the circumstances. The occupations comprise mining, iron-working, cloth-working, and ordinary trades. That the district is not a rural or agricultural one, is indicated by the fact that the proportion of primary major amputations to all major amputations was in the Edinburgh Royal Infirmary 20 per cent.,† and in the Kilmarnock Infirmary 34 per cent. As to the general healthiness of the locality, I may state that the death-rate of Kilmarnock during the past five years has been higher than that of either Edinburgh or Glasgow. The hospital can contain 120 beds, and is divided into fever, medical, and surgical wards, the last being on the ground-flat, and containing from six to ten beds each. Till 1874, the Infirmary consisted of only fifty beds, but had then to be enlarged, owing to overcrowding. Another point in regard to the hospital is, as to how the prevalence of hospital diseases is affected by the fact that the Kilmarnock Infirmary is less than a third of the size of either the Glasgow or Edinburgh Royal Infirmaries, these being the institutions whose statistics I shall use for purposes of comparison. Other things being equal, one would say that the larger a hospital, the more liable was it to pyæmia, etc. But the claims of antiseptic surgery are so great, as entirely to obviate—nay, more than obviate—the differences on this point. For Mr. Lister says: "....the effect of strict antiseptic treatment by three surgeons, and non-antiseptic by the fourth, is simply to convert a large hospital into a small one with reference to the question of hospital disease". Now this is very nearly the case in the Glasgow Royal Infirmary. If, therefore, the wards of the non-antiseptic surgeon are so much benefited by neighbouring Listerites, as to be practically equal to the Kilmarnock Infirmary, the wards of these antiseptic surgeons themselves must be in a much better position, and therefore superior in this respect to those of a small hospital, where antiseptic treatment is unknown.

Treatment.—Under this heading, I shall first describe very shortly the treatment of an amputation-wound—*e.g.*, an amputation of the thigh. The ordinary flap-operation is performed, a screw-tourniquet being used to prevent hæmorrhage. No water or other liquid is applied to the surface; but, while vessels are being ligatured, blood is mopped off by cloth rags. Old shirting is preferred for this purpose, on account of frequent washing having rendered it almost clear of fibres, etc., likely to adhere to the wound. Sponges are not applied. Silk ligatures are used, and in considerable numbers. After all appreciable vessels have been tied, the flaps are kept open until bleeding has entirely ceased, and the whole surface has assumed a glazed appear-

* Being a paper read before the Medical Society
† In the Edinburgh Royal Infirmary Mr. Lister's
which [illegible] per cent., were primary

ance from exposure. The wound is then closed by silk sutures, about five-eighths of an inch apart, the ligatures being brought out at the lower angle. Long strips of adhesive plaster are applied between the sutures, and the stump is enveloped in a single layer of lint spread with lard. Some light covering is next put on, and a cotton-bandage over all. In two or three days, the wound is dressed. A few drops of serous discharge usually escape at the lower angle, the ligatures acting as a means of drainage. Any discharge is cleaned away by cloth rags, or by some disinfectant fluid. If the latter be used, the wound is afterwards carefully dried, and lint spread with lard again applied. This treatment is repeated daily or on every alternate day, until the cicatrix is complete, or the patient dismissed.

The treatment of a compound fracture can be best illustrated by giving notes of a case. W. S., miner, aged 32, was admitted April 1st, 1880, having come twenty miles by cart and rail from a pit-accident. There was a compound comminuted fracture of both bones of the leg rather below the middle. The wound was on the inner side of the leg, of an irregular shape, and about six inches in circumference. The bones were got into position; and over the wound was placed a pledget of dry lint four folds thick, which at once became soaked with blood. A many-tailed bandage was then applied, and side-splints of wood thickly padded with cotton-wool. Owing to the raggedness of the wound, it was examined in three days, and found to be doing well, and free from discharge. It bled slightly on removing the dressings, and lint was reapplied over the blood. On April 7th, it was redressed. There was no discharge of any kind. Lint spread with lard was applied, and not interfered with till April 20th, when the wound was found quite healed. There were thus three dressings in all, after which the case was treated as a simple fracture.

In many compound fractures, where the wound is large, the edges are brought together by silk sutures. Where free suppuration occurs, the dressings are changed very frequently, and discharges washed out by disinfectant fluids. Drainage-tubes have been used in two or three recent cases only. All the facts as to treatment have been communicated to me by Dr. Borland.

It will be observed, then, that the treatment is of the very simplest character. The principle of it is "dry dressing", Lard-cloths are the most frequent application. Lard is emollient and unirritating, and allows lint to be removed without injury to tender surfaces underneath. It is, of course, liable to become rancid. But where there is any discharge to cause rancidity, dry dressing means frequent dressing, as the wound can be kept dry only by frequent removal of discharges; and where there is no discharge, lard can be kept on for thirteen days, as in the case of compound fracture just cited, without the rancidity being of any practical consequence. In amputations, an important point is the complete cessation of bleeding before the flaps are brought together. The wound is always allowed to glaze before the sutures are applied. The result is, that the two surfaces whose union is desired are brought into perfect contact, without any intervening substance except the ligatures. In the same way, strips of plaster bring the edges into very accurate apposition, and support the flaps by acting as a means of pressure. Blood-dressing, as in the compound fracture case, is, of course, another example of dry dressing.

Results of Treatment.—In this section I shall first take the figures as a whole, and compare them with those of antiseptic surgery; and afterwards classify the cases, and examine the various classes. In endeavouring to make such a comparison, I am met by the initial difficulty that full statistics of Mr. Lister's hospital work have never been published. It is, therefore, necessary to have recourse to the practice of some other antiseptic surgeon. Fortunately, this is easily found, as some time ago the BRITISH MEDICAL JOURNAL called special attention to the excellent results obtained by Dr. Hector Cameron of the Glasgow Royal Infirmary. His practice forms a high standard, as his statistics are better than those of the other surgeons practising Listerism in that institution; and I am not, therefore, taking the average antiseptic success of the infirmary.

In all, 1,448 patients were admitted by Dr. Borland in the ten years, of whom 52 died, giving a mortality of 3.5 per cent. Dr. Cameron's death-rate is 5.1 per cent. If cases which died within forty-eight hours be omitted, Dr. Borland's rate is reduced to 2.3, and Dr. Cameron's to 2.9 per cent. This rate of 2.9 on all admissions, including simple fractures, etc., is larger than Dr. Borland's death-rate on surface-lesions alone. Besides, Dr. Cameron's figures refer to only four recent years. During the past four years and two-thirds, Dr. Borland had 9 deaths in 828 cases, or 1.08 per cent.—not much more than one-third of Dr. Cameron's. A very interesting point arises here; namely, as to the progressive diminution of the death-rate during the periods referred to. It is very frequently urged by Listerites that, as the antiseptic method approaches perfection in its details, the results obtained show a corresponding improvement. Now it is a proverbially difficult matter, in the practice of medicine, to say with certainty that a particular change in the symptoms of a case is owing to the administration of a particular medicine. In the same way, various factors may have to do with an all-round increase of surgical success. A few of these causes are: (1) a generally greater attention to hospital hygiene; (2) increased surgical skill, the invariable result of experience; (3) anxiety to give a new method of treatment a fair trial, and a consequently greater attention to every detail of every case; (4) the laudable pride of a surgeon in the general decrease of his death-rate may produce an enthusiastic determination to attain to still higher success, which determination, accompanied by perfect faith in the means adopted, may go very far towards the realisation of the desired result. Now, if the perfecting of the antiseptic method be a very important agent, the consequence ought to be a greater increase of success after this than after other methods; but, if the other causes I have named are principally involved, such superiority in progress should not be visible. Dr. Cameron, for instance, distinctly attributes his success to "measures, not men"; while Dr. Borland believes the measures in question to be absolutely unnecessary. The facts are as follow.

Dr. Cameron's Results.

In the whole 4 years, 50 deaths in 1,706 cases, or 2.9 per cent.
,, past 2 ,, 23 ,, 878 ,, 2.6 ,,
,, ,, 1 ,, 9 ,, 595 ,, 1.79 ,,

Dr. Borland's Results.

In the whole 10¾ years, 33 deaths in 1,429 cases, or 2.3 per cent.
,, past 4¾ ,, 9 ,, 828 ,, 1.08 ,,
,, ,, 2¼ ,, 0 ,, 421 ,, 0 ,,

The whole difference, then, in the rate of improvement consists in the very much greater rapidity and ultimate completeness of the process in Kilmarnock than in Glasgow. Perhaps never since antiseptic surgery was introduced, have any of its advocates been able to show such unvaried success as has been Dr. Borland's lot during the past two years. Had my paper been confined to this period alone, it would have contained a report of 421 cases, 90 operations (including 23 major amputations), 45 injuries, 52 abscesses, and 7 compound fractures, without a single fatality from any cause.

In classifying the cases, I have endeavoured to obviate, so far as may be, the well known, and to some extent valid, objections to surgical statistics on the ground of unreliability. The question at issue being the best method of wound-treatment, cases in which there were no surface-lesions may be entirely excluded; and those that remain have to be arranged according to their comparative immunity from, or liability to, a fatal termination. Thus, in this respect, there is the greatest possible difference between chronic ulcers, on the one hand, and primary major amputations, on the other.

Omitting deaths under 48 hours, there are 1,429 cases to be accounted for. Of these, there were, without surface-lesion, 529 cases, with 8 deaths; and, with surface-lesion, 900 cases, with 25 deaths. The 900 are classified in Table I.

TABLE I.—*Cases with Surface-lesion.*

	Class.	Number.	Died.
I.	Major compound fractures ...	27	0 or 0 per cent.
II.	Injuries	145	4 or 2.7 ,,
III.	Primary major amputations (double)	3	2
IV.	Primary major amputations (single)	25	6 or 24 ,,
V.	Secondary major amputations	54	2 or 3.7 ,,
VI.	Other operations...	160	2 or 1.2 ,,
VII.	Burns	49	2
VIII.	Abscesses...	179	3
IX.	Ulcers	181	0
X.	Diseases of bones and joints ...	68	2
XI.	Other cases	9	2
	Total.....	900	25, or 2.77 ,,

The period of Mr. Lister's practice with which I shall compare these figures consists of 5¾ years in the Edinburgh Infirmary, after the use of the spray, the last very important modification of antiseptic surgery, had been introduced. Mr. Lister had 33 compound fractures, 7 wounds of joints, and other severe wounds, making a total of 72, with 4 deaths. These cases are somewhat comparable with Dr. Borland's Classes I and II united. How many of Mr. Lister's deaths

* In the last annual report of the infirmary, the surgical department is debited, in this third period, with a death from general paralysis of a man aged 60, who was originally admitted with a bruised arm (without surface-lesion), which, however, was cured before the paralysis set in.

were from compound fractures, I cannot tell; certainly they could not be less than Dr. Borland's, who had no deaths in this list. Table II contains a statement of the cases. Some of them were sent in, not for treatment, but for amputation.

TABLE II.—*Major Compound Fractures.*

Case.	No.	Recovered.	Died.
Thigh	4	4	0
Both legs	1	1	0
Leg	16	16	0
Arm	2	2	0
Forearm	4	4	0
Total	27	27	0

Dr. Borland's mortality on the two classes is 2.3 per cent. against Mr. Lister's 5.7. But, in the Edinburgh Infirmary, many injuries are treated as out-patients. The exclusion, as a possible equivalent to this, of all cases under fourteen days in the wards, raises Dr. Borland's percentage to 2.9, still hardly more than half Mr. Lister's. In the Edinburgh Infirmary, Mr. Lister seems to have had no primary major amputations of two limbs, which constitute Class III. In primary major amputations of one limb (Class IV), the figures are nearly alike, though slightly in favour of Dr. Borland, the rates being 24 and 25 per cent. respectively. But the comparison is of little moment, the results depending much on the additional injuries received. In secondary major amputations (Class V), Mr. Lister's mortality is 7.8 per cent., and Dr. Borland's 3.7. But Mr. Lister very properly says that two of his five deaths should be excluded on the ground of irrelevancy, death having occurred a short time after operation. The omission of these reduces his rate to 4.8 against Dr. Borland's 3.7 per cent., as Table III will show.

TABLE III.—*Secondary Major Amputations.*

	Mr. Lister.			Dr. Borland.		
	No.	Recovered.	Died.	No.	Recovered.	Died.
Thigh	26	25	1	19	18	1
Leg	5	5	0	15	15	0
Ankle	16	15	1	9	8	1
Shoulder	1	0	1			
Foot				5	5	0
Arm	6	6	0	5	5	0
Forearm	8	8	0	1	1	0
Total	62	59	3	54	52	2
	Being 4.8 per cent.			Being 3.7 per cent.		

In "other operations" (Class VI), the Edinburgh mortality is 3.9 per cent., and the Kilmarnock 1.2. Mr. Lister says that many operations can be treated as out cases antiseptically, which otherwise would have to stay in hospital. I have tried to exclude from the Kilmarnock list all such, and have thus raised the mortality to 1.8 per cent., still less than half of Mr. Lister's. Neither in burns nor in abscesses have Mr. Lister's complete figures been published; so that they must be passed over with the remark, that Dr. Borland's results are very good in both classes. I regret very much that I am unable to give the total number of vertebral abscesses treated by Dr. Borland, as in this class antiseptic treatment is said to be specially successful. But it is very remarkable that here the greatest triumphs of Listerism are obtained in a manner which, if not in actual opposition, stands at least in very doubtful relation to the theory on which the practice is founded. Mr. Lister says: "I have published numerous cases to show that a great abscess connected with disease of the vertebræ may be opened by free incision, a drainage-tube introduced, strict antiseptic treatment being used, and that from that hour there is not another drop of pus." The case, therefore, stands thus. Before such an abscess is opened, it is protected by the completest of all coverings—the skin—and air-germs are absolutely excluded. Under these conditions, pus is produced in large quantities. Next, the abscess is opened, its contents evacuated; and, by "strict antiseptic treatment", air-germs are still absolutely excluded. Under the new conditions, there is "not another drop of pus". With germs excluded by nature, suppuration occurs freely; with germs excluded by art, suppuration ceases absolutely.

To return to the figures: in "ulcers" (Class IX) there are 181 cases, with no deaths, a fact not at all remarkable under any treatment; though, considering the large surfaces frequently exposed to the air, this also seems to disagree with the germ-theory. Neither in this class nor in the next (diseases of bones and joints) can I make a comparison, as Mr. Lister's results are unpublished. The remaining nine cases form a class, simply because they could not well go under any of the other headings. In a sentence, therefore, Dr. Borland's general results are better than those of the most successful antiseptic surgeon of the Royal Infirmary of Glasgow; and, in every one of five classes in which a comparison can be made, they are superior to Mr. Lister's.

Hospital Diseases.—Three deaths occurred in the Kilmarnock Infirmary in the 10⅔ years, giving a mortality in cases liable to blood-poisoning of 3 per cent. One was from erysipelas, in a case of axillary abscess, in a bad subject. Not only did no other patient die from this cause, but no other case of the disease occurred. Another death was from pyæmia, on the eighteenth day after amputation of the thigh for diseased bone. There was no *post mortem* examination. The nature of the third case was very doubtful; it was that of a strumous female, on whom a Syme's amputation was performed: The stump healed in twenty-eight days. The patient was taking out-door exercise, and was about to be dismissed, when a very large abscess formed with great rapidity over the sacrum, after the opening of which the patient sank, suffering from low delirious fever. No necropsy was allowed, and, with considerable hesitation, the cause was registered as pyæmia.

Mr. Lister's mortality from blood-poisoning is 7 in 845 operations. It is very difficult to make a comparison here. After all operations (including a few without surface-lesion), Dr. Borland's death-rate is also 7 per cent.; but Mr. Lister calls the opening of an abscess an operation, and Dr. Borland does not. If abscesses be added to the Kilmarnock operations, there would be 3 deaths in 472 cases, or 0.6 per cent. But this again is perhaps unfair to Mr. Lister, as a few of the abscesses had not to be "operated" on, they being already open when the patient was admitted. On the whole, the results seem very much alike. As to Mr. Lister's fatal cases, the following remarks occur in my former paper: "But, on Mr. Lister's six deaths, the process of exclusion is again brought to bear. The major operations are divided into antiseptic and septic; the former were 553, with two deaths; the latter were 292, with four deaths; regarding which, Mr. Lister remarks, 'The deaths were eight times as numerous. That seems to me very instructive.' And it certainly looks bad for the 'septic' treatment. But, as Mr. Lister also says, 'Cases should be pondered, not numbered'. And the result of pondering is as follows. The two deaths in the antiseptic list occurred after removing the breast. The four 'septic' were: (1) amputation of the penis; (2) a plastic operation on the nose; (3) excision of the tongue; and (4) the opening of a small abscess of the neck. Now it is obvious that, under any system of treatment, excision of the mamma is much less likely to be followed by blood-poisoning than the first three of the septic cases. In fact, of all operations, the three are among the most liable to be followed by hospital diseases. And, as the list of antiseptic cases may be presumed not to contain any such, and the septic list may include a number which recovered, the two lists are simply not comparable." Besides, it is a fair inference that, in Mr. Lister's wards, the antiseptic treatment is carried out to its very fullest extent. When, therefore, it is said that, out of 845 operations, nearly 300 were performed without antiseptics, the meaning is that, in these cases, the method was not applicable—always excepting the "major" operation of opening a small abscess in the neck, done by Mr. Lister's assistant, and followed by erysipelas, in spite of its being surrounded by all the advantages which septic cases enjoy, from mere propinquity to the spray and other germicidal treatment.

Now it is a very grave fault in any method of surgical dressing, that it is quite inapplicable during or after a large proportion of operations. Of course, the deaths in these 292 operations followed septic and not antiseptic treatment; but, seeing that Mr. Lister believes that his method, when properly used, prevents such deaths, he must look on those in his hands as having been owing to the absence of the treatment, and as, therefore, indirectly caused by this flaw in the method—namely, its inapplicability.

It is explained that the cause of erysipelas in one of the antiseptic operations was the momentary absence of carbolic spray from one corner of the wound. As to this, and similar mishaps of antiseptic surgery, Mr. Spence well remarks that "accidents incident to any system must be included in its risks". It is a peculiar feature of the whole system that, in a case in which failure occurs, it is almost impossible to be quite certain that the treatment has been properly carried out. This does very well in accounting for failures, but a sceptic might ask, How about the successes? If two breasts be excised, and the spray fail for an instant in each, and one patient do well while the other dies of erysipelas, there must be some additional influence at work to account for the difference. Seeing that, in the absence of a wound, erysipelas may result entirely from constitutional causes, such causes have also to be kept in view when it arises after a wound.

In reference to the other deaths that occurred in the Kilmarnock Hospital, I have to state that, of the four which followed injuries, one was owing to [illegible] which rendered the case hopeless. [illegible]

on the fifth; and the third (a man who had sustained fracture of the ribs and humerus, and compound fractures of the arm, ankle, leg, and thigh) lingered seventeen days. The only statement Mr. Lister makes regarding his deaths from injury, is that they were not owing to hospital disease. In primary major amputations (Classes III and IV) six of the eight deaths were the direct result of railway accidents, and the whole six occurred within a few days of admission. Of the other two, one died from tetanus in five days; and in the last, an amputation of the thigh, the wound did well, but the patient succumbed on the thirty-eighth day to obscure intercurrent disease. I have already spoken of the deaths in Class V, which contains both of the only two fatalities from pyæmia in Dr. Borland's practice. Every surgeon is apt to have an unfortunate group of this sort. In Mr. Lister's practice, the excisions of the mamma are the unlucky series, he having two deaths from hospital diseases in thirty-eight cases. In "other operations" (Class VI), one death followed herniotomy. The bowel was gangrenous, having been strangulated five days. Death took place in seven days. In the other case, a man fell from a height on a paling-stob, the pointed end of which pierced the hip, and entered the pelvis by the great sacro-ischiatic foramen. On forcibly withdrawing the stob, the gluteal artery bled profusely, and was ligatured. Gangrene from the injury set in next day, and proved fatal. In Class VII, the two deaths were owing to extensive burns. In abscesses, Dr. Borland had his solitary death from erysipelas. Another death was from lumbar abscess, on the nineteenth day, in an emaciated subject, sent in without hope of recovery. The remaining death in this class took place in a man who had a lumbar abscess forming, but unopened. Hemiplegia took place on the twelfth day, and from this cause the patient died, the abscess not having been interfered with. The only surface-lesion consisted in certain sores on the legs. In Class X, one death was from periostitis, and another from disease of the knee, in a hectic subject who lived almost entirely on stimulants. The knee was quite disorganised, and discharging from numerous sinuses. A series of large abscesses formed along the thigh, and the patient was never fit for operation. In Class XI, "other cases", a tramp died on the eleventh day from exhaustion, while both legs were sloughing off, owing to gangrene caused by exposure. The last case was admitted for traumatic erysipelas, which ended fatally. Such a case would not, I presume, have been allowed to enter Dr. Cameron's or Mr. Lister's wards. In a sentence, therefore: of the twenty-five deaths, seven occurred within four days, another six within eight days of admission; four chronic cases were sent in simply to be attended to on their death-beds; three died from hospital diseases; and one each from tetanus, hemiplegia, periostitis, severe general injuries, intercurrent disease, and erysipelas which arose previously to admission.

I have thus described what are, so far as I can discover, the best general results, covering a lengthened period of time, that have ever been recorded in the history of British hospital surgery. And the work has been accomplished in a manner totally at variance with that system which its advocates hold to be the best method of surgical treatment.

Finally, as to Listerism, Dr. Borland's position simply is, that he has never needed to adopt it. The above results have been obtained entirely without its aid; and, until distinctly greater successes have been recorded from other systems, he is justified in continuing to follow out a practice which is the matured result of fifty years' surgical experience.

PULMONARY PHTHISIS TREATED ANTISEPTICALLY.*

By W. WILLIAMS, M.D., M.R.C.P.,
Physician to the Royal Southern Hospital, Liverpool.

THE use of inhalations, and even of antiseptic inhalations, in the treatment of lung-disease, dates from no recent period: remedies of various kinds thus employed are spoken of by very early writers. It would, however, be beyond the scope of my paper to attempt to trace from the earliest records to the present time the gradual development which this subject has undergone. My object rather to-day is to lay before this meeting certain clinical facts which I have gathered while making an endeavour—with what success you will be able to judge—to bring the principles of Professor Lister's antiseptic method to bear upon the treatment of cavity or abscess of the lung. It is not so much, then, to the impregnation of the inspired air with vapour, as its purification, that I wish to draw attention.

Before entering upon the subject before me, I will make a very few remarks upon some of the pathological changes which lead up to the disease in question.

Unlike acute pneumonia, from which recovery is, in favourable cases, complete, chronic or subacute inflammation of the lungs, in whatever way it may arise—whether as the relic of a previous acute attack, or of an attack of catarrhal pneumonia, or as the result of embolic arrest in the pulmonary capillaries (a view of the causation of phthisis at present in some favour)—tends towards the changes in the lung which are the precursors of phthisis, or, at all events, of some of the more chronic varieties of this disease. Accompanying it are found the same histological changes that are associated with this process elsewhere—a migration of leucocytes takes place, to invade all the pulmonary structures; the blood-vessels are surrounded, compressed, and their efficiency as circulating channels is damaged; the smaller tubes are, in their turn, similarly affected; while the alveolar walls are themselves invaded, thickened, and suffer a loss of elasticity. These, the immediate effects of inflammation, are aggravated to the utmost when the inflammatory products undergo the ultimate connective tissue transformation, with subsequent contraction and consolidation. This change, however, except towards the circumference of the diseased spot is, we are taught, by no means that which invariably takes place; much more frequently, towards the centre of the patch, the tendency will be to suppuration and abscess, and the advent of this result will no doubt be hastened or postponed, according to whether the particular case has the acute or chronic characteristic most developed; but, an abscess once established, systematic infection, with rigors, fever, sweats, rapid wasting, and, what is of far greater importance, the setting up, by means of emboli disseminated by parts already affected, of foci of similar disease at a distance in the same, or in the opposite lung, are liable to take place. This is a mode of ingravescence which undoubtedly prevails, and, indeed, forms the principal features of most, if not all, cases of advanced phthisis; and that the study of it forms the surest guide to successful treatment is, I think, no isolated opinion. The patient, although he may have every possible attention—the best of nursing, the most nourishing of diets, given with the most approved regularity—cannot possibly derive the benefit which would, under more favourable circumstances, be secured him by such means, so long as suppurating cavities containing septic pus are allowed to exist in the lungs, constantly exercising their pernicious influence on the blood, preventing even the proper assimilation of the nourishment of which he stands in so much need.

The surgeon, with the resources at present under his command, has no difficulty in obviating the occurrence of the above untoward contingencies; and it will be my endeavour to show with what success I have been able to employ in the treatment of cavities in the lungs the means all but infallible in their application to external wounds.

It is a principle of treatment now universally recognised, that an abscess must be freed of its contents, kept empty by free drainage, and insulated or protected by antiseptic media from the septic influence of the surrounding atmosphere. These conditions being duly fulfilled, experience amply proves that any constitutional disturbance which has already appeared may very well be allowed to take care of itself, as under these circumstances the local lesion will quickly cease to be anything more than a local lesion.

Free drainages from abscesses or cavities in the lungs is undoubtedly in by far the majority of instances not to be secured; we know that they owe their most characteristic features of being rife sources of systemic infection, or septicæmia, to the fact of their contents being retained while exposed to the septic influence of the air breathed; and the partial discharge that does take place is but periodically produced by the compression which the lung experiences during coughing—a method of evacuation that suggests to one's mind an attempt being made to cure the abscess by squeezing out the contents instead of providing, in addition to antiseptic protection, an efficient opening for a spontaneous and thorough drainage. For this reason, it will appear that all the conditions favourable to the complete carrying out of the Listerian method do not ordinarily exist here. One essential to the system—free drainage—we have seen to be frequently absent; but while admitting the full significance of this fact, we are, I think, bound to confess that the condition which is applicable is scarcely the least important of the two. No one, for instance, would deny antiseptic protection to a suppurating cavity because he was unable to empty it; and simply for that reason, would not a suppuration cavity in such a state, and with the risk of septicæmia which especially attaches to such a state, rather call for this guard against by far the worst accident that can arise?

From the time when, more than two years ago, I first attempted to bring the antiseptic system to bear upon chronic phthisis, I have become more and more convinced that it is the only treatment which promises to fulfil all the requirements of these cases.

In the ordinary application of Professor Lister's system, the fact is

* Read before the North Wales Branch.

recognised that carbolic acid, except to rid the wound in the first instance of septic germs, is not a good application. So far as the raw surface is concerned, it is irritating; and to counteract this drawback a piece of prepared oiled silk as a protective is invariably placed underneath the carbolised pad. To a certain extent, air circulates through the covering of gauze; and air purified by the filtration which necessarily takes place is, therefore, in constant contact with the surface of the wound, and with the discharge which lubricates that surface. Have we not, I will ask, an exact parallel to this in the application of the same principle to the lungs? I believe we have, even to the preliminary cleansing of the foul surface alluded to.

Respiration ensures the circulation of air to perfection; while as it passes through the respirator it is not only purified, but it also becomes impregnated with a certain amount of the carbolic vapour given off by the gauze. The quantity inhaled of this vapour may, for any single inspiration, be quite insignificant; but when multiplied by the number of inspirations made in only a few hours, it does not seem difficult to believe that the amount would soon be sufficient to accomplish the disinfection of all the purulent cavities already in communication with bronchial tubes. That this end is actually gained, and even rapidly gained, my experience certainly tends to prove; and I find moreover that, on the disappearance of odour, it requires subsequently the presence of very little carbolic acid on the gauze to keep the expectoration permanently free from fœtor, as though the ulcerated surfaces having been rendered aseptic, all that remained to be done was to ensure against their reinfection by the inspiration of only pure air, and also to obviate the risk of creating irritation by breathing that which contains but a minimum quantity of suspended carbolic vapour.

So far as my observations go, they also tend to show that fœtid pus from the lungs is not so rich in bacteria as putrid matter from some other regions; and this may be the explanation of the facility with which odour disappears under this mode of treatment: there being but few organisms to kill, the work is soon completed.

Three of the six slides which I show to-day have been prepared from patients before, and the remainder after, treatment. You will observe that while they all contain micrococci, only the former show rod-bacteria. I have only been able to get these few specimens ready in time: that they must not be allowed to lend any support to the clinical facts, must be evident. The matter in each case was taken from recent expectoration, which was immediately dried, stained with methyl-aniline-violet, and mounted in Canada balsam. Although the power employed —an eighth objective—is a comparatively low one for the purpose, yet with the aid of Abbé's condenser the micro-organisms are very fairly shown.

With regard to the mechanism adopted, the following is a description of the kind of respirator I find to answer best. Over a wire framework, shaped like a respirator, made to cover both the mouth and nose, two or more layers of ordinary antiseptic gauze are stretched; along the concavity inside, a narrow strip of sponge is placed, and, finally, the whole is fitted accurately to the face by a circumferential pad made of gutta-percha tissue, stuffed with cotton-wool, or folded lint, which is more manageable. Antiseptic gauze in the dry state gives off a vapour of carbolic acid. Bearing in mind, however, the large amount of air that would in ordinary breathing pass to and fro, it will be very evident that this comparatively small piece of gauze must soon become exhausted, and require recharging; this is secured by the whole being dipped every half hour or so at first, afterwards less frequently, into a watery solution of carbolic acid of the strength of 1 in 40; the gauze is, besides, renewed every two or three days. These respirators or dressings are worn as constantly as possible; in fact, the only occasions on which their temporary removal is permitted are during a meal, for the purpose of expectorating, and for that of dipping. Taking into account the apparent inconvenience, it is a little surprising with what readiness even hospital patients fall into the way of wearing these appliances with the greatest constancy both day and night. It is quite the exception to hear complaints of any kind.

The following cases present a fair example of the results I have met with.

Case I.—April 3rd, 1879. J. O., sailor, aged 10, had three months' illness, originating in exposure. There was consolidation, and a cavity affecting the left apex. He had purulent bronchitis throughout both lungs, very great emaciation, rigors, sweating, and diarrhœa. The temperature was 104° at night, and 99° in the morning. Expectoration amounted to thirty ounces in the twenty-four hours—purulent, and very offensive. On the seventh day from the commencement of the treatment, the cough and symptoms were generally much improved; expectoration ten ounces, and free from smell. At the end of four months he left the hospital for his native country (Norway) in much improved health; expectoration two to three ounces, mucoid.

Case II.—December 8th, 1879. J. P., joiner, aged 43, had had four months' illness, commencing with cough and repeated attacks of hæmoptysis; emaciation followed, with rigors and night-sweats. Percussion over the right apex showed dulness to exist as far down as the fourth rib; a large cavity was also present here; coarse crepitation, with increased vocal resonance at the right base. The left lung was fairly healthy. The expectoration was five ounces in the twenty-four hours, nummular. The bowels were mostly loose; temperature 100°. He had frequent attacks of pain in the right chest.

December 18th. Weight 9 st. 11½ lb. He had night [illegible] during the night.

January 8th. Weight, 10 st. 2 lb.; January 16th, 10 st. 7 lb.; January 23rd, 10 st. 9 lb.

March 5th. Weight, 11 st. 6 lb.; so far as I could gather, his normal weight.

This patient was discharged cured on March 8th, 1880. I have seen him up to the last three weeks; he continues free from relapse, though the cavity still exists, and he follows his employment.

Case III.—November 7th, 1880. W. C., a labourer, aged 19; height 6 ft. 2 in., weight 8 st. 11 lb., slight build; five months' illness. He first had a cough and pain in the chest; afterwards thick expectoration, occasional attacks of hæmoptysis, great wasting, sweating, etc. The thorax was flattened on the left side above; respiration here was cavernous, and accompanied by gurgling; pectoriloquy and cracked-pot percussion-note were marked; dulness extended all over the left front and upper third behind. The left lung contained several cavities. The heart was displaced upwards, and to the left. There was puerile breathing on the right side. Expectoration amounted to about six ounces, nummular, and occasionally very offensive. Temperature 104° at night, and sometimes a little higher. He was ordered a carbolised respirator.

He left the hospital, after four months' treatment, for the Convalescent Institution at Woolton. Expectoration was mucoid, a few drachms only; cavities dry. He had not had hæmoptysis for a month, and then only a slight tinge; weight, 9 st. 6 lb. He was able to go about as usual. One day, a month ago, this patient called upon me, when I learnt that he had remained pretty free from cough, and was still improving. The condition of his chest seemed to be precisely what it was on his first leaving us.

ANTISEPTIC TREATMENT OF LUNG-DISEASES.

By J. CARRICK MURRAY, M.D.,
Physician to the Northern Counties Hospital [illegible]

I WAS pleased to see, in the JOURNAL of July 16th, the memoranda of Mr. S. Wilson Hope and Dr. F. P. Atkinson. They will have the good effect of keeping the antiseptic treatment of chest-cases before the profession. This mode of treatment is probably making a greater stir in the profession than appears; for Dr. Coghill has no doubt had, like myself, many private letters of inquiry.

On May 31st, the medical officers of the Northern Counties Hospital for Diseases of the Chest received, per order, a number of Dr. Coghill's inhalers, made by Messrs. Maw, Son, and Thompson; also some of the inhaling mixture recommended by Dr. Coghill. The inhalers have been in diligent use since, with satisfactory results; the amount of sputa having in each case lessened. Patients who commenced to cough and spit at four o'clock in the morning can already lie until rising time without coughing. Some of them complain that they do not get the phlegm up so easily as before; but I am of opinion that the sufferers continue to cough more from long habit than from real necessity. I find that our inhaling patients observe the strong smell of the antiseptic in their sputa, and that half an hour twice a day appears sufficient to use the inhaler; also that twenty minims dropped on at once are enough for two days' use. More has been found too irritating to the glottis in the cases in which we have used it.

I prefer surgeons' lint, doubled, to cotton-wool or tow; and have had made for me an inhaler more elegant, a little, than Dr. Coghill's. It fastens by a broad India-rubber band at the back of the neck; this does not hurt the ears. The outer perforated plate is hinged, and therefore more easily manipulated. The makers are Messrs. Henry Aitken and Co., Bishophill, York; the price, five shillings each.

My conviction is, that medicated inhalation might be used with benefit in more diseases than Dr. Coghill enumerates; *e.g.*, in hay-fever; influenza; [illegible] consumptive wife, [illegible] bronchitis, with profuse, inspissated, or difficult expectoration; asthma from loss of lung-tissue; so-called laryngeal phthisis; circumscribed

gangrene of the lung; diphtheria after seeing infectious cases, *e.g.*, small-pox, fevers, etc.

The ozonised snuff of which I spoke in my letter of June 4th, page 908 of the JOURNAL, left something to be desired, as it could only be useful to such as were sufficiently strong-minded to take snuff. Dr. Coghill's plan supplies the desideratum essential for delicate girls, ladies, and youths, who may now receive a benefit hitherto denied them; and, by means of the inhaler, old people may upon occasion sweeten their breath for an evening or whole day by inhaling an ozonising and antiseptic aroma of agreeable flavour—*e.g.*, essence of lemon, essence of orange, essence of bergamot, eau de Cologne, sassafrass, or other ozonising perfume.

CLINICAL MEMORANDA.

ABDOMINAL ABSCESS AS A RESULT OF ENTERIC FEVER.

ABDOMINAL abscess after enteric fever is not often met with. Little information regarding it is given in the text-books. For this reason, I place on record two cases which I have met with in practice.

CASE I.—A girl, aged 5, had a severe attack of enteric fever. She was surrounded by extreme poverty, and was nursed and fed by the kindness of charitable neighbours. During the third week of her attack, symptoms of general peritonitis appeared; at one time, collapse came on in such an alarming manner that perforation of the intestine was suspected. She rallied, however, and the distension of the abdomen gradually subsided, leaving only a hard and painful swelling on the right side of the umbilicus. Poultices were applied for a few days. After this, the abscess burst spontaneously into the poultice, and discharged a quantity of horribly feculent pus, together with several orange-coloured masses, each about the size of an ordinary bean. The smell of the discharge was so nauseating, that it was hardly possible to remain in the sick-room. After the use of injections of carbolic lotion, the sinus gradually closed and healed ten days after it burst; the child made a quick and permanent recovery.

CASE II.—A girl, aged 7, had a typical attack of enteric fever. During the fourth week, the pulse and temperature sank to normal for a few days, but gradually rose again till the latter reached 102°. No complication or cause for the rise of temperature could at first be discovered. A small cervical gland was found suppurating: this was opened, and quickly healed. At last, pain was complained of in the umbilical region, and a hard lump gradually developed to the right of the navel. It could be seen projecting beneath the abdominal wall. It was as large as a cricket-ball. Poultices were applied. Four days after, I was informed, on making my morning visit, that the lump had burst. The child had asked for the bed-pan, into which she passed *per anum* about a cupful of pure pus. On examination, I could find no trace of the lump in the umbilical region. All the symptoms disappeared, and the girl made a rapid recovery.

The origin of the abscess in Case I seems to have been due to peritonitis, arising probably from a deeply ulcerated Peyer's patch, with matting of the intestines, and possibly subsequent perforation, with consequent encysting of the extravasated contents of the bowel, which ultimately were discharged through the abdominal wall in the form of an abscess. In Case II, the abscess was probably due to the suppuration of a swollen and inflamed mesenteric gland, which had excited adhesions to the bowel, through which it opened and discharged its contents without any bad results. Both children were scrofulous; the second girl had especially a bad family history

Gluge (*Bull. de l'Acad. Méd. Belg.*) relates what he terms the "rare" case of a boy who, during convalescence from enteric fever, was attacked with peritonitis ending in the formation of an abscess, which made its way out by the umbilicus; the lad recovered in a month. Neither of my cases is exactly identical with this one just related, but they present certain points of interest in common; but to these I need not at present specially direct attention. The occurrence of abscess is of importance in connection with the possibility of pyæmia after enteric fever.

R. BRUCE LOW, M.D.Edin., S.Sc.C.Camb.,
Helmsley, Yorkshire.

ON THE FUNGOID ORIGIN OF DIPHTHERIA.

THE valuable and interesting paper of Dr. Taylor, in the JOURNAL of July 2nd, on the above subject, has induced me to report a case which came under my observation nine months ago, and which I intended reporting when I obtained confirmatory evidence, in the shape of more cases. Perhaps, however, my one example may now be useful, as supporting the suggestions advanced.

Mrs. S., residing in a healthy suburb of Leeds, was seized with diphtheria, which involved the tonsils, soft palate, and upper part of the pharynx; she was very ill for about a week, and then gradually recovered, being extremely weak for a month. The local treatment adopted was chlorate of potash gargle, antiseptic spray, and steam; the internal remedies were at first salicylate of soda, and afterwards tincture of perchloride of iron. In the case, there was nothing unusual; but, in searching for the cause, a remarkable phenomenon came to light. The drinking-water was beyond suspicion, being that supplied by the Leeds Corporation. The drains were apparently right, and there was no offensive odour in the house. As there had been no case of diphtheria in the district, I was quite at a loss to account for its origin, until I was taken into the breakfast-room, on the ground floor, and shown the inside of two closets, the walls and shelves of which I found to be covered with what appeared to be red dust, but which, on examination, turned out to be a species of fungus. The servant told me that this was quite a recent affair, it having only been noticed a few weeks previously, coincidently with a very marked dampness; that, although the closets were well scrubbed out every few days, the red dust invariably returned, both on the walls and on the shelves. As there was no drain under the house, inquiry was made next door, when it was found that the rain-water pipe had burst and saturated the earth contiguous to the wall of the closet. After the pipe was mended, the fungus soon ceased to grow.

I firmly believe that the vegetable growth was the cause of diphtheria in the above case; although why this reddish-looking fungus should have given rise to the white patches of "oïdium albicans", I can only understand on the supposition that a different nidus, and consequently different food, had induced changes in the form and growth of the minute plant; moreover, this has been proved possible by fungologists, in several cases. Perhaps this alteration in character by transplantation may have something to do with the greater virulence of those cases arising by direct contagion from one individual to another.

A. W. MAYO ROBSON, F.R.C.S.Eng., Demonstrator of Anatomy, Leeds School of Medicine.

OBSTETRIC MEMORANDA.

THE MODE OF USING THE FORCEPS.

I READ, with much interest, in the JOURNAL of the 9th inst., "Suggestions as to the Mode of Using the Forceps", by Dr. H. Lowndes.

Dr. Lowndes deduces, as the result of his experience, four rules, which he submits to the consideration of the profession.

Rule 1 is that "Traction should be made in the intervals, instead of during the pains". Dr. Lowndes gives the following reasons for this novel practice, which I propose to consider *seriatim*.

1. Because, "if traction be made during a pain, the cervix being incompletely dilated, the blades are compressed between the head and the cervix, and we are tugging at both the child and the womb". Are we not doing precisely the same thing if the traction be employed during the interval?

2. Because "both the child's head itself, and the cervix itself, must during the pain be in a most favourable condition for receiving injury from the blades of the forceps".

a. The child's head. A certain force being required to bring the head through a contracted space, is it better for the head that the whole force should be communicated to it through the rigid blades of the forceps, than for the force to be shared between the *vis a tergo* of the contracting womb, and the *vis a fronte* of the forceps, as it is when traction accompanies a "pain"?

b. The cervix. In a natural case, the undilated cervix is only exposed to force during a pain. Why should we deem it better that the cervix should bear that force during an interval? And why should we deprive it in a great measure of the rest from pressure which nature has allowed it, and the contiguous textures, to receive between the expulsive efforts?

3. Because "when making traction during a pain, with the head high up, the perinæum is apt to force the handles forward, and so prevent us from pulling in the axis of the pelvis". My experience has been that this only occurs when advance is being made; in which case "forward" is the direction which (to maintain the axis of the pelvis) the handles *should* take.

4. "When the pelvis is capacious, and we have only the opposition of yielding structures to overcome, the traction should always be gentle, and may generally be performed with one hand". I think many practitioners would be of opinion that in this case we might even dispense with the "one hand", and leave the case entirely with "Dame Nature". At all events, one would not be surprised if, at the end of

an hour or so, there was not much "indication on the head" that "instruments had been used".

There is nothing special to remark in Rules 2 and 3; and the restraining power of the forceps alluded to in Rule 4 has been long appreciated.

My own impression is, that in the vast majority of cases it is impossible, even if one wished to do so, to follow Rule 1, and make extraction with a *passive* uterus; for that organ (recognising, as it were, the value of co-operation and assistance) answers to the stimulus of forceps-traction, even though applied in an interval, and a pain more or less complete is the result.

W. E. WYLLYS, L.R.C.P.ED., etc., Great Yarmouth.

DR. LOWNDES's suggestions, though valuable, admit of some comment, His first, that of using the forceps "during the interval of the pains". has been suggested some time ago (by an American author, if I remember right); and the great objection to my mind is, that the traction in the interval, combined with the labour-pains, would almost convert the action of the uterus into one of "tonic" instead of what we may call "clonic" spasm (something very analogous to the effect produced by ergot of rye, and which effect is one of the principal objections to its continued use).

Dr. Lowndes's reason for the use of the forceps "during an interval", "before the cervix is completely dilated", does not appear very convincing, as the very introduction of the blades into a cervix not fully dilated would bring on contraction, so that in any case the evil would still exist of "tugging at both the child and the womb", when traction was made.

With regard to No. 2, if the handles of the forceps were "allowed to lie as far apart as they will", they will almost certainly unlock altogether, and give the trouble of readjustment.

No. 4 appears to me the most valuable of the suggestions, and I have (no doubt in common with others) found it useful; but, if No. 2 suggestion were always strictly followed, No. 4 would then be useless.

ALEX. DUKE, M.K.Q.C.P.I., Ex-Assistant Physician, Rotunda Hospital.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MIDDLESEX HOSPITAL.

FOUR CASES OF SEVERE CEREBRAL DISTURBANCE, DUE TO THE RECENT EXCESSIVE HEAT.

MR. M'CAUSLAND, the Acting Resident Medical Officer, has kindly placed at our disposal the following brief notes of the cases, four in number, which have been admitted to this hospital suffering from sunstroke and allied conditions.

CASE I. *Sunstroke.*—H. D., aged 43, a brewers' drayman, a full-blooded powerful man, had been driving in the sun on Monday, the 18th instant, when he felt, as he described it, a sudden weight on his head, and became giddy. He was brought to the hospital within half an hour. When first seen, he was very drowsy, but could answer questions; he complained of pain in his head, and was unable to stand; there was slight loss of grasping power in the left hand, and the pulse was hard and incompressible. There was no albumen in the urine. He gradually became unconscious, and at times his breathing was slightly stertorous. He remained in this state for about twelve hours; at the end of that time, consciousness returned, and no loss of power remained in the limbs. The treatment consisted of an ice-coil to the head, and five grains of calomel; he was bled from the arm to the extent of twelve ounces, with marked relief; his pulse becoming soft and compressible. He is now (July 20th) convalescing. The temperature and pulse never rose above the normal.

CASE II. *Sunstroke.*—J. W., aged 25, a butcher, was of very similar aspect to the patient referred to above, being very strong and plethoric. While out in the sun on Tuesday, the 19th instant, he felt giddy, and went home. Later on, he was found lying insensible in the kitchen; he was delirious and violent. He was brought to the hospital within six hours. When admitted, he was unconscious and quiet; the body-temperature was normal, the pulse full. He was ordered an ice-water coil to the head and a calomel purge. In twelve six hours, he was conscious; and is now (July 20th) convalescent. The temperature and pulse never rose above the healthy standard. There was no history of any tendency to fits in this case.

CASE III: *Unusually Severe Attack of Epilepsy in an Epileptic.*—E. B., aged 26, a porter, had been for some time the subject of epilepsy. On Thursday, the 14th instant, he had been exposed to the sun, and on that day he was admitted in an unconscious state, with the history that he had recently had an epileptic fit; within the five following hours, he had ten fits in succession. His wife said that he had never previously had more than three fits in one day. The ice-water coil was applied to the head, and a calomel purge administered. The temperature and pulse never deviated from the standard of health. This case illustrates well the injurious effects of a continued high temperature on a brain already in a condition of somewhat unstable equilibrium; resistances, already weaker than natural, are still further diminished by the depressing effect of the heat, and the result is an explosion of misdirected nervous force of quite unusual proportions.

CASE IV: *Slight Ill-defined Hemiplegia.*—J. A., aged 70, a bricklayer, whilst working in the sun on Friday, 15th instant, was attacked with pains in the head, and vertigo; he applied for admission next morning; he was then unable to stand, and there was slight hemiplegia. An ice-bag was applied, and a purge administered. He still complains of pains in the head and *malaise*. The temperature and pulse were never above the normal.

THE USE OF LOCAL REMEDIES IN THE TREATMENT OF DIPHTHERIA.

WE recently asked a certain number of physicians, whose experience on the subject seemed especially to entitle them to speak, to favour us with their opinion on the advisability of using local remedies in diphtheria, and to state what drug they preferred to use. The subject is one which is to be discussed at the approaching meeting of the International Medical Congress; and we trust that the paragraphs which here follow may stimulate the interest of our readers in what will, no doubt, be a most interesting debate. There are many difficulties surrounding the subject, and one of these has been forcibly put by Dr. OCTAVIUS STURGES, who writes thus:

"I have never been able to convince myself of the value of local remedies in diphtheria. In cases that have been occurring lately, there has been so large a proportion of recoveries, especially after tracheotomy, that the question of treatment, local or otherwise, or any comparison between the results now and two years ago, or, still more, eighteen years ago, is hedged about with difficulty. My personal belief is, that the great safety in diphtheria is early tracheotomy; and the important question, awaiting authoritative statement, in reference to the disease, the precise clinical signs which give the proper signal for the operation."

Sir William Jenner, who published (now many years ago) a small monograph on the disease, advised the use of local remedies, preferring nitrate of silver for this purpose. There are still many who adhere to this plan, and for these Dr. EDWARD WOAKES may be allowed to speak. He says:

"During an experience of diphtheria in one locality, where the disease was rife, dating from 1860 to 1876, and which included some four or five distinct outbreaks of the disease, I invariably used topical remedies. I do not recall a single fatal case in which the following plan was adopted, providing the larynx and air-passages proper escaped—though nearly every instance in which those organs were implicated ended fatally. The disease presented itself in two forms: the catarrha and the membranous, though a tendency was observed for the former to pass into the latter, especially in the late stages of the disease. In the catarrhal type, I contented myself with syringing the nasal passages, and swabbing the fauces with a strong solution of chlorinated soda, repeated very frequently, every hour or two. In the membranous phase, I adopted the local application of nitrate of silver, almost invariably in the solid form. This I use very freely, stirring it into, and, if possible, under the exuded mass, completely breaking up the latter, so as to reach the diseased surface beneath. In very bad cases, I have made this application as often as three times in one day, so as to keep pace with the renewal and extension of the patches. In addition, I give repeated mouth and nose washes of chlorine or permanganate, in order at once to [illegible] does not embrace [illegible] of iron to the [illegible] mucous [illegible] tion. Up to the present time, I have met with no treatment that offers greater [illegible] the concomitant [illegible]

the insufflator; and I profess, at the risk of appearing obsolete, to a preference for that method which has so often stood me in good stead."

Professor McCall Anderson, on the other hand, writes to us, that "he is entirely opposed to the use of caustics and other strong applications in cases of diphtheria, as being injurious, as well as increasing the distress of the patient". But, he adds, that "he has great faith in the local application of carbolic acid, of the strength of two or three grains to the ounce of water, and to which one drachm of glycerine has been added. This may be used in the shape of spray; or a large mouthful may be taken frequently, and allowed to lie for a short time at the back of the throat without gargling".

Dr. Robert Cory also expresses a similar opinion. "I believe", he says, "the use of topical applications is advantageous in diphtheria, so long as they are of such a character that they do not cause destruction or inflammation of tissue; that the best applications to use are either sulphurous acid of *P. B.* strength, or carbolic acid, one part of acid to sixty parts of water; or permanganate of potass, one grain to an ounce of water; or peroxide of hydrogen (ten volumes strength); and that the best method of applying one or other of these solutions is in spray."

Dr. Alder Smith (of Christ's Hospital) also writes thus: "I most certainly believe in the use of topical remedies in diphtheria. I consider carbolic acid to be the best application, and would advise its use in the form of a dilute steam-spray. If the patient were old enough, I would also use to the *patches* the following solution: ℞ Glycer. acid. carbol., acidi sulphurosi, liq. ferri perchlor. fort., āā, partes æquales. But I think the repeated use of a dilute carbolic acid spray to be most important."

Dr. Thomas Barlow coincides very much with these opinions, and suggests a mode of dealing with the disease when it attacks the nasal passages—a complication usually regarded as very serious. "There is", he says, "one group of cases of pharyngeal diphtheria where a very simple topical remedy is, I am sure, advantageous; those, namely, where there is an acrid discharge from the nostrils, and a presumption that there are shreds of tenacious mucus and half-membranous stuff on the posterior nares and the back of the palate. In these cases, so simple a measure as twice a day flushing round the posterior nares with plain water through the nostrils—the mouth being kept open—gives sometimes great comfort in breathing and swallowing, and, as I believe, lessens the risks of septicæmia. The quantity of membranous plugs which can be removed in this way, without any risk of leaving a bleeding surface, is sometimes considerable. In regard to applications to the tonsils and soft palate, glycerine of carbolic acid has seemed to me the best thing to use. It does not make a superficial white slough like hydrochloric acid and nitrate of silver; and it is not so painful, and it can be applied daily. Occasionally, it is true, membrane re-forms over the area where the carbolic has been applied; but I have seen the same thing occur with the caustics above referred to. I suppose all are agreed that to remove membrane and leave a raw bleeding surface is not wise; and that it is only over parts where the membrane can be stripped without violence, and also around spots where the membrane is closely adherent, that one ought to apply anything. Siegle's inhaler, used with simple steam or with weak carbolic lotion, I am sure, is a comfort; and creasote inhalations (about twenty drops to the pint) I have seen, in one case at least, followed by the most satisfactory result."

Another remedy which has found considerable favour is lactic acid. Dr. Prosser James tells us that he has "considerable confidence in topical remedies, though he holds that general treatment should never be neglected. He finds local applications hasten the separation of false membrane, favourably influence the mucous surface, and may serve as antiseptics and disinfectants. To meet the first two indications, he still relies on the use of steam, as originally recommended in the first edition of his *Sore-Throat* twenty years ago, and as lately adopted by several German authorities.

"At an early stage, the frequent inhalation of hot vapour should be employed; and, if the membrane increase in quantity, the steam should be used more frequently, until it is almost constantly breathed. For this purpose, it may be necessary to place the patient in a croup-tent; but in such case it is most necessary to see that fresh air, as well as vapour, finds free access. If the vapour be produced by the moistening of quicklime, it is thought that particles of the lime may be carried up with the steam and produce a favourable effect, for it is found that lime-water will dissolve many false membranes. As a solvent, however, Dr. Prosser James has most confidence in lactic acid, which, both in the form of spray and freely applied with the brush, he has seen rapidly followed by excellent results. The spray of lactic acid, he thinks, sometimes fails because the solution used is too weak, or is not applied often enough. In severe diphtheria, with much false membrane, it is idle to expect great effects from very weak applications. If the lactic acid is to act as a solvent, it must be used freely; and this treatment may well displace the use of mineral acids and caustics, which were once so largely used. The steam may be made antiseptic by carbolic acid being diffused through it. Other antiseptics and disinfectants may be used conjointly with the steam; but they are usually more serviceable a little later, when the membrane has more or less separated. Then, too, those remedies which tend to restore the mucous membrane come into play, and should be diligently employed.

"When the nasal passages are involved, they should be carefully washed out with a weak antiseptic solution. A lotion of carbolic acid, or a sulphocarbolate, salicylic acid, or a salicylate, may be used with a douche or a syringe every hour, or even oftener, if the discharge be considerable. This treatment should be commenced as soon as ever the nose becomes affected, and diligently persevered in. If the lotion be weak, it can scarcely be used too often. If the passages become clogged, it will be necessary to clear them with a weak alkaline douche, and then to return to the antiseptic lotion. At a late stage, it may be desirable to employ an astringent lotion. If so, it should be weak. As an alternative lotion for the nose, Dr. Prosser James recommends a solution of bisulphate of quinine—a very soluble salt—which he has used as a local application where the addition of acid to the ordinary sulphate, to effect solution, was undesirable."

Dr. Richard Neale also says: "I find lactic acid, applied with a brush, unfailing in its speedy action, removing the false membrane, and preventing its re-formation—a result to which I attach very great importance in the treatment of such cases."

From time to time, evidence has been brought forward which tends to show that diphtheria has some connection with fungoid organisms. The pages of this Journal contained, on March 5th of this year (p. 356), a short abstract of the interesting experiments of M. Talamon in Paris; and again, only a fortnight ago, an interesting paper by Dr. Michael Taylor of Penrith. Dr. Burney Yeo refers to this point in the etiology of the disease. He says:

"I am disposed to set much store by the local application of antiseptic or mild caustic substances to the seat of the diphtheritic exudations, when this is practicable. The probable fungoid origin of the contagium gives a rational foundation for such treatment, while the results of actual experience alike commend it.

"If the disease is seen quite at its onset, or when only a few circumscribed patches of the characteristic exudation can be seen on the tonsils, uvula, soft palate, or their neighbourhood, a good application consists of equal parts of solutions of perchloride of iron and glycerine, which should be applied by means of a small piece of cotton-wool tied firmly on to a piece of stick, the whole of which can be burnt after using it. Equal parts of carbolic acid and glycerine is also a good local application, used in precisely the same manner. These applications should be made twice or three times in the day, and in the interval the patient, if able to use a gargle, should wash out the throat and mouth frequently with a solution of permanganate of potash, in one of chlorate of potash (10 grains to the ounce), to which a few drops of hydrochloric acid have been added.

"But it often happens that we do not see these cases until the diphtheritic exudation has become too diffused to render these means effectual in arresting the process of continuous self-infection, which is one of their great objects. These agents obviously cannot be applied in this manner when the larynx and trachea are invaded. In such cases, I am in the habit of prescribing the use of a warm spray, containing half an ounce of glycerine of carbolic acid, and 80 grains of borax to 8 ounces of warm water. This should be freely and almost constantly used, by means of a large Siegle's spray-producer; and, in the case of children, this spray should be so directed as to be continuously playing over the mouth and nose of the patient, and diffused through the atmosphere which he breathes. A strong solution of tartaric acid is said to have a remarkably solvent action on the diphtheritic membranes, and has been used with advantage in France; but I have no personal experience of its use."

Dr. Frederick Roberts sums up for us the objects to be held in view in the use of local remedies, and the mode by which these objects may be attained; his words form a fitting conclusion to this report. "Local applications are", he says, "in my opinion, of more or less value in most cases of diphtheria, but they require to be used with judgment, and with a definite idea as to the purpose or purposes for which they are employed. Taking these purposes in order, the first is to prevent the spread of diphtheritic deposit at an early period of the disease, by the direct application of some strong agent upon and around the deposit. It is doubtful how far such an object can be obtained, but in some cases, perhaps, it may be. The applications which can be used for this purpose are either the solid stick, or a strong solution of

nitrate of silver (3i to 3i); equal proportions of hydrochloric acid and water; or tincture or solution of sesquichloride of iron, strong, or mixed with an equal quantity of water or glycerine. The liquids must be applied efficiently once for all, by means of a suitable throat-brush. The repeated application of strong agents is to be decidedly deprecated.

"The second object is to dissolve or remove the diphtheritic material, or to alter its characters, so as to render it innocuous. The frequent inhalation of steam is probably of service in some of these ways. What agents are capable of dissolving diphtheritic membrane, is a matter to which more attention might well be directed; but it seems that lactic acid, phosphate of soda, and other agents have this power. Chlorate of potash, diluted tincture of iron, and other applications are also useful for some of these purposes.

"The third, and certainly in many cases the most important purpose, is to prevent putrefactive and gangrenous changes, or to remove or act upon the products of these changes, so as to prevent their absorption into the system, and consequent septicæmia, the infective properties of the materials being probably at the same time destroyed. Here various applications may be used, such as chlorate of potash with dilute hydrochloric acid, chlorinated soda and carbolic acid, Condy's fluid, sulphurous acid, borax, tincture of iron, etc. All these, of course, must be properly diluted. As a subsidiary object, the relief of throat-symptoms must be kept in view, and this is more or less effected by the use of some of the agents already mentioned. The inhalation of steam, and the frequent sucking of pieces of ice, need to be specially noticed here, as they often give great relief.

"With regard to the method of application, I certainly am strongly in favour of the spray, either by means of the ball-apparatus or of Siegle's spray-inhaler. Many patients cannot gargle effectually, especially children, and the movements involved in the act are liable to be injurious. The frequent use of the throat-brush is also open to objections, and I cannot see the advantage of blowing in powders, as some have recommended. It must be remarked that, in the case of children who resist strenuously all kinds of application, it may do more harm than good to persevere with them; but this must be left to the individual judgment of the practitioner. If used at all, they ought always to be employed efficiently, and under the personal superintendence of the practitioner, with the aid of a competent nurse."

We have also received replies from several physicians, who hesitate to speak in favour of the use of local remedies, only because they regard their experience in the matter as too limited to warrant the expression of a decided opinion. Among this number is Dr. Sydney Ringer, who, however, informs us that he places great reliance on local remedies. He has seen good results follow the use of carbolic acid and glycerine to the diseased parts, and advises, in combination with this, the internal administration of a mixture containing perchloride of iron.

BROWNHILLS.—The health of this district was, on the whole, satisfactory last year, the death-rate being 19.7 per 1,000 of the population. The mortality amongst children under ten years of age, and infants under twelve months, was excessive; more than one-third of the deaths registered being under one year, and the deaths of children under ten being considerably more than one-half the total deaths registered. These numbered 217—an increase of 5 on the previous year. The great mortality amongst infants is chiefly attributed to want of proper feeding and attention during infancy, Dr. Flinn's experience being that mothers of the poorer classes very commonly give their young infants solid or otherwise improper food. This improper feeding has been a most frequent cause of diarrhœa and other wasting diseases. Scarlatina was very prevalent during the early part of last year, proving fatal in thirty-four instances. The persistent carelessness of parents with regard to infection no doubt helped to increase the mortality. "Every precaution as to isolation and disinfection" is reported as having been taken to prevent the spread of the disease. It is noteworthy that in this district, which comprises a mining population of over 10,000 people, no fatal colliery accident occurred during the year. The medical officer draws attention to the water-supply in the district, and states that a considerable proportion of the well-water used for drinking purposes is in many instances contaminated with animal matter, and in some cases with house-drainage and sewage-matter. One cause of this contamination is the want of cleanliness observable in the utensils used for drawing the water. In other instances, the drains from washhouses and closets were in too close proximity to the wells. Of the general causes of death, a high proportion of the mortality was due to diseases of the respiratory organs, 1[illegible] deaths being registered from bronchitis, 21 from pneumonia, 7 from phthisis, and 4 from asthma. The total number of births registered was 400, giving a birth-rate of 30.3 per 1,000 of the population.

REVIEWS AND NOTICES.

ON CANCER, ITS ALLIES AND OTHER TUMOURS, WITH SPECIAL REFERENCE TO THEIR MEDICAL AND SURGICAL TREATMENT. By F. ALBERT PURCELL, M.D., M.R.C.S., Surgeon to the Cancer Hospital, Brompton, etc. With Microscopical Illustrations. London: J. and A. Churchill. 1881.

AT the present time, when so many valuable original books and papers have been written on cancer, we can hardly congratulate the author for issuing what is to a considerable extent a compilation. We hear, in the preface, of views "adopted from other authorities"; and, on p. 1, the author states: "I have omitted all reference to names; I give my own ideas, or those I have adopted from others." Now, it is hardly adequate to use the term "adopt" twice, since it happens more than once that the language as well as the ideas of others is quoted word for word without acknowledgment. Turning, for example, to pp. 96 and 97, we find a general account of "soft carcinoma". We look with interest for any new opinions of a special worker on the debatable nature of this form of cancer. To our great disappointment, we find nothing in these two pages but an almost literal copy of the words of Dr. Green, in his well-known text-book, unacknowledged, and only masked by occasional unnecessary paraphrases. Thus:

ON CANCER, ETC.	INTRODUCTION TO PATHOLOGY AND MORBID ANATOMY.
"Soft carcinoma, known by the terms encephaloid, medullary, or acute cancer, is very closely allied to the scirrhoid carcinoma or hard variety, from which it differs merely in the greater rapidity of its growth, and the consequent small amount of its stroma and the softness of its consistence."	"*Encephaloid*, *medullary*, or *acute* cancer, is very closely allied to the preceding, from which it differs merely in the greater rapidity of its growth, and the consequent small amount of its stroma and the softness of its consistence."

Chapter XVII is devoted to "myxomatoid carcinoma", without one word being said why myxoma should be placed among the carcinomata at all; yet, after a meagre description of its microscopical appearances, the chapter concludes thus: "Myxoma is very rarely malignant, and hence it is important to distinguish it from colloid degenerations of such formidable growths as sarcoma and carcinoma." To make matters clearer, we turn to the author's remarkable classification of new growths, at the beginning of Chapter VII; but here, again, "myxoma" is deliberately placed under "carcinoma".

Mr. Butlin shares with Dr. Green the honour of "adoption" on the same principles, and certain remarks about the bones of the skull affected by sarcoma, on p. 175, also some observations on the connective tissue origin of "the hard parts, the cancellous tissue, medulla, nerves, blood-vessels", etc., on p. 187, have—with many other sentences elsewhere—been obviously imported from the *Lancet* (vol. ii, 1880, p. 529, 487, etc.). Yet Mr. Butlin is not noticed in the index, and the only references to his name are in connection with a special case. We look in vain for the researches and observations of Paget, Thin, Creighton, Cripps, and others, on eczema of the nipple, on the origin of scirrhus of the breast and rectum, and on numerous other subjects quite familiar to every pathologist and surgeon. The description of fibromata of the uterus, on p. 291, contains no allusion to their truly myomatous nature, although it is stated that the younger uterine fibroids show an "abundance of spindle-cells, closely allied to the spindle-celled sarcomata".

What, however, most disappoints us, is the extreme paucity of clinical record of the author's experience. The chapters on scirrhus of the breast, stomach, uterus, and rectum, contain not one single case! Dr. PURCELL admits that, "after a long and careful trial", he has found Chian turpentine to be "utterly valueless". In the chapter on lymphadenoma and lymphoma, we find one case described, but it is [illegible] the author's or in another surgeon's practice, that is not stated. Perhaps Dr. Purcell is preparing a purely clinical work on cancer, a task more valuable, considering his appointment, than the desultory compilation of well-known [illegible].

THE COTE, PAGE AGAIN.—We [illegible] that the plaintiff has withdrawn the notice which he had given for a new trial in the action against the Association at the current Cork Assizes. The matter [illegible]

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 23RD, 1881.

INDIAN MEDICAL SERVICE.

FOR more years than we now care to reckon, it was the ill-fortune of the Medical Department of the Army to be always in the crucible. This service has, we may hope, at last escaped out of its transition stages, and assumed the shape it is likely to maintain for many years to come. It is now the turn of the sister service of India to go into the melting-pot. Every mail brings us rumours of coming changes. One of the last is now before us. "The Supreme Council", we are told, "is now considering a proposal for supplying the Indian Medical Service, by allotting a certain number of nominations to the principal medical schools, instead of the present system of open competition. It is believed that this idea is approved by several members of the Council." The reason given for this proposed change is curious. We are told, "that the last competitions produced seven native to two European admissions; and it is thought that the *status* of the recent appointees will be found to interfere with the scheme for the unification of the British and Indian Medical Services". The figures in the above statement are wrong. In point of fact, twenty-two candidates entered Netley, for the summer term, for Her Majesty's Indian Service. Six only of the above were gentlemen of colour; and one of them, we understand, was never in India at all. We cannot see for a moment any reason for departing from the system of open competition for the Indian service, but many good and sufficient reasons to the contrary. This system has, without doubt, worked well for India; it has given the Medical Service of that country the best men in the market among those who seek a career in the public services; and, unless the Government of India wantonly go on in the course of perversely destroying what has always been the best medical service in the world, we see no reason why, in the future, it should fall away from its high estate. This much is certain: a return to a system of nomination, however masked or disguised, would be regarded with great dislike and jealousy by the profession; without a single advantage that can reasonably be imagined, it would open the door to favoritism and jobbery, contrary to the spirit of the age, and be a disastrous exception to the mode of selection in every other branch of the public service.

We are quite alive to the danger of swamping the service by the too free admission of natives of India to its ranks. But this danger can be met without the foolish remedy we are now discussing. It is a fact, that a not inconsiderable number of men of inferior social *status* have entered the service from India; we do not so much speak of pure Asiatics as of Eurasians, most of them sons of men in the position of warrant officers in the subordinate branch of the Indian Medical Service—highly respectable men in their rank, but not fitted to take the position of commissioned medical officers, associating on a footing of equality with gentlemen of European birth, education, and *status*. We are fully alive to the difficulties of this question. The people of England insist; and rightly insist, on the benefits of education being extended to all Her Majesty's subjects in India, without distinction of race, religion, or colour. And we have before our eyes, in Russia, the danger of giving education, and withholding a career. In our opinion, the matter should be dealt with in this way. The practice of allowing natives of India and Eurasians to come to this country, to compete for medical appointments, should cease. It is a great hardship and expense to them to compel them to do so. A certain fair proportion of Government appointments should be set apart for them, to be competed for in India; such appointments being all civil, having nothing to do with the military service at all—such, for example, as prisons, civil dispensaries, and a fair share to the most able of the professorships in the various medical schools and colleges. When we consider that such men would be in their native country and climate, it would be fair and reasonable that the rate of pay and pension should be on a smaller scale, than for those who have to expatriate themselves for the best part of their lives, and to face a climate hostile to themselves, and doubly so to their wives and children. There is another thing to be considered—one which is forcing itself more and more upon the Anglo-Indian community every day. Under the present system, they are becoming more and more liable to be left, at many stations, entirely dependent on natives for medical assistance to their wives and families. For obvious reasons, this is open to grave objections, and is a real grievance which calls for remedy; but not, we submit, one that strikes at the best interests of European medical officers and the distinguished service to which they belong.

WASHING OUT OF THE STOMACH.

M. BUCQUOY and M. Constantin Paul have recently published some interesting details on this subject, which are analysed in the *Journal de Médecine Pratique*. M. Bucquoy, who was one of the first promoters in France of this method, borrowed from Kussmaul, relates a new case concerning a man suffering from a considerable dilatation of the stomach, consecutive on a stricture of the pylorus itself, which supervened after the ingestion of nitric acid. He was dying literally from hunger, in consequence of complete gastric intolerance, when he was submitted to washing out of the stomach with Faucher's tube; a considerable improvement was then quickly produced, and the patient increased in weight more than two kilogrammes in a fortnight; however, he was attacked by new troubles, and succumbed to pulmonary phthisis shortly afterwards. M. Bucquoy enlarged greatly on the various indications which might be met by washing out the stomach.

M. Constantin Paul has especially studied this question at great length, and has published some very useful hints on the method of employing the operative proceeding. It must first be noted that, for the operation in question, the sitting position of the patient is most favourable; certain timorous and nervous persons, however, should be put in the reclining position for the first few times. The instrument used is Faucher's tube, with this restriction, however, that it may be useful during the first few days to use the ordinary stiff sound to overcome the œsophageal spasm which sometimes occurs at this moment, but which disappears after a few applications. In order to remedy this inconvenience, M. Debove has had a screw constructed which much facilitates, in this case, the introduction of a flexible India-rubber tube. When, however, the patient himself introduces his sound, which he always does very rapidly, a stiff tube is, on the contrary, a necessary condition, since it enters by a true swallowing movement. M. Audhoui has had constructed a flexible tube with a double stream, which much facilitates the washing out of the stomach, but in which the tube whence the liquids issue is, as a matter of necessity, restricted, which is a serious inconvenience. The method of introduction, as described by M. Bucquoy, is as follows. The tube being slightly moistened with water (M. C. Paul recommends that it should be greased with vaseline during the first few days only), the patient takes the free end of the tube, places it in the pharynx, and pushes it slightly, making a swallowing movement. He repeats this swallowing movement a certain number of times, guiding the tube with the hand; this penetrates into the stomach rather rapidly; and the patient stops when he sees near his lips a mark traced at from forty-five to fifty centimètres from the free end then lying along the large curve of the stomach. To charge the siphon, the patient pours alkaline water into the

receiver; and, after having filled it, raises it above his head until the liquid has entered almost entirely. At this moment, he lowers the receiver below the level of the stomach, and above the bason. The cylinder becomes filled immediately with the contents of the stomach; and it will be seen that there returns a more considerable quantity of liquid than has been introduced, bringing with it the residue of digestion.

The operation is repeated a certain number of times, and as often as necessary, until the water returns in an almost limpid state. Alkaline water is generally employed for these operations. M. Constantin Paul has found that the silicated water of Sail, or an antiseptic solution containing thymol or hyposulphite of soda, is useful. To conclude the operation, he pours into the stomach two or three hundred grammes of milk. The first liquids injected are tepid, because they cleanse the parts better; the later ones are cold, because they form a better coating for the mucous membrane, and induce contraction more easily. In certain serious cases, the operation is renewed twice daily; in ordinary cases, once only at the beginning, then less frequently afterwards. Whatever may be the nature of the gastric affection thus treated, according to M. Paul, good results are almost immediately obtained; in the first place, cessation of the pain; then the appearance, at the end of some days, of spontaneous action (in the case of dilatation); finally, a reappearance of the appetite, and a much more rapid augmentation of weight than would be believed. At the present time, washing out of the stomach is no longer limited to dilatation, as it was at first. It is applied to various affections. M. Paul quotes cases of gastralgia, of hysterical vomiting, of gastric ulcer, which have been thus completely cured. He has thus been able to greatly relieve the sufferings of a woman who had fæcal vomiting, and who suffered from an umbilical hernia; finally, in cancer of the stomach, the symptoms are very much relieved, and it is possible even to bring on a notable temporary improvement. MM. Bucquoy and Ferrand have also observed cases of cure of simple ulcer. M. Debove likewise has reported, in the *Progrès Médical*, an extremely remarkable case of cure of a patient suffering from a simple ulcer, probably very old in origin, with absolute intolerance of the stomach, and a state of extreme cachexia. The favourable results obtained were almost immediate; and, at the end of six weeks, the patient, who had increased from one hundred to one hundred and twenty-five grammes daily, was on the road to complete recovery.

Professor Germain Sée, in his treatise on gastro-intestinal dyspepsia, relates a certain number of cases which well demonstrate the utility of this method in gastric affections of very different kinds. He speaks of the case of a young girl suffering from serious anorexia, with invincible refusal of all nourishment, who had reached the last stage of marasmus, and who was treated for six months with this mechanical treatment. Dr. Sée has also seen obstinate vomiting thus stopped; cancer is greatly relieved, and dyspepsia of the cachectic form, which seemed of the nature of cancer, has been completely cured. In the last case, as well as being a means of treatment, it forms a true method of diagnosis. This brief enumeration shows the great importance of this new mode of treatment, which unites perfect harmlessness to very great facility of employment, since, up to the present time, not a single accident has been known to occur from the operation.

THE INFLUENCE OF THE HOT WEATHER ON THE PUBLIC HEALTH.

THE extraordinarily high temperatures recorded in London and over the whole of the southern part of Great Britain, show that we have recently passed through a period of almost tropical heat. On the three earliest days of the week ending July 9th, the mean temperature was considerably above the corrected average for the corresponding week (based upon the observations made during the twenty years preceding 1868), but on the remaining days of that week the mean temperature fell rather below the average. With the succeeding week, an unprecedented spell of hot weather set in; the mean temperature on each day of the week ending July 16th was considerably above the average, and on Friday, July 15th, a climax was reached. On this day, the thermometer stood in the shade at 97.1° Fahr., a higher point than has ever previously been recorded in the period of forty years during which observations have been systematically made; the mean temperature on this day was 79.5° Fahr.—a reading rather more than 16° Fahr. above the corrected average for the corresponding week. Though the shade-temperature never again touched the extraordinary point reached on July 15th, or, indeed, rose above 90° Fahr. the heat continued to be excessive for four days more, until, that is, the evening of Tuesday, July 19th. We have thus passed through a period of seventeen days, during which the temperature of the air has been almost daily very considerably above anything we are accustomed to experience in this country.

This period of "fantastic summer's heat" has had, as we were justified in expecting would be the case, a very noticeable effect upon the public health. The annual death-rate, which had been equal to 19.1, 19.6, and 21.6 per 1,000, respectively, in the three weeks ending July 9th, rose for the week ending July 16th to 24.7; this represents an excess in the number of deaths over the average, for the corresponding week of the last ten years, of 304. Our readers will be prepared to learn that this large excess is in great measure due to the increased mortality from diarrhœa; seven weeks ago, only 13 deaths were attributed to this cause, last week no fewer than 292 were thus certified. The number of deaths due to this cause occurring among infants under one year of age was 236; and, if to this we add six other deaths certified as due to "simple cholera" or "choleraic diarrhœa", we arrive at the striking result, that, out of a total infant mortality in London, during the week with which we are dealing, of 651, no fewer than 242 cases, or more than 37 per cent., were due to the disease, or diseases, which we vaguely class as "infantile summer diarrhœa". That so serious a mortality, from a disease apparently so simple, should exist, is a standing reproach to the profession—a reproach which we hope soon to see in process of removal. Dr. Edward Ballard, of the Local Government Board, has, as our readers are aware, initiated an inquiry into the subject; but his efforts can meet with little success, unless he receive willing assistance from those who are daily seeing numbers of these cases, and are well acquainted with the conditions under which the little patients live and die. Dr. Ballard will give to any medical man willing to help, even to a limited extent, in the inquiry, every advice and assistance; and we trust that his appeal may meet with a ready response, especially in London, where the death-rate from this cause is higher than in any other city.

Next to the digestive, the nervous system is that which suffers most from a continuous high temperature. The etiology of sunstroke is still very obscure; though, no doubt, the direct rays of the sun are the most active agents in its causation, it must be remembered that a high temperature of the air, independently of direct solar radiation, can bring about the same result. The most exhausting effects of heat are felt when the heat is continuous, and when the atmosphere contains a large amount of moisture. But there is another potent element in the production of heat-stroke; it is, want of ventilation. This acts injuriously in two directions. In the first place, it diminishes the amount of heat removed from the body by conduction. In mid-ocean, says Dr. Parkes, and at high elevations, sun-stroke is extremely rare; but in both these cases, the effect of the sun's rays *per se* is not less, is even greater than on land, and at the sea-level; but the temperature of the air, owing to the amount of air-currents, is never excessive. In the second place, want of ventilation operates to render the air foul, and this powerfully predisposes to nervous disturbance. The *Times* of July 20th contained reports of three inquests on cases of sunstroke; all the cases seemed to have originated on July 15th—the "hot Friday"; and it is noteworthy that, in each case, the symptoms began while the patient was at work in buildings where the ventilation was probably imperfect. In addition to these cases, the Registrar-General records

the deaths of two children and one adult from sunstroke or heat-stroke during the week ending July 16th; and we learn that a man was brought into Guy's Hospital last week who had fallen while at work in a gravel-pit; life was extinct when first seen; the body temperature, taken twenty minutes after death, was found to be 106°; and there can be no doubt that death was due to heat-stroke. These fatal cases represent only a small percentage of the total number of cases of illness due to the heat.

We have learnt by inquiry at the various metropolitan hospitals that the number of patients suffering from the slighter effects of insolation has been very large. A very severe case of sunstroke was admitted into the London Hospital on July 19th, and very many patients have recently applied there suffering from hyperpyrexia, vertigo, malaise, and other similar troubles; at the Middlesex Hospital, many of this last class of cases have been met with; and two patients, both stout plethoric men, were admitted with well marked symptoms of sunstroke. At King's College Hospital, no cases presenting the ordinary symptoms of sunstroke were met with; but, in several instances, the nervous disturbance manifested itself in epileptiform convulsions; in one of these patients, there had been no previous history of epilepsy, while in others, as in a similar case which occurred at the Middlesex Hospital, the disease, which had been almost in abeyance, became suddenly intensely severe. To the former hospital, there was brought, on July 19th, a medical student from the provinces, who had been under examination at the Royal College of Surgeons, and in whom the nervous disturbance brought about by the ordeal of examination during a high temperature manifested itself in convulsions. From other hospitals, we have received similar statements as to the large number of cases of illness dependent on a condition of unstable nervous equilibrium—an instability dependent, no doubt, on the depressing influence of the great heat, which has lessened the nervous activity, and interfered with the functions of digestion, respiration, and sanguification, and so led to imperfect nutrition and combustion of the tissues.

As to the prophylaxis of sunstroke and its allied conditions, we may point out that the ordinary hat of civilisation is badly adapted to meet the requirements for rational head-gear at this time of the year; the hat being unventilated, or imperfectly ventilated, the air imprisoned between the head and the crown of the hat may, and no doubt does, become very greatly heated; and the inhabitants of tropical climates, recognising this fact, almost invariably wear thick and tightly fitting head-coverings. A high temperature lessens the frequency of respiration, and also diminishes the quantity of oxygen, bulk for bulk, in the air; it is therefore desirable that the movement of respiration should be quite free from any restraint. Finally, there can be, according to Parkes, no doubt that spirit-drinking, even in moderation, favours the external causes of insolation, and that great exhaustion also predisposes to it, as has often been evidenced by the mortality among exhausted or dispirited troops.

Turning, for a moment, to the brighter side of things, we find that, according to the returns of the Registrar-General, the number of fatal cases of small-pox fell from 73 in the week ending July 9th, to 49 in the succeeding week; though it must be added that the number of cases admitted to the various small-pox hospitals rose from 141 to 177. The deaths referred to diseases of the respiratory organs (excluding phthisis) very notably declined, in spite of the many gloomy prognostications to the contrary uttered in some quarters; the generally hot and dry condition of the air tending, no doubt, to mitigate the evil consequencies of imprudences in the matter of draughts and damp clothes.

In London, the deaths of two children and one adult were last week referred to sunstroke or heat-apoplexy.

We are requested to state that the library of the Obstetrical Society will be closed during the month of August. Might it not be well to keep the library open during the week of the International Congress?

It is announced from Cincinnati that the deaths from the heat during four days have been one hundred and sixty, including several prominent citizens.

We regret to learn that, owing to illness, Dr. C. R. Bree of Colchester has resigned his office as physician to the Essex and Colchester Hospital, of which he was the senior physician. A vacancy in the office of physician to the hospital is thus created. Dr. Bree will have the best wishes of his colleagues for his early and complete recovery.

The International Pharmaceutical Congress will be held in London, at 17, Bloomsbury Square, under the auspices of the Pharmaceutical Society, on August 1st, 2nd, and 3rd. The English members will entertain their visitors at a banquet, at Willis's Rooms, on the evening of Tuesday, August 2nd.

The mean temperature of last week at the Royal Observatory, Greenwich, was 70.1°. On Friday, the mean was 79.5°, and the highest reading in the shade 97.1°, which was higher than any maximum reading in the past forty years; the nearest approach to it was 96.6° on July 22nd, 1868.

An outbreak of German measles has occurred at Kinson, a village in the Poole Rural Sanitary District. No fatal cases have occurred directly from the disease, but two have arisen from its complications. The disease is supposed to have spread from a neighbouring village, where it has been lately prevalent.

Information has reached us of the outbreak of small-pox at Ivybridge, and in the Newent Union, as well as in the Barrowden district of the Uppingham Union, where the guardians have reopened the vaccination-stations for a period of six weeks, for the purpose of vaccination and revaccination.

We are requested by Mr. George Brown, Honorary Secretary of the Medical Defence Association, to state that the meeting of the profession summoned by that body to discuss the question of medical reform will be held on Friday next, at St. James's Hall, instead of at Exeter Hall, as previously announced. Further particulars are given in our advertisement columns.

Several cases of small-pox have occurred in one family at South Shields. The cases have been isolated in a building rented from the Poor-law Guardians, used as an infectious hospital, in the absence of proper means of isolation, which the Town Council ought long ago to have provided. Steps are, however, now about to be taken for the erection of a new fever hospital, which will include a disinfecting chamber.

Preparations for the International Medical Congress progress apace, and are now rapidly approaching completion. Already upwards of eight hundred foreign guests have intimated their intention to be present, and it would be hardly safe to estimate the number present at the Congress at less than three thousand. It is particularly requested that British medical men intending to be members of the Congess should at once forward their names to the office of the International Medical Congress, at the College of Physicians, Pall Mall.

Mr. W. Mac Cormac has quite recently received from King Ludwig of Bavaria the Knight's Cross of the first class of the highest military order of Bavaria, for eminent services rendered during the war of 1870-71. He has also received a Cross of Commander of the Order of Takovo, for services rendered in Servia during the Turko-Servian campaign, at the battle of Alexinatz, and in the distribution of the extensive ambulance material and medical aid rendered from English sources during that campaign.

The Local Government Board have recently decided a case of some importance to sanitary authorities. The officers of a sanitary authority having accidentally destroyed some clothing whilst it was undergoing the process of disinfection, the authority applied to the Local Govern-

ment Board for sanction to pay compensation for the same. The Central Board have replied that they had no jurisdiction to sanction the payment, but directed the attention of the sanitary authority to Section 308 of the Public Health Act, which empowers authorities to make full compensation "when any person sustains any damage by reason of the exercise of any of the powers" of that Act.

In the Section of Medicine at the meeting of the International Medical Congress, Dr. Long, chief physician of the Cantonal Hospital at Geneva, will present a communication on the anæmia of the workmen in the St. Gothard tunnel, and will exhibit specimens of the ankylostomum duodenale, by which the disease is caused.

GENERAL GARFIELD'S WOUND.

The daily telegrams regarding the progress of the case of the President of the United States have been of the most favourable character. The reports indicate a gradual but steady advance towards convalescence. No fresh facts regarding the wound itself, or the situation of the bullet have been made public.

INTERNATIONAL COMPLIMENTS.

We have received copies of two sets of resolutions which have been forwarded to Mr. Spencer Wells, very handsomely illuminated. It is pleasant to see that our American brethren recognise British workmen and their work. At a stated meeting of the Medical Society of the County of New York, held April 25th, 1881, the following resolutions, offered by Dr. Andrew H. Smith, and seconded by Dr. Wesley M. Carpenter, were unanimously adopted: "That the Medical Society of the County of New York extend their congratulations to Mr. T. Spencer Wells on the completion of his series of one thousand cases of ovariotomy, and upon the brilliant success which has attended his operations."—"That this Society recognises the great service rendered by Mr. Wells in bringing this operation to its present perfection, by which a large proportion of formerly helpless cases may be rescued from death, and by which lustre is shed on the healing art."—"That a copy of these resolutions, properly attested, be transmitted to Mr. Wells." At a stated meeting of the New York Academy of Medicine, held on May 19th, 1881, the following resolutions were, after appropriate remarks, moved by Dr. Charles C. Lee, seconded by Dr. Alfred C. Post, and unanimously adopted: "That the congratulations of the New York Academy of Medicine be transmitted to T. Spencer Wells, Esq., Foreign Associate of the Academy, for his remarkable and unprecedented achievement of one thousand operations of ovariotomy, by which the lives of seven hundred and sixty-nine women have been saved."—"That a copy of the foregoing resolution be authenticated by the signature of the President and Secretary, and sent to Mr. Wells."

FINANCES OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The following abstract of the receipts and expenditure of the Royal College of Surgeons will be read with some satisfaction by the many members of that institution. It appears from the report just published, that, from Midsummer-day 1880 to Midsummer-day 1881, the receipts amounted to £16,848 17s. 6d., derived principally from fees paid by students on examinations for the primary and pass membership, and fellowship, and dental licence, which amounted to £13,872 8s. The receipts from rent of chambers, adjoining the college, and dividends on Stock, amounted to £2,553 9s. 5d. Fees paid on admissions to council, and court of examiners, and of members to the fellowship, yielded £158 10s.—a very small sum from the latter, in comparison to past years, to be accounted for by the fact of many old members of the college dying off. From trust funds, there appears £246 14s. The disbursements for the year amounted to £16,380 13s. The principal item under this head is for fees paid to courts and boards of examiners, and members of the council, viz., £6,761 13s. Salaries and wages to the large staff of officers and servants in the three departments—college, museum, and library—required £4,076 1s. 2d. Taxes, rates, and diploma stamps are represented by £1,395 14s. 2d. In the "extraordinary expenditure", there is £112 15s. 2d. for the biennial oration and festival, in addition to £49 5s. 4d. received from that trust fund. There appears the balance of £952 19s. 1d. at the bankers at Midsummer-day last.

THE DEATH OF DEAN STANLEY.

By the death of Arthur Penrhyn Stanley, Dean of Westminster, the Church of England has lost one who has done more, perhaps, than any one other man to reconcile to her teachings liberal men of all classes. He died, it may be truly said, in harness; it was his full intention, in spite of increasing weakness, to have preached last Sunday, and he had arranged for a special service in the Abbey Church on Sunday, August 7th, at which he would have addressed the members of the International Medical Congress. *L'homme propose, Dieu dispose!* In the early part of last week, the Dean was seized with a severe attack of vomiting and prostration; always cheerful, he made light of the debility and weakness, only too evident to anxious relatives. On Thursday, July 14th, Dr. Gerald Harper discovered some redness and tenderness of the nose; and, on the following day, Sir William Jenner, who was called in consultation, recognised that the distinguished patient was suffering from that most dangerous malady, idiopathic erysipelas of the face and head. Looking to the frail constitution of the Dean, already taxed beyond its strength by continuous application to onerous duties, and to the fact that he came of a family many of the members of which had quickly succumbed when once attacked by an acute affection, an unfavourable prognosis could not but be given. Unfortunately, that fear received swift fulfilment; the erysipelas spread with great rapidity, involving the upper part of the trunk and arms; and the patient, knocked down, as it were, by the severity of his malady, quickly succumbed, in spite of all that art and the most tender nursing could do.

DIARRHŒA IN LONDON.

Under the influence of the exceptional heat, the deaths referred to diarrhœa, which had been 44, 72, and 135 in the three preceding weeks, further rose to 292 last week, which exceeded the average by 116; they included no fewer than 236 of infants under one year of age, and 40 of children aged between one and five years. The largest proportional fatality occurred in the East group of registration districts. The deaths of 6 infants, 2 children, and of 6 adults were referred to choleraic diarrhœa or simple cholera.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

The quarterly court of directors was held at 53, Berners Street, on Wednesday last, at 5 P.M.; the president, Sir George Burrows, Bart., in the chair. A sum of £1,302 was voted to the sixty-one widows and twelve orphans, now on the list of recipients of grants. The expenses for the quarter were £41 14s. 0d. One fresh application was made by a widow for a grant, and her claim was admitted. Two orphans ceased to be eligible, through age, for any further assistance. One new member was elected, and the deaths of three members were reported. It was resolved at the meeting to send a circular to all the medical men residing in the area comprised between the old and new limits of the society, now included all places within twenty miles of Charing Cross.

CANAL BOATS AND SMALL-POX.

Mr. Smith, of Coalville, indefatigable in his supervision of canal boats, and efforts on behalf of their inhabitants, reports that, for the second time within the last four months small-pox has been conveyed from London by canal boats to Braunston. In both cases there have been living in the cabins, twice the number allowed by the regulations of the Local Government Board. In the first case there were man, woman, and six children, sleeping in the cabin; and in connection with the bad cases now under treatment there were living in the cabin at the time the boat "pulled up," two men, two women, and two children of three

different families. He draws the moral that if the canal boats, registered under the Canal Boats Act of 1877, had been inspected on the lines laid down in the Canal Boats Amendment Bill, now before the House of Commons, waiting the second reading, these cases would not have been brought into this district.

RAGS.

IN consequence of an outbreak of small-pox amongst the *employés* of a paper-mill at St. Mary Cray, the Local Government Board have instructed Dr. Parsons to inquire into the whole question of the dissemination of small-pox by means of rags. It may be remembered that the same matter was investigated for the Medical Department of the Privy Council by Dr. Bristowe in 1865; but the question has assumed a new development since that date; and it may be hoped that Dr. Parsons' inquiry will lead to some useful result in the enforcement of proper regulations for the efficient disinfection of rags from infected sources.

DALRYMPLE HOME FOR INEBRIATES.

DR. NORMAN KERR has been appointed honorary secretary to the Committee of Management of the proposed Dalrymple Home for Inebriates, in succession to the late Mr. S. S. Alford. A strong effort is being made to raise the necessary funds for the acquisition and equipment of a suitable house and grounds. It is hoped that many will testify their appreciation of the late Mr. Alford's devotion, by liberally contributing to this undertaking. The sum of £5,000 is needed. Donations may be sent to the chairman, Dr. Alfred Carpenter, J.P., Duppa's House, Croydon, Surrey; or to the honorary secretary, Dr. Norman Kerr, 42, Grove Road, Regent's Park, London, N.W.

THE HOTELS IN ROME.

IN previous articles, we called attention to the fact that a committee of medical men, of different nationalities, was engaged in the inspection of the hygienic state of the hotels in Rome, with the object of remedying the defects known to exist, and of making them more healthy residences for the ever-increasing numbers of strangers who flock to that city during the season. The commission—originally constituted by invitation of the proprietors of the *Italian Times*, an English newspaper which, though recently started, has already taken a fair position in Italy—set to work early in May; and, after most unremitting exertions, published the results of the inquiry in a report, drawn up both in English and in Italian, for the *Italian Times* of July 2nd. We propose to consider this report elsewhere; but, strange to say, though the work of the commission has been most cordially approved of by the leading medical and sanitary journals of England and America, opposition arose from a most unexpected quarter—the Rome Committee or Branch of the Italian Medical Association having passed a resolution condemning, in no measured terms, the nature of the inquiry, denying its necessity, and openly insulting the members of the commission and the *Italian Times*. This resolution bears the date of the 1st July, but extraordinary meetings of the Branch of the Medical Association had been held in May and June to discuss the matter; no action, however, being then possible, as they did not meet in legal numbers for voting. The resolution passed at the meeting of the 1st instant is so remarkable that we must now consider it. It is given in full in the *Italian Times* of the 9th July, and is, as we have been informed, the work of twelve members, the thirteenth required to form a legal meeting having been the Cavaliere Fiordispini, a member of the sanitary commission whose constitution and action had excited the wrath of his brethren of the Association. The resolution begins by stating that, even after the declaration of Dr. Fiordispini that the commission was of a private character, exercised no pressure on anyone, and only gave advice when asked for it, there could have been no necessity for any inquiry such as the members of the sanitary commission carried out, as the hotels of Rome "were in proper hygienic conditions, so far as the construction of the water-closets, the supply of water, and the system of drainage were concerned". But the very first paragraph of the report of the sanitary commission, published the day after this meeting of the Branch of the Medical Association, states that the requirements of modern sanitary science have not been sufficiently observed in the construction of the hotels of Rome, the appliances adopted for the exclusion of sewer-gas having been found quite inadequate; and the report proves that the hotels require many improvements to make them healthy homes. The authors of the resolution further proceed to commit themselves to the following extraordinary statements. "Considering", they say, "that typhoid fever is neither epidemic nor endemic in our city, even among the indigent classes; considering that to attribute the cases occurring in the Roman hotels to local infective causes, is not in harmony with any sound medical doctrine; declares that it is entirely erroneous to attribute the illnesses of visitors to the unsanitary state of the hotels; believes it is certain that the cases of typhoid fever, if there are any, must be attributed to special causes, which, undermining the constitutions, produce illnesses 'in consequence of the fatigues and worries of long journies, as well as to other causes'"—and here follows the sting of the resolution—"among which may possibly be enumerated the irrational methods of treatment to which they are subjected." "They therefore hope that the municipality will continue to occupy itself more and more with the hygiene of the city, will publish the results of their own sanitary commission, and prevent anomalous foreign interference; and, in conclusion, they deplore the action of the *Italian Times*." Now, it is known by the Roman death-returns that the mortality from typhoid fever is, on an average, 2 out of every 100 deaths annually; and, though this is not so high a rate as in many foreign capitals and large cities, yet it is considerably higher than that of a healthy city, such as London or Edinburgh, and much higher than there is any necessity for it being. Then, it is exactly to causes such as the want of appliances to prevent the contamination of the air we breathe and the water we drink in our dwellings by sewer-emanations, and by decomposing fæcal matters, that the best authorities refer the origin of enteric fever cases; and it is absolutely certain that such defects do give rise to many typhoid cases in the hotels all over Europe, while it is more than absurd, it is positively foolish, to attribute the production of a typhoid fever, which almost every pathologist of note believes to be due to a specific germ, to the fatigues and worry of a long journey, or to irrational treatment. It is impossible that the Italian Medical Association should endorse this unwise resolution of a few members of its Roman Branch. As to the *Italian Times*, that newspaper is more than able to defend its public-spirited action.

COMMON DANGERS IN DWELLING HOUSES.

MESSRS. MAGUIRE AND SON of Dublin, who have had large experience in the examination of houses, say in a recent circular.

In endeavouring to awaken public attention to the importance of sanitary reform, we here enumerate thirty of the dangers to health which we most frequently detect in our sanitary examination of houses. Any one of these defects, by admitting foul air, constitutes a real danger to health; but, in the large majority of houses, many of these defects may be found existing together, and in some houses they may nearly all be found rendering those dwellings pestilential. 1. Common built drains under houses; large built drains under or near mansions. 2. Pipe-drains with leaking joints, or broken, laid under houses, saturating the basement with sewage. 3. Pipe-drains laid under houses without sufficient fall, or with fall the wrong way. 4. Drains of every kind, without proper intercepting traps, admitting foul air from sewers or cesspools. 5. Drains of every description, without a constant free current of fresh air through them. 6. Rat burrows from built drains or sewers undermining flags and floors, and admitting foul air to house. 7. Rat burrows worked alongside perfect pipe-drain from street sewers, and into houses. 8. Defective connections between soil or waste pipes and sewers, admitting foul air to houses. 9. Soil-pipes passing through interior of house, under almost any circumstances. 10. Soil-pipes inside or outside houses without any or sufficient ventilation. 11. Defective water-closet apparatus. 12. Water-closet cisterns with overflows joined to soil-pipe or drain. 13. Safe-trays under closets, connected to soil-pipes, or drain. 14. Two or more water-closets or sinks on same soil-pipe, untrapping each other when used. 15. Sink overflow-pipes joined to soil-pipes untrapped, or with trap liable to untrap. 16. Water-supplies to sinks taken from water-closet or other contaminated cisterns, and used by careless servants to fill bedroom caraffes for drinking. 17. House-cis-

terns andtanks with overflows direct into soil-pipes or drains. 18. Traps of every description without ample ventilation to guard them. 19. Scullery sinks connected direct to drains, admitting foul air to houses, not only through traps, but through joints of brickwork all round, as shown by our smoke test. 20. Bell-traps, with loose covers, on scullery sinks connected to drains. 21. Gullies or traps in sculleries, laundries, larders, etc., connected to drains, usually dry and untrapped. 22. Rain-pipes used as ventilators to drains delivering foul air near bedroom windows, or under eaves or roofs. 23. Ashpits near larders and pantries; ashpits liable to soak foul moisture through house-walls. 24. Defects of drainage and rat burrows from neighbours' houses. 25. Water-tanks in areas, near ashpits or sculleries, and with overflows direct to drains. 26. Washhand basins in dressing-rooms, connected directly in any way to drains or soil-pipes. 27. Water-closet cisterns in return rooms frequently under bedroom or parlour floors, perhaps with overflow direct to drain. (Sixteen years ago the writer thoughtlessly used a room of this kind, and was attacked with typhoid.) 28. Cesspools near houses, and cess-pools or defective drains near wells. 29. Neighbours' drains crossing under houses or joining drains. 30. Drinking water defects; and all impurities likely to contaminate milk, meat, or food of any kind.

The list is a long one, but it is only too true that such dangers are common in dwelling-houses, and are often unrecognised till repeated illness has compelled attention to them.

THE DEATH-RATE OF NEW YORK.

THE death-rate in the city of New York, for the six months just ended, is 35 per 1,000 per annum. There have been 18,590 deaths, against 15,279 for the same period last year. There is an alarming increase in deaths from contagious diseases. Placing those for the six months of last year first, the increase has been: small-pox, from 200 to 259; typhoid fever, 86 to 126; scarlet fever, 206 to 1,021; diphtheria, 432 to 1,109; typhus fever, 100 to 109. The neglect to clean the streets properly is the undoubted cause of the increase. It is estimated that the neglect has cost the city at least 2,000 lives.

AN UNSATISFACTORY INQUIRY.

THE eccentricities of non-medical coroners are past finding out, and so frequent as to outreach the opportunities for comment. One of the most remarkable which we have seen is that recorded at a recent inquest held at Ilfracombe, on one of the clerks of the Crystal Palace, who was down there for a holiday, and who appears to have purchased a pistol, and threatened to shoot other persons, or to shoot himself; and then to have gone out, saying that he should shoot a bird or a butterfly before he came home. He was found dead on a hillside; the revolver grasped in his right hand, with the forefinger on the trigger. Four chambers were empty, and one was loaded; and in the one on which the hammer rested there was a discharged cartridge. There does not appear to have been any *post mortem* examination; but a surgeon testified that he had great difficulty in opening the mouth, owing to rigor mortis; and that he could neither find any wound in the mouth, nor trace any bullet in the back of the neck. He could not say how death occurred; the blood might have been caused by the man biting his tongue, if he died in a fit. There being no conclusive evidence as to the cause of death, the jury, on the suggestion of the coroner, returned an open verdict, to the effect, "That the deceased met his death; but in what manner he met his death there is no evidence to show". A more perfunctory proceeding, or a more inconclusive and unsatisfactory inquiry, has rarely been recorded; and such a case appears to be a mockery of a serious inquiry, and a scandal to this form of judicial proceeding.

TRACHEOTOMY IN CROUP.

M. MERWENET of Limoges has sent to the Paris Academie des Sciences an interesting communication on the distant results of tracheotomy in cases of croup. Some months since, M. Mougeot of Aube had affirmed before the Academy that children who had been tracheotomised in cases of croup never attained an adult age. M. Merwenet shows that this idea is absolutely erroneous. He has met, walking about the streets of Limoges, in perfect health, persons thirty-four, thirty, and twenty-nine years of age, whom he had cured in their childhood of croup by tracheotomy.

SCOTLAND.

PHILOSOPHICAL SOCIETY OF GLASGOW.

THE Graham Medal, instituted in connection with the Chemical Section of the above Society for the encouragement of chemical research, and open to competition to all chemists, has been awarded, on the recommendation of Professor Williamson, the adjudicator in the competition, to Mr. James Mactear, for a paper entitled, "Some Researches in the Reactions involved in the Leblanc Process of Alkali Manufacture".

SMALL-POX IN ARBROATH.

IN the JOURNAL a fortnight ago, there was a notice of small-pox having occurred on board-ship in Arbroath, and the regulations that had been adopted by the local authority. Unfortunately, the efforts made to confine the disease to the one case (which subsequently died) have failed; and, up till Wednesday, no fewer than eight cases had been reported; fortunately, they are stated to be mild cases. At a meeting of the Public Health Committee of the Arbroath Local Authority, held on Tuesday, it was resolved to authorise the vaccination and revaccination of all persons by the medical officers free of charge; also that a subcommittee, including the medical officer, should be authorised to erect a wooden shed for the reception of the sick, behind the cottage presently occupied as a small-pox hospital. All the cases can be traced to the shipboard case, and show the necessity for stringent quarantine of all who necessarily come in contact with the sick. One case of small-pox from Arbroath appeared in Edinburgh this week, and was promptly interned in the city small-pox hospital. Public vaccination and revaccination is to be carried out in a suitable manner by the various dispensaries, and other means adopted for dealing with the disease should it threaten to effect a footing in Edinburgh.

PROSECUTION UNDER THE SALE OF FOOD AND DRUGS ACT.

THERE has just been given a decision of some importance in reference to the above Act. A farmer was recently convicted in Lanarkshire for selling butter-milk which, on analysis, was found to contain 30 per cent. of water; it being contended by the official analyst that 20 per cent. was a sufficient quantity of water to use in the process of churning. Evidence was brought for the defence to show that there could be no uniform percentage, as it depended on the temperature, sometimes as much as 50 per cent. of water being necessary. Notwithstanding, a conviction was obtained. An appeal was made, and the judges at once unanimously reversed the decision given in the lower court; and we cordially agree with their remarks, that the case was one which should never have been undertaken by the authorities. These latter should bear in mind that an Act such as the Sale of Food and Drugs is to put down flagrant adulteration, and not to be used as an agent for harassing different occupations on slender and insufficien grounds.

ALLEGED POISONING BY A MONTHLY NURSE.

AT the High Court of Justiciary held in Edinburgh on Monday, a ladies' and sick nurse, called Agnes Leslie, was charged "with culpable and negligent, or culpable and reckless, administration of laudanum, or other narcotic or noxious substance, to a child of tender age, to the injury of its health or danger of its life". The facts of the case, stated simply, are these: the accused was in charge of an infant about six weeks old; that the mother of the child went into the room and found both asleep, but the child's appearance, and a noise made by it, caused her to lift the infant, which was found to be insensible, with pallid face and livid lips. Medical assistance was procured, and the doctor found that the child had pin-point pupils; and, although it could be aroused momentarily, it immediately afterwards relapsed into a state of stupor. The child has subsequently recovered. The father of the child insisted upon seeing what drugs the nurse was possessed of, and found she had ergot and chlorodyne. On [illegible] she took a phial from under the cover of the [illegible], which contained

laudanum. Dr. James Hunter and Dr. George Hunter of Linlithgow, who saw the child, and Professor Douglas Maclagan and Dr. Littlejohn, of Edinburgh, as experts, were examined for the prosecution, and concurred in ascribing the condition of the child to the administration of a narcotic; while Drs. Sidey, Sinclair, and James Ritchie were examined as witnesses for the defence, and spoke to the good opinion they held of the accused, and to the possibility of its symptoms having been caused by other means than a narcotic. The jury returned the Scotch verdict "Not proven", and the prisoner was discharged. As in this case there was no actual loss of life, there is no reason to regret the verdict of the jury; while the direct manner in which several of the witnesses for the prosecution testified to the prevalence of the administration of narcotics by nurses and others to infants, as well as the publicity of the trial, cannot fail to have a preventive effect on nurses and others entrusted with the care of infants in future.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending July 9th, it appears that the death-rate in the eight principal towns was 20.4 per 1,000 of estimated population. This rate is the same as that for the corresponding week of last year, and 0.5 below that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 14.3 per 1,000; and the highest in Paisley—viz., 31.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.3 per 1,000, or 0.6 under the rate for last week. The mean temperature was 57.1°, being 1.3° above that of the week immediately preceding, but 0.7° below that of the corresponding week of last year.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending July 9th, states that there were 453 deaths registered, representing a death-rate of 23 per 1000 living. The mean temperature of the fortnight was 56.7° Fahr. As compared with the corresponding fortnight of last year, the mean temperature was 1.3° lower, and the death-rate 1 per 1000 lower. The difference in favour of this year mainly arises from the continued low fatality of zymotic diseases, which is so decided as to be sufficient to compensate for a greater fatality of diseases of the lungs, and to make the total deaths fewer by six per cent. The number of deaths from pulmonary diseases was 154, representing a death-rate of 8 per 1000 living, and constituting 34 per cent. of the total deaths. There were 8 deaths from fever—viz., 7 from enteric, and 1 from typhus. The number of deaths from infectious diseases of children was 35—viz., 19 from measles, 10 from whooping-cough, and 6 from scarlet fever. Forty cases of fever were registered—viz., 25 of enteric, 12 of typhus, and 3 undefined. Of the cases of typhus, 8 form an associated group found in three families, evidently originating in an unrecognised case in a child. There were also 140 cases of measles, 56 of scarlet fever, 13 of whooping-cough, and 9 of diphtheria, which were brought under sanitary supervision.

HEALTH OF THE CHIEF SCOTCH TOWNS: JUNE.

DURING the month of June, the deaths of 2,102 persons were registered in the eight principal Scotch towns, of whom 1,058 were males, and 1,044 females; making suitable allowance for increased population, this is 367 under the average for June during the previous ten years. The respective death-rates per 1,000 were: Perth, 15; Dundee and Aberdeen, 17; Greenock, 18; Edinburgh and Leith, 21; Paisley and Glasgow, 23. As to infantile mortality, 37 per cent. of all the deaths was of children under five years of age; and the percentages of the respective towns were: Aberdeen, 31; Paisley, 33; Dundee, 35; Edinburgh, 37; Glasgow, 38; Leith, 39; Perth, 43; and Greenock, 45. Zymotic diseases contributed 293 deaths, of which 60 were due to whooping-cough; 48 to diarrhœa; 42 to scarlet fever; 38 to measles; 14 to croup; 11 to diphtheria; 1 to small-pox; and 60 to fever, of which last 31 were registered as enteric, 2 as simple continued fever, and 17 as typhus (8 of these occurred in Leith). Scarlet fever and whooping-cough were most prevalent in Edinburgh. Apoplexy caused 53 deaths, paralysis 54, cardiac diseases 140, hydrocephalus 61, and premature-birth debility 62 deaths. Phthisis pulmonalis caused 13.3 per cent. of the entire mortality, and inflammatory affections of the respiratory organs (other than those already mentioned) 19.3 per cent. Of 65 deaths due to violent causes, 6 were suicidal. A male aged 92, and a female aged 90, died. During the month, 3,781 children's births were registered, of whom 1,935 were males, and 1,846 females. The mean barometric pressure was less by .041 inch, the mean temperature less by 2.0°, the mean humidity less by 5, the rain-depth greater 0.22 inch, and the wind-pressure greater by 0.56 lb. than the average of the same month during the previous twenty-four years. The only point calling for notice is the mean temperature, it having been unusually low; Edinburgh had the highest mean temperature, 54.8°, and Aberdeen the lowest, 52.4°. The greatest rain-depth was 5.56 at Greenock, and the lowest 1.79 inch at Edinburgh. The prevailing wind-direction was W.S.W.

IRELAND.

ADULTERATION IN THE COUNTY ANTRIM.

DR. HODGES, county analyst, reports that, since the winter assizes 1881, he has examined fifty-seven articles of food, drink, and drugs, of which ten were found to be adulterated—viz., two samples of coffee mixed with chicory, two of pepper mixed with sand, two of mustard containing starch, and four samples of butter-milk to which a large quantity of water had been added.

MOUNTMELLICK UNION.

AT a meeting of the Mountmellick Board of Guardians last week, a letter of resignation was received from Dr. Clarke, medical officer of Mountmellick Dispensary and Workhouse, in consequence of failing health, which rendered it impossible for him longer to discharge any public duty. The following resolution was adopted: "That we accept with regret the resignation of Dr. Clarke after thirty years of service; and we trust that the cessation of the arduous duties of this union may restore him to perfect health." A guardian proposed that the advertisement for a successor should state that the officer appointed should pay his substitute when taking leave of absence at any time. An amendment was, however, moved that the words "except in case of sickness" should be added, and was carried by ten to eight. A notice was handed in by Mr. Phillips, that, on August 20th, he would move that Dr. Clarke be granted a superannuation allowance of £149 9s. 5d. *per annum*, being two-thirds of his annual salary and emoluments calculated on the average of the last three years.

THE ASSAULT ON DR. WALL.

JOHN KELLEGHER, the inmate of Cork Workhouse, who some time ago committed an assault with a poker on Dr. John Wall, the visiting physician, was on Wednesday last sentenced to five years' penal servitude.

CORK WORKHOUSE: ACCOMMODATION FOR LUNATICS.

AT a special meeting of the governors of the Cork District Lunatic Asylum held last week, the advisability of admitting female lunatics from the Cork Workhouse to that institution was under consideration. After some discussion, the following resolution was adopted: "That this Board comply with the request of the Cork Board of Guardians to receive twenty-five patients out of the female lunatic ward in the Cork Workhouse, on condition that the Board of Guardians, with the sanction of the Local Government Board, agree to pay to the Board of Governors the cost of maintenance of, say, twenty-five lunatic patients chargeable on the rates." Dr. Eames, resident medical superintendent, will, we understand, be empowered to select the most suitable patients; and it is understood that a guarantee will be given by the guardians to take back any patients they may send to the asylum, whenever requested to do so by the governors.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THIS exhibition, which the Executive Committee of the Parkes Museum have been busily organising since the beginning of the year, was formally opened on Saturday, July 16th, by the Right Honourable Earl Spencer, K.G., in the presence of a large and brilliant assembly. The opening ceremony took place in the Royal Albert Hall, and upwards of 4,300 persons were present, quite half of that number being ladies.

The meeting commenced punctually at half-past four, when the President, Earl Spencer, took the chair, and was supported by Earl Granville, Earl Fortescue, Lord Ilchester, Lord Alfred Churchill, M.P., Sir Wilfrid Lawson, Bart., M.P., Sir Thomas Chambers, Q.C., M.P., Sir Matthew Wilson, M.P., Colonel Gourley, M.P., Mr. M. Brooks, M.P., Dr. Farquharson, M.P., Colonel Makins, M.P., Mr. Illingworth, M.P., Mr. Alex. Crum, M.P., Mr. Thomason, M.P., Sir James Paget, Bart., Sir J. Risdon Bennett, Sir Sherston Baker, Lieutenant-Colonel Sir W. Palliser, C.B., Sir John Bennett, Surgeon-General Shelton, Surgeon-General Massey, and the Director-General of the Army Medical Department; Mr. Barlow, R.A., Mr. Millais, R.A., Mr. John Eric Erichsen, F.R.S., Mr. George Godwin, F.R.S., Mr. Waterhouse, A.R.A., Professor F. de Chaumont, F.R.S., Professor Corfield, Professor Frankland, F.R.S., Professor Schäfer, Professor Berkeley Hill, Professor Thane, Professor Flower, F.R.S., Professor Buchanan Baxter, Professor Wilson Fox, F.R.S., Professor John Marshall, F.R.S., Dr. Poore, Mr. G. Aitchison, A.R.A., Professor Kerr, Mr. E. C. Robins, Mr. Arthur Cates, Mr. Mark H. Judge, Mr. Saxon Snell, Mr. H. H. Collins, Mr. Ernest Turner, Mr. Rogers Field, Mr. Eassie, Dr. W. B. Carpenter, C.B., Mr. Mac Cormac, Dr. Steele, Dr. Sieveking, Dr. Priestley, Dr. Matthews Duncan, Dr. Playfair, Dr. Mouat, Dr. Danford Thomas, Mr. Ibbetson, Mr. Netten Radcliffe, Mr. Mocatta, Mr. Peter Squire, Mr. Golding-Bird, Mr. Ernest Hart, Mr. J. Cantlie, Professor Hayter Lewis, Professor T. Roger Smith, Dr. Thorne Thorne, Captain Douglas Galton, C.B., Mr. R. B. Grantham, Dr. Klein, Professor Prestwich, Mr. Meredith, Mr. Thomas Greenish, Dr. Bristowe, F.R.S., and Mr. Freake.

The following report of the honorary secretary of the Parkes Museum was read by Dr. G. V. Poore.

"My Lord,—As the honorary secretary of the Parkes Museum of Hygiene, the duty devolves upon me of stating briefly the origin of the International Medical and Sanitary Exhibition, which is inaugurated to-day. The Parkes Museum, which was formally opened on June 28th, 1879, by Sir R. A. Cross, G.C.B., has clearly met a great public want. It has been open gratuitously to the public on three days in each week, and the number of visitors, which amounted to 2,166 in the first year of its existence, increased to 2,540 in the year which has just closed. The practical lectures which have been delivered to artisans, workmen, and others, have been attended by numbers which have steadily and progressively increased, so that latterly they have been in excess of the accommodation which the museum, in its present situation, is capable of affording. Thus encouraged, the Executive Committee thought that a successful attempt might be made to organise an exhibition of sanitary appliances on the occasion of the assembling in London of the International Medical Congress. This idea was received with approval on the part of the officers of the Congress, and in order that the exhibition might have an additional interest for our medical guests, it was resolved to make it representative of medicine as well as hygiene; and it was finally decided to include in it anything which might reasonably be considered of use in the prevention, detection, cure, or alleviation of disease. A sub-committee of the Executive Committee of the Parkes Museum was appointed, with power to add to its number any persons likely to forward the interests of the exhibition; and the "Exhibition Committee", as finally constituted, consisted of Mr. Erichsen (the late President of the College of Surgeons), as chairman, the President of the Pharmaceutical Society, a professor of hygiene, two physicians, three surgeons, three architects, and two engineers, with a surveyor, Mr. Judge, as secretary. The labours of this committee have been considerable; but they have been much lightened by the sympathetic co-operation met with on all sides. To the Royal Commissioners for the Exhibition of 1851, to the Council of the Royal Horticultural Society, to the Science and Art Department, to the director of the South Kensington Museum, and to the President and officers of the International Congress, their thanks are especially due. The Exhibition Committee are proud to be able to state that His Royal Highness the Duke of Edinburgh has graciously consented to become the patron, and that the Lord President of the Council has courteously accepted the office of President of the exhibition. The Executive Committee of the Parkes Museum, while they have every reason to feel satisfied with the work which they have accomplished, are not without anxieties for the future. The present home of the museum is daily becoming more inadequate, and the funds at their disposal are barely sufficient to pay the very small current expenses. Their ambition is to permanently establish the Parkes Museum in a building of its own; and they are not without hope that the International Medical and Sanitary Exhibition may be the means of directing public attention to the needs of the parent institution. Should this exhibition prove financially successful, the profits will be handed to the treasurer of the Parkes Museum; and it is hoped that the knowledge that one of the ultimate aims of the exhibition is to assist in the permanent establishment of the Parkes Museum, will prove an additional incentive to the public to visit the International Medical and Sanitary Exhibition."

The statement of the Exhibition Committee was made by Mr. Mark H. Judge, the secretary, and was as follows.

"The brief statement I have the honour to make to you on behalf of the Exhibition Committee must, I think, gratify both the exhibitors and the public generally, since it clearly shows that the interest taken in this, the first International exhibition of its kind, has been of an eminently practical character. It was natural that the committee should count upon receiving the co-operation of their own countrymen in an undertaking which could not fail to benefit this country; but they could hardly have expected the large amount of support that has come from the people of other countries. The exhibits are divided into seventeen sections, and they represent almost every industry connected with medicine, architecture, and sanitary engineering. One feature specially worthy of mention is that the work of artisans is exhibited by themselves. Besides the exhibits which have been contributed by London, Dublin, Edinburgh, Glasgow, Liverpool, Manchester, Birmingham, and other large towns in the United Kingdom, the following countries have sent contributions, viz.: France, Germany, Austria and Hungary, Italy, Switzerland, Turkey, Holland, Belgium, Norway and Sweden, Bohemia, Bavaria, India, and America. Thanks to the heartiness with which the exhibitors have fallen in with the arrangements made by the committee, the exhibition that you have been invited to inspect to-day is not in an unfinished condition, but is full and complete. It was at first intended that the judges of the different sections should make their awards to the exhibitors on the opening day; but the extent of the exhibition has made it necessary for them to prolong the time for their examinations, and therefore the awards will not be made until next week. The public spirit shown by the subscribers to the guarantee fund should not be overlooked, as without this the committee could not have ventured on an undertaking of such magnitude. With such an inaugural meeting as the present, there can be little doubt that this exhibition will be the means of providing a considerable sum for the Parkes Museum; and at any rate it is sure to stimulate invention and improvement in all that relates to health."

Highly interesting addresses were delivered by Lord Granville and Sir James Paget; and a vote of thanks to Earl Spencer for presiding was moved by Mr. G. Godwin, seconded by Mr. Erichsen, and carried. A most hearty vote both of thanks and congratulation was also due to the Executive Committee, and especially to Dr. Vivian Poore and Mr. Mark Judge, whose energy, judgment, skill, and industry have been most severely taxed, and conspicuously conduced to the organisation of this highly important and complete collection. The exhibition deserves a visit from all.

SECTION I.—THE BEDS AND APPARATUS SHOWN BY THE HOSPITALS.

By a very happy thought, the committee of this exhibition were induced to request the metropolitan hospitals to show, in rooms devoted to the purpose, a series of beds illustrating the methods of nursing and treatment in use in the various institutions. The project met with ready response; and the resulting exhibit, now on view in the western gallery (second floor) of the Albert Hall, is, we do not hesitate to say, one of the most interesting in the whole exhibition. At first, it was proposed to have living patients to illustrate the various appliances; but better counsels prevailed, and an appeal was made to various eminent artists to lend their lay figures for this purpose—an appeal which was acceded to by Sir Frederick Leighton, Mr. Leslie, Mr. Pettie, Mr. Frith, and many others.

It is impossible to do more than refer very briefly to the apparatus shown, though there are few of the exhibits which would not repay careful study. We may begin with Guy's Hospital, to which a separate room and a lion's share of the beds has been assigned. In one of these

beds we notice, as worthy of attention, a specimen showing the method of applying a "Hodgen's" splint (modified by Bloxam and others) to a fractured thigh. The limb is swung in a wire cradle, with flannel understraps, and the long splint, with its elaborate bandages, is entirely dispensed with. In a compound fracture, the wound can be got at without disturbing the limb; and the only drawback is, that a certain amount of lateral movement is permitted between the fractured ends of the bone. In the next bed is seen, applied to the head, an ingenious apparatus (of German invention) for applying cold to any part of the body; a current of iced-water is kept constantly circulating through a system of tubes, made of lead, sufficiently firm to resist the weight of the body, and yet small and soft enough, it is said, to cause no inconvenience to the patient. This apparatus is much used by Mr. Bryant, and may be seen, in various sizes and shapes, in the surgical-instrument department of this Section.

A very neat and convenient cot is shown; and on the opposite side will be found a tracheotomy cot and tent, which is as well suited for its purpose as any other exhibited; though this is, unfortunately, by no means high praise. In this cot we notice Mr. Golding-Bird's "tracheadilator", made for him by Messrs. Millikin and Down. This instrument consists of two fenestrated blades, which are designed to be introduced into the tracheal wound, and then separated by a screw-action. We have lately had an opportunity of testing this instrument, and can testify to the ease with which it can be introduced, and to the effectual manner in which it keeps open the wound in the trachea, and gives free exit to mucus and membrane. As might be anticipated, the pressure exerted on the two edges of the tracheal wound quickly led to ulceration of the mucous membrane: and for this reason the use of the instrument must, we believe, be limited to the first twenty-four hours. At the end of that time, when hæmorrhage will have ceased, and most of the membrane about the chords has been cleared away, its place may be well supplied by one of Mr. Morrant Baker's India-rubber tubes, which are shown in use in a tracheotomy tent exhibited by St. Bartholomew's. This tent is very neat and pretty, and consists entirely of washable materials. It, however, strikes us as rather small, and as by no means perfection; indeed, we hope that one of the salutary results of the exhibition may be to stimulate inventors to design a really suitable tent for this purpose.

Among the other specimens shown by St. Bartholomew's Hospital, is the apparatus for fractured patella designed by Mr. Manning, as also another method of treating this lesion designed by Mr. Stephenson, a former house-surgeon of the hospital, in which the fragments are retained in position by two broad elastic bands attached to a subjacent wooden cradle. We also notice the contrivance of the late Mr. Callender (commendable for its simplicity) for making pressure on a femoral artery. Fracture of the femur is treated by a long outside (Liston) splint, and extension is made by an ingenious little apparatus, designed, we learn, by a former house-surgeon, Mr. Sankey, and adopted also by the Children's Hospital (Great Ormond Street). This latter hospital exhibits a cot illustrating the treatment of hip-joint disease in general use there. The diseased limb is bandaged to a splint which is supported beneath by an apparatus on the principle of a book-rest, and extension is made as above stated; a long outside splint is applied to the sound limb, and the head only of the little patient is supported on a small square pillow: the child is retained in the recumbent position by the so-called "Queen's Square armlets", a method also made use of in the bed shown by St. Mary's, where it is adapted to a "patient" on whom is also demonstrated the method of treating cervical caries by a leathern collar moulded (by Spratt of Brook Street) to the neck. Leathern splints made by the same firm are also shown in the St. Mary's cot adapted to the treatment of strumous disease of the knee. The collar for cervical caries is supplemented by sand-bags so arranged as to prevent rotation of the head.

The Middlesex Hospital shows the old-fashioned, but very useful, if rather clumsy De Morgan's splint for the treatment of morbus coxæ; and a most convenient apparatus, first used we believe by Dr. Cayley, for bathing a fever patient with the least possible disturbance; a hammock slung from a movable gallows receives the patient, who is then raised from his bed by pulleys, carried by a traveller until he is suspended over a bath placed beside the bed, and finally lowered into the bath by a reversed action of the pulleys.

The exhibit of King's College Hospital shows the various apparatus used in the antiseptic treatment of wounds, though we may remark, by the way, that the dressings are only placed in the basket shown when about to be used; it is, we think, unfortunate that one of the tin boxes ordinarily in use for storing the dressings is not also exhibited. We are sorry to find fault, but the tracheotomy-tent shown by this hospital, with its heavy flannel curtains and clumsy frame, seems to us singularly unsuited for its purpose, and unworthy of the institution from which it emanates. Neither is the bed shown by University College Hospital worthy of the reputation of that school; we may notice, however, the method of treating Colles's fracture by Carr's splints, fully described in our pages on April 9th, 1881.

We have nothing but praise for the beds shown by St. Thomas's Hospital. That one which illustrates the adoption of Plaster-of-Paris splints (as recently recommended by Mr. Croft in a paper read before the Royal Medical and Chirurgical Society, *vide* BRITISH MEDICAL JOURNAL, July 2nd, p. 13) is particularly worthy of careful study, and seems to us the perfection of neatness and simplicity. A cot is also shown by this hospital, which demonstrates a most convenient method of treating hip-joint disease.

We must also strongly recommend to the careful study of our readers the apparatus shown by Charing Cross Hospital. Two beds show the fenestrated splints designed by Mr. Barwell, which are so simple, that they can be made by the ordinary engineer of the hospital. The one designed for excision of the knee strikes us as particularly admirable; a back-splint, with broad plates of soft iron moulded to the thigh and calf, reaches from the fold of the nates almost to the knee; the anterior splint consists of three plates moulded to the thigh, leg, and foot, connected together by light iron rods; the heel is left entirely free, and the fenestrum over the knee is sufficiently wide to permit of the easy application of an antiseptic dressing without at all disturbing the splints, which are from the first firmly fixed to the limb by plaster bandages. Another bed, arranged by Mr. Bloxam, shows a "Hodgen's" apparatus already referred to, as modified by him, and a similar arrangement by which the use of bandages in the treatment of fractured tibia can be entirely dispensed with. The London Hospital, the New Marylebone Infirmary, the Royal Free Hospital, and the Westminster Hospital show beds which are of interest, but which contain no special novelties; and St. George's Hospital also exhibits some apparatus, but of a rather antiquated type.

Lastly, we may notice the bed shown by the hospitals of the army and navy, which illustrates the first treatment of wounds and fractures, and is a marvel of ingenuity. Esmarch's triangular bandages are used throughout, and we would especially direct attention to the treatment of fractured thigh; a rifle forms a long outside splint, a waist-belt supplies the place of a body-bandage, triangular bandages fix the impromptu splint to the thigh and ankle, and a third bandage is used as a perineal band; the same bandages serve to fix two bayonets to the arms, where they act as excellent splints; and a wound of the hand is also dressed with this bandage. If any fault can be found, it must be with the tourniquet in use, which we have heard described by a good authority as the worst in existence.

In this short *résumé*, we have not attempted to do more than direct our readers' attention to some of the more striking exhibits; we trust that it may serve to impress upon every surgeon the great advantage to be gained by a careful investigation of each bed, and each piece of apparatus. A spare morning during the approaching Congress could not be more profitably spent.

SELECT COMMITTEE ON THE CONTAGIOUS DISEASES ACTS.

ON Thursday, June 23rd, Mr. Adam Stigand of Chatham was called in, and examined by Mr. Osborne Morgan; being afterwards questioned by Mr. Hopwood, Dr. Farquharson, Mr. O'Shaughnessy, and Dr. Cameron.

Mr. Stigand is a native of Chatham, where he has continuously resided since 1855, and has for some time taken a prominent part in all local affairs. Moreover, he has been for the last three years chairman of the local board; and, being thus well acquainted with the town, he was able to give evidence as to the comparative state of things existing there before and since the passing of the Contagious Diseases Acts.

The amount of immorality in the town, before these Acts came into force, he described as fearful. The prostitutes, who were very numerous, were quite uncontrolled by the slightest feeling of decency; and so disgusting was their behaviour in the streets, that it was quite impossible for respectable women to go out after dark, unless accompanied by a male friend or relative. This had now quite passed away; and ladies could walk about without fear of being insulted or shocked by those disgraceful scenes of debauchery and riot, which formerly gained for the town of Chatham such an infamous notoriety.

Ordinary police regulations, Mr. Stigand thinks, by their action on public-houses and beer-shops, have doubtless had something to do with securing so good a result; but by far the greater portion of the success was due to the working of the Contagious Diseases Acts. To this cause he attributes the remarkable decrease in the amount of solicitation in the streets, which has, in fact, so far ceased that it would not be apparent

to an ordinary passer-by. This improvement has not been brought about suddenly, but has taken place gradually since 1866, and he considers that it is still going on.

In reply to a question about the decrease in juvenile prostitution, he said, though apparently there were not much fewer juvenile prostitutes, that, but for these Acts, there would be a very much larger number of them. Of late years, there had sprung up in Chatham several cloth factories, employing a great number of young girls—many of whom, unfortunately, spent their evenings in dancing-saloons and walking the streets. It would be a harsh thing to say that, on this account alone, they were necessarily immoral; but, beyond all question, were it not for the strong deterrent effect of the Acts, taking into consideration the local circumstances, many of these girls would most certainly fall into prostitution.

Speaking of the wives of soldiers and sailors absent on service, he said he was satisfied that there were not half the lapses from virtue among them that there formerly were. In such cases, the portion of pay that would go to support the wife might be stopped, and hence the woman would become destitute; but, as chairman of the Medway board of guardians, he knew that destitution from this particular cause was now very rare indeed.

With regard to the reclamation of fallen women, he knew that the good influences brought to bear on them, through the working of the Acts, were very potent. One particular instance he mentioned, where the daughter of a large Government contractor at Chatham had gone astray; she was brought under the operation of the Acts, and at present she is in Australia, having lately married very well. Her friends, who are, of course, very gratified at this happy issue, attribute her rescue entirely to the change wrought in her moral condition during her stay in the hospital.

In his official capacity, it had been his lot to peruse a large number of letters from the mothers or relatives of fallen girls; and he could, without exaggeration, say he had read dozens in which the writers, either the girls themselves or their friends, expressed their deep gratitude that they had been brought within the reach of these Acts, as the only means of checking them in their career of vice, and restoring them to respectability.

This statement was challenged by Mr. Stansfeld; but Mr. Stigand adhered to it, and said he thought he knew where many of these letters were still preserved; and, if so, they could be produced for the satisfaction of the committee, through the chairman.

With regard to the general feeling in the town of Chatham, Mr. Stigand stated it to be very much in favour of the Acts. He knew that the opinion of the Medway board of guardians, consisting of twenty gentlemen residing in the neighbourhood, was, that the repeal of these Acts would be a public calamity, and would probably cause a return to the lamentable state of things that formerly existed. In fact, almost all persons of influence, intelligence, and information, favoured the Acts.

The severity of the venereal cases admitted to the "foul wards" of the Medway Union, previously to 1866, was terrible; while the filth and degradation of the women could hardly be imagined. So fearful, indeed, was the stench from some of these miserable objects, that they had in several instances to be kept outside the window, while they were questioned by the board previous to their admission to the house. The use of the word "rottenness" by this witness again drew a protest against it from Dr. Cameron; the term, however, was used to describe a condition not unfrequently met with in former days, but which is happily now very rarely seen.

Another peculiar feature of those days, before the Contagious Diseases Acts came into force, was the very large number of young men and lads who were diseased; and it was the rule, rather than the exception, to have in the wards several boys of fifteen, or even younger, suffering from venereal disorders.

Passing to the question of the way in which the police performed their duties, Mr. Stigand declared positively that never, in his public or private capacity, had he come across one single authenticated case of abuse by the police of the powers entrusted to them. He had, he said, kept his eyes and ears open; and, if any such complaint had arisen, it was simply impossible that it should not have come to his knowledge.

As to the reduction in the number of brothels, Mr. Stigand gave evidence that they were decidedly fewer than formerly; while the change in the character of the low beer-houses, which were practically brothels, was very marked. Previous to 1866, at two out of every three of these beer-shops girls were kept on the premises, and frequently as many as could by any possibility be stowed away in the house. There were still, he was sorry to say, a very few remaining, which evaded the law by hiring, at the back of the establishment, a cottage, where prostitution was carried on; but the number of such places was very small, and was steadily becoming smaller.

Mr. Stigand was cross-questioned, with considerable severity, as to the meaning of the term "fallen woman", which he frequently used; and was asked whether he would include in that category any female who yielded to an indiscreet affection? This signification, however, Mr. Stigand altogether disclaimed—saying, he referred only to such women as could be recognised beyond all doubt as prostitutes. The solicitation of men in the public streets was, he thought, a good test; and, indeed, it seems to us to be a very fair one.

Very strong statements had been made in many quarters as to alleged disorderly behaviour, outside the examination-rooms, on the part of the registered women, and the men who accompanied them. This, as regards Chatham, the witness positively denied. He had never even seen women waiting about outside; they came up singly, or in twos and threes, and passed in quickly, as though desirous of avoiding observation.

As to voluntary hospitals, he corroborated the opinions expressed by so many competent witnesses—viz.: that the women would not be got to attend them, as every one who has had experience of the utter recklessness of these unfortunates knows very well.

In conclusion, the witness expressed his strong conviction that these Acts had had a very good effect on the common women in Chatham; as he sensibly and pithily expressed it, "they had brought the girls into contact with good men and good women, and a better state of things had been the result".

Strong evidence, as to the good effect produced by the working of the Acts in Deal, was given by Mr. William Piddock, who has resided in that town for the last thirty years. The chief points referred to by him were: the diminished number of common women, the decrease in solicitation, and the great facilities afforded for tracing girls, and restoring them to their friends directly after their first false step.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION:

FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy in the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

The business of the Association will be transacted in Four Sections and one Subsection, viz.:—

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., F.R.C.S., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London. *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST 9TH, 1881.

2 P.M.—Meeting of Committee of Council, in the Ante-Room of the Justice Hall.
2.30 P.M.—Meeting of the Council of the Association, in the Justice Hall, Town Hall.
4 P.M.—Short service, with sermon by Bishop McDougall.
5 P.M. General Meeting in the Town Hall, Great Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 10TH.

9.30 A.M.—Meeting of Council of the Association, in the Ante-Room of the Justice Hall.
11 A.M. Second General Meeting in the Town Hall, Great Hall. Address in Medicine.
2 to 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST 11TH.

9 A.M.—Meeting of Committee of Council, in the Ante-Room of the Justice Hall.
10 A.M.—Third General Meeting in the Town Hall, Great Hall. Reports of Committees.
11 A.M.—Address in Surgery, in the Town Hall, Great Hall.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Town Hall, Great Hall.

FRIDAY, AUGUST 12TH.

10 A.M.—Address in Obstetric Medicine, in the Town Hall, Great Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall, Great Hall. Reports of Committees and other business.
4 P.M.—Garden party in the grounds of the Isle of Wight College, by the President-elect and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach. 2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

Professor Rosenstein of Leyden and Professor Ewald of Berlin will be present, and will take part in the discussions.

The following papers have been promised.

BARLOW, W. H., M.D. Regressive Paralysis in the Infant.
DOWSE, T. S., M.D. On the Differential Diagnosis of Intracranial Tumour, General Paralysis of the Insane, and Locomotor Ataxy.
DRYSDALE, C., M.D. On Syphilis of the Spinal Cord.
EALES, H., Esq., and SAUNDBY, R., M.D. On the Ophthalmoscopic Appearances of the Fundus Oculi in Chlorosis.
FINNY, J. Magee, M.D. Notes on a case of Acute Ascending Spinal Paralysis.
GROVES, J., M.D. The Treatment of Insanity.
HADDON, John, M.D. Is Antipyretic Treatment justifiable?
HASSALL, Arthur Hill, M.D. The Winter Climate of San Remo.
KERR, Norman, M.D. Three successful experiments in the Treatment of Dipsomania.
SKERRITT, E. Markham, M.D. A case of Subcutaneous Emphysema from Spontaneous Rupture of Lung.
TIBBITS, E. T., M.D. On the Modern Theory of the Action of Digitalis.
TYSON, W. J., M.B. Rectal Alimentation.

SECTION B.—SURGERY.

1. A discussion will be opened by Mr. Stokes of Dublin, on Resection of the Knee in Early Life.

2. Mr. Edmund Owen will open a discussion on the Early Recognition and Treatment of Spinal Caries.

The following papers have been promised.

CROSS, F. Richardson, M.B. Antiseptic Incision and Drainage in Empyema.
GOULD, A. Pearce, M.B., M.S. Varicocele.
GRATTAN, Nicholas, Esq. On the Treatment of Spinal Curvature by means of the Cuirass.
GREENWAY, H., Esq. The value of Suspension in Surgery.
HARRISON, Reginald, Esq. Treatment of Stricture by Stretching.
JAMES, Prosser, M.D. Stricture of the Œsophagus.
LEDIARD, H. A., M.D. On the Treatment of Fracture of the Lower End of the Fibula.
MACNAMARA, C., Esq. Two Cases of Charcot's Joint-Disease.
MARTIN, H., M.D. (Boston, U.S.) A Novel Treatment of Synovitis.
MCMAHON, J. T., Esq. A case of Psoas Abscess.
NORTON, A. T., Esq. A new and reliable Operation for the Cure of Web-Fingers.
PYE, Walter, Esq. Spina Bifida.
SPANTON, W. Dunnett, Esq. A further series of cases of Immediate Cure of Inguinal Hernia.
TAIT, Lawson, Esq. Some recent advances in Pelvic Surgery.
TEEVAN, W. F., Esq. Twenty-five Cases of Lithotrity at one Sitting.

Mr. Coates, President of the Section, in his opening address, will make some observations on the Treatment of Hæmorrhoids, and a New Operation for their Removal.

Professor Annandale will give a demonstration on Suspension as an Aid in Operative Surgery.

SECTION C.—OBSTETRIC MEDICINE.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

Dr. Bantock will take part in the discussions.

The following papers have been promised.

BALNES, Fancourt, M.D. The Treatment of Puerperal Convulsions by Chloroform.
CROOM, J. Halliday, M.D. A Dissection and Description of an Acardiac Fœtus, with Drawings.
DRYSDALE, C. R., M.D. The Prognosis of the Syphilis of Women and Children.
EDIS, A. W., M.D. On Ectopic Gestation.
HEYES, J. Bristow, M.D. On Secondary Post-Partum Hæmorrhages.
HIME, T. W., M.B. Two cases of Repeated Ovariotomy, with description of a new Instrument for Paracentesis.
MOULLIN, J. A. Mansell, M.B. The Treatment of Chronic Metritis by Intra-uterine Applications.
MUGGERIDGE, H. H., Esq. Short and Practical Hints on Natural Labour useful to be remembered by young Obstetricians.
MURPHY, J., M.D. The Treatment of Placenta Prævia, with short notes of six consecutive cases.
REID, W. L., M.D. On the Adaptation of Pessaries to individual cases of Uterine Displacement; showing a method of doing so by means of a new material called Godiva.
TRESTRAIL, H. E., Esq. Cases showing the importance of exploring the Interior of the Uterus in *post partum* Illness, and especially in Puerperal Fever.

SECTION D.—PUBLIC MEDICINE.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

The following papers have been promised.

BEVERIDGE, Robert, M.B. On a Peculiar Outbreak of Disease in connection with the Supply of Milk.
DAVEY, A. G., M.D. On the Prevention of Enteric Fever.
DRYSDALE, C. R., M.D. London Local Death-rates.
EVATT, Surgeon-Major G. J. H., M.D. The New Medical Organisation of the Army.
GROVES, J., M.B. The Isle of Wight as a Health resort.
HODGSON, G. F., Esq. On the Relations of Variola and Vaccina; especially as illustrated by the experiments of Mr. Badcock, formerly of Brighton.
PALMER, J. Foster, Esq. Cremation: remarks on some of the minor points connected with it.
STEWART, A. P., M.D. Are Homes for Convalescents from Scarlatina desirable? and, if so, at what period can the patients be safely removed to them?
WARLOMONT, E., M.D. (Brussels). Is it desirable that Vaccination by means of Calf-lymph should be encouraged in England?
WHITEHEAD, J. L., M.D. The Climate of the Undercliff, Isle of Wight, as a place of Health-resort; deduced from forty years' consecutive meteorological observations.

SUBSECTION—OTOLOGY.

The following British and foreign otologists have expressed their intention of being present, and taking part in the discussions: Messrs. Field, Gardiner Brown, Lennox Browne, Hodgson, Torrance; Drs. Duncanson, Barr, Pierce, Jacob, Ward Cousins, Loewenberg (Paris), Rumbold (St. Louis), Moure (Bordeaux), Reeve (Toronto), Stevens (New York).

Discussions on the following subjects will take place.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections. The discussion will be opened by Dr. Thomas Barr of Glasgow.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

The following papers have been promised.

BARR, Thomas, M.D. The Treatment of Purulent Discharge from the Ear, where the Source of the Secretion is in the Upper Part of the Tympanum and in the Antrum Mastoideum; with four illustrative cases.
BROWN, A. Gardiner, Esq. Sclerosis of the Mucous Membrane of the Middle Ear.
CHICKEN, Rupert C., Esq. The Surgery of the External Auditory Passage.
PRITCHARD, Urban, M.D., Chairman of the Subsection, will open the proceedings with a short address on Aural Surgery as a branch of Medical Education.
RUMBOLD, T. F., M.D. The Relation of Diseases of the Nasal Passages and Naso-Pharynx to Aural Affections.
SEXTON, Samuel, M.D. (New York). The Treatment of Acute Suppurative Inflammation of the Middle Ear, with reference to Perforation of the Mastoid.
TORRANCE, R., Esq. Remarks on Vertigo in Catarrhal Inflammation.
Dr. WARD COUSINS will exhibit and describe his Ear-Protector against noise, shock of cold, etc.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay to the Secretaries of the respective Sections.

Sectional Meetings.

The Sectional Meetings will be held in the following rooms.

Section A: Medicine.—Small Hall of the Town Hall.

Section B: Surgery.—Justice Hall.

Section C: Obstetric Medicine.—Lecture Room of Young Men's Christian Association, opposite the Town Hall.

Section D: Public Health.—Victoria Rooms, opposite the Town Hall.

Subsection: Otology.—Council Chamber, Town Hall.

Annual Museum.

The annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M.

Chairman, Alexander George Davey, M.D.

Honorary Secretary, Evelyn Rich, Esq., Temple House, Ryde.

Reception Room.

The School of Art has been fitted up as a Reception Room, and will be opened on Tuesday, August 9th, at 10 o'clock in the forenoon, and on the following days at 9 o'clock in the forenoon, for the issue of tickets to members and for supplying all information.

*** *It is particularly requested that Members, on their arrival, will proceed at once to the Reception Room, record their names and addresses, and obtain their tickets and Daily Journal, inquire for letters, and consult list of lodgings and hotels.*

Dinner.

Notice is hereby given that, in accordance with the resolution passed at the last annual meeting, held at Cambridge, the Committee of Council have made arrangements for tickets inclusive and exclusive of wine. The price of the dinner ticket, exclusive of wine, but including aërated waters, is 14s.; of the dinner ticket, inclusive of wine, £1 1s. The number of tickets is limited to 350. Applications for tickets to be accompanied by cheque or Post Office Order payable to F. Greening, Esq., Honorary Secretary to Dinner Subcommittee, Melville Street, Ryde.

Excursions.

Saturday, August 13th.—1. A steamer, provided by the mayor and inhabitants of Ryde, will start from Ryde Pier at 9 A.M., proceeding round the island to Alum Bay, from whence Dr. Alfred Hollis will conduct members to Freshwater, which having visited, the party will re-embark at Yarmouth for Cowes; and, landing there, will find their way to Carisbrooke for lunch, by the Cowes and Newport rail.

2. A train will leave Ryde at 8.10 A.M. for Sandown, where the inhabitants kindly invite the party to partake of tea and coffee. Carriages free will be in waiting to convey them to Shanklin and Ventnor, where a *déjeuner a la fourchette* will be given by the residents, in the grounds of Dudley A. Hambrough, Esq., J.P., at Sheephill Castle. After visiting the National Hospital for Consumption, they will proceed by way of the Undercliff to Blackgang, where Robert Pinnock, Esq., J.P., will receive the members. After viewing the locality, the journey will be continued to Carisbrooke Castle, where the visitors will be entertained by his Worship the Mayor, and the residents of the capital of the island. Subsequently, the Roman Villa and Church of Carisbrooke, the Parish Church and Grammar School of Newport will be visited. The steamer will be in waiting at Cowes to convey members back to Ryde.

Accommodation at Ryde.

Members of the Association who propose to bring ladies to Ryde, on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, Evelyn Rich, Esq., Temple House, Ryde, Isle of Wight.—There will be a boat each evening at eleven o'clock between Ryde and Southsea and Portsmouth. Return tickets by boat, 8d.; by train, third-class fares, for members of the Association.

The Directors of the Royal Pier Company have liberally granted the free use of the pier to members of the Association. A steam launch will be engaged for the use of members for water-excursions.

The gentlemen whose names are as follows throw open their grounds one day each to the members of the Association: Sir William Clifford, Bart., Westfield; The Right Hon. Sir William Hutt, Apley Towers; and the Rev. Alfred Locock, Binstead House, daily. The Poet Laureate will open his grounds at Freshwater on Saturday, the 13th, to members of the Association and their friends. Arrangements will be made from day to day for visiting the Dockyards at Portsmouth.

Francis Fowke, *General Secretary.*

London, July 14th, 1881.

BRANCH MEETINGS TO BE HELD.

Yorkshire, Bradford and Ripon Joint Branch.—The annual meeting of the Branch will be held on Saturday, the 30th July next, at the rooms of the Literary and Philosophical Society, Park Row, Leeds, at 3 P.M. J. Lockwood, M.D., 29a, Upper Park Street, Bradford, Robert James Gladstone, M.D., 2, Queen Street, Morley, Honorary Secretaries.

South Wales and Mid-Wales Branch.—The annual meeting of the above Branch will be held at the Shire Hall, Cardiff, on Thursday, the 28th July, at 11 A.M. The business will be at the Lion Hotel at 4 P.M., when dinner will be provided. Members intending to be present are requested to give notice to the Secretary. Those intending to read papers or bring cases for discussion are requested to communicate with the Honorary Secretary, who will read a paper on Cases suitable for Discussion in Hospital Practice. Henry Neale Pritchard, Honorary Secretary.

VICTORIAN BRANCH: ORDINARY MEETING.

A meeting of the above Branch took place on April 13th, at the hall of the Royal Society, Melbourne; the president (Dr. Cutts) in the chair.

The Library.—The honorary secretary announced the following presentations to the library:—Baron von Mueller's *Select Extratropical Plants, Report of the Select Committee on Vaccination*, etc.

Honorary Members.—A recommendation from the Council, that there be a rule providing for the election of honorary members, was brought up, and a rule to that effect was passed. A further recommendation, contingent upon the passing of the rule, that Mr. R. L. J. Ellery, F.R.S., Government astronomer, be elected an honorary member, was also adopted.

Water Supply.—The honorary secretary reported that the Council had elected a sub-committee to consider and report upon the effect of the Yan Yean water in producing disease, and also to investigate the impurity of the River Yarra. The following resolution was, after some discussion, carried, and the secretary was instructed to forward a copy to the chief secretary:

"This meeting of the Victorian Branch of the British Medical Association, being convinced of the importance to the community of keeping pure the rivers and brooks of any country, respectfully but earnestly invites the attention of the Government of Victoria to the necessity of stringent resolutions, by statutory means, for preventing absolutely and without exception refuse of any kind finding its way into the streams of this colony."

Papers were read as follows: 1. On the Treatment of Anasarca, by G. Rothwell Adam, M.B. The author believed that the usual method of treating anasarca was frequently followed by disastrous results. Two factors produced irritation in the skin, resulting in erysipelas, erythema, or abscess. Vitality in the œdematous limb was lowered by compression and interference with nutrition, and the presence of an irritating body—*i.e.*, dropsical fluid, possessing a weak alkaline reaction. He considered that any fluid flowing over a skin that was badly nourished, and the epithelium of which was put on the stretch, was quite sufficient to cause complications. He considered that neutralising the fluid would remove one factor; and he advised sponging the limb over with a saturated solution of boracic acid, the skin at the same time being punctured in an upward direction by a sharp instrument, in the shape of an awl. To prevent wetting the bed, large sponges soaked in the boracic solution are strapped round the limb. He asserted that, in all cases in which this method was adopted, no irritation of the skin followed. He repeated the puncture every twenty-four hours.

2. On a Case of Glass-swallowing, by Louis Henry, M.D.

3. Dr. Henry explained a new mode of treating orchitis and varicocele by means of elastic bandaging.

Address to Mr. Rudall.—An address, signed by the president and secretary, in the name of the Branch, was presented to Mr. Rudall, late surgeon to the Melbourne Hospital, Australia, on the occasion of his departure from Australia on a visit to Europe. The address conveyed an expression of high esteem for his personal character, and of admiration for his scientific attainments: as a leading member of the medical profession in Victoria for nearly twenty years; as one of the surgeons of the Melbourne Hospital for ten years; as the author of many valuable contributions to the literature of medicine; as one of the founders of the Branch; and as a good citizen who had earned every good man's esteem.

Mr. Rudall thanked the members of the Branch. As his absence from Melbourne was intended to cover only a few months, it was es-

pecially pleasing that his professional compeers should have joined in expressions of approval and of good wishes.

The subjoined resolution was then unanimously agreed to :

"That Mr. James Thomas Rudall be, and is hereby, authorised to act as the representative of this Branch association during his visit to Europe."

Exhibitors.—Numerous specimens of new instruments and new drugs were laid on the table.

SPECIAL CORRESPONDENCE.

PARIS.

Professor Parrot's Views on the Relations of Syphilis to Rickets and other Affections of Bone. M. Pasteur and Saliva of Rabies.—Dr. Burq on the Influence of Wind-Instruments on Pulmonary Affections.—The Academy of Medicine and the Compulsory Vaccination Law.—Prize of the French Temperance Society.

WHEN Professor Parrot, a short time ago, declared, orally and in his writings, that rickets was a syphilitic affection, he rather astounded the profession ; and I have heard it remarked that since his appointment, within the last few years, to the Hospice des Enfants Assistés—which is only another name for the old Foundling Hospital—he sees syphilis everywhere. From the very nature of his position, Professor Parrot has had more opportunities for studying hereditary or congenital syphilis, and other infantile affections, than, perhaps, any other medical man ; and although rickets in children may be the result of a syphilitic taint in the parents, it would be monstrous to suppose that every rickety child is born from syphilitic parents ; for the disease known as rickets is generally admitted to be the result of impaired nutrition of the body, howsoever that may be brought about ; and this impaired condition may be inherent in the child, or it may be the result of some constitutional taint in the parents. I have been led to these reflections, as I have more than once heard Professor Parrot expatiating on the subject ; and at a meeting, a few months ago, of the Anthropological Society of Paris, of which he is the president, a discussion took place on the presentation by M. Chudinski of a microcephalous child, 2½ years old. The bones bore the most evident marks of rickets, and most of the members present thought so too ; but for M. Parrot it was a decided case of hereditary syphilis ; and in support of his opinion, he stated that at the necropsy of the child, which he had witnessed, he noticed several visceral lesions of an unmistakably syphilitic character. Moreover, he added that he never could see what connection there was between microcephalism and rickets, as the latter, far from arresting the development of the skull, rather tends to favour it.

At a subsequent meeting of the Anthropological Society, M. Parrot exhibited a young girl, aged 14, affected with what he termed "acquired idiocy". She had a peculiar form of head, to which he gave the name of "natiforme". The skull was composed of five tuberosities, viz., two frontal, two lateral, and one occipital ; and the sutures were ossified (synostosis). This condition of the skull M. Parrot put down to congenital or hereditary syphilis, to which most of the members present demurred, as the girl bore no other symptoms of a syphilitic taint. She was otherwise in robust health, and, were it not for her idiotic manner, she would not be considered different from any other girl of her age. One of the members observed that the girl's teeth did not bear the signs pointed out by Hutchinson and others, as being characteristic of syphilis, to which M. Parrot replied that that was no reason why the case under notice was not syphilitic, as all the signs and symptoms of a disease as described in books are not always present. Moreover, he added, the notches in the teeth are not always characteristic of a syphilitic taint, as they are to be found in almost all cases of malnutrition, from other diseased conditions, such as scrofula, tuberculosis, etc. But Professor Parrot, I am afraid, carries his hobby too far ; for, at another meeting, some skulls which were exhibited, described by the donor as belonging to persons who lived in the prehistoric age, presented certain lesions which M. Parrot set down as tertiary syphilis !

When a man has a hobby, there is no knowing how far he will go with it ; and this may be applied to M. Pasteur, who sees germs everywhere. This eminent biologist has made some most important contributions to science, and his name will ever be connected with his ingenious researches on fermentation, and other important discoveries ; but, like most investigators, he has drifted from the right path, and gone into a more speculative kind of scientific experiments. As an example of this may be mentioned his recent experiments with the saliva from the mouth of a child with rabies, with which he inoculated rabbits and guinea-pigs. All the animals died, and their blood was found to contain myriads of micro-organisms, which he concluded to be the specific germs that produced hydrophobia. He then performed a second series of experiments, by inoculating other rabbits with the blood of those that had succumbed from the first inoculation. These also died, and their blood was found to contain the same micro-organisms. He, however, soon discovered by further experiments, but this time with the saliva of children who died from other diseases, that the results were precisely similar to those observed with the saliva of the child. In pushing his experiments still further, but with the saliva of a healthy adult, he met with the same results, and the same germs, as in the preceding cases. This rather puzzled the persevering experimenter, but he is not so easily beaten ; and if he has not yet discovered the real nature of the virus of rabies, he fancies he has laid his hand on the organ that secretes it. According to him, the virus of rabies is not secreted by the salivary glands, but by the brain—or rather, the latter is the seat of the malady ; and in support of his thesis, he inoculated a small portion of the bulbous extremity of the medulla oblongata of a rabid animal under the cerebral covering of a healthy animal. The latter became rabid. These results were recently communicated to the Academy of Medicine, in a paper read by the general secretary for the learned experimenter, which called forth some trenchant remarks from M. Béchamp, who positively refused to accept the principle on which M. Pasteur has hitherto founded most of his theories, and added that it is not outside the body that one must look for the germs or elements of destruction ; but they are to be found in our own body, in the form of microzymes, which are the only cause of all fermentation, and the lowest element to which our organism can be reduced. M. Pasteur has not yet had the time to send in his rejoinder ; but it is to be hoped that, when he shall do so, he will read his communication himself, which is sure to be a most interesting one. Nothing daunted, however, M. Pasteur continues his parasitic warfare with unbroken zeal ; and, by further experiments with human saliva, he has made the startling discovery that the saliva of a person fasting is venomous, as it contains the same parasites as those found in the saliva of children above described ; but that, on the person breaking his fast, his saliva is deprived of the venomous quality, as the parasites are taken into the stomach with the food. All this is terrible to contemplate ; and even M. Pasteur was confounded, as the result of his experiment was as awful as it was unexpected. The learned biologist made no attempt to offer any explanation, but said that he would for the present only point to the fact, which, he added, was in itself very suggestive.

Dr. Burq, well known for his researches on metallotherapy, lately drew up some statistics, which he culled from different military hospitals, to show the influence of wind-instruments on pulmonary affections ; and he remarked that pulmonary phthisis was much less frequent among the bandsmen who played on these instruments than among those who played on others ; he therefore concludes that, as a preventive measure, persons threatened with phthisis ought to be made to sing, and to use their voice more than is generally done. Dr. Burq has constructed an apparatus by which the capacity of the lungs for inspiration or expiration can be measured ; but I doubt whether his experience about wind-instruments would tally with that of our military surgeons ; or whether his recommendation for the preventive cure of phthisis would be received with much favour by the generality of British physicians. I have just read in a medical paper the following anecdote bearing on the subject. A certain hospital physician, having notions opposed to those expressed by Dr. Burq, always made it a point to question his phthisical patients as to their musical practices. At his hospital visit one morning, a cachectic-looking patient, who was in the last stage of consumption, went to consult him. "What is your profession?" asked the doctor. "Musician, sir," was the reply. The doctor, turning to the students who were about him, observed, "What did I say? Here is a remarkable example of phthisis in those who use wind-instruments. What instrument do you play on?" continued the doctor. "The bass drum," was the patient's reply. You may imagine the doctor's confusion ; and, as the article adds, it is to be hoped he was for ever cured of his etiological conceit.

The "projet de loi Liouville", for the enforcement of vaccination in infancy, and of revaccination every ten years, was lately submitted to the Academy of Medicine for consideration ; and, after a series of warm discussions for and against it, it was put to the vote, and carried by the large majority of forty-six for compulsory vaccination in infancy, nineteen voting against it ; but the proposition for compulsory revaccination decennially was rejected unanimously. Among those who voted against compulsory vaccination are to be found the names of men of the greatest renown. The anti-vaccinators have taken advantage of this, and misconstruing, whether intentionally or not, the real tenour of the vote, have enrolled the nineteen academicians as their

champions; for it need hardly be said that these learned members voted, not against vaccination, but only against its being rendered *compulsory*, as infringing the liberty of the subject. It is anticipated that the "projet" will soon become law; and I have good authority for stating that the facts published in the little work entitled *The Truth About Vaccination*, which was to a great extent reproduced in *La France Médicale*, have had no small influence on the minds of the framers of the law for introducing compulsory vaccination in this country. By a singular incongruity, which, however, is more apparent than real, Dr. de Pietra Santa—one of the staunchest advocates of vaccination in France, and director of a large vaccine establishment in Paris—has ranged himself on the non-compulsory system, assigning as his reason that, however indispensable a measure may be for public safety, the liberty of the people must be scrupulously respected; and he has sent in a protest to the Chamber of Deputies against the "projet Liouville", declaring that, while he recognises in it the most benevolent intentions, such a law would be too arbitrary, and unworthy of a great liberal nation. This, however, is merely the sentimental side of the question, and may be accepted in theory; but in the stern realities of life one must be practical. To permit vaccination to be optional wherever there are groups of people living together, or in close proximity to one another, would be as culpable as it would be to allow the extinction of a fire to be optional; for one has no more right to spread a disease than he has to spread a fire. The French Society of Hygiene has just published, under the auspices of a committee, a *Guide du Vaccinateur*, which treats of the two kinds of vaccination—that from the child and that from the heifer. It will be found a most useful little pamphlet, alike to the laity as to the profession, and it is written in a popular style, and devoid of all theory and technicalities. After giving full instructions as to the mode of operation in vaccinations and revaccinations, the committee have thought proper to point out that, in revaccination, scarification ought to take the place of simple punctures in order to ensure the absorption of a greater quantity of lymph.

The French Temperance Society proposes for 1882 a prize of 2,000 francs (£80) for the best memoir on the following subject: "Les alcools introduits dans l'economie y subissent-ils des modifications?" The memoirs are to be written in French, unsigned, but bearing a motto corresponding with one on a sealed envelope, enclosing the author's name and address. But although the council of the society has proposed the above subject, any work relating to alcoholic drinks in regard to their composition, and their action on the economy, will be received in competition for the above prize. The memoirs may be in manuscript or print, and should be forwarded to the Secretary-General, 6, Rue de l'Université, Paris, before January 1st, 1882.

HOMBURG.

A Homburg medical correspondent writes to us:

After a period of somewhat unsettled weather—cold, with rain—the summer has now fairly set in at Homburg-les-Bains, and, with the exception of an occasional thunderstorm, the weather is fine and warm, but breezy—during the last few days perhaps too warm—the thermometer showing a maximum reading of 24° R. (86° Fahr.) on the 21st, and 25° R. (88.25° Fahr.) on the 22nd inst. As, however, is usually the case here, the heat is mitigated by the almost constant cool breezes from the Taunus range; and in this important respect Homburg is more fortunate than most of her rivals.

It is always agreeably fresh and cool in the early morning, when the visitors assemble at the Elizabethen Brunnen to imbibe their prescribed number of cups, and to promenade, in the intervals between them, to the strains of the band.

The number of visitors this season shows no sign of diminution, but, on the contrary, that this favourite spa is likely to maintain its old popularity; nor is this a matter for surprise, for it would be difficult to imagine a more complete or desirable change for the faded devotee of fashion, the [illegible] or the legislator worn out with tedious debates in the House, than to spend three or four weeks in this quiet, clean, English-looking town, and vary his consumption of the alterative Elizabethen Kaiser, or Ludwigsbrunnen, or the chalybeate Luisenbrunnen or Stahlbrunnen, or his baths of mineral water or Fichtennadeloel, or whatever other form may be advised, with cool, pleasant walks in the pine woods, or drives to the Saalburg, Altkönig, Feldberg, Eichkopf, Opern Valley, or other points of interest; eat his dinner *al fresco* on the terrace of the Kurhaus, where his limited amount of Rhine wine or Foreter Riesting is enjoyed thoroughly in the cool evening air, [illegible] the best classical music, [illegible] the now old [illegible] the modern Babylon. A look in at the cancans, and a cigarette as he walks home, send him to sleep, broken by no dreams—the outcome of early hours, exercise, plain food, legitimate amusement, and bright, sparkling, gaseous, Homburg water, against which even obstinate dyspepsia is forced to yield.

CORRESPONDENCE.

ANIMAL VACCINATION.

SIR,—Excuse me if I have so often recourse to the publicity of your paper, but the subject of animal vaccination is so grave, and the misstatements circulated about it are so many, that it is impossible to allow them all to pass unchallenged.

These accusations are produced by the fact that the new method necessitates a certain apprenticeship, and skilled practitioners have an objection to become apprentices again. In their hands is placed a special produce which requires a special way of using, and they will use it in the old way, without altering the *modus faciendi* to which they have been hitherto accustomed. It is scarcely reasonable.

I said in a communication transmitted to the Session of the British Medical Association, held at Cambridge in August last, which your paper reproduced, that the active corpuscles in animal-lymph (microbes or granulations) are in general gathered in groups, whereas they float isolated in children's vaccine. I added that, given an equal number, the vaccinator's lancet must find one or several microbes in the second more easily than in the first case, when he charges it with a view of performing six inoculations. This being so (we speak only of preserved lymph, either on points or in tubes), I put it down as a principle and condition for constant success, the introduction of animal-lymph by large doors, viz., by the process of scarifications.

Well, what is now the case in England took place at the outset in Belgium: many old medical men refused to give up the traditional puncture, and grumbled against animal-lymph which failed in their hands, while it imperturbably succeeded with young vaccinators more accessible to advice. Whose fault was it?

To resume: Preserved animal vaccine must be used through scarifications. This is a condition *sine quâ non* for a successful operation. When strictly observed, satisfaction only will ensue.

I further say that the quantity to be inoculated is not a matter of indifference. One of my points must be used for each patient, if you do not wish to fall short of the expected result.

With too great a regard for the economical motives, many medical men use tubes in preference to points, and finding them well filled, divide them, through punctures, amongst five, six, or ten patients, then complain of failure.

Once more whose fault is it? The large tubes which I now supply to Mr. Edward Darke are calculated for two vaccinations, no more. The liquid they contain must be spread on well-made scarifications.

The presence of glycerine in the lymph of my tubes has just been pointed out. Here is the truth about it. In the hot season I mix with the liquid issued from the heifer, and before its storage in the tubes, a quantity of glycerinised distilled water, scarcely equal to one-tenth of the bulk, in order to safely check any incipient decomposition. During the more temperate season I dispense with this addition, which after all increases the liquid in a very trifling manner only, and cannot influence the result when the inoculation is effected in the solely valid manner—I mean by scarifications.

Therefore when people write that the man who distributes it to the British public is a "vendor of adulterated drugs", they forget themselves in very lamentable recriminations. It is (contrariwise) lymph guaranteed free from any adulterations which Mr. Darke supplies to the vaccinators of the United Kingdom when he provides for them the tubes which I daily send him.

Besides, with regard to the points covered with dessicated lymph, and which I still recommend in preference to tubes, they have nothing to do with the glycerine question raised with so little opportunity at the present moment.—I am, etc.,

E. WARLOMONT, M.D.

Brussels, July 3rd, 1881.

WOOLSORTERS' DISEASE.

SIR,—It is probable that you may think it unnecessary for me to reply to the long and rambling letter on woolsorters' disease, in the last number of the JOURNAL. A few lines, however, will suffice.

The writer has carefully avoided noticing the replies sent to you, July 2nd, made to my strictures arising out of his previous letter; and has started other questions, in the hope, possibly, of thus covering his retreat from an untenable position. The fact is, that all but a few days (excepting Dr. Tibbits) believes that the anthrax bacillus has not cha-

racters which separate it from many other bacilli. It is really too bad of him to dish up scraps of opinions which are out of date, and of theories which are worn out, on "bacteria", "ferments", "germs", "contagium virum", etc., for the supposed edification of your readers, as if they were unacquainted with the more modern opinions on these subjects.

I do not think that any useful purpose will be served by discussing the nature of woolsorters' disease with a gentleman who cannot discern, or acknowledge, the differences in form, etc., between the bacillus anthracis, the bacillus septicæmiæ, and the bacillus of infective pneumo-enteritis of the pig; and who further is of opinion, that typical cases of woolsorters' disease, which he had not seen, were "most probably cases of congestion or inflammation of lung or lungs". He appears to be unaware that no such cases are recorded in our medical literature, excepting as the results of blood-poisoning from anthrax material. I know that a gentleman may believe that the earth is a rough plain, and that the sun moves daily round it; but it would be of no use to discuss the problems of astronomy with such an one, because no amount of proof by actual demonstration or otherwise would alter his opinion. I am sure, also, that such persons are perfectly honest in their opinions; but honesty of a certain kind is no excuse for want of knowledge; neither is it a sufficient apology for ignoring recent additions to our knowledge on the subjects concerning which they pretend to know so much. I must, therefore, respectfully decline to notice any further communication from your correspondent on this disease.—I remain, yours, etc.,

J. H. BELL, M.D.

Bradford, July 18th, 1881.

*** This correspondence must end here.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.

The Army Hospital Corps.—Mr. MOORE asked the Secretary of State for War, whether it was true that the titles of the officers of the Army Hospital Corps had been changed from those of lieutenant and captain of orderlies, to that of hospital quartermaster; whether he was aware that this new designation was distasteful to the officers of the Army Hospital Corps; and whether representations had been made to the Director-General of the Army Medical Department, to the effect that this change of designation would lower the social and military status of the officers concerned, and would render it more difficult for them to enforce obedience from their subordinates.—Mr. CHILDERS replied that under the warrant of the 14th of August, 1877, the discipline of the Army Hospital Corps, was transferred from the captains and lieutenants of orderlies to the medical officers, leaving to the former the purely quartermaster duties of equipment and supply only. Under the new warrant of this year the emoluments and prospects of these officers, have been considerably improved by putting them on the same footing as line quartermasters, and the opportunity has been taken to discontinue their inappropriate titles, and gives them that which is the proper description of their appointments. They will also receive honorary military rank, which is really better, so far as their social and military status is concerned, than the relative rank they formerly had. Their present titles will not unfavourably affect any authority they have in the hospitals.

EAST DEREHAM.—In a brief but excellently arranged report, Mr. Vincent deals with the present sanitary condition of his district, and offers some suggestions for its further improvement. Many existing defects in water-supply and privy-accommodation will doubtless disappear with the extension of the water and sewerage works, which will be completed before the conclusion of the present year. A death-rate of 16.4 per 1,000 is reported for the year. The infantile mortality was somewhat excessive, 27 deaths occurring in infants under two years of age, and twelve of these being attributed to "debility from birth". Zymotic diseases were fatal in twelve cases, six of which were from scarlet fever, which assumed epidemic proportions during the year. Alluding to this disease, Mr. Vincent repeats the old complaint of the carelessness of parents and the negligence of school-managers, which, he states, has been the cause of many an epidemic; and he expresses his opinion that it will be impossible to effectually check the spread of scarlatina until compulsory notification of infectious diseases comes into force.

HOSPITAL AND DISPENSARY MANAGEMENT.

A PROVIDENT HOSPITAL FOR HAMPSTEAD.

ON the 18th ultimo, a meeting was held in the board-room of the Provident Dispensary, Hampstead, with the view of establishing a General Provident Home Hospital. Mr. H. M. Matheson presided, supported by Dr. Heath Strange, Dr. Manley Hopkins, Dr. W. H. Cook, Dr. Boulting, Mr. Malcolm, Mr. Moore, Mr. J. W. Penn (Secretary of the Hampstead Provident Dispensary), and others. The Chairman, in opening the proceedings, said that the movement was a very important one. They had enjoyed for many years the benefits of a provident dispensary in Hampstead; but now they thought it was time to take a forward step, and to provide a place where those who were afflicted with disease might be received, and treated with all those appliances which were now so well understood at the great London hospitals. It was desired that the proposed hospital should be, as far as possible, self-sustaining; and that it should provide accommodation for those who had few or none of the conveniences necessary in cases of sickness at their own homes, and enable them, by making a moderate payment according to their circumstances, to obtain the treatment which was so necessary for speedy recovery.

Dr. Heath Strange moved: "That the institution shall be called 'The General Provident Hospital and Nursing Home'." He said that the idea was, that the hospital should receive the better class as well as the working class; and that all kinds of cases (surgical and medical) should be treated, with the exception of contagious or infectious diseases, and cases of epilepsy and insanity, which he did not think it would be possible to receive. There were homeless gentlemen and ladies who greatly needed a place where they could be treated with success, and those who came in contact with them had felt how much they required it. This class would be able to contribute to the maintenance of the hospital, and thus conduce to the provident principle. The hospital would also relieve the poor, and help them to help themselves; and those who could pay more would help to pay for those who could pay less, and thus the sort of relationship that ought to exist between those who could help and those who were helpless would be kept up. With regard to the Nursing Home, he hoped they would get good and efficient nursing. Anyone who had gone into a sick-room, and seen how nursing was conducted, could tell how much value there was in kindly, skilful, and intelligent nursing. It was one of the greatest blessings a sick person could have. He could not express how much he felt might be done for the sick by earnest Christian nurses. He looked forward to seeing many of the ladies of Hampstead assisting in the effort of nursing; and believed they would contribute greatly to the comfort and welfare, not only of the poor, but of many in their own station of life.

Dr. Manley Hopkins thought that one of the main subjects for the proposed hospital would be cases of accident—immediate acute cases—that could not bear transport to the London hospitals. The hospital would also be a school for the local surgeons. He thought it should be for the middle class—those who labour mentally or manually—such as poor ladies and others living in lodgings, young men employed in banks or offices, etc. The pre-emption of admission should be, to a certain extent, for the members of the Provident Dispensary. The medical staff of the Provident Dispensary had consented to give their services gratuitously; and the various local medical gentlemen would be consulting officers, and would be available in time of need. He thought the training of nurses was a most important matter. Immeasurable good would be effected by having efficiently trained nurses. He moved: "That the Committee of Management shall consist of a president, vice-presidents, three or more trustees, a treasurer or two joint treasurers, two auditors, the medical officers, twenty honorary members, six free members selected from provident dispensary committees, and the secretary."

Mr. Malcolm proposed: "That the Committee now elected be empowered to prepare and draft the hospital rules."

Dr. Cook seconded the resolution. He wished to see the hospital in alliance with three institutions in the neighbourhood—the Charity Organisation Society (which met with cases of illness they were powerless to relieve, and which they might bring under the notice of the hospital)—the Provident Dispensary, upon which they stood, as it were, with one foot, though not entirely based upon it—and the Board of Guardians. It was well known to those who were on that Board that cases constantly occurred in Hampstead which, either on the plea of necessity or urgency, were brought into the sick wards of the infirmary of the workhouse that had no right to be there. These cases went to the infirmary because they could not get into the large hospitals. If the proposed hospital was established, they would be able, for a mode-

rate payment, to get the attention they required. He thought that, as the name and reputation of the hospital grew, those living beyond Hampstead should be allowed to come for advice and assistance.

The resolution was carried.

It was announced that contributions had been received or promised towards the establishment of the hospital, amounting to upwards of £350 (including £100 from the chairman).

We are glad to hear of the step which has thus been taken. It is undoubtedly a step in the right direction. We would suggest that the promoters should communicate with the Secretary of Bolingbroke Hospital, Wandsworth Common, which has been established on much the same lines as those agreed upon at the meeting at Hampstead.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.

OUR readers are probably aware that the governors of the Cotton District Convalescent Fund have made a grant to this institution, which has enabled it to erect new buildings and to extend its operations. These new buildings are of a novel and magnificent character. They cover three-quarters of an acre, besides a dome, which itself covers half an acre. Works on such an extensive scale, and of such a character, have necessarily occupied a considerable time. It was hoped that they would be completed before the half-yearly meeting on the 2nd instant; but this has not been accomplished. It is, however, confidently expected that they will be finished before the autumn. Meanwhile, as the works advance, every week and almost every day shows how much the institution will gain as respects the comfort of the patients and the spaciousness and cheerfulness of the wards.

LUNACY AND LUNATIC ASYLUMS.

LUNACY LAW AMENDMENT.

IN his very able report on the County Lunatic Asylum at Lancaster, Dr. Cassidy discountenances the *doctrinaire* movement for establishing special hospitals for curable cases of insanity. With great justice, he points out that the adoption of such a system, while tending to improve the treatment of one class of lunatics, would distinctly tend in disfavour of another and larger class, by implying that their necessities, and the means required for their proper care are much less. Dr. Cassidy has no wish to depreciate the importance of recoveries, inasmuch as the interval of sanity in relapsing cases is sometimes a very prolonged one, and is practically of great value to society; but he thinks that the general direction of the current of progress in the past years of this century, which has been towards the improvement of all classes of the insane, should not be lost sight of, but should rather be steadily followed out. Dr. Cassidy argues that if improvements are wanted in our lunacy laws, they should be such as would tend to increase, if possible, the number of recoveries, which can only be done by steps calculated to facilitate the admission of patients into asylums, by the removal of unnecessary restrictions. The true principle to hold in view for the best interests of the insane, seems to be to facilitate admissions and discharges. County asylums should be described as public, and not as pauper, asylums, and they should be freely open to all classes, including private and voluntary patients, able to pay a proper charge for their maintenance. Free and frequent inspection of such institutions, and their public character, should be ample guarantees against possible abuses. Dr. Cassidy suggests as desirable, an assimilation of the English to the Scotch Lunacy Acts; but instead of the Scotch certificates of emergency, which justifies the detention of a patient for twenty-four hours, without an order or certificate, he would authorise the superintendent of any asylum to receive and detain for a fortnight or three works any patient in an admission ward or admission building on a medical certificate only. As a matter of fact, this practice exists in English workhouses where lunatics are compulsorily detained, on the mere certificates of Poor-law medical officers that their seclusion is necessary.

THE COPPICE ASYLUM.

THE Coppice Asylum at Nottingham is one of those excellent institutions deserving to be widely known, which afford comfortable, and even luxurious, accommodation, with judicious medical and moral treatment to insane patients in indigent circumstances, but not paupers, and which also receive a certain number of patients belonging to the affluent classes. The highest rate of payment made at the Coppice Asylum during last year was forty shillings a week, and at this rate about thirty patients were maintained; and the lowest was seven shillings a week, at which apparently about twelve were received. From an analysis of a few recent reports of the asylum, the Rev. T. C. Cane, a member of the Visiting Committee, has found that out of 157 patients admitted, 58 were of the class of gentlemen and their wives and daughters; 13 were ranked as clergymen; 22 as farmers; 21 as manufacturers; and 29 as tradesmen. But for the beneficial work done by the institution, a very large proportion of these must, Mr. Cane concludes, have been in pauper asylums, with all the ignominy and distress which such a downfall necessarily brings to educated and independent people. The reverend gentleman was quite justified in asserting, at the annual meeting of the subscribers, that the claims of the institution only required to be properly known to ensure crowded gatherings in its favour, a much prolonged subscription list, and an influx of legacies and benefactions. The Commissioners in Lunacy speak in high terms of the thriving condition of the asylum, under the management of Dr. Tate. "We are very glad to learn," they say, "that this hospital, which has already done so much charitable work, is about to be enlarged. The cleanliness and order that prevail throughout the whole building deserve special mention. The attendants discharge their duties well, and appear to be judiciously chosen. The patients are dressed according to their social position, untidy habits being rectified, and bad language nowhere heard."

MILITARY AND NAVAL MEDICAL SERVICES.

STAFF-SURGEON MARTIN MAGHILL, M.D., has been promoted to the rank of Fleet-Surgeon in her Majesty's Fleet, with seniority of the 23rd June, 1881.

SIR,—Can you, or any of my fellow-surgeons in the Volunteers, inform me the subjects to get up, and the best books to read, for the examination required of volunteer surgeons in order to become "efficient" members, and thus obtain the Government grant for their corps?—Yours faithfully, VOLUNTEER SURGEON.

THE TITLE OF SURGEON-MAJOR.

SIR,—I shall feel much obliged if you will inform me if it be necessary to take any steps for authorisation of the use of the title of Surgeon-Major, or if I have the right to sign myself as such now that 1st of July is past. Mr. Childers having informed the House some time since "that all volunteer surgeons who have served twenty years will be surgeon-majors after the 1st instant." What I want to know about is, if we need any special communication and authority from the War Office besides Mr. Childers's statement.—I am, sir, your obedient servant,

R. MANNERS MANN, Surgeon 4th L.R.V.

*** No War Office circular, or other authority, as far as known, has yet been issued, conferring the rank of Surgeon-Major on surgeons of volunteer corps after twenty years' service. If the rank were authorised, it would appear with the surgeon's name in the official monthly Army List. Mr. Manners Mann is not "Surgeon" in the *Army List* for July. An application for official information on the subject might be made to the Director-General, Army Medical Department, War Office, London, S.W.

THE NAVAL MEDICAL WARRANT.

SIR,—In the Journal of June 4th I wrote upon the new Naval Medical Warrant; with some caution and doubt, and I desire to indicate to you those points which are causing much anxiety and discontent to naval medical men. The Admiralty have by this warrant rendered the position of naval surgeons more uncertain, giving to them as a right, but making everything valueless in appearance.

I would first direct attention to Clause 4 (2), [illegible] fleet rank after twenty years' service, [illegible] this clause to be compared with Clause 11, which gives retirement of £1 *per diem*, "subject to our approval", and to those only who have attained fleet rank. This evidently means that only some officers will be promoted to fleet rank, and that those [illegible] withdraws on a gratuity, his widow and children will have no claim to pension or compassionate allowances."

A naval surgeon now stands thus: He [illegible] of twenty years, he has [illegible] he was entitled to at the end of his seven years' service. By being [illegible] in this way, he never attains [illegible] entitled, in common with all other commissioned officers, after ten years' service. 3. Owing to the uncertainty of promotion, it is now a matter of vital importance [illegible] service, who receive retirement [illegible] A year's half-pay would be £365, while, if the gratuity were [illegible] £2[illegible].

My desire is, that young medical men should have both sides of the question

and that they shall remember that by the present warrant a pension is not certain, and not given as a right; that they may be dismissed from the end of twenty years on the highest gratuity only, viz., £2,250; and that this compulsory withdrawal disqualifies their widows and children from compassionate allowances; and finally, if they break down from ill health within twenty years, that they will have next to nothing to show for their services.

Anyone who thinks the best twenty years of his life (and most of that spent abroad on board-ship) worth only £2,250, has an opening in the Naval Medical Service; but my desire is for a positive assurance that I am entitled to £1 *per diem* after my twenty years' service, and that, in case of an early death, my widow and children shall have something which the smallness of my pay prevents me from saving for them, and which was, further, one of the inducements for me to enter the navy. If my pension and my widow's pension are thus so uncertain, I say that the pay of a naval surgeon is not half what it should be, and is only half what American naval surgeons receive on account of absence of pensions. The American navy is open to Englishmen, and is much better paid.—I have the honour to be, your obedient servant, S[illegible] R.N.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 14th instant, and when eligible will be admitted to the pass examination.

Messrs. Charles Titley, C. Stuart Sprag, R. Talbot Westbrook, and David T. Lewis, students of Guy's Hospital; Richard T. Finch, B.A.Cantab., William Ellis, G. Cæsar Hawkins, and Hugh Webb, of St. George's Hospital; Arthur A. Woodson, Martin S. Whish, Frederic S. Turner, and John Bell, of University College; Evan T. David, and Walter R. Tuckett, of the London Hospital; Herbert Parker, and James N. Anwyl, of St. Bartholomew's Hospital; Arthur E. Dodson, of the Charing Cross Hospital; and W. Haygarth Malins, of King's College.

Six candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, including one who had an additional three months, making a total of eighty-five out of the two hundred examined.

The following gentlemen, having undergone the necessary examinations, were admitted members of the College at a meeting of the Court of Examiners on the 19th instant.

Messrs. Herbert H. Meyers, L.R.C.P.Ed., East Dulwich; Robert H. Hodgson, Clapham; Robert J. Allan, Scarborough; Arthur T. Holdsworth, Birmingham; Cecil Birt, Stourbridge; Isaac Bloor, Manchester; Frederick G. Robinson, Manchester; Roger Kirkpatrick, Edinburgh; Henry H. Phillips, Atherstone; Alfred E. Odling, Wendover; Edward Ward, Horbury, Yorkshire; Thomas R. Dupuis, Kingston, Canada; and James P. Bush, Bristol.

Thirteen candidates were rejected.

The following gentlemen were admitted members on the 21st instant.

Messrs. James W. H. Brown, Leeds; Walter F. Chappell, Toronto; William B. C. Duble, Southampton; John C. Ellison, Brisbane, Queensland; William Robinson, Stanhope, Durham; John T. Rogerson, Manchester; Edgar M. Crookshank, Belsize Park Terrace; Ashley Bird, Clifton, Bristol; William Wallers, Manchester; Herbert G. Stacey, Leeds; Frederick J. Laimbeer, Liverpool; William Y. Orr, Elgin, N.B.; Charles S. Kilham, Sheffield; Hen. H. Austin, Lee, S.E.; Harry P. Gilbert, Southwater, Sussex; Philip J. Cook, Brixton; John H. Sewart, Burton.

Ten candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 7th, 1881.

Alexander, Alexander Charles Archibald, Ardrossan, Ayrshire, N.B.
Brewitt, James Bunning, Melton Mowbray.
Johnson, James Bovell, 364, Kingsland Road.

MEDICAL VACANCIES.

THE following vacancies are announced :—

ARASAIG DISTRICT OF ARDNAMURCHAN PARISH—Medical Officer. Salary, £160 per annum. Apply to W. R. Macdonaid, Chairman, of Kinlochmoidart, Ardgour, Argyleshire.

BRADFORD INFIRMARY—Locum Tenens for eight weeks. Salary, £20.

BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum. Applications by July 23rd.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by August 11th.

CHARING CROSS HOSPITAL MEDICAL SCHOOL—Lecturer on Comparative Anatomy. Applications to Francis Hird, Dean, Agar Street, Strand, by July 26th.

COUNTY ASYLUM, Berry Wood, Northampton. Medical Officer. Salary, £130 per annum. Applications to the Medical Superintendent by 11th August.

GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer. Salary, £125 per annum. Applications to the Medical Superintendent by 2nd August.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teachers of Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, and Mental Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

HAMPSTEAD PROVIDENT DISPENSARY, New End—Medical Officer. Application to Mr. J. W. Tempest, High Street, Hampstead.

HUDDERSFIELD INFIRMARY—Second House Surgeon. Salary, £[illegible]. Applications to the Honorary Secretary by July 25th.

KENSINGTON WORKHOUSE INFIRMARY—Dispenser. Salary, £120 per annum. Applications by July 22nd.

KENT COUNTY LUNATIC ASYLUM, Chartham Downs, Canterbury—Locum Tenens, commencing July 26th. Applications to the Medical Superintendent.

MANCHESTER AND SALFORD LOCK AND SKIN DISEASE HOSPITAL—Honorary Surgeon. Applications by July 23rd.

NATIONAL DENTAL HOSPITAL—Dental Surgeon. Application by the 15th August.

NATIONAL DENTAL HOSPITAL—Lecturer on Dental Surgery and Pathology. Applications by 10th August.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent—House-Surgeon. Salary, £[illegible] per annum. Applications by August 13th.

NORTH STAFFORDSHIRE INFIRMARY—House-Physician. Salary, £100 per annum. Applications by 17th August.

PARISH OF LAMBETH—Medical Officer of Health. Salary, £300 per annum. Applications by 28th July, to the Vestry of Lambeth.

QUEEN'S HOSPITAL, Birmingham—Resident Surgeon. Salary, £50 per annum. Applications by August 2nd.

QUEEN CHARLOTTE'S HOSPITAL, Marylebone Road, W.—Resident Medical Officer. Salary, £60 per annum. Applications by August 6th.

RIPON DISPENSARY—Resident House-Surgeon and Dispenser. Salary, £80 per annum. Applications to F. D. Wise, Honorary Secretary.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—House-Physician. Salary, £80 per annum. Applications by 23rd instant.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street—Dental Surgeon. Applications by August 1st.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £200 per annum. Applications by 9th August.

TRINITY COLLEGE, Glenalmond—Resident Medical Officer. For particulars, etc apply to the Warden.

UNIVERSITY COLLEGE, Bristol—Medical Tutorship. Salary, £100. Applications to Honorary Secretary by July 26th.

MEDICAL APPOINTMENTS.

BOWES, J. Ireland, M.R.C.S.Eng., appointed Medical Superintendent to the Wilts County Asylum, *vice* E. M. Cooke, M.B., resigned.

CRAINE, R. E., L.F.P.S.Glasg., appointed Parochial Medical Officer and Public Vaccinator for the district of Limekilns and Charlestown.

DENHAM, J. Knox, L.K.Q.C.P.I., elected Medical Officer of the Donnybrook Dispensary District, *vice* S. Murdoch, L.K.Q.C.P.I.

FOX, Francis, M.R.C.S., appointed Dental Surgeon to the Victoria Hospital.

FULLER, Henry Roxburgh, M.R.C.S., appointed House-Surgeon to St. George's Hospital.

HICKEY, P. C., M.D., appointed Medical Officer to the Kilrush Union and Kilkee Dispensary, *vice* J. F. Rowan, L.K.Q.C.P.I.

KEEN, Edward, M.R.C.S., appointed Acting Dental Surgeon to the Great Northern Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

ARCHIBALD.—On the 20th inst., at Lynton House, Brixton Rise, London, the wife of John Archibald, M.B., C.M., F.R.C.S.Ed., of a son.

DEATH.

WILSON.—On the 11th inst., at Sunderland, Jas. Wilson, L.R.C.S. & L.R.C.P.Edin., aged 47 years.

HEALTH OF FOREIGN CITIES.—The Registrar-General's last weekly return contains a table from which have been deduced the following indications of the recent health and sanitary condition of various foreign and colonial cities. According to the most recently available weekly returns, the annual death-rate was equal to 31.9 in Bombay, whereas it did not exceed 19.3 in Calcutta; cholera caused 12 and 8 deaths respectively in these two Indian cities, while 106 deaths were referred to fevers in Bombay, and 4 to small-pox in Calcutta. No return is published for Madras. The rate in Alexandria was equal to 37.2, and 3 fatal cases of whooping-cough are reported. According to the most recent weekly returns, the annual death-rate in twenty European cities averaged 29.0 per 1,000 of their aggregate population, showing the usual large excess upon the average annual rate in twenty of the largest English towns, which last week did not exceed 23.1. The rate in St. Petersburg was so high as 56.9, and differed but slightly from that which prevailed in the preceding week; the fatal cases of typhus and typhoid fever, which had been 133 and 104 in the two previous weeks, further declined to 89 in the week ending 2nd instant. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate averaged only 20.5, the highest rate being 24.5

in Stockholm, where 3 fatal cases of diphtheria were recorded. In Paris, the death-rate was equal to 26.2, against 29.6 in the preceding week; typhoid fever, however, caused 28, and small-pox 17 deaths during the week. The death-rate in Brussels was 22.4, and three fatal cases of small-pox were registered. The 35 deaths in Geneva were equal to a rate of 26.6, and included four cases of typhus and typhoid fever. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rates averaged 20.1, and ranged from 18.6 in Amsterdam to 23.4 in the Hague. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 31.1; the lowest rates in these towns were 22.3 in Hamburg, 24.1 in Dresden, and the highest 37.5 in Prague (which appears in the Registrar-General's table for the first time), and 42.6 in Breslau; in the last-mentioned town, no fewer than 40 deaths were referred to diarrhœal diseases. Small-pox caused 18 deaths in Vienna, 5 in Prague, and 4 in Buda-Pesth. In Rome, the death-rate was equal to 25.1, and in Turin to 32.5; enteric fever caused 4 deaths in Rome, and diphtheria 7 in Turin. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 24.8, and ranged from 19.1 in Philadelphia, to 30.2 in New York. Diarrhœal diseases caused 98 deaths in New York and 30 in Baltimore; 46 deaths were referred to diphtheria in New York, and 15 to small-pox in Philadelphia.

PUBLIC HEALTH.—The annual rate of mortality last week, being the twenty-eighth week of this year, in twenty of the largest English towns, averaged 23.1 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bradford 14, Wolverhampton 16, Brighton 16, Salford 17, Bristol 18, Sunderland 18, Norwich 18, Sheffield 18, Plymouth 19, Birmingham 20, Nottingham 20, Oldham 20, Portsmouth 21, Hull 21, Leicester 21, Manchester 22, Newcastle-on-Tyne 22, London 24, Leeds 26, and Liverpool 28. Measles showed the largest proportional fatality in Liverpool and Sheffield; scarlet fever in Hull, Nottingham, Sunderland, and Leicester; and whooping-cough in Leicester, Newcastle-upon-Tyne, and Manchester and Salford. Diphtheria caused 6 more deaths in Portsmouth; and the highest death-rate from fever occurred in the same town. Small-pox caused 56 more deaths in London and its outer ring of suburban districts, 2 in Liverpool, and one in Brighton. The fatality of diarrhœa showed a further considerable increase, especially in London and Leeds; the annual death-rate from this disease was equal to 4.0 per 1,000 in London, and averaged but 1.7 in the nineteen provincial towns. In London, 2,533 births and 1,816 deaths were registered, the deaths exceeding the average by no fewer than 304. The annual death-rate from all causes, which had been equal to 19.1, 19.6, and 21.6 per 1,000 in the three preceding weeks, further rose last week to 24.7. The 1,816 deaths included 49 from small-pox, 73 from measles, 53 from scarlet fever, 7 from diphtheria, 44 from whooping-cough, 2 from typhus fever, 8 from enteric fever, 2 from ill-defined forms of continued fever, 292 from diarrhœa, 3 from dysentery, and 14 from simple cholera; thus, 547 deaths were referred to these diseases, being 189 above the average. The deaths referred to diseases of the respiratory organs, which had been 181 and 195 in the two preceding weeks, declined last week to 168. Different forms of violence caused 70 deaths; 60 were the result of negligence or accident, among which were 27 from fractures and contusions, 6 from burns and scalds, 11 from drowning, and 10 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 70.1°, and 6.9° above the average. The mean exceeded the average on each day of the week; the hottest day of the week was Friday, when the mean was no less than 79.5°, and showed an excess of 16.1°. The highest day temperature in the shade was 97.1° on Friday. Rain fell on two days of the week, to the aggregate amount of .04 of an inch. The duration of registered bright sunshine in the week was equal to 68 per cent. of its possible duration. The recorded amount of ozone showed an excess, especially on Monday and Tuesday.

SALTLEY.—The mortality amongst infants in this suburb of Birmingham continues to be very terrible. No less than 50 out of a total of 127 deaths in 1880 occurred in children under one year old. Mr. Cresswell is duly impressed with the meaning of this proportion, and proposes to issue a pamphlet for general distribution, embodying the correct principles of infant nurture. In this connection, he may profitably study (if he is not already familiar with them) the admirable rules published by the National Health Society with the same object. During the earlier part of the year, the district suffered somewhat from scarlatina, but afterwards it was entirely free from it. In the summer and autumn diarrhœa was, as elsewhere, severely epidemic. The death-rate was 23.90 per 1,000 of the population, which is much higher than in any of the three preceding years.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M. Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M. University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 2.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

COLLEGE ANNOUNCEMENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A VOLUME [illegible] of the most important articles on [illegible] diseases in the English language [illegible] Reynolds's *System of Medicine* [illegible] Ross and Hutchison's *Clinical Medicine and Clinical Surgery* [illegible] Thomas Lewis's *Clinical Manual of Temperature Observations* (Churchill and Co.) is excellent and moderate in price.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

[illegible] of Boys

SIR,—I have a theory on this subject, and, like most other people, I am more or less dissatisfied with education as it is at present conducted. The main idea of education at present is to fit a boy for passing some competitive examination without much regard to his moral or physical status to discharge the [illegible] important duties of a lifetime.

The effect of this sort of training is very often disastrous; and I [illegible] one am greatly interested in the subject, as I have a child whose education, I hope, in a year or two, will have to be commenced in earnest; and this [illegible] it makes me, I can assure you, exceedingly perplexed and unhappy. My theory is, that a regular trade, such as carpentering or black smithing, should form a part of every child's education. Can any of your correspondents give their ideas on this matter, and also kindly inform me whether there is any good place of education in England, Germany, or elsewhere, where this has been seriously tried?

My reasons for this theory are briefly these. 1. As nothing is so honourable as to earn one's living by the honest labour of one's hands, I think it is unjust to one's children not to place them in a position where this is possible. This reason is not merely sentimental; in these revolutionary days, it has a practical meaning. 2. I think that such a system would have an excellent moral and physical effect. Without disparaging manly athletic games, these cannot be said to take the place of a real trade. 3. In these days, when so many men are obliged to go to the colonies, it is well known that a thorough practical knowledge of a trade is at times simply invaluable.—I am, etc., M.D.

DR. LUCAS desires to express his regret that his communication to this JOURNAL (February 26th, 1881) would seem to have unwittingly and unintentionally caused offence to some of his medical brethren of the British Medical Service. When he wrote that, "if only a part of the time devoted to sports and the like were spent in meditation over cases which have been under treatment, much good would likely to be the result", he simply said in good faith that a part at least of one's leisure hours may be devoted to the work aforesaid. He also expressed the hope that official reports and returns be oftener placed at the disposal of medical journals, "either for publication *in extenso*, or for texts for leading articles", *in re* the important subject of typhoid fever.

THE EFFECTS OF THE BICYCLE ON THE VENOUS CIRCULATION.

SIR,—As a correspondent, in the last issue of the JOURNAL, desires an expression of opinion on the above subject, I shall be glad, if you will permit me, to briefly discuss this question, to which I have given some attention.

I have known many bicyclists in different parts of this country very intimately, and I have had several of them under treatment for ordinary diseases; in each case I made careful inquiry, and often an examination, to see what were the effects of the exercise on the vascular and muscular systems. My experience is, that moderate riding is beneficial to both. Severe straining for long at once, as in bicycle matches, is disastrous to veins whose coats are originally weak in structure. It is the learner, eager and reckless to get along, who suffers most. The skilled rider, going at a pretty good rate of speed, is only enjoying healthy exercise. Why, indeed, should it be otherwise? The column of blood in the veins is divided by valves, which save the walls of the veins from the pressure of the whole column. It is inaccurate to say that the valves are intended to do away with the obstacle presented by gravitation. This obstacle has no existence, since the column of blood in the veins is supported by the force and weight of the column of blood in the arteries. The action of the valves, with that of the surrounding muscles, powerfully assist venous circulation. When a vein is compressed by an adjoining muscle in a state of contraction, the first pair of valves in the direction of the capillaries close immediately; the blood is then forcibly driven in the direction of the heart. It is thus clearly manifest that the rapid succession of muscular contractions, and not their duration, assists the venous circulation. This is abundantly demonstrated by the continual pressure of the gravid uterus and loaded rectum being prominent and well established exciting causes of varicose veins. Billroth, writing on venesection, states: "A way of helping the flow is to cause the patient to open and shut the hand rhythmically, so that the blood may be forced on by the muscular contractions" (vol. i, page 182).

Varicose veins are found in people of every calling in life. Many points have been strained at different times to account for their production. I cannot see why any careful observer can doubt that inheritance is the prime cause—as much so, I believe, as in scrofula or in syphilis. I deny that bicycling can produce a varicose condition of the veins of the legs without a pre-existing inherent tendency in the veins to become varicose; given this tendency, or diathesis, moderate bicycle-riding will strengthen the coats of the veins, in proportion as it improves the general bodily health; but the moment moderation is exceeded, an element of danger usurps the place of safety.—I am, sir, your humble servant,

Lichfield, July 18th, 1881. JOHN LOWE.

MR. W. R. DAVIES (Sandbach).—A gentleman who is L.R.C.P., L.S.A., and L.F.P.S.Glas., has no legal right to be addressed other than as Esquire, as neither of these licences confer the title of "Dr.". This has been repeatedly decided by the various bodies concerned, and accords with the state of the law.

ICHTHYOSIS.

THIS, to his assistant, from a leading practitioner who is off on a little fishing excursion: "Tell everybody I am off to the country in attendance upon a bad case". "But patients are so curious," was the response; "what shall I say of the case? give it a name". "Well, call it—let me see; yes—call it a case of *ichthyosis*".—*American Paper.*

PUBLIC LATRINES AND LAVATORIES.

SIR,—I have read with great interest the letter from "B. P. L.", published in your issue of the 9th instant, with reference to the necessity of establishing latrine and lavatories for public use. As a reply thereto, I have the honour to forward for your notice a paper, which, whilst treating generally the question referred to, points out a remedy for the existing evil. This remedy, which is being organised as rapidly as possible, will, I trust, win the valued approval of the medical profession, and at the same time secure the hearty support of the general public. Should your correspondent, or anyone else interested in this important question, favour me with a call, I should be happy to exhibit the models of the châlets now in course of erection, and to explain further the working of our enterprise.—I am, sir, yours, etc., ALF. WATKYNS, General Manager to Châlet Company, Limited.

17 Buckingham Street, Strand, July 11th, 1881.

ON GOUT: A QUESTION

SIR, [illegible] with gout? and what [illegible] Would the average duration of an attack, if left without remedial treatment? How many attacks *per annum* may be reasonably expected, if ordinary diet—nitrogenous, farinaceous, and alcoholic—be indulged in? Has a simple farinaceous regimen a [illegible] effect in checking the [illegible] attacks? What [illegible] with gout? Is the [illegible] heart [illegible] as a general rule? Are the functions of the above relieved by a sharp attack, and rendered free from abnormal disturbance?—Your obedient servant, MEDICO-CHIRURGICUS.

A MEMBER.—Fellows and members of the Colleges of Surgeons cannot be admitted to the *conversazione* unless members of the International Medical Congress.

THE ODOUR OF IODOFORM.

SIR,—In answer to your correspondent, inquiring, in a recent number of the JOURNAL, in what way he could disguise the characteristic smell of iodoform, I would tell him—failing a better reply to his query—that, in one of my own cottage cases, it was lately stated that it had been accidentally discovered that a drop of tincture of musk would cover the smell of an ounce of iodoform.—I am, etc.,

July 17th, 1881. MOSCHUS.

WHAT TO AVOID.

A CORRESPONDENT forwards the following advertisement, cut from the *Sunderland Echo*, in which he states that he has twice observed it. It ought not, he naturally thinks, to escape equal publicity in a professional journal. "Dr Dennis Turnbull, 1, Woodside, Belvedere Road, Bishopwearmouth, Sunderland, late of 16, Cambray, Cheltenham, where he practised upwards of twenty-seven years most successfully, has felt it essentially necessary to relinquish that locality, because of its relaxing tendency, for his own native county, whence he hopes to derive the superlative advantages of a more bracing atmosphere. And, practising as a general family physician, he sincerely trusts, by assiduity in his profession, to obtain the patronage of the nobility, clergy, gentry, tradespeople, and the public generally of Sunderland and its populous vicinity."

1. The statement that A. does not recognise B. because he is only a "singly-qualified" medical practitioner, is senseless, and has no meaning or value. 2. Of course, a practitioner who is registered is entitled to describe himself so, whether he be registered in virtue of one qualification or a dozen.

RETURN OF LOST SENSE OF SMELL.

SIR,—A. L.'s interesting account of himself, or the above subject, prompts me to send you my case. About four years since, I entirely lost my sense of smell, suddenly, without any accident that I can remember; when, in coming out of a patient's door, I slipped my foot, and fell heavily to the ground. On getting into my carriage, I found I was suffering from severe headache, and applied eau-de-Cologne to the top of my head; when, to my joy and surprise, I found my sense of smell had suddenly returned. I had no double vision, neither did I lose my taste. Yours faithfully, BLACKALL MARSACK.

FAMA PER URBEM.

SIR,—The item you quote about some trumpery operation, from the *Limerick Reporter*, appeared without the knowledge of any of the individuals whose names were mentioned. Apologising for taking up room in your paper about so small a matter, I remain, your obedient servant, G. DELAUNDRE.

THE MEDICAL REGISTER.

SIR,—Finding, quite by accident that my name had been omitted from the *Medical Register*, I went directly to the Registrar for explanation, and was informed that it was now the rule to strike off the names of all who did not reply to their circular, whether the address had been changed or not. Feeling that others might be ignorant of this (to my mind) summary regulation, makes me think it of sufficient importance to trouble you with this communication.—I am, yours truly,

J. WICKHAM BARNES.

3, Bolt Court, Fleet Street, July 13th, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Ernest Morgan, London; Dr. Gerald Harper, London; Dr. Saundby, Birmingham; Mr. G. Brown, London; Dr. Edwin Rickards, Birmingham; Dr. John Currie, Lydney; Mr. V. Jackson, Wolverhampton; Dr. Cresswell Baber, Brighton; Mr. R. Jeffreys, Chesterfield; Dr. W. Williams, Liverpool; Mr. T. Bond, London; A Member; Mr. Henry Eales, Birmingham; M.D.; Dr. W. R. Marchant, Clifton; Dr. Karl Grossman, Liverpool; A Mem. B. M. A.; Glasgow Correspondent; Practitioner; Mr. J. A. Erskine Stuart, Heckmondwike; Mr. Albert Wilson, London; Mr. J. Ireland Bowes, Northampton; Mr. F. A. Macewen, Edinburgh; Dr. Lucas, Bombay; Mr. W. Berry, Wigan; Mr. M. B. Laurence, London; Dr. W. Barrett Roué, Bristol; Mr. T. Small, Boston; Dr. J. P. H. Boileau, Woolston; Dr. J. Murray, Newcastle-on-Tyne; Dr. J. H. Bell, Bradford; Dr. Withers Moore, Brighton; Mr. T. D. Cook, Newcastle-on-Tyne; Mr. G. Bartholomew, New York; Mr. John Lowe, Lichfield; Mr. Carter, Cambridge; Dr. C. C. Cocks, Ross; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,,	20 ,,
,, 26 ,,	25 ,,
,, 52 ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office, High Holborn. Small amount may be sent in postage stamps.

NOTES
OF
ONE HUNDRED CASES OF CHOREA TREATED IN THE WORCESTER INFIRMARY.

By WILLIAM STRANGE, M.D.,
Senior Physician to the Infirmary.

[*Concluded from page 70.*]

In stating that chorea has alliances with other disorders of a neurotic character, I was not quite accurate. It would be more proper to say that there are cases of a mixed kind; some of which show a leaning towards chorea, others towards hysteria, and others, again, towards pure eclampsia. Moreover, do we not often meet with cases in which the moral faculties are even less under control than the centres which govern the muscular motions—cases in which the emotions and passions are so little under the control of the judgment and the will as to constitute a true moral chorea—if I may use such an expression? There are children, and young people, whose bent and inclination for mischief and wickedness are so active and persistent, that they cannot keep from evil-doing. The feelings are as mobile and unstable in these subjects as the muscular movements are in true chorea.

Nay, may we not carry the analogy a step further, and say that the very highest centres—the intellectual faculties themselves—sometimes become dominated by the choreic element? that there are cases in which the judgment is so vacillating, and the association of ideas, and the reasoning from those ideas, are so grotesque and inane, that no dependence can be placed upon the conclusions at which such persons will arrive from given data, nor upon the actions which may result from their conclusions? And this I would venture to call chorea of the mind. It is not pure insanity, because the symptoms are not the same. There are no persistent delusions, nor that entire absence of power to weigh their thoughts and actions in the scale of right and wrong (conscience) which generally obtains in the really insane.

In the *Medical Times and Gazette*, about three years ago, Dr. Octavius Sturges made some remarks bearing upon this point in the nature of chorea, which may be profitably read in connection with what has been stated above. Dr. Sturges advocates almost exclusive attention to the moral treatment of choreic patients, and thinks that sufficient in a great many cases, without any physic at all. It is the satisfaction I feel in agreeing generally with such an observer as Dr. Sturges, that emboldens me to differ, in some measure, from the conclusions which he draws from the facts narrated. In advocating the sufficiency of mere moral treatment of chorea—which, by the way, can only be successfully applied in hospitals—Dr. Sturges appears to me to be combating his enemy with one arm tied behind him. He makes little of cardiac mischief, embolism, and profound injury to the motor nervous centres, thinking them of very rare occurrence. It is sufficient for him (as for myself) that his little patients are generally weak and delicate children, chiefly girls; and that the symptoms have a general resemblance to those of hysteria and its congeners in functional nerve-disorder, which we are in the habit of attributing to malnutrition, either primary, or secondary to some other disturbing accident. If this be the true pathology of chorea, it appears to me to be an error in logic to discard the use of therapeutic means of improving the nutrition of the nerve-centres, whilst we apply moral training to strengthen the judgment and the will. We have to deal, as Dr. Sturges admits, with a weak and delicate frame, a nervous and timid temperament, and a feeble circulation, often accompanied by palpitations, resulting from rapid growth. There are also pallor, loss of appetite and flesh (one never sees a plump girl the subject of chorea), and deranged or suppressed menstruation, if the period of the latter have arrived.

Whilst agreeing, then, with Dr. Sturges, that the child should be treated with kindness and gentleness, and that its confidence should be gained by evident solicitude for its welfare; the judicious strengthening of the system by a tonic course of medicine, and the training of the limbs by frictions and gymnastic exercises, will be found equally valuable remedies, which will go hand in hand with the moral treatment. All this can be best carried out in hospital. Home influences, whether in the houses of the rich or of the poor, are too often antagonistic to the child's recovery; scolding, on the one hand, and weak indulgence, on the other, must be alike prejudicial.

If these ideas as to the nature and causes of chorea and its congeners be founded in fact, little need be said as to the medicinal treatment of the disease. There being nothing special in the coarse pathology of chorea, no specific remedy is required, or likely to be found if required. We must ring the changes upon the so-called nervine tonics, and vary them according to the temperament of the child, or to the collateral symptoms accompanying the choreic movements. If pallor, palpitations, and loss of weight exist, iron, or arsenic, or both, will be necessary. If, on the contrary, the vascular system be sufficiently full, and the motile element prevail, then the bromides with ammonia, or the succus conii, will be of most avail. Frequently, whatever the condition of the vascular system and of the general nutrition, no good arrives until we have succeeded, by sedatives, in calming the excessive mobility of the nervous system. In these cases, I have used the ice-bag to the spine, and the ether spray to the nape of the neck, but not with much success. Direct calmatives—digitalis, belladonna, cannabis Indica, with the bromides—answer the best.

The nervous symptoms once quieted, iron or arsenic may now be given, and carried to a somewhat high degree. Some have recommended large doses of arsenic, ten to fifteen minims of Fowler's solution; but I have seldom found that the stomach will tolerate these large doses, and have contented myself with much smaller, in combination with iron or zinc.

But, whatever be the remedy we select, it will be necessary to continue its administration until it has produced its special physiological effect. Especially is this necessary with the neurotic sedatives. Children bear large doses of belladonna and conium; and I have never found this class of remedy do much good until their full physiological effects (consistent with safety) have been produced.

Up to the year 1868, I had treated all my hospital cases of chorea with wine alone, the ordinary port wine of the hospital. After clearing out the primæ viæ, to make sure that we were not worried by entozoa, or depraved alvine secretions, I began to give wine in doses of three to six ounces daily. I do not recollect that this plan failed of curing the patient in one single instance, and that in a much shorter time than by any other remedy, or than has been the case since. On reading my experience of this plan at the meeting of the Association at Oxford in that year, it was suggested to me by the late Dr. Anstie that the wine should be mixed with some bitter infusion, such as quassia, to ensure the patient getting it instead of the nurse, or some other occupant of the ward. It is a curious fact that, after mixing the wine with quassia or gentian, it did not answer anything like so well as the wine alone had done. At all events, it took much longer to cure the cases than had formerly been the case. I was, therefore, led to believe that the cases with which I now had to deal differed in some way from those treated up to the time of the Oxford meeting. I therefore substituted some other kind of medicament. I have since recurred to the wine without admixture with a bitter; and find that it now answers quite as well as formerly. I can only account for this fact on the supposition that, when mixed with a bitter tonic, like quassia, the wine was not so grateful to the stomach, and, therefore, had a less rapid effect. From three to six weeks is the time for a cure to be effected in the average of cases of chorea by this mode of treatment.

Nothing need be said about the treatment of this disease as given by the older authors. Their pathology of it was wrong, and the treatment altogether to be condemned. Thus Hamilton of Edinburgh purged, as he did in almost every other disease; Trousseau bled his patients; whilst still older authors ordered the patient to be taken to the side of a river and suddenly pushed in, so as to give him a sharp shock or fright—in this respect, forestalling the [illegible] homœopathy.

BEQUESTS AND DONATIONS.—Mr. William Edward [illegible] Torquay bequeathed £500 to the Earlswood Asylum for [illegible], £100 to the Warwick Dispensary, and £100 to the Warneford Hospital, Leamington.—"L. A. W." has given £100 to the Hospital for Women.—The Great Northern Hospital has received £80 from the Ladies' Association of the Hospital (£40 for the general fund, and [illegible] building fund).—The Grocers' Company have given £50 to the North-Eastern Hospital for Children.—"A Grateful Patient" has given £50 towards the rebuilding of the Hospital for Diseases of the Throat and Chest.—The Middlesex Hospital has received [illegible] from Mrs. Priestley (£50 for the Cancer wards, and £50 for the [illegible]), £50 from the Rev. H. R. Haweis, being the half of a [illegible] St. James's, Marylebone, on Hospital Sunday; thirty guineas from Mr. Charles Thurburn towards the general fund; and £20 from Mr. Joseph Hoare for the Cancer wards.—The National Hospital for Consumption at Ventnor has received a legacy, with interest, of £536 10s. 8d., under the will of the late Mrs. Caroline Batty.

ON THE PATHOLOGY OF PSORIASIS.

By GEORGE THIN, M.D.

PSORIASIS is a disease of the skin, in which white masses of epidermic scales are attached, more or less firmly, to a reddish vascular base. When the scales are removed by the finger-nails (as they easily can be), small drops of blood ooze from this vascular surface. These two appearances—the heaps of epidermis and the highly vascular papillary layer of the skin—are the essential features of the affection, and are those for which the pathologist has to account. The other distinguishing characteristics, such as the development of circular and gyrating patches by the spreading of the small round spots which constitute the first visible stage of the malady, are of secondary importance in relation to the special pathology of this particular affection.

But to these two very apparent conditions of accumulated epidermic masses and a hyperæmic papillary layer, a moment's reflection compels us to add a third. The fact that the removal of the scales leaves a bleeding surface, shows unmistakably that between the vascular cutis and the horny layer of the epidermis the healthy rete mucosum is deficient. This membrane, in the normal condition, is a sufficient protection to the blood-vessels of the papillary layer against such slight violence as suffices to produce bleeding from a patch of psoriasis. Further, there is something to be learnt from the epidermic masses themselves. Not only are they abundant as regards quantity, but they are abnormal as regards quality. Instead of being separated as imperceptible *débris*, they are detached as scales of comparatively considerable size; and instead of falling readily from the skin, there always remains on the surface of the psoriatic patch (when in the stage of full development) scales which adhere to the living tissue beneath them. When they are forcibly removed, they carry with them the whole of the epidermic covering of the papillæ. It is thus evident that, over the papillæ, sheets of dead epidermic cells, adherent closely to each other, have taken the place of the living rete mucosum.

Thus, the knowledge acquired by the simple naked-eye inspection of a patch of psoriasis, and the legitimate inferences that follow it, teach us that in psoriasis there are increased vascularity of the papillary layer of the skin, and a morbid formation of epidermis over the papillæ. It does not require the evidence of the microscope to show that the essence of this disease of the epidermis is, that the healthy rete mucosum disappears, and that in its place there is a constant and rapid formation of cells that lose their vitality, but do not undergo the ordinary horny metamorphosis.

But to determine more minutely the nature of the changes in the skin, it is necessary to have recourse to microscopic examination, and it is on the histological data which have resulted from the researches of a few observers, that the prevalent views regarding the pathology of the disease rest. The anatomy of psoriasis is stated in Hebra's work on skin-diseases (*Lehrbuch der Hautkrankheiten, Band* i, p. 348) to consist in an unusual development of the rete mucosum, infiltration of the connective tissue of the papillæ with cells, more especially around the blood-vessels, and serous effusion into the interfascicular spaces (œdema). These views, it is stated, are founded on the investigations of Wertheim and Neumann, and were confirmed by the authors (Hebra and Kaposi). It is assumed that these investigations have shown that the excessive formation of epidermic scales in psoriasis, is the immediate consequence of a chronic hyperæmic, or inflammatory, condition of the papillary layer. Rindfleisch (*Lehrbuch der Pathologischen Gewebelehre*, 2nd edition, p. 258) also describes the disease as a chronic inflammation of circumscribed parts of the skin, but gives no sufficient explanation of the differences which exist between this and other forms of cutaneous inflammation. The results of an examination of psoriasis-tissue in all stages of development have been recently published by Dr. Robinson of New York, in a valuable paper in the *New York Medical Journal* (July 1878). Dr. Robinson was able to dispose of a large amount of material for histological study, and has enriched his memoir with a number of instructive woodcuts. Reference to this paper I believe to be indispensable on the part of pathologists, who wish to make themselves familiar with what has been recently done in working out the histology of the disease.

Dr. Robinson gives the following summaries of the views of Simon and Wertheim. Simon believes, he tells us, that the condition of chronic inflammation of the skin has a share in the excessive formation of scales, "in that the newly formed epidermis is continually separated from the cutis by the accumulating exudation beneath it. That part of the epidermis still closely united with the cutis is thinner than in the normal condition—that is, it is in a condition of atrophy".

Wertheim "found the papillæ, in both their horizontal and perpendicular diameter, enlarged twelve to fifteen times their normal size. The blood-vessels of the papillæ were enlarged and bent. From the enlargement of the papillæ, and the changes in the blood-vessels, he considered that there arises an obstruction to the circulation, which produces the sharply contoured psoriasis patches. His view of the disease, therefore, was, that it arises from changes which take place in the blood-vessels of a circumscribed region".

Dr. Robinson finds that the earliest change consists in a growth downwards into the cutis of the interpapillary epidermic projections. As a consequence of this downward growth of the epidermic boundary-wall of the papillæ, the papilla proper, consisting of blood-vessels and connective tissue, becomes longer. The primary and essential change is in the growth of the Malpighian layer of the epidermis. In the papillæ and superficial part of the corium, Dr. Robinson has, like his predecessors, found enlarged blood-vessels and cell-infiltration.

In the advanced stages, Dr. Robinson has found the same changes, only more marked. The essential feature of the disease, according to his views, is the increased growth of the rete mucosum, by the formation of new cells. He lays stress on the fact that, so far as his observations went, in no place in the abnormal tissue do the papillæ approach nearer the corneous layer than they do in the normal structure—a point regarding which, as will subsequently be seen, I am unable to bear him out.

In the Vienna *Medizinische Jahrbücher* for 1879, Professor Neumann contributes a paper on the results of a renewed examination of psoriasis-tissue. He has found that, in an early stage, the cells of the rete mucosum assume a horizontal position, the "prickle cells" disappear, the "nuclear cells" increase, and instead of one, there are several rows of cylindrical cells. The rete grows downwards, the papillæ are enlarged, and new papillæ are formed. All these changes are, he believes, due to an inflammatory hyperæmia of the cutis. In this hyperæmia is to be found the essence of the disease.

From this summary of the views of the observers who have hitherto occupied themselves with the pathology of psoriasis, it will be seen that, whilst there is a tolerable unanimity amongst them regarding the anatomical changes, there is considerable diversity of opinion regarding their causes and sequence. It is generally admitted that in psoriasis-tissue there are an excessive production of the superficial layer of the epidermis, a new growth downwards of the rete mucosum, enlargement of the papillæ, hyperæmia of the superficial layer of the cutis, and cell-exudation around the blood-vessels. Why the rete mucosum should grow downwards, and why an inflammatory hyperæmia should occur in the superficial layer of the cutis, is not explained.

For the opportunity of contributing to the histology of this disease, I am indebted to the ready co-operation of a patient, a gentleman aged 21, whose skin has not been free from psoriasis patches for the last seven years. Taking an intelligent interest in the nature of the malady, he very willingly agreed that a portion of skin should be removed for examination. The part excised was from a patch of nummular psoriasis on the back, which had existed for about a year, and included a sufficient margin of healthy skin, the raised border of the patch, and a part of its surface. The excised skin was carefully hardened in bichromate of potash, and numerous sections from it were made and examined.

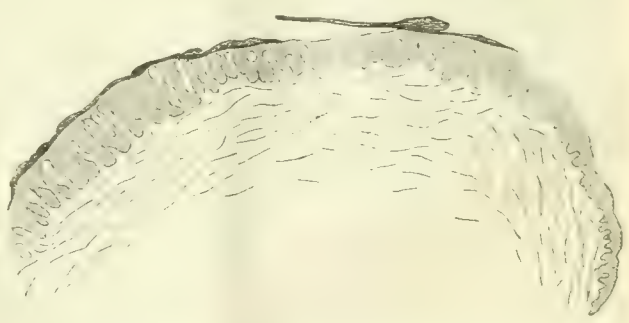


Fig. 1.—Section including the adjacent healthy epidermis (on the right) and the psoriatic epithelium (on the left), as seen under a low magnifying power.

When a section, which included the whole breadth of the excised portion, was examined with a low power covering a large field, it was seen that, whilst the rete mucosum in the healthy skin was of almost uniform depth (the skin here scarcely showing any signs of papillæ),

the rete on the other side of the section corresponding to the psoriasis tissue was indented with long deep papillæ. Even with this low power, it was evident that the interpapillary projections of the rete mucosum had grown to a considerable depth, giving rise, as Dr. Robinson has shown, to an elongation of the papillæ. The margin of the patch was indicated by an unusually adherent crust of horny scales, and a projection of the epidermis outwards. Between this (the naked eye) margin and the perfectly unchanged epidermis, the rete diminished in depth outwards, the papillæ becoming fewer and shallower until they ceased to exist.

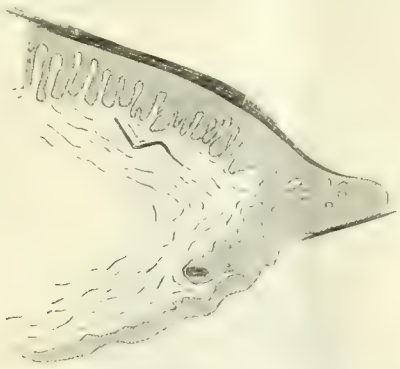


Fig. 2.—Section through the margin of the patch at a part where the edge was marked by a prominent epidermic growth, as seen by a low magnifying power. (Both in this figure and in figure 1, the bent form of the portion of skin is due to the contraction produced by the hardening solutions.)

With higher powers, the following important facts could be ascertained. Although the interpapillary downward projections of the rete mucosum were several times deeper than the healthy rete, the parts which covered the papillæ were much thinner than in the normal epidermis. As this is a different condition from that described by Dr. Robinson, and as it has an important bearing on the nature of the disease, I have put it permanently on record, and more definitely than I could do by any mere description, by making the accurate camera-drawings from which Figs. 3 and 4 are copied. Fig. 4 shows the condition of the skin outside the visible patch of psoriasis, passing towards perfectly healthy skin which has not yet been affected by the disease. On the right of the figure, the extension downwards of interpapillary projections and the formation of papillæ have begun. By comparing this drawing with Fig. 3, it will be at once seen that the rete mucosum, *m*, above the papillæ is there much thinner than in the healthy skin shown in Fig. 4, *m*. It will also be noticed that the horny layer *h* is much thicker in the diseased than in the healthy skin. It will be readily understood, from an examination of Fig. 3, why bleeding follows the removal of the scales from a psoriatic patch. The dried epithelium of which they are formed being still adherent to the rete mucosum, carries with it, when it is forcibly removed, the thin strip of cells which are the only covering of the papillæ, and leaves the vascular tissue exposed.

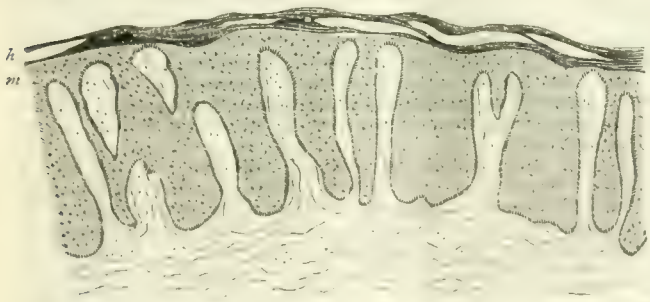


Fig. 3.—Section through the psoriatic patch; magnified 45 diameters. *h*, the horny layer of the epidermis; *m*, the rete mucosum.



Fig. 4.—Section through the healthy skin next the psoriatic patch; magnified 45 diameters. The beginning of the interpapillary projections is seen on the right in the first stage of the formation of new papillæ. *h*, the horny layer of the epidermis; *m*, the rete mucosum.

In order to understand the changes in the constituent parts of the rete mucosum which lead to this result, it is necessary to glance, for a moment, at the composition of the epidermis in health. This membrane consists of a mass of epithelial cells firmly adherent to each other in unbroken continuity from the undermost to the outermost layer. But, although the physical continuity is unbroken, their chemical, vital, and histological qualities vary at different depths. On account of these varying qualities, histologists have given distinctive names to different so-called layers of the epidermis. But in reality these layers run into each other, and represent the gradual transitions which mark the transformation of the living epithelium into dead horny cells. It is possible to over-refine in this distinction of layers; but, for our present purpose, and generally in pathological investigation, it is convenient to distinguish four. Planted on the cutis, and separated from it by a distinct membrana propria, (Fig. 5, *p*) is the undermost layer of cells, which have an elongated cylindrical form, and are placed side by side, like the stakes of a palisade. To these cells, physiologists have assigned—but hypothetically, and without any serious attempt at proof—the function of reproducing the successive crops of epidermic cells, which are being continually formed. The cells immediately above these are more or less cubical, and from the surface of each cell a number of minute spikes or "prickles" project. The so-called layer of "prickle-cells" is always several cells deep. Its exact relative depth can only be stated arbitrarily, and the estimates given of it depend on the greater or less success of the mode of preparation, and on the definition of the objective employed by the observer. I have occasionally been able to trace "prickles" on cells well into the layer above it. This "prickle-cell" layer, in the limits within which it is usually understood, is composed of living cells; but, towards the surface, they already begin to indicate changes by which the formation of horny substance takes place. These changes are more fully developed in the third layer—the so-called *stratum lucidum*—which separates the prickle-cell layer from the fully formed layer of horny epidermis. The cells of this layer contain a newly formed substance, which stains deeply by certain dyes. This substance disappears in the cells of the next or uppermost layer, which is composed of the dead corneous epidermis.

Bearing in mind this division of the epidermis into layers, let us study the thin epidermis which covers the apices of the papillæ, in preparations such as those from which Fig. 5 has been drawn. This study has satisfied me that the layer of prickle-cells has in this position been much reduced in depth, and that the cells which are present are many of them undergoing degenerative changes—indicated chiefly by disappearance of the whole or part of the nucleus (see Fig. 5). The *stratum lucidum*, although present, has lost its definiteness, and above it a great thickness of corneous layer is found. The lowermost layer of cylindrical epithelium contains a greater number of cells undergoing degenerative changes than is found in normal skin. The disease is thus found to coincide with a diminished and abnormal "prickle-cell layer" immediately above the papillæ, that is, of the layer of living cells which form the part of the rete mucosum which is most directly in correlation with the blood-vessels, and from which, by a series of gradual changes, horny cells are being constantly formed. It is undoubtedly as a consequence of the diseased condition of this layer, that we find an unusually rapid formation of an abundant but imperfectly developed horny layer. The cells do not persist as living elements so long as they do in the normal condition, passing almost at once into the horny metamorphosis, which, however, they accomplish incompletely. To such an extent does this disappearance of the living cells of the rete mucosum immediately above the papillæ sometimes go, that I have occasionally found the so-called "prickle-cell" layer entirely absent, and the palisade-like cells of the undermost layer in immediate contact with a closely packed layer of cells corresponding to the horny layer, with scarcely a trace of the appearance characteristic of the stratum lucidum. In such a case, the cells that, in healthy skin, are developed into a living resistant membrane (the rete mucosum), are thrown off in the familiar scales of psoriasis.

Contrasting with the deficiency in the rete mucosum which exists over the apices of the papillæ, is the excessive development in the deep interpapillary projections (see Fig. 3). On this point, my preparations bear out the descriptions of Professor Neumann and Dr. Robinson. The large broad masses of rete mucosum found in the sections on the sides of the papillæ show that there is a luxuriant growth of epithelium, representing a "prickle-cell" layer of great depth. Here there is no premature formation of horny from living epithelium, the latter

retaining its normal qualities (as is shown by its thickness) for a considerable time.

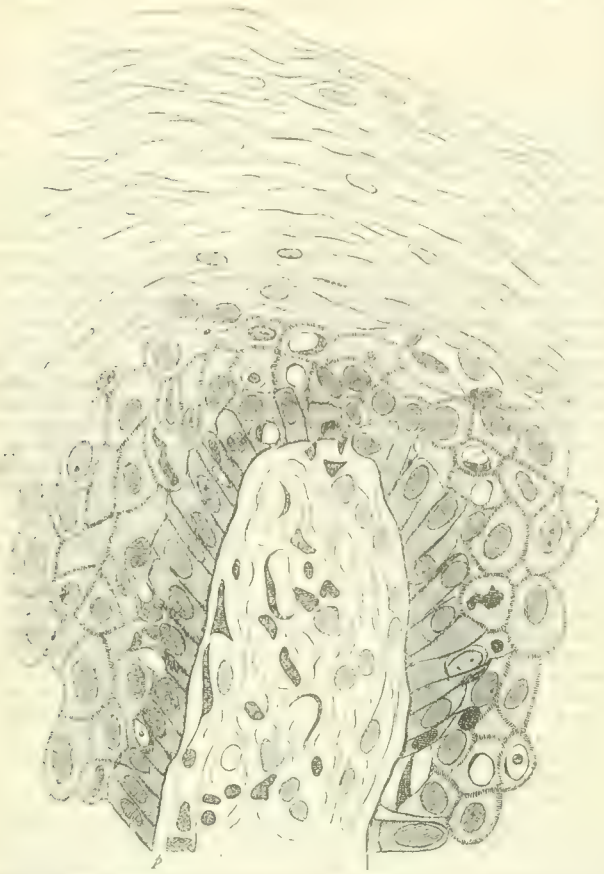


Fig. 5.—Section through the epidermis and the upper part of a papilla in the psoriatic tissue, showing defective "prickle-cell" layer and *stratum lucidum* above the apex of the papilla. Magnified 500 diameters: *p*, membrana propria.

To examine the first stages in the formation of new papillæ, it is necessary to examine the epidermis on the extreme edge of the disease—beyond the edge as visible to the naked eye—in a part such as is shown in Fig. 4. The skin of the back, from which my sections have been taken, is well fitted for the study of this process in psoriasis, as the papillæ in the healthy skin can hardly be said to exist (see Fig. 4, *m*). The first stage in the formation of the papilla is, I find, a breaking down in some of the cells of the rete mucosum at a given point, beginning at the lowermost or cylindrical cells, and extending upwards. This first stage is seen in the drawing Fig. 6. A description of this figure will serve as a detailed description of the process. The contiguous cylindrical cells (probably two in number) have disappeared from the deepest layer of the epidermis at the point where the new papilla will form. At the bottom of the gap, two nuclei are seen with a faintly defined zone, which probably corresponds to the area of the cell-substance which has disappeared. Higher up, two well-marked nuclei are found, each within a cell, of which the cell-wall is now alone visible. Immediately beyond these, towards the surface, are two cells, in both of which the nuclei are degenerating. The sides of the space occupied by these degenerating cells have well-marked contours—indicating, as I understand it, the line taken by the lymph-stream between the epithelial cells. In this space, occupied by the degenerating cells, is to be found the first step in the formation of a papilla. The next stage consists in the disappearance of the broken-down epithelium, and the occupation of the space by connective tissue. But, side by side with this destruction of epithelium, a new formation of epithelium takes place at the side of the gap, which leads to the projection downwards into the connective tissue of the rete mucosum, and contributes greatly to the length of the papilla. This new formation has taken place only on one side of the embryo papilla (if I may use the term), shown in Fig. 6. On the left side of this new papilla, epithelial cells have been added to those which originally formed the boundary of the rete, the whole of the area of the new cells being an encroachment on the connective tissue.

The mode by which these new cells come to be there, opens up a physiological question which, fortunately, it is not necessary for me to discuss in this paper. The current views imply that the new cells are formed by division of the pre-existing cells of the rete mucosum. I may state here, parenthetically, that I have found nothing in my preparations to support this view. In the appearances which are so readily received as proof of cell-division, I can see nothing more than a breaking up of the nucleus.



Fig. 6.—Section through the epidermis, external to the naked eye border of the psoriatic patch; showing the mode of formation of a new papilla. Magnified 500 diameters.

In all my examinations of healthy and diseased skin, I have not once found evidence that the cells of the rete mucosum multiply by division. The new cells, as is shown in Fig. 6, which form the increase of the interpapillary epithelium in psoriasis, are added to the epidermis from the subjacent connective tissue. I see in this fact, however, no proof that they are formed from the fixed cells of that tissue. On the contrary, I find in them transitions which mark development by an enlargement of the nucleus, and a gradual increase in the protoplasm, from elements which are indistinguishable from lymph-corpuscles.

Not only in the papillæ, but along the blood-vessels in the cutis, a moderate amount of cell-infiltration is present. In the cutis, the extent of this infiltration is so comparatively insignificant, as to show that the injury sustained by the vessels in the disease is slight. An example of the penetration of the rete mucosum by the effused colourless blood-cells is shown in Fig. 5. At the apex of the papilla, interruptions in the membrana propria can be observed; and, in one of them, the nucleus of one of these cells can be seen, partly within and partly without the rete. These white blood-cells can, in all pathological conditions of the rete mucosum, be found between the epithelial cells, and in the cavities formed within obsolete cells by breaking down of the nucleus and of the cell-substance. It is in these cells that I find, with Biesiadecki and Pagenstecher, the source of the continual supply of new epidermis; and it is in the numbers that leave the vessels in the superficial parts of the skin in psoriasis that I find the pabulum for the imperfectly formed horny epithelium that is being continually thrown off.

In determining whether in psoriasis the hyperæmia (or, more correctly speaking, the inflammation) is the cause of the affection of the epidermis, or whether, on the other hand, a primary affection of the epidermis is the cause of the inflammation, we are met by this difficulty—that, whilst a morbid condition of the epidermis may provoke inflammatory changes in the subjacent blood-vessels, an inflammation in the vascular tissue may provoke changes in the epidermis; and when, as in psoriasis, we find both these changes coincident, it is not at once evident which change is the primary one. In considering this question, I do not think that much light is thrown on it by the downward growth of the epidermis. I find that, in all conditions in which pathological changes provoke and sustain a continued increased vascularity

in the papillary layer, there is a thickening of the rete mucosum, caused by an increased growth of epithelial cells. In lupus, for example, a cell-growth in the cutis, with which the epidermis has nothing to do, the rete mucosum becomes much thickened. In the cases of rodent ulcer, in which a marginal "ridge" is present, the rete becomes very thick near the margin of the ulcer, before it yields and breaks down, the thickening being purely physiological, and having nothing to do anatomically with the peculiar epithelial growth in the papillary layer, which is the essential feature of the disease. In *malignant papillary dermatitis of the nipple*,* also, I find, coincident with effusion and infiltration in the superficial layer of the cutis, a considerable thickening of the rete mucosum. A thickening of the rete is one of the changes which are produced when there is moderate and continued pressure from effusion from the superficial blood-vessels, and for the interpapillary thickening in psoriasis it is not necessary to seek any other cause. The very moderate amount of cell-infiltration that accompanies psoriasis, and the considerable changes found in the epidermis, are much in favour of the view that the affection of the blood-vessels is secondary to that of the epithelium. The scaling of the epidermis (desquamation in the various degrees) with which we are familiar as a consequence of inflammatory congestion of the cutis—is different in character from that which distinguishes psoriasis. I regard as direct proof that the epidermis is first in fault, appearances such as that shown in fig. 6. Here we have a breaking-down of the epithelium limited to a given point, and far in excess of any changes in the blood-vessels which, at this distant part, can be found to explain it. The special diseased change is at this point in active operation, although it is beyond the zone in which inflammatory changes are found in the blood-vessels. Beneath the part thus figured, the nuclei of the vascular wall are, in the preparation, distinctly stained, and here and there a lymph-corpuscle is seen in the tissues; but there is no appearance which justifies the idea that there is distinct inflammatory congestion. My explanation of the changes found in the vascular tissues is, that they are provoked by the irritation set up by an unhealthy epidermis.

Shortly expressed, histological analysis has carried us thus far. A diseased condition of the epidermis at certain localised points leads to inflammatory changes in the subjacent vessels. The serous effusion which takes place from the injured vessels, breaks down the diseased epithelium, and leads to the formation of a papilla. At the same time, whilst the apex of a papilla is being thus excavated, a new formation of epithelium takes place at the side of the new papilla, and by growing downwards, the papilla becomes longer. The exudation from the vessels favours a rapid formation of cells in the rete mucosum; but these cells, from a defect the nature of which is not understood, do not go through the normal changes by which the horny layer is formed, and are thrown off whilst the transformation is incomplete.

The pressure of the effusion from the blood-vessels on the rete produces certain mechanical changes. Neumann had already observed that, in an early stage of the disease, the cells of the rete assume a horizontal position. This can be sometimes seen affecting the cells immediately above the cylindrical cells.

Neumann further observes that the "prickles" of the prickle-cells disappear, that the so-called "nuclear cells" increase, and that, instead of one, there are several rows of cylindrical cells. This description applies to accidental appearances which do not have any direct bearing on the essence of the disease.

Of the cause of the change in the vitality of the epidermic cells, by which the process is introduced, we are ignorant. That it is associated with some constitutional condition of the cells themselves, appears to me to be shown by two considerations. Psoriasis is a hereditary disease, and an inherited tendency to any form of degeneration on the part of a tissue is properly described as constitutional tendency. But further, in a person in whom the disease is in full development, it is possible to excite psoriatic patches on the integument by scratching. One can write psoriasis on their skin. Injury to the rete mucosum is followed by the development of the changes peculiar to this disease. There can be no stronger proof that the predisposing cause of psoriasis is to be found in a constitutional peculiarity of the epidermic epithelium in certain individuals and families.

But although the psoriatic change may break out independently on different parts of the body—apparently spontaneously, but probably always provoked by some external irritation—its extension follows a law which, although not peculiar to this disease, deserves careful study wherever examples of it are found. The law to which I refer is the multiplication of a special diseased action by the influence of contact. When a circle of psoriasis spreads by continuity, it spreads by infecting the contiguous healthy epithelium, and setting up in it the change by which the normal formation of the rete mucosum is depraved. I apprehend that this action is different from that of a *trauma*, that by which irritation by scratching, for example, produces the psoriatic change. Other lesions of the skin—as eczema and syphilis—run their course in psoriatic patients, and pass over without leaving psoriasis behind them on the parts of the skin which were affected, without generating or extending the morbific action. The psoriatic epithelium, on the other hand, is a slow but certain agent in extending the specific effect; and it is reasonable, therefore, to infer that it is here the specific cause of the advance of the disease.

Of the unknown *materies morbi* in psoriasis, something may be learned from the effects of treatment. The psoriatic epithelium produces a cause of irritation which acts injuriously on the walls of the blood-vessels (that is, in common language, produces inflammation), but the degree of inflammation which it is capable of exciting is comparatively slight. To the narrow limits within which this inflammation is confined, the disease owes its characteristic features. Some morbid agents produce sufficient inflammation—that is, sufficient exudation from the blood-vessels—to ensure their own destruction, and bring about what is then called a spontaneous cure. This is not the case with psoriasis; but a certain degree of superadded inflammation can be artificially induced, in which the exudation is fatal to the disease, and supplies the material for the formation of a healthy epidermis. This degree of inflammation has limits which, in treating the disease, should not be exceeded. All irritants are not equally well suited to produce it. It is to their capacity of ensuring just sufficient, but not too much, inflammation, that the curative effects of irritants like tar, sulphur, chrysarobin, and pyrogallic acid, when properly applied externally, owe their power to cure psoriasis; and it is by bearing in mind that this is their *modus operandi* that the practitioner will best learn how to use them. This curative action of superinduced inflammation is well illustrated by treatment with pyrogallic acid.*

I introduce this subject only parenthetically here, in order to illustrate my suggestions regarding the incompatibility of the disease in the epidermis with a certain amount of exudation from the blood-vessels. The congestion produced by pyrogallic acid is made apparent by the colour of the skin under treatment; and its power to excite destructive inflammation when used even in moderate strengths is illustrated, sometimes disagreeably, by the superficial abrasions around the *lanugo* hairs.

* See the BRITISH MEDICAL JOURNAL, May 14th and 21st, 1881.

HINTS FOR TRAVELLING, IN THE CASE OF CHILDREN.

By ARTHUR W. EDIS, M.D., F.R.C.P.,
Assistant Obstetric Physician to the Middlesex Hospital

THE following practical hints may prove of service to many mothers, who are often appealed to by their patients, at this time of year, as to the management of mere infants and young children on long railway journeys, whether to the seaside or elsewhere.

Severe attacks of sickness and diarrhœa, not unfrequently ending fatally, are often met with in infants, who, for some reason or another, are not being suckled, but are solely dependent upon milk from the bottle, from the fact of the milk turning sour. To prevent this, the milk, before starting, should first be boiled, allowed to cool, and then either a teaspoonful of Dinneford's fluid magnesia, or as much carbonate of soda as will lie upon a threepenny-piece, added to each pint. The milk so treated should be placed in soda-water bottles, first carefully rinsed out with hot water, taking the precaution to fill the bottle completely, so as to avoid its being shaken in transit. It is better to use soda-water bottles than the larger wine-bottles, as there is less risk of the remainder turning sour or being spoiled by the shaking inseparable from rapid travelling. A cork from a champagne or seltzer bottle (if a perfectly new cork cannot be obtained), which should be first well soaked, and then slightly tapered, to allow of its being readily replaced, is inserted into the neck of the bottle. As each bottle holds about half a pint, it will be requisite to take as many as are likely to be required on the journey. Care should be taken to wrap them in paper or linen, to prevent any risk of their being broken by knocking against each other in the basket.

In very warm weather, especially in close carriages, the atmosphere, when [illegible] may not be sufficient [illegible]

* This method [illegible] I have [illegible] very speedily [illegible] that the strength in which [illegible] the skin of individuals [illegible]

circumstances, it may be necessary to resort to other expedients. The best by far is to depend upon Swiss milk. The tin being opened before starting, and a little of the milk taken out to prevent any running over, it is placed carefully in an ordinary small travelling provision-basket, not in a hand-bag. It is better to have a teaspoon as well, so that the quantity may be easily measured. Children, even if they are not accustomed to this kind of milk, take it readily, and digest it well. Even though the tin be left open, the milk remains perfectly good during the longest journey.

The next difficulty is in providing hot water to mix with the milk, or in heating the mixture to a proper temperature without the trouble and risk of boiling it over a spirit-lamp every time the child needs the bottle. Where many children travel in one compartment, during the night, or in a journey occupying over twelve hours, the risk of accidents happening from a spirit-lamp being upset is by no means slight, and is one that may readily be avoided by one of the following expedients.

An ordinary stone bottle, such as is commonly employed in winter to place at the foot of the bed to keep the feet warm, holding about half a gallon of water, is first wrapped round with several thicknesses of sheet cotton-wadding, the ends being brought round so as to entirely encircle the bottle. Outside this, two or three yards of stout house-flannel are wound, and fastened securely by a needle and thread, the ends being gathered in, as in the case of the wadding. The flannel and wadding are, of course, cut so as to allow the neck of the bottle to protrude. To improve the appearance of the whole, a piece of scarlet flannel is then neatly sewn on, and an ordinary rug-strap, with a handle, adjusted, so as to allow portability. A few hours before starting, the bottle must be filled with nearly boiling water, and the cork, which must be perfectly clean, or the screw-stopper, adjusted. The object of doing this is to heat thoroughly the bottle and its coverings. Shortly before starting, the bottle is first emptied, and then again filled with fresh boiling water. This can be readily carried by the aid of the strap without any inconvenience whatever. If properly prepared, the water, which at the time of starting is at a temperature of about 200° Fahr., will remain considerably over 100°, even though the quantity is constantly being diminished, for a period of twelve to sixteen hours.

If Swiss milk be employed, the better plan is to have a small pitcher or breakfast-cup in which to mix the water and milk before placing the mixture in the feeding-bottle. The first few bottles will need to be prepared a short time before being wanted, so as to allow the mixture to cool down to a proper temperature before it is given to the child. After twelve hours or so, the mere fact of mixing the water with the milk in a cold cup, and the necessary exposure to the atmosphere, reduces the temperature sufficiently to allow the bottle to be given without more than a very brief delay. As there is no opportunity of soaking the tube in cold water, after being used, during the journey, it is well worth while to be provided with one or more reserve bottles—which are very inexpensive—so as to lessen any risk of the milk becoming curdled from any fermentative changes in the tube or its fittings.

Where the child is being brought up on cow's milk, and it is considered better not to change it, Grout's infant food-warmer (manufactured by Allen of Marylebone Lane) is a very useful invention. It consists of a double box to contain boiling water, having in its interior one two or three compartments, as may be desired, to hold as many feeding-bottles, and closing with a padded lid. By this means, the milk can be kept warm for ten or twelve hours, and is ready for the child as soon as it wakes.

Where, for any reason, neither of these methods are resorted to, the ordinary expedient of Clarke's food-warmer, with a night-light constantly burning, or a portable spirit-lamp and small tin saucepan, as used in the nursery, is, of course, available; but no one who has once tried the hot-water bottle and Swiss milk will care to again incur the risk and trouble involved in these two latter methods, when travelling in a railway-carriage at night with children.

Children who have only recently given up the use of the bottle are still dependent to a great extent upon liquid food, though it is not always necessary in hot weather that the food should be warm. For this reason, a bottle of milk and another of plain water should form part of the travelling-basket. Children suffer much from thirst, as a rule, when travelling; and, if milk be given to them undiluted, it tends to increase, and not to satisfy, this craving for liquid. Plain water, in small quantities, at appropriate intervals, allays thirst, and prevents children from being so restless and irritable.

In place of buns, cakes, and sweet biscuits, it is far better to take only plain water-biscuits, thin slices of bread-and-butter, carefully packed in a sandwich-tin, or even simple crusts of bread, which do not provoke thirst as in the case of sweet things. Egg-sandwiches, made with eggs not boiled too hard, prove an useful addition on long journeys, and are much relished by young children as well as by adults. Ripe fruit, to a moderate amount, is also very grateful, where children are old enough to be indulged with it.

Children who are unused to travelling often have a great dread of the whistling of the engine as it enters a tunnel, or rushes swiftly past some station with gas-lamps flaring along its whole length. To obviate these, a little cotton-wool, lightly packed at the orifice of the ear, gently pressed into the external meatus only sufficiently far to prevent the wool from actually falling out, and the precaution of drawing the blind or the curtains across the carriage-windows, will prove of great service.

A word of caution as to proper ventilation may not be amiss. Children are far more likely to suffer in health from long confinement in an overcrowded and ill-ventilated compartment of a railway-carriage, than they are to catch cold if the window be let down partially, even during the night. Of course, due prudence must be observed not to allow any undue current of air to circulate through the carriage in the early hours of the morning; otherwise, a chill may readily be taken. It is a mistake to wrap up children too much when travelling in summer; the unusual clothing only irritates them, and makes them restless and peevish, preventing their sleeping, and causing unnecessary discomfort.

In cases where children are exceedingly nervous and excitable, readily frightened, and unable to sleep when travelling, a dose of five or ten grains of the bromide of potassium, combined or not with a similar dose of chloral, depending upon the age of the child and the discretion of the practitioner, is often of service in restraining undue excitement and ensuring sleep.

Many more suggestions might be given; but sufficient has been said, I trust, to induce others to contribute their experience, and so enable us to mitigate the discomforts of travelling in the case of infants and young children.

RAPID DEATH FROM HÆMORRHAGE INTO THE PONS VAROLII AND MEDULLA OBLONGATA.

By W. JULIUS MICKLE, M.D., M.R.C.P.Lond.

THE case subjoined is placed on record for the sake of its medico-legal bearings. It has often been stated of late years, and the general assertion is quite true, that death from intracranial hæmorrhage is never sudden, and at the most is only moderately rapid. It is desirable, therefore, to record any case in which death follows intracranial hæmorrhage with extreme speediness. Many are the contingencies which start into mind wherein cases of the kind might prove of medico-legal value; but one need not wait to consider these.

That the rapidity with which death may follow upon intracranial hæmorrhage has been underrated by some pathologists, is obvious from the examination of certain cases already on record; but we hasten to add that these cases seem to be excessively rare. Thus forty minutes is the shortest time in which, in their great experience, Drs. Wilks and Moxon have observed death after encephalic hæmorrhage. Among the cases of exceptionally rapid death I have seen recorded, was one in which death was apparently instantaneous, save for a single gasp. Here a small aneurysmal sac on the left middle cerebral artery had given way, and blood was found in the subarachnoid cavity at the sides and base of the brain. In another instance, rupture of a similarly placed aneurysmal sac was quickly followed by death—apparently within a very few minutes, at most. In a third and rapidly fatal example, the sac was on the posterior cerebral artery, and the blood burst into the right lateral ventricle of the brain. In a fourth case, sudden hæmorrhagic effusion was followed by death "within five minutes at the most". Much blood was effused under the arachnoid, chiefly at the base. There was blood also under the spinal arachnoid, mainly in the dorsal region. No aneurysm was found. Malpighi, of illustrious memory, died suddenly. In the right lateral ventricle of his brain were large clots, and the blood-vessels were distended.

If, in the next place, one refer more specially to rapid death from hæmorrhage into the pons Varolii and medulla oblongata, the easily available examples seem to be rare. In one instance of hæmorrhage into the pons Varolii and fourth ventricle, rupturing the valve of Vieussens, the patient, seized with epileptiform convulsions, died "a few minutes afterwards". The most rapid of the other cases I have noticed on actual record were those in which death followed hæmorrhage into the pons in one hour, an hour and a half, and two hours. Nevertheless, one systematic writer states that, when extensive, such lesions may destroy life in from a fourth of an hour to several hours;

and by another it is stated that large and suddenly produced lesions in the central parts of the pons may cause death in "a few minutes, a few hours, or a day or two".

The usual explanation of more or less rapid death from hæmorrhage into the pons Varolii, or more particularly into the medulla oblongata, is suspension of the respiratory function from injury or inhibition of centres in the medulla oblongata ministering to respiration.

Suspension of respiration in a warm-blooded animal, in a state of activity, leads to a cessation of general muscular movements within five minutes, or even three, and of circulation and of cardiac contraction within ten minutes. The non-aeration of the blood causes its retardation in the pulmonary capillaries, engorgement of the right heart, and accumulation in the venous system. The imperfect arterialisation of such blood as does find its way to the left heart, and is thence propelled into the conduits of the systemic circulation, and its deficient volume, exert a depressing influence on the sensorial and other nervous centres; the contractility of the heart is weakened, and its movements cease, there being embarrassment (from venous distension) of the right chambers of the heart, and cessation of the normal supply of arterial blood to the left chambers, and to the coronary and other arteries. Let now respiration be restored, and the heart may recover its movements; the oxygenisation of the blood in the lungs aiding its onward course thence, and on the one side relieving the overdistended right heart, and on the other restoring to the left heart and arterial system their normal supply and stimulus.

Now, in hæmorrhagic lesion of the particular kind at the present instant under consideration, the circulation of carbonised blood in the medulla oblongata cannot rouse by its direct influence—and to direct superactivity—the respiratory centres in the medulla oblongata, compressed and functionally rendered inert, or even organically destroyed, as these are, by the clot and by the pulpification of nervous tissue. Moreover, under the conditions of this particular injury, the circulation of blood through the medulla oblongata must be more or less checked. Hence there are not so likely to be the efforts of extraordinary respiration, observed in some other cases. Again, the very completeness of the destructive lesion may also, in cases like the one below, prevent the occurrence of the convulsions so apt to accompany lesions of these parts. But, in the case about to be related, artificial respiration was fully carried out; and thereby was completely obviated *one* mode in which death may occur after hæmorrhage into the pons Varolii and medulla oblongata.

What, therefore, was the cause of so rapid a death in this case? There would be a powerful impression, such as is comprised under the somewhat wide and somewhat vague term "shock"—shock which may follow a great variety of injuries, and which ordinarily is evidenced by failure of the circulation and of the pulse, by coldness, pallor, and shrinking of the body-surface. It is well known that sudden and severe injuries of the cerebro-spinal nervous system may weaken or check the heart's action, as in concussion of the brain, injury to the spinal cord, or in lesions of the peripheral expansions of the nerves, as exemplified in crushing of the limbs, burning of the surface, and rupture or perforation of viscera.

But something more than this occurred—something differing in certain respects therefrom. Here the disruption, mechanical violence to the nervous tissue near, and perhaps affecting, the centre of the vagus nerve in the medulla oblongata, might well excite a powerful inhibitory influence upon the heart. In many ways may be effected a powerful excitation of the inhibitory nerve of the heart, and consequent stoppage of the latter; the arrest of the heart by electrical excitation of the spinal cord, or of the vagi divided at their origin, being, of course, an old observation. Brown-Séquard and others long ago found that irritation of the medulla oblongata and upper spinal cord caused sudden stoppage or diminution of the heart's action; and that the same, or destruction of the medulla oblongata, may cause sudden death without agony or convulsions.

Here also, owing to the suddenness of the lesion, there may have been some of that tumultuous displacement and vibration of the cerebro-spinal fluid, upon which Duret has laid stress in explanation of the phenomena of concussion.

As to the *rôle* of artificial respiration, it will be seen how, even in the subjoined case, its use was followed by a slight, though only momentary revival, as evidenced by the pulse, and by one or two slight efforts at respiration. Artificial respiration may well be employed in all cases of similar lesion where respiration fails. The lesion in question may be of just such severity as to cause death, and that rapidly, unless its immediate effects be tided over by artificial respiration; after which the natural function may reassert itself, and life be prolonged for hours, days, or weeks, in fatal cases; and, in other examples, life may perhaps be entirely preserved thereby; for even considerable hæmorrhages in these parts are not necessarily and always fatal, as is proven by cases which, though comparatively rare, are found scattered here and there throughout medical literature.

Moreover, experimental investigations have established the utility of the procedure. As one result gathered from his vivisections, Schiff announced some years ago that when, in fulminant "apoplexy", death impends from paralysis of the medulla oblongata, artificial respiration should be used; and by this means Corso resuscitated a patient all but moribund from traumatic intracranial hæmorrhage. Death took place fifteen days later; and there were found fracture of the skull, with injury to the brain, and hæmorrhage on the right side extending to the medulla oblongata.*

In this relation, it is well to bear in mind how well endowed is the respiratory function; how many are the parts, both afferent and efferent, which contribute to its maintenance; how experiments long ago showed that, in lower animals, no portion of the medulla oblongata is absolutely necessary to respiration, which depends also upon all the incito-motory parts of the cerebro-spinal axis, and on the grey matter connecting these parts with the nerves animating the muscles of respiration; while the experiments of Volkmann and Vierordt showed how excitation of all or many parts of the body contributes to rouse respiratory functions.

Case.—W. W., 98th Regiment, was admitted, at the age of 27, on June 17th, 1867, having become insane in India at a time when his general condition was deteriorated by climatic influences. In the earlier periods were melancholia, morbid apprehension of danger, delusions of persecution and of injury, hallucinations of sight, restlessness. In later years, impairment of memory and incoherence slowly augmented; delusions continued as to personal injuries inflicted upon him by imaginary persons and spirits; with these were also extravagant notions as to his position and powers. He readily became excited, and abruptly proceeded to violence.

In August 1878, epistaxis occurred.

On February 23rd, 1879, a severe attack of double pulmonary congestion with pleurisy set in; the congestion partially passed into pneumonia, which latter in a short time underwent resolution. The patient, however, was permitted to remain in bed, lest a relapse should be incurred by his carelessness or by exposure.

On March 31st, 1879, at 10.20 A.M., he was sitting up in bed, and quite in his ordinary condition; now and then uttering an ejaculation, as usual; when, suddenly, he vomited heavily, turned livid, and, to the attendant, seemed to be choking as if by a piece of food; fell back in bed, perfectly insensible, with livid face, and veins visibly distended, the pulse still beating, and one or two laboured efforts being made to inspire, each effort causing increased congestion of the veins of the face and neck. The pupils were equal, and were insensitive to light. Called instantly to the spot, which was near at hand, I swept the pharynx and upper part of the larynx with the finger, and thrust a probang down the œsophagus, but found no food lodged anywhere. Artificial respiration was at once instituted on the method of Sylvester, and a momentary improvement showed itself in two feeble gasps and a pulse once more distinctly perceptible; but this improvement ceasing, I immediately performed a rapid tracheotomy, having instruments and tube with me, and then continued artificial respiration for upwards of an hour, but without any avail. Subsequently to the moment I reached him, there were only the two feeble gasps when artificial respiration had been commenced, and a pulse and heart beating feebly for several minutes thereafter. Death must have taken place within seven or eight minutes of the sudden vomiting and carus, up to which moment there were no objective symptoms whatever.

Autopsy, 36 hours after Death.—The body was fairly nourished; slight cadaveric lividity; marked rigor mortis. The pons Varolii was slightly ruptured in front, was ploughed up and pulpified internally by blood, and was, for the most part, occupied by blood-clot and by clot mingled with nerve-substance. The upper and posterior part of the medulla oblongata was also invaded, and there was hæmorrhagic infiltration and softening on its posterior surface to within one-third of an inch of the nib of the calamus scriptorius. Some clotted blood was lying by the left side of the medulla oblongata; also in the interval between it, the pons, and the cerebellum; in the subarachnoid space beneath the cerebellum; in the fourth ventricle, extending thence, *viâ* the iter, into the third ventricle; and, finally, about the circle of Willis, and Sylvian fissures. The effusion had evidently all proceeded from the pons. The cerebellum was of fairly healthy appearance. The cerebral meninges were moderately congested; the arachnoid was slightly opaque, and the pia mater slightly œdematous, over the superior and

* The [illegible] was shown [illegible] Westminster Hospital [illegible] and was [illegible] by Drs. Hutchinson, Wilson, and Mr. G. W[illegible]

lateral surfaces of the brain. Both cortex and medulla of brain were somewhat hyperæmic. There was no trace of hæmorrhage in the lateral ventricles, and nothing unusual in the appearance of the opto-striate bodies. The right hemisphere was 20 ounces; the left, 19¾; the cerebellum, 5½; pons and medulla oblongata, 1¼; fluid and blood from the cranial cavity, 4½ fluid ounces.

For the rest, it need only be stated that the left *pleura* contained 20 ounces of fluid; the right, 10 ounces; that pleuritic adhesions existed on the right side. The *lungs* were moderately congested, the left weighing 10½ ounces; the right, 25½ ounces. The *heart* contained some fluid blood; the coronary arteries were moderately atheromatous; the aorta slightly so, and one of its sinuses of Valsalva was very slightly dilated aneurysmally; there was some roughening of the aortic valves; the left ventricle was somewhat hypertrophied; and the heart, with a portion of the adjacent aorta, weighed 16 ounces. The *spleen* weighed 9½ ounces; there were perisplenic adhesions, irregularity and thickening of its capsule, and a depressed cicatrix on its surface; for the most part soft and diffluent, portions of it were firmer, paler, and strewn with whitish spots. The *left kidney* weighed 4 ounces; was granular; its cortex was wasted, of reddish hue; its capsule stripped fairly. The *right kidney* weighed 3½ ounces; it was in the same condition as the left, except for some paler patches, giving it a marbled appearance.

THE MEANS AT PRESENT PROVIDED BY LAW FOR THE CARE AND CURE OF NON-PAUPER LUNATICS, AND ITS SAFEGUARDS.*

By DAVID BOWER, M.D., etc.,
Medical Superintendent of Springfield House Asylum, Bedford.

THERE is going on at present, as most here are probably aware, an agitation having reference to the lunacy laws. This subject I consider one on which there are, perhaps, none better able to give an opinion than the medical men of this country; and, as you may be referred to by your lay fellow-citizens, and your opinion, when given, must carry great weight, I have ventured to place on paper, and bring under your notice in as condensed a form as possible, that which I find few medical men know anything about—viz., the present state of these laws, and the safeguards and supervision provided by them; and I will afterwards make some very brief observations on the proposed legislation. The statements in the first division of my paper mainly relate to facts, and may be verified by reference to the Lunacy Acts.

Following the division of the subject thus sketched out, we will begin with—

A. *The Present State of Matters.*—Given an insane person above the pauper class, what courses in relation to treatment are there open for us to pursue?

1. The patient may be treated at home or elsewhere under the care of his friends, as many are—well and properly treated: a course which in many cases answers well, especially where the medical man of the family has had the time or opportunity to make the nature and treatment of brain-disease a subject of study and practice, or where he can at intervals avail himself of the advice, in consultation, of a specialist; and which always requires, to ensure success, either the assistance of male or female nurses trained to manage such cases, or friends of the patient exceptionally intelligent, reasonable, equable in temper and spirits, and, above all, who will carry out faithfully all the instructions. This is of importance more especially in suicidal cases, where the medical man, to protect himself, should give all his instructions in writing. We can all call to our recollection accidents happening through carelessness in this respect. Now, what does the law provide in the way of safeguard for the proper care and keeping of patients treated in this way? The Lord Chancellor and the Home Secretary have indeed the power, in any case where application is made to them, to inquire into the treatment of a lunatic thus taken charge of; but they have, so far as I know, no power, and are certainly not bound, to employ inspectors for the purpose of ascertaining these facts. In no asylum, public or private, have I seen straps used all over the patient's person to restrain him, or a patient tied to a bedpost by a chain or rope; but within even the past five years of this nineteenth century I have more than once seen this horrible and humiliating sight in cases treated at home, and have known many suicides of curable cases to occur from want of proper care; and yet the persons responsible are not brought to justice. And the system which allows this is the one which is lauded on all sides by certain misinformed enthusiasts, not only in lay, but in medical papers; many of the writers being themselves ex-lunatics, who owe their recovery to a system they condemn.

2. Our supposed lunatic may be placed under certificate, as a single patient, in the unlicensed house of a medical man or layman. (No medical man can receive into his house, under payment, any non-certified lunatic, without rendering himself amenable to law.) The Commissioners in Lunacy have the power, but are not bound, to visit these patients; and the magistrates have no power of inspection, nor, in fact, any jurisdiction.

3. The non-pauper lunatic may also be sent (in most counties), under an order and medical certificates, to the pauper asylum; and, on the payment of a certain weekly sum, will receive the same accommodation, rights, and privileges as paupers, in most cases having to conform with them in dress. I have now under my care more than one patient whose friends can ill afford the reduced charge of a guinea per week which they pay me, but who shrink from the equality and fraternity (without the liberty) provided by the county asylums, who would yet be able and willing to pay from ten to fifteen shillings weekly, could wards and grounds apart from the paupers be provided for them, or special hospitals be constructed to receive them at an uniform low rate. This is the class whose wants require attention, and whom the charitably disposed should set about to relieve. The distinction would be much the same as between the sick-wards of the union and those of the borough and county infirmaries.

4. The non-pauper lunatic may, again, be sent to what are called "hospitals for the insane". These, if properly conducted, would afford accommodation for the large class just above the pauper to which I have above referred; but at present their charges are quite as high as, in many cases higher than, those made in private asylums; although the proprietors of these latter have to pay rent for a suitable house and grounds, buy furniture, etc.; and this without the help of endowments and charitable subscriptions, such as hospitals have. Hospitals do not require a licence; are not in any way under the control of the magistrates; have only to be inspected once a year by the commissioners; and have a constitution which nominally compels them to spend all money received on expenses, salaries, etc., and the remainder to be applied to the reduction of the rates charged for their less wealthy patients. This constitution, which on paper is everything that is charitable and proper, does not, however, prevent, in some at least of the largest and otherwise perhaps the most admirably conducted of them, the space—originally intended by pious founders and benefactors for the poorer classes—from being taken up by patients paying £300, £400, or £500, and in some cases even as much as £1,000 a year; the profits from these patients having accumulated, instead of being applied to the reduction of the boards paid by the poorer patients, who are often unable to gain admission.

Beyond the fact—certainly not an unimportant fact—of their having only one inspection instead of eight each year, they are subject to much the same regulations as to the admission, detention, and discharge of patients, as the next class.

5. Our patient may be sent to a "licensed house", otherwise a private asylum; and, as I am interested in these, I will, after the next few sentences, confine myself strictly to statements of facts rather than opinions.

A certain set of agitators obtained, in 1877, a Parliamentary Commission to inquire into alleged abuses, which mainly consisted in allegations of the detention of sane patients; but, although that Commission sat long, and heard much evidence, the chairman being Mr. Dillwyn, the great opponent of private asylums, it was unable to prove that one sane person had been confined in a private asylum, although the lunacy reformers tried hard to do so. I believe the illegal detention of a patient in a private asylum to be absolutely impossible in the present state of the law, which is as follows.

Within one day of the admission of a patient, copies of the order and medical certificates on the authority of which he is detained have to be forwarded to the commissioners (and to the local magistrates, if in the provinces); and if these be defective in the slightest particular, they are returned at once. Before the expiry of seven days, the medical officer of the asylum must send to the same quarters certificates as to the patient's mental and bodily health, and write a full account of the same in the case-book. The commissioners, moreover, require a return stating the amount paid on behalf of each patient. They are obliged to visit and inspect each private asylum at least twice a year, in each case a lawyer and a medical man being present, *and this entirely without notice;* and they may make their visits at any time in the day or night. On such occasions, their duty is to examine the certificates, case-books, journals, etc.; to inspect the whole house, and to see and converse with all the patients, hearing and inquiring into any complaints; and, finally, to make a report in writing before they leave the

* Read before the South Midland Branch.

house. A similar duty is performed by a committee of magistrates, who, accompanied by their medical and legal advisers, "visit and inspect", *also without notice*, at least four times a year; in addition to which, it is compulsory that visits of inspection be made twice a year at least by single justices; and most private asylums are also inspected by the Chancery visitors. Thus all private asylums are subject to *eight compulsory inspections* each year—the metropolitan asylums excepted, which have six visits a year by the commissioners, and are not in any way under the jurisdiction of the justices of the peace.

The Lunacy Acts pronounce heavy penalties on anyone who may be concerned in the illegal incarceration of a patient, his detention after recovery, or his maltreatment whilst under care. The Act prohibits anyone having an interest in the asylum, or being a partner, etc., from signing the certificates of admission; and further, as an additional safeguard, all letters written by patients are compelled to be sent to their respective addresses, or produced to the commissioners, and some very good reason must be put forward for not having so sent them.

Beyond the safeguards provided by the Lunacy Acts, the patient or his friends have a very easy remedy against illegal detention at Common Law.

The numbers in private asylums are fewer than in public asylums, and thus admit of a greater amount of that personal attention to individual cases on the part of the medical superintendent, so necessary for the proper conduct of a case of brain-disease, and which is impossible to be obtained where lunatics are herded together in hundreds and thousands.

B. And now a very few words on the Lunacy Bill before the present Parliament. Of its seventeen clauses, I give my unqualified approval to eleven, a qualified approval to three, and the remaining three I consider unjust either to the patient, to the community, or to those members of our profession who have devoted their lives to, and sunk their capital in, this work—not the least anxious, and certainly not the most pleasant, department of the profession.

Clause 1. "To enable justices to raise money to build additional asylums, or to buy private asylums, for the accommodation of non-pauper lunatics." This ought, I think, to be done for patients unable to pay more than from ten to fifteen shillings per week; but I think the ratepayers ought not to be called upon to provide accommodation for the classes above that, any more than they should be called upon to pay for the medical attendance of patients sufferings from phthisis, or their maintenance at health-resorts or sanatoria.

Clause 2 is, I think, iniquitous, as it fixes the rate of compensation for goodwill and the loss of a means of living at one year's purchase only, and that profits merely, not receipts.

Clause 3 places the metropolitan houses on the same footing as regards licensing, supervision by magistrates, etc., as the provincial—a course to which I make no special objection, and which would conduce to uniformity.

Clause 4, compelling London alone to build a private asylum at the public cost, is a violation of that principle of uniformity, and quite unnecessary, as there the accommodation exceeds the demand, and the expense of building a new and unnecessary asylum would be a great injustice to the community.

Clause 5, providing that profits made from private patients go to reduce the expense of keeping paupers, is unjust to the unfortunate private patient, who not only—from being insane himself—has extra expenses for his own treatment, but, like the willing horse, is to be saddled with the burdens rightfully appertaining to other people.

Clause 6—to provide for the government and management of the new class of asylums in the same way as in the public asylums—is satisfactory.

Clause 7—"To continue the medical visitor"—is also satisfactory.

Clause 8, "providing for superior accommodation for private patients sent to pauper asylums", is good so far as it goes; but, as I have already said, this ought to be taken in hand by the hospitals.

Clause 9 I specially approve of, as, in requiring before admission the "order" of a justice of the peace—in limiting the number of persons who may sign an order for committal in any given case—in making it compulsory for one of the medical certificates to be given by a man having special knowledge of the subject, and in making provision for the detention of a patient for two days on one medical certificate of emergency—it gives a more judicial character to the proceedings, provides further safeguards for the liberty of the subject, and allows the prompt treatment of a dangerous or actively suicidal lunatic.

Clause 10 arises out of, and is a prudent safeguard of, the emergency provision in Clause 9.

Clause 11 provides for the annual examination and recertification of all patients, and is admirable.

Clause 12, like the three preceding clauses, attempts to graft some of the provisions of the Scotch lunacy laws on our English practice; and, having had experience of both, I think the change would be salutary. This clause provides for the admission of patients, merely on a request to be placed under treatment in their own handwriting, and ratified by the consent of the commissioners.

Clause 13 provides an easy means of inquiry into any case of alleged illegal detention; which, with some alteration of detail, in order to make it consistent with the provision as to one medical examiner being specially qualified (mentioned in Clause 9), and to prevent vexatious litigation on the part of discharged lunatics and other busybodies, would have the approval of all men in the specialty.

Clause 14 aims commendably at uniformity, in that it orders the biennial visitation by the Commissioners of Public Asylums and Hospitals, in the same manner as now obtains in regard to private asylums.

Clause 15—enabling the commissioners to order the removal of any patient from a private to a public asylum, if they see fit—is unobjectionable, as they, being in a judicial position, may be trusted to act without prejudice or bias.

Clause 16, providing for a paid chairman of the Board of Lunacy, and of additional commissioners, is very necessary, in view of the additional duties this Bill would impose on that already sufficiently occupied and highly respected board.

Clause 17, and last, is merely technical, and relates to the construing of certain words used.

This Bill might fitly order the compulsory licensing and inspection of houses where single patients (on account of whose maintenance money is paid) are detained, whose case it entirely overlooks, and which, being unlicensed and practically uninspected, remain open to abuse; and it might empower the Lord Chancellor to appoint deputy or assistant-commissioners to undertake that duty, as is at present done in Scotland, with the best results.

It would also be very desirable that some more efficient regulations should be placed on the finance of those hospitals, which, from their so-called charitable constitution, are exempt from many of the restrictions imposed on private asylums—restrictions which (I will conclude this already too long paper by saying) would be cheerfully borne—nay, even if doubly strict—by the members of your as well as my profession, who are proprietors or superintendents of private asylums, and who court the utmost inspection and inquiry by any properly constituted authority, did each extra inspection and inquiry only afford them some little relief from the groundless abuse launched at them.

TRANSFUSION IN PROFUSE MENORRHAGIA.

By T. WHITESIDE HIME, B.A., M.B.,

Lecturer on Midwifery and Diseases of Women and Children in the Sheffield School of Medicine; Medical Officer to the Hospital for Women; etc.

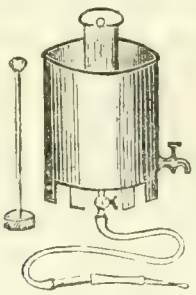
THE following case is chiefly of interest in showing the great advantages afforded by transfusion to a patient suffering from extreme anæmia and chronic hæmorrhage. Indeed, the patient in question has, since the operation, returned as it were to life from the very valley of the shadow of death.

On November 22nd, 1878, I was asked by Dr. Robertson of Harthill to see a patient of his, Mrs. G. The woman was thirty-five years of age, was fifteen years married, and had never been pregnant. She had always been healthy until five years before my visit, when her husband was savagely attacked by poachers, and almost murdered. She was menstruating at the time, and suffered much in attending on her wounded husband by night and day. The catamenia, which previously had been normal, became very profuse, and the periods lasted longer and longer as time elapsed. At the end of two years, she used to continue menstruating for about two weeks, parting with a great quantity of blood, and generally also with large clots. She became so debilitated that, for three years previous to my visit, she was totally unable to take exercise, or even to do her household work; but she was not obliged to keep to bed. Towards the beginning of November 1878, she continued menstruating profusely for four weeks, none of the numerous remedies employed having the slightest effect in checking the hæmorrhage. She had been under treatment at various times for the menorrhagia, and had been under the care of an eminent specialist in Dublin, who applied a number of leeches to relieve what he described as "ovarian derangement".

At the time of my first visit, her face was perfectly blanched and pallid, her lips colourless, and her skin generally corpse-like in appearance. She was confined to bed, and too weak even to lie on her side. She was drowsy and listless, and pulsation was visible more than a foot over the region of the heart. In fact, the patient's condition was very critical.

Though four weeks had elapsed since menstruation commenced, there was still hæmorrhage, the blood being bright in colour, but thin and watery-looking. The uterus was larger than normal—perhaps 3½ to 4 inches long. The portio vaginalis was conical, with a small os. I suggested enlarging the os by incision, so as to allow the immediate application of styptics to the seat of the hæmorrhage. This was done, the strong solution of perchloride of iron being applied on a bit of lint, which was thrust well up into the uterus, the cavity of which was sufficiently dilated to make this feasible. The hæmorrhage stopped completely for the time, but returned slightly in about twenty-four hours; and the patient's general condition continued unimproved. Her husband was very anxious that transfusion should be tried, as he said that everything else seemed useless. Accordingly, five days later, on November 22nd, assisted by Dr. Robertson and Dr. Inkster of Sheffield, I performed transfusion. The husband allowed himself to be bled, and about eight ounces of blood were drawn off, during which he fainted. The blood was received in a warm vessel, whipped, defibrinated, and strained into the apparatus figured below. Meanwhile, I had laid bare about one inch of the median cephalic vein of the patient, and tied it with carbolised gut. Having made an incision into the vein above the ligature, I then introduced the nozzle of the transfuser, and the blood readily gravitated into the vein; but I only allowed it to flow into it very slowly. The patient soon remarked that she felt a warm glow throughout the body; which, however, quickly changed to a sensation of fulness in her throat and choking. All at once her breathing stopped, she became livid, her jaw fell, and a loud "rattle" in her throat announced the speedy approach of death. I instantly injected subcutaneously a drachm of ether, which I had ready for an emergency, and commenced artificial respiration; and shortly I had the satisfaction of seeing the patient rally. The transfusion was soon completed without further mishap, and the wound dressed with thymol gauze, etc. For a day or two she felt poorly (previously her condition was complete apathy), and complained of being nervous and having distressing dreams; but four days later she was decidedly stronger, and in a fortnight she was up, but complained of her feet "going asleep" if she stood for long. Within a few hours after the transfusion, the uterine hæmorrhage ceased. At the end of four weeks, she menstruated during three days; and then, after ceasing for three days, there was a slight "show", which soon stopped. At the present date, Dr. Robertson writes to me, she is "greatly improved in appearance; the colour has returned to her cheeks and lips; and she has evidently gained flesh considerably". She menstruates normally in every respect, and is becoming strong, but is hysterical. Dr. Robertson considers "the transfusion proved quite a success", and he has watched the progress of the case daily.

The apparatus figured below is one of my own device, and is



the same I exhibited at the annual meeting of the Association some years since, when it was figured in the catalogue. I believe it offers many advantages. It is made of tin, except the inner receptacle for the blood, which is silver-plated. This inner receptacle is surrounded by warm water, to maintain the temperature of the blood; and a thermometer fixed to it enables the temperature of the water to be ascertained. It is essential that the blood be of a proper temperature for the injection. A tap in the side enables the water to be drawn off, and one in the bottom lets the blood flow through the elastic tube. A short piece of glass tube inserted into the elastic tube enables the operator to see if the blood is flowing. By raising or lowering the apparatus, the pressure and consequently the rate of flow of the blood can be increased or lessened (or stopped); and, should a block occur, the piston can be employed to clear out the tube, or even, if need be, to gently force the blood into the vein. This is rarely necessary or advisable, gravity being usually sufficient to overcome such obstacles as prevent the flow of the blood. The outer receptacle of the apparatus being filled with water at about 100° Fahr., the blood is to be drawn, whipped, and poured into the inner receptacle, the bottom tap having previously been closed. The vein of the patient having been laid bare, a double ligature is to be passed underneath it, and cut in two. With one of the ligatures thus placed in position, the vein is tied, to prevent escape of blood when the vein is opened for the introduction of the nozzle of the transfuser. With the other ligature the nozzle is secured after its introduction into the vein, by which means all escape of blood backwards is prevented. The patient need lose little more blood throughout than what escapes when the skin is divided. The bottom tap is then to be turned, and the blood allowed to flow; the elastic tube being held between the finger and thumb near the nozzle. When the whole tube is full of blood (so as to prevent air contained in the tube escaping into the vein), the nozzle is to be inserted into the vein, and tied into it by the gut or silk ligature previously passed under the vein. While the ligature is being applied, the elastic tube is to be kept squeezed by the fingers and thumb. The transfuser is then to be raised from four to six inches, the pressure taken off the tube, and the blood allowed to run into the vein. The finger and thumb being kept on the elastic tube between the nozzle and the glass tube will enable the current to be instantly stopped, should an air-bubble or clot, etc., be observed in the glass tube. Should such an accident occur, the nozzle must then be withdrawn; the air-bubbles, etc., be allowed to escape; and the nozzle be then reintroduced. Anyone can use this apparatus; and, as there is nothing to get out of order, it is always ready for use. It can be made for a few shillings.* The metallic part measures seven inches in height and five in diameter.

This is not the place to debate the comparative merits of direct and indirect transfusion. I consider the latter the preferable method. But, however done, the operation being one of the most salutary, and essentially "conservative" in surgery, it is not evident why it is so rarely resorted to. It need not be dreaded on the ground of difficulty, for it is much easier of performance than drawing a crooked-pronged molar tooth. Like most operations of capital importance, it is one requiring careful attention to minute details; but it is one which, with a simple apparatus such as the one described, can be done by anyone. I feel satisfied, too, that were the performance of transfusion not looked on as a terrible affair, and usually put off until the patient is beyond salvation, it would be found to be attended with much less real risk than is commonly supposed. One of the greatest difficulties usually is to get a person to give the blood. People have become very selfish, and have outgrown the belief in "bleeding" even more than medical men. It is painful to hear the excuses offered when the proposal is made to try to save a life at the sacrifice of a little blood; even the closest of kin begin then to feel they "are not very strong". A man recently told me he would gladly supply the blood, only he had a bad cold! Some years ago, I had to give half a pint of my own blood to transfuse into a poor woman, whose husband, after agreeing to give his own blood, became frightened at the last moment. Though a little weakened for a few days, I have felt no subsequent ill effects.

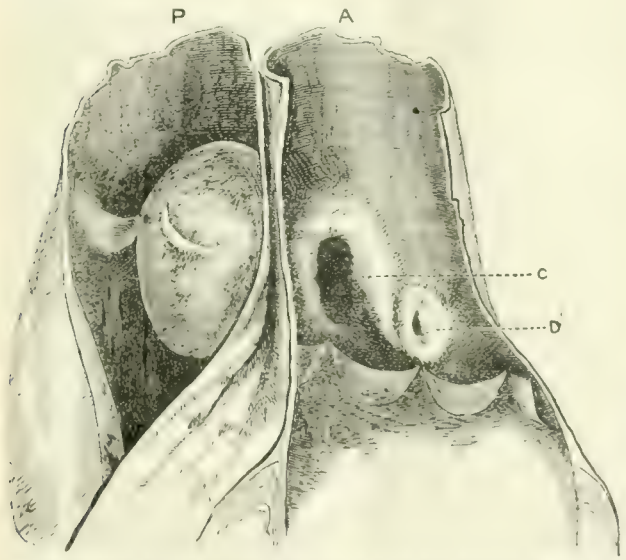
SIX CARDIAC AND VASCULAR CASES: WITH REMARKS AND ENGRAVINGS.

By EDWIN RICKARDS, M.A., M.D.,
Physician to the General Hospital, Birmingham.

CASE IV. *Aneurysm of the Aorta, projecting into the Pulmonary Artery and Right Ventricle.*—George F., aged 38, a military engineer, was admitted into the General Hospital on December 20th, 1878. His history told of intemperance and syphilis. He said, that, for ten months, he had suffered from shortness of breath, and a dull aching pain in his chest; he placed his hand over the middle of his sternum to show the locality of the pain. His dyspnœa, which, though persistent, was variable, prevented his sleeping—inspiration especially was difficult. His respirations were thirty per minute; the vesicular murmur over both lungs was the same; it was very weak, and unaccompanied by any adventitious sounds. He had an occasional dry cough. His lips, ears, hands, and feet were livid. His jugular veins were distended, and, when emptied, slowly filled from below. The cardiac dulness extended up to the second rib and to two inches to the right of the sternum. The apex-beat was diffused, and was felt one inch below the nipple, in the vertical nipple-line. The impulse was feeble; no thrill was anywhere to be felt. The first sound of the heart was of a ringing character; the second sound was subdued, almost to suppression. Synchronous

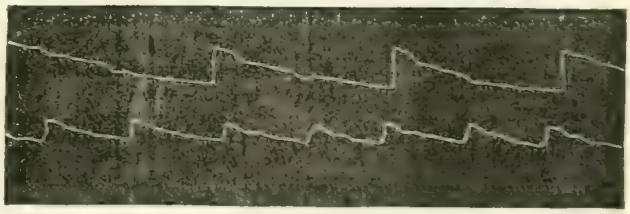
* The nozzle in use is the same as that employed by my esteemed friend and former teacher Dr. R. M'Donnell, F.R.S., of Dublin, to whom I am indebted for more than a knowledge of this useful article. Dr. M'Donnell has described his apparatus and some cases in the *Dublin Quarterly Journal of Medical Science*, November 1870.

with the first sound was heard, over a wide area, a loud coarse murmur, which was audible in the carotid arteries, in the left axilla, and over the back, and which seemed to have its maximum intensity over the sternum, between the third costal cartilages. Midway between the left nipple and the sternum was heard a short high-pitched, local, invariable diastolic murmur. The radial pulses were equal, regular, rather small, of low tension, 88 per minute. The pupils of the eyes were equal. He had no difficulty in swallowing, though he took little from want of appetite. There was no tracheal, bronchial, or laryngeal stridor. For a week the treatment consisted of rest in bed, a dry diet, a mixture of iodide of potassium, and a nightly hypnotic. On December 27th, not being relieved, he commenced a course of digitalis, seven drops of the tincture every four hours. On December 31st, his dyspnœa and lividity were increased; he complained of more pain in the cardiac region; and said he could feel a something inside his chest, which, if not taken out, would suffocate him. His legs and trunk had become œdematous. His arterial pulse was noticed by several observers to have fallen from 88 beats per minute to 44, without any other alteration of its previous character. On examining the heart, it was found to beat at the rate of 88 per minute, and regularly, but differently from its previous manner of beating—two beats in rapid succession were followed by a long pause; the two impulses could be seen and felt; the two sounds of the heart and the two murmurs were heard with each beat; the pulse in the radial and carotid arteries was with, or rather immediately after, the first of the two beats of the heart. This condition persisted from December 31st to January 4th (during which time stimulants were substituted for digitalis). At the latter date, the arterial pulse again numbered 88 per minute—the cardiac pulsations remaining the same in number (88 per minute); but the intervals between the beats were isochronous, and remained so, with temporary reversions (when his pulse also fell) until his death, on January 7th. Three days prior to that event, he had frequent and severe attacks of dyspnœa, theatening asphyxia, and in one of these he died. While in the hospital, his urine averaged twenty ounces in twenty-four hours; it was acid, of specific gravity 1030, and contained neither sugar nor albumen. His temperature varied between 96° and 98° Fahr.



Post Mortem Examination.—The legs and trunk were anasarcous; the extremities livid. The serous cavities contained fluid in considerable quantities. All the organs were congested. The heart was much enlarged, chiefly from hypertrophy and dilatation of its right chambers. The left ventricle was slightly hypertrophied and dilated; it weighed twenty ounces; its muscle was pale, and, by the microscope, was seen to have undergone fatty degeneration. The auriculo-ventricular and aortic valves were sound; a quarter of an inch above the anterior aortic segment there was an opening of an aneurysm; this opening was an inch in diameter, soft and smooth. The aneurysm was of the size of a chestnut, and was half-filled with laminated fibrin; it projected into the pulmonary artery and right ventricle, almost occluding the former. The segments of the pulmonary valve presented no morbid change, except that one of them was entirely adherent to, and incorporated with, the aneurysm. The pulmonary artery, opposite and behind the aneurysm, was much dilated; the thinnest part of the sac of the aneurysm was opposite its mouth. There were patches of recent atheroma in the aorta; one had broken down, and was beginning to cause another aneurysm. In the engraving, A is the aorta; P the pulmonary artery; C the mouth of the aneurysm; D an atheromatous patch, with central softening.

REMARKS.—I have failed to find on record a case similar to the foregoing one, where an aortic aneurysm projected into the pulmonary artery and right ventricle, without communicating with either, and where the pressure-effects of the aneurysm were confined to the pulmonary artery and right ventricle. It has fallen to my lot to witness one other such case; in it the aortic valve was diseased and incompetent; it was first seen a few hours before death, and was diagnosed as double aortic disease, from the presence of a double basic murmur, with hypertrophy of the left ventricle and an aortic pulse; it was observed at the time that the pain at the base of the heart, the difficulty of breathing, and the lividity, were abnormally great, even for the ending of a case of double aortic disease. It would be unscientific to draw conclusions, or to attempt to formulate the attendant symptoms of such cases, from two instances, which differed in the important particular of the state of the aortic valve. The differential diagnosis between such cases and cases of small aortic aneurysms otherwise situated, varicose aneurysms of the aorta, and aortic valve disease, especially has to be made. In the case recorded, and in the one referred to, there were certain common features—such as great præcordial pain, dyspnœa, a sensation of impending suffocation, a double murmur, the absence of pressure-signs other than that of the pulmonary artery, and the absence of præcordial thrill so characteristic of varicose aneurysm. When the aortic valve is unaffected, as in the case recorded, the absence of hypertrophy of the left ventricle and the absence of the aortic pulse would negative disease of the aortic valve. In the case of F., the second sound of the heart was observed to be very feeble—a condition explained by the imperfect action of the pulmonary valve. Dr. Hope pointed out that weakness of the second sound was a sign of aortic aneurysm communicating with the pulmonary artery, and that its extinction showed that both sets of semilunar valves were affected. As to the mechanism of the two murmurs, both may have been due to blood entering and leaving the aneurysm. I am inclined to think that the systolic murmur was aneurysmal; the diastolic murmur due to pulmonary regurgitation. The want of harmony between the arterial and cardiac pulsations was a phenomenon—one not pathognomic of any special lesion. I have noticed it once before in a case of mitral stenosis. Probably the left ventricle did not contain sufficient blood for the second ventricular contraction to produce an appreciable pulse in the arteries. Of the sphygmographic tracings, A is the tracing during the phenomenon; B the tracing when it was not present. Dr.

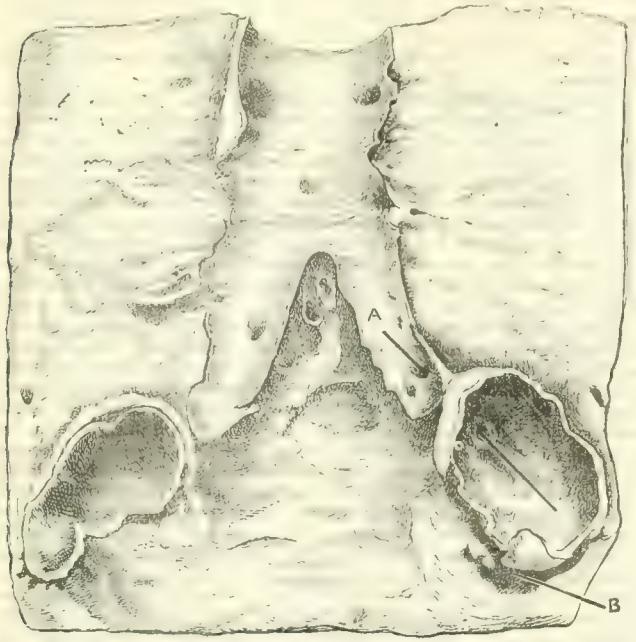


Hayden *(opus cit.)* has observed the same condition in a convalescent from enteric fever, where it disappeared quickly under digitalis; in F., it set in while he was taking digitalis, and disappeared under stimulants. The aneurysm probably began ten months before his admission; and, had he lived longer, it would probably, by bursting into the pulmonary artery, have formed a varicose aneurysm, similar to the one of which Dr. Hope gives an engraving (case Mitchell). In F.'s case, and in the other case to which I referred, the aneurysm was of the size of a chestnut, and situated just above the anterior aortic segment. Dr. Thurnam has pointed out that, in aneurysms of the aortic sinuses, the anterior sinus is most liable to be affected.

CASE V. *Pulmonary Aneurysm.*—Michael J., aged 32, was admitted into the hospital on March 15th, 1879. He was said to have coughed up about a pint of blood that morning. By the time he reached the hospital the hæmorrhage had ceased. He had chronic phthisis, probably of two and a half years' duration. On March 17th, he had another attack of hæmoptysis, and again on the 19th, when he died asphyxiated. On each occasion, blood poured out of his mouth and nose for many minutes. Between the attacks, his phthisical sputa were not streaked with blood, but among them were distinct pellets of coagulated blood.

In the engraving of part of the left lung, probe A is passed through

a branch of the pulmonary artery into the aneurysm; probe B into the phthisical cavity into which the aneurysm had burst.



Post Mortem Examination.—In the apex of the left lung was a cavity of the size of a hen's egg; near the root of the same lung was an aneurysm of the size of a walnut, communicating with a branch of the pulmonary artery, the sixth division of that vessel; it contained blood. Its sac had a smooth interior, and its wall, which was a quarter of a line thick, was separable from the surrounding tissue. It projected into, and nearly filled, a phthisical cavity, into which it had ruptured, and which also contained blood. The mouth of the aneurysm, which was smooth, was a quarter of a line in diameter. Both lungs were studded with caseous masses of lobular pneumonia, most of which were encapsuled by condensed tissue; many had undergone softening, and in some the broken-down material had been removed and cavities left. The trachea and bronchial tubes contained blood. The heart, aorta, and abdominal viscera were sound.

REMARKS.—Pulmonary aneurysm occurs chiefly in chronic phthisis, arising from chronic catarrhal lobular pneumonia, or scrofulous pneumonia, where the lungs are the seat of cheesy masses. It is, I believe, most frequently found towards the root of the lung. Its mechanism of production is uncertain; it may be due to ulceration of the vessel, or, more probably, to loss of support of the vessel from softening, and removal of the caseous matter around it. In F.'s case, in the centre of each cheesy mass were seen by the naked eye an arteriole and a bronchiole; and, where the central part of these caseous masses had broken down and been removed, the vessels in the centre were seen to be unsupported. Blood had found its way into the trachea from the phthisical cavity, into which the aneurysm had burst, by means of a bronchial tube, which communicated between the cavity and the trachea. Hæmoptysis in such cases is usually sudden, profuse, and repeated at short intervals. It is a question whether, in the case recorded, the aneurysm was the source of blood in each attack of hæmoptysis. No other aneurysm, nor evidence of previous hæmorrhage, being found elsewhere in the lungs, it is reasonable to suppose that the bronchial tube, leading from the cavity into which the aneurysm had burst, had been temporarily plugged; and that the plug had been removed at each attack of hæmoptysis. Pulmonary aneurysm may occur at any age; it is a common cause of fatal hæmorrhage from the lungs. Dr. Reginald Thompson states, that of 383 deaths in the Brompton Hospital in three years, 26 were due to hæmoptysis, in 12 of which pulmonary aneurysm was the cause. I am indebted to Dr. Malet (house-physician) for notes of the above case.

M. GAUTHIER has given notice to the Academy of Medicine that he has discovered that concentrated human saliva contains venoms analogous to those found in the cadaveric alkaloids, and that he intends shortly to read a detailed paper on the subject.

ON TWO CASES OF RAPIDLY DEVELOPED UNILATERAL ATAXY.

BY DAVID DRUMMOND, M.A., M.D.,

Physician to the Infirmary, and to the Hospital for Sick Children, Newcastle-on-Tyne.

IN the BRITISH MEDICAL JOURNAL of April 2nd, 1881 (page 508), appeared the record of four cases which I published as examples of posterior sclerosis unattended by ataxy of locomotion. Since that date, two other cases of the same description have been under my care—both in women advanced in life, and both presenting, in a marked way, every common symptom of disease of the posterior columns, with the exception of motor inco-ordination.

I now desire to call attention to two cases of ataxy of one side, due to brain-affection. The subject of one case is an adult male, and the other occurred in the person of a little girl aged three and a half years.

CASE I.—George H., a joiner, aged 32, was admitted into the Newcastle Infirmary for what was supposed to be an attack of left-sided hemiplegia. The history of the illness is as follows. Four days before admission into hospital, on the completion of his day's work, he went with some friends to a public-house, where he drank some beer (was not drunk), and played at dominos. He suddenly discovered, whilst playing the game, that he was unable to control the movements of the left hand and arm. His hand, in attempting to perform the moves, swept the tablets off the table. Immediately afterwards he felt sick, and went down stairs, when he vomited. He then returned to the room where his friends were (upstairs), and attempted once more to play; however, he found himself utterly unable to direct his arm and hand. He then got up to walk, intending to go home; but now his left leg failed him, it "jumped about"; in consequence, his companions assisted him to walk home, when it was observed that the left foot was raised at each step high above the ground. He never lost consciousness, and constantly reiterated the assertion, that he had "good power, but no guidance". On the night of the attack, it was noticed that his face was somewhat twisted, and that his speech was *thick*—"could not make my words plain" (anarthria).

My friend Dr. Angus, who saw the patient shortly after the seizure, was much struck with the condition of the limbs—viz., marked inco-ordination without any paralysis.

On admission into hospital, the condition was noted to be as follows. He was very emotional—the slightest allusion to his illness caused him to weep. He could stand, though with difficulty; was inclined to fall to the left side. This difficulty was not increased on closing the eyes. When he walked, which he did with a stick, the left foot was raised much higher than needful above the floor, and brought down forcibly on the heel; in fact, the gait was (so far as the left leg was concerned) characteristically ataxic. There was no loss of power in the leg; this was especially noticeable as the patient lay in his bed. The left arm was also ataxic, while there was no loss of power; he was unable to touch his nose (a prescribed portion of the face) with the forefinger of the left hand when the eyes were closed. Further, he was unable to button, or to perform other actions requiring delicately co-ordinated movements. The muscular sense was unimpaired—he could tell accurately the position of his affected limbs with his eyes closed. There was a complete absence of cutaneous sensory impairment. The knee-phenomenon was markedly exaggerated on the left side, though also increased on the right. The discs were normal. The facial paralysis had completely passed off. His speech was *thick*.

CASE II.—Jessie C., aged 3½, was admitted into the Children's Hospital for so-called weakness of the left arm and leg. Her mother observed, five weeks before her admission, that she could not feed herself with the left hand—"the hand was jerked about". On the following day, it was noticed that the left leg was "jerked upwards" in walking. The condition soon after became aggravated, so that the child was utterly unable to walk on account of the jerking.

When admitted, the ataxy of the limbs of the left side was at once remarked. The child walked across the floor with tolerable ease; at every step the left knee and leg were jerked upwards, and the foot then violently thrust to the ground again. There was some jerking tremor in performing this movement, in which the entire limb shared. The inco-ordination of the left arm was also very noticeable; the same jerking tremor affected it as well. When told to grasp an object held out to her, the child made several jerking attempts to seize it, but, when at length she succeeded, she held it with considerable vigour. She experienced no difficulty in standing in the ataxic position, having the eyes closed. There was no anæsthesia. The discs were normal. The knee-phenomenon on the left side was distinctly increased. There

was very little, if any, muscular paralysis. The irregular jerking movements were quite unlike the movements of chorea; and, though resembling somewhat the tremor of multiple cerebro-spinal sclerosis (an example of which affection I had quite recently under my care, in a child four years old), yet differed from it—inasmuch as, in the present case the tremor was most marked during the attempt to seize a proffered object, which was held tolerably steady when seized; and further, the jerking was more irregular and violent than the tremor of multiple sclerosis. The right side was perfectly normal.

The interest in these cases lies in the suddenly developed ataxy without paralysis—due, certainly in one (former) case, and probably in the other, to cerebral lesion. I do not think a lesion in the cerebellum would be likely to give rise to the phenomena I have described. The gait is against such a view, as well as the existence, in one case, of facial paralysis and anarthria.

I am rather inclined to the opinion that the corpus striatum (caudate nucleus) is in some way responsible, the internal capsule escaping. However, in the present state of our knowledge, it would be useless to attempt to localise the situation of the lesion, beyond a surmise that one of the basal ganglia is at fault.

CASE OF OVARIOTOMY, FOLLOWED BY ABSCESS OF ABDOMINAL WALL: RECOVERY.*

By WILLIAM HENDERSON, M.D.,
Surgeon to the Dispensary, Exeter.

In January 1876, I was consulted at the Exeter Dispensary by Margaret Helms, suffering from an abdominal tumour, causing considerable pain. On inquiring into the case, I elicited the following history.

The patient, aged 42, unmarried, had been in moderately good health for several years. Thirteen years previously, she had a tumour, of the size of a nutmeg, removed from the left parotid region. She menstruated regularly until the middle of August 1875, when she suffered more pain than usual, the catamenia continuing longer than a week, stopping for a few days, and returning as freely as before. This occurred several times, requiring treatment for hæmorrhage. They then stopped gradually, but recurred every fortnight, until the beginning of November, when, instead of the hæmorrhage, she felt an excruciating pain in the lower part of the abdomen, which continued a whole day.

At this time, she noticed a slight swelling in the left iliac region. This gradually increased in size, and extended over the abdomen, accompanied by pain, which she described as "sometimes shooting, smarting, and stabbing"; stating that she had to "hold the painful part, or it would burst through her, and that it felt as if two surfaces were being compressed together".

About a week after this swelling was first noticed, the catamenia appeared, and continued for three or four days; they then stopped for a day or two, then reappeared in small quantity daily, while the pain remained unabated, extending to the right side of the abdomen, preventing her from lying on that side, and afterwards shooting upwards towards the stomach. I put the patient under treatment at her own home. Her appetite was deficient; bowels costive; cardiac sounds normal; pulse weak, 94 per minute; respiratory system normal; urine normal; uterus normal (but pushed on one side). The measurement round the abdomen on a level with the umbilicus was 38½ inches; on percussion, dull in front, and tympanitic in the lumbar regions. Her general appearance was pale, thin, and worn.

On January 19th, the patient having been prepared for operation, and the temperature of the room raised to 65°, chloroform was administered. The sponges and instruments were dipped in carbolised water, but no spray was used. I began the operation by making an incision from the umbilicus downwards, about six inches; the peritoneum was opened, exposing the surface of the tumour. The hand, well greased with carbolised oil, was introduced all round the tumour, breaking down some slight adhesions, which were felt more in front and towards the left side.

A Spencer Wells's trocar was then plunged into the soft part of the tumour, and, as the contents of the cyst (which was multilocular) escaped, the walls were secured to the cannula, partly by the hooked clamps attached, and partly by a ligature. Traction was then made upon the whole mass, with the assistance of suitable forceps, and the tumour was lifted out. The pedicle was on the left side, and was about six inches wide, a thinner membranous portion being connected with the broad ligament. This thinner portion was pierced by my finger, and torn through. The pedicle, thus limited in width, was secured by a clamp, and the mass cut away. The fluid drawn off (which was of a dark-brown colour) measured fourteen pints, three ounces. The solid part weighed four pounds two ounces. Particular care was taken not to allow any of the fluid to escape into the abdominal cavity.

Bleeding points were secured by fine carbolised catgut ligatures, which were cut off short; and the peritoneal surface of the abdomen and pelvis was sponged, to remove all blood and clots as far as possible, the sponges being cleaned frequently in carbolised water.

The wound was then brought together with silk sutures, well waxed, and the free surface of the pedicle outside the clamp touched with solution of perchloride of iron. Carbolised lint was applied, a pad of cotton-wool laid over the belly, secured by broad strips of plaster and a flannel bandage. After the operation, the patient complained of much pain, and smarting in front and lower part of belly, relieved at intervals by opium, with a little brandy, and a suppository. Milk and iced water was given occasionally, and her urine was drawn off every eight hours. At 10 P.M., the patient was quiet, and free from pain; she felt sick, but had no vomiting; pulse 100, weak; skin perspiring.

January 20th. Pulse 104; temperature 100°. She had slept a little. January 21st. Pulse 108. She slept at intervals towards the evening; complained of much abdominal pain, which was only partly relieved by an enema of assafœtida, and more so by one of opium. January 22nd. Pain returned about 6 A.M.; it was of a shooting and throbbing character, which she ascribed to flatus. Pulse 100; temperature 99°. She took a little champagne, as well as the milk and ice. The tongue was clean and moist. January 23rd. After drawing off urine, she felt severe pain in the lower part of the abdomen, as if cold water were running up the bowels. The feet and legs were chilly. This was relieved by hot applications, with turpentine and morphia, beef-tea and brandy being also given. Pulse 110, small, and weak. The dressings were changed, and silk sutures removed; but the clamp was left undisturbed. At 10 P.M., urine was passed naturally. She felt better, and free from pain. January 24th. Pulse 90; temperature normal. She took milk and beef-tea freely. January 25th. Pulse 100. She complained of pain at intervals from flatus; takes beef-tea, egg, and milk. January 26th. She had chicken and champagne. January 29th (eleventh day). The bowels were moved with castor-oil and an enema. The clamp, being loose, was removed; also two silk sutures which had been overlooked. The underlying skin was blackened by the iron. Carbolised lint was reapplied, and the bandage. January 30th. Temperature 100; pulse 120. The patient was low and prostrate, with a feeling of being bruised. She suffered from headache and abdominal pains. A morphia suppository was given, and a warm linseed poultice applied to the lower half of the belly. The mouth was in an aphthous state. January 31st. Temperature 100; pulse 98°. She slept better after a suppository; the mouth was cleaning.

The patient went on improving for a week, when, on the twentieth day, feverish symptoms again set in, together with pain, and throbbing in the right iliac region. Just over this part, a circumscribed dulness was felt, which was poulticed for a day or two. The part, on examination, had a doughy feeling—a feeling of obscure fluctuation—and one or two glands in the neighbourhood were harder than usual. On aspirating the swelling, a small quantity of broken-down and strumous-looking matter was withdrawn. In a few days, I observed a discharge of pus from a minute opening close to the line of incision, which had quite healed. Pus was daily discharged in this way, aided by pressure on the abdominal wall. Not satisfied with this mode of procedure (after consultation), I made a counter-opening in the abdominal wall, which drained the abscess effectually, and it rapidly healed. Convalescence was now uninterrupted, the patient being able to take out-door exercise on April 15th. She has since continued in good health, has menstruated, and has recently married.

REMARKS. The case is interesting as regards the peculiar pain which she suffered during the rapid development of the tumour—not much more than four months—indicating, I think, a certain amount of peritonitis. There was a moderate amount of hæmorrhage from the adhesions, more especially from the ruptured membranous portion of the pedicle attached to the broad ligament. The feverish symptoms may be in some degree attributed to the free use of carbolic acid, as is alleged to be the case by Mr. Lawson Tait. At the same time, I cannot help thinking that the carbolic acid had a salutary influence on the blood-clot, preventing any decomposition from taking place. I can only account for the occurrence of the subperitoneal abscess in the abdominal wall, by supposing some septic influence had been at work, irritating some of the lymphatic glands.

* Read at a meeting of the South-Western Branch.

A METHOD OF TREATING CURVES OF THE TIBIA IN HOSPITAL OUT-PATIENTS.

By THOMAS F. CHAVASSE, M.D.Edin.
Assistant Surgeon, General Hospital, Birmingham.

Marked degrees of rickety curves in the tibiæ of children are of common occurrence in the out-patient departments of town hospitals. The treatment of the local condition is often unsatisfactory, owing to the attention that is required of the mother for a long period, to support the affected limbs. It has been found, if the cases be carefully watched, that after a time, improvement being very gradual, the appliances are often thrown aside as useless, and the child is permitted to run about at will. Osteotomy of the affected bones effects a speedy rectification of the deformity, but may be objected to by the parents from its requiring the child to become an in-patient; by the surgeon, as occupying a bed for a month or six weeks with what is virtually, from a Listerian point of view, a simple fracture. It occurred to me that both objections could be overcome by performing antiseptic osteotomy, and, after straightening the limb, fixing it in an immovable apparatus, and sending the patient home. This method having now been adopted with complete success in twelve instances of curved tibia, and with no bad symptoms in any case, a detailed account of the practice is given, in order that it may be tested by other surgeons. All the patients operated upon were young children; and in none did the age exceed five years.

The curves in the tibiæ were mostly lateral, and in none was it necessary to remove a wedge of bone to bring the leg into a straight position. The limb, being rendered bloodless, is cleansed with carbolic lotion, and, the surgeon standing on the outer side, a small incision half an inch long is made, parallel to the inner edge of the tibia, reaching at one cut the concavity of the curve in the bone. The usual antiseptic precautions are carefully observed. The tibia is next cut with the chisel from within outwards, until the division is thought to be sufficient to allow the fracture to be completed with the hands. The fibula gives way, generally, at that point where pressure is exerted by the thumbs, as near as possible to the fracture of the tibia. A single silver suture is then introduced, to bring the edges of the skin together at the middle of the incision; the limb is brought into position, and an antiseptic dressing of carbolised gauze and salicylic wool applied. Three splints are next employed to maintain the position of the limb. These are composed of pasteboard, softened by immersion in water. The posterior splint extends from the middle of the popliteal space down the back of the leg to a point just beyond the heel; it is bent upwards along the sole of the foot to the toes, so forming a foot-piece. The breadth of the splint varies with the development of the limb; two inches and a quarter may be taken as an average. Two lateral splints of the same material, but narrower than that used for the posterior aspect of the limb, extend from a point opposite the head of the fibula to the foot-piece of the back splint. A thin layer of cotton-wool is used to cover the posterior splint alone. The splints thus applied are fixed by means of an ordinary roller; and over this three or four layers of a plaster-of-Paris bandage. When the plaster has become hard, and the effect of the chloroform is recovered from, the child is sent home, the mother being told to return in a week, or at once if feverishness or other abnormal symptoms arise. In the first half-dozen cases, the patients were seen daily, and the temperatures, pulses, and general conditions recorded for the first three days. Nothing worthy of note transpiring, a continuance of the practice was not deemed necessary. In a fortnight from the date of the operation, the plaster case is removed; the wound is then seen to be healed, and the suture is taken out. The splints used before, now quite hard, are reapplied, and fixed either with strapping or with a few turns of a plaster bandage. At the end of six weeks the apparatus is removed from the limbs. The following are brief notes of the first four cases operated upon, and which were shown at a meeting of the Midland Medical Society at the end of April last. They may be quoted as ordinary samples.

Case I.—C. K., aged 4, had bilateral rickety curves of the tibiæ. —March 11th. Antiseptic osteotomy of the right leg was performed. Three pasteboard splints were applied, and plaster-of-Paris bandages. —March 14th. The child seemed quite comfortable. There had been no rise of morning temperature since the operation. The other stated that the child had complained but little of pain.—March 25th. The bandages were removed. The wound was healed; the limb straight. The splints were reapplied, with one plaster bandage.—April 15th. The splints were removed altogether.

Case II.—C. H., aged 2¼, had bilateral rickety curves of the tibia. —March 25th. Antiseptic osteotomy was done on the right leg. Three pasteboard splints and plaster-of-Paris were applied.—March 28th. The child was quite lively. It had taken food as usual since the operation. No higher temperature than 99° Fahr. was recorded.—April 8th. The bandages were removed. The wound was healed, and the limb straight. —May 6th. Splints were removed.

The above being the first cases, it was thought advisable only to osteotomise one leg at a time; the other limbs have been straightened subsequently. In the remainder, both limbs were rectified at the same time.

Case III.—A. C., aged 3, had bilateral curves of the tibiæ.—March 25th. Antiseptic osteotomy was performed on both legs. Splints and bandages were applied as in the previous cases.—March 28th. The mother stated that there had been but little crying, and no pain complained of since the first day. Temperature did not reach 100° Fahr. —April 18th. The cases were removed. The wounds were healed. Splints were reapplied.—May 6th. All splints were removed. The patient was allowed to stand upon the feet.—June 10th. The child had been running about continuously since last date. The tibiæ showed no signs of yielding.

Case IV.—W. P., aged 5. April 1st. Antiseptic osteotomy of both tibiæ was performed.—April 4th. The child was restless after the operation, but at this date was quite cheerful. Temperature once reached 100° Fahr.—April 13th. The dressings removed. The wounds were healed, and the limbs straight.—May 9th. The splints were removed; the mother stated she had had great difficulty in retaining them in position, owing to the child's desire to walk. On their removal, he immediately ran about the room. The limbs have retained their rectified position.

Although, at first sight, this method of treatment may seem to be heroic, yet with the aid of Listerism it may be readily and safely undertaken, if proper care be exercised, in the out-patient department of a hospital. An immovable case, which quickly becomes hard, must be used to keep the limb in its new position, to prevent pain and failure of the operation through movements of the fragments, and also to prevent access to the wound by the patients or their friends. I may add that the usual constitutional remedies, and directions with regard to food, are given simultaneously.

THE SIGNIFICANCE OF SUPPRESSION OF URINE AS A SYMPTOM OF INTESTINAL OBSTRUCTION.

By J. A. AUSTIN, M.D., Tongue, Sutherland.

The occurrence of suppression of urine in a case of intestinal obstruction is said by some observers to indicate that the obstruction is situated high up in the small intestine; the *rationale* being, that the diminished absorbing surface involves a scanty secretion of urine. This is a specious theory, and, did it accord with actual facts, it would be a valuable addition to our present means of diagnostic knowledge on this subject, which, as many a practitioner no doubt deplores, is comparatively scant.

In the history of the following case of intestinal obstruction, suppression of urine was a prominent symptom; but its value as a guide to the seat of obstruction may be left to the reader to estimate.

J. M., tailor, close upon seventy years of age, a remarkably temperate and healthy man, who said he was not previously subject to constipation, was suddenly, on a Friday night, attacked with pain in his bowels. The attacks of pain were intermittent, of a twisting character, and radiating from the umbilicus. They were accompanied by vomiting, and stoppage of his fæces and urine. No relief having been obtained, I was sent for on Saturday night to see the man, who was said to be suffering from "gravel", a term which, in this part of the country, is generally used to mean retention of urine. On examining the pubic region for signs of the distended bladder, I was struck by their absence, but noticed in the hypogastric region a dull doughy tumour. A catheter was, however, passed, to make certain, and to gratify the patient, who attributed all his sufferings to the stoppage of urine; but not a single drop of urine escaped. Thinking the catheter might have been blocked up, a second and a third instrument were passed, with, however, the same negative result. An enema was next administered to relieve the bowels, but it was a failure. Having ordered turpentine stupes and opiates, I left the patient.

The sudden accession of the symptoms in this case, in a subject who denied having suffered from habitual constipation, coupled with early vomiting, and apparently total suppression of urine, suggested some fatal compression or invagination of the small intestines high up, and

filled my mind with the gravest fears. On the other hand, the abdominal tumour pointed to the more hopeful condition of fæcal accumulation in a lower and more accessible part of the canal.

Owing to unavoidable circumstances, I could not see my patient again till Monday, when the state of matters had not improved. Great exhaustion had, moreover, supervened, and the case was obviously drifting to a fatal issue. In order to explore the lower bowel, a good-sized gum-elastic catheter was introduced into the rectum. Several inches had passed in, when its further progress was arrested. On withdrawing it, there was a distinct taint of fæcal matter, appreciable to the eye, at the point of the instrument. Reassured by this evidence, the probing was renewed, until nearly the whole of the catheter was pushed in. Repeated enemata now of warm soapy water, to which some castor-oil and a few drops of croton-oil were added, injected with some force, at last broke down the impacted fæces, which having been expelled with difficulty, normal stools followed. The abdominal tumour gradually subsided, and, in the course of the night, for the first time since Friday evening, the patient passed urine. The pain also gradually disappeared, and the patient recovered.

Suppression of urine in these cases has probably no special significance. It is here, as in other instances where it occurs, due to some disturbance of innervation, and makes one of a group of symptoms, incident to the state of collapse or shock. The coincidence of a state approaching collapse in character, and attended by suppression of urine, with the grave cases, say, where invagination suddenly takes place high up in the small intestine, has probably led to the error of regarding this symptom as a guide to the seat of obstruction.

CLINICAL MEMORANDA.

A CASE OF SUICIDE BY DYNAMITE.

THE following notes may be of interest in a medico-legal aspect. J. H., aged 56, a well-sinker, of irregular and intemperate habits, on July 12th concluded a "drinking bout" of several weeks' duration. During this debauch, one evening, when in company with other men, a man of the party lost a purse containing £17. A statement made by H. led to the apprehension and trial of a respectable farmer, who had been present when the purse was taken. The charge was proved to be groundless. On the 13th, the day of the trial, H., though sober and perfectly rational, failed to appear as a witness, making some excuses to his wife and son. About noon, at the time when he should have been in court, he walked into a garth at the back of his residence, and a neighbour in an adjoining field, observing him suddenly fall, went to his assistance. He saw blood issuing from his mouth, and at once sent for me. I found the mouth full of blood, and, on examination, the soft palate torn away, the fauces rent, the tongue detached and mutilated, the teeth broken off and splintered, the superior maxillary bones separated and extensively fractured—the fractures extending to the floors of the orbits. Blood was extravasated into the eyeballs, the lower eyelids, and the upper portions of the cheeks. The inferior maxillary bone was broken into about twenty pieces. The skin of the cheeks and lips was intact, save a few scratches on the internal surface of the latter. There was no charring of the tissues. A box of matches was found in his pocket, and one, partly consumed, close to his mouth where he fell. In his trade, he used both cartridges and caps containing dynamite, and was well acquainted with this terrible explosive. One of these he had placed in his mouth, and, after igniting the short fuse attached to it, deliberately awaited the result. He survived the lesions two hours, remaining unconscious the whole time. The evidence given at the inquest was considered by the jury conclusive as regarded his sanity, and a verdict of *felo-de-se* was returned. Although I have both inquired of my friends, and examined several works of reference, I have failed to discover a similar case recorded.

ALEX. D. H. LEADMAN, L.R.C.P.Ed., etc.,
Boroughbridge, Yorkshire.

A NEW DENTAL DISEASE.

A CHILD aged 10, whose teeth six months ago appeared to be all perfectly sound, came to me with toothache in the right lower canine. I found that a large portion of the enamel had disappeared from the front surface of the tooth, as if it had been chipped violently off; the dentine was all exposed, but there was no softening nor appearance of decay. The disease, which has commenced in several of the other incisor teeth, appears first as a small white spot in about the thickest part of the front surface of the enamel, which it seems to penetrate; and then, suddenly disintegrating, this comes away, and exposes the remaining sensitive enamel and the dentine. This disease is altogether a different thing from the gradual decay, or wear at the neck of the teeth, frequently met with in adults, for in this case the patient is only ten; and, as far as I have been able to ascertain, the incisors and canines never have been known to decay in the manner above described. We are often at our wits' end to cope with the increasing prevalence of caries in the teeth of the very young; and if this be (as I fear it is) a new form of destructive energy, the sooner it is recognised the better.

N. STEVENSON, M.R.C.S., L.D.S.

MALFORMATION OF THE FINGERS AND TOES.

M. M., aged 25, married, was delivered of her second child on May 17th, 1881, which presents the following peculiarities. On the right hand are six fingers, all sprouting at angles in the ordinary way. All have nails except the supernumerary, which is an additional little finger. The nails are very small. The left hand has seven fingers. That between the fifth and seventh has the appearance of a polypus with a narrow neck. All the fingers on this hand have nails except the seventh. The polypus-looking finger has a nail. The right foot has six toes; the second and third are joined together only to a small extent. The left foot has five toes; the third and fourth have grown together.

W. A. MACLEOD, Kilmarnock.

THERAPEUTIC MEMORANDA.

IODINE IN DIPHTHERIA.

APROPOS of the "use of local remedies in the treatment of diphtheria", in the JOURNAL of last week, may I state, as it has not been alluded to, that, according to my humble experience, iodine should claim a very high place? I employ the tincture of the *Pharmacopœia* applied once, twice, or even thrice daily with a suitable pencil, supplemented by an assiduous gargle of iodine or spray. The general treatment I believe to be best is large doses of the tincture of perchloride of iron with chlorate of potash, well disguised—especially for children—by simple syrup. I can recall a marvellous recovery (where the trachea appeared to escape), in which a gargle of iodine was enterprisingly used by the patient, whose jaws were tetanically fixed, so that the liquid could only trickle between and behind the closed teeth.

WILLIAM BOYD MUSHET, New Brighton.

SURGICAL MEMORANDA.

MINERS' NYSTAGMUS.

DR. C. BELL TAYLOR of Nottingham was, I believe, the first in this country to describe this affection, to which he gave the above name (see *Lancet*, June 12th, 1875); and he, like Mr. W. Sykes, and for the same reason—namely, absence of all allusion to it in the text-books of that time—thought he was the original discoverer of this disease. In *Brain* (June 1880), Mr. Oglesby of Leeds alludes to it; but the best recent paper on the subject is one written by Warlomont, in the *Annales d'Oculistique* for August 1880, in which will be found a full description of the affection, with a *résumé* of the views of several previous continental writers, amongst which are A. Gräfe, Abadie, and others. From this paper, it appears that Dècondè of Lèige first drew attention to this affection in 1861. Its diagnosis and treatment have been thoroughly appreciated at the Eye Hospital here for many years past.

Its chief peculiarity, nystagmus, is not constant, but intermittent, and is excited by one or other of the following circumstances, singly or combined—(1) dull light, (2) the stooping posture, (3) any attempt to raise the eyes above the horizontal level. The nystagmus may be rotatory, circumductory, lateral, or vertical. The rotatory movement is most common, and often exists in combination with the other forms. In the worst cases, oscillatory movements of the head occur also. Associated with the nystagmus is amblyopia, which is most marked in dull light, when it is generally considerable; on the other hand, in good daylight, the acuity of vision (as tested by Snellen's test-types) is usually equal to the average, and only rarely under it in the worst cases. Vision for near objects is obscured by loss of accommodation-power. With the ophthalmoscope, no evidences of structural changes are found in the fundus oculi.

The cause of this affection is probably in most cases complex; the chief incentives being—(1) The night-blindness which makes fixation difficult, and which generally results from [illegible] the eye in dull light, whereby the retina gradually [illegible] want of sufficient stimulation; 2. The constant strain [illegible]

and inferior oblique, caused by persistently looking upwards, as required in mining, rendering these muscles liable to clonic spasm on being used, as in "writers' cramp"; (3) Some circulatory disturbance in the cerebrum, caused by the stooping, which often gives rise to intense headache, generally occipital, in these cases.

The question of its origin being occasioned by noxious gases, as raised by Mr. Sykes, has been before put forward, but never generally received, nor supported by evidence. The absence of any description of this disease in the ordinary text-books is probably owing to the fact that those who write these books are so situated geographically as to see little or nothing of it, and therefore either disbelieve in its existence, or inadvertently overlook it when compiling their works. Had Mr. Sykes, however, looked at Mr. Nettleship's little *Text-Book for Students*, published in 1879, he would have found that the disease was known to ophthalmologists.

The symptoms of this disease invariably disappear, even in the worst cases, in from three to twelve months, if the causes, as above stated, be removed.

HENRY EALES, 40, Newhall Street, Birmingham.

KANDAHAR SORE.

I NOTICE a communication by Dr. Flemming to whom we are so much indebted for his most valuable contributions on this and the allied subject of "Delhi sore", *alias* "Delhi boil", "Sinde sore", "Sinde ulcer", etc.—in a recent number of this JOURNAL (May 21st, 1881). I have seen a good many of these cases in Afghanistan, and have had it myself. I quite agree with Dr. Flemming that they are *contagious*. By this I mean that the disease is communicable from one part of an individual to another part of the same individual (or to another individual). I know that this was how it spread in my own case. Wherever the discharge touched by means of clothing, etc., and where there happened to be an abraded surface, there the characteristic sore appeared, and from it again spread to a new locality. These ulcers are mostly in the lower extremity, and in my own person at the instep, where the stirrip-iron abraded the integument in riding; the inner part of the legs, where the stirrup-leather rubbed; and the sole of the foot. In this disease, there is one thing which struck me as remarkable; and that is, it is symmetrical, attacking corresponding sides. In other cases of both men and officers, I have seen it in other parts of the body as well—in the upper extremity, especially the hands and fingers; on the face, and even in the trunks. After they are healed, the ulcers leave behind discoloured (dark) scars. As to the cause, like the Delhi sore, I believe it is due to the water containing certain salts. In an article published in the *Indian Medical Gazette* in 1877, I discussed the subject under the head of "Oriental Sore", preferring this generic term, employed by Drs. Vandyke Carter and Tilbury Fox; and treated the matter from the light of observations of cases in the Persian Gulf. I sent Dr. Fox, our late lamented dermatologist, specimens excised, in view to his ascertaining the existence of a fungus, as in this point he differed from Dr. Carter, who maintains that he has discovered it. It is possible that a fungus exists, and that it may die, or be disorganised and irrecognisable, in transit to England, and that our Indian dermatologist, Dr. Carter, observed it in India in the earlier stages, it being probably absent in the later ones and in the dry scabs.

JOHN C. LUCAS.

SPINA BIFIDA (?) TREATED BY SUBCUTANEOUS LIGATURE AND EXCISION: RECOVERY.

A HEALTHY-LOOKING male child was born at term, of a primipara, on March 13th. From the middle line of the back, in the mid-scapular region, there projected a somewhat reniform tumour, measuring five by three and a half inches, and three inches round the base or peduncle. At the point of attachment, the tip of the finger could be pressed into a hollow in the spinal ridge. The tumour was not uniform, but was made up of one large and one small lobule, and a curious cylindrical body of a bright red colour, about half an inch long, which sprang from the point where the two lobules joined. Its coverings for the most part consisted of a thin, vascular, livid membrane, which gradually became more skin-like as it reached the peduncle. In consistence, it was soft, flaccid, and semitransparent; but the cylindrical body described was firm and fleshy. Fluctuation was indistinctly perceptible. The child had no other deformity.

In consultation with Mr. Taylor of Ticehurst, it was decided to ligature the tumour subcutaneously, and the operation was performed the day after birth. When the ligature was tied, the tumour became erect and tense. On the third day, a superficial slough formed, and was dressed with glycerine and carbolic acid. On the fifth day, the urine became dark-purplish in colour, showing that absorption of carbolic acid was taking place, and that the tumour, therefore, was not completely strangulated. A second ligature was then passed along the tract of the first one, and firmly tied. By the fourteenth day, the tumour had shrunk a little, and felt denser. The livid appearance had gone; but, as there seemed no sign of its sloughing off, I concluded it was being nourished by the skin over the ligatures (which remained sound), though a good deal of discharge came from their tract. It being found that the opening close to the knot communicated with the interior of the cyst, one blade of a curved pair of scissors was inserted through it, and the whole tumour removed, leaving the ligatures intact. Granulation speedily commenced, and proceeded uninterruptedly. The ligatures dropped off; and on the thirty-fourth day after the first operation, and the eighteenth after the removal of the tumour, the skin was sound.

The child had a series of convulsive attacks in the course of the second week after the second tying, and for a day or two seemed fatally ill; but at no time were there any signs of paralysis of the lower extremities.

T. JOYCE, M.D.Edin., Shepherd's House, Cranbrook.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

CHARING CROSS HOSPITAL.

TWO CASES OF SUNSTROKE.

[For the notes of these two cases we are indebted to Mr. J. B. Baker, Resident Medical Officer.]

CASE I (under the care of Dr. SILVER). W. F., a van-boy, was admitted on the 15th inst. When seen he was quite unconscious, his face was flushed, his pulse slow and heavy, the breathing laboured, the pupils contracted; his hands and feet felt cold, although the skin on the face and neck was hot and pungent. The temperature in the axilla was 101°. He was at once placed in a cold bath for ten minutes, after which he was put to bed with ice to his head. In about half an hour he vomited very freely, and became conscious. He then complained of great pain in his head, particularly in the forehead, and in the back of his neck and down his back. Just after the bath his temperature was 97°. He was put on a slop diet, and everything iced. He now seemed dull, only complaining of his head when touched or spoken to. At 7 P.M., his temperature was 101.2°, and he was sick several times during the evening.

July 16th. He felt much easier, but still had the pain in his head; his pulse was normal, and his face much less flushed, but he felt very weak. The temperature was 98.4°.

July 17th. He woke this morning free from pain, and feeling hungry; he expressed a wish to go out.

July 18th. The patient, though still weak, was quite convalescent, and left the hospital this afternoon.

The history he gave was that he had been out with the van from half-past three in the morning, and that, at about three in the afternoon he was working in the van at Covent Garden, when he felt queer and giddy, and at once fell down; he remembered nothing more until he found himself in the hospital. He was a stout, well-built boy, aged 14, and said he had never been ill before.

CASE II (under the care of Dr. POLLOCK). J. H., a medical student, was admitted under the care of Dr. Pollock, on the 19th inst. He was partially unconscious and convulsed; yet was able to complain of great headache, and of dizziness; the temperature in the axilla was 101.8, the pulse rapid, the tongue furred, the face flushed, and there was a dull, heavy look about his features. The history he gave was, that he came up to London for his final examination at the College of Surgeons, and had been in for the written part on Friday and Saturday, 15th and 16th inst. In consequence, he felt rather excited. After leaving the College on Saturday he went home and then felt quite well. The next day (Sunday) he went for a walk, and then to church; after returning home he felt great pain in the back of his neck and head, and went to bed at once. On Monday he vomited several times, and still had great pain in the back of his neck, and felt "slightly silly". In spite of this, he went to the College Museum, but was obliged to leave in consequence of sickness.

On Tuesday, he was again sick; being very thirsty, he drank some lemonade, and then suddenly felt his arms and lower limbs become numbed, and his fingers flexed and useless. At the same time, he

lost the power of articulation, but remained conscious, and could see and hear everything round him. He was seen by a medical man, who ordered him a draught of bromide of potassium and three grains of pilula hydrargyri, and advised him to go to some hospital.

On admission, a cold bath was at once given him, and he was afterwards wrapped in a wet sheet and put to bed; a slop diet was ordered, everything to be iced, and iced spirit lotion to be applied over his head and neck; he was also ordered to be sponged with iced water every four hours. He was sick soon after getting into bed.

July 20th. The morning temperature was 99.8°. He had passed a quiet night, but was still rather dull. He was ordered another cold bath, and his headache still continued. During the afternoon his temperature rose, and he was ordered 15 grains of sulphate of quinine, to be given in three doses of 5 grains, at intervals of four hours. At 7 P.M., his temperature was 104.6°; the wet sheet was again used, and the cold sponging continued. The sickness ceased, but his tongue remained furred; the pulse was 86°. The urine was acid, of specific gravity 1020°, with a trace of albumen.

July 21st. At 10 A.M., his temperature was normal, and his head better, but he still felt very weak; the pulse was 80. The cold sponging was discontinued. The evening temperature was 100.4°.

On July 22nd, his temperature had fallen to 97.8° at 11 A.M., and he felt weak, but quite free from pain; he was given a saline purge. His tongue was now cleaner.

On July 23rd, he felt so much better that he got up for a couple of hours; he said he was still a little dizzy when walking. After being up he had a slight rise in temperature. He took his food better on this day. He continued to improve, and left the hospital convalescent, although still weak, on the 25th.

UNIVERSITY COLLEGE HOSPITAL.

CASE OF TYPHOID FEVER, COMPLICATED BY DIPHTHERIA INVOLVING THE AIR-PASSAGES: TRACHEOTOMY: DEATH: NECROPSY.

(Under the care of Dr. F. T. ROBERTS.)

[Reported by Mr. F. W. MOTT, House-Physician.]

E. T., AGED 16, was admitted on November 25th, 1880. For the last few weeks, he had followed the occupation of barman, and his work kept him up late at night; but he had never experienced any privations. There was a history of pulmonary disease in the family, the father suffering from bronchitis and asthma, and a sister having died of phthisis, probably tubercular; but the patient had never had any previous illness. Three weeks previously to his illness, the patient had often noticed that the drains at the back of the house were foul-smelling, and disinfectants had been used. There was no history of anyone else having been ill in the house.

The patient first began to feel ill about a fortnight before admission, when he complained of headache and giddiness after eating a very hearty meal at mid-day. He was obliged to leave his work. Two days later, he noticed that he was becoming deaf; and, a week later, diarrhœa set in, and had continued up to the date of admission. He had never felt any pain or tenderness in the abdomen, and did not think that he was seriously ill. Finding that the deafness increased, and that the diarrhœa was not abated, he went to a dispensary, and afterwards "as an out-patient" to the Brompton Hospital; he was there seen by Dr. Roberts, who diagnosed the case to be one of typhoid fever, and sent the patient to University College Hospital.

On admission there, he presented a typhoid aspect. He was evidently wasted, and in a very weak state. The lips were cracked, and, together with the teeth, partially covered with brown sordes. He was exceedingly deaf, both ears being equally affected. The tongue was dry, with brown fur in the middle, and prominent papillæ. The temperature was 104.4°, and the skin was hot and perspiring. On the abdomen were about twenty characteristic spots of typhoid fever, a few quite recent, others fading. His only complaint was of a slight soreness of the throat, and a rather troublesome cough. The throat, especially the tonsils, and back of the pharynx were inflamed and red, but there was no membrane apparent. There was slight dyspnœa, the frequency of respirations being 30 per minute, and the voice was a little hoarse. The pulse was 120, small, rather compressible, and feeble. The urine was normal. Examination of the chest only revealed the dull frontal tenuitas, and extensive bronchitic *râles* over both lungs. The heart-sounds were feeble, and the second sound rather accentuated at the base. The abdomen was distended, and the patient only complained of some slight tenderness in the right iliac and lumbar regions. The spleen was not enlarged. The liver was normal.

Course and Progress.—The patient was put to bed, and [illegible] fed on pancreatised food (prepared according to the formula of Dr. Wm. Roberts), which has been found very useful in stopping the diarrhœa of typhoid fever. On the evening of admission, the patient had a stool of a dark brown watery nature.

On the 26th, the temperature, at 7 P.M., reached 105°. The patient was put on a water-bed (the temperature of the water being about 60°). At 11 P.M., the temperature fell to 103.6°; and at 7 A.M. on the 27th, the temperature was 101.8°. Diarrhœa had entirely ceased.

November 28th. The temperature at 6 P.M. was 103°, the maximum during the day. There were a few fresh "spots" over the thorax and abdomen. He took the artificial food well. There was no diarrhœa; the tongue was covered with a moist creamy fur. The pulse was 88, fuller, and not so compressible. The respirations were 28; there was no apparent dyspnœa, and but slight cough and expectoration; the sputa were bronchitic in character. On the following day, his condition seemed to be one of general improvement; but, on November 30th, there was some deficiency of resonance over the left base, coarse crepitant *râles* were heard in that region with inspiration, and the breath-sounds generally were harsh. The morning temperature on these days was about 100.6°.

On December 1st, the patient complained of pain and soreness of throat, and the tonsils and back of the pharynx were seen to be swollen and red. No deposit of any kind was visible. About 11.20 P.M., the patient was seized with a sudden and violent attack of inspiratory dyspnœa. An examination of the throat showed a condition similar to that found in the morning. By digital examination, the epiglottis and rima glottidis were discovered to be somewhat œdematous. The respirations were 42, and the dyspnœa was so urgent, that preparations were made for opening the windpipe if required. A spray, containing compound tincture of benzoin, was used for half an hour, and repeated every three hours; half an ounce of brandy was ordered every hour, and a mixture, containing carbonate of ammonia and chloride of ammonium, given every four hours. This treatment was followed by a marked improvement; in the morning, the respirations were less frequent, and the dyspnœa much less urgent. During the night, he had coughed up about four ounces of viscid tenacious light-yellow sputa, and some of a rusty tinge. There was much less rhonchal fremitus to be felt, and the right lung in front was resonant on percussion, the left was dull all over. Over the backs, the percussion-note was abnormally resonant on the right; on the left, it was deficient, especially over the base. Bronchial breath-sounds, accompanied by sonorous and sibilant rhonchi, were heard all over the right lung. Over the left front, the breath-sounds were hardly audible; at the back, the breath-sounds were weaker, and inspiration was obscured by moist *râles;* expiration was harsh and blowing in character. The deafness had increased. During the night, he had a stool, which was formed, and of a brown colour.

In the evening, the patient was suddenly seized with a violent attack of dyspnœa, and, the symptoms becoming urgent, it was deemed expedient to open the windpipe. Tracheotomy was accordingly performed by Mr. Henry Maudsley, House-Surgeon. On the introduction of the tube, the patient expelled a quantity of blood-stained muco-purulent fluid. The dyspnœa was greatly relieved by the operation.

The pulse, about half an hour after the operation, was very feeble, and 140 per minute. At 11 o'clock, the patient had a rigor, which lasted about five minutes. The dyspnœa again became urgent; and, at 6.30 A.M., the respirations were 42, the pulse 142 and thready, and the temperature was rising.

On December 3rd, the patient was rapidly becoming worse. Diarrhœa was frequent, the stools being of a typhoid character. The pulse was so feeble and rapid that it could not be counted; and just before death, which took place at 9.30 P.M., the temperature rose to 106.4° in the axilla. The patient remained conscious to the last.

During the whole course of the disease, no albumen could be detected in the urine; nor was any distinct false membrane coughed up.

Necropsy, twelve hours after Death.—Rigor mortis was [illegible] well marked; very little [illegible] staining; no signs of inflammation on opening the abdomen. Nothing abnormal was found in the pericardium. In the left pleural cavity there were about two ounces of [illegible] effusion. There were no petechiæ on the heart, and there was [illegible] particularly noticeable about this organ, except that it was rather paler than natural. The mucous membrane at the back of the pharynx, and the tonsils, were swollen and red, the inflammation extending into the Eustachian tubes. There were a few small patches of adherent false membrane scattered about on the back of the pharynx and tonsils, the largest about the size of a sixpence, and situated on the right tonsil. The larynx and tracheal lining were red and [illegible] post mortem, the whole surface of the air-passages, as far as the visible cords, was [illegible] covered with a [illegible] matter. There was no [illegible], and beneath, an adherent membrane

was discovered, which could be separated with forceps from the tracheal surface. The false membrane extended into the larynx, covering the true vocal cords, but ended rather abruptly above. The epiglottis and false vocal cords were swollen and somewhat œdematous, but had no false membrane on their surface. It was difficult to separate the false membrane in the larynx, especially that on the vocal cords. Below, the false membrane extended into both divisions of the trachea; that in the right, however, was much thinner, and could not be followed far into its division; it was of a similar nature to that in the left. The membrane found in the left bronchus was readily separable, and extended into the most minute ramifications. It was of a pure white colour, and fluted longitudinally. The surface of the bronchus beneath was of a bright red appearance. Almost the whole left lung was of a dark blue colour, solid, and had many pleuritic adhesions. On section, it had a hepatic appearance, its substance was firm, but friable, and portions sank immediately in water. The lower lobe of the right lung was in a state of congestive pneumonia, which extended in patches up to the apex. The rest of the lung was emphysematous. The liver weighed fifty-nine ounces. On the surface were a number of minute purple petechiæ. On section, the substance appeared to be somewhat fatty. Several patches of congestion were seen on the surface of the small intestine. There were about ten typical typhoid ulcers found, varying in size from a threepenny-piece to a shilling. One, rather larger than the others, was situated about one inch from the ileo-cæcal valve. Most of these ulcers were healing, but there were several of a purple colour, and covered with an ash-grey slough. One ulcer, in particular, was very deep, and it appeared as if perforation would have taken place had the patient lived a little longer. Nothing abnormal was found in the brain. The auditory apparatus was examined by Mr. A. E. Barker, and found to be perfectly healthy. A microscopical examination of the lung and membrane, made by Mr. Mott after hardening, showed a proliferation and swelling of the alveolar epithelium; the cells appeared globular and pigmented, and resembled, in some respects, the cells in the membranous exudation found in the bronchi, except that they were, generally speaking, larger. The minute bronchi, as well as the larger air-tubes, were nearly obliterated by a round-celled exudation. The cells were very granular, and about the size of the cells found in diphtheritic membrane generally; but there was scarcely any fibrin present, and no micrococci could be detected when the sections were treated according to Koch's method.

REMARKS.—This case is interesting as an instance of a rather rare complication of typhoid fever. Murchison says that he met with several examples of enteric fever complicated with diphtheria; Louis records three and Forget two cases; Rilliet and Barthez mention six cases in children; and three cases of this kind have recently been recorded in Paris. The only question that arises is, whether these cases are really instances of diphtheria complicating typhoid fever; or, whether they may not be entirely due to the typhoid poison. Laryngitis is not a very uncommon complication, and it may assume various forms. A case of this kind is reported in the *Progrès Médical* (page 369, 1881), in which a careful examination of the membranes was made by M. Cornil, who seems inclined to look upon this affection of the respiratory passages as due to the intensity of the typhoid poison. "The false membranes", he says, "in this 'laryngo-typhus' resemble exactly those of diphtheria;" but, he adds, that "they do not differ at all from those which are often observed in the pseudo-membranous inflammations caused by variola." On the other hand, there is recorded by Dr. Greenfield a case which occurred in the practice of the late Dr. Murchison. It is almost identical with the case above described at length, and the report is headed "Diphtheria". The appearances of the Peyer's patches in this case are described as "closely resembling those of the earlier stages of enteric fever; but the vascularity was perhaps less marked, and the changes were not more advanced near the ileo-cæcal valve". In the present case, however, the changes were well marked about the lower part of the intestine, and the stools were of a characteristic kind. There seems no doubt, therefore, that this case was one of typhoid fever; but, whether the laryngitis and bronchitis were due to the specific poison of diphtheria, or were instances of a croupous affection of the bronchi and larynx due to the typhoid poison, seems to us to be an open question. Inquiry at the time failed to show that there was any great likelihood that diphtheritic infection could have been carried to this patient while in the hospital; and there were marked throat symptoms, though not of a diphtheritic character, when he was admitted, which subsequently subsided, and remained in abeyance for five days. One of the nurses, in attendance on this case, died about a fortnight later from a severe form of membranous laryngitis; but the value of this argument is somewhat diminished by the fact, that she had charge also of a separate ward, in which there was a little later a mild case of undoubted diphtheria.

NOTES ON BOOKS.

Bristol Royal Infirmary Reports. Edited by W. H. SPENCER, M.A., M.D., and J. GREIG SMITH, M.A., C.M. Vol. I, 1878-9. Bristol: J. Arrowsmith.—The first volume of a well-established series of scientific reports is apt to be meagre in contents, and inferior in type and in binding, when compared, at least, with later volumes; but this first issue of the records of the Bristol Infirmary is so good, in almost every respect, that the staff will henceforth have nothing to think of, in conducting the work, than the pleasant duty of maintaining its primitive excellence. We are much impressed by the large number of valuable pathological papers, such as Mr. Greig Smith's monograph on chronic osteo-arthritis. The author shows himself to be a good draughtsman; his drawings (engraved by Mr. Lavars of Bristol) give as good an idea of a section of cartilage, just as it is seen through a lens, as any similar artistic production of the kind elsewhere—only their peculiar glossiness, though very pretty in effect, is too marked, so that their outlines are not perfectly clear until they are viewed aslant, like a daguerreotype. Mr. G. M. Smith's illustrations to Dr. Long Fox's valuable paper on myelitis (printed by the same engraver) are also excellent; but they run into the opposite extreme of a hardness of outline never seen in a section, though very convenient for demonstration from accompanying text. The comparison of two such good drawings as Fig. 1, Plate III, and Fig. 1, Plate XVIII, will show at once what we refer to above; the former is a little too clear to be like nature, the latter a trifle too much endowed with the natural haziness of cartilage to be clear. The notes of interesting surgical cases contain a valuable series of cases of diseases of bone. In congratulating the staff of the Infirmary on the excellence of their first volume, we share their regret that it should include the obituaries of two such estimable colleagues as Dr. William Budd, F.R.S., and Mr. Crosby Leonard.

De Waarheid omtrent de Koepokinenting. Van ERNEST HART. Uit het Engelsch door Dr. J. B. DOMPELING. Utrecht: Dannenfelser. 1881. This is a translation into Dutch of Mr. Ernest Hart's treatise on *The Truth about Vaccination*, by Dr. Dompeling, a member of the Sanitary Council of Gelderland and Utrecht and of the Committee of the Animal Vaccine Establishment at Utrecht. The translator has performed his task with great fidelity, making only some occasional abridgments. The most interesting portion of the work is an appendix to Chapter III, in which the Dutch translator expresses his opinion that the English author has attached too little importance to the possibility of the communication of syphilis by vaccination. Dr. Dompeling says that there is ample evidence that syphilis has been communicated by vaccination in various countries; no case of the kind, however, has yet been known to occur in Holland. He argues that the possibility of the occurrence of this misfortune should be a motive for the exercise of the greatest care. "Just as little as, until now, no case of trichinous disease in Holland has become known to me, as little have I heard of a case of vaccine syphilis; but that is of no consequence; it is enough that such cases have occurred elsewhere to make us attend to the matter, and do everything which may prevent an occurrence so unfortunate to the vaccinated and unpleasant to the vaccinator." He quotes, from a thesis by Dr. Korner, the signs by which a diagnosis may be made between the appearances produced by the introduction of syphilis with vaccine matter into a healthy child, and by the vaccination of a child who is the subject of latent syphilis. As a means of obviating the chance of syphilitic infection, he strongly recommends animal vaccination, which has for several years been coming more and more into use in Holland, and which, he believes, will ultimately supersede the use of humanised lymph.

The Detection of Colour-Blindness and Imperfect Eyesight: Instructions. By CHARLES ROBERTS, F.R.C.S. London: J. and A. Churchill. 1881. This book, which now makes its appearance very appropriately, is divided into two parts—one referring to anomalies of the colour-sense, and the other to defects of vision in other respects. It is accompanied with tables of coloured wools and a sheet of test-types. Daae's table of coloured wools is actually given; the wools of Holmgren are, of course, described only. The directions for using the test-types are necessarily imperfect as a means of detecting errors of refraction. For example, a person making examinations by the light of them alone would detect a small percentage only of the cases of astigmatism. Hypermetropia of high degree might be recorded as myopia, and more often as amblyopia. Such errors must be inevitable when the attempt is made to condense knowledge into so small a compass. Statistics on the questions treated of are highly desirable, and the results of the attempt of the Anthropometric Committee of the British Association for the Advancement of Science, for whom the work has been arranged by the author, will be looked forward to with much interest.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, JULY 30TH, 1881.

THE WOUND OF THE PRESIDENT OF THE UNITED STATES.

AN interruption to the even progress of the President of the United States toward a state of convalescence occurred on the 22nd inst., and is reported at first to have occasioned rather widespread anxiety. The relapse seems, however, to have been entirely due to a temporary obstruction of the purulent discharge from the wound-opening, together with the formation of a purulent depôt in its neighbourhood. Up to the evening of Friday, the 22nd of July, every symptom had continued so favourable that, it is stated, the surgeons in attendance had not only assured the President of their confidence as to his recovery, but also that no permanent ill-effects would result from the injuries to which he had been subjected. The President was so much cheered by this intelligence, and had felt so much better, that he had had an interview with one of the Secretaries of State on public business. Early on the morning of the 23rd, however, there was a rigor, and this occurred after rather a restless night. The chill was followed by increase of temperature, increased frequency of respiration, and acceleration of pulse. At 10 a.m., instead of the nearly normal condition of the previous day, the pulse was reported to be 110, the temperature 101, and the respiration 24. The discharge from the wound had materially lessened. No change of importance in the President's state occurred throughout the day. In the evening the surgeons in attendance were joined by Drs. Agnew and Hamilton; but, as the President was sleeping at the time of their arrival, it was not thought prudent to disturb him for an examination. Early on the morning of the 24th, a careful inspection of the wound and adjoining parts was made by all the surgeons in attendance, and a collection of matter was then discovered about three inches below the aperture of entrance of the projectile. After consultation, it was determined to make a direct incision down to the abscess for the evacuation of its contents, and for affording a more dependent opening for the future escape of discharges. The operation was immediately performed by Dr. Agnew, and has been succeeded by a sense of relief to the patient and a gradual subsidence of all unfavourable constitutional symptoms. No rigor has subsequently occurred; the indications of fever have all lessened, appetite for food has returned, and comfortable rest has been obtained. A satisfactory discharge of pus has taken place through the new opening. The official report on the morning of the 25th stated that the President's pulse was 96; temperature, 98.4; respiration, 18; and that he was going on favourably. The effects of the relapse seem, therefore, to have passed away.

The description of the incision made for the evacuation of the collection of matter below the wound-opening gives a better insight into the probable nature of the injury than any that has been afforded by the information in previous telegrams. It appears from the facts mentioned regarding the operation that the bullet, after entering, took a direction forward and slightly downward until it struck a rib. As it was originally stated that the opening of entrance was between the tenth and eleventh ribs, it must have been the latter with which it came into collision. On striking the rib it was deflected a little to the right, but still pursued a downward course. On introducing a probe into the wound to a depth of between three and four inches, and pressing the end of it outward toward the surface, the end could be felt apparently about an inch beneath the skin. It was in a direct line with this lower and deeper part of the wound, three inches below the original opening made by the bullet, that the incision was made to reach the purulent depôt. The incision seems to have been made freely, and to have penetrated a little over an inch in depth before reaching the pus cavity. A perforated India-rubber drainage tube was then inserted into the upper opening, drawn through the track, and brought out through the new incision, one end of the tube being left projecting from the opening above, the other from the lower opening. It is stated that the discharge following the opening of the cavity was of an entirely satisfactory character, and that the pus which has since flowed freely away has been healthy in all respects.

The inference from this description is that the bullet never entered the abdomen at all, but that it passed into and is still lodged among the muscles of the back in the lumbar region. The tenor of all the symptoms which have followed the injury seems also to confirm this view of the case. There seems not to be the slightest ground any longer for suspecting the liver to have been involved in the wound. If it be true that the projectile, after striking the rib, was deflected into a path among the spinal muscles, its lodgment among them may give rise to comparatively slight inconvenience. The wound may in time become healed over it, the bullet may become encysted, and, unless excited into causing irritation by undue movement, or casual injury of neighbouring parts, may lie quietly dormant for years. Or, in the process of the suppurative action during the treatment of the wound, the bullet may advance towards the opening with the discharges, be brought into view, and in this way an early opportunity of removing it may be afforded. Considering the nearness of the intended assassin to the President at the time the wound was inflicted, the pistol-bullet, it must be presumed, struck the rib with considerable force; and under these circumstances, inflammatory mischief will probably have been set up in the bone, which may render the healing of the wound a more tedious process than seems to be anticipated. The repair of a rib that has had a gunshot injury, especially if it have been deprived of its fibrous investment, and have happened to be severely contused by the shot, is always a slow matter. But these complications are relatively unimportant when compared with those which must have been anticipated, had the original suppositions regarding the nature of the wound and the course of the projectile been proved to have been well founded.

THE LUNACY LAW AMENDMENT BILL.

THE Lunacy Law Amendment Bill still survives among the possible issues of this session; but, since we last referred to it, as discussed in the second reading before Whitstuntide, it has so completely changed its shape, that it is not easy to recognise Bill 192, Lunacy Law Amendment Bill, amended in committee, as only Bill 56, Mr. Dillwyn's Bill, in another stage of growth. The most important promise of the original Bill was the machinery substituting public for private asylums. In the original Bill, very sweeping and straightforward provisions were made with this object, especially as regards the metropolitan districts. In the debate on the second reading, the Home Office made strong objections to these clauses, on the ground of the expense of buying out the private asylums. From the present Bill, these clauses, providing for the purchase of the private asylums upon equitable terms, have disappeared. The general policy of the Bill remains the same as before—the gradual substitution of public for private asylums; but it is only vaguely intimated. There is no direct proposal to get rid of private asylums, and pay the cost of the change. Clause 10 of the amended Bill, identical with Clause 15 of the former Bill, enables the Commissioners of Lunacy to remove patients from private asylums whenever the patient or a relative makes application; and probably this enabling clause would be sufficient if vigorously applied

to induce proprietors of licensed houses to seek the advantage of Clause 1, which enables the justices "to purchase any licensed houses, with all rights belonging to them in their respective districts, from proprietors willing to sell". Certain results, as we have said, may follow from these clauses, if applied with energy; and perhaps Clause 11 is intended to give the public assurance on this head. There is to be a paid chairman of the Commissioners in Lunacy. This appointment of a State functionary to superintend and be responsible for the work of the Lunacy Commissioners is, no doubt, an important step; and if it is understood that his business is to get rid of the private asylums, probably the proprietors of these establishments will very quickly come to understand that they had better come in under the first clause, and get what they can for their institutions, and thus the end we have always advocated may be attained of substituting State in place of private establishments for the cure of the insane. But in all this it will be observed the result depends upon a long chain of hypotheses. There may be different opinions as to the purpose of the Act should the present Bill become law. Opinions may vary, again, as to the time for applying it, and as to the particular cases to be brought within its operation; and the danger of these delays and qualifications is the greater because the course proposed cannot be pursued directly without great injustice.

The public objection to private asylums is one of principle rather than of detail. It is admitted that excellent work is done in many of these establishments; that, in many of them, capital and scientific knowledge have been applied to the advantage of the community; and any scheme which, without direct notice, without any guarantee of compensation, simply gives the Government, if it be so minded, the power of squeezing these institutions out of existence, is a mode of doing good by stealth which will not commend itself to the confidence of the country. It is worthy of note that, whilst the Bill offers this vague possibility of good, the provision for appointing a responsible medical visitor for each district has been struck out. We do not know how far the Home Office is responsible for the shape the Bill has now assumed; but when, in May, that department objected to the original scheme, their opposition was mainly founded on the ground of expense, and the Committee who have adopted the present scheme would seem to have carried deference to this objection so far as to run great risk of sacrificing the original object proposed. Although delay at this period of the session seriously diminishes the chances of legislation, we cannot regret that the Bill, in its present shape, has been sent back for further consideration in committee.

THE FORMATION OF CALLUS.

THE mode of union of a fractured bone has been a fertile and contradictory source of study, both by surgeons and by physiologists; and it is only recently, with the improved methods of histological research, that definite ideas regarding the *rôle* of the individual tissue-elements in the reparative process have been obtained. Duhamel regarded the periosteum as playing an important part; whilst he ascribed a secondary *rôle* to the marrow. He foreshadowed the researches of Ollier, for he noticed that it was the deep layer of the periosteum which was the important part; and he compared the mode of regeneration of bone to that of layers of woody tissue formed by the cambium in plants. Dupuytren regarded both the periosteum and the adjoining soft parts as concerned in the formation of callus; first, a provisional callus was formed; the marrow being transformed into a kind of osseous cork or plug, uniting the two fragments; whilst the periosteum and adjoining parts formed an osseous crust, which adhered to and united the two fragments. After several months, the medullary cavity became re-established, the osseous crust was absorbed; and, when the process was complete, the permanent callus was formed. Cruveilhier agreed in the main with these results, but he was of opinion that there was only one callus, spongy at first, and then compact. Heine of Würzburg showed that, if an entire bone were removed, provided the periosteum were retained, it would be reproduced. We owe one of the best and most exact descriptions of what occurs to Ranvier. A cartilaginous callus is certainly formed—not from bone, but from the soft parts in and around the bone; and by the ossification of this cartilage, new bone is produced.

The formation of callus has recently been investigated in a very thorough manner by MM. Rigal and Vignal. The animals employed were rats, guinea-pigs, and rabbits. These investigations were conducted in the only satisfactory way, viz., by making a series of fractures of a bone, usually the middle third of the tibia of rats, and then killing the animals at definite periods, and subjecting the injured parts to a complete microscopic examination. In simple fractures, investigations were made from the first day to the sixth and sixteenth months after the fracture, but usually little change was observed after the sixth month.

In simple fractures, they divide the formation of callus into several stages: the first, or traumatic stage, lasts about seven days, when the preliminary phases of regeneration occur; the second, the reparative stage proper, from the seventh to the twenty-fifth day; and the third, or period of definite organisation, may last months, or even years. During the first stage, the muscles in the neighbourhood of the injury are infiltrated with exudation; the ends of the bones lie in a mixture of lymph-cells, blood-corpuscles, and blood-pigment. At the end of this stage, all the products of hæmorrhage have disappeared, the muscular fibres are dissociated by an infiltration of leucocytes and proliferation of the intramuscular connective tissue; the periosteum is covered on both surfaces with round cellular elements; the bone is bare, and its broken ends are vascular; the marrow escapes, and blends with the elements found amongst the muscles. The periosteum, although swollen up and infiltrated with leucocytes, does not disappear; the marrow becomes embryonic, the fat-cells disappear, many connective tissue-cells and blood-vessels are developed in it, and the muscles show traces of fatty degeneration. The second stage (seventh to twenty-fifth day) corresponds to the period of provisional callus. The mobility of the fragments is diminished. On the fourteenth day, the periosteum is detached, and beneath it is a grey resistent mass, impregnated at certain points with lime-salts; this is a mass of embryonic cartilage, which envelopes the extremities of the bones like a fusiform muff. The Haversian canals of the bone are dilated from ostitis; the cells lining them proliferate. The ostitis is most marked at the seat of fracture, and one may sometimes observe the blood-vessels of the Haversian canals surrounded with medullary cells, eating their way into the peripheral cartilaginous callus. The marrow has become fibrous. Even at the tenth or twelfth day, the muscular fibres next the fracture have disappeared, owing to the proliferation of the intramuscular connective tissue; the periosteum has regained its fibrous appearance, but it is hypertrophied, and the subperiosteal layer of osteoblasts has proliferated to a considerable extent. On the fifteenth day, the cartilage is invaded at its upper and lower ends by a process of ossification exactly similar to what takes place normally, with this exception, that the cartilage-cells are not arranged in rows. This ossification takes place at several points at once by the outgrowth of vascular granulations from the Haversian canals. In this way, the cartilage gradually becomes transformed into bone in the usual manner; so that, on the twentieth day, the union between the ends of the bone is almost perfect, by means of the provisional callus, which is almost completely converted into bone. In the third stage, which corresponds to the formation of the definitive callus, even on the thirtieth to the thirty-fifth day, the new bone is fairly compact, and its spaces are filled with red marrow; gradually the spaces again enlarge, and the marrow becomes yellow (fatty); the central mass which connects the fractured ends is absorbed in the same manner, as in normal growing bone, the Haversian canals becoming greatly dilated; and gradually this absorption goes on, until, at the end of six months, in the rat, it is impossible to tell the position of the fracture.

In compound fractures, the same general phenomena are to be observed in the early stages, only they are more intense; and the tissues in and, to a greater extent, around the wound are infiltrated with leucocytes

and pus-corpuscles, and the marrow communicates with the seat of suppuration. The second stage is very variable in duration, according to the amount of suppuration; all the tissues are greatly infiltrated with leucocytes; the soft layers which surround the mobile ends of the bones are permeated with vascular granulations, chiefly derived from the blood-vessels in the dilated Haversian canals, although some of them are outgrowths of the blood-vessels of the marrow. New bone begins to be formed in a way as not yet understood, on the margins of the lacunæ, eaten out by the ostitis; spicules of bone grow out between the vascular granulations, and soon unite with each other; they become more numerous, and rapidly occupy the space between the ends of the bone, as the suppuration diminishes, whilst similar phenomena occur within the medullary cavity. Thus a peripheral callus and a central plug of bone are formed, which are very spongy. The third stage, in which absorption takes place, is exactly the same as in a simple fracture. No cartilaginous callus seems to be formed in these cases, while a few instances were met with where a small amount of cartilage was formed. These were cases where the cartilage was formed before suppuration set in. One of the most remarkable results is the formation of the cartilage under the periosteum; it certainly seems to have no connection with the bone, and as yet it is impossible to say from which tissue it is formed. It would be interesting to know whether, in a compound fracture treated antiseptically, and where no suppuration or putrefaction has occurred, a cartilaginous subperiosteal callus is produced; and whether, under these circumstances, the march of physiological events, as revealed by microscopic examination, is exactly the same as in a simple fracture. MM. Rigal and Vignal record one case of a compound fracture where the wound healed without suppuration. The animal (rat) was sacrificed on the twelfth day, when callus, formed with the aid of cartilage, was found. We look forward with pleasure to the appearance of the second part of this memoir dealing with false joints.

CADAVERIC ALKALOIDS.

THE very serious question, from the medico-legal point of view, of the spontaneous development of cadaveric alkaloids and their toxic power, was first raised by M. Selmi of Bologna. After many vicissitudes of alternate favour and discredit, this subject has been revived in France by the researches of MM. Brouardel and Boutmy, in Germany by those of M. Husemann, and in Italy by the *résumé* of all the information on the subject recently published by the original discoverer, M. Selmi. These researches are succinctly summarised in the *Gazette Hebdomadaire*, and their results given in a concise form as follows. Last year, at the congress of Rheims, M. Boutmy read, in his own and M. Brouardel's name, a paper which excited much attention, and in which the joint authors, after having shown that the existence of cadaveric alkalies has been erroneously contested, insisted on the toxic properties of ptomaines, pointing out that the activity of some of these substances is in no degree inferior to that of the strongest poisons. They demonstrated that there are many distinct ptomaines, each showing special chemical and physiological characteristics; and noted the following fact, of which the importance is clear: that one of these ptomaines, extracted from a corpse which had been eighteen months in the Seine, had all the properties of veratrine. Since the time they read this paper, its authors have followed up their researches by devoting themselves to the determination of the differences, either chemical or toxological, which might prevent the confusion between the poisons formed by putrefaction and the venomous substances absorbed during life.

One of the first results of their labours is a paper presented to the Académie de Médecine on May 10th, in which they point out the property of the ptomaines to bring back the ferrocyanide of potassium to the condition of ferrocyanide, which is capable of forming Prussian blue with, for instance, the chlorides of iron. The same reagents, however, in presence of *pure* alkaloids or extracts from a corpse after putrefaction, do not undergo any change. These researches are being continued, and doubtless new facts will corroborate the facts already obtained. MM. Bergeron and l'Hôte, who have been studying the toxic effects of amylic alcohol, point out that, this alcohol being employed in the extraction of ptomaines, it becomes a question whether the toxic action of these alkaloids may not be partly due to amylic alcohol, frequently mixed with butylic alcohol, used to extract them. MM. Brouardel and Boutmy, however, state that they have not fallen into the probable cause of error here pointed out. Husemann (*Les Ptomaïnes et leur Signification en Chimie Légale et en Toxicologie*) has taken up the study of ptomaines from another point of view. He has felt doubtful whether these substances may not account for the poisonings by alimentary substances and putrid infections. The researches of Hoppe-Seyler, Schmidt, Schmiedeberg, and Panum have shown, in alimentary substances in a state of putrefaction, the presence of alkaloids analogous to ptomaïnes (Schmidt's and Schmiedeberg's sepsine and Panum's putrid poison). Huseman concludes that, as a matter of fact, the majority of the accidents observed in persons who had partaken of food in a state of commencing putrefaction are to be imputed to these alkaloids, which are of similar constitution to ptomaines (Schmidt's *Jahrbücher*, 1880). M. Selmi, in his recent work on the subject (*Les Ptomaines, les Alcaloïdes Cadavériques, et le Produit Analytique de certains Maladies, et leurs Rapports avec la Médecine Légale*) has collected his former researches on ptomaïnes and the method of distinguishing them from the true alkaloids, and has added a paper on the technical method of extracting ptomaïnes, and on the chemical differences which differentiate them from colouring and resinous matters. An interesting paper relating to the toxic effects produced by the extractive substances obtained from the urine of certain patients will also be found in this volume.

THE inaugural address of the Midland Medical Society for the session 1881-2 will be delivered by Dr. Clifford Allbutt of Leeds.

Dr. MANDL, the well known pioneer of laryngoscopy in France has lately died.

THE illustrious botanist and physiologist, Professor Schleiden of Frankfort, is dead.

In consequence of the Medical Congress, the library of the Obstetrical Society will remain open until August 10th, when it will be closed until September 12th.

SIR RICHARD WALLACE has contributed £500 towards the extension of the diet system of the order of St. John of Jerusalem among hospital convalescents.

THE editing of the Viennese *Year-Book* has, since the decease of its former editor, Professor Heschl, been confided by the Medical Society of Vienna to Professors Albert and Ludwig.

THE Bradshaw Lecture at the Royal College of Physicians of London will be delivered by Dr. Poore, on Thursday, August 18th, 1881, at 5 o'clock. The subject will be, "Nervous Affections of the Hand".

IN the University of Berlin, the following have been accepted as [illegible] in their respective subjects. Dr. Berger: Special Pathology and Therapeutics; Heter: Physiological Chemistry; Lewin: Pharmacology; and Lesser: Medical Jurisprudence.

WE regret to note that another French medical man has fallen a victim to diphtheria, contracted in the course of his duties at the Paris Children's Hospitals. M. Henry Cloez, a [illegible] last week at the age of twenty-nine. He was one of the [illegible] students of the Paris Faculty of Medicine, and was [illegible] at the hospital when he contracted the fatal disease, which terminated [illegible]

DR. BRYK, Professor of Surgery in the University of Cracow, has lately died, at the age of 62.

DR. GAILLARD THOMAS has resigned the chair of Obstetrics in the College of Physicians and Surgeons of New York, and has been appointed emeritus professor. He is succeeded by Dr. P. F. Munde.

MR. VERHYDEN has been commissioned to execute a medallion portrait in marble of the late Surgeon-Major Joshua Porter, to be placed by his brother-officers as a memorial tablet in the Royal Chapel, Netley Hospital.

THERE will be a clinical morning for rare cases of skin-diseases in the Skin-Section of the International Medical Congress on Saturday, August 6th, commencing at 10 A.M. Gentlemen are invited to communicate with Dr. Thin, 22, Queen Anne Street, W., as soon as possible, their intention to demonstrate rare cases of skin-disease.

TUESDAY, August 2nd, is Founder's Day at Epsom College. The proceedings will commence with a service in the chapel at 1.30; after which refreshments will be served in the dining-hall at 2.30; and speeches and distribution of prizes will take place in the schoolroom at 3.45.

AT a recent meeting of the Medical College of Professors in Vienna, Professors Arnold of Heidelberg, Kundrat of Graz, and Eppinger of Prague, were nominated, by a majority of ten to six, as candidates for the Chair of Pathology in the University, vacant by the death of Professor Heschl. The minority, led by Professor Arlt, nominated Professor Klebs of Prague, and Dr. Chiari.—Dr. Leopold Königstein has been appointed a *privat-docent* in Ophthalmic Surgery in the University, and Dr. Pawlik in Obstetrics and Gynæcology.

THE so-called magnetiser Hansen, whose biological and heptonical *séances* before the Medical Societies of Austria and Prussia have caused much interest, and have been investigated by the local medical societies, has been prohibited from giving public *séances*, on the ground that his displays are of a physiological character likely to be injurious to the persons acting as mediums.

MR. DODSON has arranged to receive a deputation from the medical officers of health, the Social Science Association, and the Parliamentary Bills Committee of the British Medical Association, on the subject of the tenure of office of medical officers of health. The time at which the deputation is fixed is Thursday next, August 4th, at 2.30, at the Local Government Board.

A REGISTER is open at the College of Physicians of members of the International Medical Congress proposing to entertain visitors at dinner, and willing to receive a certain number of guests recommended by the Reception Committee. Any one who wishes to put such invitations at the disposal of the Committee, is requested to be so good as to forward to the General Secretary, at the College of Physicians, the details of the day and hour of the proposed entertainment, and the number of vacant places, and with this to send at once a corresponding number of blank invitation-cards.

VACCINATION seems to be making headway in China but very gradually. In the district of Saigon, vaccination was introduced as early as 1867; but the early results were not happy, principally on account of the ignorance of the natives, and the influence of those hostile to any innovation of the French, such as native doctors, notables, priests, etc. Gradually, however, most of the opposition has been conquered; but a smart epidemic of small-pox would seem to be required before the natives can be roused from their lethargy with regard to it.

THE French hospital at Suez continues to render valuable service to the British community. Of twenty persons treated there in the course of last year, ten were male adult British subjects, mostly seamen; and two were women with eight children suffering from scarlet fever, who were handed over from Her Majesty's troopships. Two of the men died, but all the other patients recovered. The British Consul reports that, without exception, the patients spoke in the highest terms of the attention and the kind treatment which they had received in the institution.

WE are requested to state that the Consumption Hospital, Brompton, will be open on Thursday, August 4th, at 2 P.M., to members of the International Medical Congress; and the Committee of Management and physicians will be present to receive visitors and conduct them over the new hospital, where there are 137 beds, and show the various new appliances for the treatment of chest-diseases. Admission will be by tickets, which will be sent to members on arrival in London. Arrangements are also being made by several of the other hospitals in London, in which the members are likely to be interested according to their special studies; and such arrangements should be communicated to, and will be made known by, the presidents of the various sections particularly concerned.

THE BROWN INSTITUTE.

AT a meeting of the Senate of the University of London held on Wednesday, the 27th instant, Dr. Charles Smart Roy, who had been recommended by the Committee of the Brown Institute for the office of Professor Superintendent, was formally appointed.

THE INTERNATIONAL MEDICAL CONGRESS.

THE finishing touch is being given this week to the arrangements for the International Medical Congress, which commences officially on Tuesday next with a formal reception at the College of Physicians. We have already published the programme of the Congress, and its outline of intended daily proceedings. We need, therefore, only this week remind medical men that those gentlemen who intend to take part in the Congress will greatly facilitate the necessarily very heavy nature of the work devolving on Mr. Wm. Mac Cormac, the honorary secretary-general, and the organising committees generally, if they will, as soon as possible before the opening of the Congress, inscribe their names at the College, and so to lessen the pressure which will necessarily take place on the first day or two. It is, we feel sure, unnecessary to indicate the desirabillty on the part of British members of a certain forbearance in pressing any personal claims, so far as they militate against prior claims of foreign professional guests and visitors. It has always been the rule with members of the medical profession to exercise such forbearance.

GENERAL MEDICAL COUNCIL.

A MEETING of the Executive Committee of the General Medical Council was held on Thursday, July 28th, for the transaction of routine business. Applications for the readmission of twenty-two practitioners whose names had been struck off the *Register*, in conformity with Section 14 of the Medical Aet, were read and considered. Communications were received and dealt with in reference to preliminary examinations; as also respecting certain practitioners who had been accused of professional misconduct; and on other business.

THE CHILDREN'S HOSPITAL, BRIGHTON.

THE new children's hospital, of which the foundation stone was only laid eighteen months ago, and which was opened by Royalty last week, may be said to deserve the honour given to it. It is a handsome and complete building, in Queen Anne style, of red brick with terra cotta dressings, and is well placed in wooded grounds on the top of the Montpelier Hill. Besides the usual offices, there are three large wards (60 feet by 20 feet), calculated for twenty beds each; a supplementary ward, which will hold twenty; and another, ten more. The large wards are built one over the other, forming one wing of the building, open on three sides to the air; at the corners are octagonal towers (with intervening cross-draught), which contain baths and closets (Bostel's) and ventilating apparatus. The walls of the wards are lined with Mycenian marble, non-absorptive and highly polished, violet-veined above, with a dark-green dado below; the bed-coverlets and

carpet-strips are red, so that a cheerful- not to say æsthetic—appearance results. In the second ward the colours are different, for the oak floor is laid on concrete and asphalte, and the windows are fitted with Elsley's patent lever fasteners, opening several small sections of window upwards. A dozen Tobin's tubes admit fresh air; and Boyle's self-acting air-pumps remove vitiated air through flues constructed in the walls. Dugg's burners are fitted to the gas-chandeliers. The stoves are central and ornamental, and connected with descending shafts. Soiled linen is removed through a trap communicating with iron tubes outside the building, down which it falls for direct conveyance to the laundry. Keen's cement is used for the walls of some rooms; ordinary plastering, distempered with Morse's calcarum, for the passages. In brief, all modern improvements are introduced, and the general effect is exceedingly good, and most gratifying and creditable to the building committee, and others responsible for it. The Prince of Wales, who opened the hospital, expressed himself much pleased, and was interested in the details given to him by Dr. Taaffe in the walk round. The Princess inquired what was the matter with the different little patients, and listened to some details of cases given by Dr. Whittle. Her Royal Highness distributed to most of the children a bouquet of flowers presented to her, the Prince especially noting that a sleeping child would be disappointed if it found none on its bed. The Princesses were interested, but rather retiring. After the inspection and refreshment, the Royal party met a brilliant gathering of residents and visitors assembled in a large marquee on the lawn. An address was presented by Mr. Bonall, and a golden key by Dr. Taaffe. In a few gracious words the Prince expressed pleasure and thanks, and "declared the hospital open". The Bishop of Chichester then offered prayer; and afterwards the Princess received purses. Upwards of £500 was thus given, Sir A. Sassoon and Mrs. Carr Burton leading off with 100 guineas each. The Royal party then signed their names on a memorial scroll, and the actual object of the visit was accomplished. Before leaving, permission was asked to re-name the hospital, "The Royal Alexandra Hospital for Sick Children, Brighton", and was at once and cordially given. It need scarcely be said that the drive through the streets was a continuous triumph. The whole visit was a very great success; and the Prince and Princess, by their kind and courteous interest in this and other charitable institutions, certainly add strong links to the chain of popular regard and affection.

EXCESSIVE TEMPERATURES IN ENGLAND.

MR. PRINCE says, in the *Times* of July 19th, that a general impression prevails that Friday, the 15th, was the hottest day ever known in England, and proceeds to state that, whilst he recorded only 91.5° at Uckfield, Sussex, on the 15th, he observed the singularly high temperature of 98° on July 14th, 1847. From this it might be supposed that the last named day was hotter than the 15th. A comparison, however, of several stations makes this doubtful; for, although Mr. Prince only recorded 91.5° on the 15th, many others met with higher temperatures. Thus, Mr. Symonds, at Camden Square, recorded 94.6°; Dr. Tripe, at Hackney, 94°; Mr. Stewart, 98°; Mr. Gwilliam, Bayswater, 93.4°; at Greenwich Observatory, 97.1°; at Chatham, 95°; at Dover, 94°; and at Wimbledon, 97° were recorded. At Chobham, the following temperatures have been registered; viz., on July 17th, 1834, 98°; on July 27th, 1835, 96°; on July 5th, 1836, 96°; on August 10th, 1842, 98°; and on July 24th, 1844, 96°. On July 14th, 1847, when the highest ever recorded by Mr. Prince was observed, the maximum temperature was only 93° at Chobham. It is therefore evident that, to arrive at a sound conclusion as to the hottest day in England, a large number of records must be compared. At the Royal Observatory, Greenwich, the following were noted: On July 22nd, 1868, 96.6°; on June 16th, 1858, 94.5°; July 17th, 1876, 94°; and on August 14th, 1870, 93.8. The temperature at Camden Town was not so high on any of these occasions as at Greenwich; but it was 1.3° higher at Camden Town on the 15th instant than in 1868, and it was 0.5° higher at Greenwich. It is, therefore, probable that the 15th, if not the hottest day during this century, very nearly approached it. By the hottest day is meant the day on which the highest (absolute) temperature was attained. It is, however, almost certain that the mean temperature was higher on the 15th than on any other day during the present century, as it was 79.5° at Greenwich, against 77.9° on July 22nd, 1868, and 72.8° on July 13th and 14th, 1847. The highest mean temperature recorded in July since 1814 was 79.2° on the 24th day in 1818; so that the mean temperature of the 15th was the highest recorded since 1814 at Greenwich. The mean temperature of the hottest day in June since 1814 was 76.1° in 1818; and in August, 75.5° in 1867. On July 14th, 1834, when the highest temperature was recorded at Chobham, the mean at Greenwich was 76.7°, or 2.8° below that of the 15th instant. We have not records handy of dates previous to 1814, and therefore only refer to 1814 and subsequent years.

SOCIAL SCIENCE ASSOCIATION.

THE annual business meeting of the members, was held on July 20th at the rooms of the Association, in Adam Street, Lord Denman presiding. A long report from the council, detailing the work of different departments, was submitted and ordered to be received. Lord O'Hagan was elected President of the Association for the ensuing year, and the retiring President (Lord Reay) was elected a permanent Vice-President. The nomination of the Right Hon. J. T. Ball, LL.D., and of Lord Powerscourt, as Presidents of the Jurisprudence and Art Departments, were confirmed. Mr. Hastings, M.P., was re-elected President of the Council, and other officials and the standing committees of the Association were appointed. The Congress will be held at Dublin from Monday, October 3rd, to Saturday, October 8th; and the Board of Trinity College have granted the use of their buildings for the purposes of the meeting, which, it is believed, will be largely attended. The following will be the special questions in the Health Department. 1. Is it desirable that hospitals should be placed under State supervision? 2. Is it *(a)* desirable that there should be a system of compulsory notification of infectious diseases; and, if so *(b)*, what is the best method of carrying such a system into effect; and *(c)* what is the best mode of enforcing the isolation of cases of infectious disease? 3. Is any further legislation desirable in order to more effectually prevent the overcrowding of dwelling-houses?

A CONVALESCENT HOME FOR CHILDREN.

A CONVALESCENT home for children of the better class, and a limited number of ladies, was opened on Wednesday, the 27th instant, at Hayward's Heath. The lady-superintendent has had considerable experience in the care of children, and is well recommended. The home is delightfully situated, in what may be considered, without any exaggeration, one of the most healthy places in England. The soil is sandy, free from moisture; the air is bracing without being keen. It is within easy distance of Brighton, and the home itself is close by the Hayward's Heath railway-station on the London and Brighton main line. The mortality of the district is remarkably low. As will be seen from the advertisement columns, the terms are barely self-supporting. Altogether, such a home as this is a most welcome addition to the many convalescent homes already established; and we feel sure it will prove a great boon to many a poor sufferer whose friends cannot afford to pay much, and who do not like their little ones to be associated with others of an inferior class in life. The honorary physician, Dr. Newth of Hayward's Heath, in drawing our attention to this home—of which he has, owing to his time being much occupied, reluctantly accepted charge—expresses a strong conviction of the *bona fides* and the usefulness of the undertaking.

DEATHS FROM HEAT-APOPLEXY.

THE hot period which set in on the 11th instant lasted nine days, and ended on Tuesday, the 19th; the mean temperature of these nine days was equal to 71.9 at the Royal Observatory, Greenwich, and exceeded the average for the corresponding period by 8.6°. Under the influence of this heat, the fatal cases of [illegible] which had been 5,

135, and 292 in the three preceding weeks, further rose to 449 last week, and exceeded the average by 198; they included 300 of infants under one year of age, and 60 of children aged between one and five years. The largest proportional fatality of the disease again occurred in the East group of registration districts. The deaths of 9 children and of 4 adults were referred to simple cholera or choleraic diarrhœa.

THE HARVEY MEMORIAL.

THE arrangements connected with the unveiling of the statue of Harvey at Folkestone, on Saturday next, by Professor Owen, are now nearly completed. A large company is expected to assemble on the occasion, amongst whom are the following: Dr. Rees, Dr. Sieveking, Dr. Duckworth, Mr. Erichsen, Professor G. E. Paget, Mr. John Simon, Mr. Mitchell Henry, M.P., Dr. J. T. Banks (Dublin), Dr. G. H. Philipson (Newcastle), Professor W. Moore (Dublin), Dr. Klein, Dr. A. Gamgee, Professor Struthers (Aberdeen), Professor T. Stoker (Dublin), Sir E. Watkin, Bart., M.P., Dr. Talfourd Jones, Dr. S. Gordon (Dublin), Professor Macalister (Dublin), Professor H. W. Acland, Mr. H. Power, Mr. J. Gay, Mr. Ernest Hart, Professor Rutherford (Edinburgh), Dr. C. West, Dr. Littlejohn (Edinburgh), Dr. Bastian, Dr. W. J. Little, Dr. W. H. Broadbent, Dr. J. G. Glover, Dr. R. W. Reid, and a large number of foreign physicians and surgeons. A small bust of the much-admired head of the statue is now on view in the western gallery of the Sanitary Exhibition at South Kensington, and can be had either in terra cotta or in imitation bronze. A reduction of the whole statue is also contemplated by the sculptor, Mr. A. B. Joy, and will be completed if a sufficient number of subscribers should order it. The names of intending purchasers can be entered at a stand near the busts in the western gallery of the Sanitary Exhibition.

QUEEN'S COLLEGE, BIRMINGHAM: INGLEBY LECTURES.

DR. SAVAGE, senior surgeon to the Birmingham Hospital for Women, has been appointed by the Council of the College, Ingleby Lecturer for the present year, and he will deliver his course in the theatre of the College next November. The lectures are open to the profession, and their subject is limited, by the terms of Dr. Ingleby's bequests, to some questions in obstetrics, gynæcology, or pædiatrics.

THE ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS.

THE fifty-fourth meeting of this Association will take place this year at Salzburg, beginning on the 18th September, and ending on the 24th. The sections are arranged as follows. Physics and Meteorology: *President*, Professor Sacher; *Secretary*, Professor Kunz. Chemistry: *President*, Dr. Spängler; *Secretary*, Herr von Angermeyer. Mineralogy, Geology, and Palæontology: *President*, Professor Fugger. Anthropology (prehistoric): *President*, Professor Vogt; *Secretary*, Herr Schlein. Geography and Ethnology: *President*, Professor Richter; *Secretary*, Herr von Posselt-Czorich. Botany: *President*, Professor Kastner; *Secretary*, Herr Hinterhuper. Zoology and Comparative Anatomy: *President*, Professor Simon; *Secretary*, Herr Wachner. Entomology: *President*, Herr Seidl; *Secretary*, Herr Hanstein. Anatomy and Physiology: *President*, Dr. Aberle. Anatomical and General Pathology: *President*, Dr. Göttinger; *Secretary*, Dr. Rieschner. Diseases of the Internal Organs and Skin-diseases: *President*, Dr. Pöll. Surgery: *President*, Dr. Minnich; *Secretary*, Dr. Stühlinger. Gynæcology: *President*, Professor Kuhn; *Secretary*, Dr. Lang. Psychology and Neurology: *President*, Dr. Zillner; *Secretary*, Dr. Zillner, junior. Diseases of Children: *President*, Dr. Sieber; *Secretary*, Dr. Reisenberger. Ophthalmic Surgery: *President*, Dr. Kerschbaumer; *Secretary*, Dr. Führer. Diseases of the Larynx, Ear, and Nose: *President*, Dr. Halbeis; *Secretary*, Dr. Hahn. Sanitary and Forensic Medicine: *President*, Dr. Faistauer; *Secretary*, Dr. Sacher. Military Surgery: *President*, Staff-Surgeon Dr. Fischer; *Secretary*, Regimental-Surgeon Dr. Hruby. There are other sections, of less immediate interest to our readers. The programme of the proceedings is as follows. On Saturday, September 17th, a *conversazione* will be given in the Curhaus. The first general meeting will be held on Sunday, the 18th, at 10 o'clock in the morning; the address will be given by Dr. Güntner. The second general meeting will be held on the 21st September. Several excursions, concerts, and similar attractive *réunions* will be provided for the guests. For further information, communications must be addressed, "Geschäftsführung der 54 Versammlung Deutscher Naturforscher und Aerzte"; and for special sections, address to the Committee of the section required. Medical men are cordially invited to take part in the Congress.

THE LINACRE PROFESSORSHIP IN OXFORD.

PROFESSOR HUXLEY and Professor W. H. Flower, of the Royal College of Surgeons, have in turn been spoken of as probable successors to the late Professor Rolleston in the Linacre Chair of Anatomy and Physiology. There was never, however, we are informed, any ground for connecting Professor Huxley's name with this chair as being in any way likely to accept it; his other engagements and his metropolitan position being too important to allow him to entertain the idea of relinquishing them for a Chair at Oxford, however distinguished. Many of Professor Flower's friends were extremely anxious that he should intimate his willingness to accept the appointment, for which he undoubtedly possesses the highest qualifications, both personal and scientific. But similar considerations have, we learn, induced Mr. Flower definitely to decline entertaining the idea. The most prominent candidate now spoken of is Mr. Moseley, F.R.S., Fellow of Exeter College, Oxford, and the present Assistant-Registrar of the University of London. Mr. Moseley is popularly well known through his work in the *Challenger* expedition; but, above and beyond this, he possesses in the highest degree the confidence and esteem of anatomists and zoologists throughout Europe. His original works on the *Land Planarians*, on *Peripatus*, and on the *Stylastian* and other corals, are all extremely original and important: epoch-marking works in their subjects. Mr. Moseley is a thorough physiologist as well as zoologist and anatomist; and his personal qualities, as well as his University connections, give him special claims, and point him out as being specially adapted for the appointment.

BOYLSTON MEDICAL PRIZE QUESTIONS.

THE Boylston Medical Committee, appointed by the President and Fellows of Harvard University, consists of the following physicians: D. H. Storer, M.D.; Morrill Wyman, M.D.; Henry J. Bigelow, M.D.; Richard M. Hodges, M.D.; Calvin Ellis, M.D.; Samuel Cabot, M.D. The following are the questions proposed for 1882: 1. Sewer-Gas, so-called (the gas found in sewers): What are its Physiological and Pathological Effects on Animals and Plants? An Experimental Inquiry. The author of a dissertation on the above subject, considered worthy of a prize, will be entitled to a premium of three hundred doliars. 2. The Therapeutic Value of Food, administered against, or beyond, the Patient's Appetite and Inclination. The author of a dissertation on the above subject, considered worthy of a prize, will be entitled to a premium of two hundred dollars. The following are the questions proposed for 1883: 1. Measles; German Measles; and their Counterfeits. 2. The Differential Diagnosis of Abdominal Tumours; especially those connected with the Genito-Urinary Organs. The author of a dissertation, considered worthy of a prize, on either of the subjects proposed for 1883, will be entitled to a premium of two hundred dollars. Each dissertation must be accompanied by a sealed packet, on which shall be written some device or sentence, and within which shall be enclosed the author's name and residence. The same device or sentence is to be written on the dissertation to which the packet is attached. The writer of each dissertation is expected to transmit his communication to the President of the Committee, D. H. Storer, M.D., 182, Boylston Street, Boston, Massachusetts, in a distinct and plain handwriting, and with the pages bound in book form. The dissertations for 1882 must be received on or before the first Wednesday in April 1882; and those for 1883 on or before the first Wednesday

TONGA,

A SPECIFIC FOR NEURALGIA.

TONGA is the name given to a remedy for Neuralgia, which was first introduced to us during the summer of 1879. On submitting it to a trial, it was at once found by competent medical authorities to possess most remarkable power in relieving Neuralgic pains. The following extracts from papers in *The Lancet* will sufficiently testify to the great value of this remedy:

"A woman, aged twenty-three, had suffered for fourteen days from severe neuralgia of the infra-orbital and great occipital nerves. She had four severe paroxysms in the day, lasting from half-an-hour to an hour and a-half. Many of her teeth were bad. Three doses cured her.

"A woman suffered from neuralgia in the left great occipital nerve. Four half-drachm doses cured her.

"A man, aged twenty-five, had suffered for a fortnight from severe bilateral neuralgia in the temples, in the eyes, and under the eyes. Half-a-drachm dose thrice daily cured him in three days.

"A woman, aged twenty, for ten days had suffered from severe neuralgia in the first and third branch of the fifth nerve. She had daily about five paroxysms, each lasting from one to two hours. A drachm thrice daily cured her in three days.

"A girl, aged eighteen, suffered from toothache and severe neuralgia along the lower jaw, and in front and behind the ear. Half a drachm cured the neuralgia in twenty-four hours.

"This remedy, whilst apparently highly useful in neuralgia, produces no toxic symptons."—From a Paper by **SYDNEY RINGER, M.D.,** and **WILLIAM MURRELL, M.D., M.R.C.P.,** in *The Lancet*, March 6th, 1880.

"The results obtained from Tonga by Drs. Ringer and Murrell fully coincide with mine. I have notes of cases of brain and kidney disease in which Tonga alone succeeded in removing pain. All cases of neuralgia supra- and infra-orbital branches of the fifth nerve), with swelling of the temporal veins during the attack, were benefited. In these a teaspoonful in half a tumbler of water, and two or three more at an interval of half-an-hour, until the pain subsided, were given." From a Paper by **C. BADER,** OPHTHALMIC SURGEON TO GUY'S HOSPITAL, in *The Lancet*, March 20, 1880.

"W. H——, aged thirty-one, had been suffering from most severe neuralgia in the right superior maxillary division of the fifth pair of nerves for nearly ten days. The neuralgic pains darting over the lower eyelid, the cheek, the upper lip, and side of the nose, the paroxysms lasting from ten minutes to half-an-hour; occurring from six to eight times in the twenty-four hours. The teeth in both the upper and lower jaw were in a very decayed condition. One teaspoonful of Tonga was ordered to be taken in half a wineglassful of water every six hours, till the pain was relieved. The paroxysms entirely ceased after the *fourth* dose.

"A woman, aged twenty-nine, in a very weak, anæmic state, with inflamed axillary glands, had suffered from supra-orbital neuralgia for six or seven days. She was ordered one teaspoonful three times a day. The paroxysms ceased, and did not return after the fifth dose had been taken.

"Wm. P——, aged thirty-two, had suffered greatly from neuralgia for nearly two years. The patient had been under my notice for nearly a year and a-half, and during that time attacks incapacitating him from following his occupation were of frequent occurrence. He was ordered one teaspoonful in water three times a day. The pain very much decreased after the fourth dose, and entirely ceased after the sixth dose had been taken. In my case-book I find the following note on April 15th on this case: 'Had another bad attack, though less severe than the last. The neuralgic pain entirely disappeared after the third dose.'" From a Paper by **W. J. H. LUSH, M.D., F.R.C.P.Ed., M.R.C.S.E.**, etc., *The Lancet*, May 29th, 1880.

We have also had further abundant testimony, both from the profession and the public, of the remarkable efficacy of TONGA.

TONGA, unlike Opium and other anodynes, produces its remarkable specific action on the nerves without giving rise to any derangement of the digestive or other organs.

DOSE.—From half to one teaspoonful in water three times a day. Relief generally follows the third or fourth dose. N.B.—No ill effects follow from larger doses.

TONGA is sold only in bottles at 4s. 6d. and 11s. each, and may be obtained through any chemist, or from us, the Sole Consignees and Manufacturers,

ALLEN & HANBURYS, PLOUGH COURT, LOMBARD ST., LONDON, E.C.

Agents for India—Smith, Stanistreet, & Co., Calcutta.
" Canada—H. Sugden, Evans, & Co., Montreal.
" United States of America—W. H. Schieffelin & o., New York.
Agents for Germany and Austria—E. Merck, Darmstadt.
" Switzerland—Ed. Schaer, Apoth. z. Hammerstein, Zurich.
" Portugal—J. A. Gubian, Oporto.

BRITISH MEDICAL ASSOCIATION.

FORTY-NINTH ANNUAL MEETING.

RYDE—August 9th 10th, 11th, and 12th, 1881.

List of Hotels and Lodgings at which Visitors can be accommodated.

Members desiring accommodation are requested to apply direct to the Landlord of a Hotel or Lodging-house, and not to the Hon. Reception Secretary.

RYDE.—HOTELS.

Hotels.	Address.	Charges.
Pier	Ryde	Beds from 2s. 6d.; sitting-room from 2s.; attendance 1s. 6d.; breakfast from 2s.
Kemi	Esplanade	Beds from 3s.; sitting-room from 7s. 6d.; attendance, 1s. 6d.; breakfast from 2s. 6d.
Siviers	Ryde	Beds from 2s. 6d.; sitting room from 4s.; attendance, 1s. 6d.; breakfast from 2s.
Wavells	Union Street	Beds from 2s. 6d.; sitting-room from 5s.; attendance, 1s. 6d.; breakfast from 1s. 6d.
York	George Street	Beds from 2s. 6d.; sitting-room from 3s.; attendance, 1s.; breakfast from 1s. 6d.
Eagle	Ryde	Beds from 4s.; sitting-room from 7s. 6d.; attendance, 1s. 6d.; breakfast from 3s.
Crown	St. Thomas's Square	Beds from 2s. 6d.; sitting-room from 3s.6d.; attendance, 1s. 6d.; breakfast from 2s. 6d.
Rajah Brooke	Monckton Street	Beds from 2s. 6d.; sitting room from 5s.; attendance, 1s.; breakfast from 1s. 6d.
Queens	Monckton Street	Beds from 2s. 6d.; sitting-room, 2s. 6d.; attendance, 1s.; breakfast from 2s.
Belgrave	Nelson Street	Beds from 3s.; sitting-rooms from 8s.; attendance, 1s.6d.; breakfast from 2s.6d.

Neighbouring Hotels.

Sandown :— 6 miles	King's Head The Sandown Royal Pier Railway	Charges in each of these :— Beds from 2s. 6d. Sitting-room from 5s. Attendance, 1s. 6d. Breakfast from 2s. plain; 2s. 6d. with meat
Shanklin :— 8 miles	Clarendon Daish's Hollicks Thomson Royal Sea	
Newport :— 8 miles	The Bugle Warlinton's	
Ventnor :— 12 miles	The Marine The Royal Crab & Lobster The Esplanade	
York House Boarding Establishment, Sandown		Terms for Board and Residence no extras. Per week, 30s., 35s., and £2 2s. Per day, 6s.

There will be a late train about 11 o'clock in the evening to Ventnor, Brading, Sandown, and Shanklin. Leaving Ventnor at 8.8, 9.20, 10.30, and every hour during the day. Fares, Return Tickets at 3rd class fares. Numerous houses in each locality.

APARTMENTS.

The Prices named include attendance and, except when otherwise stated, are for one day.

Address.	Accommodation.	Charges.
Pier Terrace.		
5. Mrs. Scott	bed-rooms	5s., 5s., 5s., 5s., 5s., 5s.
	sitting-rooms	7s. 6d., 7s. 6d.
Pier Street.		
26. Mrs. Damp	bed-rooms	3s.6d., 3s.6d., 3s.6d., 3s. 6d.
	sitting-rooms (2)	
37. Mrs. Gare	bed-rooms	2s. 6d.,2s.6d.,2s. 6d.,2s. 6d., 2s. 6d., 2s. 6d., 2s. 6d.
	sitting-rooms	2s. 6d., 2s. 6d., 2s. 6d.
36. Mrs. Till	bed-rooms	3s., 3s., 3s.
	sitting-rooms	3s.
43. Mrs. Reynolds	bed-rooms	4s., 4s., 4s., 4s.
	sitting-rooms	4s., 4s.
Victoria Terrace.		
1. Mrs. Coe	bed-rooms	3s., 3s., 3s., 3s., 3s.
	sitting-rooms	5s., 5s.
3. Mrs. Brown	bed-rooms	3s., 3s., 3s.
	bed-room with sitting-room	6s. 6d.
St. Thomas Street.		
Gloucester House Mrs. Reynolds	bed-rooms	3s., 3s., 3s., 3s.
	sitting-rooms	5s., 5s.
Acton Cottage.		
Mrs. Lake	bed-rooms	2s. 6d., 2s. 6d., 2s. 6d.
	sitting-rooms and bed-room	5s.
John Street.		
22. Mrs. Guy	bed-room	2s. 6d.
	sitting-room and bed-room	3s. 6d.
St. Davids. Mrs. Salter	bed-rooms	2s., 2s.
	sitting-rooms	2s.
Union Street.		
75. Mrs. Scott	bed-rooms	5s., 5s., 5s., 5s., 5s., 5s.
	sitting-rooms	5s., 5s.
83. Mr. Redman	bed-rooms	3s., 4s. 6d.
Cross Street.		
5. Mrs. Mundell	bed rooms	2s., 2s.
	sitting-room	2s.
George Street.		
9. Mrs. May	bed-rooms	2s. 6d.,2s.6d.,2s. 6d.,2s. 6d., 2s. 6d.
	sitting-rooms (2)	
	bed-room with sitting-room	7s. 6d.
Hinckley House.		
Mrs. Barry	bed-rooms	2s. 6d.,2s.6d., 2s. 6d.,2s.6d., 2s. 6d., 2s. 6d.
	sitting-room	2s. 6d., 2s. 6d., 2s. 6d.
Ahoto House.		
Mrs. Chivertón	bed-rooms	3s., 3s., 3s., 3s., 3s., 3s.
	sitting-rooms (2)	
	bed-room with sitting-room	6s.
Munster House.		
Mrs. Whittington	bed-rooms	3s., 3s.
	sitting-room	5s.
Hanover Cottage.		
Mrs. Taylor	bed-rooms	5s., 5s.
	sitting-rooms	5s.
George Street.		
65. Miss Dore	bed-rooms	2s. 6d., 2s. 6d.
	sitting-rooms	2s. 6d.
Elgin House.		
Miss Pike	bed-rooms	3s., 3s., 3s., 3s., 3s.
	sitting-rooms (2)	
	bed-room with sitting-room	10s.
Star Street.		
Rose Cottage. Mrs. Whitford	bed-rooms	2s., 2s.
	sitting-room	2s.
Dover Street.		
Chatfield House. Mrs. Morey	bed-rooms	3s., 3s., 3s., 3s., 3s., 3s.
	sitting-room	3s., 3s.
Hobarton House.		
Mrs. White	bed-rooms	2s. 6d.,2s.6d., 2s.6d.,2s.6d., 2s. 6d., 2s. 6d.
	bed-room with sitting-room	4s., 4s.
Melville Street.		
Chester House. Miss Chambers	bed-rooms	2s. 6d.,2s.6d., 2s.6d., 2s.6d., 2s. 6d., 2s. 6d.
	sitting-rooms	2s. 6d., 2s. 6d.

Address.	Accommodation.	Charges.
Flora Cottage. Mrs. Hounsell	bed-rooms bed-room sitting-room	[illegible] 6s. 6d.
Miriame Cottage. Mrs. Bruning	bed room with sitting-room	4s.
Upton House. Mrs. Hewley	bed-rooms sitting-room	5s., 5s., 5s., 5s., 5s., 5s. 2s.6d.,2s. 6d., 2s. 6d.. 2s.6d.
Nelson Street. Tencer Cottage. Mr. Wade	bed-room bed-room with sitting-room	2s. 6d. 3s. 6d.
Belgrave Terrace. South House. 1. Madame B. Matthew	bed-rooms	2s. 6d., 2s. 6d.
	sitting-room	2s. 6d.
2. Mrs. Baker	bed-rooms	2s. 6d., 2s. 6d., 2s. 6d.
	sitting-rooms	2s. 6d., 2s. 6d.
4. Miss Williams	bed-room with sitting-room	6s.
5. Mrs. Armistead	bed-rooms	2s., 2s., 2s.
	sitting-rooms	2s., 2s.
Cheshunt House. Mrs. Clark	bed-rooms sitting-rooms	4s., 4s., 4s. 4s., 4s.
Granville House. Miss Bignell	bed-rooms sitting-rooms	2s. 6d., 2s. 6d., 2s. 6d., 2s. 6d. 2s., 2s.
Lumley House. Mrs. Gaze	bed-rooms	2s. 6d., 2s. 6d., 2s. 6d., 2s. 6d.
	sitting-rooms	2s., 2s.
Grosvenor House. Mrs. Perkins	bed-rooms	2s. 6d., 2s. 6d., 2s. 6d. 2s. 6d., 2s. 6d.
	bed-room with sitting-room	5s.
Castle St.—Mrs. Tucker. 1. Mrs. Baker	bed-rooms sitting-rooms	4s., 4s., 4s., 4s., 4s. 2s. 6d., 2s. 6d.
Southsea View. Mr. Wearn	bed-rooms sitting-rooms	2s. 6d., 2s. 6d., 2s. 6d., 2s. 6d. 2s. 6d., 2s. 6d.
Bellevue Road. Russell Cottage. Mrs. Armsworth	bed-room with sitting-room	5s.
	bed-rooms with sitting-room	6s. 6d.
St. Vincent Cottage. Mr. Pelley	bed-room with sitting-room	3s.

Address.	Accommodation.	Charges.
Strand.—Lennox House. Mrs. James	bed-rooms sitting-rooms	[illegible] [illegible]
Trentham House. Mr. Harvey	[illegible] sitting-rooms	[illegible] [illegible]
Byam House. Mrs. Case	bed-rooms bed-room with sitting-room	[illegible] 2s.
Crescent House. Mr. Hearse	[illegible]	[illegible] 3s. 6d., 3s. 6d.
	sitting-rooms	4s. 4
Strand. 15. Mr. Baker	bed-rooms	2s. 6d., 2s. 6d., 2s. 6d., 2s. 6d., 2s. 6d.
	sitting-rooms	3s. 6d., 3s. 6d.
Ashley House. Mrs. Austen	bed-rooms	2s. 6d., 2s. 6d., 2s. 6d., 3s. 6d., 3s. 6d., 3s. 6d., [illegible]
	sitting-rooms	[illegible]
Stonham House. Mrs. Wiltshire	bed-rooms	4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d.
	sitting-rooms	4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d., 4s. 6d.
Stonham Villa Mrs. Wiltshire	[illegible]	[illegible] 3s. 6d.
	sitting-rooms	3s. 6d.
Monckton Street. 1. Mrs. Burton	bed room with sitting-room	6s.
3. Mrs. Stewart	bed-rooms	2s. 6d., 2s. 6d.
	sitting-room	2s. 6d.
40. Mr. Burden	bed-rooms	2s. 6d., 2s. 6d.
	sitting-room	2s. 6d.
41. Mr. Dore	bed-room with sitting-room	4s.
42. Mr. Snell	bed-room with sitting-room	3s.
Fern Bank. Mrs. Bridge	bed-rooms	2s., 2s.
	sitting-room	2s.

PENNY STAMP.

Dr. T. M. PLETTS,
KENT HOUSE,
RYDE, ISLE of WIGHT.

To be Stamped with Penny Stamp and Posted.

BRITISH MEDICAL ASSOCIATION.

FORTY-NINTH ANNUAL MEETING,

August 9th, 10th, 11th, and 12th, 1881.

Members of the British Medical Association who intend to visit Ryde during the Annual Meeting will greatly facilitate the labours of the Reception Committee if they will fill up the following forms, and forward them as addressed on the other side.

Members desiring accommodation are requested to apply direct to the Landlord of a Hotel or Lodging-house, and not to the Hon. Reception Secretary.

It is my intention to be present at the Annual Meeting at Ryde.

Name _____

Address _____

It is my intention to be present at the Annual Dinner of the Association, on Thursday evening, August 11th, and I herewith enclose Cheque (or P.O.O.) for One Guinea. (Or Fourteen shillings.)

Signature _____

Dinner Ticket, with Wine inclusive, £1 1s. Dinner Ticket without Wine, but inclusive of Aerated Waters, 14s.

in April 1883. Any clue by which the authorship of a dissertation is made known to the Committee will debar such dissertation from competition. Preference will be given to dissertations which exhibit original work. All unsuccessful dissertations are deposited with the Secretary, from whom they may be obtained, with the sealed packet unopened, if called for within one year after they have been received.

PILL-COATING.

ACCORDING to a recent investigation by Mr. Holmes, an American pharmacist, our current methods of pill-coating are not always what they should be. The sugar with which pills are coated is, or ought to be, of itself, freely soluble. The method of application implies that the pill must first be hard. The baking process, which accomplishes the coating, does not tend to leave the pill soft. The balsamic coat which is often applied to prevent staining the sugar coat, and the wax-like polish of the exterior to please the customer's eye, are additional hindrances to the ready assimilation of the pill. The writer has known sugar-coated pills of the best manufacture to be passed entire. "I have never", says Mr. Holmes (*Therapeutic Gazette*), "inclined towards compressed pills, since the pressure necessary to a perfect shape makes the pill a small bullet, which requires considerable time for the energy of a disabled stomach to produce disintegration." The writer's largest personal experience has been with gelatine-coated pills, made in his own laboratory. Mr. Holmes, without describing his method of coating pills, says he has been very generally successful. In the case of morphia, quinia, and compound cathartic pills, he has found the system to respond, "in as short a time as it would to the drug administered in any other form." The writer coats his pills freshly made, and objects to all excessive drying, baking, and extreme pressure. He says, "a pill can be made, coated, and dispensed in an hour's time, if necessary, by any pharmacist, without any delay. Fifty cents, and a moderate amount of ingenuity, will afford apparatus sufficient to coat one hundred pills at a time."

THE VOLUNTEER CAMP AT WIMBLEDON.

SURGEON-MAJOR ELKINGTON, who was in charge of the health-department of the camp at Wimbledon, informs us that, notwithstanding the great heat, the health of the men was good, with the exception of eleven cases of sunstroke; four of them were severe, and one is still very ill. One very severe case of English cholera occurred, but has done well.

THE CAMPAIGNS IN AFGHANISTAN AND SOUTH AFRICA.

AT the annual dinner of the Army Medical Department, on July 4th, the Director-General expressed a hope that the officers would unite in erecting a memorial to their comrades who lost their lives in the late campaigns in Afghanistan and South Africa. A committee, composed of the following officers, has undertaken to give effect to this proposal: Surgeon-General Thomas Longmore, C.B.; Surgeon-General G. A. F. Shelton; Surgeon-General S. H. Fasson. Surgeon-Major Alfred Clarke, 6, Whitehall Yard, will act as honorary secretary. The subscriptions to range from 5s. to £2. Medical officers desirous of contributing are requested to send their names and amount of contribution to the honorary secretary with as little delay as possible, as, until the amount raised is known, the form which the memorial shall take cannot be decided on.

HYGIENE ON THE OCEAN.

THE following is a record of the proceedings of a meeting of the representatives of transatlantic passenger steamship lines, convened at the request of Dr. W. Smith, Health Officer of the Port of New York, at No. 19, Broadway, New York, on Friday, July 1st, 1881. There were present Dr. W. Smith, and representatives of the following lines: the Cunard Line, the Guion Line, the French Line, the Inman Line, the Bordeaux Line, the Rotterdam Line, the White Star Line, the Hamburg Line, the North German Lloyd, the Monarch Line, the Red Star Line, the State Line, the Amsterdam Line, the Italian Line. Dr. Smith stated that he had convened this meeting in order to secure, if possible, the co-operation of the several lines in preventing the introduction of contagious and infectious diseases, especially small-pox, and thus avert action by the National Board of Health, which was urged by State and local boards throughout the country, in consequence of the general prevalence of small-pox among newly landed immigrants. In May 1880, foreseeing the probable extension of the disease, Dr. Smith proposed plans to guard against it, which did not then attract much attention; but the demand for restrictive measures was now very great, especially in the West. At a convention held in Chicago on June 23rd, 1881, action was taken looking to the intervention of the National Board of Health, which caused Dr. Smith to think that the steamship lines should be advised to take such steps as would preclude the necessity for such intervention. The National Board of Health had power to adopt rules which, when signed by the President, became law; and it was urged that a rule be adopted requiring all vessels to be quarantined for fourteen days from the time of the first exposure to small-pox; that is, if a case should manifest itself on the voyage when three days out, and the passage was made in eleven days, the ship must remain in quarantine for six days. As the adoption of such a rule would seriously injure their interests, Dr. Smith had considered how it may be avoided. The average passage by steamer is short compared with the period of incubation of the disease; passages being ordinarily made in from eight to eleven days, whereas the period of incubation was fourteen days; but, fortunately, vaccination operated more quickly yet, and might be depended upon to neutralise the disease if resorted to in time. It had been Dr. Smith's practice, when satisfied that the ship's surgeon had strictly isolated all cases on the passage, to pass the vessel without insisting upon the vaccination of the passengers; and he had done this to stimulate the vigilance of surgeons, but he had nevertheless discovered, in many cases, great negligence in this particular. He thought that, if they would adopt the following measures, namely: 1. That intending passengers shall be inspected, and their physical condition certificated, before embarking; 2. That all passengers shall be vaccinated on board, within twenty-four hours after leaving port; and 3. That all cases that may develop on the voyage shall be strictly isolated;—and would assure him that they would enforce them to the best of their ability, he could satisfy the National Board of Health that it is not necessary to adopt the proposed rule requiring their vessels to be quarantined. The thanks of the meeting were tendered to Dr. Smith for his courtesy and consideration. Dr. Smith then withdrew. The meeting then organised itself afresh, and Mr. H. Guion occupied the chair. After considering the statement made by Dr. Smith, the Secretary was instructed to address him an official assurance of the disposition of the several lines to co-operate with the National and State health-authorities in carrying out, to the best of their ability, such measures as said authorities might recommend to prevent the introduction of contagious and infectious diseases, especially small-pox; and it was agreed that printed copies of the proceedings of this meeting be sent to the home-offices of the several lines, with a recommendation that the measures proposed by Dr. Smith be carried out as far as possible.

A MORNING WITH PROFESSOR ESMARCH.

WE are indebted to one of the surgeons who took part in the cruise of the Reserve Squadron, under the command of His Royal Highness the Duke of Edinburgh, for the following.

"The Reserve Squadron under the command of His Royal Highness the Duke of Edinburgh arrived at Kiel on the 14th instant. As it had been expected for some days previously, every preparation was made by the good people of Kiel to give us a truly hospitable welcome. Amongst the numerous invitations of various kinds which poured in from all sides, was one to the medical officers of the ships from Professor Esmarch to visit his hospital. On the morning of the 16th, punctually at 8 o'clock, the Professor commenced his [illegible] amputation immediately above the knee for strumous disease of the joint. Morphia was given hypodermically, and the patient then chloroformed. His famous elastic bandage was [illegible], and the limb amputated by the "circular" method, which [illegible] in such cases, as the muscles are [illegible]. On the completion of the operation, the bandage was [illegible], and two medical men

were removed. The vessels were then ligatured, to the number of thirty-seven, with carbolised catgut. Drainage-tubes of decalcified bone were now introduced, and for that purpose an instrument lately invented by Dr. Neuber—Iocheisen zur drainage—was employed. The stump was well syringed with carbolic acid solution; after that, the integument was brought together, the Lister dressing applied, the elastic bandage removed, and the patient taken from the theatre. During the whole time of operating, the air of the theatre was rendered aseptic by carbolised vapour. Professor Esmarch claims for his method the following advantages. It is almost painless, for the previous administration of morphia produces its effect after that of the chloroform passes off, the wound heals without fever or suppuration, and only one dressing is required; moreover, it is bloodless, or nearly so; in the case first operated on, there was only a slight oozing from the hyperæmic bone. Several patients were now shown to us, in which the success of this method was well demonstrated: a case of removal of the mamma for carcinoma, one of resection of the radius, one of resection of the humerus, a case of removal of a large lipomatous tumour from the back, etc. In all these, only one dressing was applied, and the wound healed without pain, suppuration, or fever. The dressing is left on for fourteen days, and then a little unguentum boracis applied to promote the healing of the epidermis. The mode of dressing differs only from that generally adopted in England in the larger amount of antiseptic material used. In the patient just operated on, the macintosh was first applied, then a thick cushion of jute and carbolised gauze; around this, a thin gauze (carbolised) bandage, then a layer of cotton-wool in the groin, over this a larger cushion, then another gauze bandage. An elastic bandage was now applied, partly for compression (as Dr. Esmarch said), and partly to fix the rest of the dressing. Finally, over all was applied a thin carbolised gauze bandage. Dr. Neuber now showed a glass splint which he has lately invented for resection of the elbow-joint. He has lately used glass splints a good deal, as, in consequence of their being easily cleaned, they are peculiarly well adapted for Lister dressings. Another material much used by him of late for splints is tripolith. It is applied as plaster-of-Paris, and sets in the same way. In consequence of its not absorbing moisture so readily as plaster-of-Paris, it would seem to be particularly well adapted for naval practice. It may be procured from the Gebrüder Schenk, Heidelberg, or from H. Beckmann, 7 (10), Vorstadt, Kiel, who supplies it to the Academy Hospital. Next, Dr. Esmarch conducted us through the wards of the hospital, and exhibited some very interesting cases. Amongst others, two succes-ful amputations at the hip-joint; a case of nævus, in which skin-grafting had been done after the plan of Professor Reverdin of Geneva, who was present, and accompanied us round. We visited next the workshop where all the bandages, etc., are manufactured; then the museum, in which we saw a rich collection of pathological specimens, and many interesting relics from the fields of battle during the late Franco-German war. What impressed us most during our stay was the earnest, almost chivalrous, devotion to the advancement of surgical science shown by the Professor and all his staff. There is no improvement or new principle of practice advocated by any member of the profession, in any part of the world, that is not canvassed here, and, if worth it, speedily adopted by Professor Esmarch; for, like the clerk of Oxenford in Chaucer,

'Gladly wolde he lerne, and gladly teche.'

A visit to the Naval and Military Hospital, in which we were shown, through the courtesy of the principal medical officer, the medical stores and appliances for the different ships in the German navy, brought to a conclusion a pleasant and instructive forenoon.

RELATIVE MORTALITY AMONGST WHITE AND COLOURED RACES.

In his annual report for the past year, the Mayor of Savannah draws attention to the great disparity in the percentage of mortality amongst the white and coloured races. The annual rate for 1,000 whites for the year 1880 was 19.85, and for 1,000 coloured, 45.47; these rates being calculated on the United States census tables during the same year. In the Mayor's opinion, the disparity is due to a want of observance of the laws of public hygiene, and to neglect, on the part of many of the lower class of coloured persons, in ministering to the necessities of the sick. The city, it appears, provides medical attendance for the sick poor by the employment of two physicians at stated salaries, whose duty it is to attend all calls upon them by persons unable to employ a doctor. A complete and well equipped dispensary is also maintained at the public expense, where medicines are dispensed free of cost to all indigent sick persons, upon the prescription of any practising physician; and it would seem that the municipal authorities have exercised a laudable liberality in providing for the necessities of the poorer class of citizens, irrespective of colour. The Mayor, in his comment on the disparity in the percentage of mortality between the white and coloured races, appears to have lost sight of the important fact that a very large number of the whole population of Savannah go north at the commencement of the summer, and remain away during the unhealthy season, while the coloured race, from their impoverished circumstances, are compelled to remain in the city throughout the year.

REFORM IN MEDICAL EDUCATION.

At the present moment, when the subject of medical education is in the minds of the whole profession, and occupying the attention of a Royal Commission, it is interesting to note the views entertained in the same direction in the most northern Branch of the Association. Dr. Bruce of Dingwall, President of the Northern Counties Branch, in his address at the meeting at Strathpeffer on the 9th instant, developed some very advanced opinions upon medical reform generally, and particularly upon the improvement of medical education. Medical education, he said, ought to be distinctly divided into three great branches—preliminary, scientific, and practical. The preliminary test ought to include a good sound knowledge of English, some acquaintance with Latin, and perhaps with Greek; proficiency in either French or German; and a fair knowledge of physics, natural history, and chemistry; and evidence ought to be required of the possession of the faculty of observation, by the demonstration of the structure of a plant or an animal. Secondly, the scientific and practical branches should be kept distinct and apart. Dr. Bruce would go so far in this direction as to make the student take his scientific subjects at one school, and his practical subjects at another hospital or infirmary. The scientific subjects ought to be taught by endowed institutions—universities and corporations; and these institutions ought to be relieved entirely of the practical branch of the course. The scientific subjects are obvious. This branch having been completed, an examination upon its subjects would have to be passed before the student was allowed to begin the third or practical branch. Thirdly, the special feature of the practical course, according to Dr. Bruce's scheme, would be free trade in teaching: that, at every hospital or infirmary, teaching should be carried on by such members of the staff as were licensed and recognised by the Medical Council, the only stipulation required being that one-third of the course should be strictly clinical. This practical course having lasted two years, the student's education would be completed by twelve months' charge of patients, either in a public institution or in general practice; and notes of one hundred cases of disease treated by the candidate would be required at the final examination. These would be practical only, and would be held in the three capitals; so that an one-portal system would be secured. Successful candidates might present at their University the licence thus obtained, and, with or without further examination, obtain from the University a degree. Such being the general features of his scheme, Dr. Bruce proceeded to describe how it could be introduced and carried out. The universities, especially Oxford and Cambridge, should be the great centres of scientific teaching; and, in London, the two Royal Colleges. The hospitals in the capitals would remain the chief seats of practical training; but every hospital and infirmary, and every well-conducted general practice, in the country, ought to contribute to the same end; the want of organisation in the latter cases being balanced by the great advantage of individual tutorial instruction which would be afforded.

PROFESSOR OWEN ON A THIRD SET OF TEETH.

Professor Owen writes on this subject in the July number of the *Journal of the British Dental Association*: "Teeth are organs that, as a rule, have a term of existence more limited than that of the organism of which they form a part. In many of the lower vertebrates, they are shed very soon after they are completed and in use, and are as quickly replaced by others. In the mammalia, however, there is but one succession of teeth naturally shed; but, though the successors of the so-called

'milk teeth' last long enough to acquire the title of 'permanent,' they are rarely retained to a very advanced age. There is, however, a belief entertained by many, of the occasional acquisition of a third set in human centenarians. Thus it is recorded of the Countess of Desmond, in *Fynes Morison's Itinerary* (1617), that, not many years before her death, which is said to have occurred at the age of 140 years, 'she had all her teeth renewed.' I was led into a discussion on this point by a worthy clergyman at the house of a friend, whom I was visiting, and to my scepticism as to the alleged age and third set of teeth of the old countess, he replied that there then lived in his parish an old woman alleged to have passed her hundredth year, who was actually then cutting her third set of teeth. I rejoiced at this instance. I had long been convinced that actual phenomena had suggested the statement, but that the nature of these had been misinterpreted, and I deemed myself most fortunate in having an opportunity of testing the matter. The following morning I was driven to the old woman's cabin. It was in the north of Ireland, and she was sitting crouching over her peat fire, a typical example of human decay. To the shouts of her pastor, the deaf old crone replied by pulling down her skinny lip and exposing the side of her lower jaw, from which there projected through the gum the blackened stump of a tooth, the crown of which had gone many years before. The absorption of the gums consequent on the edentulous state of the jaw in senility, had brought to light this remnant of a long lost tooth. Other stumps of teeth, of which the loss of the decayed crown had been forgotten, might in like manner, appear through the shrinkage and absorption of the senile jaw. And this I take to be the true ground of the allegations as to the acquisition, in extreme old age, of a third set of veritable teeth."

ANTISEPTIC OVARIOTOMY.

PROFESSOR C. J. ASK, of Lund in Sweden, contributes to the recently published number of the *Nordiskt Mediciniskt Arkiv* a paper on Ovariotomy. He had had thirty cases, of which seven were operated on without antiseptics, before July 1877; in the remaining twenty-three cases, antiseptic measures were adopted. Of the seven cases in the first group, two died; while in the twenty-three antiseptic cases, there were only three deaths. In the last twelve cases, Dr. Ask has not had one death.

ATHILL'S ANTISEPTIC SOAP.

IN his very interesting paper in the *Glasgow Medical Journal*, on the Use of Antiseptics in Midwifery, to which we refer elsewhere, Dr. Reed says:

"According to my thinking, nobody should make a vaginal examination without the use of some antiseptic, both for his own and for his patient's sake. At the Dispensary for Women at the Western Infirmary, no student or physician examines any woman *per vaginam* without first bathing his hands in 1-20 carbolised water, and lubricating them with a preparation which I show and commend to those of you who have occasion to use such an agent. It is recommended by Dr. Atthill, and consists of pure soft soap three parts, glycerine one part, and carbolic acid five grains to the ounce. That used by me has ten grains to the ounce, and is made more agreeable by the addition of a little bergamot. All our hands are washed and dried, and the same routine is practised before the examination of each individual patient. Although it involves a little extra time and trouble, I have seen no reason to think the time misspent or the trouble unrewarded."

THE SANITARY STATE OF VENICE.

A RECENT Consular Report lately furnished to the Foreign Office by Mr. Edward de Zuccato, Her Majesty's Vice-Consul at Venice, gives but a bad account of the sanitary condition of the "Queen of the Adriatic". Instead of advantage being taken of the canals, which intersect the city in all directions, and ought to keep it free from dirt, Mr. de Zuccato tells us that they are made the "means of conveyance of the mephitic stench, which, especially in the hot season and at low water, infests some parts of the city". There are over 19,000 houses in Venice, of which only 6,000 have cesspools, while the rest discharge their filth either directly or through conduits underground into the canals. An enormous quantity of animal and vegetable refuse is thus yearly discharged into the water, which might cheaply be applied to the fertilisation of the neighbouring land. Mr. de Zuccato adds that, if the municipality could be persuaded to adopt a system of sewage which would remove once for all the unequivocal fragrance of the canals, they would have the satisfaction of making this beautiful city the abode of health and cleanliness at all seasons of the year. It would not be difficult to enforce a regulation for the general drainage of the city, from which householders should be forbidden to depart; and the result would doubtless be the proper application of resources so beneficial to the cultivation of the soil, and the city would then become, from a sanitary point of view, one of the healthiest and best places of resort in Italy. It is not very satisfactory to learn that several cases of small-pox broke out at the end of last year; but Mr. de Zuccato assures us that "the malady was of a mild character, as very few cases proved fatal". The intending traveller will, no doubt, be further reassured by learning that the authorities have lost no time in spreading gratuitous vaccination among the people, and in enforcing revaccination of all the medical attendants and nurses in public hospitals.

THE BOTANICAL ORIGIN OF TONGA.

CONSIDERABLE interest has been excited by the discovery of the botanical source of the two plants which constitute tonga, the remedy for neuralgia introduced by Dr. Ringer and Dr. Murrell some two years ago. A suspicion has for some time been entertained that one of the ingredients was an arum, and such proves to be the case. For some months past, Mr. R. L. Holmes, of Fiji, has been busily engaged in the investigation of the subject, and his efforts have at last been crowned with success. He ascertained that the name tonga was derived from one of the Friendly Islands, whence the drug was originally introduced into Fiji. He was fortunate enough to make the acquaintance of an old Tonga man living on Tivinni, one of the Fijian group, who was induced to part with the secret to a Wesleyan clergyman, at the same time furnishing him with specimens of the plants. These were given to Mr. Holmes, by whom they were taken to Tonga. A native living near him on Vanua Leva, to whom they were shown, at once exclaimed—"These are our medicines", at the same time calling them by their native names, "aro" and "nai yalu". The "aro", when growing on open dry ground, is a small shrub, but, near watercourses, it becomes a tall tree; of this, the inner bark is the part used. The "nai yalu" is a creeper growing freely in sheltered places, especially damp bush, climbing over stones, etc., till it finds a tree, when i develops from a small vine-like stem no thicker than a quill, with small simple leaves, to an inch or two in diameter, the leaves at the same time becoming compound, from one to two feet in length, forming a handsome plant. The dried scraped stem is the part used as tonga. Specimens of both plants were forwarded to the eminent botanist Baron von Mueller, who at once recognised them, although he had been unaware that they possessed medicinal properties. The "aro", he finds, is *Premna taitensis*, one of the Verbenaceæ; while the "nai yalu" or "walu" is an aroid called *Rhaphidophora* [illegible]. This discovery sets at rest a question which has engaged the attention of some of the best botanists of the day.

LACHER ON DIAPHRAGMATIC HERNIA.

DR. LACHER has contributed to the [illegible] *Arch. Med.*, vol. xxvii, a valuable monograph on diaphragmatic hernia. He first describes three new cases, and then gives details at length of cases already described in standard literary works. He divides this form of hernia into two great groups, viz., the congenital form (123 cases) and the acquired form (143 cases); 10 cases are uncertain as to their nature. Out of 276 diaphragmatic herniæ, 28 only were true herniæ, with a sac formed from the pleura or peritoneum, or both; 225 cases were on the left side, 42 on the right. In 6, the position was not specified. In the congenital as in the acquired form, hernia on the left side was most frequent. Among the contents of the sac, the stomach was found in 161 cases, the colon in 145 cases, the great omentum in 96 cases; portions of small intestine in 83, the liver in 45, the duodenum in 35, the pancreas in 27, the cæcum in 20 cases, the kidney in 2. Men are far more sub-

ject to acquired diaphragmatic hernia than women, and most frequently in the prime of life. The diagnosis is generally difficult: signs of pressure on the heart and lungs; dyspnœa; very variable reflex symptoms; troubles in digestion, and sometimes indications of incarcerated hernia, are the varied and very inconstant signs of diaphragmatic hernia, that most frequently leads, before detection, to death. Great care in matters of diet is the only therapeutic means that can be employed in this disease. Von Nussbaum has proposed the introduction of the whole hand in the rectum, and careful traction of the displaced contents of the abdomen; after symptoms of strangulation, laparotomy should be undertaken.

PROPHYLACTIC RESECTION OF THE TRACHEA.

DRS. GLUCK and Zeller have recently written in the *Arch. für Klin. Chirurgie*, Band xxvi, Heft 2, on an operation for the prevention of septic pneumonia, which frequently follows operations performed within the mouth or on the larynx. Experiments have been performed on dogs to see whether this operation is practicable. The resection is to be performed in this manner. An incision is made in the median line to expose the trachea freely above the sternum; it is then drawn forwards, and deliberately divided transversely between its third and fourth rings; the lower portion is drawn a little to the right, and held open by sutures against the lower angle of the wound; the upper end is separated from it by the sterno-thyroidei being sewn under it. Four or five days later, the larynx can be removed, or any other necessary operation on the mouth can be performed; and then, owing to the position of the lower end of the trachea, there can be no fear of septic material finding its way into the lung. The divided ends of the trachea can afterwards be once more united to the wound, and the integument closed. In none of the dogs upon which this operation has been performed, has inflammation of the mediastinum or septic pneumonia followed.

CREMATION IN DENMARK.

CREMATION appears to be flourishing in Copenhagen. At a recent meeting of the Cremation Society of that city, it was reported that it counted fourteen hundred and nine members, among whom were eighty-three physicians and some prominent clergymen. In the furnace projected by the Danish society, corpses are to be reduced to ashes in a little over one hour; and it is calculated that the cost of incineration will be reduced to the insignificant sum of from three to five crowns —between one and two dollars. It is stated that this economical feature of the project has met with great favour among the poorer classes, funeral expenses being high in the Danish capital.

ACTION OF COFFEE AND SUGAR ON THE STOMACH.

M. LEVEN has communicated to the Paris Society of Biology some experiments which he has made on this subject on dogs, with the assistance of M. Semerie. The action of coffee on the stomach has been much discussed, and variously interpreted: the majority of writers admit that coffee stimulates the circulation and provokes hyperæmia of the gastric mucous membrane, but they have not adduced experimental proof of the fact. The contrary opinion is supported by a certain number of observers, to whom M. Leven has given in his adhesion. He recalls to mind the experiments which he made some years since on caffeine absorbed by frogs, guinea-pigs, and rabbits. It retarded the action of the heart, which, at the same time, became strong; it increased the arterial tension; like the vaso-constrictor agents, it dilated the pupil. Caffeine has even been used in certain cases to replace digitaline, of which it has, to a great extent, the properties, though in a smaller degree. The latest experiments of M. Leven were as follow. He gave to a dog a meal of 200 grammes of meat; he then administered an infusion of 36 grammes of coffee in 150 grammes of water; the animal was then killed, and, at the end of three hours, the stomach still contained 145 grammes of meat, while, in the absence of coffee, it only contained about 100 grammes. The abdominal mucous membrane was pale as well on the external surface as in the interior, and the vessels were strongly contracted. It follows, then, that coffee, producing anæmia of the stomach, retards digestion; and, the anæmia repeating itself, ends by bringing on habitual increased congestion of the stomach, which, according to M. Leven, is synonymous with dyspepsia. It is well known, and English physicians have laid great stress upon this point, that the abuse of coffee and tea often brings on gastralgia, dyspepsia, and, at the same time, more or less serious disturbance of the apparatus of innervation. It is, therefore, necessary precisely to distinguish the local anæmia produced by coffee on the stomach from the more general action exercised by it over the central nervous system, and which has conferred on it the merited qualification of an intellectual drink. In opposition to coffee, sugar is, according to M. Leven, an eminently digestive substance; and he does not fail to order it in certain cases of dyspepsia. He has made the following experiments. He gave to a dog 80 grammes of sugar, at the same time as 200 grammes of meat; six hours afterwards, there was nothing found in the stomach, but twenty grammes of undigested meat. The abdominal mucous membrane was red and turgescent, the liver was wholly congested. M. Leven draws this practical lesson from his experiments: that the infusion of coffee should be sufficiently sweetened to stimulate the secretory function, and thus assist digestion.

THE ALASKA INDIAN DOCTOR.

ACCORDING to Mr. J. G. Brady, in the *Herald and Presbyter*, the Indian doctor is called *ischt* in his own tongue, and *shaman* in the Russian. When a male child is born with a curly lock of hair, it is a sign that he is to be a doctor. He is carefully fostered by his parents and friends. His hair is not cut nor combed, nor is he allowed to eat clams, crabs, or any beach food. It is seldom that an infant is born with the desired curly lock. Years ago, the credulous were deceived by designing relatives, who would present the child with a curl made by hand. When one dies, an Indian will go upon the roof and call for the yake or demon who dwelt in the body, which is now lying in state and surrounded by mourners. If he comes, he will be apt to enter into one of the young men who are standing around the corpse. He falls as if he were shot dead. This is a sign that the old doctor's demon has entered into the man. He is taken off to one part of the house and covered with a blanket. He pretends to be wholly unconscious. There is a tacit understanding between the man who calls the yake and the one into whom he is supposed to enter. Sometimes an Indian falls so violently as to injure his head. This has its proper effect upon the bystanders. Others who have neither curly hair, nor are possessed, become doctors. Often a nephew, the doctor's sister's son, is the favoured one. All candidates must endure the test. When the proper time arrives, the person who is to be initiated, goes to the tomb of a doctor whom he chooses as a sort of patron. He is attended by two watches of relatives, four in each. The test is an absolute fast for eight days. He sleeps one or two nights in the dead house, and the watchers are to see that he does not break his fast. He is allowed the use of tobacco. While he is fasting, he makes up his songs which he will sing when called upon to cure a sick person. His guard learn the same song, for they are to be his attendants in the future when he practises his rites.

ECLAMPSIA IN TYPHOID FEVER.

PROFESSOR RENAUT (*Arch. de Physiologie*, 1881, No. 1) relates the case of a man, aged 33, very robust, who, when convalescing from typhoid fever, was attacked by epileptic fits, and died during the attack. The case was one of mixed nephritis, parenchymatous and interstitial, developed during the evolution of the fever, and making fitful progress. The generalisation of the lesions of the cortex cerebri produced conditions analogous to those which result from the removal of the kidneys, and thus caused the eclampsia. A microscopic examination of the urine, which contained granular cylinders, hyaline casts, and mucous cylinders clothed with epithelium, enabled M. Renaut to diagnose nephritis with circumlobular congestion. The only lesion of the nervous system observed

was meningeal congestion of the pons Varolii. It is especially noteworthy, in respect to this case, that, at the moment of the epileptic attacks, the rectal temperature was not high; thus, during the four attacks, the following were the figures indicating the temperature: 40°, 38.2°, 39.2°, and 38.9° Cent. (= 104°, 101.6°, 102.5°, and 102° Fahr.). The value of lower temperature is well known in diagnosing uræmia. This exceptional fact is, however, not isolated; thus, Guyot related (October 8th, 1880), at the Paris Medical Society of Hospitals, the case of a man brought unconscious into his wards, and whose urine contained albumen. By reason of the elevation of temperature (38.8° to 40.2°), the symptoms which his case presented were attributed to a cerebral affection. At the necropsy, the left kidney was found to be transformed to a cystic sac developed around a voluminous calculus of phosphate of lime. The tissue proper was almost completely destroyed. The left ventricle was hypertrophied. The collation of these facts should put us on our guard, therefore, against placing absolute reliance on the data furnished by the thermometer in the diagnosis of eclampsia.

SCOTLAND.

ABERDEEN UNIVERSITY: CLOSE OF THE MEDICAL SESSION.

THE medical classes closed on July 20th, and on the 21st the professional examinations for medical degrees commenced. A very large amount of practical work has been accomplished in the various classes. The new dissecting-room, which has been fitted up with every modern improvement under the direction of Professor Struthers, will be opened next winter session. The Scottish Zoological Station, which is under the direction of Professor Ewart, will be establised this autumn at Oban. During the two previous years, the marine fauna of the east coast of Scotland has been investigated, and it is proposed, during the present autumn, to study the more numerous and varied forms of animal life which abound on the west coast. A large number of men have entered for the various professional examinations, and most of them have adopted the new regulations which were recently obtained by this university. The rearrangement of subjects and periods of examination obtained under these regulations are a great boon to the medical student, and are calculated to facilitate the study of the different branches of the medical curriculum. The great advantage is, that students are encouraged to pass their examinations in the preliminary sciences at an early period in their course, and thus to leave ample time for the more strictly professional branches.

UNIVERSITY OF EDINBURGH.

THE summer session concluded in Edinburgh University on Tuesday; the second professional examination and the final examination are now over. Dr. R. J. Blair Cunynghame acted as extra examiner in pathology, *vice* Dr. Greenfield, now professor of that subject in the University. The graduation ceremonial in medicine will take place on Monday, August 1st; and a most sensible change has been made, in altering the place of meeting from the utterly inadequate Assembly Hall to the Hall of the United Presbyterian Theological College in Castle Terrace. Mr. Annandale, Professor of Clinical Surgery, will present the candidates for the degrees, and deliver the address incidental to such an occasion. At the close of the course of lectures on natural history, the students presented Professor Alleyne Nicholson (who has conducted the class for the last three years, in the absence of Sir Wyville Thomson) with an illuminated address signed by about five hundred of them, thanking him for his services to them, and wishing him success.

LECTURES ON HEALTH IN GLASGOW.

ARRANGEMENTS, we understand, have now been completed with the trustees of the late Mr. Combe, for the delivery of a course of lectures during the coming winter, in Glasgow, on matters relating to health. There are to be ten lectures in the course; and the object aimed at, in all of them, will be the diffusion of sound physiological knowledge, as bearing on health among the people, and especially the working-classes. The following gentlemen have agreed to lecture: Professors McCall Anderson, George Buchanan, Gairdner, McKendrick, George Macleod, Young; and Drs. J. B. Russell, W. L. Reid, William Wallace, and Yellowlees. Such a list of lecturers is a guarantee that the lectures will be of a high class; and it is to be hoped that all interested in the spread of useful information amongst our working-classes will give them their hearty support.

HYGIENE OF THE INFECTIOUS FEVERS.

AT the annual meeting of 1880 of the Forfarshire Medical Association, a committee was appointed to consider the conclusions of a paper read by Dr. Miller of Dundee, to endeavour to fix safe limits for the periods of incubation and infection in the infectious fevers, with the view of ensuring, or at all events promoting, the safety of the public, and at the same terminating the conflicts of opinion frequently occurring in practice at the present time. As a result of these labours, at the recent annual meeting of this Association at Montrose, Dr. Miller moved: "That the Association, having considered the desirability of promoting uniformity of practice amongst its members in their management of the infectious fevers with respect to the period of time during which quarantine precautions should be maintained, recommends as follows: When an infectious fever has appeared in one or more members of a household, other members who may have been exposed to the chance of infection, by intercourse with them or otherwise, should not be removed to a household where there are others liable to be infected, until the expiry of the period of incubation shows that they have escaped. Without going to extremes, the period of incubation may, for practical purposes, be considered to be: for small-pox, typhus, whooping-cough, measles, fourteen days each; and scarlet fever and diphtheria, ten days each. That convalescents from these fevers should be considered as still liable to give off infection until the expiry of time, counting from the beginning of the illness, ranging for each fever as stated below;

Disease.	Period of Isolation.
Small-pox	14 days after [illegible]
Typhus	[illegible] days after [illegible]
Scarlet fever	7 weeks "
Diphtheria	" "
Whooping-cough	3 " "
Measles	" "

Dr. Dewar seconded the motion. Dr. Arrott moved an amendment, to the effect that the evidence which had been laid before this meeting did not warrant any definite conclusion. This amendment was not seconded. Dr. Maclagan-Wedderburn moved a vote of thanks to the Committee for their labours, and suggested that they should continue their investigations, and bring up a report at next annual meeting. This motion, having been seconded, was carried.

PRESENTATION TO PROFESSOR SPENCE.

LAST week an interesting ceremony took place in the hall of the Royal College of Surgeons, Edinburgh, when a number of his professional friends presented Professor Spence with a portrait of himself, painted by Mr. James Irvine. Mr. Imlach, President of the College of Surgeons, occupied the chair, and stated that the proceedings had their origin in the feeling on the part of many members of the profession that, after the long and honourable service Professor Spence had rendered to surgery, the esteem in which he was held by his professional brethren should assume some tangible form; and it was agreed that it should take the form of a portrait of Professor Spence, to be presented to his family; and that a replica of the same should be presented to the Royal College of Surgeons, to be hung in their hall, among the portraits of the illustrious men who already adorned its walls. Dr. Haldane, President of the Royal College of Physicians, made the presentation, and spoke happily of the well-earned distinction that Professor Spence had gained, as a practical anatomist first, and then as a highly successful surgeon; and also how he had endeared himself to his friends and patients by his honourable and kindly manner of dealing with them. Mr. Spence made a suitable reply. The portrait, which

is a good one, bears the following inscription: "James Spence, Esq., F.R.S., F.R.C.S.E., Surgeon-in-Ordinary to the Queen in Scotland, Professor of Surgery in the University of Edinburgh. Presented to him by members of the medical profession in Great Britain, Ireland, and the Colonies." Each of the subscribers to the testimonial is to be presented with an etching of the portrait, executed by M. Durand of Paris.

ROYAL MATERNITY HOSPITAL, EDINBURGH.

DR. HALLIDAY CROOM succeeds Dr. Keillen as medical officer on duty at the Royal Maternity Hospital, Edinburgh, during the next three months. Messrs. M. Barclay Thomson, M.B., and Roger Kirkpatrick, M.B., have been appointed resident physicians during the same time, in succession to G. W. W. Ashdoun, M.B., and Alexander Bowie, L.R.C.S., whose term of office has expired.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending July 16th, it appears that the death-rate in the eight principal towns during the week was 18.9 per 1,000 of estimated population. This rate is 0.3 above that for the corresponding week of last year, but 1.5 below that for the previous week of the present year. The lowest mortality was recorded in Leith—viz., 14.4 per 1,000; and the highest in Greenock—viz., 27.8 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.3 per 1,000, or 1.0 under the rate for last week. This rate was considerably exceeded in Aberdeen. Acute diseases of the chest caused 98 deaths, or eleven more than the number recorded last week. The mean temperature was 60.9°, being 3.8° above that of the week immediately preceding, and 2.9° above that of the corresponding week of last year.

IRELAND.

A DEATH from small-pox was registered in Belfast for the week ending the 16th instant.

THE Belfast Royal Hospital has received a sum of £500 from Colonel Montgomery of Gregabbey, to be invested for the benefit of that institution, in memory of Arabella Catherine Montgomery.

THERE are at present forty-two cases of fever under treatment in the Waterford Union Hospital, being the largest recorded for many years. Three patients suffering from small-pox have also been admitted.

MORTALITY IN IRISH WORKHOUSES, 1880.

DURING the year ending January 22nd last, the total number of deaths amounted to 12,940, being a decrease of 204 deaths as compared with the year preceding. Of these, diseases of the lungs caused 2,323 deaths, phthisis 992, fever 758, heart-disease 497, diarrhœa 467, brain-disease 466, paralysis 379, convulsions 299, dropsy 298, cancer 239, kidney-disease 131, measles 131, liver-disease 125, scarlatina 125, small-pox 97, epilepsy 96, and whooping-cough 63. As contrasted with the previous year, there was an increase in the deaths from diarrhœa, fever, measles, and scarlatina; and a decrease in respect to small-pox and whooping-cough.

THE CORONERSHIP FOR UPPER AND LOWER DUNLUCE AND CAREY, COUNTY ANTRIM.

AN election for a coroner to the above district was held last Monday, at the Court-house, Ballymoney, in the vacancy caused by the decease of Dr. John Dunlop. It was proposed and seconded that Dr. Robert John Camac was a fit and proper person to be elected as coroner; and, no other candidate being proposed, the Under-Sheriff declared Dr. Camac duly elected. The usual oath of office was administered to the coroner, who thanked the electors for their support, and moved a vote of thanks to the Under-Sheriff for his dignified conduct in the chair, after which the proceedings terminated.

LUNATIC ASYLUMS, IRELAND: ANNUAL REPORT.

FROM the thirtieth report of the District, Criminal, and Private Lunatic Asylums in Ireland, we learn that, on the 31st of last December, there were 13,051 patients in these institutions, of whom 3,573 were in the poor-houses, 8,667 in district asylums, and 622 in private asylums. There was an increase in the accommodated insane during the past year of 232 inmates, 82 of whom were in workhouses, the receptacles, as a rule, of hopeless and senile cases of lunacy, as well as of imbecile epileptics and idiots. The insane in district asylums amounted to 8,667, being an increase of 177 as compared with the previous year; and the admissions into these institutions during 1880, of acute cases or cases of first attack, were 1,925, and of relapses in the same period 441. Of those under treatment, 1,001 were discharged recovered, being three fewer than in 1879; while 302 were improved, being 57 in excess; and 72 unimproved, against 108 in the year before; a diminution, caused probably by the depression which existed, and restricted means of domestic support during the past twelve months. The deaths amounted to 808, constituting a percentage of mortality of nearly 7¼ against 8.75 in the previous year. Of these 808 deaths, 258 were due to thoracic affections, 100 to abdominal, and 190 to cerebral and cerebro-spinal affections. With respect to the supposed causes of mental disease o patients in district asylums, we learn that to moral causes 1,728 cases were ascribed, which included 512 from grief, fear, and anxiety; 344 occurred from poverty and reverse of fortune, 255 from domestic afflictions, and 249 from religious excitement; while 2,041 were due to physical causes, 1,246 were hereditary, and in 3,652 instances the cause was unknown. As regards the social condition of inmates of district asylums at the close of last year, 1,955 were, or had been, married previous to admission, 5,849 were single, 505 widowed, and in 358 cases the condition was unknown. The remarkable disparity between the single and married cases of lunacy in Irish asylums which so constantly exists has never been satisfactorily explained. Classified in regard to their mental indications, of the entire number of patients under treatment at the close of the year—namely, 8,667—the actual convalescent were estimated at 391; the quiet and orderly progressively improving, and, as a rule, usefully occupied, at 4,261; the moderately tranquil at 2,107; and the noisy, dangerous, or refractory, at 1,908. Included in the last three classes, there were no fewer than 649 with suicidal propensities, and 552 whose malady was complicated with epilepsy. Of the 950 acres attached to district asylums, a profit of £6,318 10s. 5d. was derived. Besides the pecuniary advantages derivable from these asylum-farms, others still more beneficial accrue to the inmates, male and female alike, from the means of constant employment thereby afforded, with a greater space for active exercise and open-air occupations, two essential requisites in the treatment of lunacy. The total sum advanced for enlargements or structural alterations in asylums amounted to £48,600, of which sum £20,000 was allocated to the Armagh Asylum, in addition to a previous grant of £6,000 for the purpose of providing additional accommodation for 100 patients, with various necessary improvements and requirements, including the erection of a chapel and a large recreation hall; to Ballinasloe, £10,000; to Clonmel, £8,000; to Cork, £3,500; to Kilkenny, £3,500; to Richmond, £800, etc. The inspectors, in compiling their report, remark that, if the successful operation of public institutions be judged of by results, they apprehend that the Irish District Asylums will be found to stand in a highly favourable position, the true tests being: 1. The number of cures effected in them within a definite time; 2. The number of cases of improvement justifying a discharge in the same period; 3. An immunity from fatal accidents resulting from personal violence; 4. Paucity of deaths, taking into account the character and physical combinations of mental diseases; 5. Rarity of effectual escapes; 6. The general maintenance of a moral tone by the staffs connected with these institutions; 7. An economy of expenditure combined with a rigid accuracy of accounts. Taking the preceding tests *seriatim*, the following results will be found. 1. The recoveries amounted, on first admissions, to 52 per cent., and, on the ordinary number of patients under daily

treatment, to 11½ ; in both, the result being alike satisfactory. 2. The number of registered cases, improved and discharged, equivalent to 3½ per cent. on the daily average under treatment, is also favourable. 3. During the year, no fatality occurred from personal assaults among the patients, although they included 1,270 individuals committed as being dangerously insane. 4. The mortality in Irish district asylums for a series of years has been below the general average in like establishments. 5. The recorded escapes during the year, all males, were limited to six. 6. No legal proceedings had to be taken against any of the attendants for cruelty, violence, or other criminal acts; some few, however, were dismissed for minor offences, or inattention to the safe charge of those committed to their charge.

A DISINFECTING CHAMBER FOR LIMERICK.

AT a meeting of the Limerick Sanitary Board last week, the Mayor stated, in reference to the question of providing a disinfecting chamber for the town, that there was a very serious outbreak of fever in Limerick, and that it was most important for the health of the inhabitants that the clothes and bedding belonging to fever patients should be disinfected. After considerable discussion, it was finally resolved to request a loan from the Local Government Board for the purpose, and that the Sanitary Committee should procure a site for the disinfecting chamber. As the proposal, however, to erect a disinfecting apparatus has been spoken of for the last seven years, it is more than probable that a considerable time will elapse before it is ultimately erected.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary meeting of the College of Physicians was held on Thursday, the 28th instant; Sir W. Jenner, Bart., President, in the chair. After the business of admitting members and granting licences, Dr. Pitman read a communication from the Secretary of the Medical Acts Commission, asking the College for an expression of opinion on the following two questions:

1. Whether it is desirable to make any alteration in the present licensing system; and, if so, to state of what nature such alteration should be.

2. Whether the present constitution of the General Medical Council is satisfactory.

Dr. Pitman submitted, for the consideration of the College, a letter which he had drafted as an answer to this communication. This letter stated in effect, in answer to the first question, that the College adhered to the well-known conjoint scheme; and, in answer to the second, that the College had no opinion to offer. Dr. Pitman explained his answer to the second question by the probability that the opinions of the Fellows on this subject would be so numerous as to be practically useless.—Dr. Quain and Dr. Priestley supported the adoption of this letter, with the amendment that the words "does not desire to offer an opinion" should stand, instead of the original wording.—Dr. West considered that the opinion of the majority should be taken on this important question.—Dr. Wilson Fox questioned the necessity of the College adhering to the conjoint scheme.—Sir Wm. Jenner pointed out that there was no alternative between the conjoint scheme and a Government Board, independent of the Corporations.—Dr. Barnes proposed, and Dr. Shepherd seconded, that the words "is not prepared" should be substituted for "does not desire", in the answer to the second question. Dr. Barnes argued that it was to be regretted if the College should seem to preclude all discussion of a matter which was of so great interest and importance to the public and to the profession.—Dr. Barnes's amendment was lost by 22 to 18; and Dr. Pitman's letter, with Dr. Quain's amendment, was then adopted.

Drs. Sieveking, Greenhow, Andrew Clark, and Beale were elected censors; Dr. F. J. Farre, treasurer; Dr. Pitman, registrar; and Dr. Munk, Harveian librarian; and the examiners in the various departments were appointed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual report from the Board and the Court of Examiners of the number of candidates who have presented themselves for the Primary and Pass Examinations for the Diploma of Member of the Royal College of Surgeons of England during the collegiate year 1880-81, showing the number who have passed and have been rejected from each medical school during that period, has just been published.

PRIMARY EXAMINATIONS.—1880-81.

Medical School.	Totals.	Number Passed.	Number Rejected.	Rejections per Cent.
St. Bartholomew's ..	[illegible]	[illegible]	[illegible]	[illegible]
University College ..	101.6	[illegible]	48.83	48.06
Guy's ..	[illegible]	[illegible]	[illegible]	[illegible]
King's College ..	[illegible]	[illegible]	[illegible]	56.03
St. Thomas's ..	[illegible]	[illegible]	18.50	[illegible]
London	[illegible]	[illegible]	[illegible]	[illegible]
Middlesex ..	35.50	[illegible]	14.50	40.82
Charing Cross ..	[illegible]	[illegible]	10	[illegible]
St. George's ..	[illegible]	[illegible]	[illegible]	33.33
St. Mary's ..	[illegible]	[illegible]	[illegible]	53.60
Westminster	[illegible]	[illegible]	[illegible]	[illegible]
Manchester ..	[illegible]	25.50	[illegible]	[illegible]
Leeds	[illegible]	[illegible]	[illegible]	[illegible]
Cambridge	[illegible]	17.50	[illegible]	23.36
Liverpool	[illegible]	[illegible]	6	[illegible]
Newcastle-on-Tyne ..	[illegible]	[illegible]	[illegible]	51.16
Bristol	[illegible]	[illegible]	[illegible]	[illegible]
Birmingham	[illegible]	[illegible]	[illegible]	[illegible]
Sheffield	[illegible]	[illegible]	[illegible]	[illegible]
Dublin	[illegible]	5	[illegible]	44.44
Belfast ..	[illegible]	[illegible]	3.50	[illegible]
Edinburgh ..	[illegible]	[illegible]	[illegible]	[illegible]
Glasgow	[illegible]	[illegible]	7	60.87
Aberdeen ..	[illegible]	[illegible]	[illegible]	[illegible]
Toronto ..	4.50	[illegible]	2	44.44
McGill College, Montreal ..	[illegible]	[illegible]	1	33.33
Halifax ..	[illegible]	[illegible]	[illegible]	[illegible]
New York ..	[illegible]	[illegible]	1	[illegible]
Yale ..	.50	[illegible]	[illegible]	[illegible]
Harvard ..	.3	[illegible]	[illegible]	[illegible]
Bengal ..	[illegible]	1	.50	25
Calcutta ..	1	[illegible]	[illegible]	50
Bombay	1	[illegible]	[illegible]	[illegible]
Melbourne ..	[illegible]	2.50	[illegible]	[illegible]
Leipzig	1.50	1.50	[illegible]	[illegible]
Heidelberg ..	1	[illegible]	1	[illegible]
Berlin	[illegible]	[illegible]	[illegible]	[illegible]
Paris	[illegible]	[illegible]	[illegible]	[illegible]
Seville	1	[illegible]	1	[illegible]
Vienna	[illegible]	[illegible]	[illegible]	[illegible]
Bâsle	1	1	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]	37.57

PASS EXAMINATIONS.—1880-81.

St. Bartholomew's ..	[illegible]	75.83	[illegible]
Guy's	[illegible]	47.50	[illegible]
University College ..	[illegible]	[illegible]	[illegible]
St. George's	[illegible]	26.50	[illegible]
London	39.6	[illegible]	[illegible]
St. Thomas's ..	[illegible]	[illegible]	[illegible]
King's College ..	[illegible]	[illegible]	55
St. Mary's ..	[illegible]	[illegible]	[illegible]
Middlesex ..	[illegible]	[illegible]	[illegible]
Charing Cross ..	[illegible]	6.6	[illegible]
Westminster	[illegible]	[illegible]	[illegible]
Manchester ..	[illegible]	[illegible]	[illegible]
Birmingham ..	[illegible]	[illegible]	[illegible]
Leeds	[illegible]	[illegible]	[illegible]
Cambridge ..	[illegible]	[illegible]	[illegible]
Liverpool ..	[illegible]	7.83	[illegible]
Newcastle-on-Tyne ..	[illegible]	4	[illegible]
Bristol	5.50	[illegible]	[illegible]
Sheffield	3.3	[illegible]	[illegible]
Dublin ..	[illegible]	[illegible]	[illegible]
Galway	[illegible]	[illegible]	[illegible]
Cork	[illegible]	[illegible]	[illegible]
Edinburgh	[illegible]	[illegible]	[illegible]
Glasgow	4.3	[illegible]	[illegible]
Aberdeen	[illegible]	[illegible]	[illegible]
Madras	[illegible]	[illegible]	.50
Toronto	2.50	[illegible]	[illegible]
McGill College, Montreal ..	[illegible]	[illegible]	[illegible]
New York ..	[illegible]	[illegible]	[illegible]
Ohio	.50	[illegible]	[illegible]
Harvard ..	.3	[illegible]	[illegible]
Columbia ..	[illegible]	[illegible]	[illegible]
Melbourne ..	[illegible]	[illegible]	[illegible]
Adelaide ..	.50	[illegible]	[illegible]
Hobart Town ..	.3	[illegible]	[illegible]
Leipzig	[illegible]	[illegible]	[illegible]
Berlin	[illegible]	[illegible]	[illegible]
Vienna	[illegible]	[illegible]	[illegible]
Bâsle	[illegible]	[illegible]	[illegible]
Paris	[illegible]	[illegible]	[illegible]
Malta	[illegible]	[illegible]	[illegible]
Totals	[illegible]	[illegible]	[illegible]

In each list, candidates who are indicated by a fraction have received their education at more than one school of medicine.

ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION AT RYDE.

THE Mess Committee at Netley are, we learn, about to send an invitation to the Reception Committee at Ryde for a hundred members of the Association to a garden party at Netley, on Saturday, August 13th, so as to give an opportunity of seeing the hospital and the abbey. Each invitation will include a lady.

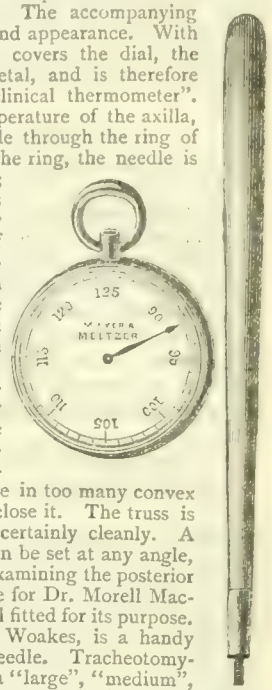
INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

Surgical Instruments.

MESSRS. WEISS AND SON show a large number of useful and ingenious instruments. Among the instruments for lithotrity at one sitting (litholapaxy, as it has been called), we notice a lithotrite of Professor Bigelow's pattern, slightly modified, and, we believe, greatly improved, by an alteration in the shape of the angle of the male blade and of the slot. One of the most serious objections to Bigelow's instrument is the danger of jamming, owing to the accumulation of *débris*, in the female blade close to the angle; this danger is much diminished by the enlargement of the posterior part of the slot, and by making the male blade fit with great accuracy. This improvement, which was made at the suggestion of Sir Henry Thompson, is embodied in a large and powerful lithotrite made for that surgeon, and of the pattern usually known as "Thompson's". Bigelow's aspirator, with its long tube, is shown, mounted upon a convenient stand, which dispenses with the necessity for having a second assistant to hold the aspirator; and Thompson's aspirator, which does away with the long elastic tube, and by so doing reduces the length of tubing to be traversed by the fragments by one-half, is also to be seen. A powerful lithoclast, for crushing very large stones before their removal in the operation of lithotomy, has been made by this firm for Sir Henry Thompson. It is a very formidable-looking instrument, reminding one rather of the cephalotribe. Dr. Keith still makes use of the cautery for the pedicle in ovariotomy, and Messrs. Weiss show the latest pattern of clamp with parallel blades, and also a very convenient copper cautery, with well-ventilated handle; the advantage of the copper is, that it does not scale. The modification of Barnes's bags designed by Dr. Steele (of Abergavenny) consists in this, that the whalebone-introducer passes through the centre of the bag, which collapses into a very small bulk about this central canal. A specimen of the midwifery forceps invented by M. Tarnier of Paris will excite some curiosity. A very convenient vaginal speculum (Ferguson's pattern), made of spun copper and nickel-plated, is worthy of attention; it has no joint or seam, and no rim, and, therefore, no corners or creases to catch impurities, and there is no sharp edge to injure the soft parts. The vulcanite piston shown by this firm, and adapted to syringes of all forms and sizes, is likely to meet a common want. The rim of the plunger, which is entirely constructed of vulcanite, is hollowed out below so as to present a thin and slightly everted edge; no packing is required; the piston can be withdrawn to be cleansed, and can only get out of order if violence be used to it. Martin's bandages, fulfilling, so far as we can judge, all the requirements of the inventor, have been made in England for this firm, and can be supplied at a reasonable price. Sets of instruments packed with great ingenuity into small space are shown; we notice especially an amputating case, which measures only 11 inches by four inches, and is 2½ inches deep, but which yet contains a large amputating knife and all other requisites, even for amputation of the thigh. This compactness is attained by having folding handles for the knife and saw; when arranged for use, these handles appear to be very firm. A very complete set of ophthalmic instruments is shown; and, among the instruments for operations on the ear, we saw a polypus-snare, provided with expanding forceps for carrying the wire over the growth; although complicated in appearance, the instrument is easily manipulated.

Besides several antiseptic sprays, magnificent from their large proportions, there is to be seen a cheap form of safety-spray, which will be a source of great consolation to those timid surgeons and nurses who are affected by a constant horror that "the spray will blow up". The boiler, which is of copper, is provided with a counterpoise, and turns upon a hinge; the lamp is covered by a cap, which constantly tends to shut down over the flame; when the boiler is full, it is heavy enough to keep this cap up; but, as the point is approached when the emptiness of the boiler may tend towards danger, the elasticity of the elastic spring cap overcomes the inertia of the now almost empty boiler, and the cap shuts down upon the flame, and, by extinguishing that, removes the source of danger. We would also like to direct attention to the interrupted current battery driven by two Leclanché's cells; it will be found a very convenient form for use at home, when the cells can be sent to the makers to be recharged. The physician *in partibus* may provide himself with the bichromate battery, which has two bottles so connected that, when not in use, the one bottle which does not contain the carbon and zinc, acts as a reservoir for the solution; this is effected by making the second bottle air-tight; it is exhausted by a small pump, and the fluid thus sucked out of the cell into the store-bottle.

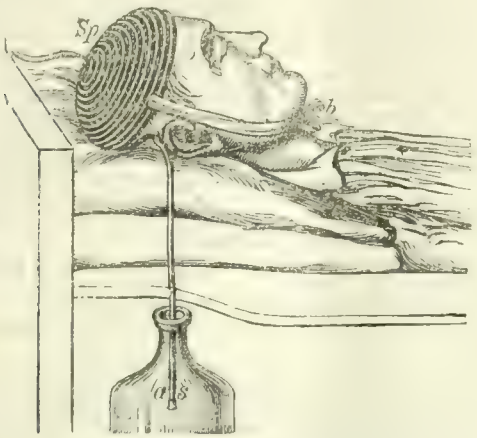
MESSRS. MAYER AND MELTZER show an entirely new form of clinical thermometer; it is about the size and shape of one of the small watches now so much used by ladies. The accompanying illustration gives a good idea of the size and appearance. With the exception of the watch-glass which covers the dial, the instrument is entirely constructed of metal, and is therefore named the "patent unbreakable metal clinical thermometer". When it is to be used for taking the temperature of the axilla, it is convenient to screw the long handle through the ring of the instrument; by giving a half turn to the ring, the needle is stopped at any point, as in a stop-watch; it is also sufficiently delicate to be used as a surface-thermometer, and its accuracy is guaranteed. The scale on the dial of the instrument shown is unnecessarily extensive for clinical purposes; but this can be easily rectified in future models, the bulk also will probably be reduced in future. The instrument is patented in England, France, and Germany.



The same firm also exhibit a new universal truss: there are no straps, no leather or cloth covers, to get dirty; the pads are made of "coraline", a pink variety of cellulite, and have a peculiar concave surface, which does not tend, as is the case in too many convex pads, to enlarge the ring, but rather to close it. The truss is said to be comfortable to wear, and is certainly cleanly. A revolving and adjusting mirror, which can be set at any angle, will be found a convenient instrument for examining the posterior nares, etc.; and the œsophagoscope, made for Dr. Morell Mackenzie, is found by that physician to be well fitted for its purpose. The tympanum-perforator, made for Dr. Woakes, is a handy instrument, as is also his cleft palate needle. Tracheotomy-tubes, carefully made in three sizes, so that a "large", "medium", or "small" inner tube will fit any outer tube of the corresponding nominal size, are shown; and we may also note Keene's improved aural polypus-snare; Kilner's improved dynamometer on the manometric principle; a very compact pocket tracheotomy-case; a new lithotrite, which combines the advantages of Otis's and Teevan's earlier patterns; a McIntyre's splint, with supporting strut and other modifications; a very compact amputating-case, with folding blades; and an army-surgeon's case. Another novelty is a steam-spray, which can be filled while in action by pouring water into a connected reservoir; by this alteration, the bulk of the instrument is very greatly reduced, so that it can be easily packed into a hand-bag and will yet go on working continuously, if a little care be expended, and for an unlimited period. We should add that this firm is making extensive use of cellulite for various purposes: it supplies smooth pink-coloured pessaries and truss-pads, and white, or black, or tortoise-shell handles for knives; and it possesses the advantages of being light, tough, and easily worked.

MESSRS. KROHNE AND SESEMANN show Macewen's chromic catgut, some decalcified bone drainage-tubes made by the same surgeon, and also a set of his chisels for osteotomy. A silver catheter for washing out the uterus, or the female bladder, in which, by a simple contrivance, provision is made for a return current, pessaries of coralite, a four-bladed expanding steel speculum for the vagina, and a "curvimeter", for measuring the curve of the uterus or any other canal, are among the gynæcological instruments shown by this firm. We may call attention also to a modification of Holt's stricture-dilator, designed by Mr. Reginald Harrison, which seems to be an improvement; and to Allingham's screw-clamp for piles, which is small and portable, but which yet crushes the pedicle so thoroughly that no hæmorrhage occurs on removing the pile. The lancet-headed ivory vaccination-points are very elastic and strong, and may be depended on; the surgeon's strapping is excellent, smooth, and durable (some shown is six years old, and yet in thoroughly good condition). Dr. Playfair's can-douche is a simple and practical instrument with which every practitioner ought to be familiar, as also with the irrigator shown by this firm for Leiter of

Vienna; the reservoir in this latter apparatus resembles a baby's feeding-bottle much exaggerated in size, and can be conveniently suspended above the bed, or merely placed on a chest of drawers or table. We referred last week to the pliable metal "temperature-regulators" in use in one of the beds shown by Guy's Hospital; there is here a large collection of the tubes in various sizes. The accompanying diagram shows the apparatus applied to the head.



The cap consists of a long coiled pipe; the India-rubber tube *Sp* conducts cold water from a bottle (not shown in the engraving) placed on a shelf above the bed, to the coil; the water passes through the whole length of the coiled tubing, and flows out into the bottle seen standing below the bed; when the upper bottle is nearly empty, the position of the two bottles is reversed by the nurse, and by this means there is no waste nor slopping; the water-bottle can be iced, if necessary. The great objection to the India-rubber coil for the head, namely, that the pressure might so compress the tubing as to stop the flow, is obviated by the material of which these caps are made; and it needs no argument to show that they are infinitely superior to the old-fashioned ice-bags.

Messrs. Krohne and Sesemann also show the "electro-endoscopic instrument" of Leiter of Vienna; the instrument is of the very latest model, and is far more compact than the earlier ones. A tall metal cylinder serves at the same time as a stand and as a reservoir for supplying the water, which is forced, by the pressure of a weighted piston contained in the cylinder, through a system of pipes: the light is furnished by a platinum wire contained in glass tubing, and cooled by the current of cold water which is made constantly to circulate about it in the manner above referred to: instruments suitable for the illumination of the stomach, bladder, urethra, etc., are provided with the apparatus, which must command interest and respect from the ingenuity displayed in its construction.

Messrs. Krohne and Sesemann are the English agents of the "International Society for the Manufacture of Wound-Dressing Materials", of Schaffhausen, which is a limited company established first to supply dressings during the Franco-Austrian war. Their products, already well known and extensively used on the continent, are now introduced to the notice of English surgeons. The absorbent cotton-wool is a really excellent product, which sinks immediately when thrown on to the surface of water; it is prepared also medicated with carbolic, salicylic, or boracic acid. Compresses for ophthalmic purposes, made of this cotton, cut ready for use, and packed in boxes, seem likely to be useful; and the antiseptic gauze and bandages (carbolic or thymol), and the silk protective, are well made.

Dr. Dudgeon shows a pocket sphygmograph of ingenious construction. It is much cheaper and smaller than Marcy's model; it measures 2½ by 2 inches, and weighs 4 oz.; it magnifies the movement of the artery 50 times. The pressure of the spring on the artery can be increased from 1 to 5 oz. No wrist-rest is required. The instrument may be used with equal facility whether the patient be sitting, standing, or lying; and a tracing of the pulse made, it is said, almost as quickly as the pulse can be felt with the finger. The smoked paper on which the tracing is made passes through in 10 seconds. The parts of the instrument are so arranged, that they all tend to maintain the stability of the instrument on the arm. The strap that holds the instrument on the wrist may be fixed by its tourniquet, or simply held in position by the finger and thumb. It is manufactured by J. Ganter, 19, Crawford Street, W.

Drugs, Disinfectants, etc.

The exhibition of Scheving's chemicals is distinguished by one most important novelty, Cinnamic acid. In a patent taken out by J. A. Zimmermann under the 12th July, 1880, for the manufacture of bitter almond oil, benzoic acid, etc., it will be found that a process communicated by Dr. Emil Jacobsen of Berlin is described for the synthetic production of certain aromatic acids and ethers, and the simultaneous production of chlorides of organic acids in the presence of certain metals or their salts. The particulars of that patent will disclose that without the presence of these metals or their salts, the conversion will not take place, except with great difficulty, expense, and waste. Cinnamic acid, being one of these products, promises a most important history in the arts and medicine; for the former, because of its cardinal mission in the manufacture of artificial indigo; in the latter, on account of its recently discovered powerful and convenient antiseptic properties. Experiments have been made in several hospitals of Berlin, and, as we are informed, most successfully, in the dressing of wounds and surgical operations. These antiseptic properties seem to give it a foremost rank before all others; but as we are told that Professor Langenbeck of Berlin, under whose direction experiments have been made at the Charité Hospital in Berlin, intends to visit London at the time of the Medical Congress, it is perhaps better to refrain from prematurely entering into particulars. The specimen exhibited shows white transparent silver flakes, and it may be taken as the very first sample brought to this country. That its manufacture is being conducted on a commercial basis seems to indicate the goodness of the sample exhibited.

The other fine specimens of the Scheving's factory products are well known. Like all the products of that factory, they are stamped by the most perfect workmanship in appearance, and freely invite a searching examination for the most perfect chemical purity by the facility with which samples are offered to the practical examiner.

A peculiar looking and new product is the tannic acid patent crystals. Its golden hair-like appearance gives it a special claim to attention. The soft extract of tannic acid has hitherto been dried by high temperature; this now is a specimen of the soft extract forced through a thin sieve, and the streams proceeding from it have lost all their moisture in the ordinary temperature of the atmosphere. The advantage is obvious, that while at a high temperature it cannot be avoided that part of the tannic acid will decompose into gallic acid, this new process at ordinary low temperatures obviates such decomposition, and warrants a pure tannic acid in a most convenient form. The advantage is, perhaps, only of importance to the commercial application of the acid, inasmuch as, therapeutically, the acid will only be given in its most perfect form as levissimum, of which a very fine sample is exhibited.

The iodoform exhibited certainly shows a brighter colour and more substantial crystal that its rival specimens exhibited.

H. Jinzelberg of Andernach makes himself conspicuous by a specimen of pepsine porci, stated to dissolve by Wittstein's test five hundred times its own weight of coagulated white of egg and 1,250 parts of fibrine. This is, we believe, the first time that pepsine has been obtained so pure that it can claim to undertake such extraordinary digestive power. There is no doubt that the term pepsine has hitherto been most indefinite, if it can be proved that it may be worked up to such efficacy. Our own *British Pharmacopœia* directs the manufacture of pepsine so that fifty times its own weight of coagulated white of egg may be dissolved; and we must fear that pepsine so prepared most rarely comes to that potency; indeed, we have most frequently found that the pepsine of the shop did hardly dissolve five times its weight, occasionally twenty times; and very few makers indeed reach an efficacy of fifty, and only two or three makers in this country may pride themselves on one hundred. The *German Pharmacopœia* directs that pepsina porci should dissolve one hundred times its own weight as the minimum; and if we consider that the sample exhibited by Jinzelberg contains sugar of milk as a vehicle, he must necessarily have reduced it to that standard from his absolute pepsine. This in itself would be a process which would warrant efficacy more correctly than pretending to make pepsine from the pig's stomach as our *Pharmacopœia* directs, and not to obtain any effective or discharged pepsine. To start with a pure product will infinitely more probably assure a certain efficacy, and enable the practitioner to judge what is the dose necessary to be taken. Samples of one hundred are freely given to the profession.

Jinzelberg's ergotine dialysed for injection is the purest ergotine, obtained by dialysis. The dose seems to be the ordinary one; and, to explain many doubts, the thick material should be diluted by its own weight of water to facilitate application.

The well-known firm of H. and T. Kirby and Co. exhibit a very

elegant basis for lozenges, which they call glycecolloid. It consists of isinglass and glycerine, and can be medicated or flavoured with any materials desired. These "jelly troches" are extremely elegant, melt easily in the mouth, and are less mawkish than the ordinary lozenges made with sugar. They are chiefly designed for use in local affections of the mouth and throat, but can be used also for internal medication; and for this purpose they are prepared with aconite, guaiacum, bismuth, podophyllin, etc. A dusting powder, consisting of oxide of zinc, starch, and thymol, is mildly antiseptic, and will be found an agreeable remedy. Eucalyptol enters into several preparations—into an eucalyptus ointment, into an eucalyptus and zinc ointment, and into antiseptic colloid, which owes its antiseptic properties to the fact that it contains 10 per cent. of eucalyptol. Nutrimentin is another attempt to supply a beef-essence which is at once palatable and durable. It differs from most other preparations, by containing a definite amount of farina. Beef is at present used in its manufacture. All fat is removed; and the meat is ground in powerful mills to the finest powder, and then intimately mixed with whole wheat or oatmeal. The resulting mass is rolled out into thin sheets, and dried. Nutrimentin is sold in these sheets, or in powder; and from it beef-tea or soup of excellent quality can be very quickly prepared. The pills made by this firm are well known. The pill-mass used is thoroughly mixed by special machinery, and the pills are coated with a white varnish of French chalk.

Messrs. Warner and Co. of Philadelphia, believing that the chalk sometimes forms a coating impermeable to the action of the alimentary juices, coat their pills with white sugar. The result is a very elegant and tasteless pill, which rapidly dissolves even in cold water. It is inconceivable that a pill thus made should fail to undergo solution in the stomach.

Messrs. W. H. Schieffelin and Co. of New York, an old-established firm little known in this country, go a step further on the road towards perfection. They exhibit a case full of pills of various kinds, which are remarkable for their elegance. The coating in this case consists chiefly of gelatine, which forms a transparent capsule to the pill-mass, allowing its colour to be seen through, and so diminishing the risk of mistake. The pills are quite tasteless; but the capsule, if held for a minute in the mouth, is dissolved, and the included mass is then found quite soft and fresh.

Mr. W. Martindale, in an adjoining case, exhibits some "plastic pilules"; these also have a transparent soluble coating. These pills readily dissolve, and are so easily disintegrated that they can be crushed between the finger and thumb. The iodoform bougies recommended by Mr. Watson Cheyne for the treatment of gonorrhœa, and daily gaining the confidence of a widening circle, are exhibited here, as well as by Messrs. Kirby. Mr. Martindale's nitroglycerine tablets, in which chocolate is used as a recipient, are not only carefully made as to the dose, but absolutely palatable. Nitrite of amyl, another dangerous but useful remedy, is best dispensed in the convenient glass capsule here shown; as is also the iodide of ethyl, recommended for the dyspnœa of asthma and laryngitis. The medicated pastils have a basis closely resembling that used by Messrs. Kirby for their jelly troches.

Messrs. Burroughs, Wellcome, and Co. are the agents for Wyeth's Compressed Tablets, which are intended to replace the lozenges in ordinary use. No recipient is used, the tablet consisting only of the salt itself, firmly compressed into an ovoid shape by hydraulic machinery. The tablets of chlorate of potash, and of the same salt combined with chloride of ammonia, are especially convenient; each contains five grains; they dissolve slowly in the mouth, and are not as big as a threepenny bit; the bicarbonate of soda and the peptonic tablets will be found useful and elegant remedies in dyspepsia. The small granules for hypodermic remedies shown by this firm seem to be a useful novelty; in these the morphia is combined with sulphate of soda, and compressed into little lenticular granules by hydraulic pressure. No gelatine is used, and this is claimed as an improvement, diminishing the risk of inflammation and abscess. These granules readily and rapidly dissolve in three minims of cold water. The so-called "McK. and R." pills, made by McKesson and Robbins of New York, are slightly ovoid in form, and are coated with transparent gelatine, which dissolves if the pill be held for a minute or two in the mouth. The gelatine coating is perfectly sealed, and protects the pill mass from the action of the air; this is especially well seen in the case of the phosphorus pills. Kepler's malt extract has already been favourably noticed in our columns; it is a well-made and palatable preparation, likely to find favour with children. Hazeline, the active principle distilled from the bark of the witch-hazel, is a clear, limpid fluid, with mildly antiseptic properties; it is much used in the United States in the treatment of catarrh, and as a local application in ulcers and erythematous affections. Lawton's absorbent cotton-wool is an excellent preparation; it sinks rapidly in water, and is, therefore, well adapted as a dressing to wounds where there is much discharge.

THE MUSEUM OF THE INTERNATIONAL MEDICAL CONGRESS.

The exhibition of anatomical and pathological specimens, collected temporarily for display before the members of the Congress, will be held in the Geological Society's Museum, Burlington House. For the convenience of members, we may as well observe that the entrance to the Society's Museum, and other rooms, is not through the archway leading to the Royal Academy, and to most of the other learned societies, but through the door facing Piccadilly, at the easternmost extremity of Burlington House, immediately adjoining the Christian Knowledge Society's premises. The Museum is on the first floor, and is partially divided into two rooms, fairly lighted from above and by windows. The specimens are mostly arranged, not on shelves, but on octagonal or oblong tables, on the tops of which the bottles, etc., are placed on tiers of planking covered with light blue cloth; this material also lines the walls, to which drawings of diseased structures are suspended. Living patients will be exhibited in a room adjoining the Museum, on the following days:

Tuesday, August 2nd, 4 P.M.—Cases of Gout, by Dr. Duckworth; Rheumatic Arthritis, by Mr. Hutchinson.

Wednesday, August 3rd, 9.30 A.M.—Leprosy, by Mr. Hutchinson, Dr. Crocker, and Mr. Startin.

Thursday, August 4th, 9.30 A.M.—Myxœdema, by Dr. Ord; Ruptured Brachial Plexus and other rare forms of Nerve-Disease, by Mr. Hutchinson.

Friday, August 5th, 9.30 A.M.—Skin-Diseases, by Drs. Duckworth and Crocker; Messrs. Baker, Malcolm Morris, and Startin.

Saturday, August 6th, 9.30 A.M.—Charcot's Joint-Disease, by Messrs. C. Macnamara, Herbert Page, and Treves; Three Successful Cases of Nephrectomy, by Messrs. Baker, Couper, and Lucas; Cross-Legged Progression, by Mr. Lucas.

Monday, August 8th, 9.30 A.M.—Syphilitic Bone (Hereditary), by Dr. Crocker and Mr. Parker; Syphilitic Teeth, by Mr. Hutchinson; Osteitis Deformans, by Mr. Treves.

Tuesday, August 9th, 9.30 A.M.—Large Varicose Veins of Abdominal Walls, by Mr. Treves; Pulsating Tumour of Face and Orbit, by Mr. Lucas; Vascular Protrusion of Eyeball, Ligature of Carotid, by Mr. Higgens; Tumour of Groin, Mr. Lucas; and Cases of Skin-Disease.

Fixed dates are also set apart for microscopical demonstrations, as follows:

Thursday, August 4th, at 3 P.M.—Double and Treble Staining of Sections, and Binocular or Stereoscopic Views of Preparations under high powers, by Mr. Heneage Gibbes; Leprosy, by Dr. Abraham of Dublin; Tubercular Disease of the Eyeball, by Drs. Hirschberg of Berlin and Story of Dublin.

Friday, August 5th.—Microscopical Sections and Transparent Naked-Eye Preparations of the Medulla and Spinal Cord, by Dr. Laura of Turin.

Many series of drawings of diseased structures, portraits of patients with objective symptoms, etc., are placed in portfolios, accessible to visitors; others are mounted in upright glazed cases; among these are a beautiful coloured series by Dr. Andrew Clark, illustrating lung-diseases. Among those which are hung on the walls, are some of the water-colours of wounded soldiers taken from sketches made during the campaign of 1815 by Sir Charles Bell, and kindly lent by the authorities of Netley Hospital. Bell had great talent as an artist, particularly in depicting expression; and the agony of the wounded heroes is represented in so natural a manner, that we should look on the series with horror, were it not that we remember that, since they were prepared, the history of surgery can claim the inestimable discovery of chloroform; that now more effectual anodynes soothe the sufferer before and after operation, and that the hero who is maimed for his country is cared for in a far more satisfactory manner than was the case sixty-six years ago.

The catalogue is very complete, and the specimens are numbered in the order in which they arrived; but, to facilitate reference, there is a simple arrangement by which specimens of any special class of complaint can be looked up; besides, the specimens are placed in scientific order, and not according to their numbers. A similar arrangement in the catalogue would not have been possible, considering the short time for preparation at the disposal of the Museum Committee, and the late arrival of the bulk of the specimens.

Out of the whole collection, we may here mention some specimens of unusual interest. Mr. Shattock has selected from University College Hospital a series including a fracture of the coracoid process, casts of dislocations of the wrist, specimens of "Madura foot", and an urinary calculus formed on a fœtal tibia ulcerated into the bladder, in a case of extra-uterine fœtation. Mr. Stephen Paget sends woody tumours, from cedar, beech, holly, and other trees; they are undeveloped buds, in-

creasing by the yearly addition of layers of wood. Mr. N. P. Blaker sends, from the Sussex County Hospital, Brighton, a skeleton of a man, aged 68, who had suffered all his life from mollities and fragilitas ossium. Mr. C. Macnamara sends a series of bone-diseases. Professor Struthers of Aberdeen contributes some highly interesting anatomical preparations, including specimens of the supra-condyloid process in the human humerus in various degrees of development, macerated, or with the soft parts intact; the exhibitor will read a paper on this subject in the Anatomical Section. Mr. W. Adams contributes a series of twenty casts showing Dupuytren's contraction of the fingers, and the results of operation for its relief; two are from a female subject, in which the disease is extremely rare. Mr. F. S. Eve has selected a very large number of the most remarkable specimens from the museum of St. Bartholomew's Hospital. Mr. C. Stewart has, in a similar manner, selected from St. Thomas's Hospital Museum, and also shows numerous useful and ingenious methods for mounting and preserving specimens. Dr. P. C. Abraham sends some fine examples from the Irish College of Surgeons, including a group of Colles' fracture, a Hey's dislocation of the thumb, numerous other fractures and dislocations, and some preparations and dissections of organs invaded by leprosy. Dr. Goodhart has picked out from Guy's Hospital a series of arterial diseases and preparations showing the effects of acupressure and torsion; also a specimen of spondylitis deformans, etc. Dr. J. K. Fowler has selected from the Middlesex Hospital some specimens of Addison's disease; of ainhum, a disorder affecting the little toe in Brazilian negroes, and Dr. Greenhow's valuable series of pigmented and indurated lungs, diseased through the constant inhalation of irritating substances, as occurs in the pursuit of several mechanical vocations. Numerous series of drawings and models are furnished by well known living workers, illustrating phases of disease and their theories on the same—subjects very familiar to all who have attended the sittings of the learned and medical societies in this country during the last few years—and our foreign brethren have not been behindhand in contributions of this kind. The great cost and risk of transport has, of necessity, prevented the loan to the Museum of the Congress of any considerable number of specimens and preparations from the Continent. Among the collection of instruments, we may notice a self-registering thermometer and clock, contrived and lent by Mr. Cripps; it is very ingeniously constructed, and forms a most handsome piece of furniture. Marcet's spirometer will also be on view, as well as a new and simple sphygmograph devised by Dr. Dudgeon, and various contrivances used by dermatologists. It will be seen that either by direct loan, selected by conservators, or indirectly, as in the case of specimens specially prepared by members of the staff, nearly all the London hospitals send contributions to the Museum; this will save foreign visitors from great inconvenience; the difficulties and the time spent in hunting up specimens of one form of disease all over the metropolis is well known to British workers, and had selections not been sent to this temporary collection no visitor able to stay in England for the Congress week only could have seen one-tenth of the valuable series now made so accessible to him. Alone, the College of Surgeons sends no contributions; but as it is so universally known to foreigners that visitors are certain to search closely into its treasures, the authorities of Lincoln's Inn wisely thought it best to preserve its vast collection absolutely intact for the Congress. Lastly, short of copying out the entire catalogue of the Museum of the Congress, it is not possible for us to do justice to this loan collection of pathology and anatomy. The Museum Committee have worked hard, under Mr. Hutchinson, to make their enterprise as successful as possible; and especial credit must be awarded to Mr. Clutton, the secretary, and to Mr. Charles Stewart of St. Thomas's Hospital, who have laboured indefatigably at the preparation of the catalogue and the arrangement of the specimens during the past few months.

REPORT OF COMMITTEE APPOINTED TO OBTAIN RESTRICTIVE LEGISLATION FOR HABITUAL DRUNKARDS.

SINCE the last annual meeting, your Committee have kept the principles, which the Association has so often endorsed, steadily before them. The resolution which was passed at Cambridge, that "the support of the Association be requested, with the view of obtaining from the legislature some provision whereby habitual drunkards, who become chargeable to the rates, should be placed under such restraint as may lead to their being reclaimed," was referred to your Committee by the Committee of Council. In consequence of that reference, your Committee applied to the Local Government Board for information, as to whether they would authorise the boards of guardians to pay the expenses of habitual drunkards who are paupers, and who, with their own consent, would enter a retreat. The answer to this inquiry seems to imply that, while it is the duty of guardians to provide for the relief of destitution, it is no part of their duty to effect a moral improvement; but, that if such institutions should be established, the question of sending paupers to them might possibly depend, in some degree, upon the actual regulation and terms of admission, as well as the circumstances and conditions in each case.

Your Committee directed a letter to be sent to every board of guardians in the kingdom, requesting information as the opinion of guardians upon this point. A considerable number of favourable answers have been received, indicating a desire on the part of some of the more intelligent board of guardians, that they should have the power, if they should think fit to exercise it, to pay for the detention of habitual drunkards in retreats. But it is right to state that the majority of the boards do not wish for any power which may enable them to add to the rating of their district; it being a principle with the least thinking part of the community, that nothing should be done which has for its object any addition to the rating powers of the boards.

It being evident that funds would not be forthcoming from any private source, for the purpose of establishing such a retreat as is aimed at by the Act of 1879, and by the Association, it was determined to enlist the sympathy of the Lord Mayor, and to convene a meeting at the Mansion House, under his auspices, for the purpose of establishing a "Dalyrymple Home," as a model retreat. The Lord Mayor very kindly acceded to the request of the Committee. A large and influential meeting was held on May 17th, at which a committee of management was formally appointed for the purpose of carrying out the resolutions, which the British Medical Association has so strenuously supported. The Committee thus appointed have undertaken the duty which has been placed upon them. They have met on several occasions. They have determined to become enrolled under the Limited Liability Act, with liability limited by guarantee, and have applied to the Board of Trade for power to dispense with the word "limited" on their prospectuses; the society being one for charity and the promotion of science, and not for profit. They are also in treaty for the lease of premises, which it is proposed to license under the Act of 1879. Your Committee hope, therefore, that a great part of the object for which they were appointed will be achieved. It will, however, be necessary to reappoint them, as the condition of the law is very unsatisfactory. It will be an advantage to continue the correspondence with the President of the Local Government Board, and also to prepare the way for further legislation when the time arrives for effecting the same. It is suggested, therefore, that the committee be reappointed as heretofore.

ALFRED CARPENTER, M.D.
STEPHEN S. ALFORD.

P.S.—Since the above Report was drawn up, your Committee deeply regret to announce the death of Mr. S. S. Alford by an accident.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy to the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR COGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S., London; Alexander G. Davey, M.D., Ryde. [illegible] M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., F.R.C.S., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* [illegible]

M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London. *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST 9TH, 1881.

2 P.M. Meeting of Committee of Council, in the Ante Room of the Justice Hall.
2.30 P.M. Meeting of the Council of 1881-2, in the Justice Hall, Town Hall.
4 P.M. —Short service, with sermon by Bishop McDougall.
8 P.M. —General Meeting in the Town Hall, Great Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST 10TH.

9.30 A.M.—Meeting of Council of 1881-2, in the Ante-Room of the Justice Hall.
11 A.M. —Second General Meeting in the Town Hall, Great Hall. Address in Medicine.
1 to 5 P.M. —Sectional Meetings.
6 P.M. —Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST 11TH.

9 A.M. —Meeting of Committee of Council, in the Ante-Room of the Justice Hall.
11 A.M. —Third General Meeting in the Town Hall, Great Hall. Reports of Committees.
11 A.M. —Address in Surgery, in the Town Hall, Great Hall.
1 to 5 P.M. —Sectional Meetings.
7 P.M.—Public Dinner in the Town Hall, Great Hall.

FRIDAY, AUGUST 12TH.

11 A.M.—Address in Obstetric Medicine, in the Town Hall, Great Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall, Great Hall. Reports of Committees and other business.
4 P.M.—Garden party in the grounds of the Isle of Wight College, by the President and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach. 2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

Professor Rosenstein of Leyden and Professor Ewald of Berlin will be present, and will take part in the discussions.

The following papers have been promised.

BARLOW, W. H., M.D. Regressive Paralysis in the Infant.
COGHILL, J. Sinclair. The Climate of Ventnor in relation to diseases other than Phthisis.
COUSINS, J. Ward, M.D. A new and convertible Stethoscope.
DOWSE, T. S., M.D. On the Differential Diagnosis of Intracranial Tumour, General Paralysis of the Insane, and Locomotor Ataxy.
DRYSDALE, C., M.D. On Syphilis of the Spinal Cord.
FINNY, J. Magee, M.D. Notes on a case of Acute Ascending Spinal Paralysis.
GOWERS, R. W., M.D. Acute Spinal Paralysis.
GROVES, J., M.D. The Treatment of Insanity.
HADDON, John, M.D. Is Antipyretic Treatment justifiable?
HASSALL, Arthur Hill, M.D. The Winter Climate of San Remo.
KERR, Norman, M.D. Three successful experiments in the Treatment of Dipsomania.
MORRIS, Malcolm, Esq. Chaulmoogra Oil in Skin-diseases.
SKERRITT, E. Markham, M.D. A case of Subcutaneous Emphysema from Spontaneous Rupture of Lung.
SMITH, R. Shingleton, M.D. Some Notes on the Treatment of Diabetes by Codeia.
THIN, G., M.D. On Alopecia Areata: a Clinical Study.
TIBBITS, E. T., M.D. On the Modern Theory of the Action of Digitalis.
TYSON, W. J., M.B. Rectal Alimentation.
WILLIAMSON, J. M., M.D. The Laryngeal Complications of Consumption.

SECTION B.—SURGERY.

Mr. Coates, President of the Section, in his opening address, will make some observations on the Treatment of Hæmorrhoids, and a New Operation for their Removal.

1. A discussion will be opened by Mr. Stokes of Dublin, on Resection of the Knee in Early Life.

2. Mr. Edmund Owen will open a discussion on the Early Recognition and Treatment of Spinal Caries.

The following papers have been promised.

COUSINS, J. Ward, M.D. A New Antiseptic Dressing.
CROFT, E. Richardson, M.B. Antiseptic Treatment and Dressing in Lupus.
CURTIS, A. Pearce, M.D., U.S. Vascular Surgery.
GRIFFITHS, Nicholas, L.R.C.S. On the Extraction of Foreign Bodies from the Chest.
GRIFFITHS, H. Evan, L.R.C.S. The Value of Surgical Statistics.
HUTCHINSON, Reginald, L.R.C.S. Treatment of Hydrocele by Subcutaneous Incision.
JAMES, Prosser, M.D. Stricture of the Œsophagus.
LEDIARD, H. A., M.D. On the Treatment of Fracture of the Lower End of the Femur.
MACNAMARA, C., L.R.C.S.I. The Causes of Chronic Joint Disease.
MARTIN, H., M.D. (Boston, U.S.) A Novel Treatment of Synovitis.
M'MANUS, J. T., L.R.C.S.I. A Case of Psoas Abscess.
NORTON, A. T., L.R.C.S.I. A new and simple Operation for Cleft Palate.
PYE, Walter, Esq. Spina Bifida.
SAVAGE, W. Dacre, L.R.C.P. A further Case of Strangulated Inguinal Hernia.
TAIT, Lawson, F.R.C.S. Some recent Results of Ovariotomy.
TAYLOR, C. Bell, M.D. On Division of the Orbital Plate of the Malar Bone as an Operation for the Relief of Pain in Sympathetic Ophthalmia. 2. On Antiseptics in Ocular Surgery.
THOMAS, W. H., L.R.C.S. Twenty-five Cases of Lithotrity at One Sitting.

SECTION C.—OBSTETRIC MEDICINE.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

Dr. Bantock will take part in the discussions.

The following papers have been promised.

BARNES, Fancourt, M.D. The Treatment of Puerperal Convulsions by Chloroform.
CROOM, J. Halliday, M.D. A Dissection and Description of an Acardiac Fœtus, with Drawings.
DRYSDALE, C. R., M.D. The Prognosis of the Syphilis of Women and Children.
EDIS, A. W., M.D. On Sterility.
HICKS, J. Braxton, M.D. On Secondary *Post partum* Hæmorrhages.
HIME, T. W., M.B. Two cases of Repeated Ovariotomy, with description of new Instrument for Paracentesis.
MOULLIN, J. A. Mansell, M.B. The Treatment of Chronic Metritis by Intra-uterine Applications.
MUGGERIDGE, H. H., Esq. Short and Practical Hints on Natural Labour useful to be remembered by young Obstetricians.
MURPHY, J., M.D. The Treatment of Placenta Prævia, with short notes of six consecutive cases.
REID, W. L., M.D. On the Adaptation of Pessaries to produce Displacement; showing a method of doing so by means of a new material called Godiva.
TRESTRAIL, H. E., Esq. Cases showing the importance of exploring the Interior of the Uterus in *Post partum* Illness, and especially in Puerperal Fever.

SECTION D.—PUBLIC MEDICINE.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

The following papers have been promised.

BEVERIDGE, Robert, M.B. On a Peculiar Outbreak of Disease in connection with the Supply of Milk.
DAVEY, A. G., M.D. On the Prevention of Enteric Fever.
DRYSDALE, C. R., M.D. London Local Death-rates.
EVATT, Surgeon-Major G. J. H., M.D. The New Medical Organisation of the Army.
GROVES, J., M.B. The Isle of Wight as a Health-resort.
HODGSON, G. F., Esq. On the Relations of Variola and Vaccina; especially as illustrated by the experiments of Mr. Badcock, formerly of Brighton.
PALMER, J. Foster, Esq. Cremation: remarks on some of the minor points connected with it.
STEWART, A. P., M.D. Are Homes for Convalescents from Scarlatina desirable? and, if so, at what period can the patients be safely removed to them?
WARLOMONT, E., M.D. (Brussels). Is it desirable that Vaccination by means of Calf-lymph should be encouraged in England?
WHITEHEAD, J. L., M.D. The Climate of the Undercliff, Isle of Wight, as a place of Health-resort; deduced from forty years' consecutive meteorological observations.

SUBSECTION—OTOLOGY.

The following British and foreign otologists have expressed their intention of being present, and taking part in the discussions: Messrs. Field, Gardiner Brown, Lennox Browne, Hodgson, Torrance; Drs. Duncanson, Barr, Pierce, Jacob, Ward Cousins, Loewenberg (Paris), Rumbold (St. Louis), Moure (Bordeaux), Reeve (Toronto), Stevens (New York).

Discussions on the following subjects will take place.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections. The discussion will be opened by Dr. Thomas Barr of Glasgow.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

The following papers have been promised.

BARR, Thomas, M.D. The Treatment of Purulent Discharge from the Ear, where the Source of the Secretion is in the Upper Part of the Tympanum and in the Antrum Mastoideum; with four illustrative cases.

BROWN, A. Gardiner, Esq. Sclerosis of the Mucous Membrane of the Middle Ear.

CHOLEN, Rupert C., Esq. The Surgery of the External Auditory Passage.

PRITCHARD, Urban, M.D., Chairman of the Subsection, will open the proceedings with a short address on Aural Surgery as a branch of Medical Education.

RUMBOLD, T. F., M.D. The Relation of Diseases of the Nasal Passages and N... Pharynx to Aural Affections.

SEXTON, Samuel, M.D. (New York). The Treatment of Acute Suppurative Inflammation of the Middle Ear, with reference to Perforation of the Mastoid.

TORRANCE, R., Esq. Remarks on Vertigo in Catarrhal Inflammation.

Dr. WARD COUSINS will exhibit and describe his Ear-Protector against noise, shock of cold, etc.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate with as early as possible the Secretaries of the respective Sections.

SECTIONAL MEETINGS.

The Sectional Meetings will be held in the following rooms.

Section A: Medicine.—Small Hall of the Town Hall.

Section B: Surgery.—Justice Hall.

Section C: Obstetric Medicine.—Lecture Room of Young Men's Christian Association, opposite the Town Hall.

Section D: Public Health.—Victoria Rooms, opposite the Town Hall.

Subsection: Otology.—Council Chamber, Town Hall.

ANNUAL MUSEUM.

THE annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M.

Chairman, Alexander George Davey, M.D.

Honorary Secretary, Evelyn Rich, Esq., Temple House, Ryde.

RECEPTION ROOM.

The School of Art has been fitted up as a Reception Room, and will be opened on Tuesday, August 9th, at 10 o'clock in the forenoon, and on the following days at 9 o'clock in the forenoon, for the issue of tickets to members and for supplying all information.

**** It is particularly requested that Members, on their arrival, will proceed at once to the Reception Room, record their names and addresses, and obtain their tickets and Daily Journal, inquire for letters, and consult list of lodgings and hotels.*

DINNER.

Notice is hereby given that, in accordance with the resolution passed at the last annual meeting, held at Cambridge, the Committee of Council have made arrangements for tickets inclusive and exclusive of wine. The price of each dinner ticket, exclusive of wine, but including aerated waters, is 14s., the dinner ticket, inclusive of wine, £1 1s. The number of tickets is limited to 350. Applications for tickets to be accompanied by cheque or Post Office Order payable to F. Greening, Esq., Honorary Secretary to Dinner Subcommittee, Melville Street, Ryde.

EXCURSIONS.

SATURDAY, AUGUST 13TH.—1. A steamer, provided by the mayor and inhabitants of Ryde, will start from Ryde Pier at 9 A.M., proceeding round the island to Alum Bay, from whence Dr. Alfred Hollis will conduct members to Freshwater, which having visited, the party will re-embark at Yarmouth for Cowes; and, landing there, will find their way to Carisbrooke for lunch, by the Cowes and Newport rail.

2. A train will leave Ryde at 8.10 A.M. for Sandown: carriages free will be in waiting to convey the party to Shanklin and Ventnor, where a *déjeuner a la fourchette* will be given by the residents, in the grounds of Dudley A. Hambrough, Esq., J.P., at Steephill Castle. After visiting the National Hospital for Consumption, they will proceed, by way of the Undercliff to Blackgang, where Robert Pinnock, Esq., J.P., will receive the members. After viewing the locality, the journey will be continued to Carisbrooke Castle, where the visitors will be entertained by his Worship the Mayor, and the residents of the capital of the island. Subsequently, the Roman Villa and Church of Carisbrooke, the Parish Church and Grammar School of Newport will be visited. The steamer will be in waiting at Cowes to convey members back to Ryde.

ACCOMMODATION AT RYDE.

MEMBERS of the Association who propose to bring ladies to Ryde, on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, EVELYN RICH, Esq., Temple House, Ryde, Isle of Wight.

The Directors of the Royal Pier Company have liberally granted the free use of the pier to members of the Association. A steam launch will be engaged for the use of members for water-excursions.

The gentlemen whose names are as follows throw open their grounds one day each to the members of the Association: Sir William Clifford, Bart., Westfield; The Right Hon. Sir William Hutt, Apley Towers; and the Rev. Alfred Locock, Binstead House, daily. The Poet Laureate will open his grounds at Freshwater on Saturday, the 13th, to members of the Association and their friends. Arrangements will be made from day to day for visiting the Dockyards at Portsmouth.

FRANCIS FOWKE, *General Secretary.*

London, July 14th, 1881.

MINUTES OF COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Offices of the Association, 161a, Strand, on Wednesday, July 13th, 1881: Present, Dr. ALFRED CARPENTER, President of the Council, in the Chair; Professor G. M. Humphry, F.R.S., President; Mr. B. Barrow, President-elect; Dr. W. F. Wade, Treasurer; Dr. Clifford Allbutt, F.R.S.; Mr. A. Baker, Dr. L. Borchardt, Mr. J. K. Burt, Dr. J. Ward Cousins, Dr. A. Davidson, Dr. M. M. de Bartolomé, Dr. R. Farquharson, Dr. B. Foster, Mr. R. S. Fowler, Dr. E. Long Fox, Dr. John H. Gibson, Dr. W. C. Grigg, Dr. C. Holman, Mr. J. R. Humphreys, Mr. W. D. Husband, Mr. A. Jackson, Dr. D. J. Leech, Mr. C. Macnamara, Dr. E. Malins, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Mr. H. Power, Dr. A. Sheen, Dr. E. H. Sieveking, Mr. H. Stear, Dr. A. P. Stewart, Dr. W. Strange, Dr. A. T. H. Waters, and Mr. C. G. Wheelhouse.

The minutes of the last meeting were read and found correct.

Read letter of apology for non-attendance from Dr. G. F. Duffey.

The PRESIDENT of the COUNCIL reported that, since the last meeting of the Committee of Council, Dr. Falconer, one of the Vice-Presidents of the Association, had died; and that he had written a letter of condolence to the family, on behalf of the Association, and had received a letter from Dr. Falconer's son, thanking him, on behalf of the family, for his sympathy.

Resolved: That the Committee of Council desire to express their sincere regret at the death of their late colleague, Dr. Falconer, and also their great sympathy with his family in the deep misfortune which has befallen them, and that they endorse the action of the President of the Council in at once communicating with their family on their behalf.

Read communications from Dr. Hogarth Clay of Plymouth, President of the South-Western Branch, and Dr. S. Rees Philipps, Secretary.

Dr. LEECH called attention to the alteration of by-law for the election of members, to be proposed at the annual meeting by Mr. Jackson and Dr. Grigg, and suggested that some modification of the present mode be adopted, which would not necessitate the alteration of the by-law.

Resolved: That Mr. Arthur Jackson and Dr. Grigg be requested to withdraw their notice of a proposed alteration in the by-laws, as the object intended can, if considered desirable, be carried out by a resolution of the Committee of Council.

Resolved: That the mode of electing members be referred to a Subcommittee consisting of Dr. Grigg, Mr. Arthur Jackson, Dr. Stewart, Dr. Leech, and Mr. Husband, the President, and the President-elect; and that they be requested to report to the Committee of Council at or before the quarterly meeting.

Mr. Arthur Jackson and Dr. Grigg consented to withdraw the notice of proposal for alteration of By-law 3 respecting the election of members.

Resolved: That the eighty-two gentlemen whose names appear on the circular convening the meeting, and the forty-two whose names appear on the supplementary list, be, and they are hereby, elected members of the Association.

Resolved: That the minutes of the Arrangement Committee of May the 28th be approved, and the recommendations carried into effect.

The President-elect reported that he had made arrangements for abstainers at the annual dinner; the cost of the dinner, inclusive of wine, [illegible], as heretofore; and exclusive of wine, inclusive of aerated waters, 14s.

The minutes of the Habitual Drunkards Committee of to-day's date were read and approved.

The minutes of the Habitual Drunkards Committee contain a resolution of condolence on the death of Mr. S. S. Alford.

Read letter from Dr. Thompson of Leamington, asking that the notice of the annual meeting of the Irish Graduates' Association, to be held at Ryde, on Wednesday, August 10th, at 5 o'clock in the afternoon, be entered in the Daily Journal as usual.

Resolved: That permission be given to announce the meeting in the Daily Journal as usual.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be approved, and the recommendations contained therein carried into effect.

The minutes of the Journal and Finance Committee contain the examination of the quarterly accounts, amounting to £3,185 11s. 7d., and auditors' quarterly report on examination of receipts and payments.

Resolved: That the minutes of the Scientific Grants Committee of the 12th instant be approved, and the recommendations contained therein carried into effect.

The minutes of the Scientific Grants Committee contain the accounts of the grants made last year, and applications for new and continued grants.

Resolved: That the minutes of the Trust Funds Subcommittee of to-day's date be approved, and the recommendations contained therein carried into effect.

The Trust Funds Subcommittee minutes contain recommendations that, the interest on the Middlemore and Stewart Funds having accumulated for three years, the terms of the Trusts be advertised.

The report of attendances of the twenty elected members of the Committee of Council were examined, and appeared to be as follows. Five meetings: Dr. L. Borchardt, Dr. B. Foster, Dr. D. J. Leech, Mr. R. H. B. Nicholson, Mr. H. Power, Dr. W. F. Wade (Treasurer), and Mr. C. G. Wheelhouse. Four meetings: Dr. T. C. Allbutt, Dr. E. L. Fox, Dr. C. Holman, Mr. J. R. Humphreys, Mr. C. Macnamara, Mr. F. E. Manby, Mr. F. Mason, Mr. H. Stear, and Dr. A. P. Stewart. Three meetings: Dr. G. H. Philipson and Dr. E. H. Sieveking. Two meetings: Dr. A. T. H. Waters. One meeting: Dr. R. Farquharson, M.P.

There appeared to be six vacancies, viz.: five who had attended the fewest number of meetings; and the election of Dr. Wade to the office of Treasurer.

The names of Dr. Farquharson, Dr. A. T. H. Waters, Dr. E. H. Sieveking, and Dr. G. H. Philipson, were taken off the list, in accordance with By-law 28, and that of Mr. Humphreys by lot.

Resolved: That the remaining fourteen gentlemen be nominated, together with six to be added by ballot, as members of the Committee of Council for the year 1881.

Six gentlemen, whose names are as follow, were declared duly nominated in accordance with the by-laws, viz.: Dr. Leslie Jones; Mr. Sibley; Dr. Drage; Dr. A. J. Harrison; Mr. T. H. Bartleet; and Surgeon-Major Boileau.

Resolved: That the consideration of the annual report be adjourned till the next meeting of the Committee of Council.

BRANCH MEETINGS TO BE HELD.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.—The annual meeting of this Branch will be held on Saturday, the 30th July next, in the rooms of the Branch, 198, Union Street, at 1.30 P.M.—J. URQUHART, M.D., 250, Union Street, Aberdeen, ROBERT JOHN GARDNER, M.D., 207, Union Street, Aberdeen, Honorary Secretaries.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE third general meeting of this session was held in the Bell Medical Library, Wolverhampton, on Thursday, May 26th, 1881: present, Mr. W. H. FOLKER, President, in the Chair, and twenty-two members.

Communications.—The following communications were made.

1. Mr. F. E. Manby showed a little girl, who had had Double Genu Valgum. A few months ago, Dr. Macewen's operation for the relief of her deformities had been performed, the result being successful.

2. Mr. Spanton exhibited a Spiral Needle, useful, he suggested, for applying the Continuous Suture.

3. Mr. W. H. Folker exhibited a Needle-holder constructed by himself, and found to be serviceable in cases of Vesico-Vaginal Fistula, etc.

4. Mr. F. F. Grey concluded his paper on Alcoholism and the Treatment of Inebriates.

5. Dr. Monckton read a paper entitled—Scarlet Fever: What can be done by the Profession, the Sanitary Authorities, School Boards, or Parliament, towards stamping out this Scourge?

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE twenty-ninth annual meeting of this Branch was held at the Crystal Palace, on Tuesday, July 12th, at 4 P.M. The chair was taken by the retiring President, S. O. HABERSHON, M.D., who afterwards resigned it to the newly elected President, EDWIN SAUNDERS, Esq.

New Members.—Mr. Ashley Gibbings, of 18, Stratford Place, and Dr. Joseph W. Hunt, of 101, Queen's Road, Dalston, were elected members of the Branch.

Report of Council.—Dr. HENRY, one of the honorary secretaries, read the following report.

"The Council of the Metropolitan Counties Branch have again the gratification of being able to make a favourable report of the progress of the society. When the last list was published, the number of members was 836. Since that time, eleven names have been removed in consequence of death, and eighteen through resignation and other causes. Thirty-nine new members have been admitted; making the total number at present 846.

"The members who have died are—Mr. Stephen S. Alford, Mr. Edward Amphlett, Mr. J. B. Barry, Dr. Thomas Cahill, Mr. W. E. Farnfield, Mr. William Hardwicke, Coroner for Central Middlesex, Dr. Edward Meryon, Dr. Duncan Sinclair of Halstead, Mr. Thomas Heckstall Smith of St. Mary Cray, Dr. E. I. Sparks, and Mr. Edward Waylen of Colchester.

"The task of recording the death of Mr. Stephen Alford, cut off by an accident in his honourable and useful career, is a sad one for your Council. The Branch has witnessed with deep interest the progress of the philanthropic undertaking in which he has taken a leading part, and with which his name will ever be gratefully associated—the endeavour to reclaim the habitual drunkard from his unfortunate condition. To Mr. Alford's energetic labours has mainly been due the success which has so far been attained; and your Council feel that, by his death, not only has the medical profession lost one of its most upright and esteemed members, but the public has been deprived of a benefactor.

"The long illness, followed recently by the death, of Mr. Heckstall Smith, has caused the loss not only to this Branch, but to the Association, of one of the most highly valued and esteemed members. Mr. Smith was for many years an active member of the Committee of Council of the Association; he was also one of the most respected and influential members of the South-Eastern Branch, of which, many years ago, he was President; and, in 1870, his well-known character as one of the most worthy members of the body of general practitioners, induced this Branch to elect him as the president for the year. His manly honesty and unwearied energy will be remembered long by all who were associated with him in the work of this Branch, and of the Association.

"The meetings of the districts have continued to be a valuable means of adding members to the Branch, and of affording opportunities for discussion on subjects connected with medicine. The thanks of the Branch are eminently due to the honorary district secretaries, Dr. Dowse, Mr. Nelson Hardy, and Mr. Wallace, for the zealous and able manner in which they have performed their duties.

"In the course of the year, the subject of the management of hospitals, which had already been a topic of discussion at meetings of this Branch, and which, especially in consequence of recent events, was occupying a prominent place in the public attention, naturally attracted the notice of your Council; and, after deliberation as to the best course to be pursued, it was decided to summon a general meeting of the Branch, for the purpose of discussing the question of the improvements necessary in the management of these institutions. A meeting was accordingly held on February 23rd, at which Mr. Holmes read an able paper, and the following resolutions were adopted.

"'That this meeting regards it as essential for the proper management of any hospital, that the medical staff should be efficiently represented in the government of the hospital.'

"'That, in the management of hospitals, the necessary arrangements as regards medical treatment should be under the control of the medical staff.'

"After this, a committee—consisting of several members of the Branch, together with Mr. H. C. Burdett, who is well known to have made hospital management a subject of special study—was appointed to collect information, and report to an adjourned meeting. At the adjourned meeting, which was held on June 10th, the committee—which had in the meantime met several times, and most carefully investigated the subject entrusted to it—presented a report, recommending that a deputation should wait on the Home Secretary to strongly urge on him the appointment of a Royal Commission to investigate and report on

matters of hospital reform. After an animated discussion, the report of the committee, to which was appended the draft of a memorial to the Home Secretary, was adopted by a large majority of those present. The thanks of the Branch are eminently due to the committee for their labours; and especially to Mr. Timothy Holmes, for ably introducing the subject for discussion, and also for acting with his well-known courtesy and energy as the chairman of the committee; to Dr. Gilbart Smith, for his assiduous labours as secretary to the committee; and to Mr. Burdett, for placing at the disposal of the committee much important statistical information.

"Sir Henry Thompson, who was last year appointed president-elect, and would this year, in the ordinary course of events, have succeeded to the office of president, some months ago expressed his desire to relinquish the office, in consequence of the pressure of his engagements. Your Council have nominated Mr. Edwin Saunders in his place.

"The result of the voting for the election of officers and members of Council for 1881-82 is as follows.

"*President*, Edwin Saunders, Esq.; *President-elect*, Thomas Bridgwater, M.B.; *Vice-Presidents*, Robert Farquharson, M.D., M.P., John Wood, Esq., F.R.S., S. O. Habershon, M.D., and Timothy Holmes, Esq.; *Treasurer*, Walter Dickson, M.D.; *Secretaries*, Alexander Henry, M.D., and W. Chapman Grigg, M.D. *Ordinary Members of Council:* J. Crichton Browne, M.D., Andrew Clark, M.D., W. F. Cleveland, M.D., C. Davidson, Esq., C. H. Fagge, M.D., H. I. Fotherby, M.D., F. H. Gervis, Esq., Alex. Grant, M.D., W. H. Holman, Esq., W. Mac Cormac, Esq., C. Macnamara, Esq., J. J. Merriman, Esq., G. H. Savage, M.D., S. W. Sibley, Esq., T. Gilbart Smith, M.D., A. P. Stewart, M.D., A. H. Stocker, M.D., and E. Hart Vinen, M.D. *Representatives of the Branch in the General Council:* C. A. Aikin, Esq., G. F. Blandford, M.D., T. Bridgwater, M.B. (Harrow), G. D. Brown, Esq. (Ealing), T. Lauder Brunton, M.D., F.R.S., T. Buzzard, M.D., S. Cartwright, Esq., W. B. Cheadle, M.D., Andrew Clark, M.D., W. B. Dalby, Esq., C. Davidson, Esq., W. Dickson, M.D., J. Langdon Down, M.D., T. S. Dowse, M.D., C. Drage, M.D. (Hatfield), J. Matthews Duncan, M.D., R. Farquharson, M.D., M.P., Stamford Felce, M.R.C.P.Ed., John Goodchild, Esq. (Ealing), S. O. Habershon, M.D., H. Nelson Hardy, Esq., Ernest Hart, Esq., A. Henry, M.D., J. W. Hulke, Esq., F.R.S., G. Johnson, M.D., F.R.S., A. O'Brien Jones, Esq. (Epsom), R. Liveing, M.D., W. Mac Cormac, Esq., C. Macnamara, Esq., H. Power, Esq., R. Quain, M.D., F.R.S., W. Rivington, Esq., E. Saunders, Esq., R. Shillitoe, Esq. (Hitchin), S. W. Sibley, Esq., E. H. Sieveking, M.D., Sir W. R. E. Smart, M.D., K.C.B., A. P. Stewart, M.D., O. Sturges, M.D., H. Sutherland, M.D., E. H. Vinen, M.D., John Wood, Esq., F.R.S.

"In conclusion, while again congratulating the members on the healthy condition of the Branch, your Council express the hope that another year will see it increasing its numerical strength, and maintaining its influence for the welfare of the profession, and the promotion of medical knowledge."

Dr. DRAGE (Hatfield) moved, Dr. DRYSDALE seconded, and it was resolved:

"That the report of Council now read be received, adopted, and entered on the minutes."

The late Mr. Alford.—The PRESIDENT moved:

"That a copy of the paragraph in the report of the Council, relating to the death of Mr. Stephen Alford, be sent to his family, together with an expression of the condolence of the Branch with its sorrowing members."

The motion was seconded by Mr. NELSON HARDY, and supported by Dr. A. P. STEWART and Dr. E. H. VINEN, both of whom had known Mr. Alford nearly forty years; and, on being put to the vote, was unanimously carried.

Treasurer's Report.—Dr. WALTER DICKSON, treasurer, presented the financial report. The receipts—including a balance of £19 11s. 1d. in July 1880—amounted to £114 13s. 7d.; and the expenditure to £110 7s. 7d., leaving a balance in hand of £4 6s.

Dr. E. H. VINEN moved, Mr. MASSEY seconded, and it was resolved:

"That the treasurer's report be received, adopted, and entered on the minutes."

Dr. HABERSHON thanked the members for the support which he had received during his year of office. He believed that the action of the Branch in the matter of hospital reform would be productive of good; and expressed the hope that the number of members would soon be raised to a thousand. He then vacated the chair, which was taken by his successor, Mr. SAUNDERS.

Vote of Thanks to the Retiring President. Mr. MACNAMARA moved, Dr. HAWARD seconded, and it was unanimously resolved:

"That the cordial thanks of the Branch be given to S. O. Habershon, M.D., for the able and courteous manner in which he has performed the duties of President during the year: for his constant attention to the interests of the Branch, and of the profession; and for his hospitable reception of the members at the South Kensington Museum."

President's Address.—The PRESIDENT delivered an address on Specialism, and on the Influence of Medical Science on Modern Civilisation. After thanking the members for having elected him President, he referred to the fact that the splitting up of medical and surgical practice into specialties had always been discouraged by the corporate bodies. The reasons for this appeared to be—first, the apprehension that the educational standard might thereby be lowered; secondly, that if the department were one which involved large demands on time, the specialist might be trammelled by the routine of his daily work; and thirdly, that the specialist might be in danger of forming an exaggerated estimate of his own importance. To overcome the latter tendency, there was no better means than to become enrolled in such an association as that which the speaker was addressing. But it was extremely improbable that special practice could ever be set aside. Those who were most strenuous in their denunciations of specialism constantly resorted, in their own case, or in that of those in whom they were nearly interested, to those who (themselves sternly repudiating the name of specialist) were looked upon as the highest authorities as regards the particular ailment in question. In most cases of special practice, however, no such sharp line of demarcation was present as to indicate the necessity for a distinct curriculum, or a separate examination. But for the dentist-surgeon a special training was necessary; and this the President illustrated by a reference to the process of stopping teeth in which decay has commenced. For doing this, and thus restoring the damaged organ to health and efficiency, ordinary surgical knowledge—however diligent he might have been in attaining it—would be of little value; a special training was necessary to enable him to perform the operation. Concurrently with a rapid and brilliant advance in the science and art of dentistry, due to a large extent to a wave of progress which reached this country from America, there arose an increasing demand for, and an appreciation of, its services on the part of the public. Hence the necessity for an organisation of the profession became apparent. It soon became evident that there were two competing schemes, by one of which the surgical diploma was regarded as imperative and sufficient, while it was repudiated by the other as being of little worth. Neither alternative was adapted to meet the exigencies of the case; for, although the possession of the diploma of the Royal College of Surgeons ensured a good social and educational standing, it could not be regarded as giving evidence of that special knowledge which was necessary, inasmuch as the subject found no place in the examinations. On the other hand, to sever the connection of the specialty with general surgery, by the establishment of a College of Dentists, was regarded as a derogation from the position which it had hitherto enjoyed. In these circumstances, it was resolved to ask the Royal College of Surgeons for a special diploma or licence to be granted on examination by a conjoint board, consisting of half surgeons and half specialists, after a modified course of study; and it was found that the points of contact were so much more numerous than those of divergence in the lines of study for the diploma for general surgery and for the licentiateship of dental surgery respectively, that a yearly increasing number of dental students had set the good example of possessing themselves of both qualifications. For the first time, indeed, a special institution was provided for the treatment of the diseases of the teeth on a sufficiently comprehensive scale; and also a school of dental surgery. But although advantage was taken of these facilities to a large extent, yet in the absence of a register there was still no check to the intrusion of the unprincipled and the uninstructed. This had now been happily accomplished by the Dentists Act of 1878; and thus legislative sanction had been obtained for a scheme not directed to give prominence to the educated and qualified few, but to raise the whole body of the profession; not to accentuate the distinctive character of the specialty, but indissolubly to unite it to the great surgical body, through the examining board of the Royal College of Surgeons. And if, by reason of legal technicalities and definitions, not always in harmony with the common understanding, the *Registrar* must still be encumbered with a large number of ineligible and undesirable names, consolation must be sought for what had not been accomplished, in the reflection that time will surely, though it may be slowly, redress this wrong.

Mr. Saunders then proceeded to speak of "some of those unrecognised benefits which lie outside the healing art and the legitimate functions of the medical practitioner, for which society is indebted to medical science". As examples of what had been effected through the influence of the medical profession, he referred to the abolition of intra-

mural interments; the adoption of a comprehensive system of drainage in London in place of cesspools; the purification of the atmosphere from the fumes of chemical works and factories—though much yet required to be done; the recognition of the value of the daily bath and of ventilation; and the labours of medical men in regard to vaccination, to the prevention of the evils of sewer-gas and of syphilis, to pure food and untainted water-supply, improvements in diet, amelioration in the mode of administering medicines, and the wonderful transformation in the ancillary art of nursing. "Gratitude has been said to mean a lively expectation of favours to come; and in some such spirit I do not shrink from asking on the part of society that you will add to its obligations by demanding some further reforms which seem especially urgent." These reforms were: the establishment, in every express train, of at least one carriage giving access to a lavatory; the introduction of a better and more frequent cleaning of our streets, more especially those having asphalte or wood paving; that public buildings, churches, theatres, and concert-rooms, should receive fresh supplies of air warmed in winter by passing over hot-water pipes, and cooled in summer by being driven over troughs or tanks of freezing-mixture; that the caretakers of such buildings should be forbidden to close the doors as soon as the audience had left, so that the effete atmosphere was preserved for the poisoning of the blood of the next occupants; and that means should be taken to remedy the deleterious atmosphere of the underground railway. The true remedy was the substitution for steam of compressed air, which, when it had done its office, would regain its normal density, and provide a respirable atmosphere in the tunnel. In mentioning these matters, he had, he said, not exhausted the list of good works of disinterested practical philanthropy of incalculable value in human progress and welfare which society had received and was receiving at the hands of our noble profession, but which earned little or no recognition other than the sweet incense of an approving conscience.

Vote of Thanks.—Mr. G. COWELL moved, Dr. BRIDGWATER seconded, and it was unanimously resolved:

"That the best thanks of the Branch be given to Mr. Saunders for his able address."

Dinner.—Seventy members and visitors afterwards dined together; Edwin Saunders, Esq., in the chair. Among the guests were Dr. A. Carpenter, President of the Council of the Association; Dr. Wade, treasurer; Dr. E. Waters, Chester; Dr. Holman, Reigate; the Rev. Mr. Hill, and several of the leading members of the dental profession.

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

THE annual meeting was held in Druids' Hall, Redruth, on Wednesday, June 29th: present, Dr. HUDSON, President, and twenty-six members and visitors.

President's Address.—On taking the chair, Dr. HUDSON delivered an able address. It was resolved that the thanks of the meeting be given to the President for his address.

New Members.—Mr. W. Whitworth (St. Agnes), Mr. J. W. Gill (St. Germans), and Mr. M. H. Bulteel (Stonehouse), were elected.

Officers, Council, etc.—The following were chosen:—*President:* Dr. Hudson, Redruth. *President-elect:* Mr. J. Harper, Barnstaple. *Honorary Secretary:* Dr. Rees Philipps, Exeter. *Council:* Dr. Harris, Mr. C. H. Butlin, Mr. J. Mudge, Mr. J. Kempthorne, Mr. G. Kerswill, Mr. G. Michell, Mr. J. Woodman, Dr. J. Thompson, Dr. H. Davy, Dr. W. H. Ackland, Mr. F. Gardner. Mr. J. Gould, Mr. E. Furse, Mr. A. J. Cumming. *Representatives on General Council:* Dr. J. Thompson, Dr. H. Davy, Dr. H. Harris, Dr. R. H. Hughes, Dr. R. Hudson, Mr. C. H. Butlin, Mr. J. Gould, Mr. J. Mudge. *Representative on the Parliamentary Bills Committee:* Dr. Rees Philipps.

Next Annual Meeting.—Barnstaple was selected as the place of the annual meeting of 1882.

Quarterly Meetings.—A scheme providing for quarterly meetings of the Branch was submitted by the Council, and adopted. It was also resolved that all past Presidents be perpetual Vice-Presidents and *ex officio* members of the Council.

Guy's Hospital.—The subjoined letter had been received by the Secretary from Dr. Habershon and Mr. Cooper Forster, in reply to the vote of sympathy passed by the Branch at a meeting on January 11th.

"London, January 17th, 1881.

"*To the Members of the South-Western Branch of the British Medical Association.*

"Gentlemen,—We beg to offer our sincere thanks for the hearty expression of sympathy contained in the resolution passed at your meeting on Tuesday, the 11th instant. A sense of the duty we owe to our profession and to our patients led us to withdraw from our long-cherished connection with Guy's Hospital. It is a great satisfaction to know that our conduct has met with the approval of our professional brethren.—We are, gentlemen, yours faithfully, "S. O. HABERSHON.

"J. COOPER FORSTER.

"Sutherland Rees Phillips, Esq., M.D., Honorary Secretary."

Address by Mr. Mac Cormac.—An interesting address was delivered by Mr. W. Mac Cormac, Surgeon to St. Thomas's Hospital. The lecturer dwelt especially on certain injuries to the head, ununited fracture, nerve-suture, and radical cure of hernia. A hearty vote of thanks was awarded to Mr. Mac Cormac, who was requested to allow his address to be printed and circulated among the members of the Branch.

Communications of interest were made, or cases shown, by the President, Dr. Deverell, Dr. Sanctuary, Dr. Rolston, and Mr. Scudamore-Angove.

After the meeting, the members were most hospitably entertained at luncheon by the President, at his residence. In the afternoon, the members drove to Redruth Smelting Works; Tincroft Mine; East Pool Dressing-Floors, where tin-stone in its various stages of preparation was exhibited, and experiments with dynamite and blasting gelatine performed; Tehidy Park and North Cliffs.

Dinner.—At 6.15, the members and their friends, to the number of forty-five, dined together at Tabb's Hotel; Dr. Hudson, President, in the chair.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Taunton and Somerset Hospital, Taunton, on Thursday, July 21st, at 2.30 P.M. There were present fifteen members and one visitor.

The retiring President, Dr. MEREDITH, having shortly addressed the meeting, introduced his successor. The President, G. W. RIGDEN, Esq., then took the chair. A vote of thanks to Dr. Meredith for his services during the past year was passed by acclamation.

The minutes of the last general meeting were read, and letters accounting for the absence of several members were submitted.

Report of Council and Treasurer's Accounts.—The following report was read and adopted.

"The records of the transactions of the Branch during the past year fail to yield material which calls for any very special comments on the part of the Council; but at the same time it is satisfactory to state of the West Somerset Branch, that, although one of the smallest of the offshoots of its giant parent, the British Medical Association, which has gone on growing year by year until it now numbers nearly ten thousand members, this little Branch, with its half-hundred members, has done its share of work towards supporting the body corporate, and has afforded to its west country members during the last twelve months opportunity of useful interchange of ideas, and of pleasant social meetings, thereby forwarding the objects of the Association, which, it should always be remembered, are the promotion of medical and allied sciences, and the maintenance of the honour and interests of the medical profession.

"In referring to the proceedings of the past year, your Council need hardly recall to the recollection of those who heard it the admirable address on the social status of the general practitioner, delivered by the President, Dr. Meredith, at the last annual meeting at Wellington; and on the same occasion that most interesting and original discourse on the subject of oophorectomy, by Mr. Lawson Tait of Birmingham, which was listened to with such rapt attention. A pretty full abstract of both these appeared in the BRITISH MEDICAL JOURNAL of August 7th, 1880, page 230.

"At the autumnal and spring meetings, papers and reports of cases of an instructive and useful character were contributed; and it is worth noticing that, on these occasions, demonstrations are often given, by exhibiting a patient, or by showing diagrams, apparatus, etc., and thereby conveying information which a paper in the JOURNAL would by no means convey in an equally vivid and impressive manner to the mind of its reader. The following is a list of contributions which were made at these meetings:—On a Case of Hypertrophy of the Tongue, by G. W. Rigden, Esq. (patient exhibited); on Congenital Cleft Palate, by W. A. Hunt, Esq. (diagrams and models shown); on two Cases of Recovery from Tetanus, by G. W. Rigden, Esq.; on a Case of Embolism of a Cerebral Artery, by Engledue Prideaux, Esq.; on a Case of Mortification of both Feet and double Amputation, by the same; on a Case of Penetrating Wound of the Orbit, by the same; on the Treatment of Advanced Pulmonary Consumption, by G. Cordwent, M.D.

"As regards the questions discussed at these meetings, your Council think it well to repeat on this occasion the resolutions which were

passed at the autumnal meeting on the question then discussed, which was as to "the best method to be adopted by the profession, the public, and the sanitary authorities, in order to check the spread of infectious disease"; for, by almost universal consent, it appears that the method then approved by this Branch is the one likely to be generally followed, and, it may be hoped, will be sanctioned by the Legislature ere long. The resolutions passed were:

"'1. That, on the occurrence of any case of infectious disease, a notification thereof should be immediately sent to the central authority of the district; and,

"'2. That this information should be given by the head of, or responsible person in, the house in which the disease occurs.'

"The question proposed at the spring meeting was 'the treatment of neuralgia', and elicited a discussion of a practical character. A record of the proceedings at these meetings may respectively be found in the BRITISH MEDICAL JOURNAL of November 6th, 1880, page 758, and of April 30th, 1881, pages 686 and 704.

"Your Council regret to state that the numerical strength of the Branch has suffered an unusual reduction by the removal from the district of six of its members, and the further loss of one by death and one by withdrawal. Two new members have joined, and the number now on the roll is fifty-three.

"The Treasurer's accounts, which are presented in their usual form, show that he has in hand a credit balance of £8 1s. 1d. in favour of the Branch."

Place of Meeting and President-elect for 1882.—It was proposed by Mr. WINTERBOTHAM, seconded by Mr. WM. LIDDON, and carried unanimously: "That H. P. Olivey, Esq., of North Curry, be President-elect; and that the next annual meeting be held at Taunton, or such other place as may be deemed desirable by the Council."

Intermediate Meetings.—It was resolved: "That the Council be requested to arrange for holding an autumnal and spring meeting as usual."

Representation of the Branch in the General Council.—It was resolved: "That John Meredith, M.D., and G. W. Rigden, Esq., with the Honorary Secretary, be the representatives of the Branch in the General Council for the ensuing year."

Council of the Branch.—It was resolved: "That H. J. Alford, M.D., and Messrs. Walter Edwards, H. W. Randolph, H. Alford, J. Prankerd, and W. L. Winterbotham, with the President, the past President, the President-elect, and the Honorary Secretary, be the Council of the Branch for the ensuing year."

Secretary and Treasurer.—It was resolved: "That Dr. Kelly be re-elected Honorary Secretary and Treasurer."

Vote to the Benevolent Fund.—It was resolved: "That a grant of three guineas be made to the British Medical Benevolent Fund, from the surplus held by the treasurer at the disposal of the Branch."

President's Address.—The PRESIDENT, after giving an interesting account of the origin and development of the Taunton and Somerset Hospital, which was founded in 1809, and now contains one hundred beds, went on to discuss the use of country hospitals in general. Managers of such institutions should set before themselves a threefold duty; and, the more efficiently each part of this duty was discharged, the more perfectly would they administer the trust reposed in them by the public. Hospitals should be places for the cure or relief of the sick poor, for the instruction of nurses, and for the study of the medical profession. The first was obviously the primary purpose of hospitals, and he would only say a few words about the proper classes of patients that should be admitted. For medical reasons, those might rightly be excluded who would be a source of danger or annoyance to other patients. The social condition of those who should be admitted was a question of greater difficulty and much complication. A distinction should be made between the in-patient and the out-patient departments. In his opinion, the former was rarely used by persons who ought not to take advantage of it; but the latter was much abused, not only by well-to-do people, but also by ordinary pauper patients. Many people also paid money in railway and omnibus fares, to and from the hospital out-patient room, which they had much better, even for their own sakes, pay to the medical man at home, and so avoid a long journey, often in bad weather. As regarded trained nurses, there was now a great demand for them, and country hospitals might do much to supply it. Nursing did not come by instinct, but must be learnt by actual practice, which could be had in such institutions better than any others. A spare staff of trained nurses might be kept up in connection with a hospital for the convenience of the public; or nurses, after being trained, might engage in private nursing on their own responsibility. The latter was the case at present in Taunton; but the former would, perhaps, be the more satisfactory plan, and might benefit the work of a hospital in more ways than one. He did not regret that the old system of a long pupilage for a medical student at a country hospital was become a thing of the past; but he thought there were ways in which such institutions might be utilised as places of study. Under judicious guidance, a few months might be very profitably spent in obtaining a general acquaintance with medical work, and might form a desirable interlude between the strict discipline of school and the almost boundless liberty of London life. The rudiments of anatomy, physiology, and chemistry might be practically commenced, and a little experience gained in clinical work and dispensing; but all minute and abstruse niceties should be avoided. But, probably, the period at which medical students could derive the greatest advantages from country hospitals would be at the end of their course, immediately before passing their final examinations. At many of the London hospitals, on account of the number of students, it was impossible for each one to hold a dressership: at this stage, country hospitals might fill up a very important gap in medical education. The profession generally might also, with advantage, get a good deal more out of hospitals than they did at present. Visits from their former medical advisers were almost always agreeable to the patients, and would generally not be profitless to the medical men themselves. In the hospital, treatment could be carried out more strictly than in the cottage-homes of the patients. Such visits would do much to make a hospital generally known; and the more a hospital was known by the public, and especially the medical public of the neighbourhood, the more extended would be its sphere of usefulness, the greater the liberality of the public in its support, and the more watchful the authorities of the hospital—both medical and general—to keep the working of the institution up to the modern requirements of the day.

Discussion and Vote of Thanks.—After the reading of the address, which was much applauded, several members spoke on local matters connected with the Taunton and Somerset Hospital, in which the meeting was being held; and an interesting discussion also ensued on points connected with hospitals in general. A cordial vote of thanks to the President was awarded to him for his excellent address.

Artificial Limbs, etc.—Some photographs of artificial limbs, and other surgical appliances, manufactured by Mr. Gillingham of Chard, were submitted for inspection.

Exhibition of Patients.—Before leaving the hospital, the President, with some members of the staff, accompanied those gentlemen who were willing to follow them through several wards, and exhibited some interesting medical and surgical cases.

Dinner.—Having adjourned to the London Hotel, a party of twenty-one (including the Mayor of Taunton and other guests, invited by the President) sat down to an excellent dinner, to which ample justice was done. The usual toasts were drunk, and responded to in due course; and so terminated a very agreeable and successful meeting.

MIDLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Infirmary, Leicester, on Thursday, July 14th, under the presidency of Dr. W. ELGAR BUCK.

Officers and Council.—The following were elected. *President-elect:* C. Harrison, M.D., Lincoln. *Representatives on the General Council:* Ed. Seaton, M.D., and Joseph White, Esq., for Nottinghamshire; W. Webb, M.D., and J. W. Baker, Esq., for Derbyshire; T. W. Benfield, Esq., and C. H. Marriott, M.D. for Leicestershire; Ed. Morris, M.D., and T. Sympson, Esq., for Lincolnshire. *Members of the Branch Council:* T. Elliott, M.D., and J. Thompson, Esq., for Nottinghamshire; Ed. Gaylor, Esq., and A. H. Dolman, Esq., for Derbyshire; G. C. Franklin, Esq., and G. Pearce, M.D., for Leicestershire; W. Newman, M.D., and W. J. Pilcher, Esq., for Lincolnshire. *Secretary to the Branch:* L. W. Marshall, M.D. *Local Secretaries:* Frank H. Hodges, Esq., for Leicestershire; J. A. Sharpe, Esq., for Derbyshire; W. A. Carline, M.D., for Lincolnshire.

New Members.—The following gentlemen were elected members of the Association and Branch: A. Grandison, M.B. (Leicester); Mr. N. P. Betts (Ashby-de-la-Zouche); Mr. Penney (Woodhouse Eaves); Mr. Broster (Worksworth); Mr. Vores (Hallaton). The following were elected members of the Branch: Mr. Luscombe (Collingham); Mr. Bell (Sileby); Dr. Donovan (Whitwick); Mr. R. Paul (Loughborough); Mr. W. Emmerson (Waltham); Mr. Hutchinson (Claybrook); Mr. H. Nuttall (Leicester).

Papers.—The following papers were read and discussed:

1. On Deaths from Inhalation of Chloroform. By W. Elgar Buck, M.D.

2. Ophthalmoscopic Illustrations, with brief Clinical Notes, from cases of General Disease. By M. Macdonald Mackay, Esq.

3. On the Advantages of the Lateral over the Median Operation for Lithotomy. By G. Pearce, M.D.

4. On a mode of using Plaster-of-Paris to secure Immobility of Fractures, etc. By W. Newman, M.D.

5. On Bronchocele and Traumatic Tetanus. By G. T. Willan, Esq.

6. On Section of the Vascular and Nervous Trunks which attach the Eye to the Brain, as a substitute for Enucleation in cases of Sympathetic Ophthalmia. By C. Bell Taylor, M.D.

Dinner.—The members afterwards dined at the Royal Hotel.

NORTHERN COUNTIES OF SCOTLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held t the Ben Wyvis Hotel, Strathpeffer, on Saturday, July 9th. Twenty-two members were present. The chair was taken by the retiring president, Dr. AITKEN of Inverness, who vacated it in favour of Dr. BRUCE of Dingwall, the President-elect.

President's Address.—Dr. BRUCE, on taking the chair, delivered an address an Medical Education. He advocated its division into three parts—preliminary, scientific, and practical. With regard to the first, he held that there should be a searching examination in general knowledge and physical science prior to entering upon the study of medicine proper, the two divisions of which—scientific and practical—he thought should be separated. He was of opinion that the scientific or theoretical part of medical study should be first got over, and the practical part thereafter gone through in hospitals.—The President's paper led to an animated discussion, in which all present took part. There was an unanimous feeling that the preliminary education of medical students was most important; some even advocated graduation in arts before commencing the study of medicine, but the general opinion was that a rigid admission examination would be sufficient. On the question of the division of medical study, the feeling was against the chairman's views, the various speakers expressing a preference for the present system of carrying on the college and hospital training simultaneously.

Officers and Council.—The following were elected: *President-elect*, George Forbes, M.D. (Fochabers). *Secretary*, J. W. N. Mackay, M.D., Elgin; *Members of Council* (in place of retiring members), B. Cruickshank, M.D. (Nairn); J. Grigor, M.D. (Nairn); G. Petrie Hay, M.D. (Forres).

Next Annual Meeting.—It was agreed to hold the next meeting in Nairn, on July 5th, 1882.

Luncheon.—The members afterwards had luncheon together in the hotel, the president in the chair, when, besides the members, there were present; Tulloch, Lord Lieutenant of Ross-shire; Mr. Gunn, Strathpeffer; Rev. Dr. Mackenzie, Ferrintosh; Provost Grant, Fortrose; while Tulloch's piper, at intervals during the repast, played appropriate music.

After the luncheon, the party adjourned to the pump-room, where Dr. Middleton, the resident medical officer gave an elaborate demonstration of the methods testing the amount of sulphuretted hydrogen in Strathpeffer water, which excited considerable interest.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Bristol Museum and Library, on June 30th. ALEXANDER WAUGH, Esq., President, took the chair.

New President.—Mr. WAUGH made a few remarks, and resigned the chair to Mr. DAVID DAVIES, who read his address.

Vote of Thanks.—A vote of thanks to Mr. Davies, for his most able and interesting address, was moved by Dr. BEDDOE, seconded by Dr. DAVEY, and carried by acclamation.

Report of the Council.—Dr. MARKHAM SKERRITT read the following report.

"The report of your Council cannot but in the first place refer to the great loss sustained by this Branch and by the Association generally through the death of one of the Vice-Presidents of the Association, Dr. Randle Wilbraham Falconer. Of him it can be said that he has filled every office of responsibility and honour connected with the management of the Association. An ordinary member from the year 1858, by his business capacities, he soon became one of the leading members of the Committee of Council; for several years he held the post of Treasurer; as President of the Council, he displayed an ability, tact, and courtesy that greatly facilitated the transaction of the business which came before it; and, lastly, the manner in which, as President, he upheld the honour and dignity of his official position, and the reputation of that section whose guests the Association then were, cannot but be fresh in your memory.

"Your Branch has also to deplore the removal by death of two other members—Mr. C. A. Bush and Mr. J. L. White.

"Your Council have pleasure in reporting a slight increase in the total number of members of the Branch. Seventeen new members have been enrolled; and at the present time there are 210 names upon the books, against 207 last year; and this in spite of the loss of eleven members from various causes, chiefly removal from the neighbourhood, and three of members by death.

"Seventeen papers were read during the session, and various cases of interest and rarity were exhibited.

"The financial condition of the Branch is so far satisfactory, that there is a balance in hand of £7 10s. Your Council recommend that the usual donation of three guineas be forwarded to the British Medical Benevolent Fund.

"The following gentlemen have been reported by the scrutineers as elected members of the Branch Council: for Bath—Dr. Goodridge, and Messrs. Gaine, Goss, Mason, and Terry; for Bristol—Dr. Fox, and Messrs. Coe, Crossman, and Prichard.

"Your Council recommend that, during the ensuing session, the meetings of the Branch be held at or about five o'clock in the afternoon, instead of at half-past seven, as heretofore, in order that an opportunity of attending may be afforded to those members who reside at a distance."

Mr. SWAYNE moved, and Dr. FYFFE seconded: "That the report and balance-sheet now read be adopted." To this the following amendment was moved by Dr. FOX, and seconded by Mr. PRICHARD: "That the meetings at Bristol be held on Wednesdays instead of Thursdays." The amendment was carried, and the resolution as amended was then adopted.

President-elect.—Mr. MASON moved, and Dr. SWAYNE seconded: "That Dr. Spender be President-elect." This was carried unanimously.

Votes of Thanks.—Dr. MARSHALL moved, and Dr. HENSLEY seconded, a very cordial vote of thanks to Mr. Waugh for his able conduct in the chair during the past year. Votes of thanks to the Council and the Secretaries then followed.

Dinner.—The annual dinner was afterwards held at the Imperial Hotel, Clifton, at which a large number of members were present.

CORRESPONDENCE.

THE METROPOLITAN PROVIDENT DISPENSARIES ASSOCIATION.

SIR,—The attention of our associates can hardly fail to have been called to the scheme which is now being developed under the auspices of Sir C. Trevelyan, Sir Sidney Waterlow, Sir R. Alcock, Mr. E. Hart, myself, and others interested in hospital reform, for the purpose of founding a great association in London of provident medical dispensaries. A meeting was held for this purpose on July 16th, at the residence of the Duke of Westminster, where the progress of the effort hitherto was described, and resolutions adopted for the purpose of promoting its further extension. A succinct account of the nature and prospects of this scheme will not be unacceptable, I hope, to your readers. The scheme contemplates the ultimate establishment in every part of London of self-supporting dispensaries, to which all persons are to be admitted at a rate of payment about the same as that now paid by the friendly societies (only a little higher), and paid, as in those societies, during health as well as sickness; but admitting also the wives and children of members, whom the friendly societies as a rule exclude. The payments are at present to be allotted half to working expenses, and half to the medical officers; and when the dispensary has cleared itself from debt, all the surplus will be divisible among the medical officers. As, however, it is impossible for the funds to be forthcoming at once, it is necessary that these should be advanced by a company, which accordingly has been founded side by side with the association, on the model so successfully furnished by the similar institution for the Girls' High Schools, and which will advance to the association the funds required for each dispensary, to be returned to the company by the association out of the earnings of the dispensary, with such interest as may be found possible. Such, in the fewest possible words, is the object of the scheme. Its aims are, of course, to relieve the present overcrowded out-patient departments, to enable the working classes to provide themselves with that necessary medical attendance which they now most improperly receive as charity, and to bring this "family doctoring" to the houses of the patients themselves, instead of continuing the farce of pretending to cure dietetic, climatic, and other chronic ailments by the ready-made prescription and the half-minute's advice of the out-patient room. Thus, the three main advantages which the promoters desire to secure are—1. That the

doctor shall be paid his due, instead of being obliged to attend gratis those who can afford to pay him, and many of whom are perfectly willing to do so. 2. That the efficiency of the voluntary hospitals shall be increased, and their teaching powers strengthened, by relieving them of the incubus of numbers which now oppresses them; and 3, that the work shall be better done.

The first question is whether the rates of payment are sufficient to make it worth the while of medical practitioners to join the dispensaries. Now, it must be recollected, in considering this matter, that the system is intended to replace one of indiscriminate gratuitous relief; and that it is proposed to those who are already treated at the general hospitals and free dispensaries. The rate must, therefore, be a minimum one. Besides, as the men of the families now for the most part are members of sick clubs, the scheme cannot come into general acceptance with the working classes, except with the co-operation of such clubs, which, of course, can only be secured by a rate, for them, not higher than what they now pay. The co-operation of the great friendly societies has, it is hoped, been secured on these terms, and the rates have been fixed with reference to those now paid in such societies. As these members are all adult males, it has been considered equitable to admit them at the rates they now pay, while for other persons a slightly increased rate is charged (6d. a month, instead of 4d., and an entrance fee of 1s.). That such rates will provide a fair remuneration for the medical attendants is proved by the experience of similar rates of payment in similar institutions in the manufacturing districts, provided only that a sufficient number of constant contributors is secured. It is calculated that 1,200 members to each dispensary would give a respectable income to the medical officers; but with the active co-operation of the friendly societies a much larger number of members can be secured in any part of the metropolis, provided that the dispensaries can be relieved of the competition of the great gratuitous institutions. We cannot but believe as well as hope that this will be given to them; for it is obvious that the working of these provident dispensaries, if successful, would relieve the hospitals of exactly the class of cases which are not only useless to them, but which, more than anything else, impede the efficiency of that great school of diagnosis—the out-patient room. Strange indeed is it, as showing the power of any habit, even when really of only recent date, to see how some hospital physicians and surgeons still cling to the idea that it is necessary, in order to keep up the supply of cases for the school, that a mass of people should be encouraged to crowd into out-patient and casualty rooms, where it is impossible that they should receive any proper attention, or the students any proper tuition from them. To what a ridiculous excess this system now prevails in our great hospitals, those know who have read Dr. R. Bridges's account of the casualty department in the 14th volume of the St. Bartholomew's Hospital reports.

No excuse for maintaining such an outrage on common sense and charity ought for a moment to be admitted by anyone who thinks it unjustifiable "to do evil that good may come". But the truth is, that the excuse is as fallacious as the practice is indefensible. This system is the growth of yesterday, and in former times, when London was very much smaller, the hospitals had no difficulty in procuring a proper supply of material for teaching, without any such overgrown out-patient departments; nor is any such difficulty experienced in Scotland, France, and other countries, where the system is unknown. Nay, a proper understanding with the dispensaries of the district would always ensure an adequate supply of the cases wanted for tuition. It is a great mistake, though one constantly made, to imagine that the hospitals want only rare, or difficult, or dangerous cases. They want for out-patient purposes more especially, such cases as present salient points for diagnosis and treatment; cases, in fact, for consultation; and what would more enlighten the student, or form a more apt introduction to practice, than a weekly consultation between the officers of the out-patient department and the dispensary, over cases furnished by the latter? Would not a quarter of an hour so passed do more to instruct a student on the principles of diagnosis and treatment in the affection before him, than watching his master labouring for any number of hours in writing hieroglyphics on bits of paper hastily thrust under his nose, and scrambling at hot haste through dozens of cases which he has neither time, nor strength, nor inclination seriously to attend to?

Two points more are all that I can at present notice. One of the objections which have been made to this scheme is, that it admits all comers; that a duke can, if he please, join the provident dispensary; and that, though probably no such exalted member will really enroll himself, yet that a great number of small tradesmen and others will; who are quite able, and who in fact are quite used, to pay their medical attendants at the ordinary rate. Now, it is quite possible that some such abuse may prevail, but it can only be to a very limited extent, and cannot balance, or even seriously diminish, the great gain which would result to medical men from deriving a regular settled income, free from all bad debts or trouble of collecting, from that very large class which now pays nothing at all. The alternative of an inquisitorial investigation of everyone's private circumstances before he could be allowed to join the dispensary, is too odious to be accepted by the working classes, while it would probably be very inefficient. However, to guard against any gross abuse, a power is given to the committee of each dispensary (on which the medical staff is, of course, present) to refuse any member. On this head, I may refer to a letter from Sir C. Trevelyan, in the JOURNAL for July 31st, 1880.

The other point is, as to the relations of the provident dispensaries to the gratuitous charities. It is here alone that I feel any misgiving as to the success of the movement. It is useless to conceal from ourselves that the poor of London are not so exceptionally constituted as to wish to pay for what they can get for nothing; and, although the fatigue of waiting, the loss of time, and the scanty attention they receive when at last they appear before the out-patient officer, may make a few prefer the paying dispensary to the gratuitous hospital; yet provident dispensaries can never be so successful in London as they are in the country, unless the hospitals will assist them by limiting their so-called charity. We shall soon see whether they are sincere in the desire to do this, which they have often professed. The paper we have referred to, by Dr. Bridges, remains on the official records of St. Bartholomew's Hospital, as a standing protest against the present system, and one which for very shame they must attend to. The new association will, I hope, ask the co-operation of the authorities of that hospital in founding two or three dispensaries in their neighbourhood, where the poor, who are mocked with the caricature of medical treatment described by Dr. Bridges, can obtain deliberate advice and appropriate remedies. The co-operation required would involve limitation of numbers in the out-patient room, refusal of trivial cases, and transference of such as, after a proper inspection, do not seem appropriate for out-patient treatment to the dispensary. If this reasonable offer were refused, the public would know where the blame lies.

Meanwhile, I cannot doubt that the scheme promises equal benefits to the sick poor and to the medical profession, and I think its promoters deserve the support and assistance of the profession in their difficult and hitherto thankless labour.—I am, sir, yours faithfully,

T. HOLMES.

SANITARY INSPECTION OF HOTELS.

SIR,—In your last issue, I see a suggestion, by "A Provincial Associate", for a discussion in the Public Medicine Section, at the approaching annual meeting, on the "Sanitary Inspection of Hotels".

I fear it is too late now to arrange for such a discussion at the forthcoming meeting. It is open, however, to "A Provincial Associate" to read a paper on the subject, when, doubtless, a most useful and practical discussion would follow.—I am, etc.,

ONE OF THE SECRETARIES FOR THE SECTION
July 20th, 1881. OF PUBLIC MEDICINE.

AMBULANCE CONVEYANCES IN LONDON.

SIR,—I am glad to note your article upon Dr. B. Howard's letter, asserting the great need for ambulance conveyances for the sick and wounded in London.

Two months ago, I was summoned to town to find a medical student (my son) in great danger, with diphtheritic throat; and, feeling his life could only be saved by an immediate removal from his lodgings to hospital care, I cast about for a proper conveyance. Various messengers were sent to different owners of the same; at last, one was found willing to undertake the removal, a distance under a mile. He would not show his vehicle, or promise it, before a deposit of ten shillings was made. On its arrival, I was in dismay; the landlady and the whole square deeply shocked at the sight of the conveyance. I can only describe it as a cross between a hearse and dirty linen cart, painted black, and with funereal side glass; a black horse, with dismal harness, and a driver of the most woeful aspect, also in deep black. It was surely enough to put the finish to any sensitive patient, dangerously ill, as my son then was. Surely, in these days, the metropolis will not long delay this much needed proper ambulance provision.—I am, faithfully yours,

SAMUEL SKELTON, M.R.C.S.Eng.

Kidderminster, July, 1881.

UNAUTHORISED TITLES. Dr. Bisenz, a medical practitioner in Vienna, has been fined fifty gulden for using, without authority, the title of Professor.

HOSPITAL AND DISPENSARY MANAGEMENT.

VICTORIA HOSPITAL FOR CHILDREN.

At a meeting in aid of the funds of this charity, on May 25th, Lord Cadogan in the chair, Earl Cairns spoke strongly in favour of hospitals generally as objects of charity, inasmuch as the public had in their case two valuable checks against the improper application of money. "There are plenty of people," he said, "who will come and apply for the funds of a charitable trust, which has to be distributed out-of-doors; but you will not find people who have either the inclination or the power to make themselves invalids, and sufferers from sickness for the 'comfort and pleasure' of being looked after in a hospital". This statement, however, we could qualify by observing that there are plenty of people who are so improvident as to make no provision for sickness, and who are encouraged by the lax administration of hospitals to apply for charity of which they should stand in no need, and for which they ought to be taught to be ashamed to ask, when it is in their power to provide against sickness cheaply. The second check was applicable between various hospitals; it was to compare the expenditure on each bed *per annum* in hospitals of the same class. The Victoria Hospital for Children came well out of this ordeal, for the expenditure per head for the year, was lower than that in any other children's hospital in London. This economical management was not attended by any inefficiency in the treatment of the patients, who had the advantage of clean, well-ventilated wards, and most careful and kindly nursing. Lord Shaftesbury also addressed the meeting, and pointed out that, in the matter of hospital accommodation, London was less well provided for than Paris, Vienna, Berlin, or even Warsaw.

HOSPITAL AT NEWCASTLE-UPON-TYNE.

The report of this hospital, which has just been issued, is its 130th. This fact of itself is worthy of notice, and it is gratifying to find that it bears witness to satisfactory progress. The number of in-patients received during the year was 1,821, against 1,926 in the year preceding, being a diminution of 105. The number of patients was less than it would have been, in consequence of the wards in the upper flat having been emptied for two months, in order to allow of the floors being relaid and the walls painted. The number of out-patients received by letter was 513, against 785 in the year preceding, being a diminution of 272. The number of out-patients admitted in consequence of accidents, without letter, was 2,190, against 1,702 in the preceding year, being an increase of 488. The whole number of out-patients, therefore, treated during the year was 2,703, being 216 more than in the previous year, and the largest number that had ever been received. The whole income of the year was £12,770 16s. 9d., being an increase upon the income of the previous year of £5,151 15s. 4d., that year having been an unusually barren one in legacies. The total expenditure of the year amounted to the sum of £11,640 14s. 1d., against £11,503 12s. 2d., in the previous year.

The report of the medical officers shows that a large amount of good work had been done. During the year, there were no cases of pyæmia, and only four cases of erysipelas, which were all of a mild type. Six cases of ovariotomy occurred, with only one death. These facts of themselves bear witness to the general excellence of the hospital management.

We are glad to note that the committee have seized a favourable opportunity of urging upon the corporation the importance of founding a Hospital for Incurables in Newcastle, and that this useful measure is likely to be carried out without delay.

THE METROPOLITAN PROVIDENT DISPENSARY ASSOCIATION.

By invitation of the Duke of Westminster an influential meeting was held at Grosvenor House, on Saturday, the 16th instant, when the objects of the Metropolitan Provident Dispensary Asscciation, and the means by which it is proposed to carry out those objects, were fully explained. In the unavoidable absence of the Duke of Westminster, Mr. Stansfeld, M.P., the chairman of the Association, presided, and introduced the subject by a brief but lucid and forcible statement. The first resolution, approving of the plan of the Association, was moved by Sir Rutherford Alcock, seconded by Sir Sidney Waterlow, and supported by Mr. Timothy Holmes and Mr. Bunn, one of the representatives of the friendly societies. The second resolution, which affirmed that the Metropolitan Provident Dispensaries Joint Stock Company (Limited), was well suited to carry out the objects of the Association, was proposed by Sir Charles Trevelyan, and seconded by Dr. Alfred Carpenter. The capital of the Company is fixed at £50,000, in £1 shares. The Dukes of Bedford and Westminster, the Earl of Derby, the Right Hon. W. H. Smith, M.P., Mr. W. Jones Lloyd, Mr. Francis Peek, Mr. Samuel Morley, M.P., and other public men have already taken shares. The object of the company is to provide the dispensaries with the necessary buildings and fittings; and wherever it is possible, the company would prefer to take over existing dispensaries or to hire suitable premises, rather than to erect new buildings. The money thus laid out would be repaid to the company, together with a small rate of interest, by yearly instalments. One dispensary has already been opened in Leicester Street; and it is making satisfactory progress. Indeed when the advantages which these dispensaries offer, become fully known, they can hardly fail to recommend themselves to the working classes. The great difficulty that they have to contend with is the hospital out-patient system. This was clearly stated by Mr. Holmes at Grosvenor House. But when the matter is taken in hand by men like Sir Sydney Waterlow and Sir Rutherford Alcock, who are so influential respectively at St. Bartholomew's and the Westminster Hospitals, we may hope that this difficulty will be gradually overcome. Meanwhile, the support of the friendly and benefit societies gives the Association a means of reaching the homes of the working classes, which has rarely been possessed by any social reformers.

MULLINGAR ASYLUM.

From the annual report of the Mullingar Lunatic Asylum, it appears that, at the commencement of the year, there were a total of 419 inmates in that institution. Fourteen relapsed cases and 102 cases of first attack were admitted; and 43 were discharged recovered, 4 improved, while 2 unimproved but harmless patients were restored to their friends. The deaths amounted to 52, one being a case of suicide in a female inmate. The reports of the inspectors show that the institution is conducted in a most satisfactory manner under the management of Dr. Berkeley.

THE ROYAL FREE HOSPITAL.

The report of this institution for 1880 shows that considerable structural improvements have been made in the edifice during the year, and that tar paving has been laid down in the back courtyard and in the footways. The number of in-patients admitted was 1,360; and the number of out-patients reached 23,812. The report states that the association of the hospital with the London School of Medicine for Women continues to work most harmoniously. There are now twenty students attending the hospital. The committee have received from the Council of the School the sum of £315 contributed by thirty life governors, being the amount guaranteed to be paid by the school to the hospital for the year 1880. The fittings of the new museum, which will contain the valuable collection of anatomical models and specimens belonging to the hospital, are nearly completed. During the building operations, the contents of the museum were carefully removed and laid away; and before the specimens are transferred to the new room, which has been specially built for their reception, they will be thoroughly examined and properly classified, when they cannot fail to prove a valuable source of instruction to the students.

THE CHELSEA HOSPITAL FOR WOMEN.

The ninth annual report of the Chelsea Hospital for Women shows that it is rapidly growing in public estimation, and the success of "Ye Olde Englyshe Fayre," which was recently held in its behalf at the Albert Hall, bears testimony to this same fact. The report tells us that the Hospital was founded for the treatment of gentlewomen, of limited means, as well as of poor persons. The former are required to pay according to their circumstances; while the latter are admitted on the recommendation of a subscriber. All are treated alike, though the paying patients are in separate wards.

Last year, the sum contributed by in-patients was £168 6s. 0d.; and by out-patients £191 19s. 6d. This total, £360 5s. 6d., amounts to almost a quarter of the entire expenditure of the Hospital for the year.

NEWCASTLE-ON-TYNE THROAT AND EAR HOSPITAL.

Mr. Richard Ellis reports that, during the year 1880, 1,246 patients were treated at this institution, of which 1,015 were aural and 231 throat cases. He mentions various methods that were found beneficial in the treatment of the aural cases. There were 68 cases of aural polypi, 8 of which were recurrent growths. A class of cases peculiar to the ironworking districts, in which sparks of iron fly into the ear, injuring the meatus, and frequently the tympanum, are mentioned. In

spite of all care, the hearing in these cases is often impaired or destroyed. On the whole, the aural cases have been more curable or amenable to treatment this year, arising, according to the author, from the better position and employment of the working classes in the North of England. The throat cases are left to a future report.

MILITARY AND NAVAL MEDICAL SERVICES,

PROMOTION AND RETIREMENT IN THE ARMY MEDICAL DEPARTMENT.

SIR,—The liberal scale of pensions given by a recent order to the officers of the Indian Medical Department should lead to some rearrangement of our promotion rules, as will level us up to a similar standard. This can be done only in one of the following ways: (*a*) In reasing the number of brigade surgeons; or (*b*) a strict system of non-selection for promotion, and a limitation to a five years' tenure of administrative appointments, as is the case in other staff appointments in the army.

The late War Office Committee, of which Sir William Muir was a member, calculated that the rank of brigade-surgeon should be reached, on an average, shortly after the completion of twenty-two years' service, and that of deputy surgeon-general at the age of 48; the degree of selection exercised by these promotions representing the rejection of seven surgeons-major out of eleven, and of one brigade-surgeon out of two. Without, however, going in for such a heroic slaughter, the Director-General might so arrange the selections that an officer could look forward with certainty to his promotion to brigade-surgeon on completing twenty-five years' full-pay service in the army, with the right of retiring on the pension of the rank; viz., £501 17s. 6d. should he select to do so. In no other way can we now hope to compete with the Indian Medical Department, whose officers, after twenty-five years' service, including three years' leave and furlough, can retire on *£500 per annum*. It is certainly not too much to ask that we should be placed upon an equality with these gentlemen after twenty-five years' service. If this measure is not carried out, our department will certainly suffer; for it is only natural to suppose that young men entering the medical profession will afterwards select the career which promises the best pecuniary result in their old age, when the glamour of a military life has lost its attractiveness; and this they will now find in the Indian Medical Department.

The matter is practically in the hands of the Director-General. He cannot propose a new scale of pensions, but he is not bound to promote to the staff of the department men who, either by their want of tact, judgment, discredit, or temper, or physical disabilities, have rendered themselves incapable of performing the duties of a higher rank, when they come in contact with experienced and often highly educated combatant officers, who cannot themselves attain to the position they occupy, as a rule, without undergoing tests, professional and physical, which some people say might be applied with equal advantage to other departments of the army, and none more so than the medical, if it would aspire to be a truly scientific corps. Since the examination for promotion has been done away with, there is nothing to prevent a young officer entering the medical department and leaving it without having once opened more than an "Index to Diseases"; while every combatant officer, from subaltern to lieutenant-colonel, has to show that he is fit for promotion before he can attain to it. But with us there is no encouragement to study our profession. The good, indifferent, and bad, are all jumbled together. No one knows this better than the Director-General, who has done much to raise the medical department to a position of independence, and make it respected in the army. This we cannot but acknowledge. It is to be hoped that he will insist upon the carrying out of the whole of the recommendations of the War Office Committee, of which he was a member, and overcome those "builders of obstruction" which still block the way, and keep in the non-combatant ranks the corps over which he presides, in spite of the gallantry of many of its officers and the bravery of the men.—I am, etc.,

A.M.D.

THE REORGANISATION OF THE ARMY MEDICAL SERVICE.

SIR,—With reference to the letter on the above subject in the BRITISH MEDICAL JOURNAL of the 11th June, your correspondent "A Surgeon-Major" mentions, amongst the three requisites necessary to ensure the coming a happy and united corps, "the abolition of the term non-combatant". Now, I take the meaning of the word combatant to be "one who fights", and consequently of the word non-combatant, one who does not fight. Although all persons who carefully consider the circumstances under which army medical officers are liable to be placed, will admit that they may have to defend their lives, and certainly incur more risks than combatant officers; still they are not brought into the service for the purpose of fighting; they are not intended for it, and are therefore non-combatants. "Non-combatant" is also applied to commissariat officers, chaplains, quartermasters, and paymasters; and apparently it does not make them feel in any way inferior. Paymasters, however, get the titles of captains, majors, &c., which seem an anomaly, especially when it is known that some amongst their number were War Office clerks, who were brought into the Pay Department with the honorary rank of captain, although they had not served in the army previously. If we ever were given such titles as captain, major, etc., except in conjunction with our rightful medical titles (as the present ones of Surgeon-Major, Surgeon-General, etc.), we should simply become the laughing-stock of our professional brothers in civil life. Any right-thinking surgeon who is fond of his profession prefers to be known by a title indicating that he belongs to the medical profession, and has no desire to be termed captain, major, etc., that he has [illegible] by the title of reverend, or lawyer, or engineer, or any other which properly belongs to a different path in life from that which he has chosen.

"A Surgeon-Major" says they "are hardly worth the cost is simply dubbed 'doctor', no matter whether he be a physician or surgeon". "Surgeon-Major" must know that, with a few exceptions amongst the older men, all who have entered the Army Medical Department for many years past are doubly qualified, and consequently both physicians and surgeons. The title "Doctor" is found a convenient one, and combatant officers generally address us by it. It seems applied to us as a title of courtesy; and I fail to see that it is objectionable in any way. I have known a surgeon to be addressed as Dr. by the same officer who addressed the surgeon-major with not any title at all; simply because the surgeon was a man who, without in the least making himself disliked, always asserted and maintained his position, whereas the surgeon-major had formerly been a regimental surgeon, and could not get rid of his deferential manner, characteristic of regimental days, and it was this manner which prevented him from obtaining a proper amount of respect from men young enough to be his children.

When medical men respect themselves, and cease to speak of themselves as attendants, medical attendants, etc., they will be respected by all.

That the Army Medical Department and Army Hospital Corps ought to be amalgamated into one corps, wearing one uniform, and having one title, I think everybody will admit; and the sooner it is done the better. At present it is ridiculous to see officers of the Army Medical Department wearing [illegible] and commanding their men of the Army Hospital Corps, who wear them. But I hope this will be the last change made, and that, after it is accomplished, the authorities will think fit to let us alone, and without the perpetual chopping and changing that has been.—I am, sir, faithfully yours

BOMBAY.

THE STATISTICS OF THE ARMY MEDICAL DEPARTMENT.

SIR,—Your correspondent "Senior" criticises me with certain [illegible] as to the promotion prospects of army medical officers, and gives his view of the case as opposed to what he conceive[illegible] mine.

He writes: "A careful study of the figures on which his ideas are based may show that the prospect is not quite so alluring as a too sanguine temperament might be induced to believe. There is a fallacy to begin with [illegible] starting", etc.

May I ask, What ideas? There are no ideas, inference, [illegible] whatever to be found in any of my letters or tables on the statistics of the Army Medical Department which have been published in the BRITISH MEDICAL JOURNAL. May I ask, What fallacy is to be got rid of? There is no fallacy in my [illegible] they are correct; and "Senior" does not attempt to question them. Both the "ideas" and the "fallacy" are the creations of "Senior's" mind; I am in no way responsible for them. I have compiled certain statistics which are records of carefully ascertained facts; but I have [illegible] much [illegible] them of an inferential or a conclusive character. I have deliberately avoided doing so. A learned professor of a great university is reported to have said, "Statistics can be made to [illegible] anything". If any person chooses, without competent knowledge and due reflection, to draw hasty and erroneous conclusions from my figures, they must blame themselves.

The whole gist of "Senior's" letter is the prospects of [illegible] officers reaching the administrative rank. This subject [illegible] appear to be just and sound; but all this is quite outside the matter of my analysis, which he makes the text of his communication.

It seems to me to be an insult to the common sense of your readers to point out that such an analysis is in itself a fallacious guide to the formation of a judgment on the question discussed by "Senior". In the pursuance of such an inquiry, reliable and useful information may be found in my [illegible] BRITISH MEDICAL JOURNAL, June 7th, 1879; and in its supplement, BRITISH MEDICAL JOURNAL, June 4th, 1881.

The conclusions at which "Senior" arrives are for the most part obvious; he states the case which he has selected as his subject very clearly, and he deplores a state of affairs which is unhappily too true; but it is a pity that he should have attributed to me ideas which I disavow; and that he should have attempted a triumph by attacking and confounding his own fancy.—Your obedient servant,

Woolston, July 18th, 1881. J. P. H. BOILEAU, M.D.

THE ARMY MEDICAL SERVICE.

SIR,—I would call your attention, and, through the medium of your JOURNAL, the attention of the public, to the fact that, up to this, the surgeons of the Army Medical Department have received no advantage from the Royal Warrant of 1879. At first, this Warrant did not apply to India; but for some time now, the Indian Government have recognised it, and recognised the surgeon's rank as captain; still, they pay as before, at the rate of ten shillings a day, and the Indian allowance of lieutenant. By this arrangement, the surgeon under six years' service (and the great number of surgeons in India are under six years, being generally sent in their first year) is deprived of nearly 100 rupees monthly. It is too bad to have to serve in such a climate as that of India on, nominally nearly the same, but actually less, pay than at home—for the practical value is not much more than one shilling. As, under the former Warrant, a surgeon, when he had attained the relative rank of captain, at six years' service, received allowances of captain, I cannot see why the surgeons now ranking as captains should not get them.

I believe that the present is the time to bring forward everything connected with the medical service, before the interest in them [illegible] and it is only by ventilating such matters we have any chance of having them rectified. Yours faithfully,

Bengal, June 20th, 1881. A.M.D.

BATH.—In reporting a fairly satisfactory general death-rate (20.4 per 1,000) for last year, Dr. Brabazon has to confess that the infantile death-rate is very excessive. Of the total deaths (1,162), 100 were of infants under one year of age, and 108 of children between the ages of one and five. No special disease is given as the cause of the excessive mortality; but it is attributed, on the whole, to general causes, Dr. Brabazon observing, "that, with proper care, wholesome diet, and sufficient clothing, this lamentable sacrifice of life might be in a great extent prevented". It is satisfactory to find that "crèches" are about to be established by a sympathetic public, on behalf of the infant population of Bath. The zymotic death-rate for the year was 1.9; 7 deaths being attributed to scarlet fever, 7 to measles, 39 to small-pox, 9 to diphtheria, 4 to whooping-cough, 7 to diarrhœa, and 14 to typhoid fever. The deaths from diseases of the respiratory organs were numerous, no less than 123 occurring from bronchitis, and 54 from pneumonia. The infectious hospital, established by the Town Council under pressure of the serious epidemic of small-pox in the early part of the year, received 79 patients, of whom 14 were unvaccinated, 49 were vaccinated, and 16 were doubtful. With the exception of the establishment of this hospital, an improved water-supply seems to have been the only sanitary improvement of any consequence that took place during the year.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

THE SEWAGE QUESTION AT HELENSBURGH.

SIR,—In your remarks on the above subject in the JOURNAL of June 25th, you ask: "How are we to account for this discrepancy?"—namely, the discrepancy between the results of analyses, as bearing upon the question of shore-contamination, obtained by the two parties in their controversy. Will you permit me to contribute towards the answer to this question?

If the samples collected by the joint committee of the local authorities on the shores of Helensburgh and the Gareloch are compared with the samples collected by me in the same locality, it appears that my samples contain a much larger proportion of mud to sand. This difference is dependent, no doubt, upon place and method of collection; and in as far as the quantity of objectionable matter is an essential element in the sanitary question, this difference between the two sets of samples is important.

But, putting this aside for the present, and looking at the whole series of samples collected by the Joint Committee, I hold that the discrepancy of which you ask the explanation lies more in the conclusions drawn than in the results of the analyses. Let me explain this. Sixteen of the specimens of "surface-material lifted from the foreshores at Helensburgh and the Gareloch, and other watering-places on the Clyde", were sent by the Joint Committee to Dr. Stevenson Macadam to be analysed; and duplicates of some of these specimens were also sent to Dr. Wallace of Glasgow. The analyses by the latter chemist have not been published; and although I have twice made a formal application to request a copy, it has not as yet been supplied me. Extracts from Dr. Wallace's statement are, however, printed in the Report of the Joint Committee, from which I quote his opinion regarding a sample from the shore of Arran, called Lamlash A. Dr. Wallace says: It "may be taken to represent the condition our shores would be in if no sewage-matter of any kind were put upon them." Here, then, Dr. Wallace supplies a great desideratum—a standard of a normally clean shore. If we compare this standard, according to Dr. Stevenson Macadam's analysis of it, with the other specimens in Dr. Macadam's table, we find that the purest or weakest of them contains about six times more organic matter, and the strongest about eighteen times, more than the standard. What is the obvious conclusion from these facts? Is it not that all the shores from which these specimens were taken are more or less contaminated with organic, that is, putrefiable, matter! But to conclude, further, that these specimens are samples in the strict sense of the word, and that they therefore exhibit the relative purity of the various shores, would be erroneous. To do so would land us in the position of holding that Lamlash shore is four times more impure (as regards ammonia) than the shore at Helensburgh, which is manifestly absurd.

It is right to add that two or three of the strongest specimens in Dr. Macadam's table are so very strong in the ingredients which indicate sewage-pollution (the mud, after separation from the sand, etc., being nearly one-half the strength of sewage-sludge), that one is forced to believe that the Joint Committee were so unfortunate as to light upon a collection of local sewage in these instances. If this opinion is correct, and I cannot doubt it, then, of course, these specimens are of no value as evidence of the general state of the shore in these localities. On the other hand, should I prove to be wrong in regarding these specimens as local sewage, then the contaminated condition of the shores is much worse than I believe it to be.

FRANCIS HENDERSON, M.D.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

LOUTH RURAL DISTRICT.—Dr. Domenichetti has unfortunately to devote a large share of his report to the prevalence of typhoid fever in this district, and to announce the heightened death-rate of 15.3 per 1000. The deaths from zymotic causes numbered 45 (equal to a rate of 1.8 per 1000), 16 of which were from diarrhœa, 10 from measles, and 6 from typhoid. This last disease was very prevalent during the latter part of the year; and, in almost every instance, a defective water-supply was found to exist in association with the cases. According to Dr. Domenichetti's experience, it would appear that typhoid fever is more apt to occur at the fall of the year, when the rains are more searching, and the vegetable *débris* more constant than at any other season. He suggests, therefore, that the general health of the district should be maintained by the distribution of filters, and their efficiency especially attended to in the autumn months; though to trust to filters to escape typhoid fever would be leaning upon a very broken reed. An improvement has been made in the water-supply, many new wells being sunk, and various existing defects remedied. The district is subject to floods, which do much damage by causing contamination of the springs and watercourses, as well as in other ways.

EVESHAM.—Mr. Fosbroke's reports are always good; and in that to the Evesham Town Council for 1880, he deals decisively and effectively with the numerous insanitary conditions which exist in the borough. During the year, typhoid fever was somewhat prevalent, though not so much so as in 1879. Altogether eleven cases occurred, three of which terminated fatally, polluted water being intimately associated with all the cases. Diphtheria existed at the same time, four cases being reported, three of which were sporadic, whilst the other case was imported into the district. The death-rate (17.3 per 1000) is not unsatisfactory; though the infant mortality still continues excessive. The water-supply question is still "under consideration"; and no scheme has yet been settled on in consequence of the difficulties surrounding the matter. An improvement is noted in the sewerage, 741 dwellings having now been connected; but, in the absence of a public water-supply, efficient flushing of the sewers cannot be carried out. Much remains to be done with regard to excrement-disposal: a matter which Mr. Fosbroke's reports have dwelt upon for some years past. The Artisans' and Labourers' Dwellings Act being inapplicable to the district, a local society has been started for the construction of new cottages, and the amelioration of the existing ones. Some improvement may, therefore, be expected in this direction. The hospital question proceeds rather slowly, but plans have been prepared for submission to the Local Government Board.

BRISTOL.—Mr. Davies's report is occupied chiefly with a statement of considerable length with regard to the deaths from zymotics, which were fatal during the year to 642 persons. Only one case of small-pox occurred; several other cases followed, but isolation in the infectious hospital and thorough disinfection prevented the disease from spreading. Measles claimed 73 victims, and scarlatina no less than 244, the propagation of the disease being attributed, as usual, to the fatal habit of unceremonious visiting by neighbours, and of sending children to school from infected houses. Diphtheria is credited with 6 deaths, and whooping-cough with 95. Thirty-four fatal cases of enteric fever occurred, and infantile diarrhœa was responsible for 184 deaths, caused chiefly by want of breast-milk, and improper feeding. The deaths from phthisis showed a decrease; 367 fatal cases occurred last year, against 404 in 1879. The general death-rate was 20.0 per 1000, an improvement of 1.4 on the rate for 1879; but the death-rate amongst infants was excessive, no less than 1,040 out of a total of 4,276 deaths occurring in children under one year of age. Moreover, the deaths amongst children under five years of age were equal to 42 per cent. of the total deaths. It is lamentable that so many as 94 deaths were returned as unregistered; and it will be interesting to learn the results of the further inquiries that Mr. Davies proposes to make regarding the unsanitary conditions, social or otherwise, which surround these unregistered deaths.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 21st instant.

Messrs. Henry B. Tait, Highbury Park; William B. Ray, Newtown, Montgomeryshire; Henry E. Haycock, Shrewsbury; Thomas R. Atkinson, L.S.A., Fleet Street; C. A. J. Robertson, Manchester; Thomas Harris, Fallowfield, Cheshire; Henry Wilson, Sale, Cheshire; James O. Lane, B.A.Cantab, Hereford; Franc F. Schacht, B.A.Cantab, Clifton, Bristol; John H. Jones, L.K.Q.C.P.I., Talsarn, Carnarvonshire; John S. Collins, M.D.Q.U. Ireland, Belfast; John B. E. Joseph, Trinidad, W.I.; C. W. Robinson, L.S.A., North Shields; George Whelan, Ticehurst Street; William C. Humphreys, L.S.A., Bromsgrove; and Henry Teevan, L.S.A., Nottingham Place.

Ten candidates were rejected.

The following gentlemen passed on the 22nd instant.

Messrs. Philip Boobbyer, Hendon; Asher Gross, Leeds; James J. Pratt, Newtown, Montgomeryshire; Thomas H. Pounds, Chatham; Alfred T. Rimell, Eardley Crescent, S.W.; Arthur K. Gale, Chilworth, Oxon; Thomas W. Bagshaw, Birkenhead; Wilmot P. Herringham, Bedford Square; Richard R. Hardwicke, Tonbridge; George T. Woolley, Upper Bedford Place; Marmaduke Pittard, Guernsey; Thomas L. Gaskin, Barbadoes; Philip Vincent, Hadham Cross, Herts; Walter Wickham, L.S.A., Chew Stoke, Somerset; Ernest E. Bray, Bognor; William H. T. King, L.S.A., Plymouth; and Richard J. Roberts, Bangor.

Five candidates were rejected.

The following gentlemen passed on the 25th instant.

Messrs. Charles R. Walker, Eckington, Derbyshire; William Coates, Worksop; Edward S. Webber, Abergavenny; Evan N. Davies, L.S.A., Cymmer, Glamorganshire; Herbert C. Alderton, Shotley, Suffolk; Archibald T. O'Reilly, Sydney, N.S. Wales; Hugh S. Robinson, Sydenham Hill; Clarence W. H. Brown, Godalming; James W. Draper, Barnsbury Road; Francis J. Grindon, L.S.A., Olney, Bucks; and John Hern, M.B.Edin., Ashburton, Devon.

Nine candidates were rejected.

The following gentlemen passed on the 26th instant.

Messrs. Leonard W. Bickle, St. Leonard's-on-Sea; Richard A. Fitch, Kidderminster; Augustus H. Cook, Hampstead; Arthur R. Edwards, Malmesbury; Charles M. Tuke, Chiswick; John H. Russell, L.S.A., Waltham Cross; Robert H. Perks, Cardiff; George Serjeant, Callington, Cornwall; Charles F. Rudd, L.S.A., Wymondham; Cecil R. C. Lyster, Lessness Heath, Kent; John Dawson, St. John's Wood; Bernard Rice, Stratford-on-Avon; William Steer, L.S.A., Salcombe, Devon; David J. Rygate, L.S.A., Cannon Street Road; and Richard Prothero, Liverpool.

Eight candidates were rejected.

The following gentlemen passed on the 27th instant.

Messrs. Charles N. Cornish, Taunton; William Groom, B.A.Cantab, Wisbeach; Walter Fell, Vincent Square, S.W.; Walter Atterbury, L.S.A., Oppidans Road, N.W.; Frederick W. Clifton, Derby; John Cahill, Albert Gate; Charles W.

G. Burrows, L.S.A., Eckington, Derbyshire; George N. Robins, Buxton, Derbyshire; Charles H. Duff, Grays Inn Road; and William J. Hill, Croydon.
Ten candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 21st, 1881.

Allworth, Frank, Wateringhay, Kent
Boyd, James Dunlop, Beith, Ayrshire, N.B.
Coffin, Arthur Blount, Featherstone Terrace, Hyde Park
Fletcher, Howard Burnett, Hanover Square, Sheffield
Hoff, George Framingham, Bendwar, Bengal
Manby, Herbert Lynsey, Brewood, Stafford
Morse, Thomas Ricketts, Eton House, Cheltenham
Roberts, Richard Fletcher, Bangor, N. Wales
Teevan, Henry, 7, Nottingham Place, W.

The following gentlemen, on the 14th instant, passed their Primary Professional Examination.

Bott, Joseph, London Hospital
Gostling, Thomas Preston, University College
Squire, Edward Herbert, London Hospital
Treasure, William B. C., Charing Cross Hospital

The following gentlemen passed on the 21st instant.

Faunce, Charles Edward, Middlesex Hospital
Fink, George Herbert, University College
McMillan, John F., Middlesex Hospital
Scott, Bernard, Guy's Hospital
Tate, Alan Edmondson, Middlesex Hospital
White, Ernest Alfred, St. Bartholomew's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced :—

BOROUGH OF RYDE—Medical Officer of Health—Salary, £100 per annum. Applications to E. Hopgood, Town Clerk, by August 2nd.

BRADFORD INFIRMARY—Locum Tenens for eight weeks. Salary, £20.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House Surgeon. Salary, £100 per annum. Applications by August 11th.

COUNTY ASYLUM, Berry Wood, Northampton. Medical Officer. Salary, £130 per annum. Applications to the Medical Superintendent by 11th August.

DONEGAL COUNTY INFIRMARY.—Surgeon. Salary, £100 per annum, in addition to the Grand Jury Presentment of £94 yearly. Election on the 13th August.

FISHERTON HOUSE ASYLUM.—Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Finch, Fisherton House Asylum, Salisbury.

GENERAL INFIRMARY, Leeds.—House-Surgeon. Salary, £100 per annum. Applications to Dr. Clifford Allbutt by August 18th.

GLAMORGAN COUNTY ASYLUM, Bridgend—Assistant Medical Officer. Salary, £125 per annum. Applications to the Medical Superintendent by 2nd August.

GLASGOW ROYAL INFIRMARY—Physician. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY—Surgeon. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

GLASGOW ROYAL INFIRMARY MEDICAL SCHOOL—Teachers of Chemistry, Anatomy, Physiology, Medicine, Materia Medica, Midwifery, Pathology, and Mental Diseases. Applications, by July 30th, to Henry Lamond, Secretary, 93, West Regent Street, Glasgow.

MEMORIAL HOSPITAL, Jarrow-on-Tyne.—Resident Surgeon. Salary, £150 per annum. Applications to the Committee of Management by 15th August.

MOUNTMELLICK UNION.—Medical Officer. Salary, £100 per annum.

NATIONAL DENTAL HOSPITAL—Dental Surgeon. Applications by the 10th August.

NATIONAL DENTAL HOSPITAL—Lecturer on Dental Surgery and Pathology. Applications by 10th August.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent—House-Surgeon. Salary, £120 per annum. Applications by August 13th.

NORTH STAFFORDSHIRE INFIRMARY—House Physician. Salary, £100 per annum. Applications by 13th August.

OPENSHAW LOCAL BOARD, Manchester—Medical Officer. Salary, £— per annum. Applications by August 8th.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 23rd September.

PARISH OF DALRY—Medical Officer. Salary, £— per annum. Applications, etc., to James Alexander, Esq., Milton Park, Dalry, Galloway, by 1st August.

PRESTON FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £150 per annum.

PRESTON ROYAL INFIRMARY, Lancaster.—Senior House-Surgeon. Salary, £100 per annum. Applications by the 11th August, to Mr. R. F. Easterby, Secretary, 54, Fishergate, Preston.

QUEEN'S HOSPITAL, Birmingham—Resident Surgeon. Salary, £50 per annum. Applications by August 2nd.

QUEEN CHARLOTTE'S HOSPITAL, Marylebone Road, W.—Resident Medical Officer. Salary, £60 per annum. Applications by August 6th.

ROYAL HOSPITAL, Chelsea.—Dispenser. Remuneration, 10s. per day. Applications by August 6th.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck Street—Dental Surgeon. Applications by August 1st.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £100 per annum. Applications by 9th August.

STROUD HOSPITAL—Matron. Applications to J. Lucy, Esq., New Mills Court, Stroud, Gloucester.

MEDICAL APPOINTMENTS.

BEALE, E. Clifford, M.A., M.B., M.R.C.P., appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria Park, *vice* Percy Kidd, M.B., M.R.C.P., resigned.

BLAMEY, James, M.R.C.S., L.S.A., appointed Medical Officer of Health to the Falmouth Union Rural Sanitary Authority.

GEORGE, I. W., M.R.C.S.Eng., appointed Medical Officer to the Upton-on-Severn Union, *vice* Edmund Wadams, M.R.C.S., resigned.

GOULD, Alfred Pearce, F.R.C.S.Eng., M.B.Lond., appointed Surgeon to the North-West London Free Dispensary for Sick Children.

KNOWLING, E. M., M.R.C.S., appointed as Resident Clinical Assistant to the Hospital for Consumption.

MCCLUNG, John, L.K.Q.C.P.I., appointed Medical Officer for Eastern Division of the Omagh Dispensary District.

PAUL, F. T., F.R.C.S., appointed Honorary Surgeon to the Royal Southern Hospital, Liverpool.

PAYNE, H., M.R.C.S., appointed House-Surgeon to the Ashton-under-Lyne Infirmary.

PRICHARD, R. Moreton, M.D., appointed Medical Officer of Health to the Ruthin Union Rural Sanitary Authority.

SYMONS, G. B., M.R.C.S., appointed Medical Officer and Public Vaccinator to the Newton Abbott Union.

WALSH, Denis, F.K.Q.C.P.I., appointed Medical Officer to the Kilkenny Union, *vice* R. H. Anderson, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

WILSON—TORRANCE.—On July 20th, at Georgeville, Edinburgh, by Revd. Hugh Watson, assisted by Revd. Frank Gordon, Ratho, Alexander Wilson, M.B., C.M., of Midcalder, to Mima Ogilvie, youngest daughter of William Torrance, of Burn House, Mid-Lothian, Esq.

NOTES ON NEW REMEDIES.—*Viburnum prunifolium*, or black haw, as a remedy for threatening abortion, should be given in doses of ʒj of the fluid extract, repeated every one or two hours. It may be combined with hydrate of chloral. *Cascara sagrada*, as a remedy for chronic constipation, is best given with one or two drops of the fluid extract of belladonna. *Berberis aquifolia* has been recently reported to be efficient in scaly skin-diseases, and even in syphilis, as a substitute for mercury. Not much can be positively said for it, however. *Cereus bonplandii* has apparently acted well in severe cases of heart-disease, relieving dyspnœa, strengthening and slowing the heart; such is the statement of Dr. C. R. Cullen (*Transactions of Medical Society of Virginia*—quoted in *New York Medical Record*). *Petroleum* in phthisis, given in two to four grain doses, is recommended as a supplement to other remedies by the same authority.

PUBLIC HEALTH.—The annual rate of mortality last week, being the twenty-ninth week of the year, in twenty of the largest English towns, averaged 23.8 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bradford 14, Oldham 15, Brighton 16, Bristol 17, Norwich 17, Salford 17, Plymouth 18, Birmingham 18, Wolverhampton 18, Sheffield 19, Portsmouth 19, Manchester 22, Hull 22, Sunderland 22, Liverpool 23, Newcastle-on-Tyne 25, Leicester 25, Leeds 25, London 26, and Nottingham 29. Measles showed the largest proportional fatality in Liverpool and Sheffield; and scarlet fever in Hull, Oldham, Bristol, and Leicester. The fatal cases of diarrhœa showed a further increase upon those recorded in recent weeks; the highest death-rates from this disease occurred in Nottingham, Leicester, London, and Leeds. Four deaths were referred to diphtheria in Portsmouth. Small-pox caused 53 more deaths in London and its outer ring of suburban districts, and one in Bradford. In London, 2,451 births and 1,943 deaths were registered. The deaths exceeded the average by 306, and gave an annual death-rate of 26.5. During the past three weeks of the current quarter, the metropolitan death-rate averaged 24.3 per 1,000, against 16.8 and 19.6 in the corresponding periods of 1879 and 1880. The 1,943 deaths included 43 from small-pox, 67 from measles, 35 from scarlet fever, 9 from diphtheria, 45 from whooping-cough, 2 from typhus fever, one from cerebro-spinal fever, 11 from enteric fever, 3 from ill-defined forms of continued fever, 449 from diarrhœa, 2 from dysentery, and 13 from simple cholera; thus, 680 deaths were referred to these diseases, being 234 above the average. The fatal cases of small-pox, which had been 73 and 49 in the two preceding weeks, further declined last week to 43, but exceeded the average by 17; 27 were recorded in the Metropolitan Asylums Hospitals at Fulham, Homerton, Stockwell, and Deptford, 3 in the Highgate Small-pox Hospital, and 13 in private dwelling-houses. The deaths referred to diseases of the respiratory organs, which had been 195 and 168 in the two preceding weeks, further declined to 152 last week. The death of a child aged five years, from hydrophobia,

occurred in Islington; and a brushmaker, aged 31, died from glanders in Newington. Different forms of violence caused 84 deaths; 73 were the result of negligence or accident, among which were 18 from fractures and contusions, 2 from burns and scalds, 30 from drowning (which exceeded the average by 19), 2 from poison, and 11 of infants under one year of age from suffocation. The deaths of 5 children and of 3 adults were referred to sunstroke, heat-apoplexy, or the direct effect of the excessive heat. At Greenwich, the mean temperature of the air was 66.4°, and 3.3° above the average. The mean degree of humidity of the air was 67, complete saturation being represented by 100; the air was, therefore, dry. The direction of the wind was variable, and the horizontal movement of the air averaged 8.9 miles per hour, which was 0.8 below the average. Rain fell on three days of the week, to the aggregate amount of 0.11 of an inch. The duration of registered bright sunshine in the week was equal to 42 per cent. of its possible duration. The recorded amount of ozone showed a slight excess on Monday and Friday.

HEALTH OF FOREIGN CITIES.—The Registrar-General's last weekly return contains a table, which supplies the following statistics, indicative of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate averaged 27.0, and was equal to 17.3 in Calcutta, 30.1 in Bombay, and 32.1 in Madras. Cholera caused 22 deaths in Bombay; small-pox 36 in Madras, and 2 in Calcutta. The usual large proportion of deaths referred to "fevers" was recorded in each of the three Indian cities. The rate in Alexandria was 30.3, but, beyond a few deaths from whooping-cough, no zymotic deaths were noted in the return. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 34.1 per 1,000 of their aggregate population, showing the usual considerable excess upon the average rate in twenty of the largest English towns, which did not exceed 23.8. The rate in St. Petersburg was equal to 59.2, against 55.5 and 56.9 in the two preceding weeks; 104 deaths were referred to typhus and typhoid fevers. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 19.8, the highest rate being 23.1 in Copenhagen, where 5 of the 104 deaths resulted from diphtheria. The Paris death-rate was equal to 32.9, and exceeded that returned in any week since the beginning of March last; small-pox caused 29, measles 44, and typhoid fever 32 deaths during the week. The deaths in Brussels were equal to a rate of 27.8 per 1,000, and included 4 fatal cases of fever. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 21.4 per 1,000, being 20.3 in the Hague, 20.9 in Amsterdam, and 23.2 in Rotterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 32.6, and ranged from 22.8 and 26.1 in Hamburg and Dresden, to 37.3 in Berlin, and 44.3 in Breslau. The high death-rates in these two last-mentioned cities were due to excessive fatality of diarrhœal diseases, which caused no fewer than 320 of the 808 deaths in Berlin, and 60 of the 232 deaths in Breslau. Small-pox caused 9 deaths in Vienna, and 6 in Buda-Pesth; in Berlin, 36 deaths were referred to diphtheria. The death-rate averaged 31.3 in the four large Italian cities, and ranged from 18.1 in Venice to 39.7 in Naples; in the latter city, no fewer than 70 deaths resulted from measles, equal to an annual rate of 7.9 per 1,000. Measles caused 7 deaths in Turin, and diphtheria 6 in Rome. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, was 31.0; it was equal to 19.2 in Philadelphia, 30.1 in Brooklyn, 33.8 in Baltimore, and 39.1 in New York. Diarrhœal diseases caused 263 deaths in New York, and 77 in Brooklyn. In Philadelphia, 18 deaths were referred to small-pox, and 16 to scarlet fever.

GLOUCESTER.—There is but little of medical interest in this report, the vital statistics being dismissed curtly and with but little explanation. A larger number of deaths occurred than in 1879; but, as an increase has taken place in the population, the annual death-rate has somewhat decreased, and is now 18.9 per 1000. Mr. Wilton again urges upon the Town Council the extreme importance of an extension of the water-supply. The present supply was provided for a population considerably less than those now entitled to use it; and day by day fresh houses are connected with the city system. Even if the summer be only moderately dry, it becomes necessary to give, for a long period, an intermittent supply, which, to say nothing of inconvenience, is a source of positive danger to the public health. In other respects (as, *e.g.*, the slaughter-houses, the smoke-nuisance, and sewer-ventilation), the Gloucester Town Council would seem to be seriously behindhand in their work.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A MEMBER OF THE ASSOCIATION.—We do not recommend instrument-makers; there are, among the well-known names, half a dozen who could fulfil these requirements; but it would be well for our correspondent to determine for himself, or in consultation with a surgeon skilled in this department of surgery, what form of instrument, if any, should be selected.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

HOMBURG-LES-BAINS.

SIR,—I have just returned from a most pleasant trip through Germany, where I had seen men and things of the most interesting and instructive character. I cannot take up your valuable time and space with them, but will ask you to allow me to supplement and corroborate the statements made by your correspondent at Homburg, and which appeared in the JOURNAL of this day's date.

Homburg—or, as it should always be called, Homburg-les-Bains, to prevent its being confounded with Hamburg on the Elbe—is one of the most enjoyable watering places one can go to, either as an invalid, or one seeking a thorough change or relaxation from the arduous duties of professional life. The town, which is clean and well drained, is at a convenient distance from Frankfort-on-the-Maine, and situated on a table-land about six hundred feet above the level of the sea. It has four principal springs, the waters of which are more or less chalybeate and tonic; but one, the "Elizabethen Brunnen", is essentially laxative, owing to a large proportion of sulphate of soda it contains. This spring seems much more resorted to than the others; and it is amusing to see the numbers, young and old of both sexes, flocking around it, and imbibing its water. Two or more tumblers are prescribed, which the patient takes at intervals of half an hour, during which he or she walks about or sits down gossiping or listening to the strains of a first-rate band. The idea of the music is not a bad one; it shows a practical and philosophical turn of mind of its originator, as without it I doubt whether anyone, and the ladies in particular, would be induced to make their appearance so early (7 in the morning), and all more or less elegantly dressed. In conversation with a gouty old gentleman, he drew my attention to the predominance of the fair sex, and observed to me that he thought that males were destined to become extinct, as in all large assemblies he noticed that there were generally more women than men. The gentleman's observation, so far as the assemblage of persons under our notice was concerned, was certainly correct; for in casting my eye around me, the proportion was about three to one. The Germans composed half the number of the visitors, whilst the other half was composed of English and Americans; as for the French, they were few and far between, and, indeed, I do not believe I met a dozen throughout my journey, extending to Lubeck *viâ* Hanover and Hamburg, and back to Paris *viâ* Berlin, Dresden, Cassel, Frankfort-on-the-Maine, Mayence, and down the Rhine to Cologne. The latter is certainly one of the filthiest towns in northern or central Europe, and the smells in it will not give the visitor an idea that the delicious perfume to which it has given its name was there manufactured.

To return to Homburg-les-Bains, I would strongly recommend it to sufferers from gout, for which these waters are to be preferred, as they contain a pretty large proportion of iron, which would counteract the anæmia which is inherent to the later stages of the malady, but that generally produced by a prolonged use of alkaline waters. The waters of Homburg are also particularly useful in dyspepsia and other derangements of the abdominal viscera, constipation, obesity, and debility of the genito-urinary organs. Strumous affections are also greatly benefited by these waters; and Dr. Will, one of the resident German physicians, suggested to me that there must be something antistrumous in them, as the affections in question are extremely rare in this town. Even the drinking-water has a slightly mineral taste, partaking, no doubt, though to a small extent, of the composition of the waters from the springs; but Dr. Will thinks that the immunity may in a great measure be attributed to the sanitary condition of the town, which, from its position, is exposed to the free action of light and pure air. Goitre is unknown here, and the sequelæ of syphilis would find in these waters an invaluable remedy.—I am, sir, yours obediently,

ALFX. BOGGS, M.D.

392, Rue St. Honoré, Paris, July 23rd, 1881.

ROTHELN.

SIR,—The following cases may interest those who read Dr. Byers's instructive paper on the above subject, in your issue of the 16th instant.

On January 24th, I was called to a girl aged 8. The following was her condition: face very flushed, eyes bright, no lachrymation, throat sore, fauces very red and congested, temperature 103 Fahr., pulse 120, no rash of any kind. The next day, the temperature was 104° Fahr. She had been delirious during the night, and had great difficulty in swallowing, as the throat was so sore. The bowels had acted freely. The face, neck, and arms were covered with a rash resembling that of scarlatina; while the abdomen, chest, and legs were plentifully sprinkled with the larger patches peculiar to measles. On the third day, the rash began to fade, and at the same time the temperature fell to 100° Fahr., and the pulse to 90. From this time, the improvement was rapid, and in a week she was apparently as well as ever. The attack was followed by slight desquamation. Four days after she had apparently quite recovered, I was sent for again, but this time to her brother, aged 5, and her sister, aged 7. They presented the same symptoms she had done, and the disease ran the same course, but the attack was not so severe. In all three cases, the most noticeable features were the sudden fall of temperature on the third day of the eruption, and the rapid convalescence. On the 2nd of last month, I was called to my first little patient, and found her suffering from an attack of true scarlatina. While I was attending her with this, her sister sickened for measles, of which she had rather a smart attack. Both are now doing well. Up to the present, the boy has escaped.

It is rather interesting to notice that, in the one case, we have rötheln followed in five months by measles, while in the other we have it followed at the same period of time by scarlatina. Believe me, yours very truly,

W. J. SIMPSON LADELL.

112, St. John's Road, Hoxton, July 19th, 1881.

GRADUATION WITHOUT EDUCATION.

CAN a man graduate without seeing a case? In New York, apparently, he can. Dr. R. F. Weir, in a letter to the *New York Medical Record*, says that he can say, from personal knowledge, that "a student may graduate without ever having dissected any part of the human body, without ever witnessing or attending a midwifery case, or without ever being present at a hospital clinic". It is also possible for a student "to graduate in less than a year from the beginning of his actual study".

*** This will, perhaps, explain why American diplomas are not accepted without question as licences to practise in Great Britain, a fact which excites the indignant remonstrances of some American writers.

CLUB PRACTICE.

SIR,—Would you, or any of your numerous readers, kindly give me some information as to what would be a fair and proper remuneration for medical attendance and medicine given to members of [illegible] Club, who reside about [illegible] distance from which we have to go in order to get to their respective houses? In some cases about three miles, and two miles is not at all uncommon. The sum given by one member is to include attendance and medicine for himself, his wife, and family. In one establishment, there are over eight hundred hands employed, and the work is not of a particularly healthy nature, as the men take turns at night-work, and the atmosphere is hot, damp, and impure. Also what would be a reasonable fee to ask for lying-in cases?—I am, sir, yours faithfully,

M.B.

THE EFFECT OF REMOVAL OF THE TONSILS ON DEVELOPMENT OF THE TESTES.

SIR,—It is stated by some authors, and denied by others, that removal of the tonsils interferes with the development of the genital organs; and so, to borrow an expression of Mr. Gladstone, I kept my mind open on the subject, until in 1879-1880 I had abundant opportunity for deciding the point to my own satisfaction. At the time mentioned, I was at Zanzibar, where every native, almost without exception, has his tonsils removed during boyhood; and I saw no case of atrophy of the testes, nor any of imperfect development of the genital organs, which could be attributed to the removal of the tonsils. Rather judging them by an European standard, one would consider the genital organs of these tonsilless natives to be hypertrophied.—I am, sir, your obedient servant,

THOMPSON HAGUE, L.R.C.P.

Camberwell, July 22nd, 1881.

ALIQUIS (Bournemouth).—We cannot follow the series of hypothetical statements and consequent queries on which "Aliquis" asks for guidance. On any clear statement of authenticated fact, we would endeavour to give an opinion.

ACCIDENTS FROM LIGHTNING.

SIR,—As accidents from lightning are somewhat rare in this country, the following account of a case which has recently occurred may prove interesting to some of your readers.

J. S. W., aged 52, a farmer, total abstainer, was in his garden at 2 P.M., June 22nd, during a thunder-storm, when his wife saw a flash of lightning, followed instantly by a clap of thunder. She heard the sound of bricks falling from the chimney-top, and also a sudden flow of water. On running to the back door to ascertain the cause, she saw her husband in the act of falling to the ground, and caught him in her arms. He was carried into the house, and placed in a chair. When visited, about five minutes later, he was sitting in a chair, foaming at the mouth. His facial muscles were twitching, eyes open, but he did not appear to notice anything. His arms and legs were powerless, and hung loosely. Pulse regular, about 70. He was taken upstairs to bed. He remained in this state about twenty minutes, and then asked, "What was the matter?" He said he remembered nothing since he went to feed the pigs, and returned with the empty bucket in his hand to the water-butt. On removing his clothes, the following injuries were discovered. His shirt, which was a blue cotton one, was torn, and set on fire in several places; so also were his stockings, made of blue worsted. His waistcoat and trousers were uninjured. The left side of the head was burnt, and the hair singed; also the left eyebrow and the left half of the right; the left side of the face, and the left side and front of the neck, were blistered; the front of the chest was burnt generally, and deeply in places; the abdomen [illegible] and penis the same; the right thigh was scorched generally, and blistered in places, as if boiling water had been sprinkled on it. The burns extended to the right ankle; and there was a little burning on the outer side of the left thigh and leg. At 6 P.M., the pulse was 65. There was no pain in the parts burnt, but he complained of severe pain in his wrists, and he said "he could sleep were it not for this". This was relieved by pressure, and he slept well. He continued in much the same state, except being restless at nights, until the 26th, when, at 9 P.M., he became collapsed; the pulse was weak; respiration hurried. The face and hands were cold. He swallowed a little milk, but could not answer questions.

June 27th. He was restless until 2 A.M. this morning. Since then, he had been lying on his back; the eyes were closed; the mouth was open. The pulse was 104, thready. Respirations 36. The hands were cold; the abdomen tympanitic. He swallowed a little brandy and milk, then opened his eyes, but soon closed them again. He rallied a little towards 1 P.M., and answered questions rationally.—9 P.M. The above symptoms continued. A pint of urine was removed by the catheter. He died at 11 P.M.

On examining the chimney, its bricks were found loosened, and two had fallen. A piece of wood had been taken out of one of the staves of the water-butt, and its splinters were found sticking into some cheese-cloths, which were hanging on a line three yards' distant. This caused the escape of water his wife had heard. On the top hoop of the barrel was an indentation similar to what would have been made by a shot discharged from a gun. I am, etc.,

FREDK. STOCKWELL.

Bruton, Somerset.

FLUORIC ACID IN GOITRE.

SIR,—I should like to know, through the JOURNAL, the dose and the best way of giving fluoric acid in goitre.—Yours truly,

A. ARTHUR NASH.

Broad Walk, Cranleigh, July 25th, 1881.

PASSAGE OF A PENNY THROUGH THE ALIMENTARY CANAL IN A BOY.

SIR,—Such a case as the following, which recently came under my observation at the "Cottage Homes", being of somewhat unfrequent occurrence, together with its favourable termination, seems to me worthy of a note.

On May 4th last, Benjamin H., aged 5, accidentally swallowed a penny. Up to its disappearance, it was felt for a few minutes [illegible] but was not afterwards heard without causing any apparent [illegible] shortly afterwards, and satisfied myself that both respiratory and deglutitory tracks were clear. He was at once placed upon [illegible] milk diet, with instructions that he be carefully watched, but allowed to play with the other boys as usual. There were neither gastric [illegible] abnormalities observed until seven days later, when pain was complained of in the umbilical region, lasting, however, only a few hours. The patient being then allowed his ordinary diet, the action of the bowels was effected [illegible] with aperients, and the excreta from time to time examined, the usual tests for the presence of metal being applied, but no trace of it could be [illegible]. On May 19th, fifteen days after the accident, the looked-for coin, [illegible] and a quarter in diameter) made its appearance per anum, causing [illegible] pain, and adhering to the sphincter and adjacent tissues. The lad was [illegible] from first to last, and is now in the full enjoyment thereof. Upon examination, the penny was found [illegible] with the exception of being slightly [illegible].

I am, etc.,

HUGH THOMAS, M.R.C.S.E., Medical Officer to the Metropolitan Cottage Homes, Hanwell, W.

The Opium Traffic.

SIR,—I have read with much interest the letter of Dr. Murrell on the above subject, in the BRITISH MEDICAL JOURNAL, vol. i, 1881, pp. 157-158. Dr. Murrell would, perhaps, like to read a series of valuable and well digested articles, which appeared by the classic pen of Dr. Moore, of the Bombay Medical Service, in some recent issues of your Indian contemporary, the *Indian Medical Gazette*. I would commend Dr. Moore's observations to the notice of our brethren; he has had unparalelled opportunities of observation in Rajputana, an opium-producing province in which, I believe, a large percentage of the population are more or less opium-eaters. It is a firm conviction, in the minds of the people inhabiting malarious districts in India, that *papaver somniferum* possesses both antiperiodic and prophylactic virtues. It is also, I believe, a point noticed by medical superintendents of Indian prisons, that convicts, after admission into prisons, when the drug had been stopped, suffer from the various effects of malaria; when outside, they and their families, and the rest of the free population, have been comparatively exempt.

I have no intention of attempting to handle a subject of such magnitude; but I may say that I incline to the view that the evil effects of the habitual use—not abuse—of opium has been much overrated; and I sincerely hope that, in the interests of hygiene and therapy, not to speak of the social and commercial aspects of the question, the subject will receive the attention at the hands of our medical brethren which it merits. And I venture to entertain the hope that Dr. Moore, an authority entitled to our respect, will favour the profession by a further expression of his views on this momentous question.—I am, etc., JOHN C. LUCAS.

Treatment of Eczema Palmarum.

SIR,—I should be glad if some member would give me a few hints as to the treatment of an obstinate case of eczema palmarum that I have under my care. The patient is a female aged 50. The disease has existed about twelve months, but only badly for about half that time. She attributes it to having got poisoned while pulling weeds. The palms of both hands are cracked and fissured all over, sometimes discharging, and sometimes covered with thick white scales. I have tried most of the ordinary applications for such cases, and a great many others, but without any lasting benefit.—I remain, etc., F. T. G.

The Brussels Degree and Medical Titles.

SIR,—Will you kindly give me your opinion, Has a M.D. Brussels and L.R.C.P. Lond., etc., a right to style himself Dr.? and is it both right and proper for his *confrères*, in writing, to address him as Dr. So-and-so, or So-and-so, M.D., and not So-and-so, Esq., Surgeon? I am sorry to trouble you with so simple a question; but if you will be so kind as to insert both it and the answer in your next Notices to Correspondents, I shall esteem it a favour.—Yours faithfully,

M.D. BRUSSELS, MEM. B.M.A.

*** To address a graduate of the University of Brussels otherwise than as Dr. would be foolish and unmannerly.

Education of Boys.

SIR,—The opinion held on the above subject by "M.D." was held and strongly advocated by the late Dr. Waddy, who was for many years governor of Wesley College, Sheffield. He had a large shop fitted up in the College with carpenters' benches, tools of all kinds, turning lathes for wood and metal, and two blacksmiths' forges. Competent workmen were engaged to instruct the lads, who greatly enjoyed the class. The governor, or one of the masters, was always present, and the work done was of a most creditable description. Three prizes were given; one to the best carpenter, one for wood-turning, and one for working in metal. I have seen many well finished desks and work-boxes made by the boys, whose work was exhibited on prize-day (provided it was all their own work). I well remember admiring a working model of a steam-engine most beautifully finished, the work of a boy sixteen years of age, who now holds a lucrative post in one of our colonies. I believe the system is still carried on, but it is several years since I visited the school. I know that several members of medical association were educated there. The present governor is the Reverend W. H. Dallinger, F.R.S., a man well known in scientific circles.—I am, etc., E. M. CAMPBELL.

Calne, July 26th, 1881.

SIR,—Your correspondent "M.D." will find, at the Uppingham School, a realisation of his views on the subject of physical education, where there is a completely fitted up carpenters' shop, with a skilled instructor to teach the boys, if they so desire it, the trade of a carpenter.—I am, sir, your obedient servant,

Dunblane, Perthshire, N.B., July 26th, 1881. ROBERT J. BANNING, M.D.

Inquests Extraordinary.

THE following is from the *Hampshire Independent* of July 23rd. "*Death of an Illegitimate Child.*—An inquest was held on Wednesday morning, at the Crown and Sceptre, Bevois Valley, before the borough coroner, Mr. William Coxwell, concerning the death of the illegitimate male child of Eliza Oakley, of 8, King's Terrace, Bevois Valley. From the evidence it appeared the child was born on Thursday, the mother being attended by Clara Leyman, from the Nurse's Institute. The child was puny and weakly, scarcely surviving its birth, and it died in convulsions on Sunday; the grandmother, Sarah Oakley, previously sending for Dr. Hobley, who, however, could not come. The nurse, Clara Leyman, having given it as her opinion that death was due to natural causes, a verdict was returned accordingly."

Fleshy Substance discharged from Uterus.

SIR,—Some years ago I attended a multipara; after the extraction of the placenta, I went downstairs (having felt the uterus well contracted through the abdominal walls). I had not been long out of the room when the nurse hastily summoned me to stop what she called "a great loss". I found my patient gasping, lips white, bed flooded, etc. I at once cleared out the uterus; and by grasping it from the outside with one hand, while the other was within, it soon contracted again; and presently I left, believing all to be well. During the next two days, I was frequently sent for to stop a slow hæmorrhage; I gave ergot and opium, but without doing any good. I then determined upon exploring the uterus, to learn if it were empty—(remember I had completely emptied it to arrest the first alarming hæmorrhage)—for I felt certain that something was acting as a foreign body. I introduced my hand, and extracted a solid, liver-coloured, pear-shaped "fleshy substance"; it was, indeed, an exact cast of the uterine cavity. As I knew that the uterus was empty two days before I extracted this "fleshy substance", I readily reached the conclusion that it was pure fibrine, out of which all the serum had been pressed by the muscular efforts of the uterus to expel it. This will, I think, explain Dr. Cleveland's case, which he appears disposed to regard as something very abnormal, because it offered a very fancied resemblance to the uterus.—Yours sincerely,

D. CLIPSON WRAY, M.D., M.R.C.S.

Osbert House, Skegness, Lincolnshire.

Caution: Arsenical Poison.

SIR,—A packet of "pocket gum", sold in small squares, and intended as a substitute for solution of gum Arabic, is coated with an arsenical green paper, which yields a large amount of that poisonous substance. As the gum could be covered with a harmless coloured paper, it is difficult to ascribe the use of the arsenical green paper to anything but gross ignorance of its dangerous properties.—I am, etc.,

W. FRAZER, F.R.C.S.I., Exam. Royal College of Surgeons, Ireland.

20, Harcourt Street, Dublin.

SIR,—Can you or any of your readers inform me where I can find an account of an Indian drug named "Psoralea corylifolia", said to be useful in baldness? how it is used? and where to be obtained? and if it is very expensive?—Faithfully yours,

N. A.

Sanitary Inspection of Hotels.

SIR,—The letter of "A Provincial Associate" in your issue of July 16th, referring to the necessity of sanitary inspection and reform of hotels in the United Kingdom, should be followed up. As a rule, hotels are in a most unsanitary condition. In Dublin, the proprietors of the two leading hotels have recently placed them in the hands of the principal sanitary engineers in Dublin, and having remodelled them they procured from the firm sanitary certificates endorsed by the chief medical officer of health for Dublin, which certificates they display in their halls. I have had copies taken, which I enclose for publication, as I recommend the same precaution should be taken by every hotel in the kingdom.—Yours, etc.,

AN IRISH ASSOCIATE.

MR. W. BERRY.—Duly received, and shall have early insertion.

Beer for Schoolboys.

SIR,—I have just received the annual report of the Royal Medical Benevolent College, and I wish to draw the attention of the governors and subscribers, to an item in the report, which I consider not only unnecessary, but one which is a grave reflection upon the Council. I allude to the sum of £242 5s. for beer. I understand that each pupil is allowed beer twice a day. I leave it to your readers to say whether beer is a proper thing for children or not. In my humble opinion, it is not only not necessary, but positively injurious; and, I for one, could not send my children to a school, where they run the chance of laying the foundation of an after life of intemperance. In the face of the great medical declaration, and the sifting which the subject has lately gone through in the JOURNAL and other medical papers, I am grieved to see that, at a college founded for the sons of medical men, and managed by medical men, beer should cost twice as much as milk. Hoping my letter may stir up such a discussion as will lead to the withdrawal from the diet of our children, that which we ourselves have refused to be charged with, at our own annual banquet.—I remain, sir, yours obediently,

A GOVERNOR.

MR. J. B. FOOT (Newcastle).—Much obliged, but hardly of sufficient medical interest.

Irregular Practice in the Colonies.

SIR,—Mauritius is not the only colony where unqualified and unregistered persons are permitted by the authorities to practise medicine. I have recently visited a British colony—Guiana—where there is a local government medical service, and a rather extensive one too, and there are men practising medicine who are unregistered practitioners; and I do not think I make a mistake in saying that some of them hold public appointments. The laws affecting the medical profession are surely intended to protect its members; but, as administered, it would appear that its orthodox members are the only ones subject to the "pains and penalties". The unlicensed individual openly violates the law, and is again protected by it.—I am, sir, your obedient servant,

A MEMBER B. M. A.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Echo; Mr. T. Holmes, London; Dr. K. N. Macdonald, Cupar Fife; Dr. R. J. Banning, Perth; N. A.; Dr. F. de Chaumont, Southampton; Mr. A. Arthur Napper, Cranleigh; Our Glasgow Correspondent; Mr. E. M. Campbell, Calne; Mr. C. M. Scott, Dalkey; Mr. A. Jackson, Sheffield; Dr. Saundby, Birmingham; Dr. Markham Skerritt, Clifton; A Registered M.R.C.S.; Mr. Douglas Hemming, London; Mr. G. Brown, London; Dr. W. Boyd Mushet, New Brighton; Dr. Thomas Partridge, Stroud; Dr. Henry Harris, Redruth; Mr. W. J. Simpson Ladell, London; Dr. Newth, Hayward's Heath; Dr. A. Boggs Paris; Dr. W. Newman, Stamford; Our Aberdeen Correspondent; Mr. Thomas Sanctuary, Hayle; Dr. Kelly, Taunton; Mr. H. A. Cottell, Louisville; Dr. Murrell, London; Dr. G. H. Batterbury, Wimborne; Mr. E. H. Saundars, Stonehouse; Dr. Roberts, Ealing; Mr. W. C. Madden-Medlicott, London; Dr. A. Wallace, Parsonstown; Dr. H. L. Snow, London; Dr. W. Domett Stone, London; Dr. P. H. Mules, Manchester; Mr. G. E. Wherry, Cambridge; Dr. W. Frazer, Dublin; Dr. Chavasse, Birmingham; F. T. G.; Mr. J. W. Norman, Ross; Mr. E. Clifford Beale, London; Mr. A. D. H. Leadman, Boroughbridge; Mr. John C. Lucas, Bombay; Dr. McAldowie, Stoke-on-Trent; Mr. J. Blamey, Penryn; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office, High Holborn. Small amount may be sent in postage stamps.

INTERNATIONAL MEDICAL CONGRESS.

SEVENTH SESSION: LONDON, AUGUST 1881.

PRESIDENT'S ADDRESS,

BY

SIR JAMES PAGET, BART., F.R.S.,
Consulting Surgeon to St. Bartholomew's Hospital, etc.

It is not necessary to defend the meeting of an International Congress. Such meetings have become one of the general customs of our time, and have thus given evidence that they are generally approved. Let me rather suggest to you some thoughts as to the work which, being in Congress, we have to do, and the spirit in which it may best be done, so that the good effects of our meeting may last long after our parting.

In the largest view of our design, it may seem to be that of bringing together a multitude of various minds for the promotion and diffusion of knowledge in the whole science and art of medicine, in their widest range, in all their narrowest divisions, in all their manifold utilities. And this design, I cannot doubt, will be fulfilled; for although the programme tells of selected subjects for discussion, and defines the order of our work, yet knowledge will be promoted in a much wider range in the meetings without order, which will be held every day and everywhere—meetings of men with all kinds of mental power and all forms of knowledge and of skill; everyone ready alike to impart and to acquire knowledge.

It is safe to say that in the casual conversations of this coming week there will be a larger interchange and diffusion of information than in any equal time and space in the whole past history of medicine. And with this interchange will be a larger increase, for in the mart of knowledge he that receives gains, and he that gives retains, and none suffer loss.

The increase will be the greater because of the great variety of minds which will meet. As I look round this hall, my admiration is moved not only by the number and total power of the minds which are here, but by their diversity; a diversity in which I believe they fairly represent the whole of those who are engaged in the cultivation of our science. For here are minds representing the distinctive characters of all the most gifted and most educated nations; characters still distinctly national, in spite of the constantly increasing intercourse of the nations. And from many of these nations we have both elder and younger men; thoughtful men and practical; men of fact and men of imagination; some confident, some sceptic; various, also, in education, in purpose and mode of study, in disposition and in power. And scarcely less various are the places and all the circumstances in which those who are here have collected and have been using their knowledge. For I think that our calling is pre-eminent in its range of opportunities for scientific study. It is not only that the pure science of human life may match with the largest of the natural sciences in the complexity of its subject-matter; not only that the living human body is, in both its material and its indwelling forces, the most complex thing yet known; but that in our practical duties this most complex thing is presented to us in an almost infinite multiformity. For in practice we are occupied, not with a type and pattern of the human nature, but with all its varieties in all classes of men, of every age and every occupation, in all climates and all social states; we have to study men singly and in multitudes, in poverty and in wealth, in wise and unwise living, in health and all the varieties of disease; and we have to learn, or at least to try to learn, the results of all these conditions of life while, in successive generations, and in the mingling of families, they are heaped together, confused, and always changing. In every one of all these conditions, man, in mind and body, must be studied by us; and every one of them offers some different problems for inquiry and solution. Wherever our duty or our scientific curiosity or, in happy combination, both, may lead us, there are the materials and there the opportunities for separate original research.

Now, from these various opportunities of study, men are here in Congress. Surely, whatever a multitude and diversity of minds can, in a few days, do for the promotion of knowledge, may be done here. Everyone has something he may teach, much more that he may learn; and, in the midst of an apparent utter confusion, knowledge will increase and multiply. It has been said, indeed, that truth is more likely to emerge from error than from confusion, and, in some instances, this is true; but much of what we call confusion is only the order of nature not yet discerned; and so it may be here. Certainly, it is from what seems like the confusion of successive meetings such as this that that kind of truth emerges which is among the best moving and directing forces in the scientific as well as in the social life—the truth which is told in the steady growth of general opinion.

But it is not proposed to leave the work of the Congress to what would seem like chance and disorder, good as the result might be; nor yet to the personal influences by which we may all be made fitter for work, though these may be very potent. In the stir and controversy of meetings such as we shall have, there cannot fail to be useful emulation; by the examples that will appear of success in research, many will be moved to more enthusiasm, many to more keen study of the truth; our range of work will be made wider, and we shall gain that greater interest in each other's views and that clearer apprehension of them which are always attained by personal acquaintance and by memories of association in pleasure as well as in work. But as it will not be left to chance, so neither will sentiment have to fulfil the chief duties of the Congress.

Following the good example of our predecessors, certain subjects have been selected which will be chiefly, though not exclusively, discussed, and the discussions are to be in the sections into which we shall soon divide.

Of these subjects it would not be for me to speak even if I were competent to do so; unless I may say that they are so numerous and complete that—together with the opening addresses of the Presidents of Sections—they leave me nothing but such generalities as may seem commonplace. They have been selected, after the custom of former meetings, from the most stirring and practical questions of the day; they are those which must occupy men's minds, and on which there is at this time most reason to expect progress, or even a just decision, from very wide discussion. They will be discussed by those most learned in them, and in many instances by those who have spent months or years in studying them, and who now offer their work for criticism and judgment.

I will only observe that the subjects selected in every section involve questions in the solution of which all the varieties of mind and knowledge, of which I have spoken, may find their use. For there are questions, not only on many subjects, but in all stages of progress towards settlement. In some, the chief need seems to be the collection of facts well observed by many persons. I say by many, not only because many facts are wanted, but because in all difficult research it is well that each apparent fact should be observed by many; for things are not what they appear to each one mind. In that which each man believes that he observes, there is something of himself; and for certainty, even on matters of fact, we often need the agreement of many minds, that the personal element of each may be counteracted. And much more is this necessary in the consideration of the many questions which are to be decided by discussing the several values of admitted facts and of probabilities, and of the conclusions drawn from them. For, on questions such as these, minds of all kinds may be well employed. Here, there will be occasion even for those which are not unconditionally praiseworthy, such as those that habitually doubt, and those to whom the invention of arguments is more pleasing than the mere search for truth. Nay, we may be able to observe the utility even of error. We may not, indeed, wish for a prevalence of errors; they are not more desirable than are the crime and misery which evoke charity. And yet in a Congress we may palliate them, for we may see how, as we may often read in history, errors, like doubts and contrary pleadings, serve to bring out the truth, to make it express itself in clearest terms and show its whole strength and value. Adversity is an excellent school for truth as well as for virtue.

But that which I would chiefly note, in relation to the great variety of minds which are here, is that it is characteristic of that mental pliancy and readiness for variation which is essential to all scientific progress, and which a great International Congress may illustrate and promote. In all the subjects for discussion we look for the attainment of some novelty, and change in knowledge or belief; and after every such change there must ensue a change in some of the conditions of thinking and of working. Now for all these changes minds need to be pliant and quick to adjust themselves. For all progressive science there must be minds that are young, whatever may be their age.

Just as the discovery of auscultation brought to us the necessity for a refined cultivation of the sense of hearing, which was before of only the same use in medicine as in the common business of life; or, as the employment of the numerical method in estimating the value of facts required that minds should be able to record and think in ways previously unused; or, as the acceptance of the [illegible] changed the course of thinking in whole departments of science; so is

it, it [illegible] in every less advanced of knowledge. All such advances change the circumstances of the mental life, and minds that cannot or will not adjust themselves become less useful, or must, at least, modify their manner of utility. They may continue to be the best defenders of what is true; they may strengthen and expand the truth, and may apply it, in practice, with all the advantages of experience; they may thus secure the possessions of science and use them well; but they will not increase them.

It is with minds as with living bodies. One of their chief powers is in their self-adjustment to the varying conditions in which they have to live. Generally, those species are the strongest and most abiding that can thrive in the widest range of climate and of food. And, of all the races of men, they are the mightiest and most noble who are, or by self-adjustment can become, most fit for all the new conditions of existence in which by various changes they may be placed. These are they who prosper in great changes of their social state; who, in successive generations, grow stronger by the production of a population so various that some are fitted to each of all the conditions of material and mode of life which they can discover or invent. These are most prosperous in the highest civilisation; these whom nature adapts to the products of their own arts.

Or, among other groups, the mightiest are those who are strong alike on land and sea; who can explore and colonise, and in every climate can replenish the earth and subdue it; and this, not by tenacity or mere robustness, but rather by pliancy and the production of varieties fit to abide and increase in all the various conditions of the world around.

Now, it is by no distant analogy that we trace the likeness between these in their successful contests with the material conditions of life and those who are to succeed in the intellectual strife with the difficulties of science and of art. There must be minds which in variety may match with all the varieties of the subject-matters and minds which, at once or in swift succession, can be adjusted to all the increasing and changing modes of thought and work.

Such are the minds we need; or rather, such are the minds we have; and these in great meetings prove and augment their worth. Happily the natural increase in the variety of minds in all cultivated races is—whether as cause or as consequence—nearly proportionate to the increasing variety of knowledge. And it has become proverbial and is nearly true in science and art, as it is in commerce and in national life, that, whatever work is to be done, men are found or soon produced who are exactly fit to do it.

But it need not be denied that, in the possession of this first and chieftest power for the increase of knowledge, there is a source of weakness. In works done by dissimilar and independent minds, dispersed in different fields of study, or only gathered into self-assorted groups, there is apt to be discord and great waste of power. There is, therefore, need that the workers should from time to time be brought to some consent and unity of purpose; that they should have opportunity for conference and mutual criticism, for mutual help and the tests of free discussion. This it is which, on the largest scale and most effectually, our Congress may achieve; not, indeed, by striving after a useless and happily impossible uniformity of mind or method, but by diminishing the lesser evil of waste and discord which is attached to the far greater good of diversity and independence. Now, as in numbers and variety the Congress may represent the whole multitude of workers everywhere dispersed, so in its gathering and concord it may represent a common consent that, though we may be far apart and different, yet our work is and shall be essentially one; in all its parts mutually dependent, mutually helpful, in no part complete or self-sufficient. We may thus declare that as we who are many are met to be members of one body, so our work for science shall be one, though manifold; that as we, who are of many nations, will, for a time, forget our nationalities and will even repress our patriotism, unless for the promotion of a friendly rivalry, so will we in our work, whether here and now or everywhere and always, have one end and one design—the promotion of the whole science and whole art of healing.

It may seem to be a denial of this declaration of unity that, after this general meeting, we shall separate into sections more numerous than in any former Congress. Let me speak of these sections to defend them; for some maintain that, even in such a division of studies as these may encourage, there is a mischievous dispersion of forces. The science of medicine, which used to be praised as one and indivisible, is broken up, they say, among specialists, who work in conflict rather than in concert, and with mutual distrust more than mutual help.

But let it be observed that the sections which we have instituted are only some of those which are already recognised, in many countries, in separate societies, each of which has its own place and rules of self-government and its own literature. And the division has taken place naturally in the course of events which could not be hindered. For the partial separation of medicine, first from the other natural sciences, and now in sections of its own, has been due to the increase of knowledge being far greater than the increase of individual mental power.

I do not doubt that the average mental power constantly increases in the successive generations of all well-trained peoples; but it does not increase so fast as knowledge does, and thus, in every science, as well as in our own, a small portion of the whole sum of knowledge has become as much as even a large mind can hold and duly cultivate. Many of us must, for practical life, have a fair acquaintance with many parts of our science, but none can hold it all; and for complete knowledge, or for research, or for safely thinking-out beyond what is known, no one can hope for success unless by limiting himself within the few divisions of the science for which, by nature or by education, he is best fitted. Thus, our division into sections is only an instance of that division of labour which, in every prosperous nation, we see in every field of active life and which is always justified by more work better done.

Moreover, it cannot be said that in any of our sections there is not enough for a full strong mind to do. If anyone will doubt this, let him try his own strength in the discussion of several of them.

In truth, the fault of specialism is not in narrowness, but in the shallowness and the belief in self-sufficiency with which it is apt to be associated. If the field of any specialty in science be narrow, it can be dug deeply. In science, as in mining, a very narrow shaft, if only it be carried deep enough, may reach the richest stores of wealth, and find use for all the appliances of scientific art. Not in medicine alone, but in every department of knowledge, some of the grandest results of research and of learning, broad and deep, are to be found in monographs on subjects that, to the common mind, seemed small and trivial.

And study in a Congress such as this may be a useful remedy for self-sufficiency. Here every group may find a rare occasion, not only for an opportune assertion of the supreme excellence of its own range and mode of study, but for the observation of the work of every other. Each section may show that its own facts must be deemed sure, and that by them every suggestion from without must be tested; but each may learn to doubt every inference of its own which is not consistent with the facts or reasonable beliefs of others; each may observe how much there is in the knowledge of others which should be mingled with its own; and the sum of all may be the wholesome conviction of all, that we cannot justly estimate the value of a doctrine in one part of our science till it has been tried in many or in all.

We were taught this in our schools; and many of us have taught that all the parts of medical science are necessary to the education of the complete practitioner. In the independence of latter life, some of us seem too ready to believe that the parts we severally choose may be self-sufficient, and that what others are learning cannot much concern us. A fair study of the whole work of the Congress may convince us of the fallacy of this belief. We may see that the test of truth in every part must be in the patient and impartial trial of its adjustment with what is true in every other. All perfect organisations bear this test; all parts of the whole body of scientific truth should be tried by it.

Moreover, I would not, from a scientific point of view, admit any estimate of the comparative importance of the several divisions of our science, however widely they may differ in their present utilities. And this I would think right, not only because my office as President binds me to a strict impartiality and to the claim of freedom of research for all, but because we are very imperfect judges of the whole value of any knowledge, or even of single facts; for every fact in science, wherever gathered, has not only a present value, which we may be able to estimate, but a living and germinal power of which none can guess the issue.

It would be difficult to think of anything that seemed less likely to acquire practical utility than those researches of the few naturalists who, from Leeuwenhoeck to Ehrenberg, studied the most minute of living things, the Vibrionidæ. Men boasting themselves as practical might ask, "What good can come of it?" Time and scientific industry have answered, "This good: those researches have given a more true form to one of the most important practical doctrines of organic chemistry; they have introduced a great beneficial change in the most practical part of surgery; they are leading to one as great in the practice of medicine; they concern the highest interests of agriculture, and their power is not yet exhausted."

And as practical men were, in this instance, incompetent judges of the value of scientific facts, so were men of science at fault when they missed the discovery of anæsthetics. Year after year the influences of laughing gas and of ether were shown: the one fell to the level of the wonders displayed by itinerant lecturers, students made fun with the other; they were the merest practical men, men looking for nothing

but what might be straightway useful, who made the great discovery which has borne fruit not only in the mitigation of suffering, but in a wide range of physiological science.

The history of science has many similar facts, and they may teach that any man will be both wise and dutiful if he will patiently and thoughtfully do the best he can in the field of work in which, whether by choice or chance, his lot is cast. There let him, at least, search for truth, reflect on it, and record it accurately; let him imitate that accuracy and completeness of which I think we may boast that we have, in the descriptions of the human body, the highest instance yet attained in any branch of knowledge. Truth so recorded cannot remain barren.

In thus speaking of the value of careful observation and records of facts, I seem to be in agreement with the officers of all the sections; for, without any intended consent, they have all proposed such subjects for discussion as can be decided only by well-collected facts and fair direct inductions from them. There are no questions on theories or mere doctrine. This, I am sure, may be ascribed, not to any disregard of the value of good reasoning or of reasonable hypotheses, but partly to the just belief that such things are ill-suited for discussion in large meetings, and partly to the fact that we have no great opponent schools, no great parties named after leaders, or leading doctrines about which we are in the habit of disputing. In every section the discussions are to be on definite questions, which, even if they be associated with theory or general doctrines, may yet be soon brought to the test of fact; there is to be no use of doctrinal touchstones.

I am speaking of no science but our own. I do not doubt that in others there is advantage in dogma, or in the guidance of a central organising power, or in divisions and conflicting parties. But in the medical sciences I believe that the existence of parties founded on dominant theories has always been injurious; a sign of satisfaction with plausible errors, or with knowledge which was even for the time imperfect. Such parties used to exist, and the personal histories of their leaders are some of the most attractive parts of the history of medicine; but although in some instances an enthusiasm for the master-mind may have stirred a few men to unusual industry, yet very soon the disciples seem to have been fascinated by the distinctive doctrine, content to bear its name, and to cease from active scientific work. The dominance of doctrine has promoted the habit of inference, and repressed that of careful observation and induction. It has encouraged that fallacy to which we are all too prone, that we have at length reached an elevated sure position on which we may rest, and only think and guide. In this way, specialism in doctrine or in method of study has hindered the progress of science more than the specialism which has attached itself to the study of one organ or of one method of practice. This kind of specialism may enslave inferior minds: the specialism of doctrine can enchant into mere dreaming those that should be strong and alert in the work of free research.

I speak the more earnestly of this because it may be said, if our Congress be representative, as it surely is, may we not legislate? May we not declare some general doctrines which may be used as tests and as guides for future study? We had better not.

The best work of our International Congress is in the clearing and strengthening of the knowledge of realities; in bringing, year after year, all its force of numbers and varieties of minds to press forward the demonstration and diffusion of truth as nearly to completion as may from year to year be possible. Thus, chiefly, our Congress may maintain and invigorate the life of our science. And the progress of science must be as that of life. It sounds well to speak of the temple of science and of building and crowning the edifice. But the body of science is not as any dead thing of human work, however beautiful; it is as something living, capable of development and a better growth in every part. For, as in all life the attainment of the highest condition is only possible through the timely passing-by of the less good, that it may be replaced by the better, so is it in science. As time passes, that which seemed true and was very good becomes relatively imperfect truth, and the truth more nearly perfect takes its place.

We may read the history of the progress of truth in science as a palæontology. Many things which, as we look far back, appear, like errors, monstrous and uncouth creatures, were, in their time, good and useful, as good as possible. They were the lower and less perfect forms of truth which, amid the floods and stifling atmospheres of error, still survived; and just as each successive condition of the organic world was necessary to the evolution of the next following higher state, so from these were slowly evolved the better forms of truth which we now hold.

This thought of the likeness between the progress of scientific truth and the history of organic life may give us all the better courage in a work which we cannot hope to complete, and in which we see continual, and sometimes disheartening, change. It is, at least, full of comfort to those of us who are growing old. We, that can read in memory the history of half a century, might look back with shame and deep regret at the imperfections of our early knowledge if we might not be sure that we held, and sometimes helped onward, the best things that were, in their time, possible, and that they were necessary steps to the better present, even as the present is to the still better future. Yes—to the far better future; for there is no course of nature more certain than is the upward progress of science. We may seem to move in circles, but they are the circles of a constantly ascending spiral; we may seem to sway from side to side, but it is only as on a steep ascent which must be climbed in zigzag.

What may be the knowledge of the future none can guess. If we could conceive a limit to the total sum of mental power which will be possessed by future multitudes of well-instructed men, yet could we not conceive a limit to the discovery of the properties of materials which they will bend to their service. We may find the limit of the power of our unaided limbs and senses; but we cannot guess at a limit to the means by which they may be assisted, or to the invention of instruments which will become only a little more separate from our mental selves than are the outer sense-organs with which we are constructed.

In the certainty of this progress, the great question for us is, what shall we contribute to it? It will not be easy to match the recent past. The advance of medical knowledge within one's memory is amazing, whether reckoned in the wonders of the science not yet applied, or in practical results in the general lengthening of life, or, which is still better, in the prevention and decrease of pain and misery, and in the increase of working power. I cannot count or recount all that in this time has been done; and I suppose there are very few, if any, who can justly tell whether the progress of medicine has been equal to that of any other great branch of knowledge during the same time. I believe it has been; I know that the same rate of progress cannot be maintained without the constant and wise work of thousands of good intellects; and the mere maintenance of the same rate is not enough, for the rate of the progress of science should constantly increase. That in the last fifty years was at least twice as great as that in the previous fifty. What will it be in the next, or, for a more useful question, what shall we contribute to it?

I have no right to prescribe for more than this week. In this let us do heartily the proper work of the Congress, teaching, learning, discussing, looking for new lines for research, planning for mutual help, forming new friendships. It will be hard work if we will do it well; but we have not met for mere amusement or for recreation, though for that I hope you will find fair provision, and enjoy it the better for the work preceding it.

And, when we part, let us bear away with us, not only much more knowledge than we came with, but some of the lessons for our conduct in the future which we may learn in [illegible] Congress.

In the number and intensity of the questions brought before us, we may see something of our responsibility. If we could gather into thought the amounts of misery or happiness, of helplessness or of power for work, which may depend on the answers to all the questions that will come before us, this might be a measure of our responsibility. But we cannot count it; let us imagine it; we cannot even in imagination exaggerate it. Let us bear it always in our mind, and remind ourselves that our responsibility will constantly increase. For, as men become, in the best sense, better educated, and the influence of scientific knowledge on their moral and social state increases, so among all sciences there is none of which the influence and, therefore, the responsibility will increase more than ours; because none more intimately concerns man's happiness and working power.

But more clearly in the recollections of the Congress, we may be reminded that in our science there may be, or, rather, there really is, a complete community of interest among men of all nations. On all the questions before us we can differ, discuss, dispute, and stand in earnest rivalry; but all consistently with friendship, all with readiness to wait patiently till more knowledge shall decide which is in the right. Let us resolutely hold to this when we are apart: let our internationality be a clear [illegible] celebrated at appointed times, but never to be forgotten; we may, perhaps, help to gain a new [illegible] more things, if they were as deeply and dispassionately studied, there might be found the same complete [illegible] in ours.

And then, let us [illegible] ing. I dare to claim [illegible] pursuit and use of [illegible]

of those three qualities which have the greatest charm for pure and active minds—novelty, utility, and charity. These three, which are sometimes in so lamentable disunion, as in the attractions of novelty without either utility or charity, are in our researches so combined that, unless by force or wilful wrong, they hardly can be put asunder. And each of them is admirable in its kind. For in every search for truth we can not only exercise curiosity, and have the delight—the really elemental happiness—of watching the unveiling of a mystery, but, on the way to truth, if we look well round us, we shall see that we are passing among wonders more than the eye or mind can fully apprehend. And as one of the perfections of nature is that, in all her works, wonder is harmonised with utility, so is it with our science. In every truth attained there is utility either at hand or among the certainties of the future. And this utility is not selfish: it is not in any degree correlative with money-making; it may generally be estimated in the welfare of others better than in our own. Some of us may, indeed, make money and grow rich; but many of those that minister even to the follies and vices of mankind can make much more money than we. In all things costly and vainglorious they would far surpass us if we would compete with them. We had better not compete where wealth is the highest evidence of success; we can compete with the world in the nobler ambition of being counted among the learned and the good who strive to make the future better and happier than the past. And to this we shall attain if we will remind ourselves that, as in every pursuit of knowledge there is the charm of novelty, and in every attainment of truth utility, so in every use of it there may be charity. I do not mean only the charity which is in hospitals or in the service of the poor, great as is the privilege of our calling in that we may be its chief ministers; but that wider charity which is practised in a constant sympathy and gentleness, in patience and self-devotion. And it is surely fair to hold that, as in every search for knowledge we may strengthen our intellectual power, so in every practical employment of it we may, if we will, improve our moral nature; we may obey the whole law of Christian love; we may illustrate the highest induction of scientific philanthropy.

Let us, then, resolve to devote ourselves to the promotion of the whole science, art, and charity of medicine. Let this resolve be to us as a vow of brotherhood; and may God help us in our work.

TOTTENHAM.—There is especial need for sanitary activity in this very large and rapidly growing London suburb. Although there have been many improvements effected, yet the new buildings need to be very rigidly looked after, for, in the words of Dr. Watson, "one cannot but see, looking round on every side, that there are very many houses inhabited, and ready to be inhabited, that are not such as are likely to improve the health of the community at large. With the increase of houses, there is an increase of the sources of contamination, and too much attention cannot be paid to the manner in which houses are built, the drains connected with them, and the water-supply." During 1880, plans for as many as 3,000 houses were approved, the greater number of these being of a poor character. A total of 1,657 births and 727 deaths were registered last year, 249 of the latter being children under one year, and 117 between the ages of one and five years. The general death rate was 16.5 per 1,000, against 17.6 in 1879 and 17.3 in 1878. Zymotic diseases caused 112 deaths, 20 of which were from measles and 47 from diarrhœa. In speaking of small-pox, Dr. Watson draws attention to the need for power to close shops on occasion, giving, as an instance of such necessity, the case of a hairdresser, who passed to and fro with towels, hot water, etc., to his customers, while his unvaccinated child, of five months, covered with confluent small-pox, was lying in its mother's arms in the room next the shop. As Dr. Watson says, it is hardly possible to conceive a more favourable way of spreading disease; and, as a matter of fact, other cases from this source did actually occur. The health-officer adverts to the great unwillingness to admit fresh air, which he has found wherever small-pox has broken out; and he remarks that it is amazing how people will use chloride of lime, carbolic powder, or almost any disinfectant, and, at the same time, exert themselves to exclude Nature's great disinfectant, which is the best and cheapest. Of the 47 diarrhœa deaths, 33 were of children under one year and 12 of children between one and five years old. Dr. Watson devotes much attention to a consideration of the causes of this mortality, and remarks that, with hardly an exception, the deaths were all amongst the lower classes, whose dwellings, as a rule, are damp and unhealthy, and whose habits are dirty and thriftless. Added to this, is the most deplorable ignorance of the proper manner of feeding children and of nursing them when ill; in fact, Dr. Watson is persuaded that more deaths of young children arise from careless feeding than all the other causes put together. Pulmonary diseases caused 129 deaths, the greatest fatality being recorded in the months of May and November.

AN ADDRESS
ON
THE VALUE OF PATHOLOGICAL EXPERIMENTS.

BY RUDOLF VIRCHOW, M.D.,
Professor in the University of Berlin.

As reporter on Medical Education at the last International Medical Congress, held in Amsterdam, I raised the question, how far the experimental method is necessary to instruction; and the result at which I arrived was, that the use of this method to its greatest extent, and especially of vivisection, is an indispensable means.* In a still higher measure, however, I had to raise into prominence the importance of this method in research; and, in opposition to those who, with constantly increasing vehemence, brought accusations against the experimental investigators on account of the direction and method of their researches, I was able to say, with the lively assent of the numerous members of the Congress, and without one word in contradiction: "All those who attack vivisection as a means of science, have not the least idea of the importance of the science, and much less of the importance of this aid to knowledge."

In the two years which have since passed away, the agitation of the opponents has grown both extensive, and important in its object. One country after another has been drawn into their net, and international combinations have been formed, in order by united force to obtain greater results. No increase of satisfaction has been produced by the concessions made in 1876 by the legislation in England. The demands have increased: a petition from the new Leipsic Society for the Protection of Animals, dated March 8th of the present year, desired of the German Reichstag the enactment of a law by which "cruelty to animals under the pretext of scientific research" should be punished "with imprisonment for periods of not less than five weeks to two years, and with simultaneous deprivation of civil rights". All, indeed, do not go so far. Many do not demand that all experiments on living animals should be at once suppressed, but that there should be limitations, some demanding more, others less. But even these do not make it secret that this concession is only provisional; and they demand that even the official laboratories of the universities should be placed under the control of the members of the Society for the Protection of Animals, so that the members may be at liberty to enter the laboratories at any time.

It would be a mischievous delusion to believe that this movement is without prospect of success, and devoid of danger because of its manifest exaggeration. On the contrary, unmistakable signs indicate that it has gained powerful allies, and that there is an increasingly impending danger in many countries that even the State institutions, created expressly for the purpose of experiment, may have the scientific freedom of their methods attacked. So much the more does it seem to be incumbent on the representatives of medical science to defend their position, and to meet international attacks by international weapons. *The most powerful weapon, however, is truth;* and here, above all, *truth founded on competent knowledge.* If we cannot demonstrate our good right before all the world, and come to a mutual agreement on the ground of this right, our cause must henceforth be looked on as a lost one.

The attacks which are directed against us fall, when closely examined, into two categories, according to the principal point. On the one side, it is alleged that the experimental method—yea, modern medicine altogether—is materialistic, if not nihilistic, in its ultimate object; that it offends against sentiment, against morals. On the other side, it is denied that the introduction of experiments on animals has had any actual use, that medicine has been really promoted thereby, and especially that the cure of diseases has in consequence made any recognisable progress. Even those who admit that there has been some progress, yet believe that just as much information could have been imparted by anatomy alone as by experiments on living animals.

Such objections are not new to one who knows the history of medicine. For hundreds of years, on similar or identical grounds, the dis-

* *Congrès Périodique International des Sciences Médicales.* 6 Session, Amsterdam (1879), 1880, p. 134; *Archiv für Pathol. Anat.*, Band lxxxv, Heft 3.

section of human bodies was impeded, and anatomists were confined to the dissection of dead animals; if, indeed—as was done by Paracelsus, the contemporary of Vesalius—the insulting question were not asked, whether anatomy was of any use at all. The feeling of the masses was raised against the dissection of human bodies; and it is known that, at the commencement of the fourteenth century, the church for the first time gave permission for this to be done, but only under limitations which were still greater than those under which the larger number of our modern opponents would permit vivisection. It was no accident that the period of the reformation in the church first created for the great Vesalius a free field, so that he might test the truth of Galen's traditional dogmata by his own investigation of human bodies, and place true human anatomy in the stead of that anatomy of animals, which had during centuries formed the groundwork of all medical ideas on the internal arrangement of man.

And now, first of all, pathological anatomy—what obstacles it has had to overcome even in the present time! Nothing is more instructive in this respect than the narrative which Wepfer, the celebrated discoverer of the hæmorrhagic nature of ordinary apoplexy, gives of the acts of enmity with which he was persecuted when—it was towards the middle of the seventeenth century—the council of the town of Schaffhausen had allowed him to dissect the bodies of those dying in the hospital. The only reply which he made to those who said to him that it is injurious and disgraceful to soil his hands with blood and sanies, was, that he could cleanse his hands with some water; but that much more disgraceful and injurious is ignorance of anatomical facts, which inflicts on inexperienced physicians and surgeons a disgrace that not the Rhine, not the ocean itself, can wash away.* Hence the study of anatomy is much rather to be praised, and to be supported by those who exercise the executive power in the State.

In fact, one government after another has recognised the decided importance of anatomical science. As far as the civilised world extends, so far at the present day are human bodies dissected. Even the laity comprehends that, without the most accurate knowledge of the structure of the human body and of the changes which disease and recovery produce in it, skilled action on the part of the physician is impossible. Anyone who can only take a general survey of the history of science, must know that both the greatest epochs of the resuscitation and reformation of medicine commenced with the definite establishment of both the principal branches of human anatomy, and were even essentially brought about thereby. In the sixteenth century, it was physiological anatomy which brought about the definitive victory of empiricism over dogmatism, of science over tradition; in the eighteenth century, it was pathological anatomy which replaced mysticism by realism, speculation by necropsy, obscure groping and guessing by systematic thought. The opponents indeed spoke of materialism; but Harvey has rightly said: "Sicut sanorum et boni habitas corporum dissectio plurimum ad philosophiam et rectam physiologiam facet, ita corporum morbosorum et cachecticorum inspectio potissiimum ad pathologiam philosophicam."†

Antiquity had only one time in which a powerful effort was made for the independent development of human anatomy. It was the time of the Alexandrian School, in the third century B.C., when Erasistratus and his companions, under the protection of the Ptolemies, undertook the first regular dissections of human bodies. The school existed only a short time, and yet it caused the first perceptible agitation of the humoral system of pathology. With the more accurate knowledge of the arrangement of the nerves there, grew up a new and more powerful generation of solidists; the empirics raised themselves against the dogmatists, and, though again soon enough subdued, they left behind them as a lasting inheritance the consideration that there is a certain limit to human piety, that the right of the individual to the preservation of the integrity of his body is interrupted by death, and that the veil which covers the mystery of life cannot be raised without the forcible destruction of the connection of the several parts of the body. It is this thought which, as finally realised, has brought forth modern medicine. But, eighteen centuries after the Alexandrian school, the impress of the humoral system of pathology still held independent sway in medicine. Of any positive progress in pathology during that long period, nothing can be said. For Bacon has excellently said, in his *Novum Organum*, "Quæ in Naturâ fundata sunt, crescunt et augentur: quæ autem in opinione, variantur, non augentur." The old humoral pathology was incapable of development, because it was not founded on nature, but on dogmata. From however different origins they had sprung, Galenism combined everywhere with orthodoxy: among the Arabians with Islam, in the west with Christianity; and it required the powerful movement of the Reformation to burst the chains within which antiquated custom and hierarchical schooling had fettered the thoughts even of physicians. From Erasistratus to Vesalius, and at last to Morgagni, is such an immense stride, that it cannot remain concealed even from the weakest eye. Not only the outer form, but the whole nature of medicine has been thereby changed. If one follows Vesalius, yea, even Morgagni, in speaking of the humoral pathology as among still existing things; if I myself am yet obliged to contend against Rokitansky, the last of the pronounced humoral pathologists, it must still not be forgotten, that that was no longer the humoral pathology of Galen or Hippocrates. The four "cardinal juices" Paracelsus had already buried; modern medicine recognises only the actual juices which flow in the vessels, and thence penetrate into the tissues. This modern humoral pathology was essentially blood-pathology (hæmatopathology). In name only does it agree with the humoral pathology of the ancients: in reality, it is quite another thing.

But even hæmatopathology is now happily overcome, and indeed, again, through a proper direction of anatomical study. Since the first but very uncertain researches in the territory of so-called general or philosophical anatomy which Bichat began in the commencement of the present century, down to the more and more rapid advances which the present time has made by means of the microscope, in the knowledge of the more minute processes of healthy and diseased life, attention has been constantly more and more turned from the coarser relations of whole regions and organs of the body to the tissues of which those organs are constituted, and to the elements which again are the efficient centres of activity within those tissues. Immediately after Schwann had demonstrated the importance of cells in the development of the tissues, Johannes Müller and John Goodsir made the happiest applications of the new view to pathological processes; and, looking back to a period in which we ourselves have lived, and which embraces little more than a generation of man, we may now say that never before was there a time when a similarly great zeal in research, and a comparable—though only approximately so—progress in science and knowledge, has spread among physicians. The multiplication of the powers of labour, the constantly increasing emulation in researches, the unmistakable increase in the depth of the questions proposed—all these are phenomena of the most gratifying nature; and one would be very ungrateful if he would not acknowledge that these were in a considerable measure to be ascribed to the improvements in the means of instruction and to the multiplication of laboratories.

No one can be more disposed to concede the high value of anatomical studies to the development of medicine, than one who has made it a part of the task of his life to place anatomy and histology in that commanding position in the recognition of his contemporaries which they deserve. Nothing lies further from me than to discourage those who still expect the greatest benefit to the practice of medicine to arise from following out these studies. May indeed the growing youth, who will have to follow us in assuring the progress of medicine, learn from our example how useful it is to lay the true foundation of our science in anatomy. Assuredly, much of that which remains dark to us will then be rendered clear.

But we must not allow ourselves to be forced back on this way as the only permissible one. Were the attempt to hinder totally or in great part researches on living animals to become successful, the same procedure which has been now entered on against vivisection, would also be commenced against mortisection. There would no longer be societies for the protection of animals, which we see opposed to us, but societies for the protection of human bodies. There would no longer be thunderings against the tormenting of animals, but against the desecration of corpses. Under the standard of humanity, which is just now unfurled even for animals, there would be preached in a still more impressive manner the campaign against the barbarity of medical men. People would appeal to the feeling of the masses—to the mother on behalf of the body of her child, the son on behalf of the dear remains of his parents. It would be proved that the dismembering of human bodies is injurious to morals and opposed to Christianity. It would be shown that the anatomy of man is useless for the treatment of disease; and perhaps there would be found ignorant or timid or egotistical medical men, who would come forth as witnesses against science. The mildest of our opponents would perhaps [illegible] the compromise, that we should again make the dissection of animals the foundation of instruction. In short, we should be thrown back to the time before Mondini, before Erasistratus.

Such thoughts are by no means the projections of an alarmed fancy. The study of history teaches us sufficiently that victorious fanaticism

* Joh. Jac. Wepfer. Observ. [illegible] Propter [illegible] Impune et latuit [illegible] Medicis et Chirurgis [illegible] Rhenus, vel Oceanus abluere potest.

† Guil. Harveji, Exercit. Anat. II, *de Motu Cordis et Sanguinis Circulatione*. Roterodami, 1671, p. 174.

knows no limits. It desires to heap to the full the measure of its victories; and, even when the traders are contented, the irritated masses press on to obtain the whole results. It is, indeed, not at all necessary for us to go back to antiquity in order to bring before our eyes the condition of such minds. In no country of modern time are there wanting examples which are recognisable by the eye; for, along with the societies against "scientific tormentors of animals", there exist everywhere, but mostly in a more unassuming form, brotherhoods and associations of all kinds, which labour most zealously against the scientific examination of dead bodies. It needs only an impassioned and exciting agitation, such as is now going on against the "torture-chambers of science", to denounce to popular indignation the dissecting-rooms as places where the youths under instruction are made barbarous. Whoever undertakes, with the same extravagant fancy as is now used in delineating the physiological laboratory, to describe the *post mortem* examination of a man, or an anatomical theatre, will not fail to have readers, who will turn away with horror and amazement at the misdeeds of anatomists.

In vain will an appeal be made to the fact that not one single school of medicine has existed, which has, without a fundamental knowledge of anatomy, established lasting advances in the science or the art of healing. The homœopaths and the so-called nature-doctors (*Naturärzte*), who indeed are already on the scene to strengthen the ranks of the anti-vivisectors, will step forth and praise their results. Scepticism, which from time to time grasps about even in medical circles, and which only too easily finds there followers who have in vain called on medical aid for themselves or their belongings—it will scornfully point out how often the physician is powerless against disease. Therapeutics will be thrown aside as useless lumber; and it will be pointed out to us, as is now already done in the petitions of the societies for the protection of animals, that therapy is to be replaced by hygiene, the treatment of individual patients by general measures of public sanitation. And the attempt will then be made to excite the belief, that prophylaxis can exist without anatomy or experiments on animals.

In so large an assembly of medical men as this is, a glance at those present teaches in how many special directions the medicine of to-day has gone. Not every one of these directions is in like measure and as constantly in want of all the means of inquiry and scientific preparation, which are indispensable to cure disease as a whole. Hence, from time to time, a perceptible one-sidedness becomes manifest in certain of these special arrangements. One believes in his own sufficiency, and looks with indifference, sometimes with a kind of polite contempt, on the rest of medicine. Even the truly scientific studies are not exempt from such one-sidedness; on the contrary, human pride, the tendency to overestimation of one's self, prevail more readily in these than in partial disciplines. We ourselves have seen that organic chemistry, by a most partial use of a very moderate store of knowledge, has made the attempt—and, indeed, not without some temporary result—to prescribe its laws to medicine; and that numerous practical physicians, unmindful of the history of our science, have in fact sought safety in a new kind of iatro-chemistry. Yes, I have a very lively remembrance of the fact that, when I myself was entering on the scientific career, the hope of giving a purely physical aspect to biology was so powerful, that every attempt at morphological study was treated as something antiquated.

We have not allowed ourselves to be prevented by this from carrying on anatomical research with every exertion; and we are now in the happy position of seeing it everywhere acknowledged, that every advance in minute anatomy sees behind it an advance in physiological knowledge. Physiologists themselves are more and more becoming also histologists. No one, however, must say that physiology is becoming totally dissolved in histology. No attempt must be made to replace one special subject by another. What is necessary to all branches of medical science in general, is the *knowledge of life*. But this can as little be attained by a simple external examination of the living, as by a partial investigation of the dead. It can be reached by no single study or specialty; it is much rather the collective result of the cultivation of all individual branches of science.

What is to be attained by a mere external examination of the living body has been thoroughly taught by the older medicine. For centuries, sick and healthy have been observed with assiduous diligence, and in fact most valuable material has been collected in the most ingenious manner; but, on the whole, no advance has been made beyond "symptoms". What was perceived were the signs of something internal which was not perceived—indeed, the possible perception of which was hitherto doubted. Life itself stood as it were outside observation; it was only a subject of speculation. Intellectual formulæ were laid down, spiritualistic or materialistic, according to the general tendency of the mind of the individual or of the time; but all agreed in the conviction, that life itself is a transcendental and metaphysical problem. For the practical physician, knowledge that was founded in fact began with symptomatology; for disease as such was apparently not less transcendental than life itself, whose antitype it constituted.

How has it now come to pass, that symptomatology has entirely lost the high position in which it still stood little less than a generation ago, to such an extent that in most universities it is no more taught as a specialty? Have symptoms no more any importance for the physician? Can a diagnosis be made without a knowledge of symptoms? Certainly not. But, for the scientific physician, the symptoms are no more the expression of a hidden power, recognisable only in its outer workings: he searches for this power itself, and endeavours to find where it is seated, in the hope of exploring even the nature of its seat. Hence, the first question of the pathologist and of the biologist in general is, Where? That is the anatomical question. No matter whether we endeavour to ascertain the place of the disease or of life with the anatomical knife, or only with the eye or the hand; whether we dissect or only observe, the method of investigation is always anatomical. For this reason, the thoroughly logical founder of pathological anatomy named his fundamental book *De Sedibus Morborum;* and hence this book became the starting point of a movement which, in a few decades, has changed the entire aspect of science.

This change has been carried out to the greatest extent in ophthalmic surgery. Who could limit himself to perceiving that modern ophthalmology has scarcely a single point of similarity with that of the last century? Who contents himself with the symptom of amaurosis? Who despairs of recognising in it the existence of glaucoma? Every ophthalmic surgeon has in his hands the means of studying the thing itself, and not merely its signs. Even the antivivisectors acknowledge that ophthalmology is a study that is capable of effecting something. But they forget that every organ of the body is not so favourably placed and arranged for the observation of its inner processes as is the eye-ball. Since the wonderful discovery of the ophthalmoscope, anatomical analysis, even without the use of the knife, has become capable of penetrating so far into the individually remote, that we can immediately observe and study by themselves the smallest features of the fundus oculi, even, indeed, its single cells, or groups of cells, just as in an artificial preparation of an eye that has been excised. But it must not be forgotten that long anatomical and physiological studies have been a necessary preliminary to the interpretation of that which is now so easily perceived. The structure, arrangement, and function of each single part had first to be laboriously established, before it was possible, by a transitory glance at the altered tissue, to recognise what is especially changed; and no medical man will attain to a true comprehension of the essence of these changes, if he have not previously learned to recognise most accurately the anatomical and physiological nature, and the possible pathological changes, of the individual constituent parts of the eye.

They speak lightly who object to us, that not all the branches of medicine stand on the same height with ophthalmology. That will never be the case. Just as it is easier to explore the sea in its depths than the solid land, so will the most transparent organ of the body always be the most convenient place for medical diagnosis and treatment. While it is possible to observe without difficulty a cysticercus in the hinder part of the retina, one will always be taught to bring a cysticercus of muscle, or a trichina in a patient to light by vivisection. Never can it be required that every medical specialty should altogether equal ophthalmology in security of treatment and diagnosis; but any measure of success can only be sought in the use of the ophthalmological method in a corresponding manner in the other special departments. This method, however, is anatomical, or, as it has otherwise been expressed, localising.

With this, we have reached the point which denotes the boundary between ancient and modern medicine, *The principle of modern medicine is localisation.* To those who still constantly ask of what use modern science has been to practical medicine, we can simply point out that every branch of medical practice has accommodated itself to the principle of localisation, not only in pathology, but also in therapeutics, and that thereby the greatest benefit has accrued to the sick. It is quite superfluous to seek out single examples, in order to show what profit the new knowledge has brought. Such examples are abundant. But we do not require them, for we can point to the general character of modern medicine. All those studies which already at an earlier period had a natural tendency to localisation, such as special surgery and dermatology, have in this way been raised to their present state of perfection. Those, however, which have retained from the old humoral pathology a tendency to the establishment of generalising formulæ, gradually renounce the favourite tradition; and the fact is more and more comprehended, that generalisation in truth is nothing

else than *multiplication of foci*, and that the cure of a so-called general disease signifies just as much as the eradication of a single focus. That was in fact a reform in head and limbs; and he who has not grasped it ought not to say that he has consciously followed the progress of science.

The notion of the general validity of the doctrine of the localisation of disease and of the multiplication of foci of disease in the same individual, stands, as was often objected to me in the beginning of my career as a teacher, in strict opposition to the idea of the *unity of disease*, or, as it is expressed in customary language, to the *ens morbi*. My former colleagues still retained large portions of this idea; they believed that the practical physician entered into arbitrary, and therefore dangerous, speculations, when, in the presence of a single case of disease, he assumed the disease to be a plurality. To me it seems rather the reverse; that the physician enters on a fruitless project (*schematismus*), and one dangerous to his patients, if he suppose each individual case of disease to correspond to the opinion of his school or his own private view, and calculate his prognosis and treatment thereby. Meanwhile, these considerations, derived from medical practice, on the *utility* of a certain way of perceiving disease, can lead to no decision as to its *truth*, and yet at this result only is it possible to arrive. How shall we establish it?

All the world is at one on this point, that disease presupposes life. In a dead body, there is no disease. With death, life and disease disappear simultaneously. This consideration led the older physicians to assume disease to be a self-living or even animated essence, which took its place in the body along with the vital principle. Many went so far as to define disease as a combat between two contending principles, the innate life and an intrusive foreign body. But all came back to life as a preliminary condition of disease. The view was first lost in the old Layden school; from Boerhaave emanated the dogma, which his pupil Gaubius placed at the head of his long used *Handbook of General Pathology*, the first written on the subject: *Morbus est vita præter naturam*. Disease is life itself; or, to speak more correctly, it is a portion of life.

This assumption displaced the unfortunate dualism which had so long dominated medicine; or, at least, it ought to have displaced this dualism between life and disease. If, nevertheless, it has not completely done this, and if more than a century has been required to break up the still constantly existing dissonance, the reason lies in the difficulty of finding a satisfactory conception of life. And here the question must not be passed by, Where has life its special seat? *Ubi sedes vitæ?* John Hunter went back to the ancient view, already expressed in the Mosaic formula: "The life of the body is in its blood." Flourens believed that he had found the seat of life, the *nœud vital*, in the central nervous system, in the medulla oblongata. The one, like the other, found himself obliged to institute experiments on living animals for the investigation of this difficult question. Therewith the experimental method in the more strict sense began to pass into the practice of pathologists. Vivisection became a regular aid to research.

Certainly the consideration that a knowledge of life can only be obtained on the living being was long present. Beyond doubt, it was already formed in antiquity. But it is difficult to determine with accuracy the time when it first became practically active. Uncertain statements only on the subject are available. Zacharias Sylvius, a physician of Rotterdam, who wrote the preface to the Dutch edition of Harvey's *Exercitationes*, calls to mind the tale of Democritus, whom the Abderites regarded as insane, because they saw him constantly engaged in vivisection; when, however, the great Hippocrates was sent for to cure him, he fully recognised the value of his proceedings, and declared that all the Abderites were lunatics, and that Democritus alone was sane.* Probably this story has been narrated at the expense of the good Abderites; but it still shows that vivisection already "lay in the air". I will not attempt to decide whether it is true that the teachers in the Alexandrian school actually availed themselves of the permission of their king to dissect criminals. The only conclusion which I can derive from these tales is, that researches on animals must surely have at that time been already practised. For whoever reflects on the vivisection of men, must acknowledge that, especially at a time when the anatomy of animals formed the foundation of medical study, vivisection had certainly been previously done on animals. In the school of the empirics, which proceeded from that of Alexandria, and in which necropsy was taught as the chief means of knowledge, experiment also appears as having a recognised claim; in the celebrated formula, which has been called the tripod of the empirics, and which served as the programme of their school, deliberately planned experiment is expressly mentioned (*φυσικὴ ἢ αὐτοσχεδίη τήρησις*). Only it is not evident to what extent this research on living animals was carried on. Hence it is also unprofitable to inquire what advantage of any kind ancient medicine derived from vivisection.

In fact, the first great and distinctive example of successful vivisection which the history of medicine knows, is that of William Harvey. The foundation of the doctrine of the circulation, which in the main was experimental, has radically changed the whole direction of the thoughts of physicians. Had we this one example alone, it would be sufficient to prove brilliantly the utility, yea, the indispensability, of vivisection. Never has a dogma firmly established by the tradition of centuries and every kind of authority, which in truth formed the central point of a powerful and generally acknowledged system, been annihilated with such a headlong downfall. In complete recognition of the importance of such a man, Albert von Haller said that Harvey's name was the second in medicine, that of Hippocrates being the first. But it was a difficult step, to advance a new and unheard of doctrine which interfered with science in so revolutionary a manner. Having hesitated long whether he should publish his discovery; and when he at last carried his resolution into effect, the great vivisector cried: "Utcumque sit, jam jacta est alea, spes mea in amantium veritatis et doctorum animorum candore sita" (*loc. cit.*, p. 81).

It is certainly due, even in the present day, to the purity of a truth-loving and cultivated mind, to exonerate Harvey from the reproach of heartlessness, perhaps of brutality, of which our antivivisectors are so liberal. His new knowledge had cost the lives of many animals; he started, as he himself says, "ex vivorum (experiendi causa) dissectione, arteriarium apertione disquisitionæque multimoda". And yet that was the least thing with which he was reproached; even kings at that time were so little tender-hearted, or, I may say, with an opponent, were so brutalised, that King Charles I found pleasure in seeing the experiments of his body-physician.

On the other hand, after Malpighi had, still in the same century, demonstrated the flow of blood in the capillaries of living animals, and after our century has added the knowledge of the existence of an actual capillary wall, the doctrine of the circulation appears so self-evident, it has so thoroughly entered into the ideas of all, that it already requires a peculiarly trained mind to comprehend the opinion of the older physicians on the local relations of the current of the blood. Whoever goes unprepared to the study of the medical classics, falls from one misunderstanding into another. The ideas of the nature of local processes are entirely changed, and yet the circulation, the capillary certainly more than that of the larger vessels, stands in the foreground of pathological interest almost more than in truth it should. The widely comprehensive doctrine of inflammation and new growth, within which nearly the greater part of practical cases occur, was founded on experiments on the capillary circulation; not less so was the doctrine of the cure of local diseased processes of most varied kinds.

Even the worst opponents of vivisection recognise Harvey's services. But, say they, since then, nothing more of importance has been accomplished by vivisection. They do not know that it is precisely that department of the doctrine of the process of the circulation which embraces the vital properties of the organs of circulation, which is entirely unmentioned by Harvey.

On what does the activity of the heart depend? What influence do the vessels exert on the propulsion and distribution of the blood? What share falls to the arteries, what to the veins, what to the capillaries? All these questions are of the highest practical importance, and none of them can be investigated otherwise than by experiments on animals. But Harvey could not attack these questions, because in his time minute anatomy was not yet developed. Who knew anything of the nerves of the heart, or of the vessels? Who had any notion as to the participation in the manifestations of the action of the heart and blood-vessels, on the part of the nerves, which supply the parietal structures, especially the fine muscles?

An interval of two centuries again intervened, before Edward Weber, by experiment on the vagus nerve in a living animal, first revealed the mystery of the innervation of the heart; and this, again, in a quite unexpected and most convincing manner; and scarcely had our now so much abused friend Claude Bernard likewise shown us, in a living animal, the influence of the sympathetic nerve on the vessels of the head and neck.

Now for the first time, and through numerous other experiments which have tended to this end, we understand the circulation in its

* Harvey [illegible] operum naturæ [illegible] mum fuit [illegible] Democritum, qui [illegible] medium odio [illegible] ritum.

special characters. The pulse, that so highly treasured object of the old symptomatology, allows itself to be interpreted. It is to us no longer the sign of this or that disease, but the sign of the existence or non-existence of certain activities, of strength or weakness, of irritation or relaxation of certain tissues. Now for the first time we can understand in its individual peculiarities the action of the heart itself and the operation on it of certain substances—*e.g.*, cardiac poisons; and it is not almost alone the department of diseases of the valves, to which alone, and with a scorn that cannot be rightly understood, the anti-vivisectors point on account of their incurability, but also the department of febrile diseases, which we are in a position to survey as well with regard to their symptoms as to their nature and their results.

The length of the interval of time between Harvey and the more recent experimenters on the innervation of the vascular apparatus is explained by the circumstance, that in that intermediate time two entirely new studies had to be created, to both of which the discovery of the circulation was an impulse and a preliminary condition. I mean physiology and general pathology; thus, indeed, both these studies which are to be regarded as the chief support of the experimental method, and which it was originally the custom to comprise under the name of "Institutiones Medicæ". Hermann Boerhaave had, in his professorship, combined them, and, indeed, had even united them with practical medicine; under his pupils, the division of labour commenced, and the formal separation of the studies. Haller was the special creator of physiology. His experiments went first in the direction of exploring the vital properties of individual parts of the body, of single tissues, as would now be said. Among these properties, following the distinguished Glisson, a man, it seems to me, not even now sufficiently honoured in his country, he assigned a prominent place to irritability. It would lead me too far, if I in this place desired to attempt to show forth individually these memorable researches, the comprehension of which was rendered extremely difficult by the then not yet sufficiently complete explanation of the motions "irritability" and "contractility". For our purpose, it is sufficient to point out that here for the first time nerve and muscle, the two most highly developed and thereby most energetic portions of the animal body, were made the subjects of experiment with regard to their special forms of activity. Contraction and sensibility appear as the special signs of living activity. Therewith the question of the basis of living activity was so nearly approached, that Gaubius, who at the same time laid the foundations of general pathology, indicated the vital force as the source of contraction, without going further.*

From these beginnings was developed, at first in a very obscure and equally unprofitable manner, especially clouded by speculative vitalism, the doctrine of life in its modern form. It has required much longer labours, mostly experimental, to arrive at a great and practical result in spite of all deviations. From the conception of irritability, originally created by Glisson, that of contractility has gradually become separate: and the contrast in which Halles placed irritability and sensibility with regard to each other has been dissolved, by the fact that contractility and sensibility are regarded as two special forms of expression of life connected with various elements, and are subordinated to irritability as the general expression. In this sense, irritability and vitality are nearly identical. Both are properties of tissue, and as such directly or indirectly accessible to treatment and experiment.

In fact, experimentation is now rather directed to the tissue itself. Galvani's discovery of electric contractions, the labours of Alexander von Humboldt on irritated muscle and nerve-fibre, and many other contemporaneous researches, afford evidence of the changed direction in which the new biology laboured. More and more sank down the mysticism of the spirits of life and of disease, the speculation as to an individual vital force; and from generation to generation medicine assumed more and more the character of a real natural science. The obscurity which had dominated especially the nervous system, disappeared under the common labours of anatomists and experimenters; and especially since Charles Bell taught the difference of the nerves hitherto considered as similar in nature, and thereby opened the road to research on the special importance and power of the single divisions of the central nervous system, one work after another has appeared, which has diffused new light on this difficult and complicated subject. It is impossible to go through all these works on this occasion, and it would be superfluous in an assembly of such accomplished men, many of whom have themselves laboured in this glorious work.

I will now only briefly point out that among these labours a constantly clearer and more triumphant idea has advanced, which in its beginnings reaches far back into past time—namely, the idea of the proper life *(vita propria)* of the tissues. Every new form of experiment which is devised renders new parts accessible to scientific examination, and with each step in advance we become more clearly convinced that life, regarded as a great unit in the established sense, is a pure fiction, arising from the observation that in the hierarchical organisation of the human body certain organs attain so elaborate a structure, and therewith so great importance, that they with complete right merit the name of vital organs. And as among these organs the *medulla oblongata* possesses the greatest importance, it is easily comprehensible that the idea should arise that it might really be the seat of life. But we know now that life is a collective functional action of all parts of the higher or vital, as well as of the lower and less important; and that there is no one seat of life, but that every true elementary part, especially every cell, is a seat of life. In biological research also, as well as in pathological, we have arrived at a multiplication of foci. Of course the number of vital foci is much greater than that of foci of disease can ever be; and hence disease and life, or, to speak more accurately, diseased and healthy life, can very well co-exist in the same organism; always, however, so that disease signifies a reduction, a *minus* of healthy life. By this research we have even re-discovered the long lost essence of disease, not, indeed, in a spiritualistic form, but as a quite material *ens*, a genuine incarnate thing—*the altered cell.*

Has all now produced advantage? Was it worth the trouble to inflict pain on so many animals? to kill so many animals? Is there a really justifiable claim for allowing the experimental method to proceed still further? We can answer all these questions confidently in the affirmative. Not every experiment on animals has results as great as that of Galvani, results which have not merely led to a new and effective method of treating disease—electrotherapy; which have not only disclosed a large new territory of vital processes, but have supplied the first preliminary condition for an incalculable number of the most important technical arrangements, the knowledge of the natural course of events. But galvanism might yet appear to limited and timid heads as an instructive and refreshing play, for the reason that not every result of true observation of nature is usually brought forward at once, and that nevertheless it may be of the highest practical value. The cellular theory and the proof of the *vita propria seu cellularis* are in themselves very abstruse things, and no one can cure patients by their means without understanding something further. And yet they have become the foundation, yea, in a certain measure the security, for localising therapeutics, and they will surely become more so from day to day, when first materia medica in its wider extent shall have gone on the way which toxicology has already for a long time followed in a manner so rich in results.

How, then, can a great result to the science of healing be expected, if research in animals be cut off? For a long time, no remedy has been more rapidly recognised, or more extensively used, than chloral, the effects of which were discovered and established experimentally by Herr O. Liebreich in my laboratory. How would it have been possible to know how to ascertain those effects, without experiments on animals? The animals' friends say to us, "Then try the new medicine on yourselves!" They refer us to the provings of medicines by the homœopaths. But, quite independently of the fact that the provings of the homœopaths have not taught us to recognise one single new remedy which can be compared even at a distance with chloral, and that these provings, even in regard to already known remedies, do not in the least correspond to scientific investigations; that thus they cannot be altogether regarded as an original example—one will yet not be able to earnestly desire that very different, possibly poisonous bodies, should be made the subject of self-experimentation by physicians or other men. This kind of morality, which forbids experiment on animals, and counsels experiment on one's own life or on sick men, misses, in fact, the first foundations of intelligent examination.

The proof of the great importance of hygiene and prophylaxis is rather superfluous. If any class of men has been active in this direction, it is surely medical men. Never has there been a want of zealous hygienists among them; and when a great problem of prophylaxis was to be solved, one might be sure of finding medical men engaged in the work. We are so accustomed to this obligation, that we always regard hygiene and prophylaxis as belonging to medicine, and to no other science. But it is empty talk when it is said that prophylaxis will render therapeutics—yea, even in a certain degree, medicine—superfluous. The arrangement of this imperfect world is such, that there surely will be sick as long as men exist; and we are not afraid because of the threat that there will be no further need of us. Not even through the assistance of hygiene will people be able to do without us; and still less without experiment on animals. Will even the hygienists be condemned to test the various "causes" cold and warmth, dryness and moisture, dust and noxious gases, micrococci

* Gaubius, *Institut. Path. Med.*, p. 71. "Vis vitalis solidi est, qua illud ad contactum irritamenti se contrahit."

and bacteria, on their own persons, in order that they may from such self-observations determine their effects, and formulate laws? Intelligent governments will comprehend that it would be an act of madness to sacrifice human life, merely because it occurs to a small number of persons that it is criminal to sacrifice the lives of animals. Medical men are already more exposed in epidemics of all kinds, in the performance of their duties in hospitals, in the country, in their nocturnal visits to the sick, in operations and necropsies, than any other class of the community as a rule; and it requires all the blindness of the animal fanatics to require also of them that they should test on their own bodies the remedial, or poisonous, or indifferent action of unknown substances, or that they should determine the limit of permissible doses by observations made on themselves.

In the name of humanity, of morality, of religion, the suppression of experiment on animals is demanded. For, in fact, it is not merely vivisection that is in question, but experiment on animals; that is, the experimental method in general. When the term vivisection is used, it is made to include in like manner all painful actions in which there is no cutting; indeed, to prevent any misconception, not only physiological, but also pathological and pharmacological, experiments, are expressly included. *The criterion is pain. Everything by which, in the way of experiment, pain is inflicted on an animal is torture of animals*, and so far immoral, and contrary to religion. With this definition of torture of animals, it might be possible to arrive at exceptional results by applying it to other callings or men. The dog-fanciers, who in the rearing of their dogs often use, or cause to be used, methods full of torture and painful chastisement, would readily come into great danger. The improvement of horses for certain purposes would have to be entirely put down. A great part of our domestic animals would have to remain untrained, so that pain might be spared to them. We should perhaps arrive at conditions similar to those produced by the wild dogs in Turkey.

Individual antivivisectors are at least so far consistent, that they would see the slaughter of animals also forbidden. From the vegetarian standpoint, the opposition gains a kind of systematic aspect. Thus Herr von Seefeld* demands a vegetable diet and the prohibition of vivisectors; but as he, as a vegetarian, has no need of flesh, he is strongly inclined to make still further concessions. Thus he rejects hunting for the purpose of pleasure, but cannot altogether dispense with it as a means of defending life. Others go still further, and sacrifice also war. The principle can scarcely be denied, that death is worse than torture. There could scarcely be a criminal code, which punishes the premeditated killing of a man less severely than the torture of a man. Not without reason is it alleged that a man who still remains alive after his misdeeds, may recover and attain to a complete or entire enjoyment of life. Grounds of mitigation in cases of murder and manslaughter are allowed also to men; but, as a foundation, the extremest injury which can be inflicted on man is always and everywhere the most severely punished.

As regards animals, the antivivisectors, on the contrary, consider torture to be worse than death. Although they reject every torturing or painful method of death, even for cattle, they without the slightest consideration cause animals, even highly organised ones, to be slaughtered or killed, not only for eating, but also for other purely subjective reasons. They go, indeed, so far as to demand that an animal which has survived vivisection shall be killed, although it might possibly still enjoy a long and happy life. Is there any logic in this, or any morality? How? may we have the right to kill an animal on any ground of public utility, to eat its flesh, to sell its skin, to pound its bones to manure for the field? and are we not to have the right of subjecting it to scientific research, which we institute on entirely ideal grounds, or on the grounds of the public weal, in which we even perhaps run the risk of becoming diseased? It will be difficult to assume that we institute researches on glanders or splenic fever for pleasure, or to pass away time, or without knowledge of the great danger of inoculation. Whoever allows himself the right to kill animals, has no right to forbid physicians to vivisect animals for experimental purposes, or to undertake painful operations of any other kind.

Of course, we cannot desire that the misuse of this right should escape punishment. For it is with such an abuse, not with the production of pain, that torture of animals first comes into operation. Were every production of pain in itself an act of torture, punishment ought to be inflicted on a veterinary surgeon when he operates on a sick horse for the purpose of curing it. Culpable torture of animals lies before us, when pain is inflicted on an animal in an useless manner, and without purpose. Hence nothing can be said against the view that every experimenter should be subject to official inspection, but surely this does not require a society for the protection of animals. He who has a greater interest in domestic animals than in science, that is, in the knowledge of truth, is not qualified to be an official controller of scientific affairs. To what would it lead, if an experimenter, who had commenced his experiment in good faith, had perhaps to answer to some layman during the experiment, or to a magistrate afterwards, the charge that he had not selected some other method, or some other instruments, or perhaps some other experiment?

No: here is no question of objective right. So long as perfect liberty is left to every possessor of animals to kill his animals, be they wild or tame, at any time, and according to his own judgment, so long must it also be permitted that, for scientific ends, and thus on purely internal grounds, experiments should be made on living animals. But the necessity of such experiments can naturally only be decided by the inquirer himself; as to the choice of place, time, the admission of strangers, he may be required to communicate with the inspector; but the carrying out of the experiment must remain in his own hands. So we understand the expression of the freedom of science.

What is objected to us is, that it is the outraged feelings of the possessor of horses, pet dogs, and parlour cats, that excite him to the belief that the same thing may happen to his beloved animals as to the animals in the learned institute. We can sympathise with him. We would force no one to deliver to us his favourites, nor would we steal them. Were either of the two to occur, probably in every country the intervention of the magistrate would be called on with effect. But we also require that the disposal of the life and maintenance of those animals which have come into our profession in a legitimate way, should not be lessened to us, and that we should not be considered or declared to be *à priori* rough, void of moral feeling, and barbarians standing almost on the threshold of crime. The evidence that moral earnestness is failing in modern medical circles, is nowhere afforded. The reproach that Christianity is imperilled by vivisection, is worthy of Abdera. The assertion that the medical youth are inevitably "brutalised" by dissection and vivisection, is, as usual, snatched from the air; as it is also a calumny that the vivisecting teachers have suffered injury to their morality.

At least, however, there is no ground to fear for science itself. To it is applicable what Bacon said of the sun: "Palatia et cloacas ingreditur, neque tamen polluitur."

* Alfred von Seefeld. *Aktes und Neues über die Vegetarianer* &c. Hannover. 1880.

BOURNEMOUTH.—The statistics of this popular health-resort are naturally of more than local interest. Last year, 264 deaths occurred, 116 of which were those of visitors. Of the total deaths, 73 are ascribed to phthisis, 46 to bronchitis, pneumonia, and pleurisy, and 18 to heart-disease. A large proportion of these deaths were among the sufferers from chest-diseases, for which Bournemouth offers so many advantages. Two cases of enteric fever occurred, the disease being undoubtedly due to the entrance of sewer-gas into the patients' houses. Diarrhœa claimed 13 victims, all the deaths being under one year of age, and in the months of August and September. Mr. Nunn states that "improper feeding has probably in some measure contributed to these deaths. Milk for young children is undoubtedly the best kind of food; but, on the other hand, I have observed that apparently good milk, at certain times of the year, seems rather to promote and increase this form of disorder. This is probably often due to the fact, that farmers and graziers do not take sufficient care in preventing their cows from experiencing a too sudden change of food. I have noticed that milk, from cows which have been allowed to graze on rank river pastures, or on green rye, after perhaps being accustomed to a much drier food, will produce in delicate people and children serious purgative effects. So far (except in the case of rye) I have been unable to determine the special plant or weed which produces this result". The sanitary condition of the town has been well looked after; and, with the extension of the main drainage, we may expect to see many existing defects swept away. It is satisfactory to note that special attention has been paid to the sanitation of the hotels and lodging-houses; but the absence of any building or sanitary by-laws is a matter of very serious importance. Mr. Nunn still continues his praiseworthy agitation against the destruction of the pine trees, which are not only one of the greatest attractions of the town, but which give to it so great additional value as a health-resort. It seems necessary that special and stringent regulations should be adopted for their preservation.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF ANATOMY.

By W. H. FLOWER, LL.D., F.R.S., F.R.C.S., etc.,
Hunterian Professor of Comparative Anatomy; President of the Section.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Of the various subjects which will engage the attention of the members of this great Congress, I think I may venture to say there will be none upon which greater unity of thought will prevail than that which will come before them who attend the Section over which I have the honour to preside.

We deal with facts—facts somewhat circumscribed in number, and facts which, more than any other of their class, have been the subject of laborious and patient investigation for a length of time almost as great as that which has been occupied by any other branch of human knowledge. It is not too much to say that the general outline and most of the details of the facts of our study were well ascertained and recorded, much in the shape in which we teach them now, before the very existence of many of the subjects which occupy the attention of the fourteen other Sections of the Congress was dreamt of.

We have only to look at the literature of two centuries ago, to be convinced that the knowledge and teaching of human anatomy had assumed a definite shape, not very dissimilar to that which it now wears, at a time when every other branch of biological and medical science was in a state of absolute chaos; when even the germs of what is now thought and taught in them were not recognisable.

But, because the main outlines of the subject have been so long fixed, and because, by the admirable and careful labours of those in the present century who have compiled the valuable text-books—so complete, so correct, so beautifully illustrated—which are now used throughout the anatomical schools of the world, in which the topography of the human body is described down to the most minute detail of the smallest portion visible to the eye, or capable of separation and manipulation by scalpel and forceps, it is thought by some that the subject of human anatomy is exhausted; that those who teach and those who learn have nothing further to do than to follow mechanically in the paths of their predecessors; that there is not further scope for discovery; none for the exercise of any intellectual faculty other than that of memory.

That, however, is far from the true view of the case. I venture to think that human anatomy, though in one aspect brought up to a pitch of perfection never likely to be greatly exceeded, so far from being an exhausted subject, is one of which the study is about to begin over again, upon an entirely new basis. The great revolutionary wave, which has changed the whole aspect of biological ideas, borne onwards mainly by the enormous advances which have been made during the present century in our knowledge of zoology, comparative anatomy, and embryology, has scarcely yet touched the study of human anatomy; or, if it has touched it, has merely made some slight superficial impress upon it.

Anatomy is still taught in all our medical schools, certainly in this country, and I believe elsewhere, as if the body of man was something which stood alone and apart from all other entities; instead of being but a highly specialised and peculiarly modified form of a vast array of structures of similar organisation. If any generalisations are permitted, or allusions made to other modifications of such organisation, they are only superadded, as a sort of additional burden of knowledge, which may or may not be learned; but they are never made the basis upon which the whole of the study depends—the key, or index, as it were, without which a reasonable and intelligent view of the subject cannot be obtained.

Though thus indicating the fact that the study of human anatomy has still a great future before it, I am not sure that the time has yet arrived, at all events in the ordinary course of teaching, to initiate the great change that must inevitably come. We may take warning by the vacillating progress of biological ideas during the last few years—by the epochs of architypes and vertebral theories through which we have passed, and not feel quite satisfied that we are yet in a position to undertake a complete remodelling of our anatomical teaching on a permanent basis. There is still vast room for exploration upon the borderland of human and so-called comparative anatomy, both in the accumulation of new facts, and of new ways of interpreting those facts. The individual variations met with in the human body, which are now receiving so much attention in the anatomical schools, still present a wide field for research; and their records should not only be greatly added to, but require collation, comparison, and reasoning upon. The value of such observations increases with their number: relative frequency being the principal element in estimating their importance. The study of such variations as have acquired permanency by successive inheritance, or the so-called race-characters, might well engage an army of careful and conscientious workers. But how few, in this country at least, follow the example of persistent and patient concentration shown by some of our brethren in Germany and France.

A truly scientific human anatomy will not have been accomplished until the essential nature of each structure of the body has been made manifest by tracing it through all its modifications in other animals, in all races of man, and in its individual variations in our own race. Our endeavour should be to show where it first appears in the series of organised beings, where it exists in a rudimentary condition, and where it is more fully developed, and has a more important function than in man—to show, in fact, where it came from, how it came, and why it has assumed its present form.

Anatomy has hitherto been a pyramid standing upon its apex—that is *man*. We have to turn it round, and let man stand where he ought—at the apex, resting upon the broad basis of the whole organised world.

Instead of pursuing these abstract questions further, it has occurred to me that the time allotted me this morning might be more profitably employed if I were to ask your attention to a subject upon which I may probably be able to give a little information of practical use to members of the Congress during their visit to this city.

No class of persons can appreciate so fully the importance and value of museums as those whose occupation it is to study the form and relations of the various parts of the body, whether of plants, animals, or man.

Our science would make little progress if the objects of our inquiries, once used for examination or description, were then thrown aside, and those coming after were denied the opportunity of which we have availed ourselves. A museum is a register, in a permanent form, of facts, suitable for examination, verification, and comparison one with another.

Hence, ever since serious attention has been awakened to the interest of anatomical studies, museums have always been important adjuncts to their successful prosecution, and the preservation of the various structures of the body has occupied the attention of very many anatomists, since the time of the great Italian teachers of the early part of the seventeenth century, with whom apparently the art commenced.

We have in London, as you are all aware, a museum which stands, in some respects, in a peculiar position, differing perhaps from any in the world in its origin, its scope, its method of maintenance, and its relation to the profession and to the State, in which, for very nearly twenty years, it has been my privilege to pass my days. It has occurred to me that a few words in explanation of the history, arrangement, and contents of that museum, might add to the interest and profit of those which I trust every one here will find time to pay to it during the present meeting of the Congress.

The great mind of John Hunter, far in advance of his age—and, it may be, even of ours—saw at one glance the vast importance of biological science, and the best means to further its pursuit. To this end he founded his museum, and directed by his will that it should always be maintained in its integrity. Wherever civilised men are gathered together, there are now minds who feel what Hunter felt. The necessities of such minds have created in every country in Europe, and the enlightened parts of the new world, museums designed to serve, in their different degrees, the same functions as our Hunterian collection. Such museums are evidently national needs; they have already come, though not by any means to the extent they will in future come, to be looked upon as an essential portion of the educational machinery of the State. Such museums are, in almost every capital of Europe, supported directly at the expense of the State, or are connected with some great educational institution dependent upon Government for aid. In England alone, the need has been supplied first by a private individual, and secondly by a private, or semi-private institution, composed of members of a single profession, with only occasional assistance from the State. In this country, the State (and, therefore, every individual composing it) is indebted to John Hunter and the Royal College of Surgeons for relieving it of the burden which must otherwise have fallen

upon it, of providing that portion of the national education afforded by a biological museum.

The period occupied by John Hunter in the formation of his collection was all comprised between thirty years—1763, the date of his return from service with the army in Portugal, and 1793, that of his death. The labour which he accomplished during this time was something prodigious, as has often been recounted in various biographies, and Hunterian "orations". Notwithstanding all that has been written and said, it is impossible to do justice to his wonderful activity and industry. In nothing, however, were these qualities so conspicuous as in the formation of his museum.

Public museums at that time scarcely existed. The British Museum was little more than a library and a gallery of art; the small cabinet of natural history, reinforced by the old collection of the Royal Society, scarcely made any show. Anatomical specimens, even bones and teeth, were looked upon with disfavour. Some that had accidentally found their way into the collection were, even within the present century, treated as intruders, and turned out without much ceremony.

Teachers of anatomy were forming their own private collections, but these were all eclipsed by those of the two Hunters, William and John. That of the latter especially grew to such an extent as to become in some sort a national and public institution. He built a large room to contain it in Castle Street, at the back of his house in Leicester Square, and, when finally arranged there, so much interest was taken in it, that he found it necessary to open it to public inspection at certain stated times. Still it was maintained entirely at his own cost, and it is stated that, by the time of his death, he had spent upwards of £70,000 upon it. Whether this estimate be correct or not, his expenditure on it must have been very great, as, though he had for many years made one of the largest professional incomes in London, his museum was the sole property he left behind.

John Hunter was a very miscellaneous collector—minerals, coins, pictures, ancient coats of mail, weapons of various dates and nations, and other so-called "articles of *vertu*" engaged his attention. These, however, and his furniture and books, had to be sold to meet the most pressing needs of the family. What would be now called the "biological" part of his collection was kept intact, during the six years which elapsed between his death and its purchase by the English Government in 1799. The preservation of the collection during this period is mainly due to the devotion of William Clift, Hunter's late assistant, whose services were retained for this purpose at a very small salary by the executors, Sir Everard Home and Dr. Matthew Baillie, and whose fidelity was rewarded by being appointed the first "Conservator" of the collection after it came into the possession of the College of Surgeons.

The story of the negotiations with a Government whose interests and energies were then concentrated upon the great Continental war, and the answer of the Prime Minister Pitt, when applied to on the subject, "What! buy preparations! Why, I have not money enough for gunpowder", are well known. These difficulties were, however, overcome; and, on the recommendation of a Committee of the House of Commons, appointed to inquire into the subject, the sum agreed to by the executors, viz., £15,000, was voted for its purchase on the 13th of June, 1799. Then came the question what was to be done with it. There was at that time no department of Government under the care of which such a collection could be placed. The condition of the British Museum has been already alluded to. The now flourishing and all-absorbing "department of science and art" had not been invented. There was one body in London which might be supposed to have some special interest in the maintenance of such a collection—the venerable and dignified College of Physicians; but that body, it is commonly reported, demurred to accept it, on the ground of want of funds to meet the annual expense of its maintenance. With reference to this report, Dr. Pitman has been kind enough, in response to my inquiries, to examine the archives of the College, and finds that there is no record of any such offer having been made or refused. If any negotiations were entered into, they must, therefore, have been of a purely informal nature.

There was still another corporate body—a comparatively obscure one at that time—the Corporation of Surgeons, which had only separated itself some fifty-four years before from the old City Company of Barbers and Surgeons;* and, although it had thrown off the connection which restrained its members from assuming the position of cultivators of a liberal profession, it had as yet done little to raise itself in public estimation, and had few resources from which to provide for the expenses of such a collection. Nevertheless, the Court of the Corporation determined by an unanimous vote on December 23rd, 1799, to accept the museum on the terms proposed by the Government, and almost simultaneously, obtained a new charter, under which they became "The Royal College of Surgeons", a body accredited by Government to examine all persons wishing to practise surgery in the kingdom, and migrated from their old quarters in the City to the house in Lincoln's Inn Fields, round which the present establishment has grown up.

Thus John Hunter's museum, and the College of Surgeons of England, though of entirely independent origin, have had their fortunes inextricably intermixed, since the former became national property, and the latter took the title and position it now holds.

The College is still the principal examining body for those who practise surgery throughout the kingdom. It takes no part directly in professional education, though it exercises a considerable indirect influence by the manner of conducting its examinations, and by the curriculum it requires from candidates. Its revenues are mainly derived from the fees paid for the diplomas which it grants, which, for the last ten years, have averaged 383 a year. In former times, these fees considerably exceeded the expenses of the comparatively slight examination required from candidates; and the surplus, besides defraying the current expenses of the museum and library, was devoted to the erection of the present buildings, and the acquisition of the freehold property and invested capital of the College. It says much for the personal disinterestedness of the eminent members of the surgical profession who have constituted the Court of Examiners, and who, until very lately, were practically the ruling body of the College, that they fixed their own remuneration at so low a rate as to permit an expenditure during the present century, upon the purposes just indicated, of a sum which cannot be estimated at less than £400,000. Now, owing to the more searching and practical character of the examinations, the expenses of conducting them have augmented to such an extent as to be scarcely more than covered by the payments of the candidates; and, but for the proceeds of the investments made under different circumstances, the College would not have the means of carrying on the scientific work it has undertaken.

The various professorships and lectureships that are attached to the College have grown up chiefly in consequence of one of the conditions under which the Hunterian collection was entrusted to it by Government—that a course of no less than twenty-four lectures shall be delivered annually by some member of the College upon comparative anatomy and other subjects, illustrated by the preparations. Other lectureships have been founded by private benefactions, but these are of limited number, or on special subjects, and are intended, not so much for the education of students, but rather as the means of introducing new discoveries or ideas to members of the profession and others interested in scientific pursuits, to all of whom they are freely open without payment.

Besides the museum, the College has added to its means of benefiting its own members and the profession generally, a library containing every important work and periodical upon surgery, medicine, anatomy, and the collateral sciences.

During the first six years after the collection came into the possession of the College, it remained in the gallery in Castle Street, which had been built by Hunter for its reception; but in 1806, the lease of the premises having expired, it was removed temporarily to a house in Lincoln's Inn Fields, adjoining the College of Surgeons, while the building in which it was destined to be lodged was preparing for its reception. This building, towards the erection of which Parliament contributed the sum of £27,500, was completed and first opened to visitors in 1813.

The museum was greatly enlarged, entirely at the expense of the College in 1835, and a still more important addition, that of the great eastern hall, was completed in 1855. Towards the expense of this, Parliament contributed a further grant of £15,000, the whole of the rest of the expenses of the purchase of the site, the building, and the annual maintenance of the museum, having been borne by the College.

In accepting the Hunterian collection, the College of Surgeons undertook a heavy responsibility, weightier perhaps than was contemplated at the time. Although not required by the letter of the [illegible]

* By an Act of Parliament, passed in the second year of the reign of George II, intituled "An Act for erecting the Surgeons of London and the Barbers of London two separate and distinct Companies, it was enacted that the united and incorporated Company of the Barbers and Surgeons of London, made by the Act of the thirty-second year of King Henry VIII, should from and after the 25th day of June, 1745, be dissolved, and that such of the members of the said united company who were freemen of the said company, and admitted an approved surgeons within the rules of the said [illegible] [illegible] first year of the reign of King Edward IV (1461).

to do more than preserve Hunter's specimens, the College undertook the charge in the spirit of the founder, and thus made itself responsible for maintaining such a collection as should meet the requirements of the ever expanding and vigorous young science to which it ministers. Hunter's collection was held to be the nucleus of a national biological museum, and its preservation and augmentation by the College has certainly prevented the formation of such a collection by the State.

Hunter was no specialist, and, even after eliminating the non-biological subjects before alluded to, a very miscellaneous collection remained; illustrations of life in all its aspects, in health and disease; specimens of botany, zoology, palæontology, anatomy, physiology, and every branch of pathology; preparations made according to all the methods then known; stuffed birds, mammals and reptiles, fossils, dried shells, corals, insects, and plants; bones and articulated skeletons; injected, dried, and varnished vascular preparations; dried preparations of hollow viscera; mercurial injections, dried, and in spirit; vermilion injections; dissected preparations in spirit of both vegetable and animal structures, natural and morbid; undissected animals in spirit, showing external form, or awaiting leisure for examination; calculi and various animal concretions; even a collection of microscopic objects, prepared by one of the earliest English histologists, W. Hewson.

It is very difficult to compare the present Hunterian Museum, as it is still often called, although officially only recognised as the Museum of the Royal College of Surgeons of England, with any other existing collection, as its nature and the character of its contents have been determined by several accidental circumstances rather than by any very settled purpose. Originally a private collection, embracing a large variety of objects, it has been carried on and increased upon much the same plan as that designed by the founder, with modifications only to suit some of the requirements of advancing knowledge. The only portions of Hunter's biological collection which has been actually parted with are the stuffed birds and beasts, which, with the sanction of the trustees, appointed by Government to see that the College performs its part of the contract as custodians of the collection, were transferred to the British Museum, and a considerable number of dried vascular preparations, which, having become useless in consequence of the deterioration in their condition, resulting from age and decay, have been replaced by others preserved by better methods. Of the various departments of which the museum now consists, very few, in fact only the collection of illustrations of skin-diseases, and the collection of surgical instruments, are not the direct continuation of series founded by John Hunter.

To find an analogous institution to the museum of the College of Surgeons, in Paris for instance, we should have to combine the collections of comparative anatomy and anthropology at the Jardin des Plantes, and even a portion of the separate paleontological collection at that establishment, the collection of human anatomy of the Musée Orfila, and that of pathological anatomy of the Musée Dupuytren. If these were all brought together under one roof, and somewhat compressed and rearranged, we should have something in its nature resembling the museum of which I am now speaking.

In this combination on one spot, and under one management, of so many diverse collections, we have a survival of a condition of scientific knowledge more characteristic certainly of the last century than of the one in which we live; but in this age of specialities, it is well perhaps to be reminded by such an institution of the essential unity of biological knowledge, and of the important illustrations which one branch of it may afford to another, especially when the detailed facts are to be combined for the purpose of philosophical generalisation.

In visiting the museum, and in the comparison which may be instituted between it and others of its kind, it is important to recollect this origin and history, as they will account for many shortcomings. It must not be forgotten that to its comparative antiquity (for it is certainly the predecessor and prototype of all the anatomical museums of this country and of America, and to most of those on the continent) is due many faults of construction and arrangement which should not be found in a building designed with the knowledge and experience of recent years. I have elsewhere pointed out what I consider the chief of these (*Journal of Anatomy and Physiology*, vol. ix, May 1875).

Though the large size of the principal rooms allows of a fine *coup d'œil*, such a construction does not permit of that separation and distribution of the different series which is desirable for the purposes of study. Human anatomy, invertebrate zoology, and pathology, for instance, come into such near juxtaposition as to produce some confusion in the minds of strangers, though familiarity with the arrangement soon disperses the difficulties at first met with in finding the situation and limits of the particular department required. The narrowness and unprotected condition of the shelves in the galleries is also a radical defect, now unfortunately irremediable. Furthermore, the indulgence of those who have the happiness to live elsewhere than in the absolute centre of a population of four millions of coal-burning people, must be asked for certain dusky results of such a situation, which no amount of care and expense can obviate.

I must now ask leave to be your guide to some of the contents of the museum, as it is at present arranged, and will take the different branches of biology which are illustrated in it in some kind of order, beginning with the part which relates to life in a normal condition. Hunter's collection and observations were not limited to the animal kingdom. Wherever any physiological process could be illustrated by vegetable life, vegetables were pressed into the service, as may be seen in the physiological gallery, and by the memoranda on Vegetation, left by him in manuscript, and printed by the College in 1860. In his collection were many portions of various recent plants, and a series, amounting to 184 in number, of fossil woods, fruits, and impressions of stems and leaves. These specimens, with some additions made in former years (for, since the great development of the parts of the museum more essential to the general purposes of the institution, it has been necessary to restrict the growth of such branches as are more fully and advantageously illustrated elsewhere), are arranged in the large wall-case on the right hand side (on going in) of the entrance door of the first or western hall.

The zoology of invertebrate animals largely attracted Hunter's attention. Many of the treasures collected in the famous voyages of Captain Cook came into his possession through his friend Sir Joseph Banks. He purchased, whenever opportunity offered, as at the sale of Mr. Ellis's famous collection of corals and zoophytes. In 1786, at the sale of the Duchess of Portland's museum, he bought, for fifteen guineas, the fine *Pentacrinus* now in the museum, of which very few examples had then been found. Of insects, especially *Lepidoptera*, he had a large series. Of fossil invertebrates, as many as 2,092 specimens are now recorded in the catalogue as Hunterian. The series of fossil cephalopods is remarkably rich.

Such invertebrated animals as are dissected, or illustrate any special anatomical fact, are arranged in the so-called physiological series in the gallery, to be described presently; but beyond these, there remained a vast number of specimens only showing external form, which, by selection and arrangement, have been lately formed into a special zoological collection, intended to introduce the student to a general knowledge of the principal forms of animal life, and to the mode in which they are grouped. This series, arranged in the floor-cases on the left side of the western museum, includes selected specimens of nearly all the orders, and in many cases of the families, both of the living and extinct forms; illustrated both by their hard and imperishable parts—as the "corals" or stony skeletons of the actinozoa, the shells of mollusca, and the tegumentary structures of the articulata—and by the softer and more destructible parts of the bodies preserved in spirit. The various groups are distinctly separated from each other and clearly named. Students who desire to pursue the study of any of the sections more deeply than the small selected series of exhibited specimens will allow, will find the remainder of the specimens mentioned in the catalogues, arranged in drawers below the cases. The series does not extend beyond the invertebrata, as the peculiarities of the remaining classes of the animal kingdom are abundantly illustrated in other parts of the museum.

Although locally far removed, occupying one portion of the upper gallery of the middle museum, a small but interesting special collection, illustrating the subject of helminthology, may be mentioned here. It was thought that the importance, in a medical and social point of view, of those animals which infest the interior of man and the principal domestic and other animals, justified a more extended exhibition of their modifications than could be assigned to any other group of animals of such inferior organisation, and, by the aid of the well-known helminthologist, Dr. Spencer Cobbold, the present collection was arranged and catalogued in 1866; the materials being mostly already in the collection, though scattered in other series or hidden in the storerooms. The collection contains upwards of 200 specimens, and may still be somewhat extended. The intention is to show every parasitic animal which, under any circumstances, can affect the human body, and a selection of the principal types of those that inhabit the lower animals, especially such species as are associated with man. If increased beyond these limits, the collection would become interesting only to the student of detailed systematic zoology, and therefore not a legitimate object for our museum.

I will pass next to the section of the Museum which is, perhaps, altogether the most characteristic, as it is certainly the most eminently Hunterian. It was specially the creation of his mind, is still arranged almost exactly as he left it, and, notwithstanding the very numerous additions, still contains a larger proportion of Hunterian specimens

than any other department. This is the collection which is called *Physiological*, because the specimens in it are classified mainly according to their supposed function. Physiology, as we know it now, is scarcely a subject which can be illustrated in a museum. The processes and actions which take place in the living body are not to be shown in bottles, but the organs, through the medium of which physiological processes are performed, can be, and it is these which are illustrated in this collection. It is more truly a collection of comparative anatomy, or morphology as we should now call it. It shows the variations in form which the different organs undergo either in different species, or in the same species under different conditions, as age and sex or season. Many of these modifications clearly have relation to function, as we see in the difference of form and relative size of the compartments of the stomach of the young ruminant, which is nourished by milk, and the adult which feeds on grass, the periodic variations in the size of the testis in birds, etc. But in a vast number more we can see no special adaptation to purpose, but merely variation, apparently for variety's sake. Look, for instance, at all the differences of the form of the liver throughout the mammalian series, which, as far as we know, have no relation to its action as a secreting gland. Though of little interest to the physiologist, modifications of this kind are of the highest importance to the morphologist. They throw light upon one of the great biological problems—classification, which, when rightly interpreted, means nothing more or less than a statement of the order in which living beings have been evolved one from another. From such variations of form most precious indications of the relationship of one animal to another can be obtained, and the less these variations are related to adaptation to some particular function, the better they can be relied on for this purpose. But Hunter's ideas were far different. He tried to bring together analogous parts according to their uses—organs of progressive motion adapted for flying—eyes modified for seeing in water—eyes modified for seeing in air, and so forth. Practically, such a system could not be logically carried out. Too many modifications of form were found to occur, to which no special modification of function could be assigned; a compromise had to be made, and in the large number of cases the organs had to be arranged according to the affinities of the animals to which they belonged—brains of fishes; brains of birds; brains of mammals, etc. As the collection continues to advance, the classification according to homology is gradually superseding that according to analogy, with which it began.

This collection at present contains 6,982 specimens mounted in bottles, of which 3,745, or more than one-half, are Hunterian. It may be convenient to know that these are distinguished by the figures upon them, which refer to the catalogue, being painted in black. The specimens added since Hunter's time are lettered in red. The greater number of the former must be fully a century old, and being still in as perfect preservation as when first put up, afford a fair guarantee of the absolute permanence, with proper care, of specimens preserved in alcohol. The skill displayed in dissecting, injecting, and mounting the majority of these preparations, has scarcely ever been surpassed in modern times; and this collection alone, if it were all that Hunter had left, would be a grand monument to his industry and zeal for anatomical knowledge; as is its valuable and instructive descriptive catalogue, published in five volumes, and completed in the year 1840, a lasting evidence of the same qualities on the part of Mr. Clift's eminent successor in the conservatorship of the museum, Professor Owen.

Many points in comparative anatomy can be illustrated quite as efficiently, and more economically, by dried preparations, which require neither spirit nor bottles to preserve them in. Though we have not attained in this country the art of making such preparations in the elegant and instructive manner pursued in several of the museums in Italy, notably Pisa, and though nearly all the original Hunterian dried preparations have perished long ago, or become partially useless, there will still be found some worthy of attention in the rail cases round the galleries which contain the spirit preparations. While speaking of the contents of these cases, I would specially call attention to the series showing the modifications of the small bones of the ear, throughout the mammalian class, arranged a few years ago by Mr. Alban Doran, one of the assistants in the museum, which is probably not surpassed in extent or variety and method of arrangement anywhere else.

The Histological Collection is contained in a separate small room adjoining the physiological galleries, and consists of upwards of 12,000 specimens, illustrating the minute structure of the tissues of plants and animals, mostly prepared under the direction of Professor Quekett, the third conservator of the museum, who devoted the greater part of his life to this work. Since his death in 1861, it has been rearranged and kept in order; but the additions have not been numerous, chiefly in consequence of the practical difficulties in exhibiting such a collection to visitors to a public museum.

Although the anatomy of man naturally takes its place among that of other species in the physiological series, the preparations illustrating it are chiefly confined to viscera—the details of regional anatomy, and of the arrangement and distribution of muscles, vessels and nerves, not finding a natural place in the scheme upon which that department of the museum was organised. It was, however, a few years ago thought desirable that human anatomy, in consideration of its great importance to our profession, should be exhibited on a much more extended scale than it had been hitherto, and that a ready demonstration should be afforded by means of permanent preparations of the structure of all parts of the human frame. To those who have already learnt their anatomy, and who wish to refresh their memory, or verify a fact about which some passing doubt may be felt, or those who are precluded by circumstances from visiting the dissecting-room, the preparations of this series must prove of great value. The series of dissections already made with this end, commenced by a former able assistant in the museum, Dr. J. Bell Pettigrew, and carried on to their present perfection by Mr. W. Pearson, are arranged on shelves over the floor cases on the western side of the western museum, contiguous to the series of human osteology, to which they form the natural sequel.

No portions of the structure of vertebrate animals can be preserved with greater facility than the bones and teeth. Moreover, the skeleton being the framework around which the rest of the body is built up, gives, more than any other system, an outline of the general organisation of the whole animal, and it has this special importance, that a large number of species—all those, in fact, which are not at present existing upon the earth—can be known to us by little beyond the form of the bones. Osteology has, therefore, always had many votaries as a special branch of study, and it is one which finds much favour in the eyes of curators of museums, from the satisfactory manner in which it can be illustrated by specimens. Hunter's osteological collection was considerable—quite in advance of any other in this country. The two small whales (*Balænoptera rostrata* and *Hyperoodon rostratus*) which formed part of it, were almost the only skeletons of animals of their order which existed in any museum at the time of his death. This fact alone shows the marvellous change that has taken place within less than a century in the facilities for the study of comparative anatomy. How great the contrast to what may now be seen here in the College of Surgeons, in the British Museum, in Oxford, Cambridge, Edinburgh, Dublin, in a score or more of museums on the European continent, in America, even in Australia and New Zealand! Richly supplied osteological collections have sprung up in every considerable centre of scientific culture over the world; but as ours was one of the first in point of time, we may also claim for it a high position in point of completeness. Others, such as that at the British Museum, the Jardin des Plantes at Paris, and the famous Leiden collection, may be larger, but this is because the College Museum has been designedly limited rather to selected illustrations of all the most important modifications of structure, than to numerous examples of closely allied species, which may be perfectly necessary in a purely zoological museum. When important forms have become extinct, their characters are shown by their fossilised remains, which, though at present most illogically arranged in a distinct room apart from their existing allies, will soon be incorporated in the general osteological series, where alone they can find a reasonable position in an anatomical museum.

The value of a collection is not to be estimated only by the number of specimens it contains, nor by even their rarity or judicious selection, but also by the condition of the specimens, and the facility by which they may be made available for study and reference. On this head we claim to be somewhat in advance of other museums, on account of the improvements which have been made in late years in preparing and articulating entire skeletons, and displaying portions of the bony framework in an instructive manner. Formerly, all the bones were rigidly fixed together, so that their articular surfaces, if not actually destroyed, were completely concealed; and no bone could possibly be removed and separately examined. The aim of a series of changes in the method of mounting skeletons introduced here, and now adopted more or less completely in many other museums (the details of which were carried out with great skill by our late able articulator, Mr. James Flower), has been to obviate all these difficulties, and to make each bone, as far as possible, independent of all the rest, while preserving the general aspect and form of the entire skeleton.

Another improvement in the osteological series introduced within the last twenty years, has been the formation of a special collection designed to show the principal modifications of each individual element of the skeleton throughout the vertebrate classes, by placing the homologous bones of a number of different animals in juxtaposition. For convenience of comparison, the specimens of this series are all placed in corresponding positions, mounted on separate stands, and to each is

attached a label bearing the name of the bone, and the animal to which it belongs. This series is especially instructive to the students of elementary osteology, and forms an introduction to the general series.

As in other departments of the museum, the more nearly man is approached in structure, the more complete do the illustrations of anatomical modification become; and, as might be expected, the osteology of man is far more thoroughly shown than that of any other species. The specimens of human osteology (of which a revised catalogue, enumerating 1,306 specimens, was published two years ago) begin by illustrations of the development of the bones; these are followed by the normal skeleton, exhibited under various aspects, then by individual variations, among which may be mentioned one of the most remarkable objects in the museum—the skeleton of the celebrated Irish giant O'Brien, who died in London in 1783, and about the preservation of whose remains so many legends are told in the biographies of John Hunter. Finally, the special osteology of man, or illustrations of the osteological characters of the various races of mankind. In this important subject Hunter was a long way in advance of most of his contemporaries, as the origin of his collection dates almost, if not quite, as far back as that of the founder of physical anthropology—the celebrated Blumenbach. The series has been greatly augmented of late years, and completely rearranged; and the splendid addition made to it last year by the purchase of the great private collection of the late Dr. Barnard Davis, has brought it up in point of completeness to truly national importance.

As forming a transition from the department of normal anatomy and physiology to that of pathology, may next be mentioned the teratological series, or collection of congenital malformations of man and the lower animals, which necessarily forms part of every general biological museum. This difficult, mysterious, and—as far as the light it throws upon the workings of the laws of nature—still unsatisfactory subject, had considerable attraction for Hunter; and many of the specimens in the series form part of his museum. It has been steadily, though not very rapidly, increasing ever since, and had the advantage a few years ago of being thoroughly revised, rearranged, and catalogued by Mr. B. T. Lowne. It is arranged in the upper gallery of the middle museum.

The pathological series is the section of the museum to the study of which, in the eyes of Hunter and his successors, all the others form an introduction. It occupies the whole of the two galleries and part of the ground floor of the western hall. As the museum of the College differs from those attached to the various medical schools, in having no hospital or *post-mortem* room in connection with it, from which to draw the supplies for completing this collection, it has been increased by the acquisition from time to time, when opportunity afforded, of various private collections, as those of Mr. Heaviside in 1829, Mr. Langstaff in 1835, Mr. Howship and Mr. Taunton in 1841, Mr. Liston in 1842, and Sir Astley Cooper in 1843, obtained by purchase; and the collections of Sir William Blizard in 1811, Sir Stephen Love Hammicck in 1851, and Dr. Peacock in 1876, presented to the College. Contributions of recent specimens are also constantly received from numerous individual donors, the acquisitions from this source having greatly increased of late years. The total number of specimens now in the catalogue amounts to 5,148, of which 1,672 are Hunterian. As in the physiological galleries, the latter are distinguished by their numbers being painted in black. The descriptive catalogue of this series, written by Sir James Paget, and published in five quarto volumes, between the years 1846 and 1849, is one of the best-known and most valuable of all the publications of the College, and has always been looked upon as a model upon which other pathological catalogues should be formed. The additions made to the collection since that time have been so numerous, that the necessity of a new catalogue has long been felt. Under these circumstances, it is a matter of great congratulation to all who are interested in the welfare of this valuable collection, that the author of the original catalogue has undertaken, with the co-operation of Dr. Goodhart and Mr. Doran, to make a new one, in which the old descriptions will be revised, the new specimens incorporated in their appropriate places, and such changes introduced into the general arrangement as the advance of pathological knowledge and greater experience of the requirements of the museum appear to necessitate. This great work, especially arduous for one so much engaged in professional avocations as Sir James Paget, is now far advanced. The prospect of its early completion will doubtless compensate the members of the Congress who will make an inspection of this part of the collection, for the transitional and somewhat disarranged condition in which they will find it on their present visit.

As adjuncts to the general pathological series are certain special collections, which have separate catalogues devoted to them. One, which will be examined with interest by those devoting themselves to aural pathology, is the series of preparations illustrative of diseases of the ear, formed by the late Mr. Joseph Toynbee; which came into possession of the College, at his death in 1866. It is a large and probably unique collection of 824 specimens, illustrating all the known morbid conditions of the organ of hearing, such as could only have been brought together by one specially engaged for a considerable number of years in investigating this branch of surgery, and the value of which is greatly enhanced by a complete descriptive catalogue, published during Mr. Toynbee's lifetime. This series is arranged in part of the rail cases of the lower pathological gallery in the western museum. The remainder of the same cases are devoted to the collection of urinary calculi and other concretions, salivary, biliary, and intestinal, both from man and various animals, probably the most complete and best arranged in the world. The careful chemical analysis and description of the whole of these specimens has been the work of Mr. Thomas Taylor.

In a corresponding position in the upper gallery of the same museum is the Dermatological collection, consisting of an extensive series of beautifully executed models, of actual specimens, casts and drawings illustrating the various affections of the skin. This collection was commenced in the year 1870, the whole of the specimens in it, the cases which contain them, and the catalogue describing them, having been presented to the College by Mr. Erasmus Wilson, at that time Professor of Dermatology in the College.

Lastly, must be mentioned a collection—for the reception of which a separate room, approached from the end of the eastern museum was devoted in 1870—of surgical instruments and appliances, which, though small at present, contains many instruments curious for their antiquity, or interesting for their associations; and, doubtless, now that a convenient and appropriate locality has been established for their reception and preservation, will be gradually augmented by additions of a similar nature. It is mainly to the interest taken in the subject which it illustrates by the late Sir William Fergusson that the establishment of this collection is due.

Such is a general outline of the history and contents of the museum, which for eighty years the College of Surgeons has maintained for the benefit not only of its own members, but for that of the profession at large, and, indeed, of all who take any interest in biological science, whether the young student preparing for his examination, or the advanced worker who has here found materials for many an important contribution, by which the boundaries of knowledge have been materially enlarged. To all such it is freely open, without any fee or charge. Even the written or personal introduction of members, still nominally required, is never asked for on the four open days from any intelligent or interested visitor; and on the one day of the week in which it is closed for cleaning, facilities are always given to those who are desirous of making special studies, and to the increasing number of lady students, whether artistic, scholastic, or medical. Artists continually resort to the museum, to find opportunities of studying the anatomy of man and animals, which no other place in London affords; and of late years it has been the means of a still wider diffusion of knowledge, by the visits which have been organised on summer Saturday afternoons by various associations of artisans, to whom a popular demonstration of some part of its contents is usually given on each occasion by the conservator.

If the knowledge of organic nature is of any value to man—and this is a proposition which I am sure all who attend this Congress will admit, as on such knowledge the whole superstructure of their profession is built—there can be no question but that such an institution as I have here sketched out, must be one of pure and simple benefit. Its maintenance has been a worthy object, upon which the College has spent its care and its money; and whatever may be the changes which impending legislation may effect in the organisation of the profession, we may all hope that the great work begun by John Hunter, and carried on by those who, under the guidance and support of the Council of the College, have followed him in the care of the collection, may not be impaired or destroyed. Whether the whole of the charges of maintaining such a museum in all its parts on a continually extending scale, should be the duty of one institution, like the College of Surgeons, or even of one profession, may be a question for future consideration; but, in the meantime, how easily could its preservation and future extension be rendered entirely independent of all the chances and changes of medical education and legislation, or even of Government assistance and interference. When we see the immense sums voluntarily provided every year in this country by donation and bequest; when we see, and see with pleasure and gratitude, through the length and breadth of the land, cathedrals, churches, chapels, colleges, schools, hospitals, and asylums founded, endowed, enlarged, and restored, may we not hope that an old and tried institution like ours will not be so entirely neglected as it has hitherto been by members of our profession in search of some means for the disposal of any surplus wealth they

may possess. Few objects can be so surely productive of good, so little liable to abuse at any future time, as the preservation, augmentation, and maintenance of a museum, in which the facts of the beautiful and wonderful world around us are displayed for the instruction of mankind.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PATHOLOGY.

By SAMUEL WILKS, M.D., F.R.S.,
Physician to Guy's Hospital; President of the Section.

I WELCOME all of you here to-day. But are we not already of one brotherhood? Has not a common bond long ago united us in one family? Although we may not have shaken hands, we have been joined in spirit, or, perhaps, some of us have even been in more direct communication by means of winged words. Amongst all the ties which link man and man together, some of the closest are those forged by science. A special scientific inquiry will find two minds closely akin, although separated by thousands of miles, nationalities, or tongues. In our own department of pathology, it creates a thrill of satisfaction to feel that the study of some morbid process may have led some of us to the discovery that another investigator, of whose existence we had been hitherto ignorant, has his thoughts and occupation in perfect unison with our own; and that, although oceans and continents may separate us, our minds are both attuned to the same string. It is not surprising that the vast subject which more immediately occupies us can never cease to interest man in all its details, whilst he has a resting-place on this globe.

I would fain have inaugurated this Section with a general address, but have refrained from doing so—daring not to sacrifice to platitude our too precious time when so much practical work has to be accomplished. I cannot, however, but occupy you a few moments in order to take a glance at the immensity of the subject before us, embracing questions as it does in which humanity will be for ever interested—viz.: those referring to disease, decay, and death.

Our subject, in a word, is Pathology. Pathology has received various definitions, the most common being that which contrasts it with physiology; for, as the latter is regarded as the science of healthy organic life, so the former has been held to be the science of the unhealthy or of the abnormal course of life contrasted with the normal. This division of vital action into normal and abnormal is true in a superficial sense, and might be made theoretically to stand as a definition; but it is by no means applicable to our practical science of pathology, nor can it be made of any value as an expression of diagnostic knowledge in treating the thousand ills to which flesh is heir.

In the first place, it must be admitted that the changes which occur in every organic structure, as years roll on, are to be regarded as normal, unless we take an imaginary or ideal standard of a being living in some former golden age, where nought was known but perpetual youth, and regard every departure from this as morbid. Although we do not frame such a picture to ourselves, but know that the various changes in the bones, the cartilages, the lungs, the brain, and other parts, which take place in age, are in harmony with the dictates of Nature, yet how often are we called upon to treat these changes as forms of disease? They are, however, no more unnatural or pathological than the sere and yellow leaf which falls from the oak in autumn.

If, however, these senile changes occur prematurely, they will then be abnormal, and may be strictly regarded as morbid. Herein is one form of a pathological condition with which we have to deal—a premature decay arising from the various causes which bring the organism to an end, either from their operating with unusual force, or from some inherent weakness in the body, which is unable to moderate their action. Now, if all these potent influences, instead of driving the mechanism too quickly, and so bringing it prematurely to an end, concentrate their forces upon one organ only, that organ would become, in ordinary parlance, diseased; but the process there set up may be of exactly the same nature as time would otherwise have produced. In comparatively young persons, for instance, we meet with fibroid and fatty changes in the heart and vessels, distension of the air-cells, alterations in the structure of bones and joints, which resemble in every respect those which age would have ordinarily induced. Therefore, many of the conditions which we call disease seem nothing more than the result of the concentration on a particular organ of all those agencies which, under ordinary circumstances, bring about senile changes. These changes, therefore, although senile in character, are abnormal, and therefore may be rightly regarded as pathological.

The pathologist, therefore, cannot but regard the body in the first place in its physiological relations with its surroundings, and mark the alterations which time produces. The physiologist is aware that the production of force must be accompanied by loss elsewhere, seeing that gain and loss are equal; and, therefore, in observing organic life, he must regard the destructive processes as well as the formative. Life seems to depend upon changes continually going on in relation with the atmosphere in which all living bodies are steeped. The burning of the fuel in oxygen supplies the forces necessary for living processes; we, therefore, although alive, are constantly being consumed. During so many years the body is undergoing combustion, or, we might say, slow destruction; and this process occurs much more rapidly in some persons and in some animals than in others. Why one creature should live longer or burn out sooner than another is not clear: why, for example, should a dog be worn out in ten or twelve years, its limbs be stiff, its sight and hearing impaired, its intellect obtuse, and senile changes be discoverable in its brain and elsewhere, when a parrot may take a century for the production of the same destructive changes? Why tissues of the same composition should wear out in one animal after ten revolutions of the earth when it takes a hundred revolutions to destroy similar ones in another, is by no means apparent. In man, if the destructive and reproductive changes are normally counterbalanced, the ordinary duration of life is reached. If the balance be not kept, the destructive agencies may be in the ascendancy, and life be shortened. If any of the ordinary surroundings which are always exerting their influences upon us—as various kinds of air, food, moral and mental moods—be in any way noxious, they may in time tend to premature death; and, if they should act in such a manner as to cause localised organic changes, we should style these changes disease. There can be little doubt that a large number of maladies in England—as gout, Bright's disease, etc.—are induced by mere excesses or inequalities in a mode of life which is considered ordinarily correct. It ought to be one of our studies to consider the relations of the human race to the soil, and observe all the circumstances which centuries have induced to bring about this normal or healthy relation between them. We might then observe the effects of the concentration of some of the more untoward of the influences which ordinarily environ it, as well as inquire into the effects of transplantation into another country. It seems that all the usual surroundings of life in civilised society, acting in undue proportion, or in a more determined manner, induce a very large number of the diseases which we are called upon to treat.

In considering all these agencies working for what we call evil, and leading to destruction, we must not overlook an opposing law—that of reparation. Not only do we observe a production of living force in necessary association with a dissolution of material, but an ever-existing tendency towards the remaking of the injured tissues. We can scarcely think of a morbid change in the body which is not attended by another which has an opposite tendency. Every phthisical lung showing destruction of the tissue exhibits at the same time the attempt to limit the process and to save life by shutting off the escape of air from the lung, or sealing the ulcerated blood-vessels.

Then, again, in considering the definition of disease, after having observed how large a number of maladies are produced by the influences of all our ordinary surroundings, we have to recognise those external causes of an extraordinary or specific character which prey upon the human frame, and often bring its machinery to an end. Now, if these causes are obviously parasitic, we are not witnessing so much the case of disease, as the spectacle of one animal preying upon another. As regards the parasite, it is pursuing its normal life-history; and, as regards the patient or the host, he is simply being destroyed. The difference in his mode of death from that which would result from the onslaught of a wild animal would consist merely in time. If a man fall a victim to the bite of a cobra, he is not said to die of disease; but the term is applicable if he die of glanders. There is this difference, however, in the latter case—the poison is not a natural one, even in the infecting animal. If, however, in these infectious diseases, the morbific cause be an animal or vegetable organism, although microscopic, then we really have to deal with the operation of one living being acting upon another; and the so-called specific malady exhibits nothing more than the natural course of life of certain specific organisms. The term disease, according to the definition, is here again scarcely applicable.

All these abnormalities of the human organism, under whatever

conditions they may arise, suggest that, as every branch of biological science is being studied in relation to the lower organisations, and according to the law of evolution, so must pathology become the subject of a large field of inquiry, and be made to embrace the diseases of all animal and vegetable life. The comparison of disease in man and animals may throw much light upon its nature; and it is remarkable that so few persons have been stimulated to the work, by considering the long controversy which has taken place as to the relation between vaccinia and variola, or hydrophobia and rabies. A true human pathology should have its basis in comparative pathology. Here lies a mine of wealth but little worked. As at the present time every structure and function of the human body is being studied in reference to its antecedents in the lower animals, so there can be no doubt that the various morbid changes to which it is liable may be also profitably discussed in reference to similar actions in more simple forms of life. The truth of this has been clearly seen by philosophers who have had no special acquaintance with our department of science. Thus Buckle, in his *History of Civilisation in England*, says: "The best physiologists distinctly recognise that the basis of their science must include not only the animals below man, but also the entire vegetable kingdom; and that, without this commanding survey of the whole realm of organic nature, we cannot possibly understand even human physiology, still less general physiology. The pathologists, on the other hand, are so much in arrear, that the diseases of the lower animals rarely form parts of their plan, while the diseases of plants are almost entirely neglected, although it is certain that until all these have been studied, and some steps taken to generalise them, every pathological condition will be eminently empirical, on account of the narrowness of the field from which it is collected." This is almost as true now as when written several years ago; but we are pleased to think that our countryman, Sir James Paget, has already removed this slur upon our scientific procedure by his lecture on "Elemental Pathology", in which he shows the importance of observing the resemblances between the changes in the various tissues of man and the vegetable world, and also the deductions to be drawn therefrom.

Again, if the specific diseases be due to organisms, and the hypothetical *contagium vivum* be a reality, it must be subject to the same laws as other organic matter; and, if the doctrine of evolution be true, it must have numerous relations with families of its own kind, and perhaps with others which are now obsolete. This idea has occupied the minds of several medical men in this country, and it will no doubt further fructify in their hands (Dr. Airy, Dr. Thorne, etc.).

A highly contagious disease prevailing in a particular locality may be exhibiting the differentiation of some more simple, less virulent, and widely spread disorder. For example, a slightly contagious epidemic sore-throat might, in course of time, develop into a more virulent one, until it culminated in diphtheria; and, if this disease be due to an organism, the latter might have found a more genial soil for its development, or be altered by propagation and time, so that new properties might at last have been added to it. There may be a progressive development of infectiveness. Then, again, the doctrine of natural selection might obtain in the fact of some specific diseases remaining amongst us, while others have become obsolete. The same law, too, if allowed its full operation, might tend still more than it does to the subjugation of many hereditary diseases; for, as these appear in youth, and often cause death, they would fade away by a process of self-destruction. As regards the specific diseases, we see again how the most susceptible persons would be struck out by the poison, and the least susceptible remain, so that the poison would be modified in its virulence. We witness this fact in the more moderate characters of the exanthemata in all civilised nations, in comparison with the more profound effects produced by them in nations where the diseases had been hitherto unknown, as, for example, the fatality in the Pacific Islands of our comparatively mild British measles.

Besides the maladies which are induced by the evil influences of our ordinary surroundings, and those due to specific causes just named, there is a class of diseases styled new growths which take a very large share in adding to man's mortality. The advance made in our knowledge of these structures is very considerable, and is still rapidly progressing towards a determination of their origin and the discovery of their relation to the normal tissues. These investigations are assisting us in discarding some of our older notions regarding their constitutional and malignant nature, and proving that many are accidental in their origin, and therefore may possibly be averted.

In these brief remarks, we see how the simple definition of pathology as a deviation from the healthy standard fails in its application, and how wide is the range of subjects included in its domain. What these are, you, gentlemen, are about to illustrate in the different subjects which you will bring before the Section.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE.

By SIR WILLIAM GULL, Bart., M.D., D.C.L., LL.D., F.R.S.,

Consulting Surgeon to Guy's Hospital, President of the Section.

GENTLEMEN, Friends, and Colleagues,—I am deeply sensible of the honour conferred upon me in being called upon to preside over this Section, and I offer you my cordial thanks.

Happily the duties will not be arduous, since the general addresses which have been arranged and admirably allotted, relieve me of the responsibility of attempting to develop before you the actual position of medicine, or the probable lines of its future progress.

As the International Medical Congress assembles in England for the first time, under the auspices of Queen Victoria, so I am reminded that three hundred years ago, under Queen Elizabeth, Bacon enunciated for the first time, in the simplest terms, the position of the student of nature in relation to the work before him.

Prone as we mostly are to easy satisfaction on imperfect evidence, and to rest in the *experientia fallax*, it is something that we are all agreed, in aim and means, and admit that there is but one source and test of knowledge, "the observation of the order of Nature". We have no principles, but facts; no eclecticism, but of these; and nothing touching the conditions of humanity is foreign to our consideration.

Anatomy, physiology, and pathology, have an impersonal and scientific object. Their aim is wide and general. The facts with which they deal are subject to no deflection from affection. Great or small, they have all an equal value. Pathology even denies its name in the presence of that which is universal, merges into physiology, and sees that "whatever is, is right". But far otherwise is it with clinical medicine, where the welfare of the individual alone has to be considered. We call ourselves physicians, and cannot be too jealous of the title and of all that it includes; but we are *Medici*, or curers of disease. Hence, together with the highest duties which science imposes, there are the various personal claims of humanity, augmented by suffering and charged with every disturbing element that weighs upon the heart of man; but at the same time, for us, with every high and quickening motive. These are warping influences, and to correct them we have often with effort to bring our clinical questions into relation with that which is impersonal and above passion.

It is an agreeable fancy on these occasions to suppose that civilisation may have been differentiated into its various nationalities, less for the strife of war, than that each nation might contribute, according to its genius, to the progress of the sciences. It may be Utopian to see it thus. Yet a review of the past two or three centuries would suggest as much. That scientific congresses have met, and that they continue to meet, promise better things to come out of the social chaos; as the imagination realises organisation springing up amidst the strife of the elements in an early world.

To Italy and the South we owe the early development of anatomy. The illustrious names of Morgagni, Galvani, Scarpa, and others, many of whom have left their names for ever inscribed on our textures, bear early and continued witness of this. And although we Englishmen will ever be tenacious of vindicating for our Harvey the immortal honour of having first demonstrated the circulation of the blood, we equally admit that Italy was his teacher of anatomy. And no less did Italy lead the way in morbid anatomy, as testify the pages of Morgagni, in his treatise *De Causis et Sedibus Morborum*.

To Germany and the North we are largely indebted for analytical progress. Their profound investigations in chemistry, and their exhaustive researches into minute anatomy and histology, have gone far to solve the problems of organic composition and organic structure. I will not support my position by citing illustrious names. Happily, many whom I should have to mention are still among us; but biological science will never forget Leeuwenhoek and Ehrenberg, or Berzelius and Liebig, nor the labours of the modern schools.

France, with her rare synthetic faculty, seems specially gifted for promoting the science of physiology: I have but to recall the name of Bichat, and to point to the refined investigations of Bernard, and to those of his successors of to-day. And with France I may join Switzerland, whose Haller gave the earliest and strongest impulse to the study of the laws of living things, as a separate science; though, as in the

case of Harvey, his lamp was lighted abroad, in the famous school of Leyden.

The English genius is perhaps more fitted for the historical method, and its obvious lessons. But perhaps I ought not to say obvious, for not rarely the English have been satisfied with records without inferences. There are, however, splendid instances of both; of the one in the museum of Hunter, and of the other in the works of Darwin.

But here you will be ready to exclaim "Siste!" for who in the least acquainted with the progress of the biological sciences in different schools at the present time would venture to claim for either some special fitness over the rest for any line of pursuit, and when the spirit of each can say, like Goethe's Natur-Geist:—

"In Lebensfluthen, im Thatensturm
Wall ich, auf und ab
Wehe hin und her!"

Some have prophesied that the advancement of the biological sciences will leave medicine a barren waste in their midst; but such a result, in the natural course of things, cannot happen. There is an indissoluble union between all the sciences, which for medicine especially, human interest will ever strengthen. The past history, and the present state of our profession, give us abundant assurance of this. It is not too much to assert that the study of medicine will for all time attract a large proportion of the best thinkers and workers of the world. It has ever been so; and what has been, doubtless shall be in the time to come. Besides, almost every germ of scientific thought has sprung in some way from medicine; and I have only to remind you that some of the most illustrious physiologists and pathologists of to-day, are members of our own profession. And if from the delicacy, intricacy, and the demands made upon all the powers of the intellect by the extent and character of their investigations, they have as it were turned aside from immediate clinical work, they are still so much in union with us, that we daily at the bedside avail ourselves of the results of their labours, and gratefully acknowledge that they are our ministering angels, ascending and descending upon the ladder of science in the furtherance of all good practice.

Clinical medicine, however, of itself, affords opportunities for the study of pathology, which are in some respects at least unique. Through it, and through it alone, we become acquainted with the first deviations from normal function. From such early beginnings we may trace the development of pathological processes, until the organism is finally, and in different ways, overwhelmed by them. I need only suggest those chronic lesions which spring up from conditions *ab intra*. In the latter stages of these degenerative processes, we are apt, without their history, to be so impressed with the more prominent mechanical results, that these would seem to us the original and essential conditions; as, to the Nile-worshipper, the River is a power in itself.

It is well for the progress of clinical medicine that its lines of investigation are thus intimately interwoven with the more scientific departments. It saves us from the dangers of Separatism, and our colleagues from those of Pharisaism; and it quickens our observations where they might otherwise be thought insignificant. If we cannot weigh and measure the data before us, we may still advance the solution of some of the more difficult problems of our condition by critical and exact records. How much has been done in this field of late, especially in cerebral physiology, need not now be told. Every fact to the clinical physician has its value, though it may be of a different order to the phenomena of gravitation. A tone of the voice, the play of the features, the outline and carriage of the body, are to him as invariably related to the central conditions which they reveal, as are the grosser facts of nature.

The work of the next few days, so far as it is foreshadowed by the list of promised papers, will raise some important pathological questions. You will be asked to consider peripheral lesions, having their origin in nerve-centres—lesions which have for the most part been hitherto chiefly considered primarily humoral and chemical, but now referred to "trophic changes of nerve-origin".

On this point, it may be not uninteresting to notice how "solidism" is widely reasserting itself in the science of living things; not as an *à priori* system, but through the progress of knowledge. The proximate conditions of pyrexia are no longer vaguely referred to nerve, but to definite nerve-centres; hyperæmia and inflammatory changes to sympathetic lesions; abnormal chemistry to the great respiratory centres; the strange conditions of Addison's disease, with its characteristic pigment, to the suprarenal bodies, themselves probably but nerve-centres, and related, at least by structure, to the system of the pituitary gland; epilepsy, supposed in Hippocratic times to be due to extraneous maleficent spiritual influences, is traceable to apparently trifling changes in a few grey nerve-cells. The specific fever-processes notoriously owe much of their character and intensity to the nervous system. Their relation to time, their occurrence only in warm-blooded animals, the great mortality they cause through nerve-exhaustion, and the immunity they leave behind them, indicate that, whatever may be the nature or mode of operation of their several poisons, it is by implication of nerve-elements that fever obtains its chief clinical characteristics.

Further, in the advance of "solidism", what can interest us more than the recent investigations on contagia? Perhaps no more important step has been made in practical pathology than the proof that some at least of these contagia are organised solids. This discovery, which it has tried the patience, experimental skill, and scientific criticism of the best observers to establish, has brought us at length within view of that which has hitherto been so mysterious. To have been able to separate, though imperfectly, the contagious particles; to have come to the conclusion that no fever-poisons are soluble—is a hopeful preliminary towards forcing them to yield up the secret of their nature.

If "solidism", as a theory of organic processes, wanted confirmation, we could point to nothing more striking than the present established views on putrefactive changes, and to the amazing fact that the normal textures and fluids of the body resist decomposition unless invaded by microscopic organisms.

May we not hereafter find that all organic chemistry is the resultant of mechanical changes in organic solids?—all Nature, in fact, as Newton asserted, mechanical, but the Great First Cause? Of this we are admonished on all sides. Histology, physiology, pathology, clinical medicine, teach us more and more the supreme importance of *form* and *relation*.

Lesions extending from alteration of the blood-vessels will also come under consideration. Of course the more common facts relating to aneurysm and valvular disease, or such as are thrombolic or embolic, need not be discussed; but there is a contribution which raises the question how far primary, general, arterial tension may be a starting-point at least in renal pathology.

The etiology of typhoid fever will be raised at one of our meetings. This cannot but enforce a rigid criticism of the infective processes, and of the differences between the states of simple pyrexia, septicæmia, and the specific fevers.

The pathology and treatment of gout, rheumatoid arthritis, and rheumatism, to which, in one form or another, the English seem rather especially prone, will also come up for discussion. Whether they have humoral sources has of late become more and more doubtful.

Of the pathology of acute rheumatism, we may be said to know but little beyond its clinical records and its symptoms; but, unhappily, this has not always been sufficiently recognised, and too often a dangerous polypharmacy has rushed in to the cure where science has not yet advanced her foot.

The forms of renal diseases, for a long time included, with little exception, under the term "Bright's disease", will undergo a further degree of analysis. It was a happy omen of this when they moved from the singular into the plural form, "Bright's diseases"; and we may hope now for a more methodical subdivision of them, making their clinical recognition more easy, and their therapeutics more precise.

In the matter of diagnosis, we have invited contributions on the pathognomonic and diagnostic value of the localisation of disease in the brain and spinal cord, which will be an occasion for a review of our knowledge of cerebral and spinal mechanism, and for further elucidating the pathology of the different conditions of blood, blood-vessels, and connective tissue concerned in the nutrition and diseases of these great nerve-centres. Brain-texture proper seems but little liable to primary disease. As the nervous lamina takes the lead in embryonic evolution, so it would seem that its equivalents in the adult maintain a degree of resistance to morbid change throughout life.

Time fails me to speak of all that we hope to undertake. Any one paragraph of our programme would more than consume the time at our disposal. It must not, therefore, be inferred that the importance attached to any one of the subjects is in proportion to the prominence given to it in this hasty review. The treatment of disease, for instance, is a subject too large and weighty to speak of in general terms. In some minor points it will come before us, as in a paper on the advantage of high altitudes in the treatment of pulmonary phthisis.

An organisation such as our own, which it has taken countless ages to evolve, must reasonably require incalculable time for its scientific analysis; and the same may be said of the infinite and varying conditions by which it is maintained, and upon which its existence constantly and immediately depends. As best we know but a few proximate facts, yet these in judicious hands have afforded a good harvest of practical results: what better fruit we may gather when science has penetrated deeper into the laws of our being, and all that affects it, it is impossible to forecast.

In the spirit of the exhortation given by the President in his address to-day, and in the slightly altered words of Bacon, with whom I began, let me conclude by saying: "It were a heaven upon earth, to have the mind illumined by knowledge, to move in charity, and turn upon the poles of truth."

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SUBSECTION OF DISEASES OF THE THROAT.

By GEORGE JOHNSON, M.D., F.R.C.P., F.R.S.,
Professor of Clinical Medicine, and Senior Physician to King's College Hospital; President of the Subsection.

GENTLEMEN,—The first duty that I have to perform is to express my high appreciation of the honour conferred upon me in the appointment to preside over this important subsection of medicine. I have next the pleasure to offer a hearty British welcome to the many very eminent laryngologists who, from various parts of the continents of Europe and America, have done us the favour and the honour to join this Congress, and to make, as they are about to do, numerous important and highly instructive communications to this department of medicine. The history of the laryngoscope has been often written, and is well known to this learned assembly. I am sure, however, that I shall have your sympathy and your approval in giving a brief expression of our indebtedness to Signor Garcia—whom we have the pleasure to welcome amongst us here to-day—for the pre-eminent share which he has had in the invention of that instrument. While all previous attempts to inspect the living larynx had been incomplete, and barren of further results. Signor Garcia, who has the unquestionable distinction of having been the first man whose thoughtful ingenuity enabled him to see his own larynx, published the results of his autoscopic observations in the *Proceedings of the Royal Society* (vol. vii, 1855), and this publication led on, through the appreciative mind of Professor Türck, and the indefatigable zeal and exertions of the late lamented Professor Czermak, to the creation and the rapid development of the art of laryngoscopy.

It it scarcely possible to overestimate the practical importance of this simple invention. I have been long enough in practice as a physician to have had ample experience of the enormous difficulties which often attended the diagnosis, and therefore the treatment of diseases of the throat in the dark prelaryngoscopic age. And now, by contrast, the result of the new light thrown upon this region by the throat-mirror has been that within the last twenty years our knowledge of laryngeal diseases, including accuracy of diagnosis, with certain and successful treatment, has made greater progress than that of any other department of medicine or surgery during the same period of time. In making this statement, I am not unmindful of the immense advance which has been made in the diagnosis and treatment of eye-diseases since the genius of Helmholtz conferred upon mankind the inestimable gift of the ophthalmoscope.

It is not without interest to compare the practical gains with regard to both diagnosis and treatment, which have been derived respectively from the two analogous instruments—the ophthalmoscope and the laryngoscope. In regard to facility and accuracy of diagnosis, the ophthalmic surgeon and the laryngologist may be considered to have been about equally benefited by the use of their respective instruments. If we take into account the numerous remote diseases, more especially those of the nervous system, upon which the ophthalmoscope has thrown a new light, that instrument may, perhaps, be considered, in the matter of mere diagnosis, to take precedence of the laryngoscope. With regard, however, to improved methods of treatment, and in particular to the introduction of entirely new and previously impossible mechanical operations, there can, I think, be no question that the laryngoscope has done more than can fairly be claimed for the ophthalmoscope. Without doubt the exact diagnosis of eye-diseases has led to improved and more successful treatment, but the ophthalmoscope has afforded no direct aid to treatment comparable, for example, with the safe and easy removal of morbid growths and foreign bodies, which the laryngoscope has made an every-day proceeding.

Amongst the most interesting and important of the scientific and practical gains which have resulted from the use of these two instruments—and which may be claimed alike, if not equally for both—is the fact that, by the inspection respectively of the interior of the eye and of the larynx, valuable light is often thrown upon the diseases of remote but physiologically correlated organs. If, for example, the ophthalmoscopist sees in the eye a retinitis significant of renal disease, a neuritis indicating cerebral tumour, or an embolism the result of valvular disease of the heart, so in like manner the laryngologist is often led, by the observation of the paralytic or spasmodic condition of one or more laryngeal muscles, to the diagnosis of a general neurotic condition to which the term hysteria is often applied, or of a special local disease in the nervous centre, or, it may be, of a tumour, cervical or intra-thoracic, pressing on the pneumogastric nerve or its branches.

It is obvious that all clinical facts of this kind, indicating, as they do, the interdependence and the close physiological relationship between various tissues and organs, are of great scientific and practical importance. There is reason for the belief that, the more thorough and profound is the investigation of any disease or class of diseases, the more numerous and intimate will be found to be the relationship with other morbid states. The study of renal diseases affords abundant and most instructive illustrations of this proposition.

The more special, therefore, is any department of practice, the greater is the need to recur often to general principles, and to bear in mind that, so close is the solidarity of the animal organism, that there is a literal and physiological truth in the apostolic statement: "Whether one member suffer, all the members suffer with it." The ill-informed portion of the public are apt to look upon a man who has a reputation for skill in the treatment of a particular class of diseases, as of necessity unacquainted with all other diseases. We, on the other hand, maintain that, of the specialist, it should be said with truth that he is one, not who knows less of disease in general, but who knows more of the particular class of diseases to which he has devoted most time and especial attention and study.

The Hippocratic maxim "Life is short, and art is long", is as true now as it was two thousand years ago. Bearing this in mind, and knowing, as I do, how many valuable communications are in store for us, I will occupy no more of your time, but will at once call on the gentleman whose name stands first upon the list to read his promised paper.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF SURGERY.

By JOHN ERIC ERICHSEN, F.R.S.,
Consulting Surgeon to University College Hospital; President of the Section.

GENTLEMEN,—Surgery is never stationary. To be stationary while all around is in movement would be practically to retrograde. But movement does not necessarily mean advance. The general direction of the movement may undoubtedly be forwards, but the factors of that movement do not all equally tend to progress. When the history of surgery comes to be written—and this has never yet been done—it will be found that the surgery of the nineteenth century has not been uniform in its progress in all departments; that its advance has not been continuously in one line, but that its progress has been materially affected by the prevailing bias of the professional mind of the day. Anatomical at one time, physiological at another, the tendency of the surgery of the present day is influenced in one direction by the mechanical spirit of the age, and in another by the advanced pathology which is one of its chief medical characteristics. Yet the continuous advance of our art is undoubted. The gain that thus results has been definitively secured to surgery and to mankind. It can never be lost. Every conquest that has been made has been permanent. Year after year some new position has been won, often, it is true, after a hot conflict of opinion; but once occupied it has never been abandoned. Thus our standpoint has ever been pushed on in advance. For knowledge in science is cumulative, and skill in art is a tradition that is hereditarily transmitted from master to pupil, if not by the individual, yet by the profession to which he belongs, from which he has acquired, and to which he bequeaths it, augmented and perfected by his own labours. With the knowledge of our predecessors we are familiar; to its stores each generation has added. What they have done has been transmitted to us, and we can readily accomplish. In what we can do, we may be sure our successors will not fail.

It is well that, from time to time, this advance should be measured, this gain weighed. The business of this Section is not only to measure the extent of the advance, but to determine the value of the gain; and

to do this, not so much by the novelty of the practice, or by the brilliancy of its exposition, as by an estimate of its intrinsic merit, as shown by its proved utility. Our business here has to do with practical considerations having reference to the recent advances in, or the future lines to be followed by, modern surgery.

The executive of this Section has proposed eight subjects for the consideration of its members. It is hoped that these will be found to include the more important surgical questions that are at present most prominently before the profession. The short time at our disposal, which will scarcely enable us to do full justice even to these subjects, has prevented the possibility of our bringing forward other and perhaps equally interesting questions; but some of these will be found to have received consideration in the papers which will be read, either *in extenso* or in abstract, as time may allow.

I will now briefly refer to the more important subjects that have been set down for our consideration.

1. In no department of surgery has a more marked or a more brilliant advance been made of late years than in that which concerns the operative treatment of intraperitoneal tumours. The establishment of ovariotomy as a recognised surgical operation has now long been a matter of history; but the perfection of safety to which it has of late years been carried, by the improvement of its details, has led the way to a vast and rapid extension of operative surgery for the cure or relief of various diseased abdominal organs. The uterus and the spleen, the stomach, the pylorus and the colon, have each and all been subjected to the scalpel of the surgeon; with what success has yet to be determined; and it is for you to decide whether some, at least, of these operations constitute real and solid advances in our art, or whether they are rather to be regarded as bold and skilful experiments on the endurance and reparative power of the human frame—whether, in fact, they are surgical triumphs or operative audacities. There must, indeed, be a limit to the progress of operative surgery in this direction. Are we at present in a position to define it? There cannot always be new fields for conquest by the knife; there must be portions of the human frame that will ever remain sacred from its intrusion, at least, in the hands of the surgeon. May there not be some reason to fear lest the very perfection to which ovariotomy has been carried may lead to an over-sanguine expectation of the value and the safety of the abdominal section, and exploration when applied to the diagnosis or cure of diseases of other and very dissimilar organs, in which but little of ultimate advantage, and certainly much of immediate peril, may be expected from operative interference?

2. In the discussion of the next great question, I would submit that we may with advantage direct our attention less to the mere mechanical—the simple operative part of the business, the details of which are now well understood—than to the consideration of those higher questions as to the diagnosis and nature of the various forms of renal disease, in which nephrotomy and nephrectomy may be respectively used, with a reasonable hope of relief or cure. And in considering the prospects afforded by these operations in the improvement of the health and the mitigation of the sufferings of the patient, it is surely not the least interesting point for us to study the after-physiological effects produced on the system by the extirpation of so important an eliminatory organ as the kidney.

3. We naturally pass from the consideration of operations on the kidney to that of those which implicate the bladder; and in doing so, we have specially to direct our attention to the question as to what advances have of late been made in lithotomy and lithotrity.

In lithotomy we see much of change, possibly something of novelty, but not so certainly anything of real progress. Have we, indeed, advanced one single step, either in the perfection or in the results of that operation since the days of Cheselden, of Martineau, or of Crosse, not to mention the names of more recent, but equally illustrious, surgeons and successful operators? The revived median, the combination of it with lithotrity, the suprapubic, whether done antiseptically or not, have certainly not been very encouraging in their results, and can scarcely claim to be considered in the light of an advance on the old lateral operation in skilful hands. But yet we must admit that these methods of lithotomy may deserve this consideration: that possibly, in some forms of calculus, and in certain conditions of the urinary organs, a wise eclecticism may be exercised in the choice of one or other of them. In lithotrity, however, it is probable that a great and real advance has been made, and certainly it is undoubted that a complete revolution has been effected by the enterprise and skill of one of our American brethren; for it cannot be questioned that "Bigelow's operation" has completely changed the aspect of lithotrity, and there is every reason to believe that it constitutes one of those real advances in a method which marks an epoch, not only in the history of the operation itself, but in the treatment of the disease to which it is applicable.

But here a fertile field opens up for our deliberation. We have to consider, not only in what cases as regards the mere size of calculus "Bigelow's operation" may safely be used, but also, and far more important than this, the ultimate result both upon the bladder and the kidney of prolonged intravesical instrumentation. The mere question as to the comparative advantages of removal of stone by one or by several sittings, is dwarfed by the more important one of determining the state of the bladder that results, not perhaps so much as concerns the life as the future comfort of the patient. It is here that information is much needed; and it is here that, unfortunately, but for very obvious reasons, the lithotritist himself may in many cases be unable to furnish it.

4. Prehistoric man was doubtless a victim of injury before he became the sufferer from disease, and the treatment of wounds constituted probably the first effort of the healing art. From the earliest dawn of human intelligence, the attempt to cure a wound must have suggested itself to man; and yet, at the close of the nineteenth century, we are still discussing the best methods of doing this, and the causes of their failure. There is still difference of opinion and of practice amongst surgeons, not only as to the comparative advantages of the "open air" method, and that in which all atmospheric contact is carefully guarded against; of the "dry" and of the "moist" system of dressing; as to whether the "antiseptic method" in a modified form suffices, or whether the more elaborate system of local treatment before, during, and after an operation, which has been devised by the skill and worked out by the unwearied labour of Lister, be essential in all cases of operation wound. Not, of course, for its primary union—for this may be obtained by any and every of the methods mentioned. If it be contended that this system is necessary for the safety of the patient, and the due healing of the wound in some cases, has it been proved to be equally essential in traumatic lesions of all tissues, of all organs, and of all regions? These are questions that may well deserve the consideration of this Section. But there are others of a yet wider character that must also engage our attention in any discussion on the best methods of securing primary union in wounds, for it is impossible to fail to recognise in the general constitutional state of the patient, a most important factor in this direction; and we should be taking a narrow view of this many-sided question if we did not give due weight to the influence of those hygienic conditions which, if faulty, are inimical, or even destructive to, the due performance of those actions which are necessary for the maintenance of the organism in a healthy state, and for the proper nutrition and consequent repair of the tissues of the body. Is there no fear that, in some of the modern systems of treating wounds, we are in danger of expending all our precautions in the prevention of the local, and of ignoring the risk of a constitutional, infection?

5. The treatment of aneurysm is one of those great questions which, from an early period in the history of modern surgery, has occupied the attention of practitioners, and has undergone no little fluctuation. A few years ago, the battle between the ligature and compression appeared to have been decided in favour of the latter; but the invention of improved ligatures, made of various kinds of animal tissue, and applied with antiseptic precautions, has once more inclined the balance of professional opinion towards the Hunterian operation. But now again the practice of compression has received renewed strength from the employment of Esmarch's elastic bandage in the cure of certain forms of external aneurysm; and it is for you to determine in what cases it can be used with advantage, and in what way a cure is effected by its means. For, in the treatment of aneurysms, as in that of so many other surgical diseases, the wiser and more scientific course is to follow a judicious system of selection in the method to be employed in each particular case, rather than to subject all to one unbending line of practice.

6. The treatment by resection of some forms of chronic and otherwise incurable joint-diseases, has in certain articulations, and at suitable ages, met with the universal approbation of surgeons, and the wide extension of the principles of "conservative surgery" is one of the most striking evidences of advance in our art in modern times. Resection has, however, of late years come to be extensively applied to the treatment of cases of articular disease which formerly were subjected to procedures of a less heroic character; and it will be for the members of this Section to weigh carefully the wisdom of such a measure, and to contrast its results, both as regards life of patient and after-utility of limb, with those which may be obtained from the employment of milder means, such as absolute immobility with extension, and possibly, in some cases, simple incision of the articulation.

7. In considering the relations between adenoma, sarcoma, and carcinoma, in the mammary gland of the female, I would venture to submit that this subject has to be discussed here from its clinical rather than from its pathological side. We have here less to do with the ultimate

structure of the tumours, with their histological affinities, with the parts that are played by epiblasts and mesoblasts, with what epithelium or connective-tissue cells can or cannot do, than with their clinical history, their differential diagnosis in their earlier stages, the best time for their removal by operation, the liability to recurrence after operation, and the possibility in recurrence of the substitution of one form of disease for another. With these, and such questions as these, we, as clinical surgeons, may advantageously occupy ourselves.

8. The last subject set down for discussion is one that has practical bearings of an importance that cannot be overestimated. There are few questions of the present day of deeper surgical or social interest than the far-reaching, the apparently illimitable, and most pernicious, extension of a syphilitic contamination of organs and of tissues; of the modifications impressed by it on other diseases that are the local developments of diatheses, whether strumous, tubercular, rheumatic, or gouty. Does the diathesis exercise any influence upon the form assumed by the syphilitic disease, and to what extent does it modify the characters presented by it in its primary and its secondary affections, more especially when the latter manifest themselves upon the skin or in the bones? How far are gummata and caries, psoriasis, and rupia, the consequences of a constitutional impress, influencing the direction of the syphilitic poison? To what extent may rickets and grey granulations be the ultimate products of the syphilitic taint? These and various other questions will probably occupy the attention of those who enter on the discussion of this wide-spreading subject.

We hope to be able to take the discussion of two questions on each day, so as to work through the eight in the time allotted to us. In addition to these, there are various detached papers on subjects which are of much interest, but which scarcely admit of being classified under one or other of the above heads of discussion. These we shall take up as time and opportunity admit, but their number is so great that it is to be feared that full justice can scarcely be done to all, and that it will be unavoidable, on account of the limited time at our disposal, that a large number be read in abstract.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OBSTETRIC MEDICINE.

By ALFRED H. M'CLINTOCK, M.D., LL.D.,
President of the Section.

In opening the Obstetric Section of this seventh International Medical Congress, the first and most gratifying duty that devolves upon your President is to offer an earnest and hearty welcome to those obstetric members who have come from other nationalities, and from distant British colonies, to take part in this, the largest convention of medical men that has ever, perhaps, assembled together at any one time or place. I present this cordial salutation, not only on the part of the officers and Council of the particular Section over which I have the honour to preside, but also on the part of the obstetricians and gynæcologists of England, Scotland, and Ireland.

We are proud and happy to meet here on British ground so many of our brethren from various parts of the civilised world, but especially rom Germany, France, and America, and to accord them a friendly greeting, not only out of respect to their individual merits and high reputation, but as representing those great obstetric schools over which the names of Mauriceau, Leveret, Baudelocque, and Dubois, of Roederer, Siebold, Nagelé, Kiwisch, and Scanzoni, and of Bard, Dewees, Meigs, and Hodge, have severally shed such imperishable lustre.

Not the least of the important objects contemplated in this Congress is the interchange of friendly feelings among its members. I am fully persuaded that our reunions will be attended not alone with benefit to us all by the attrition of mind with mind, but that new friendships will be formed and old friendships confirmed, and that sentiments of mutual respect and regard will be developed, so as to strengthen the bond of brotherhood which should unite us as fellow-workers in the same department of medicine.

Allow me, before going further, to express my deep sense of the unexpected, unmerited dignity which the Congress has conferred by putting me into the position of President of this important Section; I feel it to be the highest and most flattering honour of my long professional life. Such a compliment more than repays one for forty years of labour and devotion; for it sets the seal of approval by contemporaries on my past life, and leaves nothing further or higher to aspire to in the way of professional distinction. At the same time, gentlemen, this feeling of just pride and exaltation is mingled with a very poignant sense of incapacity; and I might well shrink from the responsibility of the post, but that, in the discharge of its duties, I shall have the aid and co-operation of such accomplished men as those who constitute the Vice-Presidents and Council of the Section; they in truth are the giants on whose shoulders I am raised to the exalted position it is my good fortune to occupy in this Congress.

Inasmuch as this is the first occasion of the International Medical Congress meeting in London, it may not be inappropriate if I pass in review some of the more prominent among the many eminent obstetricians who lived and practised in this city, who, by their writings, teaching, and discoveries, have contributed in no small measure to the development of midwifery and gynæcology, as well as to the medico-chirurgical fame of London. I must, however, study brevity, being desirous, if possible, to keep within the fifteen minutes allowed for the readings of communications, so as to set an example of obedience to the rules of the Congress.

In this retrospective glance, I find only one name standing out in the sixteenth century—Thomas Raynald, the translator of Eucarius Rhodion's celebrated treatise *De partu Hominis*. The original English edition by Raynald appeared about 1540, and was the first distinct treatise on midwifery in the English language, and for over one hundred years was the sole guide and text-book of obstetric practitioners, male and female.

In the early part of the seventeenth century, the immortal William Harvey (*tanto nomini nullum par eulogium*) stands forth conspicuous, the splendour of his fame increasing as years roll on. He spent most of his time here, being physician to the King; and he delivered courses of lectures at the Royal College of Physicians on anatomy and surgery. As a practitioner, we know from the testimony of his contemporaries that Harvey excelled in midwifery and in the treatment of female diseases. Before the publication of his celebrated exercitations on generation, parturition, conception, etc., there were, according to Dr. Aveling, "but three works on midwifery in our language; these were translations from Rhodion, Rueff, and Guillemeau. His was the first book on midwifery written by an Englishman, printed in our own language; and the influence which it had upon the practice of the time would with difficulty now be estimated. His claim, therefore, to eminence in our department of medicine is beyond question." With this conviction on our minds, we shall the more heartily yield our applause when his magnificent memorial statue is unveiled at Folkestone, the place of his nativity, on Saturday next—a ceremony, I may remark, which has with good taste and judgment been purposely so arranged that this great Medical Congress may take a part in showing honour and respect to the memory of one of the greatest discoverers in the science of medicine, and consequently one of the greatest benefactors to the human race.

Contemporary with Harvey was another remarkable man—Peter Chamberlen—the inventor of the midwifery forceps, indisputably the most valuable instrument of the whole *armamentarium chirurgicum*. Unfortunately for him, however, the brilliancy of his reputation is obscured by the unworthy, selfish conduct which caused him to keep the instrument a secret for the aggrandisement of himself and family. He was father of Dr. Hugh Chamberlen, the translator into English of Mauriceau's works. There is a handsome monument to the memory of this Dr. Hugh Chamberlen in Westminster Abbey, erected by his patron and friend the Duke of Buckingham. No fewer than five generations of the Chamberlen family were eminent in the medical profession here; and Dr. Peter, who attained a great age, had been physician to five English sovereigns.

Towards the close of this (seventeenth) century, Richard Wiseman, "Serjeant Chirurgeon" to Charles I, published his treatise on surgery, in which he gives an excellent description of pelvic abscesses consequent on parturition. He thus anticipated Puzos' essay on the same disease, and put forward much more rational and correct views as to its pathology.

The eighteenth century was destined to see a marvellous development of midwifery, as well as of many other arts and sciences. As might therefore, be expected, London can boast of several eminent obstetricians at this period.

In chronological order, the first to be mentioned is Dr. John Arbuthnot, F.R.S. and F.R.C.P., Physician to Queen Anne. Although he has left no enduring evidence of obstetric superiority, yet he was an eminent accoucheur in his day, and reflected infinite credit on our order by his rare literary talents, his deep scholarship, and his exalted social position. He was skilled in everything that related to science, and held a prominent place among the ablest writers and wits of that Augustan age; one of whom (Swift or Pope) alludes in his poetry to

"Arbuthnot's soft obstetric hand."

A man who was considered a friend and an equal by Parnell, Gay, Bolingbroke, Swift, and Pope, could not fail to adorn any pursuit to which he devoted his vast intellectual powers. Speaking of him, Swift said, "He has more wit than we all, and his humanity is equal to his wit". A higher tribute could not have been paid him.

The next to be mentioned is Dr. John Maubray, not on account of any peculiar merit in either of his works—*The Female Physitian*, and *Midwifery brought to Perfection*—but because he is reputed to have been the first public teacher of midwifery in this country. He lectured, Dr. Denman tells us, at his house in Bond Street, so far back as the year 1724.

Nearly cotemporary with Maubray was Dr. Edmund Chapman. He was the second public teacher of midwifery in this city, and is entitled to our lasting gratitude for having been the first to publish to the world a description of that "noble instrument" (to use his own phrase), the obstetric forceps, the secret of which the Chamberlens kept to themselves for over fifty years. This he did in the *Edinburgh Medical Essays*, and subsequently in his treatise *On the Improvement of Midwifery chiefly with regard to the Operation;* the operation meaning the application of the forceps. The first edition of this book came out in 1733.

About this same period also lived Sir Richard Manningham, F.R.S., a man of considerable learning, and of great reputation as a successful midwifery practitioner. He was author of some obstetric works of temporary consequence; and his claim to remembrance arises from the circumstance that in the year 1739 he opened a ward in the Parochial Infirmary of St. James's, Westminster, exclusively for the reception of parturient women, which was the first thing of the kind in Great Britain. Shortly afterwards the idea was taken up and enlarged upon elsewhere; and the great Lying-in Hospital of Dublin was founded by Dr. Bartholomew Mosse, being the first hospital of the kind in the British dominions.

The very same year that Sir Richard Manningham opened his obstetric ward in St. James's Infirmary, as we have just seen, a surgeon from a small country town in Scotland established himself here in London as an accoucheur, who ultimately effected the greatest reformation that had yet taken place in the principles and practice of obstetrics. This man was William Smellie, a name always to be respected wherever midwifery is cultivated as a science. For twenty years Smellie practised and taught here, and published the first volume of his celebrated treatise in 1751, and his splendid anatomical plates in 1754. Amongst his pupils who later on became eminent in the same branch of medicine, were William Hunter, Denman, David McBride (of Dublin), John George Roederer (subsequently Professor of Midwifery at Göttingen), Dr. James Lloyd (of Boston, U.S.), and Dr. William Shippen (afterwards Professor of Midwifery in the Pennsylvanian University); these last being, according to Professor Parvin, "the two first American obstetric practitioners". Most gladly would I linger over the life and works of this great man, but I must content myself with a few sentences. Smellie possessed a wonderful capacity for work, and a clear judgment; but, beyond and above this, he was endowed with a singularly accurate perception of facts, which made him a correct as well as a close observer of nature. Herein lay the secret of his unrivalled success as a reformer and improver of midwifery. He himself felt this to be so; for, in reviewing his practice, he says, "I diligently attended to the course and operations of nature which occurred in my practice, regulating and improving myself by that infallible standard". (Case 186, Sydenham Society Edition.) Truly he was, in the words of Dr. Hugh Miller, a "noble character and an example of earnest living".

A couple of years after Smellie settled in London, there came to live with him a young man from the Scottish county—Lanarkshire—of which Smellie himself was a native. This young man was no less a person than William Hunter—a name familiar to you all—whose plates and descriptions of the human gravid uterus have gained their author a foremost rank among obstetric writers. By his great reputation as a lecturer and as an anatomist, aided, no doubt, by his prepossessing appearance, polished manners, and cultivated mind, Hunter proved a successful competitor of Smellie's in practice. Like him, he also gave special courses of lectures on midwifery, notes of which are to be found in many libraries. Dr. Matthews Duncan tells us the College of Physicians possesses two pretty complete volumes of such notes.

In 1748, Hunter was appointed Surgeon and Man-midwife to Middlesex Hospital, and soon afterwards to the British Lying-in Hospital; for, though the physicians claim him as belonging to themselves, yet it cannot be disputed that Hunter was a surgeon and member of the Corporation of Surgeons of this city. Besides being a rival, he was in some respects a contrast to Smellie. The school of obstetrics founded by the latter was not inaptly described by the late Tyler Smith as the mechanical school, from the importance it attached to the resources of art in aiding parturition. Hunter, on the other hand, placed extraordinary reliance on the powers of nature, and trusted too much to tincture of time. Hence his followers have been designated the physiological school; and, through the influence of his commanding authority, they formed a large section of the profession, and could boast some great names. Although we may regard Hunter as one of ourselves, and appropriate much of the glory with which his name is invested, "yet it is necessary," as Dr. Duncan observes, "with a view to justice, to point out that his obstetrical fame is chiefly anatomical, and that his greatest claim on our admiration and gratitude arises from his anatomical work and influence" (*Harveian Address*, 1876).

It is a just boast of the English school of midwifery that what, in the truest and strictest sense, is "the most conservative of all the resources of our art", was first formally admitted a place among obstetric operations in this city, and about the year 1756. The recognition by the profession of the artificial induction of premature labour was the outcome of a medical conference held at the time and place just mentioned. Who was the first or most strenuous advocate of the operation at that conference, does not appear; but we do know that the first to put it in practice was Dr. Macaulay, a midwifery practitioner of this city. It is natural and just, therefore, to identify his name with this most beneficent measure, and to accord him a prominent place among the many distinguished accoucheurs who lived and practised here.

One of the greatest ornaments of that physiological school of accoucheurs—founded, we may say, by William Hunter—was Thomas Denman, a man of remarkably sound judgment, great prudence, and of the highest moral integrity. Throughout half a century he lectured and practised in this city. His work, entitled *An Introduction to the Practice of Midwifery*, is well known to most of you. It has many peculiar excellencies; but to my mind the chief is his classification of labour, which is at once comprehensive, pathological, and practical, and thereby serves the highest purposes of any system of classification.

Did time permit, I could multiply these brief sketches so as to include many other London obstetricians who lived since the commencement of the present century, of less note, it is true, but yet men who stood far above mediocrity, and who, by their writings, their teaching, and their practice, materially aided the advancement of midwifery and gynæcology. I must content myself, however, with a mere recital of their honoured names; viz., John Clarke, Osborne, Leake Bland, Merriman, Charles Clarke, Gooch, David Davis, Blundel, John Ramsbotham, Marshall Hall, Robert Lee, Robert Ferguson, Rigby, junior, Francis Ramsbotham, Granville, Ashwell, Lever, Locock, Waller, Murphy, Tyler Smith, Oldham. These men all lived so near our own times (at least those of us who, like myself, have reached the grand climacteric), that the bare mention of their names at once recalls the titles and the nature of their respective contributions to the funded capital of our professional knowledge.

Of the living obstetric celebrities who make this city the scene of their work and their influence, I purposely refrain from speaking:

> "My thoughts are with the dead; with them
> I live in long-past years:
> Their virtues love, their faults condemn,
> Partake their hopes and fears;
> And from their lips draw forth the unlearned truth,
> Instruct my life with all but prophet's skill."—Sydney.

But to a more worthy occupant of this chair at some future meeting of the Congress, after we have played our little parts in life's drama, I bequeath the grateful, pleasing task of supplementing the above list with the names of those eminent London obstetricians and gynæcologists whom to meet and to know is assuredly the most gratifying of the many privileges connected with this great international gathering.

TEIGNMOUTH. For this rising health-resort, Dr. Lake reports, in 1880, a birth-rate of 25.9, and a death-rate of 15.7, per 1,000. The zymotic death-rate was 2.6 per 1,000, whooping-cough being epidemic during the first quarter of the year, and measles, of a mild type, being prevalent during the autumn months. A few cases of scarlet fever occurred, but in no case was Dr. Lake able to trace the source with any satisfaction. During the year, five cases (two imported) of enteric fever occurred, the disease due, in two instances, to sewer-emanations. The water-supply was found somewhat impure during the summer months, and it seems to need extension. The sewerage, moreover, is insufficient and ill-ventilated. An improvement is noted in the scavenging of the town. An ambulance has been provided for the conveyance of persons suffering from infectious disease; but the question of the provision of a hospital, which alone could make the ambulance useful, is still "under consideration".

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF DISEASES OF CHILDREN.

By CHARLES WEST, M.D., F.R.C.P., President of the Section.

GENTLEMEN,—My first duty on taking this chair is a most pleasant one. It is to express my deep sense of the honour done me by my countrymen when they selected me as not unworthy to represent that department of medicine in England which we all assembled here more especially cultivate. The honour, too, was enhanced by the fact that at the time when it was conferred I was on the point of leaving London in search of what I am thankful to say I found—perfect health in a land of constant sunshine. That I have found there, too, a second home, I owe it to the kindness of you, my French friends, who received me so cordially and treated me so graciously. You did not regard me as a stranger, but as a fellow-member of that great "Société Internationale" which has for its object, not the upsetting of thrones, nor the changing of Governments in quest of some grand social regeneration, to be accomplished in a few days by violence and bloodshed, but the improvement of mankind by gentle means. The one, like the thunderstorm and the torrent, does but lay waste; the other is like the silent dew, which falls unseen and fertilises the land. But while I thank you most heartily for all your goodness to me in what I may now call my adopted country, you will, I am sure, find it but natural that I rejoice in returning once more to my native land; in seeing again the old familiar faces; and revisiting the spots where I studied as a youth or where I laboured as a grown man.

"Cœlum, non animam, mutant,
Qui trans mare currunt."

And my French sympathies are not one jot lessened because I still feel myself altogether an Englishman.

With these words, gentlemen, I should have wished to stop, and to have invited you to pass at once to the business for which we are met. Some three weeks ago, however, I learned to my dismay that the Executive Committee desired that the President of each Section should open its meetings by a short address bearing on its special objects. Far away from my books, moving each day from place to place, I felt my utter inability to do anything worthy of the occasion. Moreover, there came to my recollection an anecdote which did not help to cheer me. Dr. Johnson and his friend Boswell dined one day with a gentleman by special invitation. The next day Dr. Johnson complained to his friend of the meagreness of the entertainment, "Well, sir," said Boswell, "but it was a good dinner." "Yes," replied Johnson, "a good enough dinner, but it was not a dinner to ask a man to." And so, how scanty and commonplace what I say is, pray, remember, gentlemen, the entertainment is not one which, had I been left to myself, I should have thought good enough to ask you to.

One accusation which I have heard brought against a meeting like the present is, that it is apt to resolve itself into a mutual admiration society, each member praising what the other has done, all joining to extol what their own generation has accomplished: and that the gratification of personal vanities, not the promotion of science, is the chief outcome of the whole. But just as travellers on a long journey halt from time to time, and, looking back on the road they have traversed, take courage to go further, so may we, with no feeling of undue self-gratulation, rejoice over what has been accomplished, even in our own day, as an earnest and as a pledge of further progress, an inducement to more unwearied effort. Thirty years ago, throughout the whole of England and America, there was not a single hospital set apart for children. It was but rarely that one saw these little waifs and strays in the wards of our general hospitals, for the maxim "De minimis non curat lex," held good in medicine as in law. Germany, too, was in but little better case, and one was forced to go to Paris to study on a large scale those diseases which men like Guersent, and Blache, and Baron, and Trousseau and Roger, investigated with untiring zeal, and, in spite of the hospital arrangements most painfully defective, strove to cure. We all knew how this is altered now. In London there are six separate children's hospitals, each, I believe, with its convalescent branch; and children's wards are to be found in every one of the large London hospitals. There are special children's hospitals in every large town in England; America and Germany have followed the same example; and everywhere throughout Europe the opportunities for the study of children's diseases are almost as numerous as for those of the adult. Nor has this wide field been without abundant husbandmen to till it, and we may count with satisfaction the fruit of their labours. The vague phraseology which served for years to conceal our ignorance, even from ourselves, has been to a great degree done away with. We talk no longer of worm fever, remittent fever, gastric fever, and so on, for under these various names we recognise the one disease, typhoid fever, varying in severity, but marked always by its own characteristic symptoms. Half a page in a handbook was all that was to be found thirty years ago concerning heart-disease in childhood, while at the present time the frequency of heart-disease has been fully recognised, and it has been studied with as much care in the child as in the adult. The various inflammations of the respiratory organs are no longer looked on as a whole, but each is referred to its proper class, and we distinguish lobar and lobular pneumonia, bronchitis and capillary bronchitis, and assign to each its proper place and its characteristic symptoms. Nor have our therapeutics lagged behind. I remember the hesitation with which, some forty years ago, my dear friend and master, the late Dr Latham, decided on tapping the chest of a boy eight years of age, who was received into St. Bartholomew's Hospital on account of a pleurisy which had terminated in empyema; and the delight—the wonderment, almost—with which we regarded the successful issue of the operation in a child so young. A few months ago I communicated to the Medical Society of Nice the particulars of fifty cases in my own practice, where paracentesis of the chest had been performed at my desire, and several of you gentlemen could relate as many cases or more. That once almost unrecognised disease, diphtheria, has been studied with the greatest care; its relation to membranous croup has been investigated; the close connection of the two has been demonstrated. I for my part should not hesitate to say their absolute identity has been established. Much light has been thrown on various diseases of the nervous system. That once enigmatical affection, the so-called essential paralysis of infancy and childhood, has been shown (in the first instance by the researches of my friend M. H. Noger, and his able coadjutor M. Damaschino) to be due to an acute imflammatory softening of the grey matter of the anterior columns of the spinal cord; and twenty-five recorded observations since that time attest the truth of their discovery. Though, strictly speaking, perhaps not a disease of the nervous system, the pseudo-hypertrophic muscular paralysis of Duchenne claims mention here as a new and important addition to our knowledge of the pathology of early life.

I fear to weary you by further enumeration, else it would not be difficult to increase largely the instances of new and most important knowledge added to our stores since my student-days. In estimating the value of these gains, too, it must not be forgotten that each truth established means an error exploded; so much base metal, so much counterfeit coin withdrawn from circulation; or, to put it differently, so much sterling gold substituted for inconvertible paper money. In this process surgery has, as everywhere, borne a large part. The treatment of hip-disease, the excision of scrofulous joints, the new modes of treatment of spinal curvature—some, indeed, still on their trial,—the operation for the cure of genu valgum, which one cannot mention without a fresh tribute of thanks to Joseph Lister, who in this instance has rendered a proceeding safe and salutary, from which, but a few years since, the common sense of the surgeon would have recoiled, are so many fresh instances of progress made during a period of little more than the half of my professional life. I take it, however, that the great use of meetings such as the present is to take stock far less of what we know than of what we do not know, or know at best but imperfectly. A few of these problems have been submitted to you in the list of subjects for discussion. To some it is probable that the combined experience of so many, and such distinguished men as are here present, may furnish definite and conclusive answers. Other questions are introduced in the hope of gaining fresh information on points concerning which our knowledge is fragmentary; while there are many other problems still unsolved, on which it is hoped that fresh light will be thrown during the time of our meeting here.

And now, with your permission, I will conclude with an old apologue, which tells how, when the fabled Arabian bird renewed each hundred years its vigour and eternal youth, the birds of the air all helped to build its nest. The eagle and the wren contributed alike to this labour of love and duty; each brought what he could, nor ceased till the task was done. And surely science and art, especially our science and art, are old and new, renewing day by day, and burning by a voluntary self-cremation old theories, half facts, hasty conclusions, and substituting more accurate observations, truer inferences, more solid judgments. To this great end we may all do something; but, labour as we

may, our task will never be finished, for not once in a hundred years, as the fable runs, but every day and all day long the process goes on—a daily death, a daily renewal, as in our bodies' growth, a death of error, a development of truth.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE DERMATOLOGICAL SECTION.

By ERASMUS WILSON, F.R.S.,
President of the Royal College of Surgeons; President of the Section.

My Brethren,—The Council of the Dermatological Section of this great Medical Congress, offers you a hearty welcome. We assemble to-day as a part of a great International body, for intercommunion of friendship, of information and of thought; and just as the Congress, taken as a whole, has for its main purpose to diminish pain and suffering, and to promote the health of the people, so we, in our department have met to co-operate with a similar intention. The important object now stated, we hope to arrive at, partly by means of the new ideas, which you, our foreign brethren, are about to sow amongst us, and partly by a judicial re-investigation and exposition of the principles which we, at present, adopt for the diagnosis and treatment of cutaneous disease.

The bias of the British medical mind is strongly in favour of those studies which lead directly to the cure of disease; and whilst we recognise fully the advantages and necessity of pathological research in every variety, the conclusion which we seek most ardently to attain, is—the means of restoring our patients most certainly and most readily to a state of health.

As a groundwork of our operations, in this respect, we aim at the regulation of the general functions of the economy—of those all important forces, the functions of digestion, of assimilation, and of nutrition: for experience daily proves to us, that when such regularity is obtained, many of the diseases which we are called upon to treat, yield to the ordinary processes of nature, and return to a state of health without further delay. And this we regard as the true significance of constitutional treatment; by means of which every known disease of the skin may be ameliorated, and in most instances cured. But, whilst we thus place constitutional medicine on a pedestal, as deserving the highest consideration of the practitioner, we by no means disregard the value of topical medicine. We have to contend with local lesions, and with local pain; and for the relief of these we seek for remedies which shall be, at once, the most convenient and the most effectual. In one case, a purge will relieve the patient; but the addition of a soothing local application will be requisite for his cure. In another case, a local application alone will accomplish a great deal, but the addition of a constitutional remedy will assist and facilitate the cure. But, before we can answer the question: What is the best constitutional, and what is the best local remedy? we must have made up our minds as to the *cause* of the disease, and as to the precise *method*, by which we shall attempt the removal of that cause. Our treatment must not be haphazard or simply routine, but must be directed according to a fixed intention. Under such circumstances, the treatment of the disease itself is of comparatively secondary importance. Let us remove the cause and the disease will be cured spontaneously. Our patient may be a sufferer from eczema: but, our patient at the same time, is a victim to dyspepsia. In such a case it becomes our duty to effect the treatment of the dyspepsia first, and the chances are, that when the dyspepsia is alleviated, the eczema will be well nigh cured.

In another case, the eczema may be associated with more or less irritability of the nervous system, without any leading dyspeptic symptoms; and in this instance our remedies should be directed towards the soothing and quieting of the nerve centres and nerves; and, both constitutional and local treatment should be invested with a sedative character. If there were any suspicion of impurity of blood in the first instance, there can be none in the second; the first may be regarded as, in some sort, a blood-disease; the second as a nerve-disease. But, in both, the local treatment would be essentially the same, the difference between them being a difference, not of disease but of cause.

Now, what we should endeavour to establish in these cases is not only a principle of treatment, but also the material of treatment. In the neurotic case, arsenic will be found a most useful, and probably an essential remedy; in the other or assimilative case, arsenic would be utterly worthless.

If all cutaneous diseases depended on the presence of a poison in the blood, as in the instance of syphilis, the elimination of the poison would be the aim of our treatment in every case, and the results would be as satisfactory as we know them to be in syphilitic affections. But in other cutaneous diseases it becomes necessary to settle in our minds whether we have to deal with a disease taking its origin in disturbance of the digestive functions, or whether it be neurotic to a greater or less degree; whilst it must likewise be admitted that in certain cases, particularly those of long duration, both causes are apt to prevail.

For therapeutical purposes all diseases of the skin might be assembled, if we except syphilis and diseases proceeding from local causes, under three heads, namely: diseases depending on disorder of digestion and assimilation; diseases depending on disorder of innervation; and diseases of nutrition. As an example of the first kind we might take eczema, with its multitudinous manifestations. As an example of the second we should have prurítus and prurigo; and as examples of the third, papilloma and fibrosis. But we cannot fail to recognise the fact that, practically, there is a greater or less blending of the whole. The prutitus of eczema belongs to disordered innervation: and, aberration of nutrition may be accompanied with symptoms which appertain to both the others. Thus, in the lepra of Willan, the psoriasis of modern schools, we have a disease which is due to altered nutrition of the skin from defective organisation of that structure. But as the nerve-power or life-power of the skin is insufficient to restrain abnormal function, so—capillary congestion constitutes a part of the disease; and, the hypertrophous growth of papillæ and excessive production of morbid epidermis must be regarded as a passive nutritive change or passive growth. In ichthyosis, with a starved condition of the skin as far as nutrition is concerned, we have an excessive papillary growth, an excessive accumulation in the shape of altered epidermis. But still more interesting illustrations of abnormal nutrition are evinced by excess or defect of pigment; by the substitution of a lowly for a more highly organised tissue, as in fibrosis, and by the exuberant proliferation of cell-tissue of low organisation which is met with in the instances of tines, of favus, and of epithelioma.

If I were called upon to summarise the diseases of the skin such as they exist most commonly in this country: I should begin with eczema, as occurring at all ages and in every condition of life; tinea might follow next as a disorder of childhood; then the acne of youth; and next, the so-called acne rosacea of the adult, which latter is actually a form of eczema. The lepra of Willan is not very common; neither is scrofula in its cutaneous forms. Looking to the cause of these diseases, we find, mal-assimilation and nerve-irritability; aberration of nutrition and defective nutrition. And, therapeutically, our most reliable remedies are—mild purgatives with tonics in the diseases of dyspeptic origin; nutritive tonics; and especially, arsenic as a nutritive tonic, and in that sense a direct nerve-tonic.

What I have now said is intented to open up to the minds of my hearers a picture of the broad field in which we all mutually labour; to point out that many portions of that field admit of independent exploration; and to show that starting from the line of our existing knowledge there yet remains very much to investigate:—singly, for the perfection of the parts; and collectively for the perfection of the whole. This is the field of Dermatological culture and research; and with this brief introduction I now call you to the work of our section.

Once more, Brethren, we bid you welcome as friends and fellow-workers.

Calcutta.—Dr. Macleod's report for the first quarter of the present year shows an unusually low temperature, and a high barometric pressure. The mortality from fever shows a marked decline; but the deaths from cholera, although below the mean, were higher than in either of the two preceding years. Diarrhœa and dysentery exhibited a slight excess over the decennial mean, but the quarterly total was considerably below that of 1876, 1878, and 1879. Small-pox was fatal in 74 cases only. A decided improvement is shown in vaccination; and, notwithstanding the difficulties caused by the general prevalence of measles, 4,321 operations were performed during the quarter. A considerable and increasing attendance at the vaccination-stations shows that the value of vaccination is being gradually recognised amongst the natives; but still better results may be looked for when the new law arrangements have come into [illegible] working order. A considerable improvement, too, is noted in the registration of births, the number registered having exceeded the decennial mean by 53 %.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF DISEASES OF THE TEETH.

By EDWIN SAUNDERS, F.R.C.S.,
President of the Section.

GENTLEMEN,—Before assuming the duties and responsibilities of President of the Odontological Section of this great Congress, permit me to thank you for the honour you have conferred upon me in electing me to that high office; and let me assure you that it will be my earnest endeavour to justify your choice, however I may fail to satisfy my own, and your, well-warranted expectations. And, indeed, were it not that I am sustained by the kind co-operation of two vice-presidents and a secretary, in whom our profession feels a just and legitimate pride, I might well feel oppressed by the onus of doing full justice to the position on so august an occasion. Nor was it, I am free to admit, until I had the permission of the Executive Committee to call around me, as a Council, some old and tried associates in professional work, that I began to experience the requisite energy and confidence. And having made this personal avowal and confession, I turn to the distinguished company before me, who have done us the high honour to visit our too great, but not too gay, capital, and to become for a too short time, and for our signal profit, our guests at this great intellectual banquet. Permit me, gentlemen, on behalf of the English members of the Congress, on behalf of our largest society, the Odontological Society of Great Britain, now in the twenty-fifth year of its somewhat chequered, bu, on the whole, prosperous existence, and on behalf of the whole body of the dental profession in England, to offer you a hearty welcome, and to assure you of our earnest desire to render your too brief visit both profitable and pleasant. We hail the happy occasion of our friendly intercourse, and we trust that friendships begun under such benign auspices may continue and progress in interest through many prosperous years. Such gatherings as these, with the pleasurable amenities they involve, do much to soften and refine the manners, to quicken the intellect of all concerned, and to remove misconceptions of national or individual character which are apt to be engendered by isolation and want of friendly intercourse. Congresses such as that at which it is our privilege at this time to assist, serve a great social purpose apart from the intellectual and scientific aims at which they are more immediately directed. It is much that they afford an opportunity and a stimulus for intellectual effort, which might otherwise, with man's proverbial procrastination, never be called into action. But in these days of an ever-teeming press, and of facilities for the free intercommunication of ideas, this is subordinate to the advantage of personal knowledge of the individual, and the living interchange of thought. The modern Congress, which seems now in high favour, owes its existence, or shall it not be said, its revival, to the intellectual activity, joined with a wide eclectism, which is a characteristic of our times, and which seeks to assimilate to itself whatever is of value in the past, or in other lands, whether in social manners and customs, in matters of dress or daily life, in schools of architecture, or in the realms of science or art. The generally accepted idea of a Congress is, if I mistake not, more than a fortuitous assembly of persons engaged in similar pursuits and drawn together by community of thought and interest. It is the deliberate coming together of distinguished men or of experts, of set purpose and for a specific object, the persons constituting the Congress being invited and selected with a due regard to their knowledge of the subject for the consideration of which it has been convoked. This is especially evident in political affairs, and notably in a recent instance in a northern capital, where the great countries of Europe, represented by their most distinguished statesmen and diplomatists, met in solemn conclave for the rectification of national frontier lines, and for the determination of other questions of vital importance which must otherwise have been left to the rude arbitrament of the sword. And may we not indulge the hope, in the interests of an enlightened humanity, that this high function may be more extensively employed to interfere between the unbridled ambition and lawless rapacity of states, more powerful than just, and the resolute resistance to subjugation or spoliation on the part of the oppressed, protracted, it may be, to the bitter end through years of carnage and misery? So might the world be spared the saddening spectacle of "man's inhumanity to man", and the fair page of contemporary history be unsullied by the foul blot of the blood-stained record. Ours, however, is a congress of peace, and we are happily not called upon to compose animosities or to adjudicate upon conflicting claims. The triumphs which we are met to celebrate are those of man's skill in limiting and repairing the ravages of disease, our victories, those over nature herself, when she is forced to yield up another of her secrets as the reward of patient research or of well-conducted experiment. Our international reunion may be regarded as a periodical taking stock of the gains of science, of improved appliances, of more accurate means of diagnosis and of more efficient modes of treatment in the various departments of medical practice. And for the better and fuller carrying out of this intention, it has been found advisable, having regard to the present advanced state of medical and surgical science, to divide the work of the Congress into sections.

These sections carrying on their work simultaneously, and the work of each section being complete in itself, greater fulness and accuracy of detail are secured without any sacrifice of the unity of the one grand result, as the work of each section is the necessary complement of the whole. In that with which we are more immediately concerned, one of the youngest departments of surgical practice, and which for the first time enjoys its own distinct and prominent position, considerable interest will attach to the question of education and the regulations which in each country govern the entrance into the profession. The former part of this very important subject will, I trust, shortly be brought under the notice of the Congress by one, than whom none is at once more fully informed and more entitled to speak with authority—I mean Mr. John Tomes, who has in this direction, during the last quarter of a century, done much to advance the interests and to establish a strong claim on the gratitude of the profession. Nor would the English sense of justice and fair play be satisfied without an acknowledgment of the more recent services of his colleague in this good and great work—Mr. James Smith Turner, without whose unsparing devotion of time and energy it could not have been brought to so successful an issue. To the joint action of these two gentlemen, to the lawyer-like precision and forethought of the former, no less than to the vigilance and promptitude of the latter, is the profession indebted for that invaluable piece of legislation—the Dentists' Act of 1878. It must not be forgotten, however, that to our foreign friends the nature of the enactment is of greater interest than the means or the persons by whom it was obtained. By the provisions of this Act, then, which came into operation on August 1st, 1879, it is forbidden to any one to use the word dentist, dental practitioner, or other title implying that he is qualified to practise dental surgery, unless his name appears on the *Register* of that body; thus giving to the dentist the same protection and privileges as are enjoyed by the physician and surgeon in this and other countries. By this measure, the opprobrium was removed which so long rested on the dental profession in this country, that it included a large proportion of ill-qualified practitioners, and in many cases persons who were unsuccessful in other pursuits, and who were attracted to it by the absence of restrictions or of preliminary examination. By provisions of this Act introduced by Sir John Lubbock, not only are the public preserved from the extortion and malpraxis of the ignorant and unprincipled, but a grave discouragement is removed from the educated and honest practitioner. For it is only in human nature that high aims and honest zealous work should languish in the atmosphere of indifference and lack of appreciation. In thus obtaining legal sanction for the organisation of the profession, it was desired strictly to maintain its connection with the Royal College of Surgeons, as it was rightly felt that separation from that body would involve abdication of the status which it had hitherto enjoyed. And when the College had been memorialised on the subject, showing that the curriculum for the diploma for general surgery, which was the only qualification then open to him, did not comprise certain matters of the first importance to the dental practitioner—that, in fact, the entire subject of dental surgery found no place either in the teaching or at the examining board—an arrangement was accepted for more fully meeting the requirements of the case. Accordingly, a conjoint board of examiners, consisting of half surgeons and half specialists, was created for the licentiateship of dental surgery, with a corresponding modification of the prescribed course of study, eliminating much that was of little value, and substituting what was regarded as specially necessary in that particular line of practice. Thus, by varying but not lowering, the educational standard, an arrangement has been effected, which, if not in all respects perfectly satisfactory, goes far to meet the reasonable views and wishes of those who have the welfare of the profession at heart. With this bare outline of our proceedings in reference to the organisation of the profession before us, we shall listen with interest to what has been accomplished in other countries in

the same direction, not, it may be hoped, without mutual profit and advantage.

Gentlemen, I feel that I ought not longer to tax your attention; but, having declared this section of the Congress open, that we shall prepare ourselves to listen with appreciation and enjoyment to those varied and valuable contributions to the literature of our speciality with which we are so liberally favoured both from home and foreign sources. And first your attention will be asked for the always welcome utterances of one whose contributions to science during a long series of years, many of them having a direct interest for our own speciality, and almost unparalleled for number and value, have made his name a household word in both hemispheres—I mean Professor Owen. We feel grateful for his presence here to-day, which will confer *prestige* on our proceedings; and we tender him, with our thanks, our sincere felicitations that he has been able to witness, in unimpaired health and energy, the realisation of his hopes and wishes in the completion of that noble structure, the Museum of Natural History.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PUBLIC MEDICINE.*

By JOHN SIMON, C.B., F.R.S., D.C.L., LL.D.

GENTLEMEN,—In considering what should be my first words in the position which I have the honour to occupy, I fortunately recollect a word of ancient wisdom: "What shall the man say who cometh after a king?" Already to-day, the Chrysostoms of our English branch of the Medical Profession have, with their usual felicity, expressed, on behalf of all of us, the feelings which all must equally entertain on occasion of so great a meeting of our professional brotherhood. I therefore need not, on behalf of the officers of this section, say more than one word of cordial friendship and congratulation and welcome to those whom we have the pleasure and honour of seeing here; whether they come from within the limits of this United Kingdom of Great Britain and Ireland, or be our fellow-labourers from other lands. If I may add a word specially for myself, I would beg to say how peculiarly gratified I am to know that there will sit on the benches of this section many of those workers and masters of our craft from whom it has long been my own daily privilege to learn.

My colleagues in the provisional service of this section, and persons of authority in the general management of the Congress, have pressed on me their wish (which I find equally flattering and embarrassing) that I should occupy part of this half-holiday afternoon by addressing to you some general talk in relation to the subject-matter of our section. I may confess myself to have believed, till almost the last moment, that my best presidential contribution to our meetings would be to sit as a respectful listener; but, on the other hand, I should so much regret to appear merely indolent in regard of what has been desired of me, that, on that ground, though reluctantly, and with unaffected apologies for what I fear may prove a tedious occupation of your time, I defer to the wishes which have been expressed.

Assuming that the members of the section would not expect anything new in what I might say, I have speculated whether, perhaps, in directions which are not new, I might say anything which would suggest useful thought to outsiders interested in our proceedings. I have remembered that, in our section of the Congress, we may peculiarly take for granted that the general public overhears what we say. Many of our matters of debate are matters of immense public concern; and the arguments relating to them are in many parts such as the laity can follow equally with ourselves. It has struck me that, as your President on this occasion, I may perhaps usefully have regard to that consideration. Chiefly, then, in that point of view, and with intentions which I hope may explain themselves as I go on, I shall offer you some general remarks on the meaning and on the scientific method of State Medicine. I trust that the thoughts and convictions which I shall express will be fully as much yours as my own, and will thus be far more deserving of public attention than if I pretended to call them original; and, indeed, as regards one practical purpose which I have in view, there is nothing I would so much desire as that I may be deemed merely your mouthpiece or interpreter.

First: a few words on what may be called the general theory of our subject-matter. The term "State Medicine" corresponds to the supposition that, in certain cases, the Body-Politic will concern itself with the health-interests of the people—will act, or command, or deliberate, or inquire, with a view to the cure or the prevention of disease. Before any such supposition can be effectively realised, the Science of Medicine—that is to say, the exact knowledge of means by which disease may be prevented or cured, must have reached a certain stage of development; and unless the science be supposed common to all persons in the State, the existence of State Medicine supposes a special class of persons whom the unskilled general public can identify as presumably possessing the required knowledge. Thus, given the class of experts to supply the required exact knowledge, the Body-Politic undertakes that, within the limits of its own constitutional analogies, it will make the knowledge useful to the community.

I have intimated that, in State Medicine (just as in private medicine) the medical function may be exercised either in curing or in preventing disease; but practically these two departments of State Medicine are not of equal magnitude, nor are dealt with in quite the same spirit.

As regards curative medicine, modern governments have in general found it needless to interfere in much detail in favour of persons who require medical treatment. It is true that for cases which may be deemed exceptional—the case of the destitute poor, and the cases of districts under grave pestilential visitation, modern governments seem universally to acknowledge that it is their duty to provide, at the public charge, such medical skill and such appliances as may be needed; but, apart from those exceptions, the only action which the State takes in regard of curative medicine is that which consists in its authentication of a skilled Medical Profession, and in the distinctions which it sees fit to draw, as regards rights and privileges, between those who have been duly declared competent to treat disease, and those who have not been so declared.

Larger and far more various than the action taken by the State with reference to the cure of disease, is that which it takes in regard of prevention; and it is particularly of preventive medicine that I propose to speak. In its legal aspect, it is represented by a considerable mass of statutes (nearly all of them enacted within the last thirty-five years), and by an army of administrative authorities and officers appointed to give effect to those enactments. I need not describe in detail the laws and administrative machinery to which I refer, but I may remind you of the largeness and variety of their scope, even by quoting only the terms in which I was able, twelve years ago, to speak of the public health law of England.—"It would, I think, be difficult to over-estimate, in one most important point of view, the progress which, during the last few years, has been made in sanitary legislation. The principles now affirmed in our statute-book are such as, if carried into full effect, would soon reduce to quite an insignificant amount our present very large proportions of preventable disease. It is the almost completely expressed intention of our law that all such states of property, and all such modes of personal action or inaction, as may be of danger to the public health, should be brought within scope of summary procedure and prevention. Large powers have been given to local authorities, and obligation expressly imposed on them, as regards their respective districts, to suppress all kinds of nuisance, and to provide all such works and establishments as the public health primarily requires; while auxiliary powers have been given, for more or less optional exercise, in matters deemed of less than primary importance to health; as for baths and wash-houses, common lodging-houses, labourers' lodging-houses, recreation-grounds, disinfection-places, hospitals, dead-houses, burial-grounds, etc. And in the interests of health, the State has not only, as above, limited the freedom of persons and property in certain common respects; it has also intervened in many special relations. It has interfered between parent and child, not only in imposing limitation on industrial uses of children, but also to the extent of requiring that children shall not be left unvaccinated. It has interfered between employer and employed, to the extent of insisting, in the interest of the latter, that certain sanitary claims shall be fulfilled in all places of industrial occupation. It has interfered between vendor and purchaser; has put restrictions on the sale and purchase of poisons; has prohibited in certain cases certain commercial supplies of water; and has made it a public offence to sell adulterated food or drink or medicine, or to offer for sale any meat unfit for human food. Its care for the treatment of disease has not been unconditionally limited to treating at the public expense such sickness as may accompany destitution; it has provided that, in any sort of epidemic emergency, organised medical assistance, not peculiarly for paupers, may be required of local authorities; and, in the same spirit, it requires that vaccination at the public cost shall be given gratuitously to every claimant. The above survey might easily be extended by referring to statutes which are only of partial, or indi-

* Parts of this address were shortened in delivery.

rect, or subordinate interest to human health; but, such as it is, it shows beyond question that the Legislature regards the health of the people as an interest not less national than personal, and has intended to guard it with all practicable securities against trespasses, casualties, neglects, and frauds".* At the time when that description was written, I unfortunately had to confess that the intentions of the Legislature were not carried into effect; for that the then existing laws (especially in respect of the local authorities which should give effect to them) were in a state of almost chaotic confusion and unworkability; but, since that time, an entirely new constitution of local authorities has been made, some thousands of additional officers have been appointed, and the general fabric of the law has been consolidated, and its powers in some respects extended and made more stringent, with a view to the better prevention of disease, so far as legal powers and facilities can attain that object.

Such being the very large contribution which the Body-Politic makes to the purposes of State Medicine in this country, let us next see how we of the Medical Profession stand in respect of the scientific contribution which we distinctively owe to the same great object.

In preventive, just as in curative, medicine, it occasionally happens that consequences more or less valuable result from some mere chance-hit of discovery; but except so far as this may sometimes (and but very rarely) happen, disease can only be prevented by those who have knowledge of its *causes*,—knowledge, which does not deserve to be called knowledge, unless in proportion as it is *conclusive and exact*; and thoroughly to investigate the causes and their mode of operation is the quite indispensable first step towards any scientific study of prevention. Essentially, we know how to prevent by having first learnt exactly how to cause. Therefore it is that preventive medicine has had almost no development until within these later times. The germinal thought of it may be traced in even the first days of our profession. The spirit in regard of which Hippocrates has been aptly called the Father of Medicine—the scientific spirit of observation and experiment, as distinguished from the spirit of priestcraft, was one which his medical writings equally showed in their preventive as in their curative relations; and when he, some twenty-three centuries ago, expounded to his contemporaries that pathology is a branch of the Science of Nature—that causes of disease are to be found in physical accidents of air and earth and water, and in quantities and qualities of food, and in personal habits of life, he (not without risk of being denounced for impiety) virtually proclaimed for all time the first principle of preventive medicine, and indicated to his followers a new line of departure for those who would most largely benefit mankind. His followers, however, have had their work to do. True knowledge of morbific causes could only come by very slow degrees, and as part of the development with which the physical and biological sciences have, little by little, with the labour of ages, been building themselves up; and so, no wonder that, despite the lapse of time, even the most advanced of nations are hitherto but beginning to take true measure of the help which preventive medicine can render them.

Now, what is the nature of that *study of causes* through which we may gradually arrive at counter-causing or prevention?

Addressing a skilled audience, I shall utter what to them is the merest commonplace when I say that, in the physical and biological sciences, we acknowledge no other study of causes than that which consists in *experiment*. And the study of morbific causes is no exception to that rule: it is solely by means of experiment that we can hope so to learn the causes of disease as to become possessed of resources for preventing disease.

The experiments which give us our teaching with regard to the causes of disease are of two sorts:—on the one hand we have the carefully pre-arranged and comparatively few experiments which are done by us in our pathological laboratories, and for the most part on other animals than man; on the other hand, we have the experiments which accident does for us, and, above all, the incalculable large amount of crude experiment which is popularly done by man on man under our present ordinary conditions of social life, and which gives us its results for our interpretation.

When I say that experiments of those two sorts are the sources from which we learn to know the causes of disease, I, of course, do not mean that the mental process by which an experiment becomes instructive to us is the same in regard of the two sorts of experiment. On the contrary, the ætiological problem (so long as it is a problem) is approached in the two cases from two opposite points of view; and the dynamical continuity of relation, which we call cause and effect, is traced, in the one case, from the one pole, and in the other case, from the other pole of the relation. In the one case, starting with knowledge of our own deliberately-prepared *cause*, our question is, what will be its effect? In the other case, starting from a certain *effect* presented to us, our question is, what has been its cause? But in the second case, just as in the first, when the question is answered, when the problem is solved, when the relation of cause-and-effect has been made clear, we recognise that the conjuring-power which has brought us our new knowledge is the power of a *performed experiment*.

Let me illustrate my argument by showing you the two processes at work in identical provinces of subject-matter.—What are the classical experiments to which we habitually refer when we think of guarding against the dangers of Asiatic cholera? On the one side there are the well-known *scientific* infection-experiments of Professor Thiersch, and others following him, performed on a certain number of mice. On the other hand, there are the equally well-known *popular* experiments which, during our two cholera epidemics of 1848-9 and 1853-4 were performed on half a million of human beings, dwelling in the southern districts of London, by certain commercial companies which supplied those districts with water. Both the professor and the companies gave us valuable experimental teaching as to the manner in which cholera is spread. I need not state at length the facts of those experiments, probably known to all here, but may rather justify my parallel by referring to an ætiological question which will presently be discussed in our section.

It concerns the *causation of tubercle*—the most fatal by far of all the diseases to which the population of this country is subject. On that subject, for the last sixteen years, we have had a new era of knowledge. It was the great merit of a Frenchman, M. Villemin, that he, in 1865, first made us fully aware that tubercle is an infectious disease. He did this by certain *laboratory experiments* performed on other animals than man. He found that general and fatal tubercular infection of the animal was produced when he inoculated it subcutaneously with a little crude tubercular matter from the human subject. That first laboratory investigation of the subject has been followed most extensively by others; and the further experiments, while entirely confirming M. Villemin's discovery, have shown that subcutaneous inoculation is not the only mode by which the tubercular infection can be propagated. Dr. Tappeiner and others have shown that the same effect is produced on the animal if tubercular matter (such as the sputa of phthisical patients) be diffused in spray in the air which the animal breathes; and Professor Gerlach, of Hanover, showed twelve years ago with regard to the bovine variety of tubercular disease (the perlsucht of the Germans), that its infection can be freely introduced through the stomach if bits of tubercular organs be given in the food, or if the healthy animal be fed with milk from the animal which has tubercle. That the communicability of tubercle from animal to animal is also being tested to an immense extent by *popular experiments* on the human subject, is what a moment's reflection will tell; and from that wide field of experiment I select one instance for illustration. I have every reason to believe that Professor Gerlach's experiments on the communicability of tubercle by means of milk are very extensively parodied by commercial experiments on the human subject. I learn, on what I believe to be the highest authority in this country, that tubercle (in different degrees) is a malady which abounds among our cows; and that so long as the cow continues to give milk, no particular scruple seems to prevent a distribution of that milk for popular use. To the persons who consume that milk an important question as to the causability of tubercle is put in an experimental form. Whether they will become infected with tubercle, is a question which the individual consumers do not stand forward to answer for themselves, like the animals of the laboratory experiments: but Dr. Creighton's lately published book, entitled, *Bovine Tuberculosis in Man*, and a paper in which I am glad to say he brings under notice of our section the very remarkable series of facts on which he grounds that startling title, seem to suggest a first instalment of answer in accordance with Professor Gerlach's experimental finding.

The two sorts of experiment—the scientific and the popular—differ, as I have noted, in this particular: that the popular experiment is almost always done on man; the scientific almost always on some other animal. It is true that many memorable cases are on record, where members of our profession have deliberately given up their own persons to be experimented on by themselves or others for the better settlement of some question as to a process of disease; have deliberately tried, for instance, whether, in this way or in that, they could infect themselves with the poison of plague or of cholera; and as regards one such case which is in my mind, I think it not unlikely that the illustrious life of John Hunter was shortened by the experiments which he did on himself with the ignoble poison of syphilis. There have been cases, too, where criminals have been allowed to purchase exemption from capital or other punishment at the cost of allowing some painful or dangerous experiment to be performed on themselves. And cases are not abso-

* *Eleventh Report of the Medical Officer of the Privy Council*, 1869, pp. 20, 21.

lutely unknown where unconsenting human beings have been subjected to that sort of experiment. But waiving such exceptions, the rule is, as I have said, that scientific experiments relating to causes of disease are performed on some animal which common opinion estimates as of lower importance than man. Now, as between man and brute, I would not wish to draw any distinction which persons outside this room might find invidious; but, assuming for the moment that man and brute are of exactly equal value, I would submit that, when the life of either man or brute is to be made merely instrumental to the establishment of a scientific truth, the use of the life should be economical. Let me, in that point of view, invite you to compare, or rather to contrast with one another, those two sorts of experiment from which we have to get our knowledge of the causes of disease. The commercial experiments which illustrated the dangerousness of sewage-polluted water-supplies cost many thousands of human lives; the scientific experiments which with infinitely more exactitude justified a presumption of dangerousness, cost the lives of a few dozen mice. So, again, with experiments as to the causation of tubercle:—judging from the information which I quoted to you, I should suppose that the human beings whose milk-supply on any given day includes milk from tubercular cows might be counted, in this country, in tens of thousands; but the scientific experiments which justify us in declaring such milk-supply to be highly dangerous to those who receive it were conclusive when they amounted to half-a-dozen. So far, then, as regards the mere getting of experimental knowledge, we must not, with a view to economy of life, be referred to popular, rather than scientific, experiment. And in the same point of view, it perhaps also deserves consideration that the popular experiments, though done on so large a scale, very often have in them sources of ambiguity which lessen their usefulness for teaching.

Let me now briefly refer to the fact that, during the last quarter of a century, all practical medicine (curative as well as preventive) has been undergoing a process of transfiguration under the influence of laboratory experiments on living things. The progress which has been made from conditions of vagueness to conditions of exactitude has, in many respects, been greater in these twenty-five years than in the twenty-five centuries which preceded them; and with this increase of insight, due almost entirely to scientific experiment, the practical resources of our art, for present and future good to the world, have had, or will have, commensurate increase. Especially in those parts of pathology which make the foundation of preventive medicine, scientific experiment in these years has been opening larger and larger vistas of hope; and more and more clearly, as year succeeds year, we see that the time in which we are is fuller of practical promise than any of the ages which have preceded it. Of course, I cannot illustrate this at length, but some little attempt at illustration I would fain make.

First, let us glance at our map. When we generalise very broadly the various causes of death (so far as hitherto intelligible to us) we see them as under two great heads, respectively autopathic and exopathic. On the one hand, there is the original and inherited condition under which to every man born there is normally assigned eventual old age and death, so that, sooner or later, he "runs down" like the wound-up watch with its ended chain; and, as morbidities under this type, there are those various original peculiarities of constitution which make certain individual tenures of life shorter than the average, and kill by way of premature old age of the entire body, or (more generally) by quasi-senile failure of particular organs. On the other hand, as a second great mass of death-causing influence, we see the various interferences which come from outside; acts of mechanical violence, for instance, and all the many varieties of external morbific influence which can prevent the individual life from completing its normal course.

As regards cases of the first class—cases where the original conditions of life and development are such as to involve premature death (which in any such case will commonly show itself as a fault in particular lines of hereditary succession)—the problem for preventive medicine to solve is, by what cross-breeding or other treatment we may convert a short-lived and morbid into a long-lived and healthy stock; and this, at least as regards the human race, has, I regret to say, hardly yet become a practical question. But, as regards cases of the second class, evidently the various extrinsic interferences which shorten life have to be avoided or resisted, each according to its kind; and here it is that the scientific experimenters of late years have been giving us almost daily increments of knowledge.

Two early instances, vastly important in themselves, though of a comparatively crude kind, I have already mentioned; and I now wish to glance at some illustrations of the immense scope and the marvellous exactitude of the newer work.

The invaluable studies of M. Pasteur, beginning in the facts of fermentation and putrefaction, and thence extending to the facts of infectious disease in the animal body, where M. Chauveau's demonstration of the particulate nature of certain contagia came to assist them—they, I say, partly in themselves, and partly in respect of kindred labours which they have excited others to undertake, have introduced us to a new world of strange knowledge. We have learnt, as regards those diseases of the animal body which are due to various kinds of external cause, that probably all the most largely fatal of them (impossible yet to say how many) represent but one single kind of cause, and respectively depend on invasions of the animal body by some rapidly self-multiplying form of alien life. This doctrine, which scientific experiment initiated, has, for the last dozen years, been extending and confirming itself by further experiment. As soon as the doctrine began to seem probable, science saw that, should it prove true, it must have the most important corollaries. If the cause of an infecting human disease is a self-multiplying germ from the outside world, the habits of that living enemy of ours can be studied in its outside relations. It becomes an object of common natural history, it has biological affinities and analogies. We can cultivate it in test-tubes in our laboratories, as the gardener would cultivate a rose or an apple, and we can see what agrees and what disagrees with its life. And then, as the next and immeasurably most important stage, where nothing but experiment on the living body will help us, we can try whether perhaps any of our modifications of its life have made it of weaker power in relation to the living bodies which it invades, or whether, through our more intimate knowledge of its vital affinities, we can artificially give to bodies which it would invade a partial or complete protection against it. Such, at first blush, were the obvious possibilities of research which the new doctrine of infectious disease suggested to the mind of the pathologist; and never since the profession of medicine has existed, had a field of such promise been before it. The promise has not been belied. A host of diseases has been worked at in such lines as I just now indicated, and with many of them important progress has been made.

It would be impossible for me even to name a twentieth part of the investigations which have been more or less successful. As regards some which have most struck me, I pass with but a word Dr. Klein's investigation of the pneumo-enteritis of swine; Professor Cohn's and Dr. Koch's and Dr. Buchner's respective contributions to the natural history of the anthrax bacillus; Dr. Bollinger's recognition of the microphytic origin of an important cancroid disease of horned cattle, with Dr. Johne's illustration of the inoculability of this disease; the research by Drs. Klebs and Tommasi-Crudeli into the intimate cause of marsh-malaria; and, not least, the demonstration (as it appears to be) which Dr. Grawitz has recently published, that some of the commonest and most innocent of our domestic microphytes can be changed by artificial culture into agents of deadly infectiveness. I pass these and others, in order that I may more particularly speak of some which have already shown themselves practically useful; for in respect of some of them the time has already come when abstract scientific knowledge is passing into preventive and curative act.

First, and not in a spirit of national partiality, I will mention the application which M. Pasteur's doctrine has received at the hands of Mr. Lister, with regard to the antiseptic treatment of wounds: an application which, enforced and illustrated at every turn by Mr. Lister's own eminent skill as an experimentalist, has been confirmation as well as application of the parent doctrine; and the beneficent uses of which, in giving comparative safety to the most formidable surgical operations, and in immensely facilitating recovery from the most dangerous forms of local injury, are recognised—I think I may say, by the grateful common consent of our profession in all countries, to be among the highest triumphs of preventive medicine.

Secondly, out of the experimental studies of anthrax—chiefly out of those of Dr. Sanderson and Mr. Duguid in this country, and those of Dr. Buchner in Germany and M. Toussaint in France, has grown a knowledge of various ways in which the contagion of that dreadful disease can be so mitigated that an animal inoculated with it, instead of incurring almost certain death, shall have no serious illness; and the further knowledge has been gained, that the animal submitted to that artificial procedure, is thereby more or less secured against subsequent liability to the disease. In other words, with regard to that disease, an infliction which sometimes spreads to man from his domestic animals, and one which in some parts of Europe is of serious consequence to agricultural interests, as well as to animal life, the later experimenters—of whom I may particularly name M. Toussaint, and our countryman, Professor Greenfield, seem to be giving to the animal kingdom, and to the farmers, the same sort of boon as that which Jenner gave to mankind when he taught men the use of vaccination. Quite recently, our great leader, M. Pasteur, seems to have made, by new experiments, still further progress in the mitigation of anthrax.

Thirdly, a similar discovery has been made by M. Pasteur, with

reference to the contagium of a very fatal poultry-disease, known by the name of fowl's cholera; he has learnt to mitigate that contagium to a degree, in which, if fowls be inoculated with it, they will suffer no serious ailment; and he has found that fowls so inoculated (or, as he, in honour of Jenner, would say, "fowls so vaccinated") are proof against future attacks of the disease.

Fourthly, Professor Semmer, of Dorpat, through experiments done under his direction by Dr. Krajewski, has made a similar discovery in regard of the infection of septicæmia; has found, namely, that by treatment like that with which M. Toussaint mitigates the contagium of splenic fever, he can bring the most virulent septic contagium into a state in which it shall be mild enough to serve for harmless inoculations; which inoculations, when performed, shall be protective against future infections.

Finally, in a different direction of experimental work, let me name the recent most admirable research which Dr. Schüller of Griefswald has made, nominally in respect of certain surgical affections of joints, but in reality extending to the inmost pathology and therapeutics of all tubercular and scrofulous affections. A knowledge of the fatal infectiveness of crude tubercular matter had been given (as I before said) by Villemin and those who followed him; and Professor Klebs, four years ago, declared the infective quality to be due to the presence of a microphyte (micrococcus), which he had succeeded in separating from the rest of the matter by successive acts of cultivation in fluids of inorganic origin. Dr. Schüller solidly settles, and widely extends, that teaching. According to his apparently quite unquestionable observations and experiments, the micrococcus which characterises tubercle characterises also certain affections popularly called "scrofulous" — namely, "scrofulous" synovial membrane, "scrofulous" lymph-glands, and lupus: so that these diseases may be defined as essentially tubercular, and that inoculation with matter from any of them, or with a cultivation-fluid in which the micrococcus from any of them has been cultivated, will infect with general tuberculosis. The rapid multiplication of the tubercle-micrococcus in the blood and tissues of any inoculated animal can be verified both by microscopical observation, and by inoculative experiment; and an extremely interesting part of the research, in explanation of certain of our human joint-diseases, is the demonstration that if in the inoculated animal a joint is experimentally injured, that joint at once becomes a place of preferential resort to the micrococcus which is multiplying in the blood, and becomes consequently a special or exclusive seat of characteristic tubercular changes. Even thus far the practical interest of Dr. Schüller's book is such as it would not be easy to overstate, but still greater interest attaches to the last chapter of the book, in which, confidently resting on the pathological facts which I have quoted, he makes proposals for the treatment of tubercle on the basis of its microphytic origin, and shows the successful result of such treatment as he has hitherto tried, from that basis, on animals artificially infected by him.

I venture to say that in the records of human industry it would be impossible to point to work of more promise to the world than these various contributions to the knowledge of disease, and of its cure and prevention; and they are contributions which from the nature of the case have come, and could only have come, from the performance of experiments on living animals.

At this most productive epoch in the growth of medical science, our English studies have been interrupted. An Act of Parliament, passed five years ago under the title of the Cruelty to Animals Act, has made it difficult or impossible for scientific observers any longer to follow in this country any such courses of experiment as those which of late years, at the cost of relatively insignificant quantities of brute suffering, have tended to create an infinity of new resources of relief for the sufferings both of brute and man. The Act does not in express terms interdict all performance of such courses of experiment: it nominally allows them to be done under a variety of limited licenses which may be granted by a Principal Secretary of State; but the limitations under which these licenses are granted, and the trouble, delay, and friction which necessarily to some extent, and, in fact, often to an intolerable extent, attend the obtaining of any one of them, are practically little better than prohibition.

The Act apparently contemplates, as the chief subjects of its operation, an imaginary class of unqualified persons, who, with no legitimate relation to scientific research, would, under pretence of such research, torture, and (it is supposed) take pleasure in torturing, live animals; and against this devilish class of persons the Act is very indulgently framed: for instead of expressly refusing license to unqualified persons, and perhaps hinting to such of them as would do wilful cruelty under pretence of study that the lash and the treadmill are for such scoundrels —instead of this, I say, the Act virtually confounds together that imaginary class of unqualified and cruel persons, and, on the other hand, our professional class of *bonâ fide* scientific investigators, on whom the progress of medicine depends, and whose names are sufficient security for their conduct. What is counted good for the one class is also counted good for the other. The law will trust no licensed experimenter farther than it can provide for his being minutely watched and regulated by the Secretary of State: and in respect of the details of experimental procedure, the supervision of that high political officer is substituted for the discretion and conscience of the scientific investigator.

Consider for a moment what this means in regard of the members of our profession whom it affects. Contrast with it the almost unbounded trust with which the world, from time immemorial, has regarded the character of our profession. Consider the relation of inmost confidence in which members of our profession in every corner of the kingdom are admitted to share in the sanctities and tendernesses of domestic life. Consider our immense daily responsibilities of human life and death. Consider that there is not a member of our profession to whom the law does not allow discretion that, in certain difficulties of child-birth, he shall judge whether he will kill the child to save the mother. And in contrast with all this, is it to be seriously maintained that society cannot trust us with dogs and cats? that our foremost workers—(for it is essentially they who are affected)—cannot be trusted to behave honestly towards their brute fellow-creatures, unless they be regulated and inspected under a special law in much the same prevenient spirit as if they were prostitutes under the Contagious Diseases Act?

I have reason to believe that, if that Act continues on the statute-book one of two results will follow. Experiments, indispensably necessary for the growth of medical science in relation to the cure and prevention of disease, will cease, or almost cease, to be done in this country; or, as the alternative to this, persons who desire to advance the science of their profession, will be tempted to clandestinely ignore the law and to run their chance, if the worst comes to the worst, of having to try conclusions with the common informer.

Let me illustrate this by two personal references: I have already mentioned Professor Lister, as an experimenter, whose name is now classical wherever science has reached, and whose work has been of signal advantage to mankind. Last autumn Mr. Lister wished to do some experiments in extension of the particular branch of knowledge with which his name is identified, and at a point which he considered of extreme importance in surgical pathology. He found he must either abandon his investigation or must conduct it in a foreign country, and, in his zeal for science, he chose the latter course. His experiments (which had to be on large animals) were done at the Veterinary College of Toulouse; and in stating this fact in a letter, from which I quote, Mr. Lister added that "even with reference to small animals, the working of the Act is so vexatious as to be practically prohibitory of experiments by a private practitioner like myself, unless he chooses to incur the risk of transgressing the law." A second name which I have mentioned is that of Professor Greenfield, who has so highly distinguished himself in developing, by means of experiments, the preventive medicine of splenic fever. Dr. Greenfield, in order to perform his inoculation-experiments, had, of course, to become a license-holder under the Act; and his experience of the hindrances which attach to that position is expressed to me in the following terms: "It is my deliberate conviction, as a result of my experience, that these hindrances and obstacles are so numerous and so great as to constitute a most serious bar to the investigation of disease, and even of such remedial measures as would by common consent be for the direct benefit of the animals experimented upon. When to this is added all the annoyance and opprobium which are the lot of investigators, it is to be wondered at that anyone should submit to be licensed." Dr. Greenfield's experimental operations consisted only in inoculating the virus of animal diseases, and he says: "I have not been engaged in other investigations for the simple reason that, with the present restrictions and the difficulty in obtaining a license, I regard it as almost hopeless to attempt any useful work of the kind in this country."

As I feel sure that the Act must at no distant time be reconsidered by the Legislature, and as I also very strongly feel that, quite apart from any question of legal enactments, there is the question of moral right or wrong to be considered in the matter, I would beg you to allow me to make my own public confession of faith (from which I dare say, yours will not much differ) in that extremely important matter of controversy.

The question being whether medical science can rightly use living animals as subjects for experiments which may be painful, and even, in exceptional cases, very painful to them, the answer may be sought in either of two directions: 1. What says the voice of the experimenter's

own conscience? and 2. What says the standard of common contemporary conduct in analogous cases?

As regards the first, if I may take the liberty of expressing my own feeling, I would say this. I do not in any degree regard it as matter of indifference that, in certain cases, by my own hand or by that of some one acting for me, I must inflict death or pain on any living thing. I, on the contrary, think of it with true compunction; but I think of it as good or bad according to the end which it subserves. Where I see my way to acquire, at that painful cost, the kind of exact knowledge which, either in itself or in contribution to our common stock, will promote the cure or prevention of disease in the race to which the animal belongs, or in the animal kingdom generally, or (above all) in the race of man, I no more flinch from what then seems to me a professional duty, though a painful one, than I would, in the days before chloroform, have shrunk from the cries of a child whom I had to cut for stone. If, in a case of the latter sort, the surgeon nerves himself to his work by the conviction of an indispensable usefulness in what he has to do, so does the pathologist in his, and surely in a much larger sense. The agitated parent of the child might sometimes be tempted to say—"Forbear giving this cruel pain; let the poor little sufferer die"; but the surgeon's reply would have comforted her. And so with the physiological experimenter: except that he, instead of looking at one individual life to be saved, is looking at a race or at many races, and reflects how, in respect of some grievous physical misery, the whole of them, in all their multitudinous successions, may be redeemed through the suffering of the few. This is my personal view of the abstract right or wrong in the question. I state it because, in matters of right and wrong, no man ought to shelter himself behind authority. I believe I may add that if it, or something very like it, had not for centuries been the general view of the medical profession, our professional knowledge would probably be standing in this present age about where it stood in the days of the Plantagenets. Of Harvey and Hunter and Bele, we well know that such was the view on which they acted in rendering their immortal services to mankind; and I am not aware that any man, whose opinion really counts in matters of medical science, would express any material dissent from it.

The second standard to which I referred was that of the common conduct of men in *analogous* cases. I pointedly say "analogous", rather than "similar", because common life does not in fact give cases which, properly speaking, are "similar" to ours. But what, I ask, is the common *principle* of behaviour of civilised man towards the so-called lower animals? He in every respect subordinates their lives to his own. If he thinks he can get an advantage to himself by killing or painfully mutilating an animal, he does so with apparently no hesitation. See, for one instance, the sexual mutilations which are inflicted on all but a small minority of most kinds of domestic animals, and, as regards some kinds, on many of the females. When I appeared as a witness six years ago before the Royal Commission which was considering the question of our experiments, I particularly endeavoured to draw their attention to this view of the case; and in one of my answers (No. 1491) I entered on it more fully than would be suitable to the present occasion.

Thus, either way, whether I look to what I may call the general conscience of the medical profession, or look to the principles by which men in general govern their conduct towards the brute-creation, nowhere do I see fair ground on which exception from outside can be taken to a limited, a strictly economical, use of animal life for purposes of scientific experiment.

No doubt there can be found, outside the medical profession, excellent persons, and plenty of them, whose first inclination would be to dissent from that position of ours; and some such persons have (as I think, hastily) given public utterance to such first impressions, and done their best to promote legislation against us. Among names which I see identified with opinions different from ours, are some for which I have deep respect. Particularly, of one such man, whom I have the honour to know, I think it may be truly said that his own whole life has been one of practical beneficence, and I would not willingly incur the censure of any such man. But even to him I would fearlessly say, that I think he has not done justice to the case of our profession. To him, and such as him, I would confidently appeal to reconsider their first impressions. On him, and such as him, I would urge that the practice of scientific experimentation on living animals is but an infinitesimally small application of the licence which common life claims for itself in regard of animals; and I would challenge such men to examine, with strict impartiality, what are their own responsibilities, direct and indirect, in regard of the infliction of pain on living animals.

I protest against any man's applying to this extremely important question a purely arbitrary standard of right or wrong. Those who pronounce judgment on their neighbours must be prepared to state the principle on which they judge. "Compound for sins you are inclined to, by damning those you have no mind to", is the Pharisee's easy-going formula. Where would life be, if that were generally accepted? Suppose a *genus* of action; let men draw an arbitrary line across it—a line prescribed by no better rule than that which governed the lady's dislike to Dr. Fell; let them affix a nickname of praise to all on one side of the line, and a nickname of dispraise to all on the other: truly we should thus have the readiest of royal roads to unlimited mutual persecution.

And I protest against a standard of right and wrong being fixed for us on grounds which are merely sentimental. In certain circles of society, at the present time, æsthetics count for all in all; and an emotion against what they are pleased to call "vivisection" answers their purpose of the moment as well as any other little emotion. With such sections of society, our profession cannot seriously argue. Our own verb of life is *εργαζεσθαι*, not *αισθανεσθαι*. We have to think of usefulness to man. And to us, according to our standard of right and wrong, perhaps those lackadaisical æsthetics may seem but a feeble form of sensuality.

Of the mere screamers and agitation-mongers who, happy in their hysterics or their hire, go about day by day calumniating our profession, and trying to stir up against it the prejudices and passions of the ignorant, I have only to express my contempt.

I regret to have had to speak at so much length of the heavy cloud which at present hangs over the study of scientific medicine in England, and which, in my opinion, is likely to be of specially disastrous effect on the progress of preventive medicine. As a very old public servant in that cause, I should indeed grieve to see it brought to a standstill for want of the scientific nurture which, in truth, is its very basis of life; and, speaking publicly of the danger on this occasion, I have hoped that the occasion may give importance to what I say.

And now, gentlemen, from contemplating that cloud, which happily is but local, and which, perhaps, may be but temporary, I gladly turn to skies which have no cloud. If there exist in the social organism any function whatsoever for which development and eventual triumph may be foretold, surely it is that of State Medicine. Of the two great factors concerned in it—the two strong powers which within our own time have converged to make it the reality which it is—the growth of science on the one hand, and the growing stress of common humanity on the other, neither one is likely to fail. Of our science it is needless to say that it will grow. To the science of Nature, indeed, is allotted that one incomparable human day which knows no sunset. In the pure light of its ever-present daybreak, individual workers will pass away, generations will change, but the studies of Nature, and, above all, the gathering of such knowledge as can lessen man's physical difficulties and sufferings, will surely grow from age to age, and, as on Proserpina's sacred tree, one golden fruit will follow another: "simili frondescet virga metallo." And no less also in the other direction, the auguries are wholly for our cause. Popular education is gradually making its way, and it will grow to be a force on our side. Masses of mankind that now have to be humbly pleaded for by others, will then be strong to speak for themselves. Physical interests, now but little understood, will then be within grasp of all men's apprehension. Not only will health be recognised at its true value, and its elementary requirements be regarded, but also the frauds and villanies which are now committed against it will have become intelligible to the common mind; and the workman of the future will strike against being cheated in health as he would now strike against being cheated in wages. As such times come to the world, the science and the profession which care for man as man will get to be better appreciated than now. And in proportion as an educated people grows to become Body-Politic, State Medicine will be seen to represent that true ideal of Government-action which sets its standard of success in the "greatest happiness of the greatest number".

M. Wurtz has been elected, by a large majority, a life-member of the French Senate. M. Pasteur has been raised to the dignity o Grand Cross of the Legion of Honour; and M. Brouardel has been created officer of the same honourable body.

Wagner on the Relations of Syphilis to Renal Disease.—E. Wagner (Deutches Arch. f. Plin. Med. xxviii., s. 94) says that out of 63 cases which might with great probability be attributed to syphilis, he found acute Bright's disease 8 times, chronic parenchymatous nephositis 4 times, granular kidney 7 times, atrophy of kidney one 6 times, with compensatory hypertrophy or annyload degeneration of the other, annyload degeneration 35 times, and renal syphilis 3 times.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MILITARY SURGERY AND MEDICINE.

By T. LONGMORE, C.B., F.R.C.S.,
Professor of Military Surgery in the Army Medical School at Netley; President of the Section.

COLLEAGUES of the naval and military services of our own and foreign countries, and all friends who are good enough to assist in the work of this, the Section of Military Medicine and Surgery,—Allow me, in the first place, to say how sensible I am of the honourable and responsible nature of the position in which I have been placed as president of this section, and to express my thanks for the trust you have reposed in me. I accepted the office with very great diffidence, in obedience to expressed wishes which I felt I could not do otherwise than comply with. I only entertained the hope that I might be able to discharge its duties satisfactorily with the help of the eminent vice-presidents, council, and other officers of the section, on whose support and assistance I felt assured I might confidently rely.

In the second place I wish, in the name of my British colleagues, to say a word of welcome to our foreign friends, who have not hesitated to come in many instances from places at remote distances, to join in the labours of this section. We feel honoured that men so distinguished in the science and practice of naval and military surgery should have come among us, many of whom bear names that are not only household words in their own respective countries, but are familiar in every part of the world where the progress of military medical science is watched, and improvements in its practice are studied. It is a peculiar pleasure to me to welcome those of our foreign *confrères* who have been able to attend the Congress; for among them are many who have been friendly colleagues at previous meetings in various parts of Europe for purposes closely akin to the objects of our present gathering—the advancement of surgical knowledge and the improvement of the means of alleviating the sufferings inseparable from a state of warfare. We hope that our foreign friends may find themselves well repaid for their journey to London on the present occasion; and that, on returning to their respective countries, they may not only feel that the part of the time which has been devoted to the discussions at the sectional meetings, and to observation of the scientific collections which have been specially formed for the occasion, has been passed profitably, but that also the time spent in our social gatherings has afforded an opportunity of renewing old friendships and forming fresh associations which will remain sources of very many pleasant reminiscences in the future.

Although this is the seventh meeting of the International Medical Congress, it is the first, I am informed, at which there has been a special section for the consideration of subjects connected with military medical and surgical practice; and yet there seems to be a wide field of work for such a section in a professional congress of the kind. Although the true principles of medicine and surgery must be true everywhere, in military as in civil practice, yet everyone practically acquainted with the conditions inseparable from service in the field knows that the application of those principles has perforce to be so modified that the modes of application themselves become a distinct branch of study. In saying this I do not confine myself to the mere physical or manual application of these principles—to the performance of a surgical proceeding in this way or that way,—I refer to matters of far more general influence. Consider how the whole range of what is generally spoken of as "conservative surgery" has to be modified in field practice from the mere influence of the circumstances by which our patients are surrounded in campaigning. How many injuries are there that would be appropriately treated in civil hospitals by an expectant method of treatment, by methods calculated to preserve the injured parts, and with good grounds for hoping to secure restoration of their function, which on numerous occasions the military surgeon would not dare to undertake, from his acquaintance with the dangers to life that such a practice would entail on his patients under the exposures, repeated changes from station to station, and other sources of disturbance to which they would have to be subjected in field practice! Remember also the special considerations which arise out of the characters and complications of the great bulk of the injuries themselves which have to be dealt with in military practice, those caused by gunshot. How greatly, again, the constitution, organisation, the internal administration, the mobility of armies, affect everything bearing on surgical practice in them; the quantities and descriptions of surgical and medical materials that the military surgeon can have at his disposal for his patients; the amount of protection, care, and attention he can obtain for them; the means at his command for transporting them from place to place without aggravation of their injuries. How much patient thought, what prolonged examinations and trials, what experience have already been brought to bear on these subjects, and how much still remains to be done in order to attain results which may harmonise with military necessities, and, at the same time, conduce to the welfare of the patients who are placed under our charge. I may allude, further, to the many subjects for deliberation which the crowding together of bodies of troops and animals in the close quarters in which they often have to be placed give rise to; the means of warding off the diseases which such conditions are apt to engender, the means of combating and extinguishing them when they have sprung into existence. In naval professional practice, too, in ships of war, the need of special attention being given to many subjects of medical and surgical interest seems to be obvious. Although the officers and men have the advantage of being in their ordinary house and home on board ship, with its usual furniture, and many things may be carried with them that are not available to soldiers in the field, still, in modern ships of war, with their artificial light below the water-mark, artificial supply of air, large amount of complicated machinery, and limited space for movement, what a necessity there must be for special consideration regarding the means of preserving health, and of the arrangements to be made, and the means to be adopted for dealing successfully with injuries which may happen on board, especially when they occur in large numbers, as in the case of an action with the enemy. I need not dwell further on the importance of a section in such an International Congress as the present being specially devoted to subjects bearing on the pursuit of medicine and surgery in fleets and armies. A large proportion of those who are present probably have some personal experience of military practice, and, if so, already know how much advantage may be anticipated from meeting at annual intervals for the purpose of discussing special professional topics which are still involved in doubt or obscurity; for making mutually known and sifting the experience gained under varied military circumstances and conditions; for trying to arrive at definite rules of practice; and, in short, for acquiring any knowledge which may particularly conduce to the benefit of the officers and men who depend, often without power of appeal, on our judgment and skill for restoration to health in sickness, and for safety and repair when subjected to wounds and injuries. Although belonging to all nations, we have the advantage of being able to meet together without national jealousy, and with no other rivalry than that of vieing with each other in endeavours to discover what may most benefit the sick and wounded. It is not with our province of thought and action, as it is in some measure with those other parts of military science and practice, on which national safety or superiority in power may depend. A certain amount of reticence in regard to them is justified by national self-interest. We can speak quite openly of all our professional plans and arrangements. If they contain any features better than those belonging to our neighbours of other countries we have no fear of imparting them. We hope, indeed, if they are really better, that they may be adopted and turned to account; for, if practically applied, our own people may possibly be among those who will be benefited by their adoption. And if we lack anything in our military hospital system which our neighbours have better than ourselves, we have no reason to suppose they will object to imparting information on the subject to us; they, in turn, may be benefited by our improvements. Neither surgeons or patients on either side can be harmed by mutual confidence in matters appertaining to technical knowledge or departmental arrangements. Even in time of war there are no enemies within our sphere of action.

The subjects on which observations are to be read at the present meeting of this section, and on which discussions are expected, are all subjects having an important bearing on naval and military surgery. I need not enumerate them, as they are already before you in the printed programmes. I will only observe that the most urgent of the questions named for debate at this meeting appears to be the manner in which the antiseptic treatment of wounds can be best carried out in time of war. This question, more or less, covers and influences many of the other subjects put down for consideration, such as the advance of conservative surgery in field practice, the treatment of injuries of blood-vessels in the field, improvements in field-hospital equipment, and several others. As you well know, the experience that has hitherto been gained in the strict application of antiseptic principles to the

treatment of wounds in the field has been obtained only under exceptional circumstances, and is, comparatively speaking, still exceedingly limited; but, such as it has been, the published results have been so largely superior, both as regards saving life and also as regards the restoration of the usefulness of wounded parts, to the published results of any other methods of treatment in the field, that, so long as this difference holds its ground, we are morally bound to try and extend the practice. All military surgeons, however, can readily perceive the practical difficulties that lie in the way of applying the antiseptic precautions and details of treatment inculcated by Lister, owing to the peculiar conditions incidental to military arrangements in time of war. It appears to me that one of the chief points to be settled, looking at the question from the point of view of military practice, is whether the action on the air by the antiseptic spray is an essential part of the treatment; whether some of the other forms of antiseptic treatment advocated by eminent surgeons are, or are not, capable of producing equally favourable results? If the action on the air by atomised antiseptics be an essential part of the proceeding, then the hope of applying it under the ordinary circumstances of warfare seems almost desperate—so free, not to mention other obstacles, is the access of air, and frequently so strong is its movement, in the field, at the dressing station, and in all tent hospitals. On the other hand, if this part of the process can be dispensed with, then the question will be greatly simplified, and attention will only have to be directed to the description of antiseptic applications and dressings which will best answer the intended purpose, and to the manner in which these dressings can be rendered available, consistently with other military requirements, when and where they may be needed, and in adequate quantities for meeting the wants of each particular occasion. Experience is not wanting of antiseptic treatment being carried out by eminent surgeons in some civil hospitals without the use of the spray at the operation table, and in other instances without its use during any part of the course of treatment; and, it has been alleged, with no less beneficial results than when the spray has been employed. It remains to be proved how far these observations are thoroughly correct, and satisfactory proof on the point can only be arrived at when sufficient experience has been collected on the subject.

I have been asked to give at this meeting an explanation of the system by which help is arranged to be afforded to the wounded among troops on active service according to the existing regulations of the British service. It has been suggested that to those who have not had occasion to study the subject this description would not only possess some features of novelty and interest in itself, but would also furnish indications of the extent to which particular modes of treatment of wounds and injuries might be capable of application under the arrangements described. In accordance with this suggestion I have brought the two diagrams which you see before you as a ready means of furnishing the explanation required.

The surgeons who are now entering the British military medical service can scarcely realise the greatness of the changes which have occurred in their branch of the profession during the last twenty-five years. When I commenced my military service, the British army was scattered in comparatively small detachments over the kingdom and in every colony. It was for the most part engaged as a safeguard for peace and good order in our own possessions, and occupied in performing duties that are now discharged by police, rather than in preparing itself for the sterner necessities of a time of war. Still more marked was this aspect of matters with respect to the army medical service. It was entirely a peace establishment; and its duties were conducted as if there were no liability to the state of peace being interrupted. Nothing was prepared for a condition of war, whether as regards plans of administration for field service, organisation of field hospital establishments, means of transporting sick and wounded during a campaign, or the descriptions of field hospital equipment to be employed. The results of the practical experience in these matters which had been gained during the Peninsular campaigns had gradually disappeared. In conducting the duties of the medical service, the attention had come to be largely devoted to economical details in small matters, which, in the aggregate, produced but comparatively trifling results; while the general system on which the hospitalisation of the sick was conducted was cumbrous, wasteful, and needlessly costly. This condition of things received a rude shock when the Crimean war occurred, and when, as the Director-General of the Army Medical Department at the time testified, without any records or patterns to guide him, everything for active service in the field, both as regards the field-hospital establishments, kinds of supplies, and forms of ambulance vehicles had to be improvised for the occasion. The break-down from want of systematic preparation which then occurred (not a break-down so far as the surgical staff were individually concerned, but a break-down in respect to the establishments with which they were connected) led to prolonged investigations, which not only demonstrated the need for a thorough reform of departmental arrangements and regulations, but also showed the directions in which the changes were required to be made. The experience of successive wars on the continent of Europe and in the United States since that period has step by step led to further developments in military medical organisation for field service no less than it has done in the purely combatant parts of the army.

The principal problem which the medical department has had to solve, has been to devise a scheme by which help and protection should be afforded speedily and effectively to the wounded over the large area which modern battles in Europe now usually occupy, and to provide for their subsequent treatment so long as circumstances may render their stay on the theatre of war a matter of necessity; one, at the same time, which should be capable of being modified and adapted to all the varying conditions of warfare—that is, variations as to features of country, difference of climate, seasons, numbers of troops engaged, opportunities of shelter, and other such matters; that should not only not impede, but, on the contrary, should work in harmony with all the other military arrangements; that should be economical in regard to the number of officers and men employed; that should include an equipment which, while adequate to the needs of the hospital service, should not exceed the means of transporting it; and lastly and particularly, a scheme that as regards the *personnel* necessary for the field-hospital and ambulance duties, should be little more than a redistribution of the *personnel* ordinarily employed in the stationary hospitals at home; so that, acting as a peace establishment as long as peace might last, the *personnel* should, at a very short notice, be capable of being organised and arranged into the different parts composing the war establishment.

The plan adopted for accomplishing these various objects may, for description, be conveniently divided into two parts—viz.: (1) that for the medical service from the base of operations to the limit of the area of active operations of the army in the field, and (2) that for the medical service with the army itself. The hospital establishments belonging to these two divisions of the medical service are shown separately in the two diagrams. They are mutually in a great measure independent of each other, although connected and working in concert; and they differ in their qualities, administration, and in many articles of their equipment, although the officers and men of the army medical department serving in them are interchangeable. The establishments at the base of military operations and along the lines of communication with the army have more or less of a stationary character, while the others are organised for being as moveable as the troops which they accompany.

In making a survey of these establishments it must necessarily be a rapid and rather superficial one. It will be convenient, perhaps, to start from the base and to follow them to the front, so far as the establishments along the lines of communication with an army in the field are concerned.

The insular position of our country leads to complications in the medical preparations for war from which continental nations are for the most part free. The officers and men of the medical service must at first be conveyed in detached bodies on board ship, as well as the hospital stores and equipment. The vehicles which are to convey the stores, as well as the carriages for the wounded, must be made capable of being folded up into convenient packages for being carried by sea to the place where the army is to be formed before commencing its operations. Continental armies can generally move in their accustomed ways, and concentrate their forces in a convenient place on their own frontiers. Wherever a British army may be despatched for hostile purposes, whether it be on part of a coast belonging to a friendly ally, or whether it be a position secured by force from a hostile power, the establishment of a new hospital in the place is one of the first necessities experienced. It is required at once to receive the sick and hurt who have accumulated in the transports during the voyage from England, and will be wanted to receive the casualties that are sure to happen while the force is being collected and formed prior to starting for the special purpose of the expedition. It is required for the reception of all the medical and surgical stores that have been brought from England for use during the campaign. If the position is retained as the base of operations, the hospital thus established will continually grow in importance as long as the campaign lasts. When the military operations are in progress, a large proportion of the patients that result from them will find their way ultimately to this hospital, and here they will be disposed of, whether they are sent back to activity in the field or are invalided to England. Again, as the military operations approach their termination, and other hospitals

that have been formed successively in advance are broken up, their occupants will fall back upon this base hospital, so that it will be the last medical establishment to be closed as well as the first to be opened in a campaign. The base hospital is consequently required to have a more permanent character than other hospitals in the field. Some available buildings are usually secured for its occupation, and these may be supplemented by subsidiary buildings or encampments, according to circumstances. The administrative as well as the executive staff are large in number, especially the executive staff, not only on account of the extent and variety of the duties to be performed, but also because it is the principal position where reserves of medical officers can be conveniently retained for replacing casualties in the field, and for supplying the demands which the military movements occasion.

As soon as the army quits the place of rendezvous and commences its march, casualties will occur of various kinds, and often in larger numbers than might be anticipated by those who have not studied the experience of such occasions. While comparatively near to the base, those that become disabled can be sent back to the general hospital established there, but after the troops have advanced to some distance, this would be inconvenient, and fresh hospital establishments have to be opened at suitable positions along the roads which the troops are following. These then become the stationary field hospitals along the lines of communication, or, as they were formerly called, the reserve or intermediate field hospitals. They are placed in situations which are not only suitable as regards sanitary considerations and hospital needs, but also as regards safety; in positions which the military authorities believe to be safe from incursions of an enemy, and from which the communication with the front in one direction, and with the base in the other direction, may be expected to remain secure. They may be established in buildings, in villages or towns, or camps near them, or near railway-stations. The equipment allotted to each of these hospitals is very similar to that of a field-hospital, only differing in having an increased quantity of hospital clothing, and in not being supplied with special transport vehicles.

In front of the stationary field hospitals, between them and the movable field establishments, is the "advanced depot." At this station, a supply of medical and surgical supplies and appliances is stored, ready for issue to meet wants in the bearer companies and movable field hospitals. This is the station, too, to which the sick and wounded are brought from the field by the bearer company's ambulance waggons, and from which they are forwarded by vehicles obtained from the commissariat department to the stationary hospitals along the lines of communication with the base.

These comprehend the establishments between the area of active military operations in the field and the base. The duties to be performed, so that the patients in the stationary field hospitals may have their wants properly attended to, so that there may be no interruption of the movements of men and materials between the field and the base to and fro, are so onerous and important that they are placed in the separate charge of a particular surgeon-general named for the purpose, as the military duties are in that of a general officer distinct from the general commanding the troops in the field. A surgeon-general acting under the orders of a general officer commanding the lines of communication has the special direction of all the medical duties along the lines and at the base. He is responsible to the surgeon-general-in-chief of the army for their regular fulfilment. The hospitals and the movements of sick along each road of communication are supervised by a deputy surgeon-general, acting under the directions of the commandant of the road. The charge of the advanced depot is placed in the hands of a surgeon-major. At the base are three deputy surgeons-general, whose respective duties are indicated on the plan before you. It is at the base hospitals and In the stationary field hospitals along the lines of communication with the army that the regulations direct all civilian surgeons and other persons affording voluntary aid to the sick and wounded to be employed.

The establishments with the army actually operating in the field must now be glanced at. They are of three kinds: (1) The regimental establishment. (2) The bearer company. (3) The field hospital. It will be more convenient to trace these from the front to the rear, from the fighting line to the line of the field hospitals, this being the direction in which help has to be afforded by them on the occurrence of an action with the enemy.

The first surgical establishment belongs to the battalions and other bodies of troops composing the brigades and divisions of the army, and is of a very spare character. It is only organised for giving temporary help during halts of the troops on the march, or, in case of action, affording such primary aid to the wounded as may be necessary before the second establishment, the bearer company, can reach the spot. Each corps has a surgeon with it, and two men of each company are trained as stretcher-bearers. These form the corps field surgical staff. The ordinary equipment consists of two "medical field companions," cases containing surgical materials and medicines, carried by straps over the shoulder, two water-bottles per company, and a stretcher per company, carried in the company cart. In case of a corps being detached on outpost or other duties, larger cases, field panniers, carried on the backs of pack animals, and other equipment, according to circumstances, are supplied.

The second establishment, the bearer company, is the most important source of aid in case of the occurrence of an action, and is very fully and carefully equipped for its duties. It comprises the means of performing all surgical operations of urgent necessity, and of applying surgical dressings and giving preliminary aid to all wounded, wherever they may be met with, before their removal to the field hospitals in the rear. It is specially organised for giving this aid in a systematic manner at certain important stations: in the immediate rear of the fighting line—at places to which the badly wounded are first carried, and where they can be transferred to wheeled conveyances—and at the established dressing stations. It is by the bearer company that the wounded are removed from help-station to help-station, on stretchers from the place of fighting to the transfer or collecting station, by ambulance-wagons from the transfer to the dressing-station, and again from the dressing-station to the field-hospitals, and from them again subsequently to the advanced depôt. To accomplish all these purposes, each bearer-company in the field has a considerable *personnel*, over two hundred in number, allotted to it—medical officers, officers of orderlies, transport officer, men of the Army Hospital Corps, stretcher-bearers, drivers, and artificers. The details of these establishments may be found in the Code of Army Medical Regulations. The equipment is also large, and includes all the supplies for forming the dressing-stations, performing the necessary surgical duties, supplying medical comforts, the ambulance conveyances, and a variety of articles, the lists of which are also laid down in the Medical Regulations. Each bearer-company is divisible into two "half-bearer companies", with *personnel* and equipment complete for its duties. The whole company is under the command of a surgeon-major. Four such companies constitute a bearer-column, the complement for an army corps; and one of these companies has its transport and equipment adapted for work in a mountainous country, where wheeled transport could not be employed. The command of a bearer-company is a very responsible one: the movements of the company, whether in marching with troops, in camping, or in discharge of its special functions on the occasion of an action, have to be conducted with the same military discipline and precision as the movements of all other parts of the army; the bearers must be drilled and exercised in the proper modes of carrying the wounded, and both they and the men of the Army Hospital Corps must be taught and practised in the modes of rendering first assistance in the absence of surgical aid. All this constitutes part of the work which is now systematically done in the Army Hospital Corps Training Depôt at Aldershot. I may here mention that arrangements have been kindly made by the principal medical officer and the medical staff at Aldershot, to receive a certain number of visitors who may wish to attend the bearer-company exercises at that station on the 6th instant. It is all the more important that the duties of the bearer-company should be performed with thorough efficiency, especially as regards the preliminary dressing and treatment of the wounded, as, owing to the great range of modern projectiles, the field-hospitals, as shown by modern experience in European warfare, are often established so far away from the place of conflict, that many hours may elapse before the wounded in the transport vehicles will be able to reach them and get fresh surgical help. This is especially liable to happen when an action only ceases as daylight is declining, and the roads between the battle-ground and the places where the field-hospitals have been established become encumbered by military vehicles of all sorts, as well as by the movements of troops.

The field-hospitals remain to be noticed. A great deal of thought has been given to the proper constitution of the establishments so as to combine qualities of portability and readiness at any time for use with the requisite efficiency. A field-hospital must be so arranged as to be always within reach of the troops; ready for reception of the wounded from the bearer-company, shortly after the occurrence of an action, with all requisite means for their protection, care, and treatment, for at least several days, if necessary; and it must be capable, as soon as the patients have been removed from it to the advanced depôt, to be quickly packed up again and ready for further movement forward, so as to be available for the reception of a relay of patients in case of another action with the enemy. The field hospital, as now arranged in the British service, is fitted for the reception of 200 patients. The requisite number of tents, each calculated for four patients, is carried for accommodating

the whole number, but if a farmhouse with out-buildings be available, or suitable houses in a village can be obtained, the tents would probably not be employed. Each field hospital has its *personnel*, equipment, and transport so arranged, as to be capable of division into two half-field hospitals complete for 100 patients. Twelve field hospitals form part of each army corps, two being allotted to each division of the army corps, the remaining six being reserved for disposal wherever they may be specially needed. In addition to four store waggons for the ward and cooking material and medical stores, four for tentage and equipment, and two water-carts, each movable field hospital has two pharmacy waggons, containing a complete equipment of instruments, surgical appliances, medicines, and means of dispensing them, with a stock of medical comforts. The contents of the waggons, and modes of packing them, the order to be observed on the line of march, and the plan of encamping a field hospital, with other details regarding such establishments, may also be found in the Army Medical Regulations.

It will be seen from the account I have just given that the regulated plan of medical and surgical assistance for troops on active service is a very complete one, and that it anticipates all the wants that are likely to occur during a campaign. It is obvious that, to carry out the arrangements when the strain of a general action occurs, and help is demanded for a large number of wounded, previous training, intelligence, and active exertion on the part of all concerned, will be necessary for success. An adequate staff is provided by the regulations for the purpose. In addition to the special surgical and subordinate staff of the field hospitals and of the bearer companies, the surgeon-general-in-chief with the army corps has a deputy as a field-inspector, whose duty it is to see that the circulation of the system of help is properly maintained, two orderly medical officers, and other officers to assist him in his charge. Each division of the army has a deputy surgeon-general at its headquarters, and each battalion and separate corps its surgeons. In all these arrangements, the calamity of a state of warfare in Europe has been particularly had in view. But even in other parts of the world, even in half-civilised countries, the general principles of the system can be maintained; the manner in which they are carried out has alone to vary, according to the nature of the military operations, the condition of country, and other local circumstances.

The sketch I have laid before you of the existing arrangements for ensuring systematic help and skilled attention to the wounded in case of this country unhappily becoming involved in war, has been unavoidably a superficial and imperfect one, and I must apologise for its incompleteness. The description, short and partial as it has been, may, however, not be without some advantage, if it has succeeded in conveying a general idea of the arrangements under which any particular system of treatment, whether the strictly antiseptic treatment of wounds, or any modification of it, will have to be applied among troops when on field service.

MAIDSTONE.—The report for this borough, despite some minor blemishes, is one of general excellence. It is compact in form, methodical in arrangement, and possesses the conspicuous merit of being written on the lines set out by the Local Government Board. The total number of births was 957, and of deaths 557, equal to rates of 31.34 and 18.83 per 1,000 respectively. Of the total deaths, 9 are attributed to measles, 6 to scarlet fever, 8 to whooping-cough, 6 to typhoid fever, and 38 to diarrhœa. With a view of ascertaining the causation of this last disease, Mr. Adams made a minute inquiry, and states the result of his observations as follows. "Putrescent changes and improper food are the chief factors in the production of this disease; the changes being set up by high temperature and the miasma which abound in urban districts in the summer season.... Experiment and observation have demonstrated that during hot weather putrescent changes are most prone to occur in farinaceous foods, after them in Swiss milk, less so in cow's milk, and least of all in breast-milk." He adds that, considering how careless the poor are in cleansing the feeding-bottles so universally used, "it almost amounts to a practical certainty that the deaths from infantile diarrhœa are chiefly due to fermentive and putrescent changes in the improper foods administered." During the year, the borough was visited no less than four times by small-pox, the origin of the first outbreak being traced, with some show of probability, to a girl working as a rag-cutter in a paper-mill. The sewerage scheme progresses somewhat slowly. A step in the right direction appears to have been made in regard to the removal of house-refuse; but it is to be hoped that a system of regular and periodical collection of such refuse will be adopted. Referring to the water-supply, Mr. Adams makes amends for the inadequacy of information in previous reports by including a short statement on the subject. The cottage-hospital proved itself of great value during the year in preventing the spread of infectious disease, though the accommodation is miserably deficient for the requirements of the borough.

AN ADDRESS

THE SECTION OF MATERIA MEDICA AND PHARMACOLOGY.

BY PROFESSOR FRASER, F.R.S.,

President of the Section.

GENTLEMEN,—The Section whose work we inaugurate to-day is devoted to the subjects of Materia Medica and Pharmacology. The occasion of our meeting is one on which we have every reason to congratulate ourselves. The International Medical Congress meets in this country for the first time, and affords an opportunity, which has never before been equalled in Great Britain, for personal intercourse and exchange of ideas between men from every country in which the study of medicine and of the science of life occupies an intelligent position.

The vastness of this study, the many subjects of separate interest which it includes, and the unfortunate limitations in the power of the human intellect, have necessitated its subdivision into many departments, one group of which has been consigned to the charge of this section.

I have purposely used the word group, as the title of our section shows that it embraces not one but several subjects. The words "Materia Medica" no doubt imply a description of the agents used in the treatment of disease; but this description is not restricted to the physical proportion of these agents, for it includes also their actions and their uses in disease. The department of materia medica encroaches, therefore, on the one side upon the science of physiology, and, on the other, upon the art of treating disease; while it concerns itself, at the same time, with physics, chemistry, botany, and zoology.

This "many-sidedness" has led to the introduction of special terms applicable to the chief subdivisions, and as each subdivision deals with questions which are distinct in themselves, it has become individualised not only by a separate designation, but also, in great measure, by forming an independent subject of study and investigation.

The introduction into the title of our Section of the word Pharmacology illustrates the necessity which has now arisen for this subdivision. To this word we no longer assign the old significance which it bore as a mere synonym of materia medica. It now implies the science of the action of remedies, and it accordingly deals with the modifications produced in healthy conditions by the operation of substances capable of producing modification. The methods of investigation which it requires are totally distinct from those followed in the study of either pharmacy and pharmacognosy, and so it is that the specialist in this subject may have but little knowledge of pharmacy or pharmacognosy, and may never concern himself with the investigation of their problems. On the other hand as pharmacology constitutes the chief bases for the application of remedies in disease, it closely allies itself to therapeutics, and constitutes the most important connecting link between materia medica and the art of medicine.

In this section we cannot with propriety concern ourselves with therapeutics. It is so inseparably related to the etiology and pathology of disease that the advantages to be gained by a subdivision of medicine into separate departments would be annulled were our section to deal with it as a separate subject. The remaining subdivisions of materia medica are those to which our attention may best be devoted. To each of them, however, an equal amount of attention would not be appropriate. It will, I think, be generally admitted that, on account of some of the considerations I have referred to, and while fully recognising their practical utility and importance, pharmacy and pharmacognosy are probably sufficiently represented in our programme by the proposed discussion on an International Pharmacopœia. In this discussion the section are to have the advantage of an expression of opinion from Professor Eulenburg, of Greifswold, and I hope also from several of the distinguished pharmacists who are now conducting an International Congress in this City with a success we must try to emulate, and many of whom, I am glad to say, are to favour us with their co-operation as extraordinary members.

Our programme chiefly contains subjects for discussion which are drawn from pharmacology, and I trust that the consideration of the various important subjects that have been selected for discussion, and of the facts that are to be laid before us in other communications,

will justify the council in their selection, and will result in some addition being made to the rapidly increasing data upon which the science of pharmacology is now being founded.

It is clearly appreciated by all who are actively interested in the progress of pharmacology, that it is essentially an experimental science, and that its advancement can be obtained only by the application of the experimental method. This method, indeed, is as old as science itself; and, although it has been the instrument by which all true progress in medicine has been achieved, during a long period in the history of medicine it had been distorted by the importation of metaphysical phantasies, and dominated by the contending theories of the schools. From data of the most insufficient description, theories were evolved of wide application; and in no department of medical knowledge was this more strikingly manifested than in pharmacology and therapeutics.

Fanciful resemblances between medicines and pathological products or normal structures were considered sufficient to explain the effects of the medicines, or to indicate the conditions of disease in which they should be applied. The resemblance between the white spots on the leaves of *Pulmonaria officinalis* and the morbid product tubercle, led to the use of this plant in diseases of the lungs; the colour of the common carrot formed an indication for the administration of the carrot in jaundice; and the heart-like shape of the fruit of *Limocarpus anacardium*, and the uniform shape of the fruit of *Anacardium occidentale* were considered sufficient characters for the administration of the one in diseases of the heart, and of the other in diseases of the kidneys. The doctrine of "Signatures", which prevailed for many years, and was accountable for these and many other absurdities, now mainly possesses the interest of affording an example of the ever-existing desire for guiding principles in the application of remedies—a desire which found satisfaction also in the systems of Paracelsus, Stahl, Brown, and Rasori.

These and all other systems that have been propounded erred in the insufficiency of the facts on which they were constructed. The knowledge of the age, in which each of them was introduced, lent for a time a plausible support in their favour, but it was insufficient to disprove them. Each in turn, however, was discarded as knowledge advanced, and supplied the data required for refutation.

This knowledge was the fruit of observation. In its crudest form, observation restricted itself to the noting of the symptoms of disease, and of the changes produced in those symptoms by treatment. It is exemplified in the writings of Hippocrates, Theophrastus, Celsus, and Aretæus; and, in the present day, in the records of so-called experience. The general symptoms of a disease were ascertained, the changes produced by the administration of remedies, were observed, and the result was preserved as a guide for the treatment of other cases. An experiment, in fact, was performed; but the experiment was one in which the conditions are complex, and the causes of fallacy numerous.

In the early history of medicine, when the normal conditions of life were unknown, and when the conceptions of disease were, in most cases, mere fancies of the imagination, erroneous doctrines and applications inevitably resulted from the restricted employment of this method of observation. Even at the present time, its employment is surrounded by difficulties and fallacies of a similar description. Notwithstanding the remarkable advancements in biological science that have followed the application of the methods of research inaugurated by Bacon and Galileo, the normal composition and functions of the component parts of body, and much less their abnormal conditions in disease, are in very few, if in any instances, thoroughly understood. The labour of years has resulted in proving but too distinctly their complexity, and perhaps, above all, in making it apparent that much is unknown. The mere separation of the symptoms of disease from the mental or moral reactions of the individual is even, in many instances, a matter of difficulty. It is far from being an easy task to estimate the effects produced upon the patient by the remedy that has been administered, not only on account of the nature of the problem, but also because of the tendency—too often irresistible—on the part of the observer to confound sequences with consequences. Experience has, in all ages, supplied proofs that the aphorism—*Sublatâ causâ, tollitur effectus*—is in the art of medicine little more than a disappointing mockery.

That experimental method which deals with problems of so great complexity as those with which crude observation is concerned, having failed to produce results which satisfied the generous aspirations that have, at all times, formed the incentive to medical investigation, a new development was fortunately given to the study of the effects of remedies, by the introduction of an experimental method in which the conditions are more simple and controllable than in those forming the basis of so called experience. The introduction of this method is due to Bichat, and by its subsequent applications by Magendie, pharmacology was originated as the science we now recognise. Bichat represents a transition state, in which metaphysical conceptions were mingled with the results of experiment. Magendie more clearly recognised the danger of adopting theories in the existing imperfections of knowledge, and devoted himself to the supplementing of these imperfections by experiments on living animals. The advantages of such experiments he early illustrated by his investigation on the upas poison, and, afterwards, by a research on the then newly discovered alkaloid, strychnia. The results of these researches enabled him to lay the foundation for the doctrine that remedies exert their actions upon special structures; a doctrine which was afterwards further developed and illustrated in the classic researches of his pupil, Claude Bernard.

Magendies' epoch-making investigations inaugurated the present century. The value of his method was quickly appreciated, and adopted in Germany, Italy, and Britain. It, however, necessitated experiments on living animals, and it is curious to observe that, even in his day, the embarrassments which sentimental opposition has succeeded in raising to the progress of pharmacology in this country, were not unknown in France. To this subject, Claude Bernard makes some reference in the biographical notice of Magendie, which forms the introductory chapter of his work on the "Effects of Poisonous and Medicinal Substances." He there furnishes us with an argument against the views of those who oppose experiments on living animals, which has the special interest of having been written, apparently, chiefly in defence of experimenters in this country; where, as he rightly supposes, prejudices are most strongly developed and stated. As all science must be founded on experiment, so the science of life, he remarks, necessitates vivisection, because the phenomena of life occurs only in living beings; but experiments on living beings, governed and inspired by a true scientific spirit, do not deserve the reproach of cruelty, any more than the vivisections of the surgeon prompted by the idea of saving the life of his patient.

On this subject, however, I propose afterwards to make some further remarks, but before doing so, I would briefly refer to the results that have already been obtained by the experimental study of pharmacology during the present century.

By the experimental method, I do not refer to that which is associated with the name of Hippocrates, which searches for truth by means of experiments of a complicated description, in which the data are in a great measure unknown, and almost entirely beyond the control of the experimenter. It would, at the same time, be impossible to assert that by observation of the effects of remedies upon patients, much advantage and many valuable results have not been gained. A large number of remedies have been introduced, even although their physiological action was entirely unknown, and several of these yet retain their position as valuable means of treating disease. On the other hand, the greatest number of them have certainly been discarded as knowledge advanced, and not a few retain their position simply because other and more trustworthy reasons for their employment have been brought to light.

This light has been derived from the experimental method, which, while it does not neglect crude observations, endeavours as far as possible to simplify the conditions of the experiment, by using as the subjects of experiment, animals in whom the conditions admit of being controlled. A certainty is thus given to the results which could not otherwise be obtained, and applications to disease acquire a prominence which is in striking contrast to the ephemeral and fleeting opinions, which are derived from the empirical method. Magendie's research on strychnia may be cited as an illustration of this. He demonstrated the action of this substance upon the spinal cord by experiments upon the lower animals so thoroughly, that subsequent investigations have added but little to his results. He also recognised the advantage that might be expected from its administration in disease, and proposed its application in cases of paralysis. This application was first effected by Fouquier, and since that time strychnia has retained its position as a remedy for paralysis.

Since that time, also, the method has been applied to the investigation of a large number of active substances, with results of the highest importance to humanity. Rational explanations have been discovered for previously observed therapeutic facts, and it has become possible to apply many known remedies with judgment and confidence. Previously unknown therapeutical actions have been brought to light, and symptoms of disease, which before were beyond control, can now be alleviated by the production of definite remedial actions.

To the members of this section, it must seem almost a superfluous task to recall examples in support of these statements. Let me content myself by instancing merely the action of ergot on the blood-vessels; of aconite, digitalis, and a host of other substances upon the heart; of nitrite of amyl upon the blood tension, and of the large groups of substances which act as emetics, diaphoretics, cathartics, diuretics, and

cholagogues. Many of the examples I have cited will be considered with detail in the discussions and papers which are to engage the attention of the section, and I now do no more than refer to them in illustration of the great benefit which pharmacology, and, therefore, therapeutics has derived from the adoption of the experimental method.

I may further illustrate the value of the results obtained by this method, and, I might even say, the necessity for pursuing it, by considering for one moment the action of digitalis and of anæsthetics.

The former substance was introduced into practice by Drs. Cullen and W. Thormic. Towards the end of the last century, and, therefore, answering to the inauguration of the experimental method, and to the foundation of pharmocology as a science, it was introduced as a remedy for dropsy; and on the applications which were made of it for the treatment of that disease, a slowing action upon the cardiac movements was observed, which led to its acquiring the reputation of a cardiac sedative. Numerous observations were made on man by the originators of its application, by Dr. Sanders and by many other physicians, in which special attention was paid to its effects upon the circulation, but no further light was thrown upon its remarkable properties, with the unimportant exception that in some cases it was found to excite the circulation. It was not until the experimental method was applied in its investigation, in the first instance by Claude Bernard, and, subsequently, by Dybkowsky, Pelikon, Meyer, Boehm and Schmiedeberg, that the true action of digitalis upon the circulation was discovered. It was shown that the effects upon the circulation were not in any exact sense sedative, but on the contrary, stimulant and tonic, rendering the action of the heart more powerful, and increasing the tension in the blood-vessels. The indications for its use in disease were thereby revolutionised, and at the same time rendered more exact, and the striking benefits which were now afforded by the use of this substance in most diseases were made available to humanity.

The introduction of anæsthetics into medical practice has certainly produced more benefit than that of any class of substances. The insensibility which they produce is a condition which can be readily established by the most crude method of experiment, as it requires merely the exhibition of the substance and the observation of the effect; and this simple process of investigation is that by which their introduction was effected. Following upon this introduction and the wide extension of their employment, however, it was soon found that insensibility was not their only effect. They produced insensibility, but they also produced other actions, which assumed a grave importance, as they were occasionally sufficient to destroy life. The nature of these additional actions became, therefore, a matter of interest, for upon them apparently depended many questions governing the indications for the use of anæsthetics, and the treatment which should be adopted in order to avert or counteract their dangerous effects. No sufficient light, however, could be thrown upon them by the simple experiments which were sufficient to prove that these substances produce insensibility. By observing the phenomena presented by a patient in the anæsthetic condition, the mechanism by which the dangerous effects were caused could not be revealed. It could not even be determined whether death were produced by an action upon the brain, or upon the heart, or upon the respirations. The necessity for extending the investigation of their action to lower animals, in whom the experimental conditions could be controlled and varied, became obvious; and the researches which have already been undertaken by Hermann, Bert, Ferguson, Coates, and McKendrick, have furnished much information with regard to those difficulties, that could not be solved by mere observation of effects in human beings. They have provided indications for forming an opinion of the relative dangerousness of many anæsthetics, of the class of cases in which each should be specially avoided, and of the means by which their dangerous actions may best be counteracted; and it is needless to remark that, if results of such importance can be obtained by no other means than by experiments upon the lower animals, the performance of such experiments is an imperative duty.

I have already defined pharmacology as the science of the action of remedies, and pointed out that, like every other science, it must be founded upon experiment; while, from the nature of its problems, the experiments must be performed upon living beings. These propositions are generally recognised by those who are engaged in the study of the means of treating disease; and upon their application, the present condition of medical art and science is dependent. Embarrassment and difficulties have, however, been encountered in the application of the last proposition, which fortunately have not assumed an equal importance in every country. In Britain, however, they have assumed an importance which constitutes a crisis in the history of pharmacology. Exaggerated and erroneous statements of the horrors of experiments on the lower animals, and ignorant assertions regarding the history of medical progress, have raised a sentimental clamour before which a representative Government has found itself powerless. An Act has been passed, imposing restrictions of the most harassing description upon those who are engaged in pharmacological and physiological research, and relegating to officials, who are utterly ignorant of the subject, the duty of deciding what investigations shall be undertaken. Under this Act, no one is permitted to perform an experiment upon a living vertebrate animal who is not furnished with a licence from the Home Secretary, who is all-powerful to grant or refuse licences at his pleasure. I need not say that the imposition of the degrading restrictions contained in this Act was opposed by the indignant remonstrances of the profession. It was characterised as unjust to the profession, detrimental to the interests of society, and an obstruction to the progress of knowledge. The Act was, however, passed, and now, according to the law of this country, "any person may inflict any pain short of torture on any domestic animal, and any torture he pleases on any non-domestic animal"; but he cannot inflict the most trifling injury upon any animal, whether domestic or wild, so long as his object is a scientific one, unless he is first furnished with a licence.

On the passing of the Act, I believe an assurance was given by the then Secretary of State, that it was not the intention of the legislature to prevent altogether scientific research by means of experiments upon animals; and this, as well as other assurances, and modifications of the Act as it was first introduced, had some effect in calming indignation and in lessening opposition. I cannot help thinking that this opposition was too easily lessened, and that the bribe of a few unimportant compromises induced the profession to submit but too readily to the imposition of an unjust Act, which their knowledge assured them could only be followed by injury to medical science, instead of continuing the uncompromising opposition, which was so ably advocated by Mr. Lowe.

Pharmacologists and physiologists have now had some experience of the Act, and I do not think any other opinion will be expressed than that it has impeded the development of their sciences, and rendered the prosecution of these sciences so difficult and harassing that original investigation is now almost impossible in the country of Harvey, Bell, Reid, and Christison. It is true that during the first few years immediately succeeding the passing of the Act some consideration was shown to the interests of science and the aspirations of investigators for permission was generally given for the conducting of experiments. Legislation, however, originating in hysterical clamour, is not likely to remain uninfluenced by subsequent manifestations of the same disease. There is, indeed, no malady in which firm opposition is more likely to be beneficial, and in which even the slightest exhibition of indulgent compromise is more likely to produce more frequent or more uncontrollable manifestations. The passing of the Act was largely due to compromise, the subsequent history of the operations of the Act proves that in place of appeasing clamour, this compromise has served as a strong incentive to its continuance. Investigators to whom the Home Office has afforded the necessary licenses for performing experiments have been assailed with unbridled invective, and influence is being brought to bear upon the Secretary of State to cause him to interpret the Act as one for the entire suppression of experiments on animals. How effectively this influence has operated, or how hazardous it is to place the progress of a science entirely at the mercy of a State official, utterly ignorant of its aims and triumphs, is now being exemplified. In several instances in which the objects were of the highest interest, and in which the importance of the results could not be predicted, the Government has constituted itself the supreme arbiter of science, and has ventured to decide that certain experiments were not required, and should not be performed. I do not make this statement unadvisedly. The instances are within my own knowledge, and in one of them I have the best of reasons for knowing the facts, as only the other day I experienced the mortification of being refused a license. In this case, permission was requested for performing a few experiments on rabbits and frogs with a reputed poison used by the natives of Borneo to anoint their arrows. If this be an active substance, it is impossible to predict what advantages might be gained from its use in the treatment of disease; but, apart from this, it is surely important to discover in the interest of travellers whether it really possesses toxic properties, and, if it do possess such properties, what are their characteristics, and what is the best method of counteracting its effects. I am obliged to conclude, however, that those who are now authorised to decide such questions for us entertain a different opinion, and consider that these objects and the interests of science are insufficient to justify the most trivial infliction of pain upon rabbits and frogs. That the infliction of pain would be only trivial will, I think, be apparent when I state that the only operation for which permission was requested was the subcutaneous injection of the poison; for the question of the possible infliction of pain by the action of the poison

poison does not arise, as the substance might, without any infringement of the Act, be placed in the stomach or in contact with any absorbent surface, provided no wound was inflicted. The absurd position has now been assumed by the State that an operation implying merely such a wound as can be produced by a needle point is not justifiable, so long as it is performed for the purpose of acquiring knowledge and in the hope of benefiting the human race.

To us the matter bears a most serious aspect. To us it is as clear as the light of day that the action of remedies cannot be ascertained otherwise than by experiments on the lower animals. If this method of research be denied to us, what means are we to adopt for increasing the resources of our art? How are the rich treasures, which the enterprise of travellers and the never-ceasing discoveries of chemists place at our disposal to be applied, as hitherto they have in so many instances been most beneficially applied, to the treatment of disease? How are we to discover antidotes to the poisonous action of toxic agents? Experiments on man with substances regarding whose properties no knowledge exists will ever be repugnant to medical science; and on that account, as well as because of their entire insufficiency, they cannot be adopted as substitutes for experiments on the lower animals.

Is, then, the progress of pharmacology to be brought to a termination, and the treatment of disease to lapse into the former irrationalism, so distasteful to present aspirations, which are anxiously striving to attain exactitude in the art of medicine?

So far as this country is concerned, this result must inevitably occur unless we obtain our knowledge entirely from other countries, or unless the freedom of research is again asserted among us.

I believe the latter alternative is not impossible to be attained. Much of the clamour that has been raised against experiments on animals is the outcome of erroneous information and sentimental prejudice, and many who are now taking part in this clamour would cease to do so were their erroneous impressions removed. Let them endeavour to appreciate the problems we have to solve, let them realise the incentives that urge us to increase our knowledge, let them consider that each advancement is a gain for humanity, and in place of lending themselves to obstruction and obloquy, they will repay our exertions with commendation.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AN IMPROVED AURAL SCOOP.

THE following brief account of an improved aural scoop, which I exhibited at a recent meeting of the South-Eastern Branch, may be of interest. It consists of a thin shank of pure silver, terminating in a delicate loop of wire of the same material, which latter, if spread out, would measure about five-eighths of an inch in length. The shank is fixed in a light six-sided handle of ivory. Its advantages are: 1. That both the size of the scoop and its curve can be altered, at a moment's notice, to suit any individual case, or to work through any sized speculum; 2. That the shank can be used either straight or bent at an angle, as preferred; and 3. That the slight elasticity of the shank prevents the walls of the meatus from being readily injured by pressure on them. A shank that is quite rigid may, however, be preferable in some cases. The instrument has been made for me by Messrs. C. Wright and Co., 108, New Bond Street.

E. CRESSWELL BABER, M.B.Lond., Brighton.

SELF-RETAINING DRAINAGE-TUBES.

FOR more than ten years past, I have used extensively, both in hospital and private practice, and, though I have never published the device, have frequently shown to my professional brethren, what I consider more efficient and simpler than the "India-rubber Drainage Anchors", figured in the JOURNAL of July 16th. It is this. A piece of ordinary India-rubber drainage-tube, of size adapted to the particular case under treatment—whether it be one of empyema or abscess—is slit up the required distance, at one end; then turned up, like a coat-sleeve, for a short distance beyond the slit, and passed into the wound by an oiled probe, placed in the axil of one of the branches thus formed. This, I submit, is more efficient—inasmuch as an open canal is, perforce, maintained for drainage; and simpler—inasmuch as both drainage-tube and probe are always to hand.

H. J. ROPE, F.R.C.S.Exam., Shrewsbury.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 6TH, 1881.

THE INTERNATIONAL MEDICAL CONGRESS.

THE London session of the International Medical Congress has been inaugurated with even more than all the amplitude, brilliancy, and completeness which could have been anticipated. In William MacCormac a new Carnot has been found, and success has been organised on a scale suitable to the metropolis of Great Britain and to the famous city of four millions. Medicine has never been more fully represented, or more publicly honoured, than in the great assemblage of Wednesday, the third of August, when the Royal Princes of the great Teutonic and English empires, standing side by side on a platform graced and dignified by the most representative and illustrious of physicians and surgeons of the world, declared the Congress of 1881 open for its work. By the side of Paget and Jenner stood Langenbeck, Pasteur, Virchow, Charcot, Donders, Austin Flint, and Pantaleone.

Every country had sent its contingent, and every university its professors. The hall was filled to its furthest doorways and to its topmost gallery.

The speakers did not fall below their duty. British medicine knows no representative of higher personal worth than Sir William Jenner, and his address was couched in characteristic words, correct, and lofty in sentiment, ringing true and clear, of excellent aspiration and unwavering earnestness; it was admirably Britannic. Some might have deemed it stamped here and there with the die of a rigid formalism, and rhetorically somewhat rugged and of limited outlook, but it was perhaps not on that account unsuited to the genius of our nation, or the formal nature of the occasion.

Sir James Paget's address was warmed with a bright glow of eloquence, delivered with all his wonted persuasiveness of manner and richness of voice, although with less than his accustomed fire. Optimism is the badge of all the tribe of presidents, but it is the prevailing and happy characteristic of Sir James Paget's intellect, and one of the secrets of his power and usefulness. By the happy alchemy of his mind, evil is often burnt away till the good alone stands clearly present; there are few situations in which he cannot descry a happy issue, few difficulties for which he cannot discern some solution or offer a compromise; few griefs, regrets, or disappointments for which he cannot suggest hope or resignation. It is the token of an intellect of great power to turn the arms of the satirist against himself, to find in the bitter words of the railer against progress and in his jesting formulæ, the symbols of the truth at which he jeers. "Tout est pour le mieux dans le meilleur des mondes" was, for Voltaire, the last word of human folly, the derisive formula which denoted human misery, and weakness, and crime. Sir James Paget accepted seriously the position of a scientific Candide, and vindicated the philosophy of Leibnitz. Translating into biological terms the famous Voltairian phrase, he almost convinced his great and brilliant audience that, in medicine and in biology at least, all is for the best in the best of all possible worlds. For the moment, under such auspices, listening to the accents of one of the most gifted and richly endowed orators of modern times, surrounded by the glory

of the intellect, culture, and laborious aspiration of so many countries, with the heirs of the two most powerful kingdoms of the world joining in an act of homage to medicine, it was pardonable, as it was pleasant, to see only the silver side of the cloud; to think of error as only a mode of development and touchstone of truth; to think of the vagaries and divagations, the backslidings and the follies (which have made some sceptical men ask, "Is medicine a science at all?"), as the mere eccentric evidences of scientific development, parts of an unseen order, fragments of an undescried system. The conviction, the mellow persuasiveness of the orator, and the charm of his theme, worked upon his audience as a powerful spell. Some of the phrases were less happy than usual. The definition of the three objects of the liberal medical mind—novelty, utility, and charity—was rather epigrammatic than philosophical, and might, perhaps, with as much felicity be applied to a fancy fair. In some of the smoothest and brightest of the periods, however, there was a deeper reference than met the superficial glance. It was not without an anxious meaning that reference was made to the importance of mere new knowledge and infinitesimal research—infinitely small as the infusoria of Ehrenberg, leading up to the bacteria of Pasteur, the forerunners of a creative era in the progress of the healing art. Sir James Paget had here in view the persecution with which physiological studies are now visited in this country, and the obloquy and insult heaped upon the biological and medical researching experiments upon animals. The enthusiastic and continued cheering with which the reference was met showed how deeply the allusion was felt, as well as how highly the name of the great experimentalist Pasteur is honoured in this country.

The same theme furnished the subject of the splendid pleading of Virchow, the stormy manifesto of Professor Fraser, and the masterly address of Mr. Simon—all documents in the history of medicine in this country which deserve a permanent and classic place in literature. Among all the addresses which we publish to-day, as having been delivered at the opening of the Sections and at the general meeting on Wednesday, these are, if we mistake not, those which will be read with the deepest interest—will have the largest and most enduring influence; otherwise the Presidents of Sections chiefly limited themselves to graceful words of welcome, inauguration, and official guidance.

The splendid address of Virchow, of which we present a translation, closed the work of the day; and in the evening a brilliant *soirée* at South Kensington, honoured by the presence of the Princes, brought to a suitable end a day which is to be marked with a white stone. Thursday was a day of earnest work, and was marked by the banquet at which the Lord Mayor entertained, with civic munificence worthy of the traditional hospitality of the city of London, upwards of two hundred representative members of the Congress. It was an occasion of great interest, which, especially to many of our guests, will long be remembered as a high and national honour paid to the professors of medicine throughout the world.

THE trustees of the late Mr. Batty have handed to the Secretary of the City Orthopædic Hospital a donation of £1,070 in aid of the funds of that hospital.

DURING the present week, an interesting congress of pharmaceutical chemists has been held; but the pressure on our space is so great, that we are unable to give an account of it.

THE annual meeting of the Poor-law Medical Officers' Association will take place at Ryde, during the forthcoming meeting of the British Medical Association. The day and hour will be hereafter determined.

MR. A. KLUGH, the Secretary, wishes us to make known that all members of the International Medical Congress are cordially invited to inspect the National Dental Hospital, 149, Great Portland Street, W., which will be open daily from 9 A.M. to 7 P.M. during the session.

AN infant named Alice Moore, daughter of a painter, living at 30, Charlotte Street, Euston Road, has died in the University College Hospital from the effects of a dose of carbolic acid, administered, in mistake for syrup of buckthorn, by a sister, aged 13.

IT was reported, at the last meeting of the Beaumaris Town Council, that but one death had occurred in the borough during the quarter; and that in the corresponding period last year there had been no death whatever.

THE foundation-stone of the new building of the South Devon and East Cornwall Hospital at Plymouth has been laid by the Earl of Mount-Edgcumbe. The new building is estimated to cost £24,000, of which about £10,000 remains to be collected. Sir Massey Lopes, M.P., who had already contributed £1,000, has sent a cheque for another £1,000. The old building, which this will replace, was erected forty years ago, has been twice enlarged, and is even now crowded.

THE Medical Acts Commission met at 2, Victoria Street, Westminster, on the 22nd, 23rd, and 25th July. There were present: The Earl of Camperdown (Chairman); the Bishop of Peterborough; Mr. W. H. F. Cogan; the Master of the Rolls; Sir W. Jenner; Mr. Simon, C.B.; Professor Huxley; Professor Turner; Mr. Bryce, M.P.; and Mr. J. White (Secretary). The evidence of Mr. J. S. Gamgee, Professor Spence, Dr. R. H. Semple, Dr. H. A. Pitman, and Mr. Christopher Heath, was taken.

WE have already referred at length to the fund which is being raised for a memorial to Mr. Erichsen, including a bust to be placed in University College. The subscription list, which will shortly be closed, is already large; intending contributors are requested to send their contributions, not exceeding two guineas in amount, either to Mr. Marcus Beck, Honorary Treasurer, 30, Wimpole Street, London; or to Mr. W. A. Meredith, Honorary Secretary, 14, Old Burlington Street, London, W.

LEAD-POISONING FROM THE USE OF COSMETICS.

AT the recent meeting of the Kentucky State Medieal Society (*New York Medical Record*, vol. i., 1881, p. 525), Dr. Holland called attention to the fact, that there are certain distinctive, though rather vague, symptoms of lead-poisoning which precede the more marked symptoms of wrist-drop, colic, and lead-line, and which, when more carefully studied, would suffice to lead to an earlier diagnosis. These symptoms he described as headache, vertigo, sligh colicky pains, and constipation. He then gave notes of the case of a woman who, two years ago, began the use of flake-white powder as a cosmetic. After exhibiting the symptoms already mentioned, she had an attack of melancholia of a month's duration; afterwards, the signs of plumbism—double wrist-drop and the blue line on the gums—were abruptly presented. He related in detail several similar cases illustrating the essential points deduced from the paper—that lead may be introduced into the system to the extent of its toxic effects when applied on the skin in the form of powder and lotions; that the most popular beautifying cosmetics contain lead. The results of the chemical analysis of various popular cosmetics were given in detail.

ROYAL MEDICAL BENEVOLENT COLLEGE.

A LARGE influential company met to celebrate the anniversary of the foundation of the above College at Epsom on Tuesday last (August 2nd). The service in the chapel commenced at 1.30, after which, from 2.30 to 3.45, ample justice was done to the cold collation provided in the dining hall. At 3.45, a large number of people had assembled to hear the speeches and witness distribution of prizes, which were, as usual, numerous and of great value. The Venerable Archdeacon Hessey kindly undertook to preside.

THE GENERAL MEDICAL COUNCIL.

AT the executive meeting of the General Medical Council on Thursday, the official notification was received of the reappointment of Mr. Simon, Mr. Teale, and Sir William Gull, Crown nominees, as members of the General Council; and of the appointment of Mr. John Marshall as representative of the Royal College of Surgeons, in place of Sir James Paget, who has resigned. The vacancy caused on the Executive Committee by the resignation of Sir James Paget was filled by the election of Mr. Simon. Other special business was discussed in reference to particular cases of practitioners whose qualifications were questioned by Australian bodies, and some technical business was conducted with reference to the *Register*. In reference to dental business, an application was laid before the Committee from the British Dental Association, containing opinions adverse to the course taken by the Council in respect to the registration of practising dentists, who are at the same time carrying on other occupations; but the Council decline to take any steps to test the correctness of the course they have taken in the matter; and resolved, that it rests with the Dental Association to take steps which they may think requisite to try the correctness of that course, and not, as suggested in the opinion forwarded, by the removal of a name which, in the judgment of the Council, is registered in conformity with law.

MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE thirty-sixth annual general meeting of this Association was held on Tuesday, August 2nd, at the University College, Gower Street, Dr. Hack Tuke presiding. The proceedings at the morning sitting included a vote of thanks to Mr. G. W. Mould, the retiring president; and the resignation by Dr. Clouston of his post as one of the editors of the *Journal of Mental Science*. At the afternoon meeting, the President read an address, in which he reviewed the history of lunacy legislation and treatment during the past forty years. Soon after Dr. Hack Tuke had commenced his address, the Earl of Shaftesbury entered the room; and, at its conclusion, his lordship moved a vote of thanks to Dr. Hack Tuke for his excellent address, adding from his own experience several detailed particulars in corroboration of Dr. Tuke's statements as to the treatment of the insane at and prior to the commencement of the period under review. Dr. Bucknill seconded the vote of thanks, which was carried with acclamation. The members of the Association dined together in the evening at the Freemasons' Tavern, where they were joined by several distinguished guests, including Mr. Justice Fry, Dr. Tamburini, Dr. Benedikt, Dr. Boville, and Professor Motel.

THE FULHAM SMALL-POX HOSPITAL.

WE understand that an application will immediately be made by three residents in Fulham for an interim injunction to close the Fulham Small-pox Hospital, pending the result of the action already commenced against the Asylums Board. Numerous affidavits will be filed by both parties.

THE CONTAGIOUS DISEASES ACTS.

THE Select Committee have decided to report the evidence adduced before it to the House of Commons, and to ask that it be reappointed next session. As a rule, the general press excludes all allusions to these Acts from their columns; and certainly any detailed discussion on such a subject in the columns of a general newspaper is to be deprecated. But we think that, in common fairness, the London daily press should either wholly exclude any notice of the meetings of the so-called Association for the Abolition of State Regulation of Vice, or with it give the antidote to the bane in the shape of an editorial explanation that no such association exists. We have read, with much pleasure, three leading articles in the *Church of England Pulpit and Ecclesiastical Review*, which deals very effectively with the fallacious arguments of the opponents of these Acts. A number of letters has followed; and it is significant that, with two exceptions, all are in favour of the Acts. Now that so clear and convincing evidence has been given by the Revds. E. P. Grant and Dr. Wilkinson, as to the moral and social benefits conferred upon the women brought under the influence of the Acts, the clergy of the Church of England should see that the subject is no longer one of controversy, but comes within the inexorable logic of facts. The paper to which we have alluded shows this very clearly; and, as its columns are open to correspondents, all difficulties can be fairly debated.

EDUCATIONAL FACILITIES.

AN important educational movement has been going on for some years in the diocese of Ely, with the object of refounding the Cathedral Grammar School as a public school, on a sufficient scale to meet the educational requirements of the diocese. On Wednesday last, some extensive new school-buildings, which have been erected under a scheme issued by the Charity Commissioners, were formally opened by the Bishop of Ely, in the presence of a very large and influential company. An interesting address was delivered by Dean Merivale on the occasion, tracing the history of our cathedral schools from the time of the Middle Ages, and showing the important part which they were designed to play as centres of religious education. By the reconstruction and expansion of the Cathedral School at Ely, provision is now made for one hundred boarders, the new buildings being replete with all modern appliances. The cost of board and education is fixed at £51 a year, and it is proposed to reduce this sum in favour of the poorer clergy and professional men, by donations of scholarships of £25 a year, the Bishop offering to maintain one for clergymen's sons.

ANTISEPTIC OVARIOTOMY.

MR. LAWSON TAIT writes to us:

Your paragraph concerning the results of the operations of Professor Ask in the performance of ovariotomy with the Listerian method revives a controversy in which much interest has been taken, and in which I have had a considerable share. Those of your readers who have followed that discussion will easily remember that I was almost alone in the views I expressed, and the chief argument against me was derived from the practice of Dr. Keith. I should like here to remind those who may have read my remarks on this question, that I have never said that the Listerian details are either useless or hurtful in general surgery, for upon that subject I have no experience; but I have said that they are both useless and hurtful in abdominal operations. For some months, I have been aware that Dr. Keith has been inclined to alter his views very materially upon this question, and I am now at liberty to say that, after having had two deaths after ovariotomy performed upon the Listerian plan, which deaths were clearly due to carbolic acid poisoning, Dr. Keith has discarded the practice. He has now had forty-six operations performed without the spray, and of these only one has resulted in death. I have already published a series of cases of results almost as good; but, since then, I have had a consecutive series of thirty-one cases of removal of ovarian tumours in which none of the Listerian details have been used, and all of my patients have recovered. We have here, therefore, seventy-seven completed operations for the removal of large ovarian tumours, occurring in the practice of two surgeons, both of whom use the intraperitoneal method for the pedicle; one using the cautery, and the other the ligature; and both have had a mortality which stands out in startling contrast to anything which has ever been secured by the use of the clamp. The facts that we have both found the same objection to the Listerian method, that we have both given it up, and that our results are what they are, seem to me almost to settle the question, as far as abdominal surgery is concerned.

SCOTLAND.

GRADUATION AT GLASGOW UNIVERSITY.

THE medical graduation ceremony in connection with the University of Glasgow took place on the 1st inst. There were present the Principal and a large number of professors and students. Besides conferring the degrees on the successful graduates, the medals for the various classes of the medical summer session were distributed. Professor Bayley Balfour afterwards delivered an address to the medical graduates, in which he dwelt at some length on their work in the past, and also advised them on the still more important question of their work in the future.

THE SEWAGE-QUESTION IN GLASGOW.

IT is satisfactory to note that progress is being made in the settlement of this question. A further stage has now been reached in the recommendation of a definite scheme by the Subcommittee appointed to inquire into the various proposals brought forward for dealing with the city-sewage. The plan recommended is that submitted by Mr. Bateman, and a notice of which appeared in the JOURNAL of last year. According to this method, the sewage is to be intercepted and conveyed to suitable stations on the north and south banks of the Clyde, there to be dealt with by means of precipitation and filtration—the effluent being clarified and rendered fit to be discharged into the river.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending July 23rd, it appears that the death-rate in the eight principal towns was 18.8 per 1,000 of estimated population. This rate is 1.8 below that of the corresponding week of last year, and 0.1 below that for the previous week of the present year. The lowest mortality was recorded in Greenock—viz., 10.5 per 1,000; and the highest in Leith, 23.6 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.1 per 1,000, or 0.8 above the rate for last week. Acute diseases of the chest caused 79 deaths, or 19 less than the number recorded last week. The mean temperature was 57.3°, being 3.6° below that of the week immediately preceding, and 0.9° below that of the corresponding week of last year.

HEALTH OF GLASGOW.

FROM the report of the medical officer of health for the week ending July 23rd, it appears that the number of deaths registered was 421, representing a death-rate of 21.5 per thousand living. As compared with the corresponding fortnight of last year, the mean temperature was only 0.3° lower, the rainfall only .01 of an inch more. The death-rate is 1.5 per thousand less this year—a difference in favour of this year which has continued for some time, and always from the very slight fatality of zymotic diseases, which is so much less as to compensate for a much greater fatality of pulmonary diseases, and still leave the total deaths fewer by 12 per cent. The number of deaths from pulmonary diseases was 160, representing a death-rate of 8 per thousand living, and constituting 38 per cent. of the total deaths. The number of cases of fever registered was 31, viz.: 16 of typhus, 12 of enteric, and 3 undefined. In the Hospital Belvidere, at present, there are 82 cases of scarlet fever, 41 of enteric fever, 24 of typhus, 24 of measles, and 19 of whooping-cough—in all 190, as compared with 216 this day fortnight, and 304 at the corresponding period of last year.

IRELAND.

QUEENSTOWN INTERCEPTING HOSPITAL.

THE guardians of Cork Union have lately increased the salary of Dr. Downing, medical officer to the hospital, from £20 to £40 *per annum*, in consequence of other cases besides small-pox having been admitted. The Local Government Board, however, on being requested to sanction the increase, have declined, principally on account of the short period Dr. Downing has been in office, and also in reference to the duties he has to perform.

SMALL-POX IN LURGAN.

AN outbreak of this most contagious disease has recently taken place in Lurgan, and several cases have been admitted to the workhouse hospital from various districts. During the past week, there were thirteen patients under treatment, while two deaths have taken place. The rest are progressing favourably, all but one having been vaccinated. Prompt measures have been taken to guard against the disease spreading.

THE SANITARY STATE OF STRABANE.

AT a meeting held last week of the Strabane Guardians, a report was read from Dr. John C. Boyd, medical officer of health for the district, on the sanitary condition of the town. Dr. Boyd stated that, in his opinion, the town would, at some future time—and that not very far distant—be the seat of a dangerous and general outbreak of typhoid fever, caused by an insufficient water-supply. It appears that a great number of the houses have water-closets supplied direct from the town-pipes. In such cases, the closets are filled for twenty-two hours daily with excreta, etc., and the gases therefrom pervade the houses. Also the main sewers are at present about three-fourths full of solid matter, which must generate sewer-gas to an alarming extent. This deposition in pipes is caused principally by want of flushing in dry weather. Dr. Boyd's report is a most important one, and has been referred to the water-committee.

POISONING FROM CARBOLIC ACID.

A YOUNG gentleman named Hone died at Limerick under very distressing circumstances last Monday evening. It appears that Mr. Hone, not feeling very well, went to a medical hall to get a black draught; but, by some mistake, he was served with an ounce and a half of carbolic acid. The stomach-pump was used, and everything possible done under the circumstances, without avail; death taking place about eight hours after the fatal dose had been administered.

ADDRESS AND PRESENTATION TO DR. FRANCIS J. LYNCH OF LOUGHREA.

A VERY handsome silver salver, accompanied by an address, has been presented to this gentleman by a large number of his friends, on the occasion of his leaving Loughrea, in consequence of failing health. The address stated that the opportunity was taken to offer a souvenir in memory of Dr. Lynch's long and arduous services among them. In parting with him, they felt that they had lost not only an eminent physician, but a friend who was at all times ready to sacrifice himself in their behalf, and whose kindness was equalled only by his skill.

MOUNTMELLICK UNION.

A SPECIAL meeting of the Mountmellick Guardians was held last week for the purpose of electing a medical officer to the workhouse in the room of Dr. Clark, resigned from ill health, at a salary of £100 *per annum*. One of the guardians made a strong protest, on account of the salary not having been reduced; as he thought they might get a competent doctor at a lower remuneration than what was proposed; but his suggestion was not carried out, and the election was proceeded with. There were three candidates: Dr. Symes, medical officer of Maryborough dispensary district; Dr. Neale, medical officer of Clonaslee district; and Dr. Higgins; but the latter gentleman withdrew his candidature; and, on a division being taken, Dr. Neale was elected by 36 votes to 18. Before the division was taken, the candidates were called into the board-room at the request of one of the guardians, and asked whether, in their professional duties, they administered stimulants or not; being informed, at the same time, that they need not reply unless they wished. The chairman, however, recommended them not to answer such a question, and the matter dropped. Dr. Jacob very properly remarked that he had yet to learn that there was a new school of medicine which forbids the use of stimulants; and he claimed for the candidates that they ought to be spared such a haphazard promise as one of the guardians wished to extract, even at the risk of losing a few votes. Dr. Neale has also been appointed medical officer of Mountmellick dispensary district, lately held by Dr. Clarke. He was opposed by Dr. Higgins, but was elected unanimously.

MADAME JERICHAU BAUMANN, the well known Danish painter, has died of an attack of diphtheria, at Stadsborg, near Copenhagen. A panic prevails at Stadsborg in consequence of the sudden outbreak of the disease. Numerous persons have died of it, including the editor of *Dagbladet*, the leading Copenhagen newspaper.

THE INTERNATIONAL MEDICAL CONGRESS.

THE International Medical Congress has been opened with every circumstance which could promise success and ensure efficiency. The number of medical men who have poured into this city from all parts of the world has no precedent in medical history, nor are they undistinguished persons, but from every country may be recognised names which can be counted as among the most highly representative. Not a few are chieftains of science. Among the members of the Congress registered up to this may be recognised men bearing names famous throughout Europe. A list will be found on pp. 238-9.

The affluence of members at the informal reception at the Royal College of Physicians on Tuesday afternoon was such as to crowd every room of the building, and to fill the staircases. The principal room of the College had been rapidly decorated for the occasion, by the assiduous care of Dr. Shepherd, with a number of rare and interesting pictures and etchings, among which may be recognised the artistic work of our best known medical artists, and not a few portraits, incontestable among which was Donders's portrait by Watts, and the just finished picture of Sir Henry Thompson by Millais; the last is a masterpiece of portraiture. We believe it is considered by Mr. Millais himself to be one of the best, if not the best portrait, which he has ever painted, and it certainly, both in respect to vigour of drawing, lifelike accuracy of effect, and splendour of colour will rank among the masterpieces of our time.

The arrangements for registration at the College were made with great care, and were so arranged that the registration of the thousands of visitors has been carried out without any perceptible hitch, with great rapidity and great accuracy, and the names have been printed off and issued in printed lists with singular freedom from error. The whole arrangements have indeed worked with remarkable smoothness. Mr. Mac Cormac, who has worked throughout the twelve months with unflagging zeal, and whose labours recently have been ceaseless, superintended and carried on the work to the last moment, and he has had the skill to select in Mr. Makins and Mr. Cogswell, not to speak of others, assistants whom he has inspired with his own spirit of intelligent, skilful, and ceaseless devotion to their work. To carry out the scientific administration and social arrangements of a meeting on so gigantic a scale is no mean work, but the most experienced in international congresses will admit that on no former occasions have the resources of any staff been so severely taxed, certainly on no other occasion has the strain been met with so perfect an efficiency.

Everything which could be devised for the comfort, for the honour of our visitors, has been done, and, although it is impossible but that individual instances must be recordable of omissions and shortcomings, every anxiety and zeal has been shown to repair such omissions, and they well deserve to be considered as involuntary, and claiming all possible indulgence. We have heard, however, nothing but satisfaction expressed on all sides, and the traditional hospitality of Englishmen has, on this occasion, been displayed with the utmost cordiality and entire self-forgetfulness, and we believe there is no Englishman in the whole Congress who does not desire to put the interests, pleasures, and desires of our visitors before his own, and who would not willingly dispense with any privilege to advance the interests of the Congress, or the pleasure of our visitors.

The sections have fallen at once into working order, but as we go to press early on Thursday, it is impossible for us, this week, to do more than give an account of the opening addresses, and the briefest possible record of the International proceedings. Next week we shall hope to be able to give a further account of the progress of the Congress, although the proceedings of our own meeting of the British Medical Association, must necessarily occupy a considerable part of our space. We may add that we learn with pleasure that a large number of our foreign visitors, and of our Scotch and Irish colleagues, propose to visit Ryde and to take part in the meeting of the British Medical Association, and we feel sure that all that can be done to welcome them, and to make next week as happy and as successful a *réunion* as that which is now taking place, will be done by the local officers and by the members of the British Medical Assocation at large.

The officers of the British Medical Association desire especially that intending visitors should, as far as possible, communicate their intention with the least possible delay, and we would ask all our foreign guests, and all our members who propose going to Ryde, to write at once to that effect to Dr. Pletts, Kent House, Ryde, Isle of Wight, in order to assist him in forming an approximate idea of the provision which will have to be made.

We draw attention to the programme of the proceedings of the British Medical Association Meeting next week, in order that those of our foreign guests who are now here, who may find there questions in which they are interested, and towards which their researches have tended, may do us the favour of attending that meeting, and add by their learning to the scientific fruits of our *réunion*.

The whole of the abstracts of the papers read, and to be read, at the International Congress now going on, have been issued in a book form, and may be procured by those who are not members of the Congress by a moderate payment. This will dispense us from giving as full abstracts as would otherwise have been incumbent upon us to render.

The reporting of the proceedings of fifteen sections, conducted in various languages, is necessarily a difficult proceeding, and the arrangements made however for the separate publication during the week, and from day to day by the Congress itself, is so complete as to relieve the medical journals of any very urgent duty in this respect; otherwise it had been our intention to publish a daily edition of the BRITISH MEDICAL JOURNAL, and we have only abandoned this intention on finding that the printing of the Congress itself is on so liberal a scale, and the arrangements for the printing of the proceedings of the sections and of the papers read, are so complete, as largely to supersede the ordinary functions of the weekly journals.

GENERAL MEETINGS.

The first general meeting of the Congress was held on Wednesday morning, August 3rd, at St. James's Hall, which was densely crowded; His Royal Highness the Prince of Wales, and His Imperial Highness the Crown Prince of Prussia, being present. The chair was taken by Sir WILLIAM JENNER, as Chairman of the General Council.

In opening the proceedings, the CHAIRMAN said:—May it please your Royal Highness, and gentlemen, I have been informed that it is my duty, as Chairman of the General Committee, to take the chair on this occasion. As soon as you have elected your President, it will be equally my duty to resign the chair to his better presence. When our most gracious Sovereign the Queen, whose sympathy with all suffering is so true and deep—[*applause*]—and whose interest in the advance of medicine and all good works is so widely and so well known—[*applause*]—consented to be patron, and to permit her likeness to be imprinted on the medal struck in commemoration of this meeting, the success of the Congress as an International Congress was secured. [*Applause.*] And when, further, His Royal Highness the Prince of Wales—[*loud applause*]—announced his willingness to open the Congress, a guarantee was given to the world that our meetings would be conducted with gravity and dignity, and that the discussions would be on matters of a nature and importance calculated to support the dignity and honour of our profession. [*Applause.*] It would be contrary to my sense of propriety, and tedious to you, were I to detain you from the proper business of the Congress by any lengthened remarks; but it would be scarcely courteous to you, or congenial to my own feelings, were I not to express, however briefly, and in however faltering a tongue, and with however imperfect language, my idea of the sentiments that animate, and the objects and aims of those who have collected here from all parts of Her Majesty's dominions, and not only from all parts of her dominions, but from all the great schools in the world—[*applause*]—where the science of medicine is cultivated and advanced, and from which, by means of their pupils, the science of practical medicine, and the practical fruit it bears, are diffused throughout all the world. We have been told, gentlemen, that commerce is the golden girdle of the world, binding men and nations together by common interests and with a common aim. But science binds men and nations together with a girdle, the links of which are far stronger, more durable, and more precious than are the links of the golden girdle of commerce. [*Applause.*] Knowledge is vastly more precious than gold. Who loves not knowledge? Who rails against her beauty? None. With every increase in the world's stock of gold the metal loses something of its value, while every addition to the world's store of scientific truth adds to the value that it already has, and is the stepping-stone to the acquisition of more. [*Applause.*] "Who shall put a limit to her knowledge? Who shall put a limit to her pillars?" says a great poet, and if this be true of science in general it is true in the highest and the widest sense of the science of medicine. Commerce is fettered in the supposed or real interests of nations; commerce therefore separates as well as binds men together. Discoveries in the application of other applied sciences than medicine are prevented from obtaining their widest spread by the desire for pecuniary reward on the part of their discoverers; but discoveries in scientific and practical medicine are

open to all the world to use for themselves, or to use as foundations for further advance. [*Applause.*] The less the physician working to advance medical knowledge is animated by a desire for pecuniary, by feelings of personal, ambition, or the desire of common applause, the less he mingles himself, his personal wishes, with his researches, the less he allows his hopes and fears to give a bias to the results of his researches, the less he attempts to pervert the answer which Nature gives to the questions he puts to her, the more he exhibits in his researches the desire to know the truth for the truth's sake alone, the greater the relief his researches afford to suffering humanity, or the more they tend to prevent a recurrence of those sufferings, the more just and generous he shows himself in appreciating the opinions and works of other labourers in the same field as himself—the nearer will he approach to that ideal which you and I have formed of the worthiest workers in our science. [*Applause.*] I am sure that all of you must know men who are thus worthy of the palm, who have thus reached your own ideal—I have known such; but in the vista of time I look down and see one noble form—and I mention him to-day because his name is impressed upon that great museum which you will have an opportunity of inspecting, if you have not already done so—I mean Edmund Alexander Parkes. [*Applause.*] To all who knew him he was the ideal—the ideal scientific worker—and such men not only do good in their generation, but they create among those who worked with them, and among those who knew them, a desire to tread faintly—far-off it may be, but still something—in their footsteps. [*Applause.*] All medical discoveries are common property; and the richest reward the advancers of scientific and practical medicine can have, is the consciousness that by the result of their labours, and its wide diffusion, lives are spared, sufferings alleviated, and diseases prevented. The assembling of this great Congress illustrates the truth of much that I have said. You are here to spread the truths you know, and to learn from others the truths that they can tell. You are here to give your knowledge freely, and to receive from others as freely the knowledge that they can bestow; and in the giving, as well as in the receiving, you will increase your own store. You are here to thrash out the corn of truth from the wordy chaff in which it is too often enveloped. [*Applause,*] You are here by your discussions to elicit the truth from the conflicting statements of what is truth. You are here to meet each other socially—to remove, I hope, all prejudices, to promote kindly feeling, to renew old friendships, and to lay the foundation of new friendships, and by personal intercommunion to knit more closely the bonds of that professional brotherhood of which we are all, gentlemen, so justly proud. [*Loud applause.*]

Mr. WM. MAC CORMAC (honorary secretary-general) then read the following report.

"At the sixth meeting of the International Medical Congress, which took place in Amsterdam, a unanimous wish was expressed that the next meeting should be held in England. Soon after this desire was made known, the President of the Royal College of Physicians, and the President of the Royal College of Surgeons, communicated with the Universities, Medical Colleges, and public bodies of the United Kingdom, in order to ascertain how far it was probable that the profession in our country would be likely to respond to the wish thus publicly expressed. This preliminary communication took place on November 20th, 1879. The proposal proved generally acceptable, and a meeting of delegates from these representative institutions was summoned for the 28th February, 1880. At the meeting it was unanimously agreed that an International Medical Congress should be held during the year 1881, and that it should take place in London. A General Committee, with power to add to its number, was nominated, and the President of the College of Physicians for the time being was appointed Chairman. On April 30th, the General Committee met and appointed an Executive Committee, which held its first meeting on May the 8th, 1880. Several members were then added to the number. Mr. Bowman consented to act as treasurer, and Mr. Mac Cormac as secretary-general; since that time the Committee has held thirty-three meetings. After consultation with those well able to judge, it was decided that the first week in August would best suit the majority of our foreign and English colleagues, and August the 2nd was fixed upon as the date, at the Committee meeting held on May the 25th. It had been previously ascertained that the British Medical Association, which usually holds its meeting during the first week of August, would be willing to pospone its meeting until the week following the Congress. After much consideration, the business of the Congress was divided among fifteen sections, a sub-section in medicine was formed, and a museum decided upon.

"The Committee have to thank the authorities of the London University, Royal Society, the Linnean, Chemical, Astronomical, Antiquaries, and Geological Societies, for placing their rooms at the disposal of the Congress for places of meeting. We have to return thanks for the use of the theatre of the School of Practical Geology, the Royal Asiatic Society's Rooms, and the theatre of the Royal Institution. In this way the sections of the Congress will meet in places near to each other and convenient for the transaction of business. The Royal Academy has also kindly yielded us the use of one of its rooms. The College of Physicians of London has placed its house entirely at the disposal of the Congress during the meeting. The Committee has nominated for election as officers of the Congress the gentlemen whose names appear in the printed list. All of these, with the exception of honorary foreign Vice-Presidents, belong to this country, and the majority of them reside in London. The reasons for this arrangement are obvious. The task of organising the Congress has been considerable, and it was unlikely that it could have been effectively discharged unless those engaged in the work should be readily and constantly accessible. At the first meeting of sections to-morrow, a list of honorary foreign members of Council will be submitted for appointment. It was decided that, for the convenience of members attending the Congress, abstracts of all communications should be printed in three languages, viz., English, French, and German, and that these should be the official languages of the Congress. In the transactions to be afterwards published, each communication will be printed in the language in which it was originally delivered. In order to make the objects of the intended Congress more widely known, an explanatory letter, giving a short account of the nature of the undertaking, and the circumstances under which previous meetings have been held, was sent to every practitioner in the United Kingdom and the Colonies. In North America, the intention to hold a Congress was communicated to all the universities and schools. The medical men of the various States were addressed, to the number of 3,305. Similar circulars, either in French, German, Italian, or Spanish, were also forwarded to the Universities, Medical Societies, and a large proportion of the medical men of France, Germany, Austria, Hungary, Italy, Spain, Portugal, Scandinavia, Russia, Turkey, South America, India, China, and Japan. Two hundred and eight medical journals have received copies of our circulars and programmes. Three thousand six hundred and sixty programmes and circulars were sent to medical men residing within the metropolitan district alone. Fourteen thousand seven hundred and sixty programmes and circulars were distributed among the medical men practising in England, Scotland, and Ireland. Eight hundred and seventy-four were sent to Australia. Two hundred and nineteen to New Zealand. One hundred and sixty-six to the Cape of Good Hope. One hundred and seventy to Canada, thirty-five to China, five hundred to officers of her Majesty's Navy, Army, and Indian Medical Services, ninety-seven to India, and eight hundred and eighty-seven were further distributed among English medical men residing in various parts of the world. In France, 1,992 medical men, more especially the medical officers of the universities and hospitals, received our preliminary circulars; in Germany and Austria, 1,150 copies were circulated among the professors and medical faculties. In Russia, Italy, Portugal, Sweden and Norway, Holland, Belgium, Denmark, and Switzerland, the universities and chief medical men also received our circulars. To British Guiana, Cyprus, Mauritius, the West Indies, Persia, Turkey, Egypt, the cities of South America, the Straits Settlements, Fiji, Japan, Siam, the Falkland Islands, the Philippines and Seychelle Islands, circulars were likewise sent. Thus, more than 120,000 of our circular notices have been sent out.

"Lastly, the programme of our business, accompanied by a letter written in the language of the country, was addressed by the Committee, in Spanish, to the King of Spain; in Norwegian, to the King of Norway; in Danish, to the King of Denmark; in Japanese, to the Emperor of Japan; in Russian, to the Emperor of Russia; in French, to the Presidents of the French Republic and of the Swiss Confederation; in English to the President of the United States of America; in Italian, to the King of Italy; in German, to the Emperor of Germany, the King of Bavaria, and the King of Saxony. These letters have been graciously acknowledged. Our Minister of Foreign Affairs, Lord Granville, has aided us in many respects. He was good enough to communicate the intention to hold this Congress to Her Majesty's representatives in the United States of America, Argentine Republic, Austria-Hungary, Bavaria, Belgium, Brazil, Chili, Columbia, Denmark, Ecuador, Egypt, France, Guatemala, Germany, Greece, Hesse-Darmstadt, Italy, Japan, Nertherlands, Peru, Portugal, Roumania, Russia, Saxe-Coburg-Gotha, Saxony, Servia, Spain, Sweden and Norway, and Switzerland; and we have the great pleasure to announce, and to welcome amongst us, the following gentlemen, who have been commissioned to attend the Congress and report its proceedings:—

"*Argentine Republic.*—The Argentine Government, Prof. William Rawson, Buenos Ayres.

"*Austria.*—The Austrian Government, Prof. Schnitzler; Minister of Public Instruction, Dr. Hans Ritter von Hebra.

"*Hungary.*—The Hungarian Government, Dr. L. Grosz de Csatar; Minister of Public Instruction, Dr. A. Rozsahegyi.

"*Belgium.*—Belgian Government, Dr. Warlomont, Dr. Gille, Dr. Spaack; the Minister of Public Works, Dr. Libbrecht, Ghent.

"*Brazil.*—The Brazilian Government, the Baron de Theresopolis.

"*Egypt.*—Dr. Osman Bey.

"*France.*—The French Government, Prof. Pasteur, Paris; Minister of War, Prof. Gaujot, Paris; Dr. Poncet, Paris; Minister of Public Instruction, Dr. Worms.

"*Germany.*—H.I.M. the German Empress, Prof. Küster, Berlin; the Bavarian Government, Prof. Ranke, Munich; Oberstabsarzt Dr. Port, Munich; the Prussian Minister of War, Generalarzt Dr. Coler, Berlin; the Saxon War Department, Generalarzt Dr. W. Roth, Dresden; Oberstabsarzt Dr. Starke, Colberg; the Saxon Minister of Internal Affairs, Geheimrath, Dr. Günther.

"*Italy.*—Prof. Commendatore Semmola, Naples; Prof. Chevaliere Murri, Bologna; Prof. Mazzoni.

"*The Netherlands.*—H.M. the King of the Netherlands, Prof. H. Snellen, Utrecht; Dr. Guye, Amsterdam; Grand Duchy of Luxemburg, Dr. Paul Koch.

"*Roumania.*—The Roumanian Government, Dr. Marcovitch.

"*Russia.*—Ministry of the Imperial Household, Dr. Higginbotam, St. Petersburg; the Imperial University of Kazam, Prof. Dr. Leon Levschin.

"*Spain.*—H.M. the King of Spain, Insp.-Gen. Don Nicasio di Landa y Alvarez, Insp.-Gen. Dr. Ferradas y Rodriguez; Minister of Marine, Dr. Juan Acosta, Inspector of Medicine in the Navy.

"*Sweden and Norway.*—The Swedish Government, Prof. Carl J. Rossander, Stockholm; Norwegian Army Medical Department, Dr. Charles Smith, Bergen; Dr. L. Dahl.

"*The Swiss Confederation.*—Dr. Joël, Lausanne.

"*United States of America.*—War Department, Surg. J. S. Billings, Washington, D.C.; Navy Department, Surg. Brown.

"It is right to mention that Her Imperial Majesty, the Empress of Germany, whose active interest in the cause of the sick and suffering is so well known, has sent as her special representative, Professor Kuster, Principal Surgeon of the Augusta Hospital, Berlin; and, by a striking coincidence, it is to the invitation of His Royal Highness the Prince of Wales that we are also indebted for the honour of the presence of His Imperial and Royal Highness the Crown Prince of Prussia and of his son, Prince Henry of Prussia.

"There is, as may be read in the printed roll, a long and important list of delegates from various Medical Societies, both of the continent of Europe and America, whose presence will enhance the importance and the pleasure of our meetings. We are honoured by the association with us of the Foreign Vice-Presidents—names held in the highest esteem in every land where medical science is appreciated. And we deeply regret the constrained absence of others, whom we should have been proud to see amongst us. Those who have accepted our invitation are:—

"Prof. Baccelli, Rome; Dr. Fordyce Barker, New York; Dr. Billings, Washington; Dr. Bigelow, Boston; Prof. Brown-Séquard, Paris; Prof. Busch, Bonn; Prof. Charcot, Paris; Prof. Chauveau, Lyons; Prof. Cornil, Paris; Prof. Donders, Utrecht; Prof. Esmarch, Kiel; Dr. Austin Flint, New York; Prof. Foville, Paris; Prof. Frerichs, Berlin; Prof. Goltz, Strassburg; Prof. Gerhardt, Wurzburg; M. Jules Guérin, Paris; Prof. Holmgren, Upsala; Prof. Hannover, Copenhagen; Prof. His, Leipsic; Prof. Hardy, Paris; Prof. Horner, Zürich; Prof. Kölliker, Wurzburg; Prof. Klebs, Prague; Prof. von Langenbeck, Berlin; Prof. Le Fort, Paris; Prof. Loven, Stockholm; Prof. Oscar Liebreich, Berlin; Dr. Henri Guéneau de Mussy, Paris; Prof. van Overbeek de Meijer, Utrecht; Prof. Ollier, Lyons; Prof. Panum, Copenhagen; Prof. Pasteur, Paris; Prof. Pflüger, Bonn; Prof. Pantaleoni, Rome; Prof. Santesson, Stockholm; Prof. von Slawjansky, St. Petersburg; Prof. Stokvis, Amsterdam; Prof. Tarnier, Paris; Prof. Trélat, Paris; Prof. Tilanus, Amsterdam; Prof. Varentrapp, Frankfort; Prof. Verneuil, Paris; Prof. Virchow, Berlin; Prof. Volkmann, Halle; Prof. Warlomont, Brussels; Prof. von Zehender, Rostock. We also invite the delegates from Foreign Governments already mentioned to accept the same office. We have to congratulate ourselves on possessing the exalted patronage of Her Gracious Majesty the Queen. And our satisfaction is enhanced by the presence among us of one who has sacrificed all other engagements in order to attend—our Patron, His Royal Highness the Prince of Wales. The Congress is composed of medical men who are legally qualified to practice in their respective countries. There are, however, the following exceptions. The Executive Committee, acting on the power reserved by it, decided that a certain number of home and foreign Pharmacists of distinction, should be invited to become extraordinary members; also that it would be desirable to invite as extraordinary members eminents Dentists, who might not happen to possess a medical qualification; and lastly, that our deliberations would be rendered more important by the presence of some Physiologists, who nevertheless are not medical men. Shortly after the nomination of the Presidents and Vice-Presidents of the different sections, Councils formed of medical men having special knowlege of the several subjects, were requested to assist the officers in each section when required. It may be briefly mentioned that, in every section, the work of arrangement and classification, invitations to read communications and addresses, with the final completion of the programme of business, has been prosecuted without interruption during the last twelve months. A programme of suggested work, embracing all the more important questions within the range of each section, has been prepared by the officers. This has been printed in the three official languages, and further, very widely distributed. It forms a quarto pamphlet of some forty-four pages, and has been intended as merely suggestive, and not meant to exclude any communication which should be offered on subjects other than those included in the list. The special thanks of Congress are due to the thirty-six honorary secretaries of sections. One result of their successful and untiring labours is to be seen in the volume of Abstracts of Papers to be read at the meetings. This volume, comprising over 719 closely-printed royal 8vo pages, and containing 325 communications, extending over the entire range of medicine and surgery, is now in the hands of the members. The work in the sections commences this afternoon at three o'clock, and will be renewed every morning throughout the meeting, at ten o'clock.

"MUSEUM.—The Committee entrusted with the formation of the msseum was appointed on July 6, 1880. A collection of objects of great professional interest has been formed, the catalogue of which has now been distributed. There will, besides, be the interesting feature of a daily demonstration of patients affected by different forms of disease. The Committee of the Parkes Museum of Hygiene has organised a Sanitary Exhibition comprising the various materials and apparatus employed in the prevention, detection, cure, and alleviation of disease. It is supplementary to the strictly scientific collection to which our museum is restricted. The exhibition is open at South Kensington, and members of Congress have the privilege of admission, on presenting their membership card.

"GENERAL ADDRESSES.—According to previous custom, we shall have the pleasure of listening to addresses at the general meetings of Congress. We must all regret that business of the State has forced Professor Baccelli, Minister of the King of Italy, to forego his intention to be present, and that we shall consequently be deprived of the eloquent address which we had hoped to hear from him. He has telegraphed to us his great disappointment. The committee wish to record the appreciation of the assistance rendered by the assistant and corresponding secretaries, and also of the services of those who have discharged much of the arduous duty of translating the scientific work. When the records of this great meeting come to be published, there can be little doubt that they will prove worthy of the importance of the occasion. The Reception Committee, nominated on June 22, 1880, to arrange a fitting entertainment of our visitors, has met twenty-one times. Everywhere, and from everybody, there has been most cordial co-operation. And of both public and private means of entertainment there will be almost an *embarras de richesse.*" [The report then went on to speak of the cordial co-operation on the part of the foreign railway companies, and the South-Eastern and London, Chatham, and Dover Companies; the intended hospitable receptions by the Corporation of London, the College of Surgeons, Earl and Countess Granville, and others.] "A medal in commemoration of this great medical meeting has been struck. Some of our first artists have generously contributed their best efforts to the work. The committee hope that, as Her Majesty the Queen has already been pleased to do, when a copy of this medal was offered for her acceptance, and as His Royal Highness will also we trust now do, the members of Congress generally will approve this memorial of our meeting. The *resumé* here given of the work of the Executive and Reception Committees, carried on without intermission during nearly eighteen months, is necessarily of the briefest. But it will, I trust, serve to show that no effort has been spared to render the meeting a success. The presence here to-day of so many of the foremost medical men of different countries, on this, the first assembly of the International Medical Congress of 1881, yields an earnest that we shall not have laboured in vain.—WILLIAM MAC CORMAC, Honorary-Secretary-General."

Sir JAMES RISDON BENNETT said: Mr. Chairman,—May it please your Royal Highness, and gentlemen, as chairman of the Executive Committee, the only resolution of a business character has been committed to my hands. I have the honour to ask your acceptance of the following resolution: "That this meeting accepts the list of officers nominated by the Executive Committee for appointment by the Congress, and hereby appoints Sir James Paget, Bart., Vice-President of the Royal Society, President of this Congress—[*cheers*]; Mr. William Mac Cormac, honorary Secretary-General—[*cheers*]—and the several gentlemen whose names appear on the printed list as vice-presidents of the Congress, presidents and vice-presidents of the various sections, and other officers; and further, that this meeting approves and adopts the rules and arrangements for the business of the Congress as set forth in the printed programme". [*Cheers.*] In submitting for your approval such a resolution as this, so comprehensive, it is manifest that the most unbounded trust is placed in your confidence and kindness, nor do I believe that the trust is misplaced. To have asked your approval of the various portions of our programme separately must necessarily have occupied a great deal of time, and you are all aware how important it is that we should economise as far as possible every moment of the brief period allotted to us for the great purposes of our meeting. For the same reason I shall not make any special allusion to the various important topics mentioned in the report that has just been read to you. That report contains a very full and detailed account of all our labours from the very first initiatory steps up to the present time; but I venture to think that you will not fully comprehend or form a just idea of those labours until you have had an opportunity of attentively reading that report at your leisure. You will then be able to judge of the amount of preparation that has been requisite for organising this seventh great Congress of medical practitioners and scientists. But inasmuch as this report emanates from the Executive Committee, on whose behalf I have the honour to address you, I would not have ventured to say even thus much had it not been that I, in common with every member of our committees, feel how greatly we are indebted to our excellent honorary-secretary-general, Mr. Mac Cormac. [*Cheers.*] I am sure I give utterance to the sentiments of all who have taken part in our committees, or who have known anything at all of the steps necessary for organising this Congress, when I say that each and every member here present is under a deep debt of gratitude to Mr. Mac Cormac. It is only just and right that on this, and on every similar occasion, it should be acknowledged and fully stated that the unceasing and self-sacrificing labours of William Mac Cormac have only been equalled by his judgment, his tact, and his good nature. [*Cheers.*] There is just one point in the report to which I feel it desirable to make again special allusion. It has been from the first the anxious desire of the Executive Committee that this Congress should have a thoroughly international character, and all our efforts have been made with a view of securing this as far as possible. If, as the report says, there are no foreign members of the Congress in posts of prominence, with the exception of the vice-presidents, and even in the sections the greater part of them are British practitioners, and of those the majority residents in London, this has arisen from our having found the adoption of any other plan to be beset with insuperable difficulties. Ready, frequent, and free intercourse was found to be imperatively necessary, in order to secure unity of purpose and constant co-operation. With the result of the plan which we have adopted, you, I am satisfied, will feel pleased, if you but glance at the enormous volume that has been prepared and placed in your hands on this, the first inaugural meeting of the Congress. Without any such plan as that which we have followed, we are satisfied it would have been impossible to have accomplished this, amongst other things, and this we look forward to as securing to a very large extent the satisfactory working of the whole Congress. On the part of the committee, I beg to wish you a hearty British welcome. [*Cheers.*]

Professor DONDERS (Utrecht), said that he, as president of the sixth meeting of the Congress, held in Amsterdam, had been asked to second the proposition of the executive committee. They had already seen most ample proofs of the careful and elaborate preparation made for the meeting; once more they had admired British skill and talent of organisation; and he might safely predict that, under the guidance of the same skill and talent this, the seventh meeting of their Congress, would largely contribute to the progress of science, to the interests of humanity, and to the promotion of fraternisation on the part of their profession throughout the world. Met under fair auspices, that meeting would supply materials of one of the most splendid pages in the history of medical science. He therefore invited them not only to adhere, by their vote, to the proposition of the Executive Committee, but to couple with it their thanks to those who had so admirably organised the work of the Congress thus far, and who were willing to continue their labours until its end. (*Cheers.*) The resolution was carried by acclamation.

SIR WILLIAM JENNER having presented the Congress Medal to H.R.H. the Prince of Wales, vacated the chair, which was taken by the newly elected president, Sir James Paget.

The PRINCE OF WALES said: Sir James Paget, your Imperial Highness, and gentlemen, I gladly complied with the request that I should be patron of the International Medical Congress of 1881, and among my reasons for so doing was my conviction that few things can tend more to the welfare of mankind than that educated men of all nations should, from time to time, meet together for the promotion of the branches to which they devote themselves. [*Applause.*] The intercourse and mutual esteem of nations have often been advanced by great international exhibitions, and I look back with pleasure to those with which I had been connected. But when conferences are held among those, who, in all parts of the world, offer themselves to the study of science, and of scientific professions, even greater international benefits may, I think, be confidently anticipated—[*Applause*]—more especially in the study of medicine and surgery, for in these the varieties of climate and of national habit and of social life must give to the practitioner of each nation opportunities of acquiring knowledge, which is of considerable value, not to themselves alone, but to those of other countries, whom they may meet in congress. [*Applause.*] I venture to think that the executive committee have acted wisely in instituting Sections for the discussions of a very wide range of subjects, including both the sciences on which a foundation of medical knowledge must rest, as well as many of its most practical applications, and I am very happy to see that so great scope will be granted for the discussions of important questions, relating to public health, to the care of the sick in hospitals, in the houses of the poor, and to the welfare of the army and of the navy. [*Applause.*] The devotion with which members of the medical profession are ready to share in the dangers of climate, of fatigue, and of war, and to study every means, not only for the remedy but for the prevention of disease, deserves the warmest acknowledgment from the public. Gentlemen, I have great satisfaction in believing when I see this crowded hall, that I may already regard the Congress as being very successful in having attracted a number hitherto never equalled of medical men from all parts of this kingdom, as well as from every country in Europe and from the United States of America. The list of officers of the Congress, including as it does the names of nearly every one distinguished in Great Britain in any branch of medical science, shows how heartily the proposal to hold the meeting in London was received, and I think it speaks well for the good feeling of the profession that there was so warm a response from abroad. [*Applause.*] How cordial it was may be seen not only in the large number of our visitors, but in the fact that they include a great proportion of those also enjoying the highest reputation not alone in their own country but throughout the world. [*Applause.*] I sincerely congratulate the General and Executive and Reception Committees on this good promise of complete success, and I trust that at the close of the Congress they will feel that they have been rewarded for the labour which they have bestowed upon it. The report which the honorary secretary-general, Mr. MacCormac, has read will have explained how great has been the toil. It will, however, be well repaid, and I am sure that Mr. MacCormac will be sensible that he will be recompensed for even his constant exertions and care if the important science of medicine be materially promoted, for any addition to the knowledge of medicine must always be followed by the increased happiness of mankind. [*Loud applause.*] Gentlemen, I declare this Congress now open.

Sir James Paget then delivered an address, which is published at page 195.

At 4.30 P.M., the second general meeting was held in St. James's Hall, when Professor Virchow of Berlin delivered an address on the Value of Physiological Experiment, which is published at page 198.

On Thursday, August 4th, from 1.30 to 3.30 P.M., visits were paid to Guy's, the London, St. George's, St. Mary's, St. Thomas's, and the Westminster Hospitals. At 1.30, Professor Owen demonstrated the Natural History Collection at the New Natural History Museum, South Kensington. At 4 P.M., the third general meeting was held in St. James's Great Hall. The address prepared by the late Professor Raynaud of Paris, on Scepticism in Medicine, past and present, was read by his friend, Dr. Féréol.

SECTIONS.

The Sections met in their several rooms on Wednesday at 3 P.M., and were formally constituted.

SECTION I. *Anatomy.*—The chair was taken by Professor W. H. FLOWER, LL.D., F.R.S. His address, which was delivered at 10 A.M. on Thursday, is published at page 204, and several papers were read.

SECTION II. *Physiology.*—This Section was constituted on Thursday at 10 A.M., and an introductory address was delivered by the President, Dr. MICHAEL FOSTER; after which, a discussion on Localisation of Function in the Cerebral Cortex was opened by Professor Goltz. At 2 P.M., demonstrations of various physiological instruments were given by Dr. Bocci, Dr. Ewald, and Dr. W. H. Gaskell.

SECTION III. *Pathology.*—In this Section, on Wednesday, the President, Dr. WILKS, F.R.S., delivered an address, which is published at page 209, and papers were read. On Thursday, a discussion on Tubercle took place; and various papers were read.

SECTION IV. *Medicine.*—The introductory address in this Section was delivered on Wednesday, by the President, Sir W. W. GULL, M.D., D.C.L., F.R.S. It is published at page 210. Discussions on Nerve-stretching in Locomotor Ataxy and the Localisation of Disease in the Brain took place, and papers were read.

SUBSECTION: *Diseases of the Throat.*—The introductory address was delivered on Wednesday by the President, Dr. G. JOHNSON, F.R.S. It is published at page 212. Various papers were read on Wednesday and Thursday, including one by Signor Manuel Garcia on the Invention of the Laryngoscope. At 2 P.M. on Thursday, demonstrations were given at the Hospital for Diseases of the Throat and Chest, Golden Square.

SECTION V. *Surgery.*— The President, Mr. J. E. ERICHSEN, F.R.S., delivered an introductory address on Wednesday. It is published at page 212. Discussions took place on Wednesday on the Treatment of Aneurysm by Esmarch's Bandage; and on Thursday on the Surgical Treatment of Intrapericardial Tumours, and on Certain Diseases of the Kidney admitting of Surgical Treatment.

SECTION VI. *Obstetric Medicine and Surgery.*—On Wednesday, the Section having been constituted, an introductory address was delivered by the President, Dr. A. H. MCCLINTOCK. It is published at page 214. On Thursday, papers were read by Dr. Lazarewitch of Kharkof and Dr. Braxton Hicks; after which, discussions took place.

SECTION VII. *Diseases of Children.*—The opening address was delivered by the President, Dr. WEST, on Wednesday. It is published at page 216. Afterwards, a discussion took place on the Treatment of Spinal Curvature, and was continued on Thursday, on which day also there were discussions on the Real Position of the so-called Rubeola, Rötheln, or German Measles, and its relations to scarlatina and measles; and on the Nature of the so-called Surgical Scarlet Fever.

SECTION VIII. *Mental Diseases.*—The Section was opened with an introductory address by the President, Dr. LOCKHART ROBERTSON, who took as his subject "Lunacy in England". He began by contrasting the numbers now under care, and those formerly detained for insanity. He did not consider the increase due to real increase in anything like the same proportion. He gave tables showing the distribution of the lunatics in the counties. He considered the rise of lunacy legislation, and spoke of the general mode of government of the county asylums. He pointed out that, in England, private paying patients cannot get special care by payment in the county asylums. He paid a tribute of respect to Dr. Conolly, and passed on to the consideration of the registered hospitals. He said they might be extended to almost any extent by the parish authorities. He said that, as the Chancery patients represented such a wealthy class, it had been suggested to have special asylums for them. Though he did not approve of the principle that anyone should derive profit by the detention of the insane, at the same time he would not suppress the private asylums, but would allow perfect freedom of trade to have its effect. Some persons would continue to send their patients to these institutions from choice. He said the verdict of Scotland was against these private asylums. He was opposed to the action of the commissioners in restricting the licences of houses for a few patients. In the metropolitan district, in his opinion, the results of home care were highly satisfactory; and he looked upon Baron Mundy of Moravia as the prophet of home care. Reference to the present state of the lunacy laws was made. Before concluding, he said that a Royal Commission was needed to consider the subject. In the rooms of the Section, were many brains of criminals, which were placed for inspection by Dr. Benedikt of Vienna. He demonstrated certain morphological differences in them, allied, as he says, to the normal condition of the brains of the lower animals. Plans of asylums and asylum requisites were on view, besides collections of photographs of the insane. The full text of the address will be published in next week's JOURNAL.

SECTION IX. *Ophthalmology.*—The introductory address in this section was delivered on Wednesday by the President, Mr. W. BOWMAN, F.R.S. He alluded to the former meeting of the Ophthalmological Congress in London, at which many of the colleagues now present assisted. He briefly reviewed the present position of ophthalmology, and the strides which the science had made of late years, pointing his remarks by briefly referring to the special subjects for the discussion in the section, and to the distinguished men who were to introduce them. The concluding portion of his address dealt with the application of ophthalmic science as a means of preventing accidents at sea, and suggested that the present large gathering of distinguished men from all countries constituted a suitable occasion on which to lay down a basis for international legislation. At the conclusion of his remarks, which were very warmly received, Mr. Critchett proposed "That a committee be appointed by the section to deliberate concerning the tests most applicable to persons employed in working or observing signals by land and sea where the lives of others are involved; and to report thereon to the Section". It was seconded by Dr. Argyll Robertson, and carried unanimously. On Thursday a discussion on the Employment of Antiseptic Methods in Eye Surgery took place.

SECTION X. *Diseases of the Ear.*—The introductory address was delivered on Wednesday by the President, Mr. W. B. DALBY. Discussions were held on the Value of Operations in which the Tympanic Membrane is Incised, and Morbid Growths within the Ear, and their Treatment.

SECTION XI. *Diseases of the Skin.*—The Section was constituted on Wednesday, and the introductory address, which is published at page 217, was delivered on Thursday, by the President, Mr. ERASMUS WILSON, F.R.S.; after which several papers were read.

SECTION XII. *Diseases of the Teeth.*—After the transaction of the formal business on Wednesday, an address was delivered by the President, Mr. E. SAUNDERS. It is published at page 218. An address was also delivered by Professor Owen. On Thursday, various papers were read, and clinical demonstrations were given at the Dental Hospital in Soho Square.

SECTION XIII. *State Medicine.*—This Section was opened on Wednesday, by an address from the President, Mr. JOHN SIMON, C.B., F.R.S., which is published at page 219. On Thursday, the subject for discussion was the Measures for Preventing the Diffusion of Different Communicable Diseases from country to country, or within the limits of any single country. Several papers bearing on the subject were read.

SECTION XIV. *Military Surgery and Hygiene.*—This Section was formally constituted on Wednesday. On Thursday, the introductory address, which is published at page 224, was delivered by Surgeon-General T. LONGMORE, C.B., President of the Section; and papers on Antiseptic Surgery in the Field were read and discussed.

SECTION XV. *Materia Medica and Pharmacology.*—This Section was opened on Wednesday, with an introductory address by the President, Dr. T. R. FRASER, which is published at page 227. On Thursday, a discussion took place on the Action and Uses of Antipyretic Medicines. Papers were read on both days.

FOREIGN VISITORS.

THE following list of visitors from foreign countries has been furnished to us.

France.—Professors Charcot (V.P.), Pasteur (V.P.), Hardy (V.P.), Verneuil (V.P.), Peter, B. Ball, Béclard, N. Gueneau de Mussy, Parrot, Tarnier, Brown-Séquard (V.P.), Fournier, and Gaujot; Drs. Jules Guérin, Féréol, Péan, Bouchut, Léon Labbé, H. Gueneau de Mussy, Worms, C. Fauvel, Maurel, Luys, Lutaud, H. Huchard, Bouillaud (V.P.), Foville, of Paris; Professors Chauveau (V.P.) and Ollier (V.P.) of Lyons.

Germany.—Professors von Langenbeck (V.P.), Virchow (V.P.), Bardeleben (V.P.), Ewald, Küster, Liebreich, Westphal; Drs. Gurlt, B. Fränkel, Rabl-Rückhardt; and Surgeon-General Dr. Coler, of Berlin; Professors Oertel and Ranke, and Dr. Port, of Munich; Professor Volkmann of Halle; Professor Busch (V.P.) of Bonn; Professors Erb and W. His (V.P.) of Leipsig; Professors Gerhardt (V.P.), Kölliker (V.P.), Fick (V.P.), Hermann (V.P.), and Rindfleisch (V.P.), of Würzburg; Professors Eulenburg and Hueter of Greifswald; Professors Freund, Kœberlê, Goltz (V.P.), and Kussmaul (V.P.), of Strassburg; Professor Bäumler of Freiburg in Baden; Professors Spiegelburg and H. Fischer of Breslau; Professor König of Göttingen; Professor Pflüger (V.P.) of Bonn; Professor Preyer of Jena; Professor Vierordt (V.P.) of Tübingen; Professor Trendelenburg of Rostock; Professor Esmarch of Kiel; Surgeon-General W. Roth of Dresden.

Austro-Hungary.—Professors Kaposi, Schnitzler, and Braun, and Drs. Scanzoni (V.P.) and Kraus, of Vienna; and Dr. Czarda of Prague.

Italy.—Professors Baccelli (V.P.) and Mazzoni, and Dr. Pantalioni,

of Rome; Professors Palasciano and Tommasi, and Drs. Semmola, E. Chiaradia, and Gentile, of Naples; Professor Albanese of Palermo; Professors Corradi and Schuh, of Florence; Professor Caselli of Parma; Professor Pacchiotti of Turin; Professor Bottini and Dr. Sapolini of Milan; Professor Tamburini of Reggio; Professor Lorreta of Bologna.

Holland.—Professor Stokvis (V.P.), Tilanus (V.P.), Gunning, and Drs. J. J. Bos, M. W. C. Gori, George van der Horst, Korteweg, A. E. de Perrot, and M. Juda, of Amsterdam; Drs. H. van Capelle, van Dooremaal, H. de Zwaan, of the Hague; Professors Donders (V.P.), and van Overbeck de Meyer, and Dr. Snellen, of Utrecht; Drs. J. Baart de la Faille and Fokker, of Groningen; Dr. Middelberg, of Leewomden; Professor Rosenstein, of Leyden; and Dr. Carsten.

Switzerland.—Professors Revillod, Reverdin, and A. D'Espine, and Dr. Bau, of Geneva; Drs. Joel, de Cerenville, Larquier de Bancels, and Dufour, of Lausanne; Dr. Horner of Zürich; Dr. Vogt; Dr. Chatelaine.

Sweden and Norway.—Professors Loven (V.P.) and C. J. Rossander, and Dr. Santesson (V.P.) of Stockholm; Professor Holmgren (V.P.) of Upsala; Dr. N. M. Asplund of Gothenburg; Drs. Ole Bull, Chas. Smith, G. Conradi, Malthe, L. Dahl, and F. Stabell, of Christiania.

Denmark.—Professor Panum (V.P.), Drs. Studsgaard, Victor Lange, Engelsted, Hannover (V.P.), and W. Meyer, of Copenhagen.

Spain.—Drs. W. Jelly and J. E. Olavide, of Madrid; Dr. Ferradas y Rodriguez and Inspector-General Don Nicasio de Landa y Alvarez of Pampeluna; Dr. Don Ramon y la Sota, of Seville.

Portugal.—Drs. Da Cunha Bellem and G. Ennes, of Lisbon.

Russia.—Professors Mierzejewsky, C. Reyher, and Lesshaft, and Drs. Higginbotam, Sperck, Wywodzoff, and Slavjansky (V.P.), of St. Petersburg; Professor Asp of Helsingfors; Professors N. Skelfosowski and Dr. de Funkowski of Moscow; Professor D. Lambl and Dr. Hering of Warsaw; Dr. Lazarewitch of Kharkof; Professor L. Levschin of Kazan.

Roumania.—Dr. Wladesen, of Bucharest.

Greece.—Dr. Anagnostakis, of Athens.

Pekin.—Dr. S. W. Bushell, of Pekin.

Brazil.—Drs. A. Da Campos, José P. Gabizi, and Baron Theresopolis.

Turkey.—Professor Sarell, and Drs. Millinger and O. Vitalis, of Constantinople.

Argentine Republic.—Professor W. Rawson, of Buenos Ayres.

America.—Drs. Austin Flint (V.P.), Jacobi, Fordyce Barker, Loring, Sayre, J. Marion Sims, R. F. Weir, St. John Roosa, and Lefferts, of New York; Dr. Bigelow, of Boston; Drs. I. Minis Hays, Da Costa, S. W. Grose, W. Thomson, and H. R. Wood, of Philadelphia; Dr. R. Batty, of Rome, Georgia; Dr. D. W. Yandell, of Louisville, Kentucky; Dr. J. P. Hodges, of St. Louis; Dr. Davis, of Chicago; Surgeon Billings (V.P.), of Washington; Surgeon Brown, U.S. Navy.

REPORT OF THE MEDICAL REFORM COMMITTEE.

To be presented at the Annual Meeting at Ryde, August 11th, 1881.

In the Report of the Medical Reform Committee submitted to the Association, in August of last year, at the brilliant meeting at Cambridge, the history of the events connected with the various attempts at medical legislation during the preceding two years was referred to, and a slight summary given of the evidence placed before the Select Committees appointed in 1879 and 1880 by the House of Commons upon the various medical Bills introduced into Parliament.

The discussion that had taken place on the subject in the House of Commons and the labours of the Select Committees showed that the principle of direct representation of the profession in the General Medical Council had met with very general acceptance. Lord Mount-Temple, who successfully carried the Medical Act of 1858 through Parliament, and the Right Hon. Lyon Playfair, with several other leading statesmen, avowed their approval of it. The necessity for the formation of a conjoint board of examination in each division of the kingdom, under the control of the General Medical Council, was also admitted, but with modifications, in favour of the Universities, as regarded the theoretical branches of professional education.

In the annual session of the General Medical Council in the summer of 1880, it became manifest that medical reform, even as to the conjoint scheme, was as far as ever from realisation through the Council; and all hope from their action being thus dissipated, the Medical Reform Committee, on behalf of the Association, sought and obtained an interview with the Right Honourable the Earl Spencer, who was accompanied by the Vice-President of the Privy Council. The Committee did not succeed in inducing the Government to undertake medical legislation; but the Lord President distinctly admitted the importance of the subject, and the necessity of dealing with it if only they could see their way through it. His lordship also stated that, if they did enter on the subject, he undertook to enter into communication with us, and hear distinctly, plainly, and categorically, all the views that the Association might wish to lay before them.

Under these circumstances, when it became known that Parliament would meet as early as January 6th, the Chairman of the Medical Reform Committee wrote to Mr. Lennox Peel, Clerk of the Privy Council, to know whether Government intended to introduce a Medical Act Amendment Bill, and was informed, in reply, "that the early meeting of Parliament made it impossible to announce all the measures the Government would propose; and that the Government had not yet decided whether they would take any action about medical reform, but the subject was under their consideration". The Medical Reform Committee were in communication with members of the legislature as to the course to be pursued, when the Chairman of the Committee was asked whether he would, on behalf of the Medical Reform Committee, entertain favourably a proposal from the Irish Medical Association for a conference of all parties interested in the medical Bills introduced in the last Parliament on behalf of the profession, in order, if possible, to frame a single Bill, which would fairly satisfy the requirements of the whole profession. The conference was to comprise delegates from the Medical Reform Committee of the British Medical Association, the Medical Alliance Association, the proprietors of the *Lancet*, and the Irish Medical Association.

This proposition was accepted, and at a meeting of members of the Medical Reform Committee, it was arranged that Dr. Alfred Carpenter, as President of the Council, and Dr. Edward Waters, the Chairman of the Committee, should attend the conference on the expressed understanding that the British Medical Association was pledged to—

1. The direct representation of the profession in the General Medical Council.
2. The improvement of the preliminary general education of the medical student.
3. The establishment of one uniform conjoint examination in medicine, surgery, and midwifery, on equal fees, in each division of the kingdom, as the portal to the profession.
4. The enactment of an effective penal clause, and the prevention of the false assumption of professional titles by unqualified persons.

The conference first met at the Euston Hotel on December 9th last, when the following resolutions were discussed, and put to the meeting.

1. Moved by Dr. Jacob, seconded by Dr. Glover, and passed *nem. dis.*: "That the preliminary education of the student is at present defective, and that it should be determined and regulated by the General Medical Council, as is proposed with regard to professional education, note 15th section of the Government Bill."

2. Moved by Dr. Andrew Clark, seconded by Dr. Rogers, and resolved, *nem. dis.*: "That this conference is of opinion that, in the formation of a scheme of conjoint examination, it is essential that the system shall be uniform throughout the kingdom, in respect of curriculum, examination, and examination fees."

3. Moved by Dr. R. H. Carpenter, seconded by Dr. Danford Thomas, and resolved *nem. dis.*: "That this conference approves of the proposal that the examining boards for the three divisions of the kingdom should be constructed by the co-operation of the medical authorities in those divisions under the control of the General Medical Council; and that the lower diplomas of these authorities should be granted only to persons who had passed the conjoint examination; that, in default of the medical authorities in either division of the kingdom forming a conjoint board, the General Medical Council should do so."

4. Moved by Dr. Glover, seconded by Mr. Nelson Hardy, and resolved, *nem. dis.*: "That, in the opinion of this conference, the time has come for discontinuing the representation of the Apothecaries' Society of London, the Apothecaries' Hall of Ireland, and the Faculty of Physicians and Surgeons of Glasgow in the General Medical Council."

5. Moved by Dr. R. H. Carpenter, seconded by Mr. Macnamara, and resolved, upon a majority: "That it is the opinion of this conference that these bodies should cease to exist as medical authorities."

6. Moved by Dr. A. Clark, seconded by Dr. Rogers, and resolved, *nem. dis.*: "That no scheme of medical reform can be accepted by the profession which does not provide for its direct representation in the General Medical Council."

7. Moved by Mr. Macnamara, seconded by Dr. Jacob, and negatived: "That an amendment should be made in the law by which the right of election to the General Medical Council should lie with the medical corporate voters of each medical authority."

8. Moved by Dr. Glover, seconded by Mr. Macnamara, and resolved,

Dr. Jacob not voting: "That the second proposal of Professor Turner, with reference to the examinations of the Scottish Universities, and the licensing of candidates by those institutions, be accepted by the Conference as applicable to all Universities."

9. Moved by Dr. R. H. Carpenter, seconded by Dr. Glover, and resolved *nem. dis.*, "That a penal clause similar in effect to the penal clause of the Apothecaries (England) Act should be introduced into the Bill.

At a meeting of the Medical Reform Committee on December 18th, 1880, it was moved by Dr. Stewart, seconded by Dr. Chadwick, and resolved: "That, in case the parliamentary advisers of the Medical Reform Committee should consider it practicable, the resolutions passed at the conference held at the Euston Hotel on December 9th, 1880, be embodied in a Bill to be presented and supported by the Medical Reform Committee, on behalf of the British Medical Association."

In accordance with this resolution, the Chairman of the Committee attended meetings held at the residence of Dr. Andrew Clark, at which the details of the proposed Bill of the conference were matured. The Bill was subsequently drafted by Messrs. Wyatt and Hoskins, assisted by Mr. Michael, Q.C.

The Bill, thus completed, and endorsed by Mr. A. Hardcastle, Sir Trevor Lawrence, Bart., and Dr. Farquharson, was duly introduced in January last. This Bill constituted a new departure. It was not the Bill of the Association merely; it was the Bill of the conference before mentioned. Still it embodied the principles for which the witnesses on behalf of the Association had contended before the Select Committee of the House of Commons.

In May, a Royal Commission on the Medical Acts was appointed at the instance of the Government. This Commission has extensive and searching duties, and the evidence before the Select Committees comes within its province. The withdrawal of any medical Bill, in presence of the existence of a Royal Commission, became inevitable, and the Bill of the conference has therefore been withdrawn.

The appointment of a Royal Commission is undoubted evidence of the determination of the Government to attempt medical legislation on sounder data than those adopted by preceding Governments. The Commission has examined several witnesses connected with the General Medical Council and the corporations, but it has also examined many independent witnesses on behalf of the profession, and it is evident that the Commission intends to make the inquiry an exhaustive one. The Association and the profession have therefore just cause for congratulation on the appointment of a Royal Commission on the Medical Acts.

On July 11th last, the Chairman of the Medical Reform Committee was examined by the Royal Commission, and gave evidence in favour of the principles invariably advocated by the Association. Other witnesses may yet be required, and the Committee have therefore agian to recommend their appointment with power to add to their numbers.

During the years that the Medical Reform Committee of the Association have existed, they have had to deplore the loss of many members, among them Dr. Charlton of Newcastle, Mr. Whipple of Plymouth, Dr. Copeman of Norwich, and Dr. Eason Wilkinson of Manchester, all of whom were Presidents of the Association, together with Dr. Sibson of London, and Mr. Southam of Manchester, who both so worthily and efficiently filled the responsible post of President of the Council of the Association. On the present occasion, the Committee have to add one more to the long roll of deceased members, through the sudden death of Dr. Randle Wilbraham Falconer of Bath, who, as Treasurer, managed for ten years the finances of the Association, when no glowing surplus marked its balance sheet, and laid the foundation of its present flourishing exchequer. Many members may not be aware of his valuable services during this period, but his urbanity and efficiency in the offices of President of Council and President are fresh in the recollection of all. In him the Medical Reform Committee have lost an old, staunch, and zealous member, whose services must ever be missed by all who worked with him.

EDWARD WATERS,
Chairman and Convener of the Committee.

COPIES have been forwarded us of a circular of the Anglo-China Tea Company, in which they are good enough to offer to professional men the opportunity of earning a commission of twopence per pound on any of their teas which they will recommend to their patients. This opportunity of becoming a tea-man is one which, we apprehend, professional men will not be eager to embrace; and we cannot congratulate the Anglo-China Tea Company on the novel and ingenious method they have discovered of insulting the professional men to whom their circular is addressed.

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

To be presented at the annual meeting at Leeds, on Friday, August 12th, 1881.

THE Scientific Grants Committee beg to report that, of the annual grant of £300 made at the last annual meeting, they have voted £265 in response to the following applications.

Statement of Scientific Grants, 1880-81.

	Allowed.	Paid.	Returned.	Overpaid
Dr. M[illegible]: For the Committee [illegible]	£	£	£	£
Dr. Gerald Yeo: On the Efficacy [illegible]	[illegible]	[illegible]		
Dr. Thin: For an Investigation [illegible]	[illegible]	No report.		
Mr. W[illegible]: An Investigation on the Relations which exist [illegible]	[illegible]	[illegible]		
Dr. Hamilton: An Investigation on the Pathology of the Brain	30	No return		
Mr. Watson Cheyne: An Investigation on the Relation of Organ[illegible]	[illegible]	[illegible]		
Dr. Augustus Waller: An Investigation on the Time and Rela[illegible] in the Human Body in Health [illegible]	[illegible]	[illegible]		[illegible]
Dr. Ogston: Continued Research into the Relation of Bacteria [illegible]	[illegible]	[illegible]		
Dr. N[illegible]: [illegible] Research [illegible]	[illegible]	[illegible]		
Drs. P[illegible]: To Illustrate Final Report on the Life-History of [illegible]	[illegible]	[illegible]		
	[illegible]	[illegible]	[illegible]	[illegible]
Dr. Haycraft: On Urea in Blood and Muscle (paid from last year's grants)	£35			

In the course of the last year, some interesting reports have been published in the JOURNAL of researches towards which grants have been made by the Association.

The Committee on Anæsthetics presented the report of their valuable investigations at the last meeting of the Association. Beginning with ether and chloroform, they had compared their action with those of benzine, pyrrhol, amylene, nitrous ethyl ether, ethyl chloride, butyl chloride, and ethene dichloride or Dutch liquid, with respect to each of which it had been found either that anæsthetic action was wanting, or that it was complicated with dangerous effects on the circulatory and respiratory centres. But, on the other hand, most satisfactory results were obtained in the experiments with two bodies isomeric with the two last mentioned, namely, with isobutyl chloride and with ethidene dichloride. As, of these two, the body last mentioned appeared preferable, an extended and most valuable series of investigations of its properties were made, first by experiments on animals, and, secondly, clinically. Clinical experience completely confirmed the favourable opinion of the value of ethidene dichloride as an anæsthetic to which the Committee had been led by their experiments, and tended to show that, although it is not free from the peculiar drawbacks of chloroform, particularly its aptness to affect the heart and respiration, it presents those actions in a more regular and controllable, and therefore less dangerous, form. The Committee will present no report this year, but will continue their most valuable investigations.

As results of Dr. Thin's researches in connection with the grant, it has been definitely ascertained that the *trichophyton tonsurans* is a special fungus, and is distinct from the fungi whose spores are usually present in the atmosphere. The cultivation experiments showed that the parasite is sterile in all the usually employed cultivation-fluids, but could be grown when moistened by vitreous humour. Its behaviour under different conditions showed that inflammation cures ringworm by drowning the spores, it having been found impossible to grow them if they were completely submerged in vitreous humour. A searching examination in a number of cases of alopecia areata, carried out exhaustively, failed to show the fungus which has been alleged to exist in connection with this disease; but an object which Dr. Thin regards as a bacterium, and which he proposes to name *bacterium decalvans*, was found between the hair-sheaths and the root of the hairs on the margin of the patches, and in the substance of the diseased hairs near the

bulb. Papers describing the experiments and observations on which these opinions are based have been recently read before the Royal Society; as well as a paper on the Absorption of Pigment by Bacteria, which records a peculiar appearance observed in ringworm-hairs cultivated in an incubator.

Renewed and repeated attempts to cultivate the fungi of favus and tinea versicolor in various media have failed—showing that these fungi, like the trichophyton tonsurans, are not, as has been sometimes stated, common fungi.

The histology of molluscum contagiosum, which was investigated at the same time, was found to consist in an abnormal development of the cells of the epidermis, which mostly takes its origin in the cells of the internal root-sheath of the hair-follicle, the sebaceous glands remaining passive—the same results as those found by Virchow, the opinions of dermatologists who have adhered to the "glandular" theory not being supported. A paper embodying these results has been presented to the Pathological Society.

Papers on ringworm and alopecia areata are promised. A separate clinical study of alopecia areata, in which the pathology of the affection is illustrated by treatment, will be read at the meeting of the Association at Ryde. The study of the pathology of psoriasis contained in a paper published in the JOURNAL of July 30th was facilitated by the grant.

Mr. North has continued his investigations on the Elimination of Nitrogen in relation to severe Bodily Labour. In a preliminary report to the Committee presented last year, he stated that he had made several series of experiments, the results of which he felt it desirable to withhold from publication at present. He now reports that he has overcome one of the principal difficulties of his investigation, namely, that of providing himself with a normal diet material of absolutely constant composition. He has also very materially improved his methods of analysis, so as to be in a position to repeat and extend his experiments under much more exact conditions. Mr. North has, for the purposes of his inquiry, collected important information as to diet in various parts of the world, with special reference to the influence of a vegetable diet on capacity for work.

Mr. J. Watson Cheyne is still engaged in making microscopical examination of the organs which are the subject of his research. The results thus far obtained seem to be very definite; but he desires to postpone the publication of a detailed report.

Dr. Augustus Waller reported that he had continued his experiments on Tendon-Reflex, and had confirmed his former conclusions as to its non-reflex nature. He had also, in conjunction with Dr. Prevost of Geneva (Nouvelles Expériences sur les Phénomènes nommés Reflexes Tendineux, par J. L. Prevost et A. Waller, *Revue Méd. de la Suisse Romande*, June 15th, 1881), investigated the question of cross-reflex, and had shown that in this case the transmission is not physiological. He will present his final report next year.

Dr. D. Newman (Renewed Research on the Functions of the Kidney) and Dr. Gerald Yeo (On the Efficacy of the Antiseptic Method in Injuries of the Brain) will present their reports at a later day, their investigations, although far advanced, being not yet concluded.

Drs. Braidwood and Vacher have forwarded the remaining portion of their report on Contagium, and the manuscript, which is very complete, and highly illustrated, is now in hand, and will be laid before the meeting, and subsequently published in the JOURNAL.

Dr. Alexander Ogston has published (BRITISH MEDICAL JOURNAL) a valuable report on micro-organisms in surgical diseases. His methods of cultivation of micrococci proved highly successful, and were very ingenious; thus pus-containing germs, from acute abscesses, were introduced, under carbolic spray, into new-laid eggs, which were then sealed up and kept for a few days in an incubator; the albumen of these eggs was then employed for experiment. Dr. Ogston's experiments tended to show that cold-abscesses contain innocuous pus with no micro-organisms; acute abscesses always contain micrococci, which are killed by high temperatures or carbolic acid, and which may cause fatal septicæmia, local gangrene, or mere irritation at the seat of injection. Suppurating wounds contain micrococci whose numbers and activity are proportionate to the intensity of the suppuration; these germs resist antiseptic applications, but are kept out of wounds by Listerian dressings; when they are not present in wounds, no pus is produced; the discharge remains serous. Pus containing micrococci is resisted by animals if the dose be minute, or if injected into the peritoneal cavity. These results throw light on the pathology of surgical fever, of abscess in its different forms, and on other questions at present exciting universal interest. Dr. Alexander Ogston is continuing his investigations, and expects to report in September, or somewhat later.

Professor Ferrier and Dr. Gerald Yeo relate, in their report published in the JOURNAL, a series of experiments on the applicability of the antiseptic method to dressing wounds of the meninges and brain. The use of the trephine has hitherto been found to be fraught with danger, owing to the effects of the admission of air into the cranial cavity; but the knowledge of the fact that septic agencies are introduced with the air, and that Listerian precautions exclude them, suggested the experiments. In previous experiments with the trephine, on the effects of cerebral injuries, Professor Ferrier found that all the subjects submitted to operation became affected with a cranial inflammation. In the twenty-six monkeys operated upon, in this special research, only seven deaths occurred—and of these but one from inflammation. Twenty-one of the animals lived long enough for the development of inflammation after trephining. In none did that lesion take place excepting in the one fatal case, and in that the animal had torn off the antiseptic dressings. Highly important information as to the localisation of functions of the brain was obtained in the course of these experiments. The operations were, in all cases, conducted painlessly under chloroform. Further physiological results of the research have been communicated to the Royal Society.

In respect to further grants, Dr. J. Haycraft (University of Edinburgh) reports that he hopes, in the course of this summer, to publish fully in the JOURNAL the results of his researches, of which he gave a partial account last year at Cambridge.

The Committee requests that a sum of £300 be placed at its disposal for the current year, and that it may be reappointed.

WILLOUGHBY F. WADE, Chairman.

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE

OWING to the preoccupation of the Legislature by public measures relating to a sister country, little has occurred to call for the intervention of the Parliamentary Bills Committee. The Committee has continued to give attention to the subject of notification of infectious diseases; and the Chairman prepared, for the consideration of the Committee, an elaborate report upon local legislation as to contagious diseases, in which the provisions as to infectious diseases in local Bills proposed this session by the sanitary authorities of Aberdeen, Barrow-in-Furness, Birkenhead, Bradford, Salford, and Stalybridge, were considered. In this report, attention was drawn to the fact that the method of notification which the Association approves was adopted in one only; in the other Bills, direct notification by the medical officer being required. Attention was also called to the great variety of legislative provisions introduced by these local Acts, on such subjects as notification of infectious diseases; regulations as to infected persons, places, and things; provisions of hospitals, and compulsory removal thereto; disinfection of premises, etc.; by-laws; height of rooms; unnecessary clauses in local Bills; and it was suggested that Mr. Dodson should be asked to receive a deputation at an early date for the purpose of drawing his attention to the dimensions which private legislation on the subject of infectious diseases is assuming, and to impress upon the Government through him the desirability of amending and strengthening the Public Health Act of 1875, in those parts which have been proved to be insufficient and unsatisfactory. The opportunity was taken of calling Mr. Dodson's attention to these subjects in the course of a joint deputation to Mr. Dodson, in which other bodies took part; and the Committee asked for an early reconsideration of the position of the board with regard to the notification of infectious disease, and urged the importance of facilities being given to authorities who may wish to adopt this notification in their districts in a suitable form, without the trouble and expense of a special local Act. A Bill was introduced into Parliament by Mr. Edmond Gray, proposing to make notification of infectious disease compulsory in Ireland for any place where the sanitary authority desires, and the Local Government Board approves. As in this Bill also the mode of notification was not that which the Association has approved, it was urged upon Mr. Dodson that this was a fitting opportunity for referring the whole matter to a Select Committee of the House of Commons. The Government, however, have taken no steps in the matter; but, towards the close of the session, a Bill was introduced by Mr. George Hastings, on the part of the Social Science Association, with the object of making notification compulsory; and, as this Bill also proposes to impose that duty directly upon the medical practitioners in attendance, it is proposed to introduce early next session, on the part of the Association, a Bill which shall carry out the views which the Association has endorsed; and it is probable that a Select Committee of the House of Commons will be appointed to inquire into the whole subject at the beginning of next session. Your Committee have only further to report that the Naval Medical Warrant which has been published during the year carries out

the majority of the suggestions put forward by Mr. Ernest Hart in the memorandum which he drew up on the subject last year, at the request of the First Lord of the Admiralty; and, although the new warrant does not in all respects carry out what was desired, especially by some of the senior officers, it does confer a considerable boon upon the service generally, both in respect to rank, pay, and promotion, and has been accepted with much satisfaction by the service at large, and has had the effect of attracting to the service a greatly improved supply of efficient candidates.

The intervention of the Parliamentary Bills Committee on behalf of the Indian medical officer has also been acknowledged by the Indian Medical Defence Committee, in an official communication addressed to the chairman by their secretary, as having been effective and valuable; and in that communication, the secretary offers to the Committee the warm thanks of the service for the assistance rendered.

The Committee has been applied to by the representatives of the provincial medical officers of health to take part in a deputation to Mr. Dodson, to lay before him the grievances arising out of the short tenure of office and frequent re-election of medical officers of health; a position which robs them of much of their efficiency, and consequently threatens their independence of action, and is thus contrary to the best interests of the country. There has been no time to call together the Parliamentary Bills Committee to consider the time to be given, the notice having been very short; but the Chairman, knowing well the views of the Committee on the subject, has promised the assistance of the Committee in laying the facts before the President of the Local Government Board.

THE MUSEUM OF THE INTERNATIONAL MEDICAL CONGRESS.

Second Notice.

Since our notice of the museum in last week's number of the Journal, some valuable additions have been received from foreign contributors. Dr. Adam Politzer, the well-known aural surgeon, forwards a large number of temporal bones, prepared to show the aurinal anatomy of the internal ear, and certain morbid conditions of that part, such as perforation of the membrana tympani, adhesions between the membrane and promontory and congenital dehiscence of the sinus lateralis. These preparations differ in no way from many in the Toynbee collection at the museum of the Royal College of Surgeons, but the contributor has wisely selected only such specimens as present morbid changes visible to the naked eye: in certain collections many examples of ear diseases are preserved, as useless for their purpose of demonstrating disease as a piece of skin from a case of measles, or a pharynx from a patient who has died of hydrophobia. Dr. Politzer also sends a set of rough sketches which show the manner in which he and his assistants in the department for diseases of the ear, at the Vienna Hospital, demonstrate diseases of the tympanum; in a minute or two an instructive sketch of the membrane, handle of the malleus, etc., can be drawn in charcoal and coloured chalk. A few plaster bas-reliefs of diseases of the membrane are likewise sent for inspection. In addition, Dr. Politzer contributes a portfolio of beautifully finished coloured drawings of diseases of the membrana tympani. We may here notice, most favourably, some similar works of art by Mr. Laidlaw Purves.

Dr. Tripier, of Lyons, sends some large transparencies, about two feet square, all representing the structures seen in section through different parts of the upper and lower extremities. The diagrams are brightly coloured and painted on ground glass, the frame of one example moves by hinges on an upright post, so that the transparency can be moved to suit the light. For demonstration at anatomical lectures such diagrams are clear, instructive, and elegant: before the qualified anatomist criticises them, he should remember how, when a beginner, he found it far more agreeable to follow demonstrations from clean, new well-finished diagrams than from old, unsightly and coarsely-executed drawings. Professor Parrot's specimens of bones illustrating hereditary syphilis and rickets have arrived too late for description in the catalogue. A large series of bones of syphilitic infants are mounted to show the evolution of hereditary syphilitic bone disease, according to the opinions expressed by the donor in his communication to the *Transactions of the Pathological Society*, vol. xxx. We have referred, a month since, to a similar series, partly supplied by M. Parrot, exhibited at the annual show at the museum of the Royal College of Surgeons. Besides a good display of models of the mouth, tongue and teeth in syphilis, are some wax models of the very highest excellence, by Jumelin; we draw particular attention to a preparation showing old, white, flat syphilitic cicatrices on the nates, the skin with its follicles, and a few comedones, is a true marvel of plastic art, and the integuments are not made unnaturally rosy as in similar preparations elsewhere.

Dr. Mules, surgeon to the Manchester Eye Hospital, contributes examples of eye-diseases, mostly such as produce visible alterations in the vitreous body. The objections to which we have already referred, with regard to series of specimens of ear diseases, apply with tenfold greater force to preparations of morbid eyes, but here again, Dr. Mules, like Dr. Politzer has selected only that which is demonstrable. The specimens are mounted in the same manner as Mr. Priestley Smith's series, presented to the Royal College of Surgeons in illustration of his Jacksonian Prize Essay.

Dr. J. Hillis, medical superintendent of the Leper Hospital, British Guiana, has sent, since the catalogue went to press, a set of photographs of lepers, which are arranged beside a similar series exhibited by Dr. De Wahl, of Dorpat. Dr. Lanra's preparations of the medulla are part of the series which he exhibits also at the Sanitary Exhibition, deposited at the museum for demonstration. Among the most recent arrivals are a series illustrating Charcot's "arthropathies ataxiques". This includes a life-size wax model of an old woman in whom the disease existed to a marked degree; also photographs and some of the bones of the same patient.

Among other specimens which we think particularly worthy of notice are, a skin-covered tumour removed by Mr. Barton, of Dublin, from the pharynx (574); a skull with hyperostoses and large exostoses perfectly unilateral (761), deposited by Mr. Hutchinson (see *Transactions of the Pathological Society*, vol. xxii, p. 204); two specimens of multiple ventomata, one from the Middlesex Hospital, the other from Ireland—whence also come the original drawings of that disease by R. W. Smith; Dr. Goodwillie's remarkable apparatus for sub-periosteal extirpation of the maxilla for necrosis or humours; some of the original drawings made by Mr. Jonathan Hutchinson for his illustrations of clinical surgery; sketches, etc., of a case of madoglostia, by Mr. Whitehead of Manchester; and models to illustrate Mr. Rushton Parker's paper on the treatment of fractures of the femur.

ARMY MEDICAL SCHOOL.

The summer term of this school ended on the 1st instant, when the Right Hon. Lord Morley presented the prizes, and addressed the gentlemen now entered on their course in their respective services. Forty surgeons on probation passed for the British, and twenty-two for H. M. Indian army.

Mr. H. T. Griffiths, M.D.Cantab., took the highest place in the school with 5,210 marks, thus gaining the Herbert Prize, and won also the gold Martin Memorial Medal, given to the candidate who has the first place in Military Medicine. Mr. Milne, of the same service, took the Parkes Memorial Medal, being first in Military Medicine. Mr. A. M. Davies was at the head of the surgeons on probation with 2,760 marks, gained at Netley, and won the silver Martin Memorial Medal, presented by Professor Maclean to the gentleman taking the second place in that competition.

The official documents and letters having been read by Professor Longmore, Lord Morley, under Secretary of State for War, addressed the gentlemen about to leave Netley. His lordship explained that he filled the place that day and discharged the duty which the Field Marshal Commanding-in-Chief had intended to discharge—a duty which His Royal Highness was unable to perform, as he had to go abroad for his health, to enable him to return in time to be at Her Majesty's side, at the coming Volunteer Review in Scotland. Lord Morley then warmly congratulated the gentlemen whose course of instruction was that day finished, more especially those who had won the honourable distinctions, it had just been his happiness to present to those who had so honourably won them. Lord Morley touched on the greatly improved position and status conferred on army medical officers by late warrants, improvements, his lordship added, richly deserved by the valuable service rendered by them as a class, to the country. The speaker, in graceful and feeling terms, referred to those medical officers, who, in the late wars in Afghanistan and the Transvaal, had lost their lives, either on the field of battle, or worn down by hard work in hostile climates, and urged those he addressed, to tread in their footsteps, and follow their bright example.

At the request of the professors, and with the consent of Lord Morley, the gentlemen were then addressed by Dr. Yandell, Professor of Surgery in the University of Louisville, U.S.A. It will be long, we think, before those to whom his speech was addressed will forget this address, which evidently touched the hearts of the young medical officers. The speech had every quality the occasion demanded—it was eloquent, manly, and sincere; and coming as it did from one who had

done good service on many fields of battle in his country's cause, every sentence of it struck home, appealing, as the Professor did, to the best and most generous sympathies of his audience.

The guests then partook of a sumptuous luncheon in the mess of the medical staff before returning to London.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: FORTY-NINTH ANNUAL MEETING.

THE Forty-Ninth Annual Meeting of the British Medical Association will be held at Ryde, Isle of Wight, on Tuesday, Wednesday, Thursday, and Friday, August 9th, 10th, 11th, and 12th, 1881.

President.—G. M. HUMPHRY, M.D., F.R.S., Professor of Anatomy to the University of Cambridge; Senior Surgeon to Addenbrooke's Hospital.

President-elect.—BENJAMIN BARROW, F.R.C.S., Consulting-Surgeon to the Royal Isle of Wight Infirmary.

An Address in Medicine will be delivered by JOHN SYER BRISTOWE, M.D., F.R.S., F.R.C.P., Senior Physician to St. Thomas's Hospital.

An Address in Surgery will be delivered by JONATHAN HUTCHINSON, F.R.C.S., Senior Surgeon to the London Hospital.

An Address in Obstetric Medicine will be delivered by JOHN G. SINCLAIR GOGHILL, M.D., F.R.C.P.Edin., Visiting Physician to the National Hospital for Consumption, Ventnor.

SECTION A. MEDICINE.—*President:* Edward Long Fox, M.D., Clifton, Bristol. *Vice-Presidents:* W. Withers Moore, M.D., Brighton; Bushell Anningson, M.A., M.D., Cambridge. *Secretaries:* William Hoffmeister, M.D., Townsend House, Cowes, Isle of Wight; Robert Saundby, M.D., 71, Newhall Street, Birmingham.

SECTION B. SURGERY.—*President:* W. Martin Coates, M.R.C.S., Salisbury. *Vice-Presidents:* Charles Macnamara, F.R.C.S.S., London; Alexander G. Davey, M.D., Ryde. *Secretaries:* Ed. Allan Waterworth, M.D., 40, Quay Street, Newport, Isle of Wight; Herbert W. Page, M.A., F.R.C.S., 146, Harley Street, London.

SECTION C. OBSTETRIC MEDICINE.—*President:* Sir E. B. Sinclair, M.D., Dublin. *Vice-Presidents:* John Livesay Whitehead, M.D., Ventnor; Edward Malins, M.D., Birmingham. *Secretaries:* Robert Cory, M.D., 14 Palace Road, Albert Embankment, S.E.; James Mann Williamson, M.D., South Cliff Cottage, Ventnor, Isle of Wight.

SECTION D. PUBLIC MEDICINE.—*President:* Arthur Ransome, M.D., Bowden, Cheshire. *Vice-Presidents:* George Wilson, M.D., Leamington; William Armistead, M.B., Cambridge. *Secretaries:* James Neal, M.D., Barcelona House, Sandown, Isle of Wight; H. Aubrey Husband, M.B., 13, Northumberland Street, Edinburgh.

SUBSECTION: OTOLOGY.—*Chairman:* Urban Pritchard, M.D., London. *Secretaries:* E. Cresswell Baber, M.B., 4, Preston Street, Brighton; W. Douglas Hemming, F.R.C.S., Glenalmond, Bournemouth.

Honorary Local Secretaries.—J. M. Pletts, M.D., Kent House, Melville Street, Ryde, Isle of Wight; W. E. Green, Esq., Belgrave House, Sandown, Isle of Wight; Joseph Groves, B.A., M.B., Glen Cottage, Carisbrooke, Isle of Wight.

TUESDAY, AUGUST [illegible], 1881.

2 P.M.—Meeting of Committee of Council, in the Ante-Room of the Justice Hall.
2.30 P.M.—Meeting of the Council of the Association, in the Justice Hall, Town Hall.
4 P.M.—Short service, with sermon by Bishop of [illegible].
8 P.M.—General Meeting in the Town Hall, Great Hall. President's Address; Annual Report of Council and other business.

WEDNESDAY, AUGUST [illegible], 1881.

9.30 A.M.—Meeting of Council of the Association, in the Ante-Room of the Justice Hall.
11 A.M.—Second General Meeting in the Town Hall, Great Hall. Address in Medicine.
2 TO 5 P.M.—Sectional Meetings.
9 P.M.—Soirée in the Town Hall by the Mayor and the inhabitants of Ryde and neighbourhood.

THURSDAY, AUGUST [illegible], 1881.

9 A.M.—Meeting of Committee of Council, in the Ante-Room of the Justice Hall.
10 A.M.—Third General Meeting in the Town Hall, Great Hall. Reports of Committees.
11 A.M.—Address in Surgery, in the Town Hall, Great Hall.
TO 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner in the Town Hall, Great Hall.

FRIDAY, AUGUST [illegible], 1881.

11 A.M.—Address in Obstetric Medicine, in the Town Hall, Great Hall.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting in the Town Hall, Great Hall. Reports of Committees and other business.
4 P.M.—Garden party in the grounds of the Isle of Wight College, by the President and Mrs. Barrow.

The following subjects have been arranged for discussion in the various Sections.

SECTION A.—MEDICINE.

1. Dr. Wade will open a discussion on Dilatation of the Stomach. 2. Dr. Gowers on Acute Spinal Paralysis. 3. Dr. Lauder Brunton, F.R.S., on Jaundice.

Professor Rosenstein of Leyden and Professor Ewald of Berlin will be present, and will take part in the discussions.

The following papers have been promised.

BARLOW, W. H., M.D. Regressive Paralysis in the Infant.
COGHILL, J. Sinclair, M.D. The Climate of Ventnor in relation to diseases other than Phthisis.
COUSINS, J. Ward, M.D. A new [illegible] Stethoscope.
DOWSE, T. S., M.D. On the Differential Diagnosis of Intracranial Tumour, General Paralysis of the Insane, and Locomotor Ataxy.
DRYSDALE, C., M.D. On Syphilis of the Spinal Cord.
FINNY, J. Magee, M.D. [illegible] Acute Ascending Spinal Paralysis.
GOWERS, W. R., M.D. Acute Spinal Paralysis.
GROVES, J., M.D. The Treatment of Insanity.
HEADON, John, M.D. [illegible]
HASSALL, Arthur Hill, M.D. The Winter Climate of San Remo.
KERR, Norman, M.D. Three successful experiments in the Treatment of Dipsomania.
MORRIS, Malcolm, Esq. Chaulmoogra Oil in Skin-diseases.
SHEKELTT, E. Markham, M.D. A case of Subcutaneous Emphysema from Spontaneous Rupture of Lung.
SMITH, R. Shingleton, M.D. Some Notes on the Treatment of Diabetes by Codeia.
THIN, G., M.D. On Alopecia Areata: a Clinical Study.
TILLETT, E. T., M.D. On the Medical Treatment of the Acute Exanthemata.
TYSON, W. J., M.B. Rectal Alimentation.
WILLIAMSON, J. M., M.D. The Laryngeal Complications of Consumption.

SECTION B.—SURGERY.

Mr. Coates, President of the Section, in his opening address, will make some observations on the Treatment of Hæmorrhoids, and a New Operation for their Removal.

1. A discussion will be opened by Mr. Stokes of Dublin, on Resection of the Knee in Early Life.

2. Mr. Edmund Owen will open a discussion on the Early Recognition and Treatment of Spinal Caries.

The following papers have been promised.

COUSINS, J. Ward, M.D. A New Antiseptic Trocar.
CROSS, F. Richardson, M.B. Antiseptic Incision and Drainage in Empyema.
GOULD, A. Pearce, M.B., M.S. Varicocele.
GRATTAN, Nicholas, Esq. On the Treatment of Spinal Curvature by means of the Cuirass.
GREENWAY, H., Esq. [illegible] Surgery.
HARRISON, Reginald, Esq. Treatment of Stricture by Stretching.
JAMES, Prosser, M.D. Stricture of the Œsophagus.
LEDIARD, H. A., M.D. On the Treatment of Fracture of the Lower End of the Fibula.
MACNAMARA, C., Esq. Two Cases of Charcot's Joint-Disease.
MARTIN, H., M.D. (Boston, U.S.) A Novel Treatment of Synovitis.
MCMAHON, J. T., Esq. A case of Psoas Abscess.
NORTON, A. T., Esq. A new and reliable Operation for the Cure of Web-Fingers.
PYE, Walter, Esq. Spina Bifida.
SPANTON, W. Dunnett, Esq. A further series of cases of Immediate Cure of Inguinal Hernia.
TAIT, Lawson, Esq. Some recent advances in Pelvic Surgery.
TAYLOR, C. Bell, M.D. 1. On Division of the Optic and Ciliary Nerves considered as an Operation for the Relief of Pain and the Prevention of Sympathetic Ophthalmia. 2. On Antiseptics in Ocular Surgery.
TREVAN, W. F., Esq. Twenty-five Cases of Lithotrity at one Sitting.

SECTION C.—OBSTETRIC MEDICINE.

1. A discussion will be opened by Dr. Malins on the Removal of the Ovaries: *a*, for Dysmenorrhœa; *b*, for Fibroid Tumours.

2. Dr. Sinclair Coghill will open a discussion on the Mechanical Treatment of Uterine Flexions and Displacements.

Dr. Bantock will take part in the discussions.

The following papers have been promised.

BARNES, Fancourt, M.D. The Treatment of Puerperal Convulsions by Chloroform.
[illegible]
[illegible]
EDIS, A. W., M.D. On Sterility.
HICKS, J. Braxton, M.D. On Secondary *Post partum* Hæmorrhages.
HIME, T. W., M.B. Two cases of Repeated Ovariotomy, with description of new Instrument for Paracentesis.
MOULLIN, J. A. Mansell, M.B. The Treatment of Chronic Metritis by Intra-uterine Applications.
[illegible] to be remembered by young Obstetricians.
[illegible] consecutive cases.
[illegible] Godiva.
[illegible]

Section D.—Public Medicine.

1. Mr. Ernest Hart will open a discussion on Vaccination with Calf-lymph, in which it is expected that Dr. Warlomont of Brussels and Dr. Martin of Boston will take part.

2. Dr. Strange will open a discussion on the Origin and Diffusion of Enteric Fever and Diphtheria.

3. Infectious Diseases, and how to deal with them under the Public Health Act in the best interests of the patients and of the public.

4. Considerations with regard to Infectious Hospitals: what changes are required in their character, size, site, management, etc.

5. Cremation.

The following papers have been promised.

Beveridge, Robert, M.B. On a Peculiar Outbreak of Disease in connection with the Supply of Milk.
Davey, A. G., M.D. On the Prevention of Enteric Fever.
Drysdale, C. R., M.D. London Local Death-rates.
Evatt, Surgeon-Major G. J. H., M.D. The New Medical Organisation of the Army.
Groves, J., M.B. The Isle of Wight as a Health-resort.
Harley, George, M.D., F.R.S. The Pros and Cons of Vaccination, etc.
Hodgson, G. F., Esq. On the Relations of Variola and Vaccina; especially as illustrated by the experiments of Mr. Badcock, formerly of Brighton.
Neal, J., M.D. The Public Health Act in its relation to Infectious Diseases and Hospitals.
Palmer, J. Foster, Esq. Cremation: remarks on some of the minor points connected with it.
Stewart, A. P., M.D. Are Homes for Convalescents from Scarlatina desirable? and, if so, at what period can the patients be safely removed to them?
Warlomont, E., M.D. (Brussels). Is it desirable that Vaccination by means of Calf-lymph should be encouraged in England?
Whitehead, J. L., M.D. The Climate of the Undercliff, Isle of Wight, as a place of Health-resort; deduced from forty years' consecutive meteorological observations.

Subsection—Otology.

The following British and foreign otologists have expressed their intention of being present, and taking part in the discussions: Messrs. Field, Gardiner Brown, Lennox Browne, Hodgson, Torrance; Drs. Duncanson, Barr, Pierce, Jacob, Ward Cousins, Loewenberg (Paris), Rumbold (St. Louis), Moure (Bordeaux), Reeve (Toronto), Stevens (New York).

Discussions on the following subjects will take place.

1. The Relation of Diseases of the Nasal Passages and Naso-pharynx to Aural Affections. The discussion will be opened by Dr. Thomas Barr of Glasgow.

2. The Treatment of Acute Suppurative Inflammation of the Middle Ear, with especial reference to Perforation of the Mastoid.

The following papers have been promised.

Barr, Thomas, M.D. The Treatment of Purulent Discharge from the Ear, where the Source of the Secretion is in the Upper Part of the Tympanum and in the Antrum Mastoideum; with four illustrative cases.
Brown, A. Gardiner, Esq. Sclerosis of the Mucous Membrane of the Middle Ear.
Chicken, Rupert C., Esq. The Surgery of the External Auditory Passage.
Pritchard, Urban, M.D., Chairman of the Subsection, will open the proceedings with a short address on Aural Surgery as a branch of Medical Education.
Rumbold, T. F., M.D. The Relation of Diseases of the Nasal Passages and Naso-Pharynx to Aural Affections.
Sexton, Samuel, M.D. (New York). The Treatment of Acute Suppurative Inflammation of the Middle Ear, with reference to Perforation of the Mastoid.
Torrance, R., Esq. Remarks on Vertigo in Catarrhal Inflammation.
Dr. Ward Cousins will exhibit and describe his Ear-Protector against noise, shock of cold, etc.

N.B.—Members who desire to take part in the discussions, or to read papers, are earnestly requested to communicate without delay to the Secretaries of the respective Sections.

Sectional Meetings.

The Sectional Meetings will be held in the following rooms.

Section A: Medicine.—Small Hall of the Town Hall.

Section B: Surgery.—Justice Hall.

Section C: Obstetric Medicine.—Lecture Room of Young Men's Christian Association, opposite the Town Hall.

Section D: Public Health.—Victoria Rooms, opposite the Town Hall.

Subsection: Otology.—Council Chamber, Town Hall.

Annual Museum.

The annual museum of the British Medical Association will be held at the School of Art on August 9th, 10th, 11th, and 12th, and will be open daily from 10 A.M. until 6 P.M.

Chairman, Alexander George Davey, M.D.

Honorary Secretary, Evelyn Rich, Esq., Temple House, Ryde.

Reception Room.

The School of Art has been fitted up as a Reception Room, and will be opened on Tuesday, August 9th, at 10 o'clock in the forenoon, and on the following days at 9 o'clock in the forenoon, for the issue of tickets to members and for supplying all information.

*** *It is particularly requested that Members, on their arrival, will proceed at once to the Reception Room, record their names and addresses, and obtain their tickets and Daily Journal, inquire for letters, and consult list of lodgings and hotels.*

Dinner.

Notice is hereby given that, in accordance with the resolution passed at the last annual meeting, held at Cambridge, the Committee of Council have made arrangements for tickets inclusive and exclusive of wine. The price of the dinner ticket, exclusive of wine, but including aërated waters, is 14s.; of the dinner ticket, inclusive of wine, £1 1s. The number of tickets is limited to 350. Applications for tickets to be accompanied by cheque or Post Office Order payable to F. Greening, Esq., Honorary Secretary to Dinner Subcommittee, Melville Street, Ryde.

Excursions.

Saturday, August 13th.—1. A steamer, provided by the mayor and inhabitants of Ryde, will start from Ryde Pier at 9 A.M., proceeding round the island to Alum Bay, from whence Dr. Alfred Hollis will conduct members to Freshwater, which having visited, the party will re-embark at Yarmouth for Cowes; and, landing there, will find their way to Carisbrooke for lunch, by the Cowes and Newport rail.

2. A train will leave Ryde at 8.10 A.M. for Sandown: carriages free will be in waiting to convey the party to Shanklin and Ventnor, where a *déjeuner a la fourchette* will be given by the residents, in the grounds of Dudley A. Hambrough, Esq., J.P., at Steephill Castle. After visiting the National Hospital for Consumption, they will proceed, by way of the Undercliff to Blackgang, where Robert Pinnock, Esq., J.P., will receive the members. After viewing the locality, the journey will be continued to Carisbrooke Castle, where the visitors will be entertained by his Worship the Mayor, and the residents of the capital of the island. Subsequently, the Roman Villa and Church of Carisbrooke, the Parish Church and Grammar School of Newport will be visited. The steamer will be in waiting at Cowes to convey members back to Ryde.

The proposition of an excursion to Bournemouth, on Saturday, August 13th, which was intended should take place at the close of the Ryde meeting, has been withdrawn.

Accommodation at Ryde.

Members of the Association who propose to bring ladies to Ryde, on the occasion of the Annual Meeting in August, and desire to have lodgings engaged for them, are recommended to make early application to the Honorary Reception Secretary, Evelyn Rich, Esq., Temple House, Ryde, Isle of Wight.

The Directors of the Royal Pier Company have liberally granted the free use of the pier to members of the Association. A steam launch will be engaged for the use of members for water-excursions.

The gentlemen whose names are as follows throw open their grounds one day each to the members of the Association: Sir William Clifford, Bart., Westfield; The Right Hon. Sir William Hutt, Apley Towers; and the Rev. Alfred Locock, Binstead House, daily. The Poet Laureate will open his grounds at Freshwater on Saturday, the 13th, to members of the Association and their friends. Arrangements will be made from day to day for visiting the Dockyards at Portsmouth.

Francis Fowke, *General Secretary*.

London, July 14th, 1881.

BRANCH MEETINGS TO BE HELD.

South-Eastern Branch: West Sussex District.—The next meeting of this District will take place at Midhurst on Tuesday, September 6th; Dr. Robinson in the chair. Members intending to read papers or bring forward subjects for discussion are requested to send notice to the Honorary Secretary, G. B. Collet, 5, the Steyne, Worthing.

NORTH OF ENGLAND BRANCH: ANNUAL MEETING.

THE seventeenth annual meeting of this Branch was held at the North-Eastern Hotel, Darlington, on Thursday, July 7th. There were present about thirty members. The retiring President, Mr. G. B. MORGAN, in a few complimentary words, introduced the new President, Dr. J. W. EASTWOOD of Dinsdale Park, who took the chair.

President's Address.—The President, after thanking the members for the honour they had conferred upon him, delivered an interesting address. After dwelling upon the greatness of the Association, and the magnitude of the work upon which it was engaged, he devoted his attention chiefly to the subjects of public health, intemperance, and insanity.

Vote of Thanks to the President.—It was proposed by Dr. YOUNG of Yarm, seconded by Dr. ADAMSON of Hetton, and carried: "That the grateful thanks of the meeting be accorded to the President for his able address."

Vote of Thanks to the retiring President and Officers.—It was moved by Dr. LEGAT of South Shields, seconded by Dr. FOSS of Stockton, and carried: "That the warmest thanks of the meeting be given to the retiring President, Mr. G. B. Morgan, the Council of Management, and the other officers, for their valuable services during the past year." Mr. Morgan briefly responded.

Election of New Members.—The following gentleman was unanimously elected a member of the Association and Branch—W. A. Hepburn, Esq., Coxhoe. The following, being already members of the Association, were elected members of the Branch: H. R. Dale, Esq., Sunderland; Lewis Eastwood, Esq., Darlington.

Report of Council.—The Council gave a favourable report of the position and usefulness of the Branch. During the year, twenty-five new members had been elected. At the present time, the Branch consists of 244 members. Among other matters, the Council recommended that there should in future be two Honorary Secretaries, one of whom should act as Treasurer.

Treasurer's Account.—The Treasurer's account showed that the receipts, including a balance of £33 3s. 11d., amounted to £76 3s. 11d. The balance, after all payments, amounted to £46 1s. 5d.

Alteration of Laws.—On the motion of Dr. G. H. PHILIPSON, it was resolved: "That Law III be altered, in accordance with the recommendation of the Council of Management, so that there shall be two Honorary Secretaries, one of whom shall act as Treasurer; also, that, for the year 1881-2, two additional members, resident in South Durham, shall be elected to the Council of Management."

It was proposed by Dr. MIDDLEMISS, and seconded by Dr. W. H. DIXON, that Law III shall read as follows: "That, in order to carry out the objects of the Branch, there be appointed annually a President, a President-elect, two Honorary Secretaries (one of whom shall also act as Treasurer), nine other members, to be elected by ballot, who shall constitute a Council of Management, three of whom shall be resident in Northumberland, three in North Durham, and three in South Durham, and one representative, to be also balloted for, to the General Council for every twenty members of the Branch."

A long discussion followed, in which most of the members present took part. In accordance with the general feeling of the meeting, and at the instance of the President, the mover and seconder agreed that the proposed increase in the Council and the election by ballot should be put separately to the meeting. It was then carried that the Council of Management should be increased to nine members, the change to take effect in the year 1882-3. It was resolved, however, that the elections should take place as heretofore, and not by ballot.

Officers for 1881-2.—Dr. KILBURN of West Auckland proposed, Mr. HAWTHORN of Newcastle seconded, and it was unanimously carried: "That the next annual meeting be held at Alnwick, the autumnal meeting at Chester-le-Street, and the spring meeting at Stockton; that Robert Wilson, Esq., M.D., be President-elect; Drs. T. W. Barron and David Drummond, Honorary Secretaries; and Drs. G. H. Philipson, Thomas Oliver, W. H. Dixon, S. W. Broadbent, J. R. Fothergill, and R. W. Foss, the Council of Management."

Representatives in the General Council of the Association.—It was moved by Mr. WILSON of Wallsend, seconded by Dr. BLUMER of Sunderland, and carried unanimously: "That the following gentlemen be the representatives of the Branch in the General Council of the Association: S. W. Broadbent, Esq.; W. H. Dixon, M.D.; David Drummond, M.D.; J. W. Eastwood, M.D.; Samuel Fielden, M.D.; R. W. Foss, M.D.; J. R. Fothergill, M.D.; Edward Jepson, Esq.; G. B. Morgan, Esq.; Thomas Oliver, M.D.; G. H. Philipson, M.D.; Thomas Stainthorpe, M.D.; and T. W. Barron, M.B., *ex officio*."

Representative in the Parliamentary Bills Committee.—Mr. S. W. BROADBENT proposed, Dr. MURPHY seconded, and it was unanimously carried: "That Dr. Philipson be the representative of the Branch in the Parliamentary Bills Committee of the Association."

Dinner.—The dinner took place at the North-Eastern Hotel. The President occupied the chair, and the Honorary Secretary the vice-chair. Among the guests present were the Vicar of Darlington (the Rev. T. E. Hodgson, M.A.), the Mayor of Darlington (John Morrell, Esq.), and the Town Clerk of Darlington (Hugh Dunn, Esq.).

YORKSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting of the Yorkshire Branch was held at York, on June 29th, 1881; Mr. BALL (President) in the chair.

President's Address.—The President read an address. The subject was the relation of puerperal fever to the infective and infectious diseases. He first made some remarks on the definition of the term puerperal fever, and the various theories of the disease, and pointed out that the recent theory held by our most eminent obstetrical physicians was, that it was identical in nature with septicæmia and pyæmia, and although this view was not entirely free from objections, yet on the whole it was the most satisfactory in the present state of knowledge. He next asked, What is septicæmia? and pointed out that different views were held by pathologists, but thought that on the whole the grouping suggested by the committee of the Pathological Society on the nature of septicæmia was probably the best. He then entered on the subject of the nature and sources of the infection, both of the autogenetic and heterogenetic varieties of puerperal fever, related some remarkable cases of sources of infection, and alluded to Dr. Sternberg's recent experimental researches on the septic nature of human saliva. In explanation of the production of puerperal fever by erysipelas, diphtheria, scarlet and other fever, he adopted the hypothesis so ably advocated by Dr. W. Roberts, in his address at Manchester—that is, "sporting", or power of variation possessed by plants and animals, and also in accordance with the opinions of Darwin. He finished by dissenting from those who believed that bacteria were only accidental organisms existing in dead and dying matter, and thought that the accumulating evidence in favour of their being the origin of all infective, and probably by analogy of the infectious, diseases, was almost conclusive.

Report of Council.—The report of the Council was as follows.

"The Council of the Yorkshire Branch, in presenting their report for the year 1880-81, have to regret the resignation and death of several members, one of whom—Mr. Dodsworth—was one of the members of the original Council of the Branch.

"The Council feel they cannot omit to express their regret at the resignation of Mr. Husband, who has been obliged to leave the county on account of ill-health. He was one of the founders, and the first honorary secretary of this Branch; and he alone is left of the original officers elected at that time. He laid the solid foundation of this Branch, to which its present success is largely due.

"The number of members is now 260: a number quite unworthy of a county of the size of Yorkshire.

"During the year three meetings have been held, at Bradford, Scarborough, and Ripon, at which numerous papers were read, including the able address of the President. The Council have given notice of an alteration in the mode of election of officers, which they hope will meet the approval of the members, and tend to increase the popularity of the Branch.

"A special meeting of the Branch was held at Leeds on April 6th, to consider the report of the Committee of Council on Medical Education. Resolutions were passed almost unanimously, supporting the report, and specially recommending some period of apprenticeship, or pupilage, which shall ensure the personal charge of patients, before a student can be allowed to practice. A petition embodying these views was very numerously signed, and forwarded to Mr. Mundella, the vice-president of Council, who presented it to the House of Commons, but preferred not to commit himself to any opinion of the matter as a Royal Commission is sitting in private, which has not yet reported its convictions to the house.

"At the commencement of this year, there was a balance in favour of the Branch of £35 8s.; the present balance is £34 1s. 4d., but it will be larger when the numerous subscriptions now unpaid are got in."

Officers and Council.—It was proposed by Mr. HEY, seconded by Dr. SWANSON, and carried unanimously, that the following officers and Council be elected. *President:* Alfred Ball, Esq. *President-Elect:* T. R. Jessop, Esq., Leeds. *Honorary Secretary and Treasurer:* Arthur Jackson, Esq., Sheffield. *Council of Branch:* York—Alfred Ball, Esq.; W. Matterson, M.D.; S. W. North, Esq.; G. Shann, M.D. Bradford—D. Barnie, M.D.; D. Gayder, M.D.; R. H.

Meade, Esq.; P. E. Miall, Esq. Halifax—T. M. Dolan, Esq.; J. H. Wright, Esq. Leeds—T. C. Allbutt, M.D.; J. E. Eddison, M.D.; T. R. Jessop, Esq.; T. P. Teale, Esq.; T. Scattergood, Esq.; C. G. Wheelhouse, Esq. Harrogate—A. S. Myrtle, M.D. Rotherham—J. Hardwicke, M.D. Huddersfield—S. Knaggs, Esq. Sheffield—M. Martin de Bartolomé, M.D.; H. F. Banham, M.D.; W. F. Favell, Esq.; J. H. Keeling, M.D. Scarborough—J. W. Teale, Esq. Wakefield—S. Holdsworth, M.D. *Representatives in the General Council:* T. C. Allbutt, M.D.; J. E. Eddison, M.D.; W. F. Favell, Esq.; S. Holdsworth, M.D.; J. H. Keeling, M.D.; S. Knaggs, Esq.; W. Matterson, M.D.; R. H. Meade, Esq.; A. S. Myrtle, M.D.; G. Shann, M.D.; T. P. Teale, Esq.; C. G. Wheelhouse, Esq.; J. H. Wright, Esq.

Communications.—The following communications were read.

1. Mr. T. P. Teale: A Twitch-Tourniquet.
2. Mr. T. P. Teale: Case of Exploration of the Abdomen, as a preliminary to Right Lumbar Colotomy.
3. Dr. Myrtle: Notes on Gout.
4. Dr. Fletcher Little: Neurotic Arthritis.
5. Mr. H. E. Spencer: Note of a Case of Erythema Multiforme.

Dinner.—After the meeting, the members dined together at the Station Hotel.

CORRESPONDENCE.

THE ANNUAL MEETING.

SIR,—With reference to the notice, at page 176 of this week's BRITISH MEDICAL JOURNAL, that the principal medical officer and officers at Netley were about to issue invitations for a garden party to the members of the British Medical Association about to meet at Ryde, I am directed by Surgeon-General Mainfold to forward to you the enclosed letter received yesterday from the Secretary of the Excursion Committee, which, if you will kindly have published in the next issue of the JOURNAL, will explain to members why our projected entertainment has fallen through.—Faithfully yours,

G. E. DOBSON, Surgeon-Major, A.M.D.

Royal Victoria Hospital, Netley, Southampton, 30th July, 1881.

"Dear Sir,—I have been instructed by my Committee to say, in reply to your letter to Dr. Davey, that it was originally resolved all excursions in connection with the visit of the British Medical Association to the Isle of Wight should be confined to the island. In obedience to that resolution, excursions have been arranged to take place on Saturday, August 13th, which will entirely preclude the possibility of accepting the very kind invitation of Surgeon-General Manifold and the officers of the Army Medical Department at Netley.—I am, dear Sir, yours very truly,

"J. GROVES, Hon. Sec. Excursion Committee.

"Carisbrooke, Isle of Wight, July 28th, 1881.

"Surgeon-Major Dobson, A.M.D."

MILITARY AND NAVAL MEDICAL SERVICES.

THE TITLE OF SURGEON-MAJOR.

SIR,—*Apropos* of the correspondence under the above heading, and the editorial remarks in a recent number of the JOURNAL, allow me to refer your correspondent to the Volunteer Regulations of 1881, which appear to be very clear on the matter. Quoting from memory, the last paragraph, relating to the rank of medical officers, says that "the relative rank of medical officers is regulated by the same rule as in the army, except that acting surgeons rank as lieutenants". This, I presume, means that a senior medical officer of ten years' standing ranks as major. My own colonel, a veteran of thirty-five years, who has seen much active service, has so styled me, and given me the rank on the list of field officers, which I know he would not do if incorrect, especially as it was not sought or applied for.—Yours,

SURGEON-MAJOR R.N.

THE ARMY MEDICAL DEPARTMENT AND THE ARMY HOSPITAL CORPS.

SIR,—It seems to be now universally admitted that the time has arrived when the recent changes in the Army Medical organisation should be completely developed by amalgamating the Army Medical Department and the Army Hospital Corps, and giving a new title to the corps thus formed. At present, they are *de facto* one body, the Army Hospital Corps doing duty under, and being commanded by, the officers of the Army Medical Department. Why, then, should two distinct titles be retained? and why should officers and their men not wear similar uniforms? That the existing state of things should have been allowed to continue so long is indeed wonderful; for no similar anomaly can be found in the British or any other army. I hope you will use your powerful influence in getting the proposed change introduced; and I would suggest that the name of the new corps be

"ROYAL ARMY SURGEONS."

VOLUNTEER SURGEONS.

SIR,—A "Volunteer Surgeon" should read Professor Longmore's work on *Gunshot Injuries*, the military portion of Parkes's *Hygiene*, the Army Medical *Regulations*, and Surgeon-Major Sutcliffe Maunsell's book on *Field Drill*. In addition, he will gain much valuable information from the late Surgeon-Major Porter's *Pocket Book*. I remain, &c., your correspondent,

WILLIAM H. PLATT, Surgeon T.H.R.B., Treasurer Volunteer Ambulance Department.

4, Upton Villas, Killiney, July 25th, 1881.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted members on July 28th, 1881.

Anderson, James, M.D.Aberdeen, 2, Kensington Square, W.C.
Fenwick, Bedford, M.D.Durham, 7, Weymouth Street, W.C.
Gulliver, George, M.B.Oxford, St. Thomas's Hospital, S.E.
Hadden, Walter Baugh, M.D.London, 7, Coventry Street, W.
Marriott, Peter William, M.D.St. Andrew's, Mentone
Thursfield, Thomas William, M.D.Aberdeen, Leamington
Tooth, Howard Henry, M.B.Cambridge, 25, Bernard Street, W.C.
Uhthoff, John Caldwell, M.D.London, Sussex County Hospital, Brighton

Admitted Fellow.

Siordet, James Lewis, M.B.Lond., Mentone

Admitted Licentiates.

Barratt, Herbert James, West London Hospital, Hammersmith, W.
Barton, William Edwin, Etchingham, Hawkhurst
Bradshaw, Oswald George Dix, 88, Warwick Street, S.W.
Butler, Thomas Edward, 3, Sydney Villas, New Malden
Clark, William, Wotton, Gloster
Clegg, Walter Thomas, 76, Edge Lane, Liverpool
Copley, William Henry, 158, Stanhope Street, N.W.
Corlett, William Thomas, M.D.Wooster, London Hospital, E.
Crook, John Siddon, Northfleet, Gravesend
Hitch, Frederick, Poplar Sick Asylum, Bromley, E.
Inger, John William, Nottingham
Jones, Robert Dennett, Bron'r Eryr, Conway
Lambeer, Frederick James, 75, Roscommon Street, Liverpool
Lewis, William Henry Phillips, 42, Halsey Street, S.W.
Marsh, Frank, Infirmary, Stafford
Neatby, Edwin Awdas, London Hospital, E.
Starling, Edwin Alfred, Widmerpoole, Sutton, Surrey
Sutherland, William Ross, M.D.McGill, 3, Belsize Square, N W
Sykes, Matthew Carrington, 3, Grenville Street, W.C.
Tidswell, Herbert Henry, 63, Chepstow Place, W.
Wells, Alfred Ernest, St. Thomas's Hospital, S.E.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, July 28th, 1881.

Allnutt, John, Kidderminster
Colman, George Maurice Holbyn, Holland Road, Kensington
Cook, Philip Inkerman, Brixton, S.W.
Drysdale, Alfred, Stamford Road
Gee, Thomas Ernest, 364, Kingsland Road
Paine, George Reuben Robins, Goring, Sussex

The following gentlemen also on the same day passed their Primary Professional Examination.

Bostock, John, London Hospital
Cortis, Herbert Liddell, Guy's Hospital
Rugg, George Lewis, King's College

MEDICAL VACANCIES.

THE following vacancies are announced:—

BRIGHTON AND HOVE DISPENSARY—Resident House-Surgeon. Salary, £140. Applications to the Chairman of Committee of Management by 5th September.

CARNARVONSHIRE AND ANGLESEY INFIRMARY, Bangor—House-Surgeon. Salary, £100 per annum. Applications by August 11th.

COUNTY ASYLUM, Berry Wood, Northampton. Medical Officer. Salary, £130 per annum. Applications to the Medical Superintendent by 11th August.

DONEGAL COUNTY INFIRMARY.—Surgeon. Salary, £100 per annum, in addition to the Grand Jury Presentment of £94 yearly. Election on the 15th August.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Clinical Assistant. Applications to the Secretary by 24th August.

GENERAL INFIRMARY, Leeds.—House-Surgeon. Salary, £100 per annum. Applications to Dr. Clifford Allbutt by August 18th.

HAMPSTEAD PROVIDENT DISPENSARY, New End.—Medical Officer. Applications to the Secretary, Mr. J. W. Fenn, 23, High Street, Hampstead.

HECKMONDWIKE INDUSTRIAL CO-OPERATIVE SOCIETY, LIMITED, MEDICAL AID DEPARTMENT.—Resident Medical Officer. Applications to the Society, Oak Street, Heckmondwike, by August 29th.

HOLBORN UNION—Dispenser. Salary, £100 per annum. Applications by 5th August.

MACCLESFIELD GENERAL INFIRMARY—Senior House-Surgeon. Salary, £100 per annum. Applications to the Chairman of the House Committee by 13th August.

MEMORIAL HOSPITAL, Jarrow-on-Tyne.—Resident Surgeon. Salary, £150 per annum. Applications to the Committee of Management by 15th August.

NATIONAL DENTAL HOSPITAL—Dental Surgeon. Applications by the 10th August.

NATIONAL DENTAL HOSPITAL—Lecturer on Dental Surgery and Pathology. Applications by 10th August.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent—House-Surgeon. Salary, £120 per annum. Applications by August 17th.

NORTH STAFFORDSHIRE INFIRMARY—House-Physician. Salary, £100 per annum. Applications by 17th August.

OPENSHAW LOCAL BOARD, Manchester.—Medical Officer. Salary, £35 per annum. Applications by August 8th.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 23rd September.

PENMACHNO SLATE QUARRIES, near Bettwsy-coed.—Medical Gentleman. Applications to W. P. Williams, Talywaen Penmacho, near Bettwsy-coed.

PRESTON ROYAL INFIRMARY, Lancaster.—Senior House-Surgeon. Salary, £100 per annum. Applications, by the 16th August, to Mr. R. F. Easterby, Secretary, 54, Fishergate, Preston.

QUEEN CHARLOTTE'S HOSPITAL, Marylebone Road, W.—Resident Medical Officer. Salary, £60 per annum. Applications by August 6th.

REETH UNION, North Riding of Yorkshire.—Medical Officer for the Muker District. Salary, £45 per annum.

ROYAL HOSPITAL, Chelsea.—Dispenser. Remuneration, 10s. per day. Applications by August 8th.

STOCKTON-ON-TEES HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £200 per annum. Applications by 9th August.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon. Salary, £80 per annum. Applications to the Secretary by 24th August.

TRINITY COLLEGE, Glenalmond.—Resident Medical Officer. Applications to the Rev. the Warden.

MEDICAL APPOINTMENTS.

BATTAMS, J. Scott, M.R.C.S., appointed Resident Medical Officer to the East London Hospital for Children.

CREMMIN, John, M.D., appointed Apothecary for the Kilmallock Union.

EVANS, J. Fenton, M.B., appointed to the Medical Tutorship to the Medical School, University College, Bristol, *vice* G. M. Smith, M.R.C.S., resigned.

HICKEY, P. C., M.D., appointed Medical Officer to the Kilkee Dispensary District, *vice* J. F. Rowan, L.K.Q.C.P.I., deceased.

MONCKTON, D. H., M.D., appointed Honorary Physician to the Stafford General Infirmary, *vice* H. Day, M.D., deceased.

PATTERSON, G. de J., M.B., appointed Resident House-Surgeon and Dispenser to the Ripon Dispensary, *vice* A. G. Chitty, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

GALTON.—On July 30th, at Woodside, Anerley Road, S.E., the wife of John H. Galton, M.D.(Lond.), of a daughter.

PEARSON.—On the 26th inst., at Stella House, Kingswinford, the wife of Alfred W. Pearson, L.R.C.S., L.R.C.P., of a daughter (Bernice Rogers).

PHIPPS.—August 3rd, at Clairville, Manchester, the wife of G. Constantine Phipps, M.D., F.R.C.S.E., of a daughter.

MARRIAGE.

STEWART—JACKSON.—On July 28th, at St. Catherine's Church, Wakefield, by the Revd. E. Rowland, M.A., curate in charge, assisted by the Revd. R. N. Hurt, Vicar of Sandal, William Stewart, M.B., Bacup, Lancashire, to Lucy Ellen, daughter of John Jackson, Heathfield Lodge, near Wakefield.

NORTHERN COUNTIES ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—The annual meeting of the Association was held on the 5th inst., in the Library of the College of Medicine, Newcastle-upon-Tyne. Dr. J. C. Reid, Medical Officer of Health, Newbiggin-by-Sea, retiring President of the Association, occupied the chair. There was a considerable attendance of members. The President noticed with regret the removal by death of two members of the Association, viz., Mr. Stephens, late Medical Officer of Health for North Shields; and Dr. Mackie, Medical Officer of Health for Darlington Rural Sanitary District. The following were elected officers for the ensuing year. *President:* A. E. H. Trotter, M.D., Stockton-on-Tees. *President-elect:* Wm. Clarkson, M.R.C.S., Morpeth. *Vice-Presidents:* H. J. Veld, M.D., Sunderland; W. Blackett, M.R.C.S., Durham; J. M. Maclagan, M.D., Riding Mill; J. C. Reid, M.D., Newbiggin-by-Sea. *Secretary:* H. E. Armstrong, M.R.C.S., Newcastle-on-Tyne. *Committee:* W. Dalzell, L.R.C.P., South Shields; S. E. Piper, F.R.C.S., Darlington; R. Elliot, M.D., Carlisle; H. D. Ward, M.D., Blyth; T. H. Walker, M.D., Stapleton, Carlisle; R. Ayre Smith, M.D., Sunderland. It was resolved: "That the next annual meeting be held at Newcastle in July, 1882, and that the members be requested to read papers, on which discussions shall be held, in which the public are invited to take part." The balance sheet of the Association was, after being audited, adopted. The funds are in a satisfactory condition, there being a considerable balance in hand. It was resolved that the travelling expenses of members attending next annual meeting should be paid out of the funds of the Association. A meeting of the Association will, by invitation of the retiring President, be held at Newbiggin-by-Sea in September next.

KENDAL.—Dr. Page's valuable and interesting reports on his district in Cumberland are for the most part lost to the public, in consequence of their not being published; and we are, therefore, glad to welcome his report on Kendal for 1880, printed and issued in the fashion usual with health-officers' reports. The most noteworthy feature of the report is an elaborate account of a very serious epidemic of scarlet fever which raged in the town throughout the whole of the year. Altogether, not fewer than 247 persons in 150 families were attacked, and 59 died. In each of five families, two fatal cases occurred; and in three families, three deaths each. A remarkable fact, bearing on the question of the dissemination of the infection, was the occurrence in as many as eighty-five families of the earliest cases in children under school-age, and who could not possibly have contracted the disorder in any other way than by intercourse with infected children, or with persons from infected houses. Throughout the epidemic, there was no evidence to show that conditions other than those of personal intercourse of this kind were at work. In some few cases, Dr. Page thought that the association of unsanitary circumstances with an attack of scarlatina was not a mere coincidence; that the unhealthy surroundings from bad drainage and effluvia from neighbouring privy-accumulations, apart from others of a purely domestic kind, decidedly aggravated the severity of the disorder, and lessened the chances of recovery. Dr. Page thinks that the occurrence of a malignant case, or the supervention of malignant symptoms, should always suggest the possible influence of sewer or fæcal effluvia upon the progress of the disorder. A number of instances are cited in which, in the absence of isolation, the disease had unchecked opportunities to spread; and, as Dr. Page observes, the "absence of such provision from the sanitary organisation of the town implies a condition of helplessness which cannot be relieved by the casual visits of an inspector, a package of carbolic powder, or a bottle of Condy's fluid". Looking to the serious proportions which the epidemic assumed through the want of accommodation for isolation, it is almost incredible that the Town Council should still be dubious about the necessity of providing a fever-hospital, as they seem to be. The mortality from scarlet fever raised the death-rate to an unusual height, the rate (23.2 per 1,000) being higher than that of any of the preceding nine years. Of the whole number of deaths, 16.8 per cent. were of children under one year old; while no fewer than 93, or 28 per cent., were of children between one and five years of age. Thus the deaths amongst young children amounted to 44.8 per cent. of the total deaths, the stress of the mortality from scarlatina falling upon this group of ages. Diseases of the lungs and heart were especially fatal in the early months of the year, and caused nearly one-third of the total mortality. There were five deaths from typhoid fever in association with local sanitary defects. The house-drainage of the town is reported as very faulty, and the systematic severance of the connections with the sewers has not been carried out.

HOLSWORTHY RURAL DISTRICT.—For this district, Mr. Linnington Ash reports a birth-rate of 29.17 and a death-rate of 19.6 per 1,000. The deaths of infants under five years of age equalled 25.9 per cent. of the total deaths—the lowest rate recorded for the last six years. Scarlet fever and measles were generally prevalent during the year; and, in alluding to the latter disease, Mr. Ash states that "more than a dozen children attending one of the schools in Holsworthy were struck down with the disorder during one afternoon". Last year marks the termination of the epidemic of whooping-cough which prevailed during 1878-9. Scarlet fever, which was imported into the district during the previous year, was very prevalent, and assumed epidemic proportions throughout the year and in nearly all parts of the district. Apart from sanitary conditions, Mr. Ash attributes the spread of the disease to the carelessness of parents over their children, and the incomprehensible ignorance which exists amongst the population in this matter. He states that he has known children purposely placed in contact with measles and scarlet fever, when a mild form of these diseases was thought to exist, in the ignorant belief that they are incident to human existence, and that every individual must, at some time or the other, endure them. It is not surprising, therefore, that the spread of these diseases remained unchecked, and that isolation was very imperfectly carried out. There is a slight show made of disinfection; but it is described as perfectly useless and illusory. The district is at present without any hospital accommodation, which the authority would do well to at once provide. Tubercular diseases were responsible for twenty-five deaths; and forty-seven were caused by one or other of the acute pulmonary affections, which are described as "the scourge of the district". Sanitary work is progressing, although the action taken is somewhat tardy. The water-supply is unsatisfactory in many parts of the district, especially at Holsworthy and Sutcombe. The removal of nuisances was well attended to; but the pollution of the river at Holsworthy needs attention.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

ECZEMA PALMARUM.

SIR,—I would advise "F. T. G." to try the effect of a lotion containing glycerine, sulphurous acid, and carbolic acid, in strength varying according to the extent and obstinacy of the disease. The edges of the eczematous surface, where the disease is most active, I rub well with a very strong solution; and with the whole surface affected I endeavour to keep a weaker solution in constant contact. This last it is usually very difficult to effect. A thick white cotton glove, like the gloves worn here by policemen in summer, covered by a leather glove, will perhaps prove the most effectual contrivance. The cotton glove is to be soaked frequently with the solution; and the leather glove, necessarily a size or two larger than that ordinarily worn, is to be drawn over all. The leather glove may be slit open behind, and there loosely "boot-laced" over the medicated cotton glove. Gloves of spongiopiline, or of cottono-piline, might, I think, be tried with advantage for the continuous application of lotions such as that here recommended; only when so applied the lotion must, of course, be weaker. A mask of the same material might also be used advantageously in the treatment of cutaneous affections of the face. Where the opportunity occurs, I would immerse the eczematous hands in molten parafine. Anyone who has seen the beautiful "glove" of skin-tight pure parafine which results from such immersion, and notices the beautiful hands of workmen whose hands are much accustomed to it, will see the significance of this suggestion. "F. T. G." may at once dismiss from his mind his patient's notion which attributes the disease to her "having got poisoned while pulling weeds". This is not the place to discuss the pathology of eczema; and, indeed, I have no pet theory on the subject. But the worst case I ever saw originated on the plantar surface of the feet of a lady, most delicately nurtured, and of an age incompatible with the exposure of the bare feet to the poison of weeds, or of anything else.—I am, sir, your obedient servant,

D. T. MASSON, M.A., M.D.

Edinburgh, July 30th, 1881.

P.S.—When the spread of the eczema has been arrested, and its activity destroyed, by the use of the lotion here recommended, it may be necessary to remove the dry crusts by a poultice, and to complete the cure by a few applications of zinc ointment. Everyone has noticed the quantity of thickened cuticle which, softened in the warm bath, is then so easily rubbed off the soles of the feet. The frequent washing of our hands must constantly remove similar effete cuticular *débris* in our daily ablutions. I have more than a suspicion that the suppression of this natural process is a constant precursor of eczema palmarum. Such a fact, if established, would possess a significance which might yield important results, both prophylactic and medicat[illegible].

EDUCATION OF BOYS.

SIR,—Your correspondent "M.D.", in the JOURNAL of July 23rd, will find that, at Sir Andrew Judd's School at Tonbridge excellent arrangements are made for teaching the mechanical arts.—I am, etc.,

W. F. C.

MR. J. BLAMEY (Penryn).—Apply to the Secretary of the South-Western Branch, Dr S. Rees Philipps Wonford House, Exeter.

SIGNIFICANCE OF SUPPRESSION OF URINE AS A SYMPTOM OF INTESTINAL OBSTRUCTION.

SIR,—In Dr A[illegible]'s interesting paper on "the Significance of Suppression of Urine as a Symptom of Intestinal Obstruction", published in your JOURNAL of this day, he refers to the statement of some observers that the occurrence of suppression of urine in a case of intestinal obstruction indicates an obstruction situated high up in the small intestine; "the *rationale* being that the diminished absorbing surface is [illegible] secretion of urine". Will you allow me to say that the fallacy of this explanation is, in some instances at all events, demonstrated in the hospital instruction of the medical man's embryonic stage. When a student, I was taught that its occurrence was explained by the state of collapse or semicollapse resulting from an acute attack of intestinal obstruction, and that its association with obstruction of the small intestine was accounted for by the fact of acute obstruction occurring most frequently in this part. Without presuming to form an opinion from the few cases occurring in my short practice, I should think it very unusual for a sufficiently acute attack of obstruction of the lower bowel from impacted fæces to occur, to give rise to suppression of urine, and thus to deprive this symptom of its recognised significance in indicating such acuteness as is most likely to be associated with obstruction of some part of the small intestine.—Yours faithfully,

WM. J. MACKIE, L.K.Q.C.P.I.

Richmond House, Turvey, Beds, July 30th, 1881.

NEW INVENTIONS.

THE following tale has lately been reported. It bears a strong family resemblance to the anecdote of the Turkish physician and the pickled cabbage which was in this JOURNAL a few weeks ago. The two may perhaps be regarded as interesting contributions to the history of the myth. An epidemic of typhoid fever broke out in a small village in the South of France. A locksmith fell ill, and called in the local medical man, who came, prescribed, and went away. The next day, during his usual rounds, he called at the locksmith's, and asked his wife after the health of the interesting patient. She replied: "Ah, sir, only imagine, whilst I went to fetch the medicine, my husband ate two pickled herrings and a dish of bean salad." "Good heavens! Then he is....." "Quite well, doctor. He went to work this morning as usual, and is as well as possible." "That is extraordinary", exclaimed the doctor; "what a wonderful remedy for typhoid; I must make a note of it." And he accordingly entered in his note-book: "Typhoid fever: tried remedy, two pickled herrings and bean salad." Two days afterwards, a bricklayer was attacked by the same disorder. "Take", said the same doctor who was consulted, "two pickled herrings and a dish of bean salad. I will come again to-morrow." To-morrow—alas! the bricklayer was dead. The doctor, taking a logical view of his experimental method, again entered in the famous note-book: "Typhoid fever. Remedy: pickled herrings and bean salad. Good for locksmiths, bad for bricklayers."

DEATH FROM CHLOROFORM DURING LABOUR.

SIR,—I am under the impression that a case was reported, a year or two ago, in which death occurred during the administration of chloroform in labour, the chloroform being administered by a nurse. I think the case occurred in one of the London hospitals, and was reported in the JOURNAL. Can any of your readers refer me to the report, or give the particulars?—I am, etc.,

U. S.

SANITARY INSPECTION OF HOTELS.

SIR,—I very much regret that it is not in my power to comply with the suggestion of "One of the Secretaries for the Section of Public Medicine". I hope, however, that at least some members who read my letter in the JOURNAL of the 13th July, and are attending the annual meeting next week, will take note of the sanitary arrangements of the hotels at which they stay, and record (always with your permission) their experiences in the JOURNAL.—I am, etc.,

A PROVINCIAL ASSOCIATE.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. P. M. Braidwood, Edinburgh; Dr. W. S. Greenfield, Edinburgh; One of the Secretaries; Dr. Sawyer, Birmingham; Dr. Cresswell Baber, Brighton; Dr. Saundby, Birmingham; Mr. T. Fletcher, Warrington; Mr. Charles Williams, Norwich; Mr. James Allen, London; Dr. James Neal, Sandown; Mr. John G. Livesay, Ventnor; Dr. J. Urquhart, Aberdeen; Mr. A. B. Jollivet, London; Mr. C. W. Belfield, Bristol; Another Prison Surgeon; Our Dublin Correspondent; Mr. E. W. Forster, Darlington; Dr. Graham Brown, Edinburgh; Mr. F. W. Lowndes, Liverpool; Dr. S. Shapland White, London; Mr. W. Adams, London; Mr. Mac Cormac, London; Mr. G. De Landre, Limerick; Dr. Karl Grossman, Liverpool; Mr. S. B. Partridge, Anerley; Mr. E. C. Dudley, Chicago; Mr. W. A. Macleod, Kilmarnock; Dr. Grant Bey, Cairo; Dr. Rabagliati, Bradford; Dr. H. Tomkins, Manchester; Dr. Cook, Manningtree; Dr. Austin, Tongue; Dr. David Drummond, Newcastle-on-Tyne; Moschus; A Young Practitioner; Mr. J. W. Norman, Ross; Mr. R. Hamilton, Thornhill; Mr. A. G. Barrs, Leeds; Our Edinburgh Correspondent; Dr. Edis, London; Dr. Thin, London; Mr. G. Eastes, London; Our Glasgow Correspondent; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

PRESIDENT'S ADDRESS,

DELIVERED AT

THE FORTY-NINTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in RYDE, August 9th, 10th, 11th, and 12th, 1881.

BY

BENJAMIN BARROW, F.R.C.S.,
Consulting Surgeon to the Royal Isle of Wight Infirmary.

GENTLEMEN,—Before touching the subject which is to form the main feature of my address, I crave your permission to relieve my mind of one great, almost sacred duty—a duty which I think ought, on occasions like the present, to be performed by your President, viz.: to do honour to the memory of those of our members and of other great men who have been called hence during the past year.

The annual report presently to be laid before you will, I know, tell you, that one hundred and twenty-four have thus been lost to the Association; several have succumbed to disease engendered in attendance on the sick and suffering—all honour to these brave men. Ripe old age has done its work; and Robert Ceely of Aylesbury, at 82, after an active and useful life, is numbered with the dead. The death, somewhat sudden, of Randle Wilbraham Falconer, who presided over our meeting at Bath with so much dignity and high distinction, has left a blank difficult to be filled; he was my friend from boyhood, and promised, only a few months since, to be present here to-day. "Man proposes, God disposes." The "In Memoriam" (written by an old acquaintance), of which the Reception Committee beg your acceptance, best pourtrays the character of our late colleague, and shows how great the loss is to his and my native city.

The sister isle has lost a valued worker in the person of Alfred Hudson, aged 72; and Edinburgh has not been spared, having to mourn, at the early age of 50, William Robert Sanders, the eminent Professor of Pathology in the University of that city, and Andrew Wood, one of those on whom, during our meeting last year, the University of Cambridge conferred its honorary degrees.

The Staffordshire Branch of our Association have, in the death of Henry Day, been deprived of a valued and respected colleague, and the public of a physician, sound and discreet, always keeping pace with the times and introducing improvements in medical science.

What shall I say of George Rolleston, so lately lost to that great seat of learning—Oxford? A man of such sound views and high culture could ill be spared by either the scientific or the medical world. To all, especially to his immediate family, it must be a solace and consolation to feel that he was as good as he was great.

So many of our foreign and American brethren have been in our midst during the International Medical Congress—several expecting to visit us this week—that I should be wanting in courtesy, at least, if I did not express my own and your sympathies in the losses they have sustained in the death of many of their celebrated men. France has lost Emil Littré, the eminent translator of Hippocrates and accomplished lexicologist; and Maurice Raynaud, by whose sudden death the International Medical Congress has been deprived of one of its orators. Austria laments the deaths of three of the great ornaments of the Medical School of Vienna—Joseph Skoda, a man of strict integrity and generous benevolence, a great anatomist, and a sound physician; Ferdinand Hebra, of world-wide celebrity as an authority in skin-diseases; and Richard L. Heschl, the successor of Rokitansky, who has lately died at the early age of 55. America has been deprived by death of George Otis, the surgical conservator of the museum at Washington, and one of the editors of the *Medical and Surgical History of the War of the Rebellion;* and Thomas Wood, the most prominent surgeon of Cincinnati. To the families, friends, and countrymen of these eminent men, we offer our heartfelt sympathies in the hour of their mourning.

Gentlemen, a momentary enthusiasm, a sudden impulse, how often do these emotions lead many of us to undertake duties, the real difficulties of which we only discover when the time for performance approaches, and the hour has actually arrived when we must fulfil our undertaking! This is my case; and, I pray you, believe that I ascend this rostrum feeling deeply the difficulties by which I am beset, especially my own deficiencies, both as an orator and as a composer.

Under any circumstances, I should feel the difficulties of my position; but these are, on this occasion, augmented tenfold by the consideration that I am standing here in the presence of some who have but just returned from listening to the enlightened and edifying oratory of the most celebrated European and American *savants*, assembled at the Medical Congress in our great metropolis; and again I recall that, only twelve short months ago, we were assembled at one of the great seats of learning, of world-wide renown, where our senses were gratified by much that was beautiful in nature and art, and where there was everything to arouse our best intellectual powers—to crown all, where we had the advantage of being presided over by a gentleman whose courtesy and hospitality were unbounded, and whose eloquence riveted the attention of all who were fortunate enough to listen to his utterances. Having all these circumstances vividly before me, I ask you, in no mock humility, to avoid, if possible, comparisons, and to accord me your kind and patient indulgence.

I am most fully sensible of the high honour you have conferred upon me by electing me your President for the current year—an honour of which any man may be proud, and which I shall ever look upon as the crowning event of my fifty years' professional career; a career which, though laborious, has been still pleasurable: not only from the reflection that I may have, under God's blessing, relieved some one or more of my fellow-creatures from pain and suffering (the first aim of every medical man), but from the many sincere and lasting friendships, both lay and professional, I have made, and the recollection of the numerous kindnesses I have ever received from many of my medical brethren.

The honour, which you have conferred upon me, may well be sought by any man having the love of his brethren at heart, and being desirous of showing to the world that an Association of medical men, numbering its thousands, can meet together in friendly rivalry to discuss the great principles of medicine, to declare to the world that our Association has been the means of aiding in the investigation of disease, rewarding the chief investigators, and placing means at the disposal of those who show aptitude for any special subject, so that they may best prosecute work for arriving at sound conclusions. This is a subject which, many of you will remember, was most ably treated by our late President. I trust that no resolution of the members will ever be passed which will prevent the free discussion and investigation of any practice or system of medicine which has for its object the treatment of disease.

Let me ask you to remember that in this island, limited in space, we have no unique Fitzwilliam museum; but we may boast of having in this borough a museum, though small, containing some valuable natural history and antiquarian specimens found in our midst; also an herbarium of island specimens, collected and preserved by one of our profession, the late Dr. William Bromfield. We have two Roman villas, one at Carisbrooke, and a second between Brading and Sandown, of great extent, surpassing, I believe, anything of the kind hitherto discovered in the United Kingdom. Neither must I pass over in silence the parish church of the capital of the island, which contains the ancient monument of Princess Elizabeth, daughter of Charles I, by Marochetti; besides this church, there are many others in the island worthy of note, which the guide prepared for your use, and of which the Reception Committee request your acceptance, will point out. To this museum, the villas, and churches, I would direct your steps as possessing much of interest. We have our Castle of Carisbrooke, not only renowned for its historical character, but for its picturesqueness; we have no Addenbrooke's Hospital, but we have in our borough the Isle of Wight Royal Infirmary, and at Ventnor the National Hospital for Consumption, both worthy of a visit. We can boast of no ancient chapels or halls or libraries, containing works of incalculable value, but we have several educational establishments, where the most youthful and the more advanced in age can receive intellectual and moral training.

The Grammar School at Newport demands [illegible] only for its antiquity, but on account of the good work it has done in former days, and is doing now; and I [illegible] Carisbrooke on Saturday next, through Newport, you will not fail to bestow a few minutes on its ancient walls.

To our recently established Isle of Wight [illegible] of which we hope, on Friday, to entertain all [illegible] especially direct your attention; for there, I hope, in the future, many youths may be found, preparing to follow in [illegible] head master is, I know, anxious to train those entrusted to his care in those subjects connected with physical [illegible] preliminaries to a medical education, but which are now included in

the ordinary curriculum. If these preliminaries formed part of a youth's general education, how much valuable time might be hereafter spent on other subjects more immediately connected with the practice of medicine and surgery.

Again, it is true that we have no college grounds of surpassing beauty, but we are not wanting in much that is beautiful in nature, and which has fairly gained for our island the title of the "Garden Isle". The various private grounds which are, by the courtesy of their owners, thrown open (according to the cards issued) for your recreation, will, I think, convince you that our isle deserves the title.

I would here name, especially, the grounds at Binstead, thrown open daily by the Rev. Alfred Locock. In mentioning his name, I by no means intend to depreciate the beauty of the grounds or the kindness and liberality of our other friends; but I do so on account of the respectful feeling I bear for the memory of his father, and which, doubtless, many of you also have for the late Sir Charles Locock, one who was ever jealous of the reputation of the profession—one whom we had the honour and pleasure of numbering for several years amongst our neighbours. The Rev. Alfred Locock not only throws open his grounds daily to our members, but, feeling what his respected father would have done under the circumstances, wishes to entertain members and their families at five o'clock on Thursday next. I therefore beg that those who purpose availing themselves of Mr. Locock's hospitality, will make their intentions known at the Reception Room before twelve o'clock to-morrow morning.

There is yet another spot of almost historical interest, that of "Osborne", a residence made royal and much loved by one who was ever a friend to science and the medical profession; one whose life was given to good works, the ever-to-be-regretted Prince Consort—Osborne, now the sea-side home of our most gracious Queen, where she enjoys the many beauties presented both by sea and by land. I am sorry not to have obtained permission for the members of the Association to visit the domain; but I considered it would be disloyal even to ask permission, this being the season at which Her Majesty always frequents her private residence. The members of the Association know, from experience, that our Queen would deny them no reasonable request; remembering, as doubtless they do, how freely almost every portion of her Castle of Windsor was thrown open at a former meeting.

Although, in the particulars already recounted, we may fail to emulate some places previously visited by the Association, I think I may claim for our island towns equality, if not superiority, as to drainage, water-supply, and other sanitary appliances. So far as this locality is concerned, it will give our surveyor much pleasure to accompany gentlemen to our water-works, four miles distant, and to explain every particular in reference to the sanitary arrangements of the borough. I have little doubt that the surveyors in other towns will do their part.

I ought, perhaps, to qualify this last statement, after the somewhat sweeping criticisms upon our sanitary condition by a Government medical inspector. To many of these criticisms, which have become, from their publication in the medical and other journals, public property, I do not subscribe; and I am quite prepared to prove a negative to a very great extent. As regards our water-supply, I think you will all agree with me that the analysis, with which you will be supplied, amply testifies to its surpassing excellence. If, moreover, you will avail yourselves of our surveyor's kind offices, he will explain our system of drainage; and, having carefully surveyed this, I believe you will come to the same conclusion as I have: that, from the defects which are the main causes of zymotic diseases, we are almost free.

I have occupied your attention for these few minutes with a cursory glance at those objects which I thought might interest you; and though, as I before said, they fall short of what you have been accustomed to at your annual meetings, I trust we may be able to make some amends for these shortcomings by our hospitality. To this end, I beg, in the name of the medical profession of the island, and of the inhabitants generally, to offer you the heartiest welcome. Rest assured that our best endeavours have been, and will continue to be, exerted to render the forty-ninth anniversary of our great Association as successful and as agreeable as any that have preceded it. I feel—indeed, all those who have and are working with me feel, the responsibility of the position we occupy; knowing that many have come here, at personal inconvenience and loss, to gather up what fragments of knowledge they may, no less than to recruit, after months of arduous labour and thought; hoping by these united means (as is the object of all practitioners) to return to their duties refreshed both in mind and body, better prepared to meet the ever-recurring and never-ceasing wants, and to relieve the sufferings, of their fellow-men.

To decide upon the subject of an address, on an occasion like the present, has been to me a source of no small anxiety, surrounded, as I knew I should be, by many men very much my superior in attainments, and many who have but recently come from the first schools of learning; moreover, I had to consider that I should see before me no inconsiderable number of the lay public, by whose attendance upon the occasion we feel much flattered.

The thought which I gave to this matter has resulted in asking the following questions, and endeavouring to reply thereto, in such a manner as to establish an affirmative to the plea I set up in my proposed questions, and to prove to the public that I have grounds for the plea, that the medical profession deserve and expect their sympathy and consideration. To establish this affirmative, I must ask you to permit me to pass in review cursorily the habits of medical men, the manner in which, both in ancient and modern times, they have carried on their manifold duties.

The questions I would ask are these: Are not the duties, the honest and honourable performance of them, such, as to command for our profession an equality with, if not pre-eminence above, every other? If the duties are so performed, are we not entitled to the very highest position in the estimation of the public? Has the profession been so esteemed? if not, what are the causes of such defection?

My earnest wish and endeavour will be to avoid wounding the susceptibilities of any individual, present or absent; but should I, in replying to the questions I have propounded, touch a sensitive chord, let the hearer or reader of my observations be assured that I have no one particularly in my eye, unless I mention him directly or indirectly.

I am led to this topic, too boldly, perhaps, by an experience of half a century; an experience which induces me to think—having no longer any personal interest in the opinion of the public, save that of my never dying wish for your welfare, collectively and individually—that I might not uselessly speak to you from the fulness of my heart. My only object is to elevate to the loftiest view your thoughts, and those of the public, in reference to the calling of the medical profession.

Some, indeed many, of the opinions I may advance, may be cavilled at, and be open to argument. I am quite prepared for these events, for we cannot all be of one mind; and it is well that we should not be so: for it is only by these differences, be the subject what it may, that a just balance (or, as the French say, "le juste milieu") can be maintained. The great fault in all such arguments is, that men cannot agree to differ without using hard, unseemly, and irritating language.

It is to be hoped that the free intercourse of men, which railways and improved steam-navigation have done much to promote, may do—indeed they have already done—much to favour our profession, in drawing us together, not only as shown by the annual meetings of our Association, but by the number of Branches connected therewith, and the many quarterly meetings of men living in different counties. These meetings can but teach us how little there is on either side to hate, how much to love; they tend to establish ties of professional relationship, to correct views of opinion by friendly conflict of mind—to show how prejudices melt away under the fuller knowledge gained by extended acquaintance.

Gentlemen, is not life a tremendous reality, an incalculable responsibility, be the calling what it may? Is not our calling, the calling of medical men, the most responsible, knowing, as we do, and feeling, as we must, that, under Divine Providence, the issues of life and death are in our hands?

I propose to consider my observations under two heads, the secular and the sacred; I shall deal with the secular first—not that I consider it of primary importance, but because it leads up to the other. The secular I shall treat of under two heads: first, the antiquity of our profession; and, secondly, the work done by men of the past, and that being done by men of the present.

First, as to our antiquity. The invention of medicine was, as we all know, universally attributed by the ancients to the gods: Æsculapius was considered the son of Apollo. Cicero speaks of it as "Ars deorum immortalium inventioni consecrata". By Homer, the healing art appears to have been confined to the removal of darts and arrows, and applications of fomentations and styptics. We read in Pope's translation of the fourth Iliad, where Machaon withdraws the shaft with which Menelaus had been wounded, sucks the blood and applies soothing applications, which Chiron was said to have given to Machaon's father, Æsculapius. When Machaon himself is wounded, the only remedy applied seems to have been a beverage of wine, barley-flour, and cheese; afterwards, in the same book, we have the great old healers celebrated in the words of Eurypylus to Patroclus:

> "But thou, Patroclus, act a friendly part,
> Lead to my ships and draw the deadly dart;

With lukewarm water wash the gore away,
With healing balms, the raging smart allay;
Such as sage Chiron, sire of Pharmacy,
Once taught Achilles and Achilles thee.
Of two famed surgeons, Podalirius stands
This hour surrounded by the Trojan bands,
And great Machaon wounded in his tent,
Now wants that succour, which to oft he lent.

These respective stories I record as showing the *esprit de corps* by which the men of old were inspired; and proving that then, as now, they were willing to risk their own lives for the benefit of their fellow-men, by sucking the poisonous wounds made by darts—braver warriors could not be. That which follows I detail for the purpose of showing how medical knowledge, both in ancient and modern times, gradually emerged from a doubtful art, to be ranked as the most scientific and philosophic of studies.

Herodotus tells us that the Chaldeans and Babylonians had no physicians, and that, in cases of sickness, the sick man's friends brought him into the market-place; "then those who passed by the sick person conferred with him about the disease, to discover whether they themselves had ever been afflicted with the same, or had seen others so afflicted", in order that the same treatment might be applied. No one was allowed to pass by the sick person in silence, without inquiry into the nature of the sickness: and other writers inform us that such observations of cures were suspended in the temples of the gods, and in Egypt the walls of her sanctuaries are found covered with records of this description. This has been fully verified by later discoveries on Egyptian walls. The priests of Greece adopted the same practice; and so the temples, especially the Asklepieia or temples of Æsculapius, served instead of hospitals for the study of medicine. The Asclepiadæ, so called as the supposed descendants of Æsculapius, were the hereditary physicians of Greece—they founded medical schools in different parts of the world.

Galen tells us of three places where medical instruction was first given, viz.: Rhodes, Cnidos, and Cos, signalling the last named as the most celebrated, on account of the greater number of eminent physicians who sprang from it.

The Asclepiadæ were very strict in examining and overlooking their pupils. The famous Hippocratic oath, which, if not drawn up by Hippocrates himself, is certainly almost as ancient, well deserves not only a place in our memories, but of being transcribed into every medical publication, embodying, as I conceive it to do, all those cardinal points which ought to be the leading principles of every teacher and every practitioner of medicine. It is as follows: "I swear by Apollo, by Æsculapius, by Hygeia, and all the gods, that I will fulfil religiously, to the best of my power and judgment, the solemn promise and the written bond which I now do make. I will honour my parents, the master who has taught me this art, and endeavour to minister to all his necessities. I will consider his children as my own brothers, and will teach them my profession, should they desire to follow it, without remuneration or bond. I will admit to my lessons my own sons and those of my tutor, and those who have been inscribed as pupils and have taken the medical oath, but no one else. I will prescribe such a course of regimen as may be suited to the condition of my patients, according to the best of my ability, power, and judgment, seeking to preserve them from anything that might prove injurious. No inducement shall ever lead me to administer poison, nor will I ever be the author of such advice, neither will I contribute to an abortion. I will maintain religiously the purity and integrity of my art. I will not cut anyone for the stone, but will leave the operation to those who cultivate it. Into whatever dwellings I may go, I will enter them with the sole view of succouring the sick; abstaining from all injurious views and corruption, especially from any immodest action towards women or men, freemen or slave. If, during my attendance, or even unprofessionally in common life, I happen to see or hear of any circumstances which should not be revealed, I will consider them a profound secret. May I, if I rigidly observe this my oath, enjoy good success in life; should I transgress and become a perjurer, may the reverse be my lot."

The first great revolution in medicine was effected by Hippocrates, born B.C. 460; but, before his time, sages had laboured to rescue the art from the ignorance of priest-teachers and professors. Amongst the sages, to whose useful labours the world is much indebted, none held a more deservedly conspicuous rank than Pythagoras; born in the Island of Samos about 600 years B.C., he travelled into Egypt, he explored the peninsula of India, etc., he returned to Europe, settled at Crotona, established a regular system of dietetics, and taught his pupils the theory, if not the practice, of medicine. It does not appear that he had the courage to brave the prejudices of his age by the dissection of the human body; but comparative anatomy and dissection of the bodies of animals seem to have been frequent objects of study among his pupils. It is probable that anatomy, properly so called, was not practised before the time of Herophilus, little more than 300 years B.C.

Acron of Agrigentum, the contemporary and rival of his fellow-townsman Empedocles, was an eminent physician, author of several medical books written in the Doric dialect. During the prevalence of the great plague which depopulated Athens about 473 years B.C., his professional services were of the first importance to the inhabitants, in arresting the progress of contagion, and diminishing the rate of mortality; this he accomplished, as Plutarch acquaints us, by recommending large fires to be kindled in the streets, and by introducing the practice of fumigation. About this time, schools of gymnastics became extensively established throughout Greece, and contributed materially to the diffusion of medical knowledge. At these schools for athletic exercises, a strict attention to the diet and regimen of the pupils was an essential requisite to their proficiency.

Cos gave birth to two of the most eminent men in their respective professions: Apelles the first painter, and Hippocrates the first physician of his age.

Hippocrates, as Celsus justly remarks in the preface to his works, was the first who emancipated medicine from the trammels of superstition, and the delusions of philosophy; he laboured to purge medicine from the false and mischievous doctrines which corrupted and disgraced it, and to establish its fundamental principles on a solid and rational basis, so as to render it, according to his own expression, "strictly philosophical". Our chief studies, as he observes, should be "to learn the true properties of things, not by vain theories or delusive reasoning, but by actual experiment, patient investigation, and careful deductions". He recorded most accurately the most minute circumstances of disease, both the accidents which preceded or accompanied the attack, as well as everything which tended to alleviate its violence or aggravate its malignancy; with such patient industry did he watch every sign, fully justifying Celsus in saying that succeeding physicians, notwithstanding their improvements in the treatment of disease, were indebted to Hippocrates for the whole of their knowledge of signs. As regards drinks, Hippocrates was unfriendly to the use of plain water, substituting for it various cooling and acidulated beverages, not absolutely forbidding wine, even in fevers and other acute disorders, when delirium and pains in the head were not present. Hippocrates died at the age of 101; then followed his sons, Aristotle, and others.

The first information we have of the formation of an academy of science was after the death of Alexander the Great, 323 years B.C., and which was established by Ptolemy Soter. This academy was called "The Museum", for the use of which he founded that splendid library which Livy enthusiastically terms "Elegantia regum, curæque egregium opus". By the exertions of those who followed, this library increased to 700,000 volumes, contributing materially to every description of learning, more especially to the study of medicine. Among the medical writers, none ranked more deservedly high than Aurelius Cornelius Celsus.

Much might yet be said to show the antiquity of our profession as recorded by Herodotus, Homer, Pliny, Horace, and others; but I should be trespassing unnecessarily upon your patience: much that I have already placed before you might have been omitted had I been addressing a medical audience only.

If our profession rested alone on its antiquity and the character of our ancient *confrères*, I think it might be placed in the foremost rank of professions; but I am unwilling to let any argument rest there, feeling that by so doing I should be unjust to men of modern times, and of many living in our own.

I might carry on my argument from century to century, and show *in extenso* how, in each decade of each century, medicine and surgery have, by indefatigable, unceasing, and never ending exertions, gradually, step by step, but certainly and surely, made such strides and such advances in every branch, as very much to ameliorate those ills to which human flesh must ever be heir.

Gentlemen, I will not weary you by going further into these matters than is necessary to fulfil my argument, that our profession is worthy of the loftiest position in the estimation of the public.

The first man of eminence in the first century, and who may surely be placed before you as a grand evidence of what [illegible] and determination will do, is Galen, reputed to have lived to the age of 140 years. He may be termed the father of medicine, freed from superstition and ignorance, which characters had been incorporated with it since the days of Hippocrates.

We read that Galen travelled from Rome to Alexandria to study a human skeleton: that he was compelled to rely upon what he deemed

nated "fortuitous anatomy", the examination of bones he might by chance find in a tomb—the contemplation of a body washed out of a sepulchre, half on the brink of a stream, with its flesh, he says, rotten, but with the bones still adhering together; yet from such scanty and precarious sources of study did Galen draw his descriptions of the human skeleton of surpassing excellence. Again, what difficulties and interruptions did the famous Haller overcome, by his devotion to science and the love of mankind, and of which difficulties and interruptions he speaks in his *Bibliotheca Anatomica*. Might not as much almost be said of such men as Vesalius, Asellius, Albinus, Ruysch, Pitcairn, Morgagni, Percival Pott, William Hunter, and James Young, a surgeon of Plymouth, who, in 1678, made great improvements in amputations, and invented the tourniquet? Ought I to pass over in silence the name of Harvey, born in Kent in 1578, to whose honour and memory, as you all know, a statue was only last week unveiled? the honour of unveiling being most appropriately entrusted to one who has done more than any other anatomist or scientific observer, past or present, to unravel the mysteries by which the animal creation were surrounded. Need I mention the name of Richard Owen? Do we not all pray that to him may be vouchsafed yet many years of health and strength to prosecute labours which add such lustre to our profession, such pleasure and edification to the world at large. Our illustrious countryman, having worked incessantly to investigate the long disputed problem of the circulation of the blood, solving the mystery which had so long baffled the penetration of the greatest men, and having completed his masterly and unprecedented researches, astonished the world of science by the publication, in 1628, of the true theory of the circulation; an "opusculum aureum", as Haller truly observes, "arranged with the most admirable perspicuity, and resting on the firm bases of experiment, unalloyed by a single particle of the base metal of speculation". A monument to such a man only just raised in his native country! *Proh pudor!* But the more brilliant a discovery, and the more brilliant its results, how often did it, how often does it, even in our day, happen that its author becomes the butt of envy, and the object of detraction! Harvey was no exception to the general rule. The triumph of truth has baffled through ages; and the claim of Harvey to the completion of one of the most brilliant discoveries which history has ever had to record stands incontestably admitted.

Neither must I pass over in comparative silence the name of Asellius, who, in the seventeenth century, discovered the lacteals, and their course, which discovery preceded that of the circulation. This century was also celebrated for the discovery of the thoracic and cystic ducts, and for a multitude of improvements in medicine, surgery, obstetrics, and the discovery of medical remedies, by men of all countries.

Why do I mention the name of Asellius especially? To show you, to show the antivivisectionists, that, in the early days of medical science, vivisection was practised, not in cruelty, or unnecessarily causing to the animal creation pain and suffering, but to satisfy the humane mind—a mind always at work for the good of mankind. By Asellius, as I have just said, were the lacteals discovered. The discovery was at first accidental; but, regarding it as one of much importance to human health and life, he determined to establish the true existence of the lacteal. This he did by opening a dog, soon after the animal had eaten a full meal, when the lacteals of the mesentery were rendered distinctly visible as they ran across it, distended with the milky fluid of the newly absorbed chyle.

The limits of my address do not allow of my dwelling upon the individual works of those men who lived in the seventeenth century, and who, by their devotion to study, by long years of investigation, brought to bear on the practice of medicine and surgery, so many and such important discoveries, tending always to the good of mankind. Such men, amongst many others, were John Radcliffe, Sydenham (who has been termed our English Hippocrates), Richard Mead, John Freind, and William Cheselden, who first performed the operation for congenital cataract. Of two of these, thus writes Alexander Pope, in a strain far different from that which inspired Dryden:

> "Would the Lord [illegible] and short-sight,
> [illegible] not a giant quite;
> I'll do what Mead and Cheselden advise,
> [illegible] and to preserve these eyes."

Of Mead, Pope writes: "I highly esteem and love that worthy man. His unaffected humanity and benevolence have stifled much of that envy which his eminence in his profession would otherwise have drawn out." One anecdote, from which I think we shall all learn a lesson, I must here insert, showing that there was not wanting, in men of old, that pride and self-respect which can alone sustain a man under some peculiar circumstances. Mead once said to a divine, who, instead of attending to his prescriptions, had been following the directions laid down for the cure of the malady with which he was afflicted, in a work by Dr. Cheyne: "Sir, I have never, in the whole course of my practice, taken or demanded the least fee from a clergyman; but, since you have pleased, contrary to what I have met with in other gentlemen of your profession, to prescribe to me, rather than follow my prescriptions, when you had committed the care of your recovery to my skill, I trust you will not take it amiss, nor will, I hope, think it unfair, if I demand ten guineas of you." The clergyman paid the money, six guineas of which, however, Mead subsequently returned.

When John Freind died, numerous tributes to his memory were offered; and, amongst these, the following lines (showing the high opinion held of his skill) from the pen of Samuel Wesley, were presented to the public:

> "When Radcliffe fell, afflicted [illegible]
> 'How [illegible]' [illegible]
> When Freind expired, [illegible]
> And speechless, fainted, and revived no more,
> [illegible]
> [illegible] with Radcliffe [illegible] with Freind."

No less conspicuous—indeed, it may, I think, in justice, be said, much more conspicuous—was the eighteenth century, for the honour and renown of our profession: a century which numbers many men of never dying renown, who have left their own monuments to their memory.

From amongst these must ever stand out most pre-eminent the name of John Hunter. So often, but not too often, have his praises been sung, that it is almost presumption on my part to add even a short tribute to his memory; but what has been said of him so completely and strongly bears out the opinion I have expressed, and have been endeavouring to impress upon, not you gentlemen of the profession only, but upon the public, that I will venture to repeat the oft told tale, that John Hunter had an intellect of more than ordinary power; that its powers were always being exerted, with zeal and disinterestedness, for the benefit of mankind. So successful has been the result, that the works he has left have created the foundation of medical knowledge, both in its theory and practice, for the present and all future time. No words of mine can pourtray the extent to which mankind has been benefited by the discoveries and the philosophic views of the actions of living bodies in health and disease, as set forth by John Hunter, and which one single mind accomplished for the advance of medicine and surgery. The Hindoos say that the good physician is a person of strict veracity, of the greatest sobriety and decorum, a man of sense and benevolence, his heart charitable and temper calm, and his constant study how to do good. Such a man was surely John Hunter; and though we boast of the science of Hunter, I may repeat what has been before said, that what is above all is this—his perfect integrity of mind; as Tacitus has written, "incorruptâ fide vir, ob id famâ celebratior".

Passing from the eighteenth to the nineteenth century, have we not much to be proud of, both in respect to men who have passed from amongst us, as well as to those who are still ornaments to our profession? Of those who have passed, we may well remember such men as a Hey, who, as a writer expresses it, "was so bright and uniform, and so illustrious an example of professional knowledge, of patient and arduous research, of moral rectitude, and of Christian excellence". Let me here record, on the occasion of a meeting of the inhabitants of Leeds to erect a monument to his memory, the following lines, as recited by the Recorder:

> "Those means which med'cine and the gospel give
> [illegible] body they could [illegible];
> Useful that skill which made the dying live,
> More useful that which taught him how to die."

Then we had a Cline, a Cooper, a Swan, an Abernethy, a Liston, a Lawrence, a Locock, a Teale, a Fergusson, and many others of a like kind, who by their philosophical teaching were always elevating the medical character and adding to the science of our profession. Nor can I pass in silence the father of one of our members now, I believe, present, Dr. James Cowles Prichard, whose work on the researches into the Physical History of Mankind must ever remain as a monument to his memory. Neither can I omit the name of Sir Charles Bell, who, if he had done nothing more for our profession than produce his work on the Hand, would be worthy of a high place in our memories.

To the names of those I have placed before you, very many others might be added; but there is one who stands prominent, and who must ever hold one of the first, if not *the first*, in our estimation—one who, by self-sacrifice of every description, by an unparalleled perseverance, by an unflinching determination of many years' duration, at last convinced the world that the plague of small-pox was to be combated by the simple process of vaccination. Has any man, in past

times or in the present, approached Edward Jenner as a benefactor to the human race? To his memory stands, in the churchyard of his native place, Berkeley, in Gloucestershire, a monument with the following inscription:

"Within this tomb hath found a resting place
The great physician of the human race
Immortal Jenner; whose gigantic mind
Brought life and health to more than half mankind.
Let rescued infancy his worth proclaim,
And lisp out the sire on his honoured name;
And radiant beauty drop her saddest tear,
For beauty's truest, trustiest friend lies here."

Greatly may we rejoice that the name of Jenner still shines brightly amongst us, and that one bearing that honoured name stands conspicuous, as the favoured trusted physician of the Royal Lady who, if for no other reasons, calls for our loyal gratitude and never-dying respect, certainly on account of the favour with which Her Majesty always regards our profession, and the deep interest she ever evinces in the sufferings, calamities, and distresses of her subjects. Is not this especially patent to us when we read, in the Report of our Medical Benevolent Fund, Her Majesty's munificent donation? A Jenner, then, is still present with us; and long may he be so, benefiting mankind by his ever ready talented help, and upholding, as he has ever done, and at times under most trying and difficult circumstances, the honour and dignity of our profession. The truth of what I have said has been lately so judiciously and wisely expressed by the Fellows of that learned body the College of Physicians, that I need say no more.

Can I pass altogether in silence the names of some of our living benefactors—men whom we delight to honour, and whose works will live after them? To do so would be doing umbrage to my own feelings, and, I can but believe, to yours also.

Do we not number amongst the members of our profession a Hooker, a Watson, a Burrows, and such like? Are not such men as Spencer Wells, Lister, Thompson, Erasmus Wilson, and others, following in their steps, and doing equally good work for the benefit of mankind? Are they not to be noted as men worthy of special sympathy?

Do we not all respect the name of Paget, who by almost unprecedented labour and perseverance, backed by an unusual genius, has raised the practice of surgery—may I not add of medicine—to be considered, much more universally than was the wont, as a scientific and philosophic calling? Then, again, we have another series of medical men, those—and they are almost legion—who have devoted themselves to the rearing of the youthful aspirants to medical honours and renown. No men in our profession deserve more consideration from the public; for upon their teaching depend the future health and happiness of the community, when old men have passed away, and younger and still younger men spring up to grapple with disease and death. I cannot refrain from mentioning one name (although, as I have said, they are legion) prominent amongst teachers. I must run the risk of being called partial when I name Luther Holden, an old and valued friend and a fellow-pupil, as a type of what a teacher should be—one who has devoted his life, energies, and talents of no small order, to the instruction of youth. Much is due to him from the public—much to the many such, who have followed and are following the same career.

Let me here allude to medical education generally, and to examinations in particular. The value and high standing of our profession stands not alone upon the actual practice of medicine and surgery, but upon the scientific and philosophical knowledge possessed by medical men. I hope, therefore, that none of those subjects coming under the denominations of physical science or natural history will be laid aside or dispensed with at the examinations; and may these examinations before long be under one conjoint board, unanimous in one grand thought—how the best advice and assistance can be secured to suffering humanity.

There are many other grounds upon which the services of medical men merit more than ordinary recognition, both from the State and from the public.

What would our many charities, of whatsoever character, be without the medical man—without the well-trained student? Without the last named, our hospitals could not be worked, however good probationary nurses and lady-superintendents may be; these have, we all know, no mean idea of their own capabilities. The thanks of the profession are, I think, due to those who have of late so nobly, and at so much personal anxiety, withstood the attempts to supplant medical authority in the wards of our hospitals.

The senate claims amongst its members now, in almost every country, many men learned in physic—men who have assisted to legislate for the good of the world at large; and so it has ever been. The halls and theatres of science, both at home and abroad, have been the homes, as it were, of medical men—men ever and anon binding themselves together for the advancement of science in its various branches—men who at the present time in our country make up one-fourth of the total number of Fellows of the Royal Society. In every society for the advancement of scientific education, medical men stand most prominent, most pronounced in their opinions, sound in their deductions, and persevering in the fulfilment of their preconceived notions and the realisation of their fondest hopes.

The work of a medical man is never ending [illegible] his mind becoming vacant for want of occupation, as expressed by a poet—

"[illegible]
A mind quite vacant is a mind distressed."

It is not only by the work he does and which is seen, but by that which is done in secret for the poor and helpless, that the medical man ought to be judged. What profession does so much? Are not medical men daily performing deeds of heroism, facing danger and even death whilst beneficiently ministering to suffering humanity, assuaging pain, consoling the bereaved and distressed, both in mind and in body? Can a more startling example of the heroism of a conscientious practitioner be found than in David Lowson, a physician of Huddersfield, who, to relieve the loved babe of an anxious imploring mother, sucks the mucus from the throat in a case of diphtheria? Whether such a course of action is justifiable, imperilling, as this brave man must have known, his health, if not his life, is a question which can only be settled by the man who performed the deed—it is one of conscience, one of heart. We must all sympathise with David Lowson in the loss of health, and, at the same time, congratulate him upon the recognition of his heroism by Her Gracious Majesty in the presentation of the Albert Medal.

Having, I fear, already tried your patience, I must pass as quickly as possible over that portion of my subject which consists in a record of the many works which fall to the lot of the medical man; works often, too often, combated by the laity, sometimes not without the assistance of men from our own ranks. The work which the medical man has necessarily to carry on is sufficient to occupy his anxious thoughts, without having his time engaged in refuting charges and upholding in his public capacity those principles which he believes to be right, and which, as a law-abiding subject, he is bound to carry out.

Take, then, the temperance question, regarding which frequent assaults are made upon us, not only by the public, but by some of our abstaining friends. I respect every man who acts up to his principles; but no man has a right to accuse another of leading his patient to an immoral life because, in his judgment, some moderate stimulant is necessary, either to assist in the cure of disease or to maintain the standard of health. The man, I care not who he is, that scares the public by saying "stimulants are of no use in any class of case or disease" says that, in proof of which he can produce no sound philosophic or scientific reasoning; he makes a declamation which I should have been sorry to carry out in my years of practice, and which is no sounder than that made by a man who once said "he cured all cases of cholera with salt". Medical men have been traduced on this subject most unfairly, most unscrupulously. Take away stimulants altogether from the treatment of disease, and I believe you take away one of the chief anchors of medical treatment. I know that stimulants were at one time too freely administered, and they may be so still in rare cases; but who dares to say that the prescriber did not so conscientiously, believing it was for the benefit of his patient? Beware of giving way to doctrines wholesale, which may be prejudicial to health and dangerous to life!

What shall I say of the antivaccinators, and of the advocates for the suppression of the Contagious Diseases Acts?

My opinion of revaccination I have already indirectly expressed. After years of research, it was found to answer the anticipations of its discoverer; it has borne the test of years, in spite of the criticisms of every class of man and woman, still holding its own valued place as the surest preventive against the most loathsome of diseases, one which is alike destructive of life, faculties, and health. Is it because, ever and anon, we have an outbreak [illegible] after vaccination, that therefore the operation is an useless one? All men may not be equally cautious in the lymph they use, and I am not sure but that vaccination is one of those minor operations which has not received the amount of attention which it commands.

The law of compulsory vaccination is faulty, in not being strict enough; for no more, we [illegible] a right to violate a law which has been framed [illegible] mankind at large, the [illegible] life which the law says he shall [illegible] bour. I trust that, if there be legislation, it will be to introduce clauses more stringent than at present exist. I hope there will not be found one man in our ranks who will countenance or support the most un-

philosophical unscientific cry which has ever been raised against a grand discovery.

What shall I say of the anticontagionists? Of these I would speak only one degree less strongly than I have done of the antivaccinationists. Although the test of time has not been very extended, still there is evidence enough to prove that much good has been achieved, and that much disease and distress has been stayed. The argument used that the Act legalises sin is only one-sided. Because men and women will sin, are we, having a remedy at hand, not to apply it? Are we to leave men and women who sin, and, unrestrained by their sin, destroy the life, the health, and the happiness of a race still unborn? Shall we not strive to lessen the chances of "the iniquities of the fathers being visited upon the children", not for one, but for many generations? I grieve that the cry against the Contagious Diseases Act should receive the concurrence of any in our profession; I grieve more particularly because one, an old friend of my own, Dr. Nevins, has taken up this position, a position he strives to maintain by statistical reasonings which do not stand the ordeal of strict investigation.

Another class of oppositionists has still to be dealt with—the antivivisectionists. I have already told you that the great discovery of the lacteals by Asellius was made during the vivisection of a dog. What should we have known of the effects of poisons upon the coats of the stomach and intestines? what of the injury to, and destruction of, the nerve-centres? what of the treatment of diseases and injuries of bones, if our friends of to-day had sprung up half a century ago? How many more benefits might I not enumerate accruing to the human race from the experiments upon animals, experiments not carried on from curiosity, but from a desire to add to the blessings of health. Scientific men are not such brutes as some would have the world believe; they carry on their researches with every regard to humanity. Let me ask, Will the antivivisectionists give up their fishing and shooting, their delicacies of crimped salmon, lobsters, and crabs? I trow not. The experiments carried on by the man of science are none so painful as the indulgences just described entail upon living animals.

Legislate for the total abolition of vivisection, and one of the levers for increasing our knowledge of the action of new remedies is taken away, and mankind must be the losers. Let me, in concluding this subject, add a paragraph from Darwin's answer to Professor Holmgren, who inquires what Darwin's opinion of vivisection was. He writes: "What improvements in medical practice may be directly attributed to physiological research, is a question which can be discussed only by those physiologists and medical practitioners who have studied the history of these subjects; but, as far as I can learn, the benefits are already great. However this may be, no one, unless he be grossly ignorant of what science has done for mankind, can entertain any doubt of the incalculable benefits which will hereafter be derived from physiology, not only by man, but by the lower orders. Look, for instance, at Pasteur's results in modifying the germs of the most malignant diseases from which, as it so happens, animals will in the first place receive more relief than man. Let it be remembered how many lives and what a fearful amount of suffering have been saved by the knowledge gained of parasitic worms through the experiments of Virchow and others on living animals. In the future, every one will be astonished at the ingratitude shown, at least in England, to these benefactors of mankind. As for myself, permit me to assure you that I honour, and shall always honour, every one who advances the noble science of physiology."

One word more on this subject. What would be the relation of human suffering saved by the knowledge gained by vivisection to that endured by animals who have been the victims of experiments?

Those who know anything of the matter, can but admit that they bear no comparison. Legislation cannot—it must not—be allowed to interfere with free scientific research.

I would commend the foregoing to the company of antivivisectionists at their next drawing-room assembly.

Two other subjects of controversy are still present to my mind—that of lady-doctors and lady-nurses, and the compulsory reporting of infectious cases. Of the last, I would say, that in my opinion no such obligation should be imposed upon the medical man who is the confidential adviser of the infected household, and under no state of things ought he to be forced to reveal the secrets of that house, be they what they may. The burden of such revelation ought to be borne by the occupier of the house; to legislate in this direction would be legitimate, and much good would, I doubt not, follow.

The other subject presents many points of delicacy and difficulty. It is one, as you well know, which has given rise to much controversy; it is open to fair argument and differences of opinion. My own views, I believe, are opposed to those of a considerable number of men whose opinions I value; but I shall nevertheless express them freely in as few words as possible.

I am not over-squeamish, nor am I over-sensitive; but I almost shudder when I hear of things that ladies now do, or attempt to do; when I hear them talk—the old, the middle-aged, and the young—speaking of things not *sotto voce*, but boldly and loudly, in society made up of both sexes. One can but blush, and feel that modesty, once inherent in the fairest of God's creation, is fast fading away. You, gentlemen, who know the delicacy of women's organisation, you must know that constitutionally they are unfitted for many of the duties which are required from both doctor and nurse. May not habit, may not the performance of duties which entail long watchings, much exhaustion of mind and body—may they not, will they not, so change that fine organisation, that sensitive nature of women, so as to render her dead to those higher feelings of love and sympathy which now make our homes so happy, so blessed? Will not the strain upon the delicately-nurtured female have a prejudicial effect upon the babe still unborn? Will not England's glory fade without its modest sympathising women, and its race of stalwart youths and blooming maidens? You now, gentlemen, know my views as to the propriety of ladies becoming doctors or nurses.

Turning now for a moment from civil to military life, are not medical men found equally prominent in other relations to the State? Has not the battle-field told many a tale of heroism, the devotion of medical men, total abnegation of self, sacrifice of life, to save that of others? Has the State adequately rewarded these men—equally brave on land or water—for services rendered? Our profession can boast of many Porters. The one who died but yesterday in Afghanistan lives in the memory of not only those who personally knew him, but of the United Kingdom at large. Neither are we wanting in men such as John Frederick M'Crea, lately graciously decorated by our beloved Queen with the Victoria Cross, for his conspicuous bravery in South Africa, who, in the midst of fire and shot, conveyed a wounded burgher to the shelter of a large ant-hill, then sought an ambulance for the relief of the wounded soldier, and, whilst thus engaged, was himself severely injured, but, nothing daunted, continued at his post, assisting to secure the safety of many more wounded and disabled soldiers. Thus, having done his duty, it was only left for him to dress his own wounds, having no medical brother to assist him. Is not the story an honour to our profession, a glory to our calling?

Let me now turn for a few brief moments to the second part of my argument—the sacred.

If I appear to any of my hearers to dwell unnecessarily upon, as it were, the religious portion, let me ask you to withhold a criticism prejudicial to my observations; for I cannot forget that the profession has been, and is even to this day, by some people accused of being sceptical, and as denying the power of God in creation, I therefore venture humbly to crave your indulgence if I place prominently before you the thoughts which are uppermost in my mind, and which, from my knowledge of medical men, I believe to be present in theirs. As I have previously said, life is a tremendous reality, a serious responsibility. How can this be disputed? Are we not born by and in the image of the Almighty? Perfect in all our parts, endued with the finest organisation, can we doubt that we are born to show forth the glory of God in all our works? Can it be possible that there is one man in our ranks who denies or even doubts the existence of a God?

The study, or even the simple observation, of nature—whether it be the animate or the inanimate—ought to prove to the man of science, or the man of ordinary intellect, that all has been created and is preserved by one Almighty power. If such be the case, is not life a serious responsibility—may I not say a sacred one? and is not every man, be his calling what it may, bound to exercise his best powers to preserve not only his own life, but that of his fellow-men; to do his duty in that station unto which he has been called? Is not our calling a sacred one, being obliged, if we fail not in our duty, to go hither and thither, with or without other recompense, save that of a conscience void of reproach, and the feeling of satisfaction that we have succoured a suffering body; thus following in the steps of our Lord and Master? Is it possible to aspire or attain to a higher position than that of being instruments for good, under the guidance of the Great Healer?

That we have a right to aspire to such a height I have no doubt, though some may still be sceptical as to our calling, and may follow Dryden, who, with irreverent vigour, in verse declares:

> "Better to hunt in fields for health unbought,
> Than fee the doctor for a nauseous draught;
> The wise for cure on exercise depend;
> God never made *His* work for man to mend."

Once again. Is not our calling sacred, if we consider our admit-

tance into the domestic circle as a sacred position? Is not our intercourse with families a privilege, which must not be abused? Are we not often brought into contact with sin as well as suffering? Are we not entrusted, in confidence, with the cause of suffering, mental as well as bodily? Are we not sometimes, too, the happy medium of reconciliation between those most nearly related? Is it not often in our power to sever those ties which ought to be held the most sacred? If we fulfil properly the trust reposed in us, and treat domestic confidences with that silent judgment which becomes the honourable gentleman, I say confidently that we have the right, looking at all these calls upon our time and upon our hearts, to proclaim our profession as standing upon the highest grounds.

As the Hippocratic oath set forth how the honourable performance of our professional duties is to be carried out, so, I think, with equal force, do the words of Galen bring home to us the sacred view. If I failed to place before you the religious feelings which formed the predominant feature of his character, I should be doing a great injustice to his memory.

Remember, Galen was brought up in the darkness and polytheism of the Pagans; and yet, so fully had his anatomical researches impressed him with the conviction that the grand fabric of the human frame could only be the work of the all-wise, as well as all-powerful and beneficent, Being, that he gives vent to the following burst of religious feeling, worthy of a Christian of the nineteenth century, no less than of a Pagan of the second. He says: "In writing these books, I compose a true and real hymn to that awful Being, who made us all; and, in my opinion, true religion consists not so much in costly sacrifices and fragrant perfumes offered upon His altars, as in a thorough conviction, impressed upon our minds, and an endeavour to produce a similar impression upon the minds of others, of His unerring wisdom, His resistless power, and His all-diffusive goodness. For His having arranged everything in that order and disposition, which are best calculated for its preservation and continuation, and His having condescended to distribute His favours to all His works, is a manifest proof of His goodness, which calls loudly for our hymns and praises. His having found the means necessary for the establishment and preservation of this beautiful order and disposition, is as incontestable a proof of His wisdom as His having done whatever He pleased is of His omnipotence." Many similar examples abound throughout this great man's works, and show that a spirit of genuine piety directed all his thoughts. If the record of these sentiments be true, ought not the accusation of scepticism, even as regards men of old, to vanish from the minds of men? And if, as I contend, the same sentiments are still uppermost in the minds of medical men, ought they to be ever branded by the title of sceptics?

Gentlemen, I have thus endeavoured, imperfectly I know, to show why we deserve the esteem and respect of all men. If we are not so esteemed and respected, what is the cause? Does it rest in ourselves? I can but fear that to some extent this is the case; we have a censorious public to deal with, and, being in a measure their servants, we cannot throw them off; for, although they are not independent of us, still we are dependent upon them; there is mutual dependence, and there ought to be mutual confidence—indeed, there *must* be, if we are satisfactorily to do our duty. I advise the man who feels he has lost the confidence of his patient to retire immediately from attendance—he will be no loser by thus showing that he respects his own feelings. I say there must be confidence between the patient and the practitioner. How often is this broken by the inuendos of one medical man in reference to another? Is there no jealousy, no backbiting between man and man living in close neighbourhood? Does that brotherly love exist between men which there ought to be, and which I think the very sacredness of our calling demands? How often do we hear it said, "Mr. A. says Mr. B. has treated me all wrong, has not understood my case at all." How glad, alas! is Mr. A. to write a prescription altogether different from what Mr. B. has done! Medical men must differ in opinion as to treatment; and this very difference is the greatest safeguard the public can have; but the difference of opinion and the treatment to be followed need not be made the subject of comment to the patient. The difference ought to be sacred, as between man and man; and I pray that the freer communication now possible, as I have expressed in a former portion of my address, may be the means of reconciling many men hitherto kept apart by only a partial knowledge of each other.

Again, how sadly do medical men appear the astonishment of the public when called upon to give evidence in judicial inquiries; how diametrically opposed are the opinions advanced, without regard for their own character or for that of the profession; the opinion must be in favour of those on whose behalf each man is called to give evidence. Can we be surprised that the laity often accuse us of violating the principles of honour? In no class of cases is this brought more prominently before the public eye than in railway accidents. Is it impossible for medical men, before giving evidence in such cases, to come to some mutual understanding? I trust some way may be found to escape from the scandal by which, under the above circumstances, we are now surrounded. As long as these controversies last, just so long will it be before we attain to that position which we ought to hold in the estimation of the public.

How the backbitings, the jealousies, have existed for so long is marvellous, even in times gone by, in reference to the power, the prosperity, and dignity of one college of learning over another, and which, even to this day, are so far existing as to greatly impede, I fear, the cause of education, and the proof, by one combined examination, as to the fitness of men to be entrusted with the health and lives of their fellow-men. How different this from what Harvey anticipated, as expressed by the last Harveian orator, Dr. Barclay, "how in the early days of the College of Physicians, jealousies crept in, instead of that large-heartedness which Harvey hoped would guide the steps of the Fellows of the College".

Can we be surprised, then, that the public, being critical, should look doubtfully upon our profession, and refuse us that mead of just sympathy and position which we certainly deserve? Let us hope that a great future is in store for all our colleges and seats of learning, and that they may be pregnant of great results, both as regards the advance of science and the eligibility of those who are destined to go about doing good, following in the steps of their Great Master.

The avoidance of allowing patients to be participators in our differences and our jealousies, will go far to disabuse the minds of the public that medical men are always differing, always quarrelling, always standing upon etiquette. Now this brings me to a point, upon which I desire to be explicit, for this word "etiquette", has been within the last few months frequently in the mouths of the public. I allude, as you all, I doubt not, have already surmised, to the subject of consultations—a subject upon which I think the public take a very erroneous view, and the profession are not altogether free from reprehension. Medical men are too apt to think that, because a patient or a patient's friends desire a second opinion, in the course of a long attendance, their skill is called in question; umbrage is taken, confidence lost, and for the future an uncomfortable feeling exists between the patient and the attendant. Gentlemen, this is wrong—is there any one of us who, in case of a long and trying illness in one we love, does not seek advice of many men? and why should not our patients?

The public are wrong in accusing medical men of standing upon etiquette, when they refuse to meet the practitioner (to wit, the homœopath) of a system of medicine entirely at variance with the ordinary routine. No one can, I think, deny that the homœopath stands upon very peculiar ground. He practices a system of medicine (although I have no belief in it); nevertheless it is a *system*, and, if carried on in its purity, as laid down by the founder of the system, and as long as the homœopath adheres strictly thereto, I fail to see how he can be called a quack, or why he should be tabooed by the profession, as it were, cut off from a position amongst medical men, forbidden to gather together with them, and prevented from discussing publicly his system, and hearing the contrary from those practising legitimate medicine. The benefit would be mutual, and these discussions would be of benefit to the public, and an additional proof to them that their weal was uppermost in our minds. But I say he ought to be shunned, if he throws out the bait of practising both according to the ordinary system and homœopathically. He must either believe in one or the other; if he put in practice the one he disbelieves, because the patient wishes it, he treats his patient for gain only; he fails in that honourable performance of his duty, which is the boast and pride of our profession.

The combination cannot be carried out honourably. As regards consultation with the professed homœopath, I will give you the answer I have always made to such request: "I cannot accede to your wish; not out of any ill feeling towards the gentlemen you desire me to meet, but because I cannot waste my own time, nor the time of the homœopath, nor rob you, or be a party to the robbery. If we meet, we cannot agree: you gain nothing for the fees you have thrown away." You, gentlemen, cannot, you must not, consult under any circumstances with the man who [illegible] whole profession. Let us hope that the faith of the public in a faulty [illegible]

The word "[illegible]" [illegible] with the view I [illegible] I can apply

no other. A long and patient observation and noting of cases has brought clearly to my mind—it may not to yours—this important point, viz., that homœopathy having destroyed, to a great extent, the faith of the public in medicinal remedies, many practitioners have gone to the opposite extreme to please their patients in the administration of medicines; the non-administration of which, I hesitate not to say, retards in many cases recovery, and when that is achieved, the recovery (if I may call it so) in very many cases is only partial and temporary. The *sequelæ* of the class of disease which come under the title of zymotic are much more serious and frequent than they were when medicinal remedies were efficiently and abundantly administered.

I have made rather a long digression from my original subject, but much that I have said in this digression was necessary to establish my plea that medical men only stand upon what the public call "etiquette", from a sense of what is due to themselves and to their patients.

Permit me now to draw my conclusions from what I have ventured (I hope without offence to any individual, present or absent) to place before you. I trust moreover, that the sum and substance of my observations may have the effect which I greatly desire, of clearing away some of the clouds which surround the lay public, and that my observations may bring those who have hitherto looked upon our profession as a necessary evil, rather than a good, to believe at any rate that, although we may differ individually as to treatment of disease, we are not antagonistic collectively; that our feelings towards each other are brotherly; and that in the performance of our duty toward our patients and to the public, we are actuated by true and honest motives, and the most honourable intentions. Gentlemen, a review of what I have already said cannot fail, I am bold enough to hope, to prove that our profession merits the highest consideration from the world at large, and that it stands upon the topmost pinnacle of fame.

Gentlemen, only a few words more, and I have done. Many thanks for your patient attention to my sayings, which I fear have been dull and uninteresting. I trust that no word has fallen from my lips offensive to anyone here. I have spoken from the fulness of my heart, with but one desire, viz: that the high position in which our profession already stands, may be maintained and increased, and secure for you individually and collectively, that respect, which if honestly, honourably, and perseveringly carried on, your calling merits.

In conclusion, I would venture to say, pray each morning before you commence your day's labour, which labour cannot be attended but by much anxiety, and at times by disappointment and sorrow, mingled happily, however, by some bright spots; pray I say, that you may be blessed by that Divine help, which can alone sustain you and carry you successfully through labours and anxieties of no mean order, and, when evening comes, pour forth thanksgivings that strength and knowledge have been given you, to do your duty, in mitigating to some extent the sufferings of your fellow men. These are the only sure and safe steps to a happy life and a prosperous career.

It only remains for me to assure you, that I pray God may bless you in your everyday work, in yourselves and in your families; that you may leave the Island refreshed for future work. At any rate, carry with you the assurance, that you have our heartiest prayers that God may speed you on your way, and that when He calls you hence, you may leave behind you "footprints" for good, so beautifully described in the following lines by our favourite American poet.

"Lives of [illegible]
We [illegible]
And [illegible]
[illegible];
[illegible]
[illegible]
A [illegible]
[illegible]
Let [illegible]
With [illegible]
Still achieving, still pursuing,
Learn to labour and to wait."

Acute Alcoholism simulating Hydrophobia.—In view of the frequent appearance of reported cases of hydrophobia, Dr. W. B. Hazard has published in the *St. Louis Clinical Record* a case of the above character. The patient suffered for several days from pharyngeal and laryngeal spasms, and had not been able to swallow any liquids. He was at first rational, and had no tremor. In a short time, however, furious mania developed, which ended in chronic convulsions and death. *Post mortem* examination showed no characteristic changes anywhere. His previous history showed him to have been a hard and constant drinker.

ADDRESS IN MEDICINE,

JOHN SYER BRISTOWE, M.D.,

[illegible] Physician to St. [illegible] Hospital.

Mr. President and Gentlemen,—There are few more interesting and curious studies than the history of medicine. Taking its origin in the very dawn of human existence, not in the instincts which lead men to obey the dictates of Nature, but in the sense of rebellion which the pains and penalties she inflicts engenders, it was cradled in the credulity and superstition which are the first fruits of thought struggling for independence. It is not surprising, therefore, that in the earlier ages, when their origin and nature seemed alike mysterious, diseases should be attributed to the influence of stars and comets, to the malignity of demons, to the wrath of deities; and that their alleviation or cure should be sought in amulets and charms, in sacrifices and prayers. Nor is it surprising that in later times, when the knowledge of disease had advanced, and the influence of drugs had become recognised, a belief came to prevail that, for every morbific evil which Nature permitted to afflict mankind, she had provided an antidote. Nor, perhaps, is it to be wondered at that, even at the present time, in this enlightened age, not merely among the lowly and the ignorant, but amongst the noble, the learned, and even the scientific, credulity and superstition in relation to the common enemy of mankind—disease—should still widely prevail; that diseases should still be attributed to supernatural causes, and to the spleen of an offended deity; that still amulets and charms; sacrifices and prayers, should be included in the popular materia medica; or that the belief should still be entertained (for which no scientific basis whatever exists) that diseases, which are the necessary correlatives of mortality, are mere puzzles, designed by Nature for the exercise of ingenuity in the discovery of remedies, which she has industriously hidden in the eternal rocks, and in the living things which people the face of the earth or clothe it with verdure.

It has been largely held, and is doubtless still believed, that the position of medicine as a science is a discredit to the age in which we live; and it may be freely admitted that, while the arts and sciences generally have been making rapid strides, medicine, in its primary and chief object—namely, the cure of diseases—has made but scanty and doubtful progress. But those who hold this view have given little real thought to the subject. In no small measure they are persons who have no acquaintance whatever with medicine, who judge of it by its failure to accomplish ends which are probably impossible of accomplishment, and who are themselves to a great extent credulous in the efficacy of measures and of remedies whose use is an outrage on common sense. But largely they are persons who base their judgment on a false comparison of the progress of medicine with that of the exact sciences, and of the natural sciences on which alone scientific medicine is built. They forget that mathematics and geometry are (difficult, no doubt, but) comparatively simple sciences, which men may cultivate in the closet, apart from life and nature, and which the ancients, therefore, were as well able to investigate with success as ourselves. They forget that the physical sciences and chemistry, which deal mainly with the simple forces of nature and unliving matter, have only within the last hundred years made those gigantic strides which have raised them from the depths of empiricism and quackery to the marvellous position which they now hold among our intellectual and effective possessions. They forget that the natural sciences, the sciences which deal with living nature—namely, botany, zoology, anatomy, physiology, and pathology—though long cultivated fitfully and to little purpose, have only of late years made systematic progress; and that it is mainly within the present century that anatomy, physiology, and pathology have risen into the dignity of sciences, and have worked a very revolution in our knowledge and estimate of life, in both its normal and its abnormal conditions—of health and disease. And, lastly, they forget that the scientific treatment of disease can only be based on a scientific knowledge of the structure and functions of the healthy body, on a scientific knowledge of the causes and processes of diseases in it, and on a scientific study of the methods and means by which those morbid causes and processes can be prevented, counteracted, or destroyed; and that such a study is only now becoming possible.

I confess that to me it seems altogether Utopian and unreasonable to expect either that diseases shall ever be banished from the earth, or

that even diseases generally shall become curable by therapeutical or any other treatment. All living things are foredoomed to die; and the more complicated their structure, and the higher and more multifarious their function, the more liable are they to suffer from those changes of structure and derangements of function which constitute essential elements of disease. Moreover, the causes of disease abound, and form as much as we ourselves do an integral part of the economy of nature. Why should they cease to exist and act, and we survive? Again, assuming the persistence of diseases, what grounds of reason or experience have we to justify the belief that for every disease an antidote or cure will sooner or later be discovered? The history of medicine raises no such hope. There is nothing in the nature of diseases themselves to render such a consummation probable. The immortality of mortal life is neither conceivable nor to be desired. Still less is there any reasonable or sufficient basis for the assumption that diseases, differing absolutely from one another in their nature, and depending on causes which have no mutual connection, and act upon the system in various and independent ways, should all be amenable to treatment in accordance with one simple theory of therapeutics.

I am not presuming to question the benefits that medicine has conferred upon mankind; still less to deny the promise of greater things to come. I know that, in the past, many glimpses of therapeutical truth have from time to time been caught; and that veins of bright ore have here and there been discovered in the dreary waste of empiricism and charlatanism. I see that, at the present time, pathology and the investigation of the causes of disease are throwing fresh and unexpected light on the nature of diseases, and are leading us into new lines of successful practice, especially in relation to their prevention. And I cannot doubt that, as our knowledge of the processes and causes of disease extends, so will our power to prevent disease acquire a wider range, and attain more certainty of operation; and that here, more than in the direct treatment of disease, our future successes will be found. But neither can I doubt that the progress of this and cognate sciences, aided by well-devised experiments and careful observation of disease, will lead both to the discovery of new remedies and to the more successful use of those we already employ.

I shall not pursue the subject of the potentialities of medicine, fascinating though it be. It is in the vagaries, and not in the science, of medicine, that for this hour my interest centres. I am not going to investigate or explain, how it is that systems of medical treatment of disease have originated, have played their part in the drama of human life, have given place to others, and yet (though henceforth discredited in the eyes of man) have left behind them relics which are still embodied in the therapeutical practice and theories of the present day. It is easy, however, to understand how, on the one hand, the vague beliefs, speculations, and errors—the growth of ages—should have gradually acquired form, and blended into creeds; and how, on the other hand, ingenious and self-reliant minds, speculating on the mysteries of nature, should have gradually evolved out of their inner consciousness elaborate systems in explanation, with nothing but their ingenuity to commend them. Thus it was that, in accordance with the first alternative, the Doctrine of Signatures gradually arose; thus it was that, in accordance with the second, Galen elaborated his celebrated hypothesis respecting the virtues and operations of medicines. It seems marvellous that such fantastic fictions as these were should ever have developed in the minds of men, and for ages have been accepted as true, and adopted in practice, not only by the ignorant and thoughtless, but by physicians of conspicuous ability and eminence.

But, gentlemen, the age of credulity is not yet passed; and doubtless, as long as humanity strives to unravel the secrets of nature, and to explain her actions, there will be men, and men, too, of cultivated intellects, who, in the search after truth, will be led astray by Will's o' the wisp, and who will end by making idols of the vain figments of their minds, by falling down and worshipping the golden images they have themselves set up. Such a man, it seems to me, was Hahnemann, the [illegible] of homœopathy. [illegible], and of the sect he founded, that I propose to speak to-day.

Hahnemann became a medical man from choice, and pursued his studies in respectable schools and under fairly eminent teachers. He acquired some credit as a practitioner while yet young; though probably not more credit than many of his contemporaries, and many who have preceded and many who have followed him, have also obtained, whose names, nevertheless, have never emerged from obscurity. But he appears to have given his mind mainly to the study of chemistry, botany, and therapeutics; and certainly there is no evidence from his writings, or from any other source, that the study of disease itself had any interest for him. Though he had friends, he seems, like most physicians, to have failed in early life to make his profession lucrative; and either for this reason, or, as some assert, because he became dissatisfied with the methods and systems of treating disease then in vogue, he retired for a time from practice, gave himself up to his favourite studies, and to the translation of French and English works relating to them into his mother tongue. However this may be, many will sympathise with him now, as many doubtless would have sympathised with him then, in the dissatisfaction which, about this period, he undoubtedly felt with the chaotic state of therapeutical theory and practice at that time prevalent, and with the aspirations that sprang up within him to make order out of confusion, to discover some intelligible relation between therapeutic agents and morbid processes, to systematise the curative treatment of disease. And many even of those who dissent most widely from his conclusions will still, I think, admire the tenacity, the energy, and the sublime bigotry he displayed in the development of that system, of which he was at once the creator and the apostle.

His system took its origin in those scholastic views of the nature of disease, of the nature of remedies, and of the influence of remedies on disease, which more or less have influenced the theory and practice of medicine from the earliest ages down to the present day. Looking upon diseases, not as what they are, but as mere assemblages of symptoms; and upon remedies, not as what they are, but as agents specially given by Providence with the one hand to cure the evils which she had scattered broadcast with the other; and guided by a few superficial relationships, easily observed, between the effects of certain morbid conditions and the effects of certain drugs; it was not unnatural for observant and thoughtful men to speculate on the hidden laws which might be supposed to underlie such relationships, and to generalise. Thus, some perceiving that constipation of the bowels was overcome by purgatives, diarrhœa by astringents, and that hæmorrhages were arrested by styptics, thought that in such facts they recognised the general therapeutical law that all diseases should be treated by their opposites (*contraria contrariibus curentur*); some noticing that coma was relieved by purgatives (that is, that affections of the head were favourably influenced by remedies acting on the bowels); that affections of internal organs were benefited by counterirritants, and such like phenomena, originated the theory that disease was curable by remedies which were unlike in operation to themselves, the theory to which the term *allopathy* was given by Hahnemann; and, again, some observing that diarrhœa was often relieved by purgatives, that constipation was often best treated by remedies having a tendency to restrain the action of the bowels, that inflammation of the skin was frequently cured by the application of remedies which themselves tended to irritate the skin, were pioneers in the alleged discovery which Hahnemann proclaimed to the world in the legend *similia similibus curentur*, and under the name of *homœopathy*.

It is clear that, if one look only at some of the coarser phenomena of disease and effects of remedies, there is some warrant in fact for each of these three theories of treatment, but none for regarding one or other of them as of universal applicability. It is clear, too, that anyone arguing back from such facts as these to the hidden workings of diseases and remedies within the corporeal frame, and at the same time shutting his eyes to the phenomena of life as they exist actually, might bring himself to the belief that there were three modes, corresponding to those enumerated above, and three only, in which remedial agents could act upon the processes of disease: namely, one by acting in opposition to them (*antipathy*), one by acting in accordance with them (*homœopathy*), and one by acting heterogeneously to them (*allopathy*). But it is difficult to understand how anyone who has followed in any degree the advances, during the present century, of the natural sciences, and especially of those which relate to the structure and functions of the human body in health and disease, and to the etiology of disease, can see any plausibility in such speculations, any provisional hypothesis even, such as sometimes aids the advance of science—any meaning whatever in them.

How Hahnemann's [illegible] originated, and how they underwent gradual development, until they found exact expression in his *Organon*, the bible of homœopathy, I shall not attempt to discuss. The *Organon* itself, however, is a remarkable work, very interesting also, and very entertaining; for it not only comprises the quintessence of his labours, but reveals the character of the [illegible] wisdom and all his folly.

He [illegible] who are ill present. He says: "We may well conceive that every [illegible] can only be surmised obscurely and fallaciously from the symptoms;

it can never be recognised infallibly in its complete reality. The invisible changes wrought by the malady within the organism, and the changes perceptible to our senses (that is to say, the sum of the symptoms), together form a complete image of the malady; but that image is only visible in its entirety to the eye of the Creator. It is the totality of the symptoms which alone constitutes the part of it accessible to the doctor; but it is likewise in the totality of the symptoms that we find everything that it is needful to know in order to cure." To Hahnemann it is a matter of no moment whether ascites depends on cirrhosis of the liver, or tubercle of the peritoneum; whether an attack of constipation and colic arises from lead-poisoning or from a cancerous stricture; whether a paralytic seizure is the outcome of hysteria, or is due to some material lesion of the brain. In each case, to him, what is the condition of things within is an idle speculation: the symptoms of which the patient complains comprise all that the medical man need know; and to treat these according to the true laws of homœopathy is to cure the disease. But he goes further; for, not satisfied with stigmatising all pathological investigations as mere pedantry and foolishness, he actually objects to all attempts on the part of systematic writers and practical physicians to distinguish and classify diseases. Speaking of pathology in the past, he says: "It created arbitrarily the object of cure—namely, the malady. Men decided authoritatively what are the number of diseases, what their form, and what their genera. Good God," says he, "the infinity of diseases which nature excites in man, exposed as he is to so many different influences, under conditions never to be determined beforehand, and infinitely varied, is reduced to such an extent by pathology, that there remains only a handful of them, fashioned according to its whim." Elsewhere he observes: "We may also pass over in silence the fact that persons have tried to reduce the number of maladies—those infinitely varied deviations from the state of health—to a limited list of denominations, and to give them definite descriptions (which vary, nevertheless, according to different pathological views), in order to afford a ready indication of medical treatment for each form of illness that is artificially defined in therapeutics." And again he says, in reference to the causes of disease (which he regards as innumerable): "Thence come an infinite number of heterogeneous diseases, which are so different from one another that (to speak strictly) every case of illness appears only once, and (if we except the few diseases which originate in a miasm always of the same kind, or which arise from the same cause) every man who becomes affected suffers from a special malady, to which no specific name can be given, and which has never existed in the same manner as in the present case, in the particular individual and under existing circumstances, and will never be reproduced in eactly the same form."

From these quotations, we may fairly gather what his views of the nature of disease were. In the first place, he admitted that diseases originated in causes; but these causes were innumerable, and operated in innumerable combinations, and hence (excepting in the case of miasmatic affection, and some few specific fevers of which he could not deny the existence, and enumerated) were barren subjects of investigation, and as indications for treatment worthless, if not misleading. Indeed, in one place, speaking of intestinal worms (which we regard as causes of disease), he denies that they are causes of disease at all; and says that when they irritate, they irritate simply from the fact that they are themselves suffering, together with their host, from some malady under which their host labours; preferring (in accordance with his preconceived views) to imagine some hidden cause, rather than to acknowledge that as the cause, which offered itself in a visible and tangible form to his senses. For him, I should think, preventive medicine, which deals specially with the causes of disease, and has been successful only in proportion to its knowledge of them, would have been a delusion and a snare. In the second place, pathology, and more especially morbid anatomy, had no meaning for him. All the laborious investigations conducted in our deadhouses, which we fondly imagine to add to our knowledge of disease, and to which (in association with clinical study) we attribute most of the advances that have been made in medicine of late years—such as the differentiation of kidney-diseases, the recognition of suprarenal melasma, the discovery of the condition known as embolism, the exact recognition of the nature of tumours, the discoveries which have been made in regard to the diseases of the nervous system—would be looked upon by him with contempt. For what, in the third place, have such investigations and such knowledge to do with diseases as he understood them? His diseases, as I have shown, were, with a few exceptions, simply groups of symptoms—mosaics of which the component pieces admitted of endless rearrangement. Intermittent fever constituted one of the cases in which he recognised the operation of a definite cause; but, notwithstanding this, intermittent fevers were themselves innumerable, and each case that came before him was an independent disease.

I do not wish to misinterpret his views. He recognises, I admit, the existence of morbific causes; but he seems to liken them to the impulse which propels a ball, and to think that with their initial impulse all this specific influence ceases. Nor does he deny the existence of pathological changes in the interior of the body; but he says that we cannot detect them; that, as a matter of fact, they are correlated with the symptoms which patients present, and together with these are common manifestations of the same disease; and that in the symptoms alone we have a sufficient indication of the nature of the disease and of the treatment to be adopted for its cure.

Of course, in all this there is much that is true, and much that is specious. Were it not so, his theories would long ago have been abandoned; for it is the mixture of truth and verisimilitude with error that gives error currency. But how much of wild speculation, how much of absolute ignorance of the matters which he proposes to teach, how much obstinate shutting of his senses to the truths of nature!

Hahnemann's views of the nature of disease were doubtless subservient to his views of the curative operation of drugs. And it is on his therapeutical views, if on anything, that his reputation must depend. He says, in his introduction: "All human maladies have up to the present time been cured, not in accordance with reasonings founded on nature and experience, but in accordance with hypotheses arbitrarily devised, such as (amongst others) the law of palliatives, *contraria contrariis*. Yet it was from the opposite side that the true method of cure was arrived at. It is based on the following principle: to cure gently, promptly, certainly, and durably, we must select, in every case of sickness, a medicine which produces of itself a similar affection to that which it is intended to cure. No one up to the present time has taught this homœopathic method; no one has yet practised it". And he goes on to add that all the maladies that had heretofore been cured had been cured by homœopathic remedies. Let us see exactly what the nature of his teaching is. He seems to start from the fascinating belief that all symptoms of disease, and therefore from his point of view all disease, are curable. He seems also to have adopted the belief (already adverted to) that for all diseases nature has provided a cure. And he holds that the only proper and efficient cure for any assemblage of symptoms is a remedy which is capable itself of causing in a healthy person an identical assemblage of symptoms.

Stated generally, his views are as follows: the innumerable diseases which afflict mankind, and which arise out of natural causes, consist, for the purposes of the physician, of groups of symptoms; the innumerable remedial agents which exist in nature, locked up in the animal and vegetable kingdoms, and in the inorganic world, are themselves the causes of a parallel series of artificial diseases, which again, for the purpose of the therapeutist, consist of groups of symptoms; in order to cure any natural disease that may come before us, it is necessary to administer that particular remedial agent which is capable of producing identical symptoms with it, and of course this must be given in a suitable dose, for, if in too minute a dose, it leaves a residuum of the original disease uncured; if in too large a dose, it cures the disease, but induces after-effects of its own; and, further, inasmuch as we are not yet acquainted with the specific virtues of all remedies, and inasmuch, therefore, as for a large number of diseases the most suitable homœopathic remedy has not yet been discovered, we must in such a case select a remedy the effect of which approximates to the symptoms of the disease, by which means we shall cure a certain area, so to speak, of the primary disease, but we shall leave a new disease behind, compounded of the as yet uncured symptoms of the old disease, and the supernumerary symptoms due to the drug itself, which new disease must be treated *de novo* on homœopathic principles. How curious, how ingenious, how interesting the whole thing is! How excellent, if true! And has it not the simplicity of truth in it? The entire range of diseases, the entire range of therapeutics, converted into Chinese puzzles; the phenomena of diseases and the effect of drugs upon them treated as algebraical equations! It is impossible to conceive of any physician working daily by the bedside of patients, and in the deadhouse, and seeing diseases as they are, framing such a system, except as a joke. It could only have been, as in fact it was, the serious work of a visionary who had thrown off the trammels of fact, and, allowing his imagination to run riot, mistook its fantastic figments for a revelation from heaven.

That Hahnemann believed in himself and in the absolute truth of all that he taught, is beyond dispute. He was a prophet, not only to his followers, but in his own eyes. All other systems of therapeutics but his were folly, and all who pursued them were fools. That he had learning, and ability, and the power of reasoning, is abundantly clear. He saw through the prevalent therapeutical absurdities and impostures of the day; he laughed to scorn the complicated and loathsome nostrums which, even at that time, disgraced the pharmacopœias; and

he exposed with no little skill and success the emptiness and worthlessness of most of the therapeutical systems which then and theretofore had prevailed in the medical schools; and then he invented and proclaimed a system of his own at least as empty and as worthless as any that had gone before. In this, I suppose, there is nothing very strange; for it is only the broadest intellects (and his was an essentially narrow one) which are capable of treating the offspring of their own brains with the severe impartiality they manifest in other cases.

Under the circumstances, it will be interesting to consider, however briefly, the character of the therapeutical facts and arguments which he himself alleges in support of his doctrines, and the methods of investigation which he taught and practised.

In the first place, in order to prove the truth of his assertion, that all cures, which had heretofore been effected by drugs, were effected in virtue of their homœopathic action, he ransacks the writings of his predecessors; and, while omitting to quote (probably, in his opinion, as absolutely worthless) any of the multitude of recorded cases in which cures had been attributed to remedies which could in no sense be regarded as homœopathic, he quotes a number of at least equally worthless cases, in which he thinks he recognises the curative influence of unconsciously applied homœopathic treatment. The following are two of his quotations: "The English sweating disease, at its beginning more deadly than the plague itself, and which, according to Willis, destroyed 99 patients out of every hundred, could not be overcome until doctors had learnt to treat the sick with sudorific remedies; from that moment, as Sennert remarks, few persons died of it." Again: "Albers informs us that the high temperature of an acute fever, with 130 beats of the pulse in a minute, was much reduced by a hot bath of 100 degrees of Fahrenheit, and that the beats of the pulse consequently sank to 110." I have no doubt the quotations he gives here are essentially accurate. But, surely it is well known that all the older physicians claimed to have discovered, towards the close of any epidemic fever, no matter what its virulence, the true method of curing it, which discovery coincided in time with the natural disappearance of the disease. Many men have thought and declared that they had cured plague, and cholera, and typhus under similar circumstances by remedies, some of which may even have been homœopathic. Does any one believe that such asserted cures of these incurable diseases ever took place? Is there any sufficient reason to admit that the sweating disease was ever more amenable to treatment than these? or that it was, in fact, ever cured by sudorifics, or any other remedies? And, as regards the case of the reduction of temperature by the bath, Hahnemann fails entirely to see that the patient's temperature was much higher than that of the bath; that the bath was relatively cold to him; that it relieved him by reducing his temperature; and that the treatment was, not only not homœopathic, but essentially antipathic; that the case, if it proves anything, proves the efficiency of one of those very methods against which he pours out the vials of his wrath. These are simply samples. I could run through the whole series of them, and show that, while a large number of them are merely loose and untrustworthy statements of supposed facts, nearly all of them prove nothing whatever, to any unbiased mind, in reference to those homœopathic principles which they are assumed to support. Naturally, the recently introduced inoculation of cow-pox, as a preventive of variola, is adduced by him as a homœopathic remedy against the latter disease. He fails to observe that it is preventive alone; and that, so far from acting as a cure of small-pox, it aborts when applied to a variolous patient, while his disease runs its course wholly uninfluenced by it.

In the second place, as regards his own homœopathic observations; these, as given in his *Organon*, are not very numerous. For the most part, he there lays down the law oracularly, and quotes the more or less questionable and loose statements of other authors in support of his opinions. There are two or three observations, however, apparently his own, or at any rate confirmed by his own experience, which are really interesting. He speaks, as I have before pointed out, of intermittent fevers as being innumerable, and derides the blind pathology which makes of them one disease; and proceeds: "Pathology feigns this in order to give pleasure to her dear sister Therapeutics, who, excepting antimony and sal-ammoniac, has, as a rule, no other remedy against intermittent fevers than cinchona, with which she treats them according to a fixed method, as if they were all identical! It is true", he continues, "that these fevers can be suppressed by enormous doses of cinchona, that is to say, that their periodical recurrence is overcome by it; but those who are affected with intermittents for which this remedy is unsuitable are not cured by it, but remain continually ill, and worse than they were before. And this is what the vulgar art of medicine calls a cure!" He regards cinchona, and mentions it elsewhere, as a homœopathic remedy for ague attended with certain groups of systems. Homœopathic, forsooth! when the most striking therapeutical fact concerning quinine is that it lowers temperature; while the most striking clinical feature of ague is the extraordinary rise of temperature which attends its paroxysmal attacks. But fancy ague, which (Hahnemann nothwithstanding) is in all its forms identically the same disease, being homœopathic to quinine in one case, and allopathic or antipathic in another; being in one case curable by quinine administered in infinitesimal quantities, and in another aggravated by the same remedy in large doses. I do not know what the present views of homœopathic practitioners may be as to the relations of quinine and ague; but I appeal to everyone of experience besides as to whether ague ever succumbs to the use of infinitesimal doses of quinine; and whether, in the large majority of cases, it does not yield with no ill consequences (due to the drug) to quinine in large quantities? What is the experience of our Indian colleagues in this matter? Again, he speaks over and over again of itch, a disease with which he seems to have been familiar, and which he assumes to be an affection pervading the whole organism, but attended, as small-pox is, with a rash; and in reference to it, he insists upon the folly of endeavouring to cure the skin-disease by local applications, a procedure which, he says, has the effect of aggravating the constitutional disorder; and he teaches that the disease is only to be cured by the internal administration of sulphur in homœopathic doses. Now, it is pretty certain that Hahnemann did not very clearly distinguish itch from many other forms of cutaneous eruption; still, many of his cases of itch were true itch no doubt. But what can practical men think of the insight into diseases, of the power of observation, of that man who discovers that to destroy the local phenomena of itch is to aggravate the patient's illness; that itch itself is ever curable by any internal remedy whatever? No doubt he was not aware that itch is due to the burrowing of parasites in the skin; but if he had been, it would have made no difference to him; for he would have argued of them and of their relation to itch, as I have already shown that he argues of intestinal parasites and the symptoms of disease which are usually attributed to their presence.

But, in the third place, before medicines can be employed homœopathically, their collective effects must of course be ascertained and tabulated; and, before cases of disease can be treated homœopathically, their symptoms must also be accurately determined and tabulated; in order that the appropriate, or at any rate the most appropriate, remedy may be selected for each. We cannot, therefore, quarrel with Hahnemann for requiring that drugs shall be carefully tested or proved, and that cases shall be carefully and accurately recorded. But what does he mean by proving of medicines, and what by taking of cases? Most men accustomed to scientific investigations would say that, in order to determine the precise potential characteristics of any unknown agency, it should be interrogated, and cross-examined, and tested from all points of view; that, if a drug, its chemical properties should be determined, and its action on the living and on the dead, in health and in disease, should be exhaustively ascertained. That is not Hahnemann's notion at all. Drugs being, in his view, agencies which impart disease, must be tested only on the healthy body, in order to determine, in accordance with homœopathic requirements, what natural diseases their effects simulate. And the method of procedure is, that the experimenter, and those who act under his directions, shall take regulated doses of the drugs they wish to examine, and then note in each case accurately every phenomenon which developes itself during some period, determined more or less arbitrarily, after the reception of the drug. The system to the uneducated eye looks, perhaps, fair and reasonable. But we must admit the truth of the homœopathic view of the relations between medicines and diseases, before we can admit the special value of investigations conducted only on the healthy body; and, as regards the method of investigation which he teaches, can anything be better calculated to promote self-deception? Think of the innumerable phenomena which a hypochondriacal old man, a youthful enthusiast in experimental research, or a credulous believer, would find under such circumstances arising from inconceivable doses of the most inert substances—the itching at this point, the aching at that, the variations in the pulse, the watering of the eyes, the noises in the ears, the muscular startings, the eructations, the rumblings in the bowels, and many other matters of the same kind. What pictures of the mimicry of disease might be thus produced and varied, *ad infinitum*; of what innumerable pictures of the kind (comprising here and there doubtless accurate and valuable observations) is the homœopathic literature on the provings of drugs made up! The recording of cases, according to Hahnemann's directions, is of a piece with the proving of medicines. He tells you to listen carefully to the account the patient gives of himself, to hear all that the friends and others about the patient say concerning him, and to note down everything accurately, and in tabular form. You are not to interrupt. And then, when the recitals have been completed, you are [illegible]

racter of which he carefully specifies. But you are never to suggest anything to the patient; and you are never, so far as I can make out, to cross-examine him. Imagine the picture of her condition that a Mrs. Nickleby would give under such conditions. Imagine the innumerable histories of diseases you would get, in which everything accessory and unimportant would be recorded, and everything really distinctive and important for diagnosis and treatment, as we understand them, omitted. I am not prepared to say the method is a wrong one from the homœopathic point of view, in which diseases as objects of medical treatment are regarded only as an assemblage of symptoms, and in which the interconnection of symptoms is comparatively unimportant. But what a caricature of scientific case-taking it reveals to us! What an unpractical condition of mind it manifests in him who elaborated it! What light it throws on his curious incapacity for exact scientific observation! How like his method is to that of an industrious newly appointed clinical clerk! How utterly opposed to the precedure of the experienced scientific physician!

Perhaps the most astonishing feature of homœopathy, as Hahnemann bequeathed it to us, is his hypothesis of infinitesimal doses. He discovered, from the results of his experiments and practice, that, when once the true homœopathic remedy for any disease, or rather collection of symptoms, had been ascertained, it was needful, in order at the same time to secure the full effect of the drug and to obviate any ill effects it might have of its own, to reduce the dose of it to an inconceivable minuteness. The millionth, the billionth, the trillionth of a grain were gigantic quantities compared with some of those which finally he found it best to administer. It has been calculated that a drop from the lake of Geneva, through the waters of which a single grain of medicine had been diffused, would contain one of his ordinary doses; and that a drop from a mass of water similarly treated large enough to float the whole solar system, would contain as large a dose as is furnished by some of his extreme attenuations! When we laugh at these infinitesimal doses, the retort is often made that we ourselves use small doses; and calculations are flung at us, showing how excessively minute must be the amount of any potent drug administered by the stomach which reaches the organ wherein it induces specific effects, and how absolutely inappreciable must be the bulk of odorous particles which not only affect the sense of smell, but even provoke coryza, sickness, and faintness. Wherein, then, is the absurdity of the Hahnemannic dosage? But this is not a retort that Hahnemann would have made; and, indeed, it is one that could only rise to the lips of degenerate followers of his. It is not the amount of any drug which reaches any one part of the organism which is in question, but the amount of it which has to be administered for a dose. And it cannot be denied that the smallest doses employed by us, even such as Dr. Ringer recommends, are gross indeed compared with those of Hahnemann. Where we give a drop or the hundredth part of a grain, he would have given the millionth or the billionth part of that quantity at the very most, and probably millions of billions less than that. Moreover, the principles underlying the two cases are wholly dissimilar.

The belief in the efficacy of infinitesimal doses involved no violation of his theory. It was, indeed, I think, the natural outcome of it. The mystical powers, which for him resided in drugs, bore no quantitative relation to the ponderable elements with which they were associated. They were contained in them much as the genie in the fisherman's story in the *Arabian Nights* was contained in the copper pot, which was fished up from the bottom of the sea. It was easy then, if not inevitable, for him to imagine that the power of drugs became more and more developed, in proportion as the grosser matters which environed them were removed. It is easy too, from another point of view, for a vaguely mathematical mind like his (which had already dealt with diseases as if they were algebraical equations) to conceive that, just as mathematics becomes a more and more potent instrument, according as the encumbrances of arithmetical and ordinary algebraical processes are thrown aside, and one comes to deal, as in the differential calculus, with the mere ratios which survive in quantities which have been reduced to zero, so medicine would become a more and more potent art, according as the coarser factors of drugs and of diseases are eliminated from consideration, and we have only to do with the relations or ratios (if I may so express it) between drugs attenuated to nothing, and diseases reduced to mere groups of intangible subjective phenomena! One may, I think, follow Hahnemann's lines of thought; one may trace, I think, without much difficulty, the steps by which his system acquired its full development, and culminated at length in the doctrine of infinitesimal doses. The author of homœopathy himself carried homœopathy to its logical consequences: and was there ever a more amazing *reductio ad absurdum?*

I intended, gentlemen, when I first thought of preparing this address, to divert no inconsiderable portion of it to the consideration of some of the modern developments of homœopathy. But the time at my disposal is insufficient for that purpose; and I shall content myself with only one or two remarks upon the subject. It is only natural that, amongst the many followers of Hahnemann, some, though believing in the essential truth and value of his teachings, should have ventured, within certain limits, to think for themselves; and that hence subsects, or a tendency to the formation of subsects, should have arisen. It is hardly possible, for example, that all homœopaths, who have received a medical education, should accept Hahnemann's views of the nature of diseases; and many at the present day do, I believe, acquiesce in the teachings of modern pathology. It is hardly possible, again, that every homœopath should believe fully in the efficacy of the infinitely little doses which Hahnemann contended were the most efficacious, or should believe in the potential effects of the shakings of his preparations, to which, in fact, he largely attributed the development of curative energy in them; hence the dosage with some is much larger than Hahnemann would have sanctioned. Nor again, was it to be expected that every thinking man would admit that remedies cured diseases because they produced identical effects with them (and, indeed, unless one assumes that remedies act like Pharaoh's lean kine, and then die of a surfeit, it is difficult, to say the least, to imagine Hahnemann's process of cure in progress)? and hence has arisen an hypothesis with respect to the influence of minute doses in the cure of diseases, which is fully as ingenious as Hahnemann's own, and is probably just as true, but which has the theoretical disadvantage for homœopaths of converting homœopathy into antipathy! It is to the effect that all medicines have opposite effects, according as they are given in large or in small doses, and that when, as the consequence of proving on the healthy person, a drug is found to excite the symptoms of a disease, it cures that disease by its opposition to it when given in small doses. I shall not stop to consider the propriety or plausibility of these and other like innovations in orthodox homœopathy; and I leave those who advocate them to reconcile them as best they may with the teachings of their founder; neither shall I quarrel with the homœopaths who choose to maintain that these only represent successive stages in the progressive development of homœopathy. To me, I confess, they seem in direct contravention of homœopathic principles, and fraught with ultimate disaster to the homœopathic cause.

It is perhaps the most difficult thing in the whole practice of medicine to determine, in disease, whether the drugs which we are giving are directly influencing it for good. This difficulty is specially great when, as sometimes happens even to ourselves, we are, from ignorance of the essential nature of the disease we are treating, or from failure to form an accurate diagnosis, compelled to treat, as Hahnemann only treated, groups of symptoms. It is here that even the most accurate observers constantly deceive themselves. It was mainly by treating diseases simply as groups of symptoms, that Hahnemann deceived himself from first to last. And it is mainly thus that homœopathic practitioners continue to deceive themselves down to the present time. When they can show that, by remedies acting homœopathically, they can cure habitually definite diseases, which by other means we cure uncertainly, or fail to cure altogether; or can cut short, or render less fatal than they are, the fevers that tend to run a definite course, it will be time for us to make homœopathy a serious study. For tetanus, for epilepsy, for hydrophobia, typical homœopathic remedies exist. Was ever tetanus, epilepsy, or hydrophobia, cured by homœopathy? They profess to ward off and to cure scarlet fever, by what they hold to be its homœopathic antagonist, belladonna. Is scarlet fever less frequent or less fatal in the families of homœopathists then amongst the general population? What evidence is there, which we can accept, that any internal inflammation, any internal growth, any specific fever, has ever been cured, or even ameliorated by homœopathic remedies? Of course affirmative assertions will be made, of course statistical evidence will be forthcoming. But mere assertions, and statistics, which are simply tabulated assertions, are not evidence which a man possessing scientific caution would accept in such a case. Nevertheless, did homœopathy possess one tithe of the curative power which Hahnemann claimed for it, it must long before now have commanded the homage of even its most inveterate enemies. For it must be recollected that the claims of homœopathy are not to equality of results with those of orthodox medicine, but that they are to alleviate and cure diseases over which we have little or no control, to relieve where we hurt, to save life where we kill!

So far, gentlemen, I have discoursed only on homœopathy as a science and an art. I wish to add a few words on homœopathists as men, and as members of our common profession.

That a very strong feeling of hostility should have arisen early between orthodox practitioners and homœopathists, is not to be wondered at,

when we consider, on the one hand, the arrogance and intolerance which Hahnemann displayed, at any rate in his writings, and on the other hand the contempt which experienced physicians felt and freely expressed for him and his whimsical doctrines. Nor is it to be wondered at, that this variance should still be maintained; for homœopathy is still a protest against the best traditions of orthodox clinical medicine; and there is a natural tendency among us still to look upon homœopathic practitioners as knaves or fools. But surely this view is a wholly untenable one.

That all homœopathists are honest men, is more than I would venture to assert; but that in large proportion they are honest, is entirely beyond dispute. It is quite impossible that a large sect should have arisen, homœopathic schools and hospitals have been established, periodicals devoted to homœopathic medicine be maintained, and a whole literature in relation to it have been created, if it were all merely to support a conscious imposture. No, gentlemen; the whole history of the movement and its present position are amply sufficient to prove that those, at any rate, who take the intellectual lead in it are men who believe in the doctrines they profess, and in their mission; and who practise their profession with as much honesty of purpose, and with as much confidence in their power to benefit their patients, as we do. That all homœopathic practitioners are men of ability and education, it would be absurd to maintain: but it is absolutely certain that many men of ability and learning are contained within their ranks. If you care to dive into homœopathic literature, you will find in it (however much you may differ from the views therein inculcated) plenty of literary ability; and I have perused many papers by homœopaths on philosophical and other subjects unconnected with homœopathy, which prove their authors to be men of thought and culture, and from which I have derived pleasure and profit. Again, I will not pretend that even a considerable proportion of homœopaths are deeply versed in the medical sciences; yet they have all been educated in orthodox schools of medicine, and have passed the examinations of recognised licensing boards; so that it must be allowed that they have acquired sufficient knowledge to qualify themselves for practice. And some among them possess high medical attainments.

But it may be replied, If these men are honest and educated, and at the same time duly qualified practitioners in medicine, how can they believe, and how can they practise, such a palpable imposture as homœopathy? Well, gentlemen, it is very difficult to account for the beliefs and vagaries of the human intellect. It is only occasionally that our convictions are the result of conscious reasoning. For the most part they arise in the mind, and take possession of it, we know not how or why; and our reasonings in regard to them (if we reason at all) are merely special pleadings prompted by the very convictions they seem to us to determine—in other words, they are not the foundations of our beliefs at all, but exhalations from them. It is not surprising, therefore, that, even on matters of supreme importance, irreconcilable differences of opinion prevail, aye, amongst men of high integrity and cultivated intellect. And if we desire to live broad and unselfish lives, we must be slow to condemn all those who entertain convictions which to us seem foolish or mischievous and logically untenable, or to refuse to co-operate with them.

There are few, even of the best among us, who have not weak points in intellect or character. And it would be deplorable, indeed, if, for example, those of us who look on spiritualism as one of the grossest follies of the times in which we live, were to scout the distinguished chemists and the great writers who devoutly believe in it; or were to refuse to do homage to the conspicuous abilities and high character of a great judge, because, throwing off the judicial impartiality which befits a judge, and acting under the influence of prejudice, emotion, and ignorance, he has made himself the leader of all the hysterical sentimentalism of the day in a crusade against experimental physiology in this land of Harvey and of Hunter! The remarks just made apply especially to beliefs in relation to those matters which are incapable of exact scientific proof, and in which the feelings are largely involved—pre-eminently, therefore, to religion, to politics, and to medicine.

I ask you, gentlemen, to forbear with me, if I push my arguments to their logical conclusion, and venture now to express an opinion which is opposed to the opinion which many, perhaps most, of you entertain. I do not ask you to agree with it; still less do I ask you to adopt it. But I ask you to consider it; and I am content to believe that, if it be just, it will ultimately prevail. It is that, where homœopathists are honest, and well-informed, and legally qualified practitioners of medicine, they should be dealt with as if they were honest and well-informed and qualified. I shall not discuss the question whether we can, with propriety or with benefit to our patients, meet homœopaths in consultation. I could, however, I think, adduce strong reasons in favour of the morality of acting thus, and for the belief that good to the patient would generally ensue under such circumstances. I shall not consider at length whether the dignity of the profession would be compromised by [illegible] more conducive to the maintenance of true dignity to treat with respect and consideration, and as if they were honest, those whose opinions differ from ours, than to make broad our phylacteries and enlarge the borders of our garments, and wrap ourselves up, in regard to them, in Pharisaic pride. I appeal, gentlemen, in support of my contention to other considerations. It has been held, that to break down the barriers that at present separate us from homœopathists would be to allow the poison of quackery to leaven the mass of orthodox medicine. But who that has any trust in his profession, any scientific instinct, any faith in the ultimate triumph of truth, can entertain any such fear? All the best physicians of old times, all the greatest names in medicine of the present day, are with us, all science is on our side; and we know that as a body we are honest seekers after truth. What have we to fear from homœopathy? Bigots are made martyrs by persecution; false sects acquire form and momentum and importance mainly through the opposition they provoke. When persecution ceases, would-be martyrs sink into insignificance; in the absence of the stimulus of active opposition, sects tend to undergo disintegration and to disappear. The rise and spread of homœopathy have been largely due to the strong antagonism it has evoked from the schools of orthodox medicine, and to the isolation which has thus been imposed on its disciples. If false, as we believe it to be, its doom will be sealed, when active antagonism and enforced isolation no longer raise it into fictitious importance. At any rate, breadth of view, and liberality of conduct, are the fitting characteristics of men of science.

On [illegible] Kabierske, assistant-surgeon to the obstetric clinic in Strassburg, defends in the most determined manner (*Centralblatt für Gynækologie*, 1881), a purely expectant treatment of the after-birth. Not even friction of the uterus, or a mere application of the hand, is, according to him, permitted by him, unless other and dangerous symptoms, hæmorrhage, etc., should necessitate assistance. It might requite a waiting for hours and even days, until the placenta is freed by the natural process, or, if it be already freed and lying in the vagina, until it be expelled. According to him, the placenta lying in the vagina, putrefying, and spreading an offensive smell, is by itself no sufficient indication for operative action, since all this is entirely without danger. Fear of hæmorrhage, he declares, has as little foundation as that of puerperal fever, the occurrence of which is not due to the placenta remaining in the generative parts, and putrefying, but to the fingers of the examiner not being thoroughly disinfected. The principal danger produced by any active assistance lies in the membrana ovi not being completely loosened and removed; while an entire and absolute abstentive action ensures an extremely favourable course of the lying-in. Credé's manœuvre he declares to be particularly dangerous, because the loosening and expulsion of the after-birth are physiological processes which must be left to nature. Against this view of the matter, Weiss, assistant to the obstetric clinic in Copenhagen, has directed a polemical essay, proving by statistics gathered by the observation of births at his clinic from 1873 until 1881, that many dangers are avoided by a timely and gentle assistance rendered in a proper manner, while no new dangers are called forth by it. Up to September 1st, 1877, the expectant method was carried on in the Copenhagen clinic, but was abandoned on account of frequent hæmorrhages occurring during the period of after-birth, and the method of expression was introduced, which brought about the most favourable results. Hæmorrhages during the period of after-birth were reduced from 5.78 per cent. to 2.30 per cent.; the percentage of the cases in which manual loosening of the placenta became necessary fell from 1.36 to 0.64; hæmorrhages during the childbed were reduced from 0.77 to 0.32 per cent., although the necessity for tearing off remnants of membranes and placenta became more frequent, so that the percentage rose from 1.78 to 2.30. In spite of this, the after-hæmorrhages in childbed became less frequent; and only in one case retention of a placentar cotyledon was proved to be the cause of a hæmorrhage. Yet grave puerperal cases have since become exceptional in the clinic. We believe Weiss's statistics to be of greater weight than Kabierske's doctrine of the harmlessness of a placenta putrefying in the uterus. Certainly the expulsion of the after-birth is a physiological process, as well as the expulsion of the child. But when this expulsion does not take place in the [illegible] explained by weakness of labour in the period [illegible] there be a deficiency of [illegible] why such a condition should be regarded as physiological: the labour pains being universally considered pathological.

INTERNATIONAL MEDICAL CONGRESS.

SEVENTH SESSION: LONDON, AUGUST 1881.

AN ADDRESS ON OUR MEDICAL LITERATURE.

By JOHN S. BILLINGS, M.D.,
Surgeon United States Army.

When I was surprised by the honour of an invitation to address this Congress, my first thought was that it must be declined, for the simple, but sufficient, reason that I had nothing to say that would be worth occupying the time of such an assemblage, as it was evident this would be. But while thinking over the matter, and looking absent-mindedly at a shelf of catalogues and a pile of new books and journals awaiting examination, it occurred to me that, perhaps, some facts connected with our medical literature, past and present, from the point of view of the reader, librarian, and bibliographer, rather than from that of the writer or practitioner, might be of sufficient interest to you to warrant an attempt to present them; and—the wish being probably father to the thought—I decided to make the trial.

When I say "our medical literature", it is not with reference to that of any particular country or nation, but to that which is the common property of the educated physicians of the world as represented here to-day—the literature which forms the intranational and international bond of the medical profession of all civilised countries; and by virtue of which we, who have come hither from the far west and the farther east, do not now meet, for the first time, as strangers, but as friends, having common interests, and, though of many nations, a common language, and whose thoughts are perhaps better known to each other than to some of our nearest neighbours.

It is usual to estimate that about one-thirtieth part of the whole mass of the world's literature belongs to medicine and its allied sciences. This corresponds very well to the results obtained from an examination of bibliographies, and catalogues of the principal medical libraries. It appears from this that our medical literature now forms a little over 120,000 volumes properly so called, and about twice that number of pamphlets, and that this accumulation is now increasing at the rate of about 1,500 volumes and 2,500 pamphlets yearly.

Let us consider the character of this annual growth somewhat in detail, first giving some figures as the number of those who are producing it.

There are at the present time scattered over the earth about 180,000 medical men, who, by a liberal construction of the phrase, may be said to be educated; that is, who have some kind of a diploma, and for whose edification this current medical literature is produced. Of this number about 11,600 are producers of, or contributors to, this literature, being divided as follows:—United States, 2,800; France and her Colonies, 2,600; the German Empire and Austro-Hungary, 2,300; Great Britain and her Colonies, 2,000; Italy, 600; Spain, 300; all others, 1,000. These figures should be considered in connection with the number of physicians in each country; but this I can only give approximately as follows:—United States, 65,000; Great Britain and her Colonies, 35,000; Germany and Austro-Hungary, 32,000; France and her Colonies, 26,000; Italy, 10,000; Spain, 5,000; all others, 17,000.

It will be seen from these figures, that the number of physicians who are writers is proportionately greatest in France and least in the United States. As regards France, this is largely due to the requirement of a printed thesis for graduation, which of itself adds between six and seven hundred annually to the number of writers.

Excluding popular medicine, pathies, pharmacy, and dentistry, all of which were included in the figures for the annual product just given, we find that the contributions to medicine, properly so called, form a little over 1,000 volumes and 1,600 pamphlets yearly.

For 1879, Rupprecht's *Bibliotheca* gives as the total number of new medical books, excluding pamphlets, periodicals, and transactions, 419, divided as follows, viz.:—France, 187; Germany, 110; England, 43; Italy, 32; United States, 21; all others, 26. These figures are, however, too small, and especially so as regards Great Britain and the United States. The *Index Medicus* for the same year shows by analysis that the total number of medical books and pamphlets, excluding periodicals and transactions, was 1,643; divided as follows:—France, 541; Germany, 364; United States, 310; Great Britain, 182; all others, 246. This does not include the inaugural theses, of which 693 were published in France alone.

The special characteristics of the literature of the present day are largely due to journals and transactions, and this is particularly true in medicine. Our periodicals contain the most recent observations, the most original matter, and are the truest representations of the living thought of the day and of the tastes and wants of the great mass of the medical profession, a large part of whom, in fact, read very little else. They form about one-half of the current medical literature, and in the year 1879 amounted to 655 volumes, of which the United States produced 156; Germany, 129; France, 122; Great Britain, 54; Italy, 65; and Spain, 24. This is exclusive of journals of pharmacy, dentistry, &c., and of journals devoted to medical sets and isms. These are given in an appended table, from which it appears that the total number of volumes of medical journals and transactions of all kinds was, for the year 1879, 850; and for 1880, 864 (Table I). The figures for 1880 are too small, but the real increase is slight. During the year 1879 the total number of original articles in medical journals and transactions which were thought worth noting for the *Index Medicus* was a little over 20,000. Of these there appeared in American periodicals 4,781; in French, 4,608; in German, 4,027; in English, 3,592; in Italian, 1,210; in Spanish 703; in all others 1,248. The figures for 1880 are about the same (Table II). It will be seen that at present more of this class of literature appears in the English language than in any other, and that the number of journal contributions is greatest in the United States. The actual bulk of periodical literature is, however, greatest in Germany, owing to the greater average length of the articles. With regard to the mode of publication, I will only say that in all countries, except Spain, the greater number of medical periodicals are monthly, while in Spain they are semi-monthly. It is this periodical literature which, more than anything else, makes medicine cosmopolitan; and although, as regards new discoveries or methods of treatment, it is still somewhat farther from London or Berlin or Paris to New York, than it is from New York to either of these places, the discrepancy is gradually becoming less.

Many of the medical journals are very short lived, but the total number is increasing. In 1879, 23 such journals ceased, but 60 new ones appeared; and in 1880, there were 24 deaths and 78 births in this department of literature. Over one-third of this fluctuation occurs in the United States alone, France being next in the scale, Spain third, and Italy fourth, while Great Britain is the most stable of all.

This merely quantitative classification gives of course no idea as to the character, and very little as to the value of the product. Let us now consider it by subjects. During 1879 there were published 167 books and pamphlets, and 1,543 articles relating to anatomy, physiology, and pathology—that is, to the biological or scientific side of medicine. Dividing this again by nations, we find that Germany produced a majority of the whole, France being second. The proportionate production by nations of this class of literature is perhaps better shown by an analysis of the bibliography of physiological literature for the year 1879, as published by the *Journal of Physiology*. This shows 59 treatises and 500 articles in German, 17 treatises and 227 articles in French, 5 treatises and 77 articles from Great Britain, 8 treatises and 41 articles from Italy, and 2 treatises and 24 articles from the United States. The number of authors for this product was, German, 393; French, 119; English, 59; Italian, 39; United States, 19; all others, 41. For the year 1880 the same journal reports 62 treatises and 452 articles from Germany, 23 treatises and 216 articles from France, 12 treatises and 76 articles from Great Britain, 4 treatises and 51 articles from Italy, 6 treatises and 25 articles from the United States, and 10 treatises and 31 articles from all other countries.*

When we turn to the literature of the art, or practical side of the profession, the figures are decidedly different. We find over 1200 treatises and 18,000 journal articles which come under this head, and the order of precedence of countries as to quantity is: France, United States, Germany, Great Britain, Italy and Spain. The appended tables give still further subdivisions, showing by nations the number of works and journal articles upon the practice of medicine, surgery, ob-

* The difference between these figures and those of the *Index Medicus* is due, on the one hand, to the fact that the *Journal of Physiology* includes articles which are placed under other headings in the *Index Medicus*, and, on the other hand, to the fact that the *Journal* has a different standard of excellence from that of the *Index*, rejecting many articles which the latter must accept as original

TABLE I.—*Number of Volumes of Medical Journals and Transactions published in the years* 1879 *and* 1880.

Subjects.	Journals and Transactions.	United States.		Great Britain and Colonies.		France and Colonies.		Germany.		Spain.		Italy.		Total.	
		1879	1880	1879	1880	1879	1880	1879	1880	1879	1880	1879	1880	1879	1880
General and Miscellaneous, Practical Medicine, etc.	Journals	75	6	2[illegible]	[illegible]	[illegible]	[illegible]	42	43	22	26	42	[illegible]	[illegible]	365
	Transactions	56	54	11	12	30	[illegible]	1	1	1	1	9	[illegible]	[illegible]	[illegible]
Anatomy, Physiology, Morphology, Biology	Journals	..	.	4	4	5	5	17	17	.		1			[illegible]
	Transactions	1	1	..		4	.							..	.
Diseases of the Nervous System, and Insanity	Journals	5	5	4	4	2	3	5	5				4		21
	Transactions	.		.	.	1		..							..
Surgery	Journals	..	1	..		..		3	3	..			..		4
	Transactions					1	1	1	1					.	.
Ophthalmology	Journals	1	1	1		4	4	5	5	3	3	3			[illegible]
	Transactions		..	..	.		.	1	1		.	1		..	1
Skin Diseases	Journals	1	1	1	1	1	1	1	1			1	.	.	[illegible]
	Transactions	1	1	.	.	.	..	..							1
Otology	Journals	2	2	.	.	1	1	3	3		.		.		6
	Transactions	1	..	.	.	.	..	..							1
Gynæcology and Obstetrics	Journals	2	2	1	1										[illegible]
	Transactions	.	1	.	1		.								.
Hygiene and Medical Jurisprudence	Journals	6	6	.	.	5	5	1	1	1	1	1	4		4
	Transactions	3	3	2	4	3	2	4	3						13
Pharmacy and Medical Chemistry	Journals	7	.	7	7	5	5	1	1	.	5	7		9	[illegible]
	Transactions	4	.		..	3	1	1							4
Dentistry	Journals	6	1		.	2	2	2	3			.			[illegible]
	Transactions	.		..		.	.	..			..				..
Homœopathy	Journals	1	1	4	4	3	3	7	7	1	1	3			36
	Transactions	3	3	..	..	2	1	..							4
Eclectic, Botanic, Physio-Medical, etc.	Journals	11	1		..										1
	Transactions	2	.	.	..	..		..				.			2
Popular Advertising Mineral Waters, etc.	Journals	8	1	4	4	1	8	5	5	2	.	.		2	35
	Transactions			..		1	1	..	..				.		1
Veterinary	Journals	1	3	3	3	4	4	11	1			4		4	4
	Transactions		.	.	.		..								..
Laryngology	Journals	.	1	.			1								1
	Transactions		1		..	.	..	.	.						1
Totals	Journals	1[illegible]	1[illegible]	57	[illegible]	1[illegible]	11	1[illegible]	1[illegible]	[illegible]	4[illegible]	[illegible]	[illegible]	97	[illegible]
	Transactions	74	[illegible]	1[illegible]	17	4[illegible]	[illegible]	[illegible]	[illegible]	1	1	[illegible]	[illegible]	23	[illegible]

TABLE II.—*The Medical Literature of* 1879 *and* 1880.

Subjects.	Number of	United States.		England.		France.		Germany.		Italy.		Spain.		Others.		Total.	
		1879	1880	1879	1880	1879	1880	1879	1880	1879	1880	1879	1880	1879	1880	1879	1880
Anatomy and Physiology	Books	7	14	[illegible]	[illegible]	2	[illegible]	54	[illegible]	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Theses	.				[illegible]		4									
	Journal Articles	[illegible]	177	[illegible]	[illegible]	385	[illegible]	4	420	[illegible]	[illegible]	[illegible]	[illegible]	74	[illegible]	[illegible]	[illegible]
Pathology	Books	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	9
	Journal Articles	[illegible]	[illegible]	[illegible]	[illegible]	36	[illegible]	35	56	13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Practice of Medicine	Books	[illegible]	7	30	[illegible]	[illegible]	104	[illegible]	[illegible]	7	[illegible]	9	[illegible]	[illegible]	[illegible]	[illegible]	264
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	248	216	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	257	[illegible]
	Journal Articles	[illegible]	[illegible]	1085	[illegible]	1340	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5799	[illegible]
Diseases of Nervous System	Books	[illegible]	32	[illegible]	30	53	48	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]	7	135	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	4	[illegible]	[illegible]
	Journal Articles	4	44	342	[illegible]	[illegible]	355	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43	99	[illegible]	1761	[illegible]
Surgery	Books	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]	[illegible]	135	150
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5	[illegible]	105	101
	Journal Articles	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	597	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ophthalmology	Books	[illegible]	[illegible]	7	7	[illegible]	[illegible]	20	17	[illegible]	[illegible]	5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	32	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44	34
	Journal Articles	[illegible]	[illegible]	[illegible]	[illegible]	310	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Otology	Books	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	7	9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Journal Articles	[illegible]	185	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	313	[illegible]
Skin Diseases	Books	[illegible]	[illegible]	9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Journal Articles	[illegible]	[illegible]	115	[illegible]	62	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	441	[illegible]
Venereal	Books	[illegible]	[illegible]	4	4	19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	35	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	..	[illegible]	1[illegible]	[illegible]
	Journal Articles	[illegible]	[illegible]	4[illegible]	39	[illegible]	[illegible]	94	[illegible]	4[illegible]	[illegible]	17	[illegible]	[illegible]	[illegible]	389	[illegible]
Gynæcology	Books	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	13	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	47	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44	[illegible]
Obstetrics	Journal Articles	[illegible]	[illegible]	[illegible]	[illegible]	2[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]
	Books	6	[illegible]	6	[illegible]	[illegible]	16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	33	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	43
Hygiene	Journal Articles	[illegible]	[illegible]	[illegible]	195	[illegible]	[illegible]	[illegible]	142	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Books	[illegible]	[illegible]	[illegible]	48	39	80	29	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17	4	178	247
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Jurisprudence	Journal Articles	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Books	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]	[illegible]	15	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	8	[illegible]	[illegible]	2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
General and Medical	Journal Articles	[illegible]	[illegible]	41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45	18	[illegible]	[illegible]	40	[illegible]	[illegible]
	Books	[illegible]	[illegible]	4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Journal Articles	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	[illegible]	41	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total	Books	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	Theses	[illegible]	[illegible]	[illegible]	[illegible]	677	[illegible]	43	36	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4	[illegible]	4
	Journal Articles	[illegible]	[illegible]	[illegible]	11	4[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1[illegible]	4	7[illegible]	[illegible]	[illegible]	[illegible]

stetrics, hygiene, etc., for the years 1879 and 1880, and some of the figures will be found interesting. A marked increase has occurred in the literature of hygiene during the last two years, and this especially in England, France, Germany and the United States. The literature of diseases of the nervous system, of ophthalmology, otology, dermatology, and gynæcology also increasing more rapidly than that of the more general branches.

It would of course be extremely unscientific to use these figures as if they represented positively ascertained and comparable facts, the accuracy of which, as well as of the classification, could be verified. They represent merely the opinions of an individual—first as to whether each treatise or pamphlet included in these statistics was worth noting, and second, as to how it should be classed. Had everything been indexed the figures, for journal articles at least, might have been nearly doubled; while, if the selection had been made by a more severe critic, they might have been reduced one-half.

If I had to do the work again, I should not obtain the same results. The prevailing error is that, as regards journal articles, the figures are too large, for some of those included are of so little value or interest that they are, I fear, never read by more than two persons.

Be that as it may, I think we can take them as indicating certain differences in the direction of work of the medical authors of the great civilised nations of the earth; but they must be considered as approximations only; and the statistical axiom must be remembered, that the results obtained from a large number of facts are applicable to an aggregate of similar facts but not to single cases. There will be a certain number of medical books and papers printed next year, just as there will be a certain number of children born; and as we can within certain limits predict the number of these births and the proportion of the sexes, or even of monsters, so we can within certain limits predict the amount and character of the literature that is yet to come, the ideas that are yet unborn. The differences are due to race, political organisation, and density of population. As Dr. Chadwick has pointed out, in speaking of the statistics of obstetric literature, one of the chief causes of the multiplication of medical societies is geographical. "In England, it is possible for those who are specially interested in gynæcology and obstetrics to attend the meetings of the Obstetrical Society of London, whereas in America the distances are so great that this is impossible." Speaking broadly, we may say that at present Germany leads in scientific medicine both in quantity and in quality of product, and that the rising generation of physicians are learning German physiology. But the seed has gone abroad, and scientific work is receiving more and more appreciation everywhere.

Seven years ago, Professor Huxley declared that, if a student in his own branch showed power and originality, he dared not advise him to adopt a scientific career, for he could not give him the assurance that any amount of proficiency in the biological sciences would be convertible into the most modest bread and cheese. To-day I think he might be bolder, for such a fear would hardly be justifiable—at all events, in America—where such a man as is referred to could almost certainly find a place, bearing in mind the professor's remark that it is no impediment to an original investigator to have to devote a moderate portion of his time to giving instruction either in the laboratory or in the lecture-room.

Within the last ten years the literature of France, Germany, Great Britain, and the United States has contained much with regard to medical education and the means for its improvement. In all these countries there is more or less dissatisfaction with the existing condition of things, although there is no general agreement as to the remedy. Solomon's question, "Wherefore is there a price in the hands of a fool to get wisdom, seeing he hath no heart to it?" is now easily answered, for even a fool knows that he must have the semblance of wisdom, and a diploma to imply it, if he is to succeed in the practice of medicine; but to ensure the value of a diploma as a proof of education is the difficulty.

This evidence of discontent and tendency to change is a good sign. In these matters stillness means sleep or death; and the fact that a stream is continually changing its bed shows that its course lies through fertile alluvium, and not through sterile lava or granite.

I have said that, as regards scientific medicine, we are at present going to school to Germany. This, however, is not the case with regard to therapeutics either external or internal, in regard to which I presume that the physicians of each nation are satisfied as to their own pre-eminence. At all events it is true that, for the treatment of the common diseases, a physician can obtain his most valuable instruction in his own country, among those whom he is to treat. Just as each individual is in some respects peculiar and unique, so that even the arrangement of the minute ridges and furrows at the end of his forefinger differs from that of all other forefingers, and is sufficient to identify him; and as the members of certain families require special care to guard against hæmorrhage, or insanity, or phthisis; so it is with nations and races. The experienced military surgeon knows this well; and in the United States, which is now the great mixing ground, illustrations of race-peculiarities are familiar to every practitioner.

Neither the tendency nor the true value of this current medical literature can be properly estimated by attending to it alone. It is a part of the thought of the age—of that wonderful kaleidoscopic pattern which is unrolling before us, and must be judged in connection with it. From several sources of high authority there have come of late years warnings and laments that science is becoming too utilitarian. For example, Prof. Du Bois-Reymond, in his address upon civilisation and science, says that that side of science which is connected with the useful arts is steadily becoming more prominent, each generation being more and more bent on material interests. "Amid the unrest which possesses the civilised world men's minds live, as it were, from hand to mouth. . . . And if industry receives its impulse from science, it has also a tendency to destroy science. In short, idealism is succumbing in the struggle with realism, and the kingdom of material interests is coming." Having laid down this rather pessimistic platform, he goes on to state that this is especially the case in America, which is the principal home of utilitarianism, and that it has become the custom to characterise as "Americanisation" the dreaded permeation of European civilisation by realism. If this characterisation be correct, it would seem that Europe is pretty thoroughly Americanised as regards attention to material interests and appreciation of practical results. But the truth of the picture seems to me doubtful. Science is becoming popular, even fashionable, and some of its would-be votaries rival the devotees of modern Æstheticism in their dislike and fear of the sunlight of comprehensibility and common sense. The languid scientific swell who thinks it bad style to be practical, who takes no interest in anything but pure science, and makes it a point to refrain from any investigations which might lead to useful results lest he might be confounded with mere practical men or inventors, exists and has his admirers. We have such in medicine, and their number will increase.

The separation of biological study from practical medicine, which has of late years become quite marked in the literature of the subject, has its advantages and disadvantages. Thus far the former have far outweighed the latter, and both the science and the art of medicine have been promoted thereby. But are not the physiologists, or, as I believe they prefer to be called, the biologists, separating themselves too completely from medicine for the best interests of their own science, in that they are neglecting human pathology? In our hospital wards and among our patients, nature is continually performing experiments which the most dexterous operator cannot copy in the laboratory—she is, as Dr. Michael Foster says, "a relentless and untrammelled vivisector, and there is no secret of the living frame which she has not, or will not, at some time or place, lay bare in misery and pain".

Now while it is true that Dr. Foster, in his address before the British Medical Association last year (which address is the clearest exposition of the aims of the physiology of the present day that I have seen) insists upon the fact that all distinctions between physiology and pathology are fictitious, and declares that attempts to divide them are like attempts to divide meteorology into a science of good and a science of bad weather, his conclusion that the pathologist should be trained in methods of physiological investigation seems to me to be only a part of the truth. The tacit assumption is that all, or at least the most important, phenomena of human disease may be reproduced in the physiological laboratory. If this were only true, what a tremendous stride would have been taken towards making medicine a science. Unfortunately it is not so. Many of the most interesting of these phenomena—the most interesting because as yet the most unexplainable—can only be observed in the sick man himself. Nor have the physiologists as yet made much use of that field which ought to be specially inviting to them—namely, comparative pathology; although the literature of the present time already indicates that a change has begun in this respect.

While it is true that to the graduate of thirty years ago much of the physiological literature of the present day is in an unknown tongue, it is also true that the physiologist of the present, who confines himself to laboratory work, will find himself distanced by the man who keeps his clinical and pathological studies and his experimental work well abreast.

The increase in both the amount and value of the literature of the several specialties in medicine is readily seen by a comparison of recent catalogues and bibliographies with those of twenty or thirty years ago, and this increase still continues at a greater rate than prevails in the more general branches. There are great differences of opinion as to the relative value of this increase, and as to its future effect upon the profession; but there can be no doubt as to the fact.

There must be specialties and specialists in medicine, and the results will be both good and evil; but the evils fall largely upon those specialists who have an insufficient general education,—who attempt to construct the pyramid, their knowledge, with the small end as a foundation. It has been said by Dr. Hodgen that "in medicine a specialist should be a skilled physician and something more, but that he is often something else—and something less." There is truth in this; truth which the young man will do well to consider with care before he begins to specialise his studies; but, on the other hand, it is also true that the great majority of men must limit their field of work very much and very clearly if they hope to achieve success. The tool must have an edge if it is to cut. It is by the labour of specialists that many of the new channels for thought and research have been opened; and if the flood has sometimes seemed to spread too far, and to lose itself in shallow and sandy places, it has nevertheless tended to fertilise them in the end.

The specialists are not only making the principal advances in science, but they are furnishing both strong incentives and valuable assistance towards the collection and preservation of medical literature and the formation of large public libraries.

Burton declares that a great library cannot be improvised, not even if one had the national debt to do it with; he thinks that 20,000 volumes is about the limit of what a miscellaneous collection can bring together, and refers especially to the difficulty in creating large public libraries in America. My experience would show that these statements do not apply to medical books. Of these the folios and quartos of three and four hundred years ago seem to have had great capacity for resistance to ordinary destructive forces. Perhaps much of this is due to the fact that they are not usually injured by too much handling or perusal. True, they are gradually becoming rarer; but, at the same time, by means of properly organised libraries, they are becoming more accessible to all who wish to really use them, and not merely to collect and hide them away. They drift about like the sea-weed, but the survivors are gradually finding secure and permanent resting places in the score of great collections of such literature which the world now possesses. At present, the currents of trade are carrying them in relatively large numbers to the United States, where medical collectors and specialists are among the best customers of the antiquarian booksellers of Europe. I could name a dozen American physicians who have given to European agents almost unlimited orders for books relating to their several specialties, and upon their shelves may be found books of the 15th and 16th centuries, which may be properly marked as "rarissimi".

Not that the rarest books are by any means the oldest. The collector who seeks to ornament his shelves with the *Rose* of John of Gaddesden, or the *Lily* of Bernard de Gordon, the first folios of Avicenna or of Celsus, or almost any of the eight hundred medical incunabulæ described by Hain, will probably succeed in his quest quite as soon as the one who has set his heart on the first editions of Harvey or Jenner, the American tracts on inoculation for small-pox, or complete files of many of the journals and transactions of the present century.

Whatever may be the chosen line of the book-collector, he is the special helper of the public library, and this whether he intend it or not. In most cases his treasures pass through the auction-room, and sooner or later the librarian, who can afford to wait, will secure them from further travel. Thanks to the labours of such collectors, I think it is safe to say,—what certainly would not have been true twenty years ago,—that if the entire medical literature of the world, with the exception of that which is collected in the United states, were to be now destroyed, nearly all of it that is valuable could be reproduced without difficulty.

What is to be the result of this steadily increasing production of books? What will the libraries and catalogues and bibliographies of a thousand, or even of a hundred years hence, be like, if we are thus to go on in the ratio of geometric progression which has governed the press for the last few decades? The mathematical formula which would express this, based on the data of the past century, gives an absurd and impossible conclusion; for it shows that, if we go on as we have been going, there is coming a time when our libraries will become large cities, and when it will require the services of every one in the world, not engaged in writing, to catalogue and care for the annual product. The truth is, however, that the ratio has changed, and that the rate of increase is becoming smaller. In western Europe, which is now the great centre of literary production, it does not seem probable that the number of writers or readers will materially increase in the future; and it is in America, Russia, and southern Asia, that the greatest difference will be found between the present amount of annual literary product and that of a century hence.

The analogies between the mental and physical development of an individual, and of a nation or society, have been often set forth and commented on; but there is one point where the analogy fails as regards the products of mental activity,—and that is, that as yet we have devised no process for getting rid of the exuviæ. Growth and development in the physical world imply the changes of death as well as of life—that with the increase of the living tisssues there shall also be the excretion and destruction of dead, outgrown, and useless matters which have had their day and served their purpose. But *litera scripta manet*. There is a vast amount of this effete and worthless material in the literature of medicine, and it is increasing rapidly. Our literature is in fact something like the inheritance of the golden dustman, but with this important difference, viz: that when the children raked a few shells or bits of bone from the dustman's heap, and, after stringing them together and playing with them a little while, threw them back, they did not thereby add to the bulk of the pile; whereas our preparers of compilations and compendiums, big and little, acknowledged or not, are continually increasing the collection, and for the most part with material which has been characterised as "superlatively middling, the quintessential extract of mediocrity." A large medical library is in itself discouraging to many inquirers, and I have become quite familiar with the peculiar expression of mingled surprise, awe, and despair, which is apt to steal over the face of one not accustomed to such work, when he first finds himself fairly in the presence of a mass of material which he wishes to examine for the purpose of completing his ideal bibliography of—let us say epilepsy, or excision, or the functions of the liver.

Let such inquirers, as well as those who regret that they have no access to large libraries, and must therefore rely on the common text-books and current periodicals for bibliography, console themselves with the reflection that much the larger part of all of our literature which has any practical value belongs to the preseat century, and, indeed, will be found in the publications of the last twenty years.

There are a few medical books written prior to 1800 which every well educated man should,—I will not say read, but—dip into, such as some of the works of Hippocrates and Galen, of Harvey and Hunter, of Morgagni and Sydenham; but this is to be done to learn their methods and style rather than their facts or theories, and by the great majority of physicians it can be done with more profit in modern translations than in the originals. The really valuable part of the observations of these old masters has long ago become a part of the common stock, and the results are to be found in every text-book.

If, perchance, among the dusty folios there are stray golden grains yet ungleaned, remember that just in front are whole fields waiting the reaper. There is not, and has not been, any lack of men who have the taste and time to search the records of the past; and the man who has opportunities to make experiments or observations for himself wastes his time, to a certain extent, if he try to do bibliographical work so long as he can get it done for him. He wishes to know whether this problem has been attacked before, and with what result—whether there are accounts of any other cases like the one he has in hand. In ninety-nine instances out of a hundred, if the answer to these questions be not given in the current text-books or monographs, it is not worth prolonged search by the original investigator. Yet he should know how to make this search, if only to enable him to direct others; and it is for this reason that a little acquaintance with bibliographical methods of work ought to be obtained by the student.

When a physician has observed (or thinks he has observed) a fact, or has evolved from his inner consciousness a theory which he wishes to examine by the light of medical literature, he is often very much at a loss to know how to begin, even when he has a large library accessible for the purpose.

The information he desires may be in the volume next his hand, but how is he to know that? And even when the usual subject-catalogue is placed before him he finds it very difficult to use it, especially when, as is often the case, he has by no means a well-defined idea as to what it is he wishes to look for. Upon the title-page of the *Washington City Directory* is printed the following aphorism, "To find a name, you must know how to spell it". This has a very extensive application in medical bibliography. To find accounts of cases similar to your own rare case, you must know what your own case is.

To return to the subject-catalogue. If it be a classed catalogue, a *catalogue raisonnée*, it will often seem to be a very blind guide to one who is not familiar with the classification and nomenclature adopted by the compiler. And certainly some of these classifications are very curious, reminding one of Heine's division of ideas into reasonable ideas, unreasonable ideas, and ideas covered with green leather. But if the inquirer have mastered the arrangement of the catalogue, it is two to one that it will not help him. It is a catalogue of the titles of books, but very often the title of a book gives very little information as to its contents, if indeed it be not actually misleading. Now, suppose the particular case he has in hand is one of a new born infant having

one leg much larger and longer than the other. He will find no book-title relating to this. There may be a book in the library on diseases of the lymphatics, which contains just what he wants; but, unless he know that his case is one affecting the lymphatics, he will hardly get the clue. There may also be in the library twenty papers, in as many different volumes of journals and transactions, the titles of which show that they probably relate to similar cases, but the titles of such papers do not appear in the catalogue.

It should also be observed that subject-catalogues may easily be put to improper uses, or be thought to give more information than they really do. They are not bibliographies, but mechanical aids in bibliographical work.

You will perhaps pardon me for taking as an illustration the Index Catalogue of the library of the Surgeon-General's Office in Washington, as being one with which I am familiar, and which I can venture to comment on without risk of its being thought that I wish to depreciate its value. Taking any given subject in medicine, it is possible for a fairly educated physician to obtain from this catalogue a large proportion of all the references which have any special value, and by so doing to save a vast amount of time and labour. On the other hand, he will find, when he comes to examine the books and articles referred to, that at least one-half of them are of no value so long as the other half are accessible, seeing that they are dilutions and dilatations, rehashes and summaries of the really original papers. If the seeker be in the library itself, this does not cause a great waste of time, as he can rapidly examine and lay aside those that do not serve his purpose. But if he be using this catalogue in another library—say here in London, the case is different. It is highly improbable that he will find in any other collection all the books referred to, and then comes the annoyance of the doubt as to whether he may not be missing some very valuable paper. How is he to know whether or not Smith in his pamphlet on the functions of the pneumogastric has anticipated his own theory of its relations to enlarged tonsils? And in all such cases "omne ignotum est pro magnifico". In a bibliography of the subject, prepared from the same material as the catalogue, he would either find no mention of Smith's paper, or, better still, a note that his paper is merely an abstract or compilation. The fact that he does not find Smith's book in the London library, nor any allusion to it in the best works on the subject, ought to induce him to ignore it altogether.

In proportion to the energy of the young writer, and his determination to not only note everything that has been written about his subject, but to carry out the golden rule of verifying all his references, he is apt to be led off from his direct research into the many attractive by-paths of quaint and curious speculation which he will find branching off on every side; and this danger must be guarded against, or he will find that he is wasting his time and energy in turning over chaff which has long ago been pretty thoroughly threshed and winnowed.

It is, however, no part of my present purpose to set forth the methods and principles of bibliography; it is sufficient to point out their importance, and to call attention to the point that a knowledge how and where to find the record of a fact is often of more practical use than a knowledge of the fact itself, just as we value an encyclopædia for occasional reference, and not for the purpose of reading through from cover to cover.

Instruction in the history and literature of medicine forms no part of the course of medical education in English and American schools, nor should I be disposed to recommend its introduction into the curriculum if it were to be based on French and German models; but it does seem possible to take a step in this direction which would be of great value; not only as a means of general culture, as teaching students how to think, but from a purely practical point of view, in teaching them how to use the implements of their profession to the best advantage—for books are properly compared to tools, of which the index is the handle. Such instruction should be given in a library, just as chemistry should be taught in a laboratory. The way to learn history and bibliography is to make them; the best work of the instructor is to show his students how to make them.

In the absence of some instruction of this kind, the student is liable to waste much time in bibliographical research. There has been much more done in this direction than many writers seem to suppose, and there are not many subjects in medicine which have not been treated from this point of view. Of course, all is not bibliography which pretends to be such. Very many of the exhaustive and exhausting list of references which are now so common in medical journal articles have been taken largely at secondhand, and thereby originate or perpetuate errors. It is well to avoid false pride in this matter. To overlook a reference is by no means discreditable, but a wrong reference, or an unwitting reference to the same thing twice, gives a strong presumption of carelessness and secondhand work. Journal articles, however, and especially reports of cases, undergo strange transmogrifications sometimes; and I have watched this with interest in the case of a French or German paper, translated and condensed in the *London Medical Record*, then appearing in abstract under the name of the translator in a leading journal, then translated again, with a few new circumstances, in a continental periodical, and finally perhaps reversed and appearing as an original contribution in the pages of the *Little Pedlington Medical Universe*.

In this connection, it is well to remember that a mere accumulation of observations, no matter how great the number, does not constitute science, especially if these observations have been recorded under the influence of the same theories, and in essentially similar conditions.

Science seeks the law which governs or explains the phenomena; and, when this is found, the records of isolated instances of its action usually become of small importance so far as that law is concerned. We care little now for the records of the chemical experiments of a century ago; and the many detailed accounts of the earlier cases of the use of ether or chloroform are of so little interest at the present time, that it is not worth while to refer to them in a bibliography of the subject. And, although much has been done towards classifying and indexing our medical records (more in fact than most physicians suppose), still, as Helmholtz points out, such knowledge as this hardly deserves the name of science, since it neither enables us to see the complete connection, nor to predict the result, under new conditions yet untried.

Do I seem to depreciate the value of the thoughts which our masters have left us, and which have furnished the foundations on which we build?—or to undervalue the importance of the great medical libraries in which are stored these thoughts?—or to speak slightingly of the utility of the catalogues, and indexes, and bibliographies, without which such libraries are trackless and howling wildernesses? If so, I have said what I did not mean to say. The subject has been considered from the point of view of what used to be called the division of labour, but which now I suppose should be called evolution and differentiation; and this has been done because life is short and the art is long—with fair prospect of becoming longer. It is surely unnecessary for me to enter upon any panegyric of books or libraries. As Dr. Holmes says: "It is not necessary to maintain the direct practical utility of all kinds of learning. Our shelves contain many books which only a certain class of medical scholars will be likely to consult. There is a dead medical literature, and there is a live one. The dead is not all ancient, the live is not all modern. There is none, modern or ancient, which, if it has no living value for the student, will not teach him something by its necropsy. But it is with the live literature of his profession that the medical practitioner is first of all concerned."

In medicine, as in social science, we must depend for many facts upon the observation of conditions which occur very rarely, and which cannot be repeated at pleasure. I have already alluded to the importance of nature's vivisections to the physiologist; and a record of a case written a century ago may be just the link that is needed to correlate the results of his experiments of yesterday with existing theories. The case which at first seems unique and inexplicable, both receives and furnishes light when compared with ancient records.

A science of medicine, like other sciences, must depend upon the classification of facts, upon the comparison of cases alike in many respects, but differing somewhat either in their phenomena or in the environment. The great obstacle to the development of a science of medicine is the difficulty in ascertaining what cases are sufficiently similar to be comparable; which difficulty is, in its turn, largely due to insufficient and erroneous records of the phenomena observed. This defect in the records is largely due, first, to ignorance on the part of observers; second, to the want of proper means for precisely recording the phenomena; and, third, to the confused and faulty condition of our nomenclature and nosological classifications.

Let us consider each of these points briefly. Very, very few are the men who can, by and for themselves, see and describe the things that are before them. Just as it took thousands of years to produce a man who could see, what now any one can see when shown him, that the star Alpha in Capricorn is really two separate stars, so we had to wait long before the man came who could see the difference between measles and scarlatina, and still longer for the one who could distinguish between typhus and typhoid. Said Plato, "He shall be as a god to me, who can rightly divide and define". Men who have this faculty,—the "Blick" of the Germans—we cannot produce directly by any system of education; they come, we know not when or why, "forming a small band, a mere understanding of whose thoughts and works is a test of our highest powers. A single English dramatist and a single

English mathematician have probably equalled in scope and excellence of original work in their several fields all the like labours of their countrymen put together."*

But cannot we do something to increase the number of observers by telling them what to observe? It is probable that much may be accomplished in this direction provided that care be taken to limit the field. Manuals of "what to observe at the bed-side and in the *post mortem* room" are very well in their way, but can never be made to reach the great majority of the profession, nor would they be of much use if they did. If a few, a very few distinct specific questions are brought to the attention of the general practitioner, he will often be on the alert for their answer. And it should be remembered that chance may present to the most obscure practitioner an opportunity for observation which the greatest master may never meet.

The great difficulty is to get such questions prepared. They must relate to matters that are just in the nebulous region between the known and unknown—to points not yet clear, but of which we know enough to make it probable that by observing in a definite direction they can be made clear; and to prepare them requires not only knowledge but a certain reaching out beyond knowledge. It usually happens that the man who has this faculty strives to answer his questions himself, and no doubt he can usually do it better than another. But much can be done towards defining and marking out what we do not know, and this has been a powerful aid to the progress of physiology in recent years.

I have had occasion to refer to this in speaking of Dr. Michael Foster's work on physiology, in each section of which an attempt is made to separate that which may be considered as proved from that which is merely probable; and thus almost every page becomes suggestive of work to be done.

Another example of what I mean will be found in a paper on the collection of data at necropsies by Professor H. P. Bowditch, of Boston (*Trans. Mass. Med. Legal Soc.* 1, 1880, p. 139). Taking the results of an investigation into the absolute and relative size of organs at different periods of life, and in connection with different morbid tendencies, recently published by Professor Beneke, of Warburg, Dr. Bowditch urges the securing as large a number as possible of such data, and selects certain of Professor Beneke's results for special inquiry; for instance, that the "cancerous diathesis is associated with a large and powerful heart, capacious arteries, but a relatively small pulmonary artery, small lungs, well developed bones and muscles, and tolerably abundant adipose tissue." It can hardly be doubted that those who read the papers of Professors Bowditch and Beneke would be induced to examine things which before would have had for them no interest, and therefore to make and record observations in pathological anatomy which otherwise would have been lost.

The second difficulty referred to—viz.: the want of means for making accurate records—is one that is yearly growing less. It behoves us to be modest in our predictions as to what may be accomplished in the future towards the solution of our Sphynx's riddle. We see as through a glass darkly, and, except through the glass, in nowise; but at least we have made such progress that what we do see, we can to a great extend so record that our successors yet unborn can also see; and it is owing to this fact that a part of the medical literature of the last quarter of the nineteenth century will be more valuable than all that has preceded it.

The word-pictures of disease traced by Hippocrates and Sydenham, or even those of Graves and Trousseau, interesting and valuable as they are, are not comparable with the records upon which the skilled clinical teacher of the present day relies. Yet how imperfect in many cases are even the best of these records as compared with what might be given with the resources which we have at our command. The temperature-chart has done away with the errors which necessarily follow attempts to compare the memory of sensations perceived last week with the sensations of to-day; and the balance and the burette enable us to estimate with some approach to precision the tissue-changes of our patients by the records of change in the excretions which they furnish; but we must still trust to our memory, or to the imperfect descriptions of what others remember, when we attempt to compare the results obtained on successive days by auscultation or percussion, although the phonograph and microphone strongly hint to us the possibility of either accurately reproducing the sounds of yesterday, or of translating them into visible signs, perhaps something like the dot and dash record of the telegraph code, which could then be given to the press, and so compared with each other by readers at the antipodes.

We are beginning to count the blood-corpuscles, and to use photomicrography, but we do not yet apply the latter process to the former so as to enable every reader to count for himself.

The connections of medicine with the physical sciences are yearly becoming closer, and the methods by which these sciences have been brought to their present condition are those by which progress has been, and is to be, made in therapeutics, as well as in diagnosis, or in physiological research. These methods turn mainly upon increasing the delicacy and accuracy of measurements; of expressing manifestations of force in terms of another force, or of dimension in space or time. The balance and the galvanometer, the microscope and the pendulum, the camera, the sphygmograph, and the thermometer, are some of the means by which investigators, at the bedside and in the laboratory, are seeking to obtain records which shall be independent of their own sensations or personal equations; which shall be taken and used as expressing, not opinions, but facts; and with every addition to, or improvement in, these means of measurement and record, the field of observation widens, and new and more reliable materials are furnished for the application of logical and mathematical methods.

Upon the third difficulty which has been referred to—viz.: our confused and defective terminology—I need not dwell. "Science", said Condillac, "is a language well made;" and though this is far from being the whole truth, it is an important part of it. In examining medical reports and statistics, it is necessary to bear constantly in mind that, to understand many terms, you must know what the individual writer means by them. When, for example, we find in such statistics a certain number of deaths attributed to gastro-enteritis, or croup, or scrofula, we have to take into account the country, the period, and the individual author, in order to get even a fair presumption as to what is meant.

The three difficulties which have been referred to, although the most important, are by no means the only causes of the confusion and imperfection of our records.

Prominent among the minor troubles of the investigator are defective or misleading titles; and, in behalf of the readers and bibliographers of the future, I would appeal to authors, and more especially to editors, to pay more attention than many of them do to the matter of titles and indexes. The men to whom your papers are most important, and who will make the best use of them, provided they know of their existence, are for the most part hard workers, busy men, who have a right to demand that their library table shall be provided with properly prepared materials, and not with shapeless lumps.

The editors of transactions of societies, whether these are sent to journals or published in separate form, often commit numerous sins of omission in the matter of titles. The rule should be: that every article which is worth printing is worth a distinct title, which should be as concise as a telegram, and be printed in a special type. If the author do not furnish such a title, it is the editor's business to make it; and he should not be satisfied with such headings as "Clinical Cases", "Difficult Labour", "A Remarkable Tumour", "Case of Wound, with Remarks". The four rules for the preparation of an article for a journal will then be: 1. Have something to say; 2. Say it; 3. Stop as soon as you have said it; 4. Give the paper a proper title.

Some societies and editors do not seem to appreciate fully their responsibility for the articles which they accept for publication—a responsibility which cannot be altogether avoided by any formal declaration disclaiming it. This is due to the fact that, while the merits of a paper can usually be determined by examination, this is by no means always the case. In every country, there are writers and speakers whose statements are received with very great distrust by those best acquainted with them. Supposing these statements to be true, the papers would be of much interest and importance; but the editor should remember that a certain number of readers, and especially those in foreign countries, have no clue to the character of the author, beyond the fact that they find his works in good company. In medical literature, as in other departments, we find books and papers from men who are either constitutionally incapable of telling the simple literal truth as to their observations and experiments, although they may not write with fixed intention to deceive, or from men who seek to advertise themselves by deliberate falsehoods as to the results of their practice. Such men are usually appreciated at their true value in their immediate neighbourhood, and find it necessary to send their communications to distant journals and societies in order to secure publication.

I presume that you are all familiar with the peculiar feeling of distrust which is raised by too complete an explanation. The report of a case in which every symptom observed, and the effect of every remedy given, is fully accounted for, and in which no residual unexplained phenomena appear, is usually suspicious, for it implies either superficial observation, or suppression or distortion of some of the facts. A diagrammatic representation is usually much plainer than a good photograph, but also of much less value as a basis for further work.

No fact is more familiar to this audience than the vast extent of the

* Hiles, "Mathematics in Evolution." *Popular Science Monthly*, [illegible], vol. iv, page [illegible].

field of the science of to-day so vast that few may hope to master more than a small part of it, and yet so closely connected that even the small part cannot be fully grasped without some acquaintance with a much wider field.

But little over a hundred years ago, Haller in Göttingen was professor of anatomy, botany, physiology, surgery, and obstetrics, and lecturer on medical jurisprudence. At the same time he was writing one review a week, and summing up existing medical science in his *Bibliotheca*. To-day, any one of these branches requires all the time of the most energetic and learned of our contemporaries; but, on the other hand, the well-educated medical graduate of to-day could give Haller valuable instruction in each of the branches of which he was professor. It is also true, as I have pointed out, that our actual progress is by no means in proportion to the work done, nor as great as these merely quantitative statements would seem to make it.

Science has been termed "the topography of ignorance. From a few elevated points we triangulate vast spaces, enclosing infinite unknown details. We cast the lead and draw up a little sand from abysses we shall never reach with our dredges. If it is true that we understand ourselves but imperfectly in health, it is more signally manifest in disease, where natural actions, imperfectly understood, disturbed in an obscure way by half-seen causes, are creeping and winding along in the dark toward their destined issue, sometimes using our remedies as safe stepping-stones, occasionally, it may be, stumbling over them as obstacles."*

In days of old, when the profession of medicine, or of a single medical specialty, was an inheritance in certain families, a large part of their knowledge, and the efficiency of their remedies, was thought to depend upon these being kept a profound mystery. Among the precepts of magic there was no more significant one than that which declared that the communication of the formula destroyed its power, and that hence attempts to reveal the secret must always fail. We have changed all that. Every physician hastens to publish his discoveries and special knowledge, and a good many do the same by that which is not special, or which is not knowledge. For the individual, in a degree—for the nation or the race in a much greater degree—the literature produced is the most enduring memorial. The whole result of civilisation has been cynically defined as being roughly, "three hundred million Chinese, two hundred million natives of India, two hundred million Europeans and North Americans, and a miscellaneous hundred million or two of Central Asians, Malays, South Sea Islanders, etc., and over and above all the rest the library of the British Museum. This is the net result of an indefinitely long struggle between the forces of men and the weights of various kinds in the attempt to move which these forces display themselves."†

And thus, in our great medical libraries, each of the folios or quaint little black-letter pamphlets which mark the first two centuries of printing, or of the cheap and dirty volumes of modern days, with their scrofulous paper and abominable typography, represents to a great extent the life of one of our profession and the fruit of his labours, and it is by the fruit that we know him.

After stating that modern physicists have concluded that the sun is going out, that the earth is falling into the sun, and therefore that it and all things in it will be either fried or frozen, Professor Clifford concludes that "Our interest lies so much with the past as may serve to guide our actions in the present, and with so much of the future as we may hope will be affected by our actions now. Beyond that we do not know and ought not to care. Does this seem to say let us eat and drink, for to-morrow we die? Not so, but rather let us take hands and help, for this day we are alive together." To this I join a verse from the Talmud which will remind you of the first aphorism of Hippocrates, and is none the worse for that. "The day is short, and work is great—the reward is also great, and the master presses. It is not incumbent on thee to complete the work, but thou must not therefore cease from it."

* *Border Lines of Knowledge*, etc., by O. W. Holmes, Boston, 1862, pp. 7.
† *Liberty, Equality, and Fraternity*, by James Fitz-James Stephen, New York, 1873, p. 178.

UHTHOFF ON THE RETINAL CHANGES IN PROGRESSIVE ANÆMIA.—W. Uhthoff (*Klin. Monatsbl. f. Augenheilk.*, 1880, No. 12) found retinal hæmorrhages in six eyes of four persons who had died of pernicious anæmia. The hæmorrhages were principally in the nerve-fibre and internuclear layers, less in the ganglionic layers, while the two granular layers were the least affected. In three eyes, there was varicose hypertrophy of the nerve-fibres. In the retina of two eyes, there was a deposit of peculiar glistening colloidal, and granular masses in the internuclear layer.

AN ADDRESS

SCEPTICISM IN MEDICINE.

Prepared for the International Medical Congress by the late M. MAURICE RAYNAUD, of Paris;

DELIVERED BY DR. FÉRÉOL.

[DR. FÉRÉOL, in commencing, said: Gentlemen, it is not I who ought to be here. A deplorable misfortune, which has plunged the whole of the medical profession of France into grief, has made it my duty to occupy this place, and I have no other right to occupy it than from the friendship which, for more than twenty years, attached me to Maurice Raynaud. You will excuse me, gentlemen, if, in circumstances so painful, I can find no other words than the expression of my sad and deep regret.

You will allow me also, before commencing to read the last work of Maurice Raynaud, a work which he did for you, to speak of him for a few moments. I will not enter into the details of his scientific life; I ask only your permission to make you somewhat acquainted with him who rejoiced to think that he was about to present himself before you, and who was so happy at entering into communication with so many illustrious *savants* and distinguished men coming hither from all parts of the earth.

M. Raynaud was, it may be said, the type of a worker. Work was for him not only the accomplishment of a primary duty and of the highest functions of a human being, it was an imperious necessity of his mind, and the joy of his life. It was so with him from his earliest youth. The son of a distinguished university man, he entered on serious literary studies. His thesis for the diploma of doctor in literature was entitled "*Les Médecins au Temps de Molière.*" You all know it, and it will last in literature. His thesis for the diploma of Doctor of Medicine, on *Local Asphyxia or Symmetrical Gangrene of the Extremities*, introduced into science the idea of a new disease to which we are entitled to give his name, as you have so justly done to Bright, Basedow, and Addison.

M. Raynaud was not only a learned physician, but a consummate clinical teacher, a physiologist and an able experimenter; he was also a literary man and a philosopher. Of this you will judge directly. What you will, alas! be unable to judge is the oratorical power of the man, for, as was his wont, he would not have read his discourse; he would have spoken it from memory, leaving to the inspiration of the moment the introduction of modifications. You would have enjoyed a pleasure, gentlemen, in seeing that sympathetic face, in hearing that firm and eloquent diction so well fitted to the professorial chair, although, from circumstances which it would be too long and too delicate to seek here to explain, the grade of official professor remained closed against him up to his death. M. Raynaud had long felt the secret approaches of organic disease of the heart; he did not the less continue to exhaust himself with incessant labour. Accustomed to display in everything indefatigable ardour, he expended himself without stint, and simultaneously, in science, in clinical study, in civil practice, in which his devotion under all trials had secured for him on sides most lively friendship, as an unattached professor, and even in the subjects of politics and religion, to which he brought an extreme zeal.

On the 29th June last, he returned to his country house apparently in better health than usual. After dining with his family, he was playing more gaily than ever with his little children, of whom the youngest was scarcely two months old; suddenly he felt himself seized with violent pain in the region of the heart; he recognised angina pectoris, and at once made all necessary arrangements for the event of death. Three hours afterwards he had ceased to live, preserving to the end, in spite of the horrible anguish of final separation, a truly admirable serenity, strength of mind, and sweetness. He was scarcely 47 years of age. I have been able to snatch from oblivion his last work, this discourse which I am about to read to you, which he was unable to finish. If you find in it some imperfections, you will remember that the author was not able to put the finishing touches to it; and that I have been obliged, although I have done it with all the discretion and respect possible, to complete something which he had left unfinished, and thus you will only blame the rigour of his premature decease and my inefficiency.]

Gentlemen,—It is perhaps a singular effort, and it is certainly a perilous one, which I undertake on this occasion, on which the distinguished honour of speaking before this great assembly falls on me, in addressing you on the subject of scepticism in medicine. Does it not seem flying in the face of what you expect, and what circumstances demand of me? Your presence here, gentlemen and colleagues of both hemispheres, coming from all parts of the civilised world, to afford your help to the work of common progress, is it not of itself a protestation and a lesson? Does it not affirm loudly that you have faith in your science and in your art?

I venture, however, to flatter myself that, if you will be good enough, as I invite you to do, to take a general view of the actual state of science and medical practice, and—who knows?—to examine introspectively your own thoughts, you will consider, as I do, that the subject which I have chosen does not absolutely fail in opportuneness; that, in speaking to you on scepticism, I do not speak to you either of the unknown or of the absent; and that indeed, if it be an enemy (which is just what we have to examine), it is in any case not an imaginary enemy. I do not say, gentlemen, that we believe less in medicine than our fathers believed. But I think we believe in it in a different way. In this, as in so many others, there has been accomplished in what is called, rightly or wrongly, "the modern mind", an evolution which seems to me to be sufficiently interesting for study.

And first let us understand what should be meant by this word "scepticism". As you well know, under this name two things are designated, which should be very carefully distinguished: on the one hand, a very clearly defined philosophic system, consisting in a denial of the foundations of certainty; on the other hand, a certain intellectual tendency, a fashion of the mind, originating as from habit and education as from reasoning, and leading to more or less universal doubt. That the two things should sometimes be combined—that they should find a dwelling-place in the same mind, and at the same epochs, is what might be expected, and the fact is by no means surprising; but they are not, for all that, necessarily connected one with the other.

Of the philosophic system I have nothing to say: this is not the place to concern ourselves with it. I content myself with casually noting that, if we rely on the etymology sense, σκεπτομαι does not mean "to doubt", but "to examine", which is not at all the same thing; and it is by a veritable abuse of language that this confusion has been established, for which I acknowledge the sceptics are principally responsible. To doubt is an excellent disposition in which to undertake any examination whatever; but why does one examine? Precisely to form an opinion; that is to say, to solve one's doubts. If one have decided beforehand to suspend one's judgment indefinitely, and not to stop to make researches, even in the face of demonstrated truth, it is really not worth while to commence the study of any great question.

Thus, according to my notion, there is established a necessary distinction between what I term good and bad scepticism; or rather, if you will allow me to call things by their true names, between scepticism properly so called, and philosophic doubt. The latter not only remains in itself perfectly legitimate, but deserves to be laid down as the first condition of all science.

If, now, we regard scepticism no longer as a system which we give up to the disputes of the schools, but placing ourselves at a point of view which is much more interesting for the medical man, as a direction and a practical tendency, we shall have, I believe, a not less legitimate distinction to establish between scepticism understood in this sense, and the critical spirit.

The critical spirit is one of the most praiseworthy things in the world. I myself believe it to be more developed in our own time than it has ever been before. It consists in showing ourselves very exact in the matter of proof, in being desirous of verifying the most plausible assertions, in considering the best established theories as provisional landmarks which serve for the grouping of facts, but which we must be ready to abandon so soon as the theory shall be shown to be false or insufficient, without therefore giving up the facts which served as its support; provided, be it understood, that these facts, constantly brought into contact with experience, come out victorious from this ordeal. I also recognise that between the critical spirit and scepticism, it is very difficult to establish a boundary, since the latter is very little more than the exaggeration of the former, and it is very easy to pass from one to the other. Who can say where exaggeration begins? What is the group of facts, of the physiological and vital order, in which we can flatter ourselves that we possess so definite a truth that there is nothing more to be said about it? [illegible] the foundations of our art; but in how small a number! And, on the other hand, how considerable [illegible] of those which, [illegible] main as a field open to research, and consequently to doubt.

So far as this, things go very easily. It is clear that there is no question of authority to be dealt with. Authority, whatever we may say, has never had amongst us anything but a precarious and always contested empire, even at the time when it has passed for having been a sovereign mistress. "Medicine is a matter, not of faith, but of knowledge; and its teachings have no value, but that which it coincides with our reason to grant them."

You see that, contrary to the saying of Royer-Collard, I am disposed to give its proper share to scepticism; but I wish to do it in a sufficiently large manner, in assigning to it as its domain the indefinite territories which are situated on the confines of criticism; therefore I ask of it to recognise, at least theoretically, that it has no right to invade its neighbour's territory.

Having said this, gentlemen, you will thoroughly understand that I have no notion of entering upon the history of medical scepticism, or of instituting, from this point of view, a regular parallel between the ancients and the moderns; nor still more, to put all scepticism on one side and all belief on the other. That would be a real joke, as contrary to good sense as to history. In all times there have been sceptics, and probably always will be. The truth is, that scepticism is one of the aspects of the human mind, as extreme credulity is another. If it were necessary to choose absolutely between the two, it would be necessary to give the preference to scepticism, for, although it is in itself sterile, it has, at least, the advantage of keeping up in the world the salutary notion that science is not made, which is the indispensable condition for its being made.

Scepticism, credulity, does it not seem that these are antipodes to each other? and yet, curious as it is, every day's experience shows us that these two opposite principles are far from excluding each other, and are by no means irreconcilable. This is the salient feature of a scepticism of men of the world with regard to medicine. We touch here, gentlemen, on a very small part of the question, on which I should blush to detain long a meeting like this. I cannot, however, pass it by completely in silence.

Every day we meet men, who come and inform us with a wise air that medicine is a conjectural science. To this I always reply, that if by this name be designated a science into which conjecture enters, there is not one science (astronomy, physics, and chemistry included) to which this reproach might not be addressed. I do not speak, and with good reason, of law or of political economy. The whole question is to know in what degree conjecture is met with.

The people who speak thus not only ignore the first elements of the science which they judge with so much severity, but for the most part only judge it in that manner, because they ask more of it than it declares itself to be in a condition to give. Hence the deceptions which are known to you, and, with the deceptions, the torrent of reproaches and unending jokes to which we have been accustomed for a very long time. I have already had an opportunity of giving a close study to those of Molière, and of discussing their value. But Molière himself in this only followed a tradition as old as comedy and as old as medicine. Aristophanes had already irreverently given to the god Æsculapius the name of "Scatophagos", that is to say, eater of excrement. You therefore see that this kind of thing is by no means of recent date. It would be impossible to give the list of the detractors of medicine, for their name is legion.

If physicians were vindictive men, they would only have to bring into prominence the blind confidence of their detractors into the grossest empiricism. This, likewise, is the history of all time; from Cato the Elder, who, it is said, caused physicians to be driven from Rome, prohibited his son from having recourse to their help, and, nevertheless, passed his time in himself physicking his wife, his slaves, and his animals; up to Madame de Sévigné, who was never weary of uttering sarcasms on the inanity of medicine, more severe, if possible, than Molière himself, and at the same time inundated her friends with an innumerable mass of absurd remedies, for which the only guarantee she asked was that they should not have had a medical origin.

All this is wretched enough, and what is still more so, it cannot be said that the alternatives of disfavour and of adulation through which our art has passed can be explained by the intrinsic value of the work and of the man. The caprices and the vacillations of fashion have more to do with it than the general progress of the ruling ideas. The end of the [illegible] century is [illegible] nevertheless, that was perhaps the epoch in which the medical profession [illegible]. [illegible] in his memoirs an amusing picture of the boundless admiration and the [illegible] society of that time, and especially amongst the ladies.

"I [illegible] their deeds to those which [illegible]

reign of Louis XIV for their spiritual directors. And in the fact," he sagaciously adds, "the preference, which, in our times, the body has attained over the soul, sufficiently explains this change of affection." I may be added as compensation, that the great ladies who listened to the advice of Tronchin, as to an oracle, and flocked in crowds to the meetings of the Royal Society of Medicine, there to hear the florid speeches of Vicq-d'Azyr, were probably the same who were found, in not less numbers, and in still more excited condition, around Mesmer's magnetising apparatus.

We hear much of the progress of enlightenment, and I do not wish to contest it; but if the truth be told, very little of it is perceived in the subject which now occupies us. If we look around us, we find the same ignorant infatuation, the same mixture of the most unreasonable scepticism with the most infantile superstition, the same intelligence, at once jesting and credulous, which believes nothing because it believes all, which rejects scientific medicine, and accepts unreservedly table-turning, spiritualism, and homœopathy without any other rule than pure fancy. And this singular disposition of mind is not found either wholly nor principally among the lower classes. We observe it in the upper classes, in the most instructed and cultivated intellects, sometimes even among scientific men. I am not speaking, be it understood, of France only, for I have heard it said that sober England herself is not exempt in this respect from the infirmities of human nature.

I have now said enough on this subject. For it to be worth even the trouble of forming a judgment upon it, the least that could be exacted would be the competence of the judge; and in this case that is absolutely wanting.

Unfortunately, gentlemen, we can say it amongst ourselves, it is medical men themselves who have given the bad example. The remark has frequently been made that neither philosophers, literary men, nor poets have said so much evil of medicine as medical men themselves have said. Where, for instance, could a more cruel judgment on therapeutics be found than the following?

"An incoherent assemblage of opinions, themselves incoherent, it is perhaps of all the physiological sciences that in which the eccentricity of the human intellect most shows itself. What do I say? It is in no way a science for a methodical intellect; it is a shapeless collection of inexact ideas, of observations frequently puerile, of illusory methods of formulæ as fancifully conceived as they are fastidiously put together. It is said that the practice of medicine is revolting. I go further. In certain relations it is not even that of a reasonable man."

Who is it who thus expresses himself? It is no unknown personage. It is Bichat, whom we all more or less quote, and rightly so, as one of the promoters of modern science.

We could take from our principal heads of schools portraits as little flattering as the foregoing; without counting Broussais, who declares without any disguise that, up to his time "medicine only cradled men in a chimerical hope; and, taking it all in all, it has been more hurtful than useful to humanity."

You will agree that, after all this, the men who judge us from the outside are perhaps excusable in being a little severe.

Even to go back to the sources of medical literature, are not the first words written on medicine words of discouragement and of doubt? *Ars longa, vita brevis, experientia fallax, judicium difficile.* This is the first of the aphorisms of Hippocrates; and M. Peisse asks ironically, after having written it, how Hippocrates ever had the courage to write the second and subsequent aphorisms. Doubtless this great saying is above all an admirable lesson of modesty and of prudence. But it has not always been taken in this sense; and the fact is, that between scepticism and medicine there seems always to have existed an undefinable kind of natural affinity. It cannot be a simple matter of chance if the list of the sceptic philosophers contains so many names of physicians—Sextus Empiricus, Cornelius Agrippa, Sanchez of Toulouse, Martin Martinez, Leonard of Capua,* and others also, amongst whom I am much tempted to count Rabelais, who belongs to us as a medical man, and who, as a philosopher, although he is a free lance whom it is very difficult to class, certainly cannot be enrolled amongst the orthodox.

A moment ago, I mentioned Cornelius Agrippa. There is no question that, in his book, medicine is particularly ill-treated. But here is a fact which, I think, is not generally known: Montaigne, whose name it is difficult not to pronounce in speaking of scepticism, wrote, as you know, a chapter of rare bitterness against medicine.† The arrows are sharp, but it must be owned that many hit the mark. We feel in it the hand of the man who knows what he is writing about. Well, gentlemen, there is there one of those tricks which are usual with Montaigne. It is he, indeed, who, in another book, under pretext of an apology for the philosopher and surgeon, Raimond Lebon, forcibly enrols him in the camp of scepticism; and, under cover of his hero, lays down the most exorbitant propositions. Here he does still better. He does not disdain, in many a passage, to copy Cornelius Agrippa: I say, to copy him as far as plagiarism, and as if as matter of right, and without quoting him, so well, that this natural disaffection for medicine, which he asserted that he received as an heritage from his father and his grandfather, and which resisted in him the attacks of gravel, cannot be denied to have found this expression in his readings. His theme was ready, it is possible; but, in a great part at least, it was a medical man who furnished his arguments.

Gentlemen, I have been disturbing very old remembrances; have the goodness to believe that I do not seek for matter for allusions. If they stir up in your mind some comparisons with the present, I am not responsible for it. As to that which is hidden, or at least is only revealed by its effects, and whose part is therefore but the more baleful, it is evident that it can only be guessed at; very little attention is sufficient to enable us to meet with it, like a mute supernumerary, in every page of our history.

I should, however, have done a very useless piece of work, if, in this retrospect of past times, I had not endeavoured to distinguish the causes of a fact which is so general and so constant, that it seems an inherent evil in medicine. In this, as in every other case, a good etiology is the necessary condition for good treatment.

Ah! gentlemen, as to the causes of medical scepticism! In the first place, some of them are of all time and of all countries; and, to discover them, it is only necessary to know a little of human nature. Scepticism—and it is one of its great sources of power—has this peculiarity, that it flatters in us at the same time two of our most deep-seated instincts, and, it must be owned, those which do not reflect the most honour on our nature—idleness and vanity; idleness, by relieving us from the necessity of seeking for the truth, which requires an effort for its discovery, and which, like the kingdom of God, suffers violence; vanity, by giving us the power of criticising and undervaluing the work of others, by laying to our souls the flattering unction that we soar above common prejudices.

* The best known of all, Sextus Empiricus, who, in his celebrated *Pyrrhonian Hypotyposes*, has left us a complete summary, and, as it were, code of the scientific scepticism of antiquity, was one of us. I know that he himself somewhat denies that a necessary relation can be established between the sceptic doctrine and medical empiricism, such as was professed in his time. He saw this relation rather between scepticism and methodism, which has been a hard nut to crack for his commentators. However, it is of little importance; he was a physician—this, at any rate, is not doubtful; and, like him, four or five others at least amongst the principal adepts in the ancient Pyrrhonism whose names have come down to us, were also medical men. It seems as if it was a speciality of their profession. And the list is not yet finished; the names of some of the principal sceptics are also those of physicians, such as Cornelius Agrippa, whose book, *De Inutilitate et Vanitate Scientiarum*, is the most audacious challenge which has ever been made to science by a scientific man; Sanchez of Toulouse, the author of the famous *Quod Nihil;* Martin Martinez, author of a *Philosophia Sceptica;* I purposely omit contemporaries. There are, however, some reserves to be made. If medical studies favour the emancipation of the intellect, it must be said in their honour that they are adapted to maintain it in a certain practical good sense, and to keep it from the great aberration into which the professional philosophers sometimes more willingly fall. Among the authors whom I have just cited, some seem to have been judged according to the binding of their books, and are, as a matter of fact, rather doubters than sceptics. It is thus that the book by Sanchez, notwithstanding its satirical and parodoxical form, very likely, I own, to justify misapprehension, is really but a virulent brief, not against science, but against the scholastic method which was still in vogue in his time. It may be reasonably compared to the "Pars Destruens" of the *Organum* of Bacon; and, in fact, this book was only, in the author's thought, the first part of a work in which, after having demolished, he counted on building up in his turn. The work, having remained unfinished, does not allow a definitive judgment.

As to Martinez, who wrote not only sceptical philosophy, but a treatise on sceptical medicine, he was certainly of an independent mind; and that was something in any one who breathed the air of the eighteenth century. But what suffices to prove that he was not a true sceptic, at least in the ordinary acceptation of the term, was that, in support of his doctrine, he invokes, by the side of the great names of Sydenham and of Baglivi, the authority of Scripture and of the Fathers. In his treatise against Lopez de Aranjo, he finds himself supported by Hieronymo Feyjoo, professor of theology at Oviedo. His voluminous works are, in fact, but a long pleading in favour of the method of observation. He proceeds by dialogues, after the manner of Plato, attacking Hippocratists, Galenists, iatro-chemists, Cartesians, refuting one by the other; and, in fine, his conclusion is that scientific certainty is, from its nature, not absolute, but only relative, and that even is a condition of progress. As you see, this Pyrrhonism scarcely exceeds that of which Sprengel declared himself a decided partisan. At that rate, there would still be many Pyrrhonians. Whatever he knew about it, gentlemen, the affinity of which I have just been speaking to you none the less exists; and, what is still more worthy of attention, is to discover in medical literature an entire current of scepticism referring to medical things, a dogmatic scepticism like that of Leonard of Capua, for instance. (Parere del Signor Lionardo di Capoa, divisato in otto Raggionamenti nei quali partitamente narrandosi l'origine e'l progresso della medicina, chiaramente l'incertezza della medesima si fa manifesta. Napoli, 1685.) This physician seems to make it his business to demonstrate *ex professo* that medicine does not exist. I am not aware that a similar spectacle is offered to us by the other sciences.

† It is chapter xxxvii of the fifteenth book of his *Essays*, entitled, "On the Resemblance of Children to their Fathers".

There is something of this at the root of all scepticism; but I do not for one moment wish to imply that there is nothing else. There is also, for a number of the most conscientious and most reflective minds, the inevitable discouragement induced by the shock of contradictory opinions, the difficulty of arriving at a personal conviction, the uncertainty of therapeutic results. Why, therefore, is it astonishing that so many medical men should be found amongst the sceptics? Is it not in medicine, specially, that the phenomena are most complex, most difficult to study, showing themselves under the most differing aspects, although they are the same at the foundation? Is it not in medicine that it is the most difficult to lay down fixed and invariable rules, which will not be invalidated by numerous exceptions? Is it not this which has given rise to the multitude of systems which come into collision with each other, combating and destroying each other, and of which the incessant decay recalls the famous phrase of Bossuet on the noise made by empires in crumbling one on the other? In view of this spectacle, some strength of mind is indeed necessary not to bemoan oneself over the vanity of the conceptions of the human mind, and not to give way to the temptation of enveloping them all with the same disdain. It is especially when we have lived much with the past, and disturbed the dust of libraries; when, in presence of that mountain of books and manuscripts, accumulated during centuries, we think of the mediocrity of the result, of the little we know, and of all there remains to know, it is then especially we realise a satiety, a disgust at books; and we then understand Sydenham's outbreak when one of his friends somewhat childishly asked him what was the best book to read. "My friend," replied the English Hippocrates, as he was designated, "read Don Quixote." Nevertheless, Sydenham was not a sceptic; and he had kept for his own use a book which he knew admirably well how to read—the book of nature.

But, gentlemen, the true cause of scepticism, the most powerful, that which has in all times, formerly as at present, created so many sceptics amongst us, is that medicine is at the same time both a science and a profession. We need not complain of this; it is one of its glories, perhaps the highest, for it thereby satisfies all that there is most generous and most elevated in the human heart—the need of helping those who suffer. But it is an onerous glory. The profession weighs on the science; the latter will always, notwithstanding all her efforts, be much below what is required by the former. Men, as a rule, care little for the progress of science; but when they are ill they wish to recover, and for that purpose come to us. And for every medical man having a sense of the dignity of his art, a painful feeling arises from our powerlessness in the presence of so many ills. What a contrast is there between the immensity of the services expected of us, and those we are really capable of rendering! How can the excess of confidence of so many patients be justified? In spite of all, we must, nevertheless, act and struggle. Science is incomplete; it will always be so, but never mind. We must prescribe. This, gentlemen, it must be owned, is a bad habit for a scientific mind to adopt. We thus accustom ourselves to act by chance, blindly, or we delude ourselves as to what we know and what we do not know. In presence of this alternative, some decided spirits, little inclined to temporising, fall back on doubt and inaction, and take up with the argument that, we may say with Auguste Comte, "knowledge is power." It is no less just to affirm that "ignorance is impotence."

Such, gentlemen, are the most important of the general causes which at all times and in all countries have brought a large number of medical men under the banner of scepticism. There are others of a more special nature, both in the past and in the present, and on which I shall ask your permission to enlarge a little.

We will first speak of the past.

What is the meaning in medicine of the word "past"? Where do the ancients end? Where do the moderns begin? It is the part of England, gentlemen, to answer us, for to her appertains the honour of having really inaugurated the modern era in medical science. In fact, as Daremberg has said, there are really but two great periods in the history of medicine—that which preceded, and that which has followed, your great, your immortal Harvey. Before the time of Harvey, the sick man was looked at from without, sometimes, it is true, with astonishing and admirable sagacity, but always from the outside, from the symptom. Since the time of Harvey he is studied from within, by the function. The internal microcosm, closed until then, is open to investigation. At the same time, Harvey introduced into science the new and fruitful idea that there are permanent and immutable laws in physiology. Up to that time nothing was known in physiology; from that moment, men began to learn.

But you also know, gentlemen, chronology must always be in harmony with doctrine. More than half a century was needed before the circulation of the blood was incontestably admitted; a half century, during which the new doctrine met with the most singular and distressing of all forms of scepticism; that which obstinately closes its eyes against evidence, and combats with the arm of dialectics alone the best established facts. How much talent, science, and especially wit were thrown away by the adversaries of the "circulators" as they were then called. Guy Patins is a memorable example. With a mind singularly acute, but closed to any fresh ideas enveloping in equal disdain with the entire pharmacopœia of his time antimony and the circulation of the blood; as a matter of fact, reducing all therapeutics to blood-letting, he furnishes to us a striking proof that scepticism and routine frequently go hand-in-hand. Who, however, would dare to assert that the race of Guy Patins is even now entirely extinct, and that the spirit of Harvey has at the present time universally and absolutely triumphed?

In all times, but certainly more formerly than at the present time, dogmatism has been the parent of medical scepticism. The narrowness and tyranny of dogma lead directly to doubt, especially when the dogma does not rest on very solid foundations. And when we desire to probe the depths of the ancient spirit, what do we find? A vague and incomplete notion of the permanence of the laws of nature. In the midst of hypotheses, sometimes mystic, sometimes grossly materialistic, on the *primum movens*, we always meet with this idea, more or less conscious, more or less formulated, but everywhere admitted, that life is a capricious force, one not to be grasped; that in all its manifestations the exception is almost as frequent as the rule, and that it is impossible to affirm anything positive in reference to these fluctuating matters.

Well, gentlemen, do you believe that these modes of viewing things are so far removed from our times? Do you not sometimes hear repeated around you that the words "never" and "always" should never pass current in medicine, where "everything happens"? Has it never occurred to you to hear speak of untrustworthy drugs or uncertain diseases, etc.?

Is it not scepticism we meet under these mischievous formulæ, a scepticism which perhaps does not declare itself, but which is none the less dangerous? We hear it often said at the present time that there are no more systems, that the time of systems is past, and that we no longer believe in anything but facts, etc. This is a point on which I shall ask permission to remain somewhat sceptical. Have we had nothing of the kind in France since the commencement of the century, physiological medicine, organic medicine, and, opposing it, vitalistic medicine, numerical medicine, exact medicine, positive medicine, or even positivist medicine, which is not at all the same thing? I could cite others also if I wished to do so. Besides, this pretence to severity and exactness is by no means peculiar to our epoch, it is of all time. Do you think that our forefathers thought that their science was fanciful only? They also proclaimed the sovereignty of experience and the universal power of facts. Here is a common bond.

However, I willingly admit that systems have at the present time lost much of their importance, whilst waiting to regain it. I admit that, for the moment, warned by the example of the past, we do not include the whole of science in one single formula; finally, that our conceptions, being more modest, have for that reason the more chance of being true. You see that I pay at the present time all the compliments demanded by politeness; I only ask of it to recognise the defects of its qualities; and it is in these defects that I shall still find some of the causes of modern medical scepticism.

I shall first refer to ignorance. It would be more conformable to good comradeship, and even more equitable, to say, the abuse of science. At the present time, science is so vast that we are obliged to take up a position under the penalty of remaining unproductive. Hence the fact, which is certainly very peculiar to our epoch, that some of the most scientific men, who are the most eminent in their specialty, are absolutely ignorant beyond it. And, as it is always easier and quicker to doubt than to study, they are adepts, all ready made, for certain forms of partial scepticism, such as therapeutic scepticism, which is so strongly the habit of the world. There are other means of making a bad use of science, which may also lead to doubt. The dominant character of modern science, is, as I have already said, the direct intervention of physiology in things belonging to pathology. Nevertheless, physiology is not medicine. The field of their studies is not even altogether identical. There are, it is true, the same tissues, the same organs, but they react differently, according as the man is healthy or diseased, and to disease alone it belongs to induce certain methods of reaction, which, up to the present, at least, we have not been able to produce experimentally. Hippocrates [illegible] "Would the most precise notions of the functions of the skin teach us suspicion on looking at the brain that wine would disturb its functions"? anything at all about small-pox?

However close, then, be the links which henceforth unite physiology to medicine, the amount of enlightenment which the one will bring to the other, is still very uncertain. Therefore, we should not be surprised if a great number of practical physicians, and those, the most eminent among them, were absolutely sceptical in medicine. Such amongst us was Magendie, to whom we should forgive much, because he has given to us Claude Bernard. Even so far as the progress of pathological anatomy, there is nothing which does not seem made in certain cases to encourage tendencies to doubt. Formerly, for example, we believed in the efficacy of blood-letting in cerebral hæmorrhage, and there was before the [illegible] theory of "raptus sanguineus". [illegible] by blood-letting. But the discovery of miliary aneurysm reduced all their theory to nothing, and at the same time, the lancet lost favour.

However, gentlemen, I boldly declare that it is only to suit superficial minds that the conquests of pathological anatomy can bring discredit on the ancients, and the presumptuous conclusion that there is nothing to be done in therapeutics. It is too easy to reply to them. Is is not owing to the progress of pathological anatomy that we have at the present time the proof of the curability of phthisis, and of the possible evolution of the tuberculous follicle towards cicatrisation? Is it nothing also to know that we are on a bad path? We change it, at least, and that with great advantage to the patient. But you would blame me if I enlarged any longer on so easy a refutation.

Gentlemen, up to the present time, I have defined and described to you the disease of scepticism, and I have with you sought its principal causes. Is there a remedy for this evil?

But, in the first instance, I hear an objection—Is scepticism really an evil? Is it an enemy which should be combatted? Is it not rather one of those aspects of human nature with which we must compromise, from the impossibility of our ever triumphing over it?

In such a question, what is necessary above all things, gentlemen, is sincerity. I formerly had an old teacher, himself somewhat sceptical, who one day lamented to me the powerlessness of the art; and he added, "We must not say that to the young men; it would discourage them; they will always find it out soon enough." For my own part, I have never been able to comprehend this manner of viewing the case. We should say to all, to the young men as to others, what we believe to be the truth. If the result of so much human labour, of so many sleepless nights, of so many sacrifices, were nothing, it would still be our duty to say so. Voluntary error, when we are holding to it for its own sake, may still be decorated with the name of illusion. When we teach it to others, it has but one name, it is falsehood.

But, gentlemen, who would dare to say that we are at this point? If I were here to hazard such an enormity, to what an amount of protestations should I not give rise! Are you not here before me as the living and illustrious negation of a system which leads in pathology to ignorance, and in therapeutics to inaction? Let us, therefore, search together the means of resisting this baneful tendency, and strengthen ourselves once more in our beliefs.

The remedy for scepticism, gentlemen, is, above all, in science itself; in science every day better investigated, better understood, and of which the incessant progress will bring to its own wanderings the desired correction; to its postulates, the expected answer. Every theoretical progress brings, sooner or later, a practical progress, which frequently comes whence it was least expected.

It is not sufficient to proclaim the merits of exact science; in every science there is somewhat both of the certain and of the uncertain. Neither does it suffice to speak ill of the spirit of system. Have not the most famous systematisers always been the most ardent in decrying the systems of others?

It does not even suffice to build one's edifice on the reputedly solid foundation of pathological anatomy. Long before our illustrious master, Bouillaud, had taken for an epigraph this phrase of Bichat, "What is observation, if we ignore where the evil is situated?", Celsus had said, "How shall we treat a diseased organ of which we have not even a notion?"

What is in the first instance necessary is to import into the practice and daily habit of our minds the truth which results from the following axioms: 1, the absolute constancy of the laws which regulate life; 2, the rigorous subordination of phenomena to certain conditions which we have to determine. It is this last law which Claude Bernard has called "determinism"—a word which is, perhaps, rather barbarous, and so much the more open to objection, that it would not be difficult to show that its author has not always himself employed it in the same sense. But, if the word is open to objection, the thing is not so. It is no longer a system; it is the essence itself of the scientific spirit. I need not point out to you the applications which Claude Bernard has made of it in physiology: and it would be too long to detail to you those which have been capable of being made of it in pathology. Allow me only to cite some examples. I will be very brief.

Let us take locomotor ataxy. Some years since, this disease was confounded in the vague group of paraplegiæ; everything about it was unknown, both its nature and its cause. It was treated by chance; some patients were cured who were certainly not ataxic. This was the first stage of the disease—the period of ignorance. Then came the second stage—that of pathological anatomy; the lesion was discovered, and recognised as incurable. That was the period of discouragement.

Finally, there came a third stage. It was found that a large number of these ataxies (I do not say all) arose from syphilis. These, if they could not be radically cured, could at least be arrested in their development by specific treatment.

The virulent and infectious diseases will furnish us with a still more striking example. When, in these latter times, the study of spontaneous generation led to the discovery of that world of infinitely small organisms which seem to besiege us on all sides, we might truly ask how the human race, how animal life itself, could resist these myriads of invisible enemies, always ready to profit by the last failure in the organism to penetrate into that situation. But here, taking possession of this datum itself, a great surgeon, who was at the same time a thinker—Lister—founds a new method, which diminishes and suppresses the chances of the infection consecutive on great operations, pushing back the limits of the art, and assuring the almost infallible success of bold proceedings before which, a short time previously, we should have recoiled. On the other hand, a man of genius, whose name I pronounce with pride—my illustrious friend Pasteur—taking up and systematising the work of your great Jenner, has been able, by methodical attenuation of morbid poisons, to inaugurate the prophylaxis of the virulent diseases, and thus to open to us new and indefinite horizons.

Before such results, gentlemen, what room remains for scepticism? It is rather against too much enthusiasm that we should have to guard ourselves, if our admiration were not fully justified by the importance of the discoveries already acquired.

It is thus, gentlemen, that we can most usefully reply to sceptics. Progress does not demonstrate itself: it shows itself. Let us not, however, forget an axiom of ancient medicine which has survived all dogmatic revolutions, and which Hippocrates defined as "natura medicatrix". This has been sometimes rather laughed at. For my own part, I believe in it as something as certain as the most incontestable experimental facts. What are contestable in it, are the interpretations which some have endeavoured to give to it. But, if people have tried so much and so inefficiently to explain it, it is precisely because the fact itself is beyond contradiction.

Recently, also, at the Academy of Medicine of Paris, in a communication by Pasteur, I remarked that our eminent fellow-countryman, seeking to measure the progressive attenuation of morbid poisons, had taken for a criterion the resistance opposed to it by the organism of the sheep. A certain virus killed one sheep in 50, another 1 in 100, another 50 in 100, etc. What does this mean, gentlemen? This condition which M. Pasteur causes to intervene, great observer as he is, "the receptivity," what is it in reality, if not that force of resistance which exists in every living creature, which differ according to the species, and also according to the individual? Is not this in reality the same thing as *natura medicatrix*?

Whatever may be made of it, it remains one of the ruling facts of medicine. This force of vital resistance, this greater or less degree of receptivity of disease, will always be the indispensable auxiliary of the physician; and for my own part I would renounce the exercise of the art, if I did not feel myself supported by this ally.

What constitutes the incomparable difficulty of our art is the necessity of assigning a fair share to this element in the treatment of disease, and of making it agree, in the interpretation of morbid phenomenon, with the two fundamental axioms which I have admitted. The task is difficult; but however arduous it may appear, be certain, gentlemen, that harmony will be established. However it may be, taking account of this great force of vital resistance illumined by the lines of etiology, pathological anatomy becomes no longer a meditation upon death, but the science of indications; a profound axiom which has been bequeathed to us by ancient medicine, and which will always respond to the most living realities of the art.

When certainty is obtained on these three points, gentlemen, the science will be nearly perfect. Even when it is not so, we are not yet entirely disarmed, for we then have the right to appeal to empiricism and to tradition. Which of us could do without them? They give us for want of better things a kind of certainty which is not without value, and which does not prevent us from pursuing a superior certainty. The patrimony bequeathed by every medical generation to that which fol-

lows it is composed of two kinds of things—some of absolute value, and others of relative value, but not to be disdained. It is thus we have received from our predecessors opium, cinchona, and nearly all our best drugs, which have rendered immense services, and will still render them to us, before we shall have definitely fixed their mode of action. It is thus in our time that we shall leave our descendants choloroform, chloral, carbolic acid, the salicylates, pilocarpin, and many other substances, regarding which it will be the part of the future to appreciate, and explain their various uses. Thus are formed what Cabanis so well termed the "practical certainties" of medicine; thus we arrive at that kind of certainty adapted to the clinical physician which in many respects is like moral certainty, and which, without equalling scientific certainty, has none the less its parallel place and its rank.

The limits which have been assigned to me do not allow me to pursue further this already somewhat long study.

To close it worthily, allow me, gentlemen, to quote to you a passage which is, as it were, its summary and conclusion, and which I borrow from Claude Bernard. I cannot do better than leave you under the impression of these simple and strong words: "The sceptic", says our great physiologist, in his *Introduction to Experimental Medicine*, "is he who does not believe in science, and who believes in himself. He believes enough in himself to dare to deny science, and to affirm that it is not subject to fixed and determinate laws. The doubter is the true scientific man; he only doubts himself and his interpretation, but he believes in science; he admits even in the experimental sciences a criterion, or an absolute scientific principle."

AN ADDRESS
ON
THE CONNECTION OF THE BIOLOGICAL SCIENCES WITH MEDICINE.

By T. H. HUXLEY, LL.D.,
Secretary to the Royal Society, and Vice-President of the Congress.

THE great body of theoretical and practical knowledge which has been accumulated by the labours of some eighty generations, since the dawn of scientific thought in Europe, has no collective English name to which an objection may not be raised; and I use the term "medicine" as that which is least likely to be misunderstood; though, as every one knows, the name is commonly applied, in a narrower sense, to one of the chief divisions of the totality of medical science.

Taken in this broad sense, "medicine" not merely denotes a kind of knowledge; but it comprehends the various applications of that knowledge to the alleviation of the sufferings, the repair of the injuries, and the conservation of the health of living beings. In fact, the practical aspect of medicine so far dominates over every other, that the "healing art" is one of its most widely received synonyms. It is so difficult to think of medicine otherwise than as something which is necessarily connected with curative treatment, that we are apt to forget that there must be, and is, such a thing as a pure science of medicine—a "pathology" which has no more necessary subservience to practical ends than has zoology or botany.

The logical connection between this purely scientific doctrine of disease, or pathology, and ordinary biology, is easily traced. Living matter is characterised by its innate tendency to exhibit a definite series of the morphological and physiological phenomena which constitute organisation and life. Given a certain range of conditions, and these phenomena remain the same, within narrow limits, for each kind of living thing. They furnish the normal and typical characters of the species; and, as such, they are the subject-matter of ordinary biology.

Outside the range of these conditions, the normal course of the cycle of vital phenomena is disturbed; abnormal structure makes its appearance, or the proper character and mutual adjustment of the functions cease to be preserved. The extent and importance of these deviations from the typical life may vary indefinitely. They may have no noticeable influence on the general well-being of the economy, or they may favour it. On the other hand, they may be of such a nature as to impede the activities of the organism, or even to involve its destruction.

In the first case, these perturbations are ranged under the wide and somewhat vague category of "variations"; in the second, they are called lesions, states of poisoning, or diseases; and, as morbid states, they lie within the province of pathology. No sharp line of demarcation can be drawn between the two classes of phenomena. No one can say where anatomical variations end and tumours begin, nor where modification of function, which may at first promote health, passes into disease. All that can be said is, that whatever change of structure or function is hurtful belongs to pathology. Hence it is obvious that pathology is a branch of biology; it is the morphology, the physiology, the distribution, the etiology of abnormal life.

However obvious this conclusion may be now, it was nowise apparent in the infancy of medicine. For it is a peculiarity of the physical sciences, that they are independent in proportion as they are imperfect; and it is only as they advance that the bonds which really unite them all become apparent. Astronomy had no manifest connection with terrestrial physics before the publication of the *Principia;* that of chemistry with physics is of still more modern revelation; that of physics and chemistry, with physiology, has been stoutly denied within the recollection of most of us, and perhaps still may be.

Or, to take a case which affords a closer parallel with that of medicine. Agriculture has been cultivated from the earliest times; and, from a remote antiquity, men have attained considerable practical skill in the cultivation of the useful plants, and have empirically established many scientific truths concerning the conditions under which they flourish. But it is within the memory of many of us that chemistry, on the one hand, and vegetable physiology on the other, attained a stage of development such that they were able to furnish a sound basis for scientific agriculture. Similarly, medicine took its rise in the practical needs of mankind. At first, studied without reference to any other branch of knowledge, it long maintained, indeed still to some extent maintains, that independence. Historically, its connection with the biological sciences has been slowly established, and the full extent and intimacy of that connection are only now beginning to be apparent. I trust I have not been mistaken in supposing that an attempt to give a brief sketch of the steps by which a philosophical necessity has become a historical reality, may not be devoid of interest, possibly of instruction, to the members of this great Congress, profoundly interested as all are in the scientific development of medicine.

The history of medicine is more complete and fuller than that of any other science, except perhaps astronomy; and if we follow back the long record as far as clear evidence lights us, we find ourselves taken to the early stages of the civilisation of Greece. The oldest hospitals were the temples of Æsculapius; to these Asclepeia, always erected on healthy sites, hard by fresh springs and surrounded by shady groves, the sick and the maimed resorted to seek the aid of the god of health. Votive tablets or inscriptions recorded the symptoms, no less than the gratitude, of those who were healed; and, from these primitive clinical records the half-priestly, half-philosophic, caste of the Asclepiads compiled the data upon which the earliest generalisations of medicine, as an inductive science, were based.

In this state, pathology, like all the inductive sciences at their origin, was merely natural history; it registered the phenomena of disease, classified them, and ventured upon a prognosis, wherever the observation of constant co-existences and sequences suggested a rational expectation of the like recurrence under similar circumstances.

Further than this, it hardly went. In fact, in the then state of knowledge and in the condition of philosophical speculation at that time, neither the causes of the morbid state, nor the rationale of treatment, were likely to be sought for as we seek for them now. The anger of a God was a sufficient reason for the existence of a malady, and a dream ample warranty for therapeutic measures; that a physical phenomenon must needs have a physical cause, was not the implied or the expressed axiom that it is to us moderns.

The great man whose name is inseparably connected with the foundation of medicine, Hippocrates, certainly knew very little, indeed, practically nothing of anatomy or physiology; and he would probably have been perplexed, even to imagine the possibility of a connection between the zoological studies of his contemporary Democritus and medicine. Nevertheless, in so far as he, and those who worked before and after him, in the same spirit, ascertained, as matters of experience, that a wound or a luxation, or a fever, presented such and such symptoms, and that the return of the patient to health was facilitated by such and such measures, they established laws of nature, and began the construction of the science of pathology. All true science begins with empiricism—though all true science is such only [illegible] to pass out of the empirical stage into that of [illegible] from more general truths. Thus, it is not wonderful that the early physicians had little or nothing to do with the [illegible] science; and, on the other hand, that the early [illegible] concern themselves with medicine. There is nothing to show that the

Asclepiads took any prominent share in the work of founding anatomy, physiology, zoology, and botany. Rather do these seem to have sprung from the early philosophers, who were essentially natural philosophers, animated by the characteristically Greek thirst for knowledge as such. Pythagoras, Alcmæon, Democritus, Diogenes of Apollonia, are all credited with anatomical and physiological investigation; and though Aristotle is said to have belonged to an Asclepiad family, and not improbably owed his taste for anatomical and zoological inquiries to the teachings of his father, the physician Nicoamachus, the *Historia Animalium*, and the treatise *De Partibus Animalium*, are as free from any allusion to medicine, as if they had issued from a modern biological laboratory.

It may be added, that it is not easy to see in what way it could have benefited a physician of Alexander's time to know all that Aristotle knew on these subjects. His human anatomy was too rough to avail much in diagnosis, his physiology was too erroneous to supply data for pathological reasoning. But when the Alexandrian school, with Erasistratus and Herophilus at their head, turned to account the opportunities of studying human structure, afforded to them by the Ptolemies, the value of the large amount of accurate knowledge thus obtained to the surgeon for his operations, and to the physician for his diagnosis of internal disorders, became obvious, and a connection was established between anatomy and medicine, which has ever become closer and closer. Since the revival of learning, surgery, medical diagnosis, and anatomy, have gone hand in hand. Morgagni called his great work *De Sedibus et Causis Morborum per Anatomen Indagatis*, and not only showed the way to search out the localities and the causes of disease by anatomy, but himself travelled wonderfully far upon the road. Bichat, discriminating the grosser constituents of the organs and parts of the body, one from another, pointed out the direction which modern research must take; until, at length, histology, a science of yesterday, as it seems to many of us, has carried the work of Morgagni as far as the microscope can take us, and has extended the realm of pathological anatomy to the limits of the invisible world.

Thanks to the intimate alliance of morphology with medicine, the natural history of disease has, at the present day, attained a high degree of perfection. Accurate regional anatomy has rendered practicable the exploration of the most hidden parts of the organism, and the determination during life of morbid changes in them; anatomical and histological *post mortem* investigations have supplied physicians with a clear basis upon which to rest the classification of diseases, and with unerring tests of the accuracy or inaccuracy of their diagnoses.

If men could be satisfied with pure knowledge, the extreme precision with which, in these days, a sufferer may be told what is happening and what is likely to happen, even in the most recondite parts of his bodily frame, should be as satisfactory to the patient, as it is to the scientific pathologist who gives him the information. But I am afraid it is not; and even the practising physician, while in no wise underestimating the regulative value of accurate diagnosis, must often lament that so much of his knowledge rather prevents him from doing wrong, than helps him to do right.

A scorner of physic once said that nature and disease may be compared to two men fighting, the doctor to a blind man with a club, who strikes into the *melée*, sometimes hitting the disease, and sometimes hitting nature. The matter is not mended if you suppose the blind man's hearing to be so acute, that he can register every stage of the struggle and pretty clearly predict how it will end. He had better not meddle at all, until his eyes are opened—until he can see the exact position of the antagonists, and make sure of the effect of his blows. But that which it behoves the physician to see, not indeed with his bodily eye, but with clear intellectual vision, is a process, and the chain of causation involved in that process. Disease, as we have seen, is a perturbation of the normal activities of a living body; and it is, and must remain, unintelligible, so long as we are ignorant of the nature of these normal activities. In other words, there could be no real science of pathology, until the science of physiology had reached a degree of perfection unattained, and indeed unattainable, until quite recent times.

So far as medicine is concerned, I am not sure that physiology, such as it was down to the time of Harvey, might as well not have existed. Nay, it is perhaps no exaggeration to say that, within the memory of living men, justly renowned practitioners of medicine and surgery knew less physiology than is now to be learned from the most elementary text-book; and, beyond a few broad facts, regarded what they did know, as of extremely little practical importance. Nor am I disposed to blame them for this conclusion; physiology must be useless, or worse than useless, to pathology, so long as its fundamental conceptions are erroneous.

Harvey is often said to be the founder of modern physiology; and there can be no question that the elucidations of the function of the heart, of the nature of the pulse, and of the course of the blood, put forth in the ever-memorable little essay *De Motu Cordis*, directly worked a revolution in men's views of the nature and of the concatenation of some of the most important physiological processes among the higher animals; while, indirectly, their influence was perhaps even more remarkable.

But, though Harvey made this signal and perennially important contribution to the physiology of the moderns, his general conception of vital processes was essentially identical with that of the ancients; and, in the *Exercitationes de Generatione*, and notably in the singular chapter "De calido innato," he shows himself a true son of Galen and of Aristotle.

For Harvey, the blood possesses powers superior to those of the elements; it is the seat of a soul which is not only vegetative, but also sensitive and motor. The blood maintains and fashions all parts of the body "idque summâ cum providentia et intellectu, in finem certum agens, quasi ratiocinio quodam uteretur".

Here is the doctrine of the "pneuma", the product of the philosophical mould into which the animism of primitive men ran in Greece, in full force. Nor did its strength abate for long after Harvey's time. The same ingrained tendency of the human mind to suppose that a process is explained when it is ascribed to a power of which nothing is known except that it is the hypothetical agent of the process, gave rise in the next century to the animism of Stahl; and, later, to the doctrine of a vital principle, that "asylum ignorantiæ" of physiologists, which has so easily accounted for everything and explained nothing, down to our own times.

Now the essence of modern, as contrasted with ancient, physiological science, appears to me to lie in its antagonism to animistic hypotheses and animistic phraseology. It offers physical explanations of vital phenomena, or frankly confesses that it has none to offer. And, so far as I know, the first person who gave expression to this modern view of physiology, who was bold enough to enunciate the proposition that vital phenomena, like all the other phenomena of the physical world, are, in ultimate analysis, resolvable into matter and motion, was René Descartes.

The fifty-four years of life of this most original and powerful thinker are widely overlapped on both sides by the eighty of Harvey, who survived his younger contemporary by seven years, and takes pleasure in acknowledging the French philosopher's appreciation of his great discovery.

In fact, Descartes accepted the doctrine of the circulation as propounded by *Hervæus, Médecin d'Angleterre*, and gave a full account of it in his first work, the famous *Discours de la Methode*, which was published in 1637, only nine years after the exercitation *De Motu Cordis*; and, though differing from Harvey in some important points (in which, it may be noted in passing, Descartes was wrong and Harvey right), he always speaks of him with great respect. And so important does the subject seem to Descartes, that he returns to it in the *Traité des Passions*, and in the *Traité de l'Homme*.

It is easy to see that Harvey's work must have had a peculiar significance for the subtle thinker, to whom we owe both the spiritualistic and the materialistic philosophies of modern times. It was in the very year of its publication, 1628, that Descartes withdrew into that life of solitary investigation and meditation of which his philosophy was the fruit. And, as the course of his speculations led him to establish an absolute distinction of nature between the material and the mental worlds, he was logically compelled to seek for the explanation of the phenomena of the material world within itself; and, having allotted the realm of thought to the soul, to see nothing but extension and motion in the rest of nature. Descartes uses "thought" as the equivalent of our modern term "consciousness". Thought is the function of the soul, and its only function. Our natural heat and all the movements of the body, says he, do not depend on the soul. Death does not take place from any fault of the soul, but only because some of the principal parts of the body become corrupted. The body of a living man differs from that of a dead man in the same way as a watch or other automaton (that is to say, a machine which moves of itself), when it is wound up and has in itself the physical principle of the movements which the mechanism is adapted to perform, differs from the same watch, or other machine, when it is broken, and the physical principle of its movement no longer exists. All the actions which are common to us and the lower animals depend only on the conformation of our organs, and the course which the animal spirits take in the brain, the nerves, and the muscles; in the same way as the movement of a watch is produced by nothing but the force of its spring, and the figure of its wheels and other parts.

Descartes' treatise on Man is a sketch of human physiology in which a bold attempt is made to explain all the phenomena of life, except

those of consciousness, by physical reasonings. To a mind turned in this direction, Harvey's exposition of the heart and vessels as a hydraulic mechanism must have been supremely welcome.

Descartes was not a mere philosophical theorist, but a hard-working dissector and experimenter, and he held the strongest opinion respecting the practical view of the new conception which he was introducing. He speaks of the importance of preserving health, and of the dependence of the mind on the body being so close, that perhaps the only way of making men wiser and better than they are, is to be sought in medical science. "It is true", says he, "that, as medicine is now practised, it contains little that is very useful; but, without any desire to depreciate, I am sure that there is no one, even among professional men, who will not declare that all we know is very little as compared with that which remains to be known; and that we might escape an infinity of diseases of the mind, no less than of the body, and even perhaps from the weakness of old age, if we had a sufficient knowledge of their causes, and of all the remedies with which nature has provided us" (*Discours de la Methode*, 6e partie. Ed. Cousin. P. 193). So strongly impressed was Descartes with this, that he resolved to spend the rest of his life in trying to acquire such a knowledge of nature as would lead to the construction of a better medical doctrine (*ibid.*, pp. 193 and 211). The anti-Cartesians found material for cheap ridicule in these aspirations of the philosopher; and it is almost needless to say that, in the thirteen years which elapsed between the publication of the *Discours* and the death of Descartes, he did not contribute much to their realisation. But, for the next century, all progress in physiology took place along the lines which Descartes laid down.

The greatest physiological and pathological work of the seventeenth century, Borelli's treatise *De Motu Animalium*, is, to all intents and purposes, a development of Descartes' fundamental conception; and the same may be said of the physiology and pathology of Boerhaave, whose authority dominated in the medical world of the first half of the eighteenth century.

With the origin of modern chemistry, and of electrical science, in the latter half of the eighteenth century, aids in the analysis of the phenomena of life, of which Descartes could not have dreamed, were offered to the physiologist. And the greater part of the gigantic progress which has been made in the present century, is a justification of the prevision of Descartes. For it consists essentially in a more and more complete resolution of the grosser organs of the living body into physico-chemical mechanisms.

"I shall try to explain our whole bodily machinery in such a way, that it will be no more necessary for us to suppose that the soul produces such movements as are not voluntary, than it is to think that there is in a clock a soul which causes it to show the hours" (*De la Formation du Fœtus*). These words of Descartes might be appropriately taken as a motto by the author of any modern treatise on physiology.

But though, as I think, there is no doubt that Descartes was the first to propound the fundamental conception of the living body as a physical mechanism, which is the distinctive feature of modern, as contrasted with ancient physiology, he was misled by the natural temptation to carry out in all its details a parallel between the machines with which he was familiar, such as clocks and pieces of hydraulic apparatus, and the living machine. In all such machines there is a central source of power, and the parts of the machine are merely passive distributors of that power. The Cartesian school conceived of the living body as a machine of this kind; and herein they might have learned from Galen, who, whatever ill-use he may have made of the doctrine of "natural faculties," nevertheless had the great merit of perceiving that local forces play a great part in physiology.

The same truth was recognised by Glisson, but it was first prominently brought forward in the Hallerian doctrine of the "vis insita" of muscles. If muscle can contract without nerve, there is an end of the Cartesian mechanical explanation of its contraction by the influx of animal spirits.

The discoveries of Trembley tended in the same direction. In the fresh water *Hydra*, no trace was to be found of that complicated machinery upon which the performance of the functions in the higher animals was supposed to depend. And yet the hydra moved, fed, grew, multiplied, and its fragments exhibited all the powers of the whole. And, finally, the work of Caspar F. Wolff (*Theoria Generationis*, 1759) by demonstrating the fact that the growth and development of both plants and animals take place antecedently to the existence of their grosser organs, and are, in fact, the causes, and not the consequences, of organisation (as then understood), sapped the foundations of the Cartesian physiology as a complete expression of vital phenomena.

For Wolff, the physicial basis of life is a fluid, possessed of a *vis essentialis* and a *solidescibilitas*, in virtue of which it gives rise to organisation; and, as he points out, this conclusion strikes at the root of the whole iatro-mechanical system.

In this country, the great authority of John Hunter exerted a similar influence, though it must be admitted that the too sibylline utterances which are the outcome of Hunter's struggles to define his conceptions are often susceptible of more than one interpretation. Nevertheless, on some points, Hunter is clear enough. For example, he is of opinion that "spirit is only a property of matter" (*Introduction to Natural History*, p. 6), he is prepared to renounce animism (*l.c.* p. 8), and his conception of life is so completely physical that he thinks of it as something which can exist in a state of combination in the food. "The aliment we take in has in it, in a fixed state, the real life; and this does not become active until it has got into the lungs, for there it is freed from its prison" (*Observations on Physiology*, p. 113). He also thinks that "it is more in accord with the general principles of the animal machine to suppose that none of its effects are produced from any mechanical principle whatever, and that every effect is produced from an action in the part, which action is produced by a stimulus upon the part which acts, or upon some other part with which this part sympathises so as to take up the whole action" (*l.c.* p. 152).

And Hunter is as clear as Wolff, with whose work he was probably unacquainted, that "whatever life is, it most certainly does not depend upon structure or organisation" (*l.c.* p. 114).

Of course it is impossible that Hunter could have intended to deny the existence of purely mechanical operations in the animal body. But while, with Borelli and Boerhaave, he looked upon absorption, nutrition, and secretion as operations effected by means of the small vessels, he differed from the mechanical physiologists, who regarded these operations as the result of the mechanical properties of the small vessels, such as the size, form, and disposition of their canals and apertures. Hunter, on the contrary, considers them to be the effect of properties of these vessels which are not mechanical, but vital. "The vessels," says he, "have more of the polypus in them than any other part of the body," and he talks of the "living and sensitive principles of the arteries," and even of the "dispositions or feelings of the arteries." "When the blood is good and genuine the sensations of the arteries, or the dispositions for sensation, are agreeable. . . . It is then they dispose of the blood to the best advantage, increasing the growth of the whole, supplying any losses, keeping up a due succession, etc." (*l.c.* p. 133).

If we follow Hunter's conceptions to their logical issue, the life of one of the higher animals is essentially the sum of the lives of all the vessels, each of which is a sort of physiological unit, answering to a polype; and as health is the result of the normal "action of the vessels", so is disease an effect of their abnormal action. Hunter thus stands in thought, as in time, midway between Borelli, on the one hand, and Bichat on the other.

The acute founder of general anatomy, in fact, outdoes Hunter in his desire to exclude physical reasonings from the realm of life. Except in the interpretation of the action of the sense organs, he will not allow physics to have anything to do with physiology.

"To apply the physical sciences to physiology is to explain the phenomena of living bodies by the laws of inert bodies. Now this is a false principle, hence all its consequences are marked with the same stamp. Let us leave to chemistry its affinity; to physics its elasticity and its gravity. Let us invoke for physiology only sensibility and contractility." (*Anatomie Générale*, t. i. p. 54).

Of all the unfortunate dicta of men of eminent ability this seems one of the most unhappy, when we think of what the application of the methods and the data of physics and chemistry has done towards bringing physiology into its present state. It is not too much to say that one-half of a modern text-book of physiology consists of applied physics and chemistry, and that it is exactly in the exploration of the phenomena of sensibility and contractility that physics and chemistry have exerted the most potent influence.

Nevertheless, Bichat rendered a solid service to physiological progress by insisting upon the fact that what we call life in one of the higher animals is not an indivisible unitary archæus dominating from its central seat the parts of the organism, but a compound result of the synthesis of the separate lives of those parts.

"All animals," says he, "are assemblages of different organs, each of which performs its function, and concurs, after its fashion, in the preservation of the whole. They are so many special machines in the general machine which constitutes the individual. But each of these special machines is itself compounded of many tissues of very different natures, which in truth constitute the elements of those organs" (*l.c.* lxxix). "The conception of a proper vitality is applicable only to these simple tissues, and not to the organs [illegible]" (*l.c.* lxxxv).

And Bichat proceeds to make the obvious application of this doctrine of synthetic life, if I may so call it, to pathology. Since diseases are only alterations of vital properties, and the properties of each tissue are distinct from those of the rest, it is evident that the diseases of each tissue must be different from those of the rest. Therefore, in any organ composed of different tissues, one may be diseased and the other remain healthy; and this is what happens in most cases (*l. c.* lxxxv).

In a spirit of true prophecy, Bichat says, "we have arrived at an epoch, in which pathological anatomy should start afresh." For as the analysis of the organs had led him to the tissues, as the physiological units of the organism; so, in a succeeding generation, the analysis of the tissues led to the cell as the physiological element of the tissues. The contemporaneous study of development brought out the same result, and the zoologists and botanists exploring the simplest and the lowest forms of animated beings confirmed the great induction of the cell theory. Thus, the apparently opposed views, which have been battling with one another, ever since the middle of the last century, have proved to be each half a truth.

The proposition of Descartes that the body of a living man is a machine, the actions of which are explicable by the known laws of matter and motion is unquestionably largely true. But it is also true, that the living body is a synthesis of innumerable physiological elements, each of which may nearly be described in Wolff's words, as a fluid possessed of a "vis essentialis", and a "solidescibilitas"; or, in modern phrase, as protoplasm susceptible of structural metamorphosis and functional metabolism: and that the only machinery, in the precise sense in which the Cartesian school understood mechanism, is, that which co-ordinates and regulates these physiological units into an organic whole.

In fact, the body is a machine of the nature of an army, not that of a watch, or of a hydraulic apparatus. Of this army, each cell is a soldier, an organ a brigade, the central nervous system head-quarters and field telegraph, the alimentary and circulatory system the commissariat. Losses are made good by recruits born in camp, and the life of the individual is a campaign, conducted successfully for a number of years, but with certain defeat in the long run.

The efficacy of an army, at any given moment, depends on the health of the individual soldier, and on the perfection of the machinery by which he is led and brought into action at the proper time; and, therefore, if the analogy holds good, there can be only two kinds of diseases, the one dependent on abnormal states of the physiological units, the the other on perturbation of their co-ordinating and alimentative machinery.

Hence, the establishment of the cell theory, in normal biology, was swiftly followed by a "cellular pathology", as its logical counterpart. I need not remind you how great an instrument of investigation, this doctrine has proved in the hands of the man of genius to whom its development is due; and who would probably be the last to forget that abnormal conditions of the co-ordinative and distributive machinery of the body are no less important factors of disease.

Henceforward, as it appears to me, the connection of medicine with the biological sciences is clearly defined. Pure pathology is that branch of biology which defines the particular perturbation of cell life, or of the co-ordinating machinery, or of both, on which the phenomena of disease depend.

Those who are conversant with the present state of Biology will hardly hesitate to admit that the conception of the life of one of the higher animals as the summation of the lives of a cell aggregate, brought into harmonious action by a co-ordinative machinery formed by some of these cells, constitutes a permanent acquisition of physiological science. But the last form of the battle between the animistic and the physical views of life is seen in the contention whether the physical analysis of vital phenomena can be carried beyond this point or not.

There are some to whom living protoplasm is a substance even such as Harvey conceived the blood to be, "summâ cum providentia et intellectu in finem certum agens, quasi ratiocinio quodam"; and who look, with as little favour as Bichat did, upon any attempt to apply the principles and the methods of physics and chemistry to the investigation of the vital processes of growth, metabolism, and contractility. They stand upon the ancient ways; only, in accordance with that progress towards democracy which a great political writer has declared to be the fatal characteristic of modern times; they substitute a republic formed by a few billion of "animulæ" for the monarchy of all the pervading "anima".

Others, on the contrary, supported by a robust faith in the universal applicability of the principles laid down by Descartes, and seeing that the actions called "vital" are, so far as we have any means of knowing, nothing but changes of place of particles of matter, look to molecular physics to achieve the analysis of the living protoplasm itself into a molecular mechanism. If there is any truth in the received doctrines of physics, that contrast between living and inert matter, on which Bichat lays so much stress, does not exist. In nature, nothing is at rest, nothing is amorphous; the simplest particle of that which men in their blindness are pleased to call "brute matter" is a vast aggregate of molecular mechanisms, performing complicated movements of immense rapidity and sensitively adjusting themselves to every change in the surrounding world. Living matter differs from other matter in degree and not in kind; the microcosm repeats the macrocosm; and one chain of causation connects the nebulous original of suns and planetary systems with the protoplasmic foundation of life and organisation.

From this point of view, pathology is the analogue of the theory of perturbation in astronomy; and therapeutics resolves itself into the discovery of the means by which a system of forces competent to eliminate any given perturbation may be introduced into the economy. And, as pathology bases itself upon normal physiology, so therapeutics rests upon pharmacology; which is, strictly speaking, a part of the great biological topic of the influence of conditions on the living organism and has no scientific foundation apart from physiology.

It appears to me that there is no more hopeful indication of the progress of medicine towards the ideal of Descartes than is to be derived from a comparison of the state of pharmacology, at the present day, with that which existed forty years ago. If we consider the knowledge positively acquired, in this short time, of the *modus operandi* of urari, of atropia, of physostigmin, of veratria, of casca, of strychnia, of bromide of potassium, of phosphorus, there can surely be no ground for doubting that, sooner or latter, the pharmacologist will supply the physician with the means of affecting, in the desired sense, the functions of any physiological element of the body. It will, in short, become possible to introduce into the economy a molecular mechanism which, like a very cunningly contrived torpedo, shall find its way to some particular group of living elements, and cause an explosion among them, leaving the rest untouched.

The search for the explanation of diseased states in modified cell life; the discovery of the important part played by parasitic organisms in the etiology of disease; the elucidation of the action of medicaments by the methods and the data of experimental physiology; appear to me to be the greatest steps which have ever been made towards the establishment of medicine on a scientific basis. I need hardly say they could not have been made except for the advance of normal biology.

There can be no question then as to the nature or the value of the connection between medicine and the biological sciences. There can be no doubt that the future of Pathology and of Therapeutics, and therefore that of Practical Medicine, depend upon the extent to which those who occupy themselves with these subjects are trained in the methods and impregnated with the fundamental truths of biology.

And, in conclusion, I venture to suggest that the collective sagacity of this congress could occupy itself with no more important question than with this. How is medical education to be arranged, so that, without entangling the student in those details of the systematist which are valueless to him, he may be enabled to obtain a firm grasp of the great truths respecting animal and vegetable life, without which, notwithstanding all the progress of scientific medicine, he will still find himself an empiric?

AMERICAN NEUROLOGICAL ASSOCIATION.—The annual meeting of this association was held in New York on June 15th, 16th, and 17th; under the presidency of Dr. Roberts Bartholow. Numerous papers were read by Dr. W. A. Hammond, Dr. Rockwell, Dr. E. C. Seguin, Dr. G. M. Beard, and other members. The following officers were elected for the ensuing year: *President*, Dr. W. A. Hammond of New York; *Vice-President*, Dr. L. C. Gray of Brooklyn; *Secretary and Treasurer*, Dr. E. C. Seguin of New York. Up to the present time there had been no provision for the creation of honorary members of the association; but during this meeting amendments were made which permitted the appointment of both honorary and associate members, and the following gentlemen were elected to these positions: *Honorary members:* Professor M. Charcot of Paris; Dr. J. Hughlings Jackson of London; Professor Erb of Leipsic; Professor Westphal of Berlin; and Professor Meynert of Vienna. *Associate members:* Dr. T. S. Dowse, Dr. W. R. Gowers, Dr. David Ferrier, Dr. H. C. Bastian, and Dr. J. Russell Reynolds, of London; Dr. Moritz Bernhardt of Berlin; Dr. Camillo Golgi of Reggio, Italy; and Dr. Obersteiner of Vienna.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OPHTHALMOLOGY.

By WILLIAM BOWMAN, F.R.C.S., F.R.S.,
President of the Section.

GENTLEMEN AND DEAR COLLEAGUES,—Many of those whom I have the happiness and honour of now addressing will be able to recall the proceedings of the fourth International Congress of Ophthalmology when it met in London nine years ago. Our branch of practice on that occasion stood in a sort of isolation, separate from the rest of the body medical, moving in an orbit of its own. In that isolation it had during many years set an example, which was in due time to be followed by the General International Medical Congresses, of which the seventh is now being held in our Metropolis. To-day we are obviously one among many members of the entire medical commonalty, and our work is admitted to be of the highest value, not only for its own sake, but for the beneficial influence which its aims and methods exercise over the whole field of medicine.

In the brief interval since 1872, our President of that year, Professor Donders, has been called upon to occupy the still more honourable post of President of this General Congress, at Amsterdam. Let us greet him here once again, now in both characters, with the respect and affection which are so much his due. We owe it to him that our calling has been much advanced and elevated by the unfolding of many new truths, and the free presentation of them to us in lucid array, so that all men could turn them to account in the ordinary every-day round of practice, to the great benefit of ourselves and patients.

On the occasion to which allusion has been made, it was the College of Physicians which offered us accommodation, that ancient English Corporation of the Sixteenth Century, which, at its original institution, comprised upon its rolls almost all that was greatest among us in medical learning and practice, and which now, with characteristic liberality, is doing its utmost, with our other brethren, to further the success of the present world-wide convention. It now happens, however, that our Ophthalmological Section of this Congress is domiciled otherwise, viz., in the rooms of an illustrious Society, the time-honoured representative among us of the whole range of natural knowledge, for the promotion of which it was laboriously founded; largely, we may reflect with pleasure, by the co-operation of men of our own profession. The circumstance is quite accidental, but it may serve to remind us of the deep and necessary connection of every department of medicine, our own in a marked degree, with the principles and subject-matter of the natural sciences in general. Man's body and mind have relations with the whole universe, and thus far extend also the aspects of those relations with which the healing art is concerned; which we study in man's interest, in order that we may understand how to modify or control them for his individual or general advantage.

As to these great modern International Congresses of the private men of various countries, (of which it may perhaps be said that the present one is already proving itself the largest and most remarkable of any), this room may remind us how lofty, how noble, have been the aims of some of the greatest intellects of the past, of whose achievements we find ourselves to be the fortunate inheritors. For it is science itself, and nothing less, in the persons of a series of its eminent cultivators in many countries, working in an unselfish and open spirit, that has at length made such Congresses possible, and, in fact, has brought them about.

The Royal Society was founded, we may remember, about the time of the death of Harvey, and in the near radiance of that Baconian light, of which the token was that it must be, not dry and barren, but fruitful and beneficent for the use of man's estate. And above me, in your view, is the bodily presentment of the greatest of the Society's Presidents —of Newton, from whose genius and character have radiated, for us and for all succeeding ages, the beams of a potent and almost divine influence.

Let me, for a passing moment, strike a chord that will wake an echo in every breast, and give expression to the trust, that in our deliberations we may be guided by the implicity of his pure love of truth, and of truth only: as well as by its correlative, that modest self-estimate, that humility of mind, which in him was the mark of a deep consciousness of his own individual littleness, and almost helplessness, in presence of the dark problems of the unknown. "I know not what I may appear to the world," he is reported to have said towards the close of his life, "but to myself I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble, or a prettier shell, than ordinary, whilst the great ocean of truth lay all undiscovered before me."

Let us now proceed to what lies more immediately to our hand. Those who have had the task of organising the arrangements for the present Congress, have been actuated chiefly by the desire that useful results should follow from it. With that view they have endeavoured to apportion the very short time at our disposal to the consideration of special subjects, carefully selected, such as seemed likely to be elucidated by the mutual exchange of thought between men of weight and experience coming together from distant places. They think themselves fortunate, in having, in so many instances, secured the co-operation of distinguished masters, who have, we have reason to believe, made special studies for their addresses, and whose words will be received, I am sure, with the respect to which they will be so well entitled.

In our own proper section of Ophthalmology, we shall have the advantage, on successive days, of directing our minds to the several important questions set down in our programme. The names of Horner, Snellen, Leber, Adolf Weber, and De Wecker, assure us that the materials for deliberation will be ample, and competently presented to us. There are also additional communications by able men, bearing on the same matters, and these will be read in juxtaposition, previous to opening the debates. The high reputation of so many of our members raises our expectations as to the results.

As it is very desirable that a good record of our discussions should be preserved in our transactions, it is earnestly hoped that every member who may favour us with his opinions should be as clear and as terse in the expression of them as may be; and should, at latest by the following morning, while the memory is still fresh, give a copy of his remarks in writing to the Secretaries. As to this, facilities will be afforded, and failing this, the Secretaries cannot be responsible for the publication, as we have no authorised reporters.

To-morrow the first of the distinguished men whom I have just now named, will place before us a subject of great interest and importance, the Antiseptic Method in Eye Surgery. I presume that no one nowadays will question the evils we are so familiar with in our practice, and which have so often marred the intention of well-devised operations skilfully performed; but where, as we hear it said, Nature has failed to do her part, to second the effort of the surgeon by a due process of repair, the study of the causes of such failures and of the means of obviating them, constitutes far the most brilliant page in the history of modern surgery; and in other sections of this Congress, while the name of Lister will be applauded, the wide questions he has raised, and in raising has so often cleared up, will receive the full consideration they call for.

In the case of the organ of sight, specially constituted, and in some respects screened from injury as it unquestionably is, there are reasons why the application of precautionary antiseptic measures, though the principle of them must still assert itself, should take a somewhat special form. Owing to the local structural conditions they may apparently be often more simple, though the possible need of the more elaborate of them should never be allowed to fall out of view.

The tears are a secretion as pure from extraneous particles as is the filtered air in the recesses of the lungs. They are poured out under cover, in the right place, in quantity suitable to the need; while the lids diffuse them over the conjunctival surface ere they escape by their proper channels. Their useful and multiple office is performed in a way so simple and so perfect, that no art, however skilful, could pretend to equal it. We should ponder well the deep marvels of adaptation of means to ends, and take heed that we do not hinder exquisite Nature by meddlesome or needless interference, by the *nimia diligentia Chirurgorum*, but only lend it tender and judicious help by our dressings and our methods. We should always still be able to apply the words of our great poet, "The art itself is nature." Three papers, by Dr. Reymond, of Turin, Professor Leber, of Gottingen, and Dr. Emmert, of Berne, relating to this same subject, of antiseptic surgery, will be read before the discussion is proceeded with.

On Friday we [illegible] and I need [illegible] under the able guidance of Professor Snellen. This in all its aspects and [illegible] Though it has been [illegible] remains very [illegible] to be fully explored; why it should occur is little understood. The explanation [illegible] for the present [illegible]

it is to experiments on the lower animals that we may look with most probability for a clue to the enigma. Humanity will have reason to rejoice when this too-frequent cause of total blindness shall yield to a clearer insight into its nature, and to the consequent hoped-for discovery of the means of prevention or cure; for at present it brings life-long misery to many homes. Meanwhile experience suggests some general rules which may do something to ward off this terrible malady, or help us, in some instances, to control if, even now and then to check its progress temporarily, and, perhaps, permanently. The difficulty lies in the application of such rules, and to this point our discussions may, I think, very usefully be directed. An important paper by Dr. Brailey, on "Pathological Changes in Sympathetic Ophthalmitis," and another by Dr. Poncet, of Cluny, on the "Histological Examination of an Eye Enucleated after Enervation," will be read in this connection.

On Saturday, the main topic for us will be introduced by Professor Leber. It is one of a class which has recently been shown to have much wider relations than could have been imagined possible some few years ago, and which is certainly destined to attract more and more attention, not only from ourselves, but practitioners at large. The immortal invention of Helmholtz, by opening to the view of all instructed men the marvellous background of the transparent chambers of the eye, has gradually awakened inquiries on the part, first of oculists, and then of physicians, which even in their infancy have yielded results of rare and unexpected value. The changes visible by the Ophthalmoscope will naturally be noted down, and their varieties and sequences determined, before the precise interpretation of them by exact structural examination, and their true pathological import, can be ascertained.

These only admit of being worked out slowly, as opportunities, often rare, give occasion. Our knowledge of the relation of those aspects of the fundus of the eyes to what is concurrently going on in the optic avenues, and in the several associated portions of the wondrously complex double brain and spine, must in a great measure lag behind. And we must be careful not to leave for a single moment the safe ground of exact observation; or suffer ourselves to be beguiled by the wish to make the new knowledge fit into the old, till all seems a delightfully complete system. Such vain imaginations are not in the true spirit of science. Nevertheless, some broad and general facts already reward the clinical industry and acumen of several physicians, whose names are a sufficient pledge of the reliable character of their results. But I believe those who know the most, will be the most ready to confess, how rudimentary, at present, is our insight into this very important field of inquiry. Indeed, the study of the brain function (employing that term in its widest sense), and of the aberrations occurring in it that we call disease, remains still in its very infancy. It advances, however, with rapid strides, by the several parallel roads of human and comparative anatomy, experimental physiology and pathology, and of clinical observation, including morbid anatomy; and it cannot be long ere splendid conquests must be won for us in regions which have been so long shrouded in darkness, and so dense, that in our ignorance we have been hardly aware of their gloom. In connection with this discussion a comprehensive paper by Dr. Bouchut will be laid before you.

Glaucoma, the other great subject to be brought before us, is of even more practical importance than sympathetic ophthalmitis, because of its far wider prevalence, and its equally fatal consequences to sight when uncontrolled. We shall consider it in two aspects. On Monday, on the initiative of Dr. Adolf Weber, and after hearing papers by Professor Laqueur of Strasbourg, by Mr. Priestley Smith of Birmingham, and by Dr. Angelucci of Rome, all bearing on the anatomical and pathological basis of the subject, we shall discuss its nature and etiology: while on Tuesday the grand problem of its treatment, and chiefly its operative treatment, will undergo critical examination at the hands of one fully entitled to carry great weight with all of us, Dr. de Wecker, whose experience is very extensive. His address will be followed, before the discussion, by communications from Mr. Bader and Dr. Abadie.

It was Albrecht von Graefe, as you well know, gentlemen—that bright spirit, whose too early death we have not yet ceased to mourn, for ourselves and for science—who, at the same moment that he announced to the world the discovery of a remedy for glaucoma, also drew for us, for the first time, the grand outlines of the clinical history of the disease. His treatise will endure as the model work of a most fertile genius. In it he laid down the chief subdivisions of the subject, and how far his remedy was likely to be applicable in each. This single paper constituted an epoch in our department of the medical art. It was read, but hardly discussed, at Brussels, at the Second International Congress of Ophthalmology, in September 1857. Several of those now present were there. The impression produced among them was profound. But yet we are still, twenty-four years later, anxiously inquiring what is the essential nature of the glaucomatous process; and what is the best remedy to employ?

It is, indeed, quite true that, since that time, our clinical knowledge of glaucoma has been greatly extended, and its varieties and complications recorded with some approach to completeness. Extensive researches, anatomical, experimental and other, have also been undertaken to account for the remarkable train of phenomena we observe. Attempts have also been repeatedly made to explain the *modus operandi* of Von Graefe's celebrated remedy; but as yet, it must be allowed, without entire success. The treatment by iridectomy, too, has been largely tried, sometimes with modifications; and, on the whole, it has been admitted to be the best and most reliable. The time, the method, the conditions of applying it to the varieties of eye-tension, have been in many particulars, though not with universal concurrence, defined and accepted. But, as was perhaps inevitable, men asking themselves always *how* iridectomy arrested the glaucomatous process, were now and then led to desire and to propose, and then to inculcate, other methods, having the same end in view, proceeding too often on some fancy or speculation, the validity of which experience has not sustained. Some of these methods, after obtaining a certain currency, have fallen into merited disfavour, while others remain more or less worthy of discussion, some perhaps of general adoption, under limitations to be yet laid down.

It would be quite foreign to my present purpose to pass any opinion on particular modes of operating. We hope on Monday to hear the great problem—the pathology of glaucoma—well handled by our distinguished colleague from Darmstadt; and on Tuesday to learn, and debate upon, the latest conclusions on its surgical treatment, announced by our eminent *confrère* from Paris.

Many contributions are furnished on other subjects than those to which I have hitherto adverted; and some of them bear upon a question of great and permanent importance, to which I would now ask your attention for a few moments.

The precision of our modern methods of determining the accuracy of sight, and of the sense of colour, has at length made it possible to urge with increasing earnestness, on authorities responsible for the lives of travellers, whether by land or sea, the necessity of enforcing adequate test-examinations, not only on candidates before engagement, but subsequently, at stated intervals, on all persons employed, where good sight is an essential qualification.

If this be important in regard to railway drivers, guards, and signalmen, it is even far more so in the maritime service. On land, each government is in a very direct manner held responsible to its own citizens; and accordingly, much has been done of late years in several countries—though effectually, I fear, in very few—to institute strict periodical examinations under State authorisation and control. As to these, perhaps, a very close uniformity through different countries is not so very necessary, however desirable. But it is matter of common and urgent concern to all nations that, on the open seas, on coasts, and in harbours, an uniform system should prevail as to the due, and sufficient, and periodical testing of the sight of those who may be in the position either to give or to observe signals, on the prompt discrimination of which a multitude of precious lives may at any moment depend. And I trust it may not be very long ere such an uniform system of tests as science can now supply, and also the obligation to put them in force among their own subjects, will be willingly accepted by all civilised States. The present seems a favourable opportunity for coming to some conclusions, and for laying down some definite rules, which, by their clear and practical character, may be likely to meet with general acceptance, and for pressing these with some urgency on Governments throughout the world. It is for your consideration, gentlemen, whether a committee of this section, the composition of which might be international, may not with advantage be appointed to deliberate on this grave subject, and to report to us before the Congress closes. I entertain the confident hope that any recommendations emanating from such a source—bearing, as they would probably do, the impress of moderation and good sense, as well as of exact knowledge of the subject-matter—would everywhere meet with the most favourable attention of statesmen, and be admitted by them as carrying great weight. I would suggest such a committee, with Professor Donders as chairman, if he would be so good as to undertake that office.

Gentlemen,—We anticipate hard work within the narrow limits of our sittings. I trust we shall be able to assemble punctually, so as not to waste moments which can never be recalled.

One more remark: There will be, I fear, the unavoidable difficulty and source of confusion in our converse, arising through the want, in some of us, of familiar acquaintance with one or more of the languages in which others are giving expression to their views. It is but too cer-

tain that we have not yet a common tongue, however probable it may be that mankind are tending in that direction. Misapprehension of each others' meaning is not unlikely to occur; and, at any rate, both the expression and the recognition of ideas will be impeded. To lessen, as far as possible, this drawback, great pains have been taken to prepare, in the three official languages of the Congress, a suitable abstract of every paper; and to place these abstracts in the hands of every member who may wish to acquaint himself beforehand with the authors' propositions. Besides the volume of abstracts, comprising those of all the sections, a few separate copies of those proper to our own, will be in our meeting-room, for the use of those who may not happen to have the volume at hand. These copies remain in the room.

The Executive of the Section have reason to thank the authors for the promptitude with which in most cases the abstracts have been furnished to our indefatigable and able secretaries, who have been at the pains of collating them. If any faults of translation or of printing should be discovered, they will doubtless be attributable to the pressure under which the laborious task has had to be accomplished.

And now, my dear friends and colleagues, let me say that if some difficulties of the kind just mentioned await many or most of you, how much must you find them enhanced by the circumstance, unfortunate for himself also, that your president is to a great extent ignorant of the languages, French or German, in which many of the most valuable communications will be addressed to you, and the speeches delivered. All my life long I have regretted the slightness of my acquaintance with those foreign tongues, which in the past, as in the present, have been and are the channels by which priceless discoveries have been announced to the world, as well, perhaps, as the media of keen, even burning controversies, when men encounter each other in their search after truth. Thus, and from other causes appreciable enough to most of us as life advances, we are apt to fall relatively into the background, and to have to rest content in finding our pleasure rather in learning at second-hand, and after some interval of time, what others have been happily accomplishing, than in hoping to establish for ourselves, or to maintain a forward place. But never till the present moment have I had so much cause to lament my many deficiencies, since now they must of necessity affect others even more than myself. I rely, however, with full confidence on your kindness and indulgence, otherwise I could never at all have ventured to undertake the honourable office of being your president at this great Congress.

AN ADDRESS

ON THE

RELATIONS OF MINUTE ORGANISMS TO CERTAIN SPECIFIC DISEASES.

Delivered in the Section of Pathology.

BY E. KLEBS, M.D.,

Professor of Pathological Anatomy in the University of Prague.

ARE there specific organised causes of disease? This question, which during the last twenty years has agitated the medical world, and the decision of which, by anatomical and experimental methods, appears now to be near at hand, I will here attempt to answer. A short exposition of the facts of the case will show that, in consequence of the acceptance of this hypothesis, our science will have to undergo a profound transformation.

One circumstance which speaks in favour of the assumption of such a theory of disease—an assumption deeply based in the human intelligence—is that forms of disease, very different from one another, but which at the same time remain uniform in each particular case, and especially those which have always been characterised as communicable, have been from the earliest times ascribed to causes entirely foreign to the normal life of the organism. I would remind you of the arrows of Apollo, which, as the Homeric Greeks thought, brought death into their ranks; and of the wrath of Jehovah, which, according to the Old Testament, produced destructive pestilences. In the middle ages the same view took a form which was coarser, but at the same time more tangible; for the new pestilences which appeared in those times were ascribed to fabulous animals, to winged worms, little dragons, and spiders, which were believed to attack mankind. Here we see foreshadowed in the popular language, though perhaps unconsciously, in a manner accordant with our present views, the second element of the problem, viz., the organised nature of the elements producing disease. Few physicians, indeed, supposed the causes of disease to be of this material kind; but Van Helmont, for instance, was one who did so.

It was reserved for modern times to give a more definite form to this hypothesis, and it is, probably, to Johann Lucas Schönlein, that the highest credit is to be ascribed. He took his stand upon the ground of natural science, and led on by the researches of Bassi and Audouin, upon the nature of muscardine disease, became the discoverer of the favus-fungus, known by his name. Although the way was thus opened up for the further establishment of this hypothesis respecting the nature of morbid processes, the development which it first underwent, through the labours of Henle was purely theoretical; for a strict anatomical demonstration was still impossible, in consequence of the imperfection of the methods then in use.

Just as pathological anatomy since Vesalius and Morgagni has supplied the solid basis on which modern medicine rests, it has been the task of microscopical pathological anatomy to lay the foundations of its latest development; by demonstrating in many diseases, the presence of organised foreign bodies in the pathologically altered organs.

The material changes of the organism, whether of tissues or organs, cannot, it is easy to see, be regarded as the adequate cause of any disease introduced into the body from without. Just as little are any general variations in external conditions of life sufficient to explain the various forms of infective disease. On the other hand, the demonstration in diseased parts of organised foreign bodies capable of multiplication fulfils the conditions of the philosophical postulate, which was framed by the untaught logic of the people, and by the profounder conceptions of men of genius.

If we now consider the present state of this question, the three following points of view present themselves as those from which the subject may be regarded.

I. We have to inquire whether the lower organisms, which are found in the diseased body, may arise there spontaneonsly; or whether even they may be regarded as regular constituents of the body.

II. The morphological relations of these organisms have to be investigated, and their specific nature in the different morbid processes has to be determined.

III. We have to inquire into their biological relations, their development inside and outside the body, and the conditions under which they are able to penetrate into the body, and there to set up disease.

I. The question of the spontaneous generation of organisms is one of such universal significance, that it cannot be investigated solely in relation to pathological states.

It is necessary, in the first place, to decide the previous question: whether, supposing that the possibility of spontaneous generation were proved, this process could have any importance in setting up morbid processes. This previous question, must, however, with our present knowledge of these processes, be decidedly answered with "No"; for the communication of infective diseases by transference of material particles from without, can no longer be regarded as open to question; though in the middle ages, for instance, such a doubt did exist with regard to syphilis. Just as little can organisms of this kind, which indisputably do occur as regular and permanent inhabitants of some organs of the normal body, be regarded as the cause of such morbid processes as are conveyed from man to man, or are introduced into our bodies by means of air, water, or food.

In regard to this point one possibility only must be conceded; namely, that such normal inhabitants of the human body may by alteration of the medium in which they occur, acquire virulent properties, and so become causes of disease. It is however, equally clear that it would not be possible for any and every form of disease indifferently to be produced in this way; even supposing, for instance, that the specific elements producing disease were present in a latent inactive form in any part of the body, such as the intestine. Cholera may rise in consequence of chill or fright, but only at the time of a cholera epidemic.

Although this view must appear clearly established to every thoughtful physician, it is still a hypothetical induction, deduced from general facts. Hence arises the necessity for a further presentation of the relation between the morbid cause and the morbid state, as a representation, if possible, which appeals to the senses. Hence arises the necessity of a morphological and biological investigation of the subject.

II. If we start from the principle that specific diseases can only be produced by specific organisms, the question arises whether these specific differences of a morphological kind can be demonstrated in the organisms which are constantly found in diseased organs. Since it is quite possible that the specific character of the action of these bodies depends upon minute chemical differences, it could not be taken for granted beforehand that morphological differences would be discovered in these specific disease-producing elements. Fortunately, however, the anti-

versal law of nature is found to obtain here also, that difference of form corresponds as a general rule to difference of function, and only different degrees of functional activity occur within the same series of forms.

A short survey of the facts which have been up till now discovered in this direction, will show in many cases so complete an identity of form in the parasitic organisms occurring in the diseased part, in like pathological processes, that the causal interdependence of the two seems to be thus made certain.

The three groups of Hyphomycetæ, Algæ, and Schizomycetæ, have been demonstrated to occur in the animal and human organism in infective diseases.* Their significance increases with the increase of their capacity for development in the animal body. This depends partly upon their natural or ordinary conditions of life, but partly also, and that in a very high degree, upon their power of adaptation, which, as Darwin has shown, is a property of all living things, and causes the production of new species with new active functions.

1. The hyphomycetæ, on account of their needing an abundant supply of oxygen, give rise to but few morbid processes, and these run their course on the surface of the body; and are hence relatively of less importance. It will be sufficient here to refer to the forms: Achorion, trichophyton, oïdium, aspergillus, and the diseases produced by them, favus, ringworm, and thrush, to show this peculiarity. Nevertheless, we see that these organisms also (as was proved by the older observations of Hannover and Zenker) may, under certain circumstances, penetrate into the interior of the organs. Grawitz, moreover, has recently shown that their faculty of penetrating into the interior of the organism, and there undergoing further development, depends on their becoming accustomed to nitrogenous food. It is probable that the processes, as yet insufficiently studied, of Madura-foot and Actinomycosis, owe their origin to similar conditions.

2. Only one of the algæ—viz., leptothrix—has as yet acquired any importance as a producer of disease. It gives rise to the formation of concretions, and that not only in the mouth, but also, as I have shown, in the salivary ducts and the urinary bladder, in both which organs it forms a constant constituent of carbonate of lime calculi. Since these calculi produce no disturbance except by their mechanical action, the penetration of the germs of these organisms into the tissues seems to be in itself harmless, except when they attack the teeth. Here, as is well known from the researches of Leber and Rottenstein, their presence causes caries. Another alga, the sarcina of Goodsir, may indeed pass through the organism, without, however, producing in its passage either direct or indirect disturbances. It seems more worthy of note that many schizomycetæ, and especially the group of bacilli, are evidently nearly allied to the algæ in their morphological and vegetative relations—so as to be assigned to this class by several authors, and especially by Cienkowski.

The schizomycetæ furnish, without doubt, by far the most numerous group of infective diseases. We distinguish within this group two widely different series of forms, which we will speak of as bacilli and cocco-bacteria respectively. The former, which was first exhaustively described by Ferdinand Cohn, and the pathological importance of which, especially in relation to the splenic disease of cattle, was first shown by Koch, consist of threads, in the interior of which permanent or resting-spores are developed. These spores becoming free are able, under suitable conditions of life, again to develope into threads. The whole development of these organisms, and especially the formation of spores, is completed on the surface of the fluids, and under the influence of an abundant supply of oxygen.†

The number of affections in which these organisms have been found, and which may be to a certain extent produced artificially by the introduction of these organisms into healthy animal bodies, has been largely increased since the discovery of Koch, that the bacteria of splenic fever (anthrax) belong to this group. Under this head must be placed the Bacillus malariæ (Klebs and Tommasi-Crudeli), the bacillus typhi abdominalis (Klebs, Ebert), the bacillus typhi exanthematici (Klebs, observations not yet published), the bacillus of hog-cholera (Klein), and, finally, the bacillus leprosus (Neisser). It would exceed the time appointed, were I to attempt to describe these forms more minutely. This may, perhaps, be better reserved for discussion and demonstration.

All the diseases named possess one very remarkable property common to them all. They arise from influences which are conveyed to the human body more or less directly from the soil. The conveyance of the disease from man to man is, however, by no means excluded; and, in one of these diseases, it constitutes, indeed, the most frequent mode of communication. We may perhaps assume, from the course of the disease, that cholera and yellow fever also belong to this group. From the history of their origin, we may designate these diseases as soil diseases.

Alongside of these general infective diseases produced by bacilli, local affections also occur, which indicate the presence of these organisms at the point where the disease begins. As an example of these processes, which probably occur in various organs, I would mention gastritis bacillaris, of which I shall show you preparations. In this, we can trace the entrance of the bacilli into the peptic glands, as well as their further distribution in the walls of the stomach, and in the vascular system.

At the spot where the bacillus enters, inflammatory processes, gangrene, and hæmorrhage, are observed; while its distribution in the circulation appears to be able to lead to serious alterations of other organs. Thus, I have once observed the process in a case of acute atrophy of the liver.

3. The second group of the pathogenetic schizomycetæ I propose to call, with Billroth, cocco-bacteria, because they consist of collections of micrococci, which are capable of transforming themselves into short rods. The former usually form groups united by zooglœa; by prolongation of the cocci, rods are formed, which sprout out, break up by division into chains, and further lead again to the formation of resting masses of cocci. I distinguish, further, in this group, two genera—the microsporina and the monadina; in the former of which the micrococci are collected into spherical lumps; in the latter into layers. The one class is developed in artificial cultivation at the bottom of the cultivation-fluid; the other on the surface. The former requires a medium poor in oxygen, the latter a medium rich in oxygen, for their development.

Among the affections produced by microsporina, I reckon especially the septic processes, and also true diphtheria. On the other hand, to the processes produced by monadina, belong especially a large series of diseases, which, according to their clinical and anatomical features, may be characterised as inflammatory processes, acute exanthemata, and infective tumours, or leucocytoses. Of inflammatory processes, those belong here which do not generally lead to suppuration; such as rheumatic affections, including the heart, kidney, and liver affections, which accompany this process, sequelæ which, as is well known, lead more especially to formation of connective tissue, and not to suppuration. Here, also, belong croupous pneumonia, the allied disease erysipelas, certain puerperal processes, and finally, parotitis epidemica, or mumps.

Among the acute exanthemata, the following may, up to the present time, be placed in this group:—variola-vaccina, scarlatina, and measles.

The group of infective tumours is represented by tuberculosis, syphilis, and glanders. Throughout the whole group of cocco-bacteria the demonstration of organisms in the diseased parts encounters difficulties, which vary considerably in the different kinds. The demonstration of the comparatively large coccus—or bacteria-masses in sepsis, diphtheria, and rheumatic endocarditis, is comparatively easy and certain; the same demonstration may be extremely difficult in the case of scattered cocci which never form larger groups. This is especially the case in the monadistic processes, and more particularly those of inflammatory nature, and in the acute exanthemata. Still the observation of a quite fresh specimen is easier on account of the active mobility of these cocci. They often penetrate into the cells, and cause considerable swelling of them, as I have shown in the case of the monadina of pneumonia, which penetrate the ciliated epithelia of the bronchi. The infective tumours just mentioned present, however, the greatest difficulties in this respect, since in them the organisms, although they are the carriers of the virus, cannot at once be recognised as such within the proper tumour formation. We find here also, it is true, on examining the object in a fresh and living state, a large number of actively moving minute corpuscles, which cease their movements at a temperature of 60° to 70° Cent. (140° to 158° Fahr.), either permanently or temporarily, according to the time for which this temperature has been maintained. But the presence of fat-globules and granular albuminous masses makes it difficult to discriminate them with certainty. The methods of straining have not, up till now, furnished any trustworthy criteria in these cases. On the other hand, it has been found possible, by cultivation in suitable fluids, to see developing from the substance of such tumours organisms which belong to the group now under consideration; and which, when transferred to healthy animals, produce characteristic diseases. This is the case with the organism which I have called helicomonas, and which may be obtained from syphilitic new formations.

* The animal parasites need not here be considered, since their effects in producing disease are either of less importance, or else such as admit of no question.

† I do not here mention the occurrence of the spirilla obermeyeri in relapsing fever, interesting though this fact is, and theoretically of great importance, because the classification of this organism at present involves difficulties.

III. The investigation of the biological relations of these organisms may be approached from two different sides. In those forms which come under observation chiefly in the animal body itself, the diseased organs furnish the most suitable object of investigation; while in those processes which I have spoken of as soil diseases, the examination of soil, water, and air, has also furnished favourable results. The latter method was first successfully applied by Tommasi-Crudelli and myself to malaria, and lately by Pasteur also to splenic fever. If we succeed in breeding from one of these objects organisms which remain constant in form and development, and which when conveyed to animals give rise to the corresponding diseases, it is even by this alone rendered highly probable that the organisms contained in the cultivation-fluids are the actual causes of those diseases. But this demonstration may be exhibited in a stricter form, if we separate the fluid and solid constituents of these cultivation-fluids, and verify the activity of the solid residue, as well as the inactivity of the fluid constituents by experiments on animals. This "separation experiment" was first carried out by Chauveau with respect to vaccine, by allowing the fluids to deposit a sediment. This method is, however, not adequate, since all cultivation-fluids do not furnish sediments. For this reason I first made the attempt in 1871 to use filtration through porous masses of clay, by means of the water air-pump; and the result justified my expectations. Pasteur has of late years substituted for them gypsum filters, which have proved still better adapted to the purpose. The experiment was carried out with favourable results by myself and Fugel on the microsporina of sepsis and diphtheria, as well as on the bacilli of splenic fever; and has been lately repeated by Pasteur for the latter object. The application, in my laboratory, of this method to the monadina of pneumonia and syphilis gave like results.

Finally, we must mention the important results which have been obtained quite recently with respect to the cause of the protective power of certain inoculations with cultivated organisms; and which we owe more particularly to the French investigators, Pasteur, Chauveau, and Toussaint.

They have shown that by certain physical operations the virulence of certain specific organisms may be destroyed, though their protective power is preserved. Heat and the action of oxygen (Pasteur) appeared to be able to produce this effect. Still it remains open to question in what way the organisms thus enfeebled make the body capable of resisting infection with more active organisms of the same species. The French investigators just mentioned appear inclined to ascribe this action either to the introduction or the removal of a definite chemical substance; that is to say, to a chemical alteration of the inoculated animal. Still we should perhaps be hardly justified in assuming a permanent alteration of this kind in the body without a simultaneous development of the protective organism. This question also, highly important as it is, may perhaps receive further elucidation through anatomical investigation; the method which in this department, as in pathology as a whole, has shown itself to be the one, furnishes us with the most fundamental and trustworthy information.

The conclusion which appears to me to follow inevitably from this short survey of the results of modern investigation, is this:—that specific communicable diseases are produced by specific organisms.

HEXHAM.—Dr. Jackson reports an alarmingly high death-rate of 28.7 in an estimated population of 5,500 souls; and, in the population given by the 1871 census (5,331), a death-rate of 27.8 per 1,000. The mortality from diseases of the respiratory organs was excessive, no fewer than 35 deaths being returned as due to this cause—a rate equal to 20.35 per cent. of the total deaths. The zymotic death-rate was 20.93 per cent. of the total deaths, and 6.54 per 1,000 of population. In addition to an excessive zymotic death-rate, the infantile mortality was unduly high, the mortality amongst children under five years of age being equal to 36.04 per cent. of the total deaths. Referring to this subject, Dr. Jackson states that "a large proportion of these deaths occurred in the lower parts of the town, in badly ventilated properties"; and again, in alluding to excessive mortality, "Hexham is still, what it has been for the last thirty years, one of the most unhealthy towns in England—even the death-rate remains steadily fixed at 60 per cent. above its proper value". An outbreak of scarlet fever, which was fatal in 22 cases, was for some time kept in check by isolation in the fever wards of the workhouse; but, on an independent outbreak occurring there, the wards became no longer available for patients from the town. The water-supply is insufficient in quanity, and "the most considerable portion of it is composed of casual flood waters, contaminated by farm-sewage". The public sewers are not effectively cleansed or properly ventilated, whilst the sewer outlets are practically stagnant cesspools. The slaughter-houses are described as of the "worst possible type".

AN ADDRESS

ON

THE SCIENTIFIC STATUS OF MEDICINE.

Delivered before the Section of Diseases of the Teeth.

BY RICHARD OWEN, M.D., C.B., F.R.S.

THE aim of every student of medicine—and such the true student never ceases to be—is to raise the healing art to the status of a science.

The most significant testimony that the application of human intellect to comprehend phenomena has attained its noble aim, is the "power of prediction".

When the astronomer foretold the date to hour and minute of the advent of an eclipse, or of a comet, or even of a cluster of seemingly migrant aërolites, his peaceful victory was manifest. So, when the palæontologist, on inspection of a new-found fragment, proclaimed the nature and affinities of the extinct animal which, long ages past, had left such fossil evidence of its existence, his methods of interrogating and interpreting Nature were acknowledged to be of the rank of a science.

Certificates to life-assurance offices,* and the bulletins issued by the medical attendants on personages in whose health and life the public have interest, are amongst the forms of prophecy in the precise fulfilment of which the claims of medicine to a like rank may be tested.

The definition of disease is the expression of a sum of knowledge and experience by which the constant and essential characters are distinguished from accessory and occasional symptoms; and the remedies applied are, in like manner, those which the best experience has proved to be most potent. The technical terms of maladies so discerned are, as a rule, "collective names for groups of morbid symptoms".

Permit me to trespass on your patience and crave your indulgence toward one who has long ceased to practise the profession, deemed divine by sages of ancient Greece, if I venture to submit a few examples illustrative of the dependence of medicine upon a once-deemed unpromising inlet of light; but of which, in researches connected with the branch of medicine of the present Section, I have availed myself with unexpected advantage.

The healer may be called in to one whom he finds suffering from "loss of appetite, discomfort and weight in the gastric region, distension of stomach, with eructations and nausea": to this group of symptoms he applies the name of "dyspepsia"; if it be aggravated by aching or burning pain referred to the pit of the stomach, he may term it "gastrodynia". According to symptoms, he may prescribe, for one class carminatives, for another alkaline carbonates in effervescence, or may be led by special indications to administer such drugs as nitrate of silver, hydrocyanic acid, bismuth, and opium, the latter especially, if pain be attended with spasmodic action.

If the physician be called to a case in which the alvine evacuations are excessive in quantity and unnatural in quality, and sums up such symptoms as diarrhœa, he may administer castor-oil or saline purgatives, followed by various astringents, vegetable or mineral. But should a patient, whom the healer may see for the first time, be suffering also from febrile or pyrexial symptoms, thirst and headache, tenesmus and tormina, with rigid abdominal walls, frequent uncontrollable calls to defecate, with little discharge save of watery mucus, of peculiar fœtor, perhaps stained with blood, he pronounces the case to be one of dysentery, and may prescribe leeches, fomentations, and, according to one authority, may administer purgatives, but, according to another, opiates. In one of our latest compendiums of practice, it is written of this disease—"Calomel is said to have fallen into disuse, and perhaps deservedly" (Bristowe's [illegible]). An eminent physician, Dr. Trousseau, has confidence in ipecacuanha.

Again, the aid of the medical man may be invoked to abate or banish a group of symptoms which he terms peritonitis; and, under this treatment, there may supervene, without the least evidence of causation, another series of [illegible]

plasters, flannel rollers and compresses, opiates; in short, the recognised remedies for pleuritis. Again, these symptoms may be aggravated by those of pneumonia, requiring other or added modes of treatment; and the pulmonary symptoms may become further complicated by abnormal affections of a more vital thoracic organ—"the bosom's lord".

If pain and oppression in the region of the heart predominate, with accelerated pulse, and if acoustic scrutiny be superadded to vocal and visual interrogation, the accomplished physician may be able to pronounce the malady to be either pericarditis or endocarditis. In either case he will prescribe the appropriate remedies, and form, according to their effects, his prognosis, or prophecy of results.

Should diffused muscular pains supervene, or be associated with the peri- or endo-cardial symptoms, and these pains be attended with stiffness, loss of muscular power, or repugnance to exert such power, and a healer be invoked at this stage, he may pronounce it to be a case of "rheumatismus", or even of "acute rheumatism"; and his treatment will be guided by the urgency or predominance of one or other of the symptoms. But the intractability of the so-called malady is significantly indicated by the expressions of one of our most accomplished physicians, under whom I was myself a student, and whose loss was deeply regretted and is still lamented by his survivors. Dr. Peter Mere Latham, in his *Lectures on Subjects connected with Clinical Medicine*, in which relation to practice and instruction he was a master, writes of acute rheumatism as follows: "No disease has been treated by such various and opposite methods. Venesection has wrought its cure, and so has opium, and so has calomel, and so have drastic purgatives." (*Op. cit.*, Lecture x, "Diseases of the Heart".) Had Latham, at the date of that lecture, been aware of a subsequently discovered cause of acute rheumatism, he would have known that, at such stage of the cause's baneful operations, the malady was beyond the influence of any of the proposed and supposed remedies. But, without knowledge or suspicion of such cause, noting abatement of symptoms as time went on, bringing a transition from the acute to the chronic stage of rheumatism, the experienced physician might well attribute the cure of the tetrasyllabic symbol of symptoms to one or other of the remedies which the then stage of his art had suggested.

In a modified form of muscular malady, to which the phrase "rheumatic arthritis" has been applied, and which, at a dropsical stage, proved fatal, a justly celebrated professor of physiology in the University of Heidelberg observed, in his *post mortem* examination, that the muscular tissues of the defunct were studded with minute white specks, which quickly blunted the scalpel. Chemical analysis showed the grittiness to be due to deposits of phosphate and carbonate of lime; and Tiedemann confirmed his observation in Froriep's *Notizen* for 1823. The case was concluded to be a previously unnoted instance of "diffused gout". The pathologist was little aware how near he was to a discovery to which he might have been led by application of the microscope.

The finding of the wormlet within the cysticule in 1835 (*Proceedings of the Zoological Society of London*, 8vo, February 24th, 1835; also *Transactions, ibid.*, 4to, vol. i), and the more important discovery by Dr. Zenker of Dresden, in 1860, of its causative relations to a direful disease, have demonstrated that the several groups of symptoms to which I have briefly referred under the respective technical denominations applied to their groups, may, one and all, be due to the deglutition of *Trichina spiralis*. The larva of this wormlet in the flesh of the animal it infested, being introduced as food into the human stomach, finds in that warm cavity an environment of muco-chymous nutriment, in which it rapidly matures, acquires activities, and develops its generative organs and products. If permitted to pass into the intestinal canal, it there excludes its progeny, which also rapidly acquire their full size and procreative faculty. But the grave symptoms of their presence are due to the curious migratory instinct of the young trichinæ, which impels them to make their escape by perforating the tunics of the intestine, in the course of which operation the majority find their way into the venous capillaries. Such as wriggle through the meshes of the vascular network bore their way through the serous tunic of the gut, and pass into the abdominal cavity, whereupon the peritonitic are complicated with the enteritic symptoms. But the majority are carried to the right side of the heart, and thence by the pulmonary artery to the lungs. Threading, then, the capillaries continuous with the commencement of the pulmonary veins, the trichinæ are brought back to the heart. As many as may have burrowed into the vascular walls of the right or of the left ventricle, or may have got into the cavity of the pericardium, give rise to the symptoms summed up in the terms of art already cited.

Trichinæ which may have strayed into the tissue of the lungs, or which may have wriggled through the pulmonic serous covering, and from the pleural cavity may have invaded the serous membrane in their way to the intercostal muscles, add the pleuritic and pulmonitic to the pericarditic symptoms.

The natural affinity or attraction of the trichinæ is to myonine, or the muscular tissue. There their wanderings come to an end. They are conveyed so soon and so rapidly by branches of the carotids to the muscles of the larynx, that the trichinæ are there found most constantly and abundantly; but usually so vast is their number, that they are carried to the voluntary muscles of the entire body.

In the exceedingly delicate connective tissue of the ultimate bundles of the ultimate fibrils, the young trichinæ coil themselves up to their larval repose, exciting no other organic change than an outflow of plasma, which condenses with the contiguous cellulosity, and becomes moulded into the shape of an elliptic case, in which may be seen, under the microscopic compressorium, one or more of the tiny worms disposed in two or more circular coils.*

The natural history of *Trichina spiralis* leads the physician, cognisant thereof, to put a question to his patient, the reply to which would reveal the veritable cause of the malady at whichever of the stages—dyspeptic, dysenteric, pleuritic, pneumonic, carditic, or rheumatic—he might happen to have been called in. That question would be: "What did you eat last before you became unwell?" If the answer denoted pork in any of its culinary forms, the physician would require a portion of the meat, or of the ham or sausage; and, being practised, as every competent medical man now is, in the use of the microscope—an instrument as indispensable to the consulting-room as the stethoscope—he would detect the minute parasite, and recognise the *fons et origo* of all and every the groups of symptoms personified under one or other of the several before-cited tetra- or pente-syllabic terms of medical art.

If, fortunately for the patient, he were called in at the first stage, ere the wormlet had passed on out of the stomach, he might ask for the mustard-pot, and therewith, or with any other quickly attainable strong and promptly acting emetic, clear the stomach of its lethal invaders; after which he might administer a strong dose of calomel, knowing its destructive operation on any lingering trichinæ which might not have been dislodged. If the aid of the scientific healer had not been invoked until the dysenteric symptoms had set in, still he might see a chance of directly combating the *vera causa* by combining calomel with the remedies for which accessory symptoms would call. On the supervention of the pulmonary or cardiac troubles, the physician would know, with a scientific knowledge enabling him to prophesy, that he could do no more in way of cure of the malady, *i.e.*, in eradication of its cause; but that his treatment henceforth must be merely palliative. He now could predict confidently to his patient and the friends that symptoms of pleurisy and pericarditis would set in, that the chest-symptoms would be followed by rheumatic—probably severely rheumatic—ones: furthermore, that, if life were preserved until these symptoms should subside, a certain deterioration of muscular power, with general stiffness, would long remain, if ever lost. The prophet would know that, when such stage of recovery was gained, although the wormlets would die and dissolve, their cysts would remain, and arrest and precipitate salts of lime, such as attracted, but misled, the conclusions of the justly celebrated anatomist and physiologist already cited.

My aim, as may perhaps have been surmised by the distinguished members of the medical profession whom I have the honour to address, has been to exemplify under what condition and in what proportion medicine may be termed an art, and under what circumstances it rises to the dignity of a science.

In the degree in which the veritable cause of groups of symptoms summed up as dysentery, pneumonia, rheumatisms, and other species of disease is recognised, and the remedy specially applicable to the removal of such cause has been experimentally determined, the applier of such knowledge to the relief of suffering mankind exerts a power which science imparts.

The technical terms in which the symptoms of one or other of the four or five stages of trichinosis would have been defined prior to the discovery of their veritable cause; when, also, under the same pretrichinal condition of knowledge, various causes might have been assigned, and the then approved legitimate remedies applied to the respective groups of symptoms—exemplify a stage of medical research which had not risen to the level of science. A significant evidence of such status will be manifested when specific names of disease indicate their cause, and are founded on demonstrative knowledge of such. The recognition of the efficient cause of the several symptoms, and of

* These cysts, which in their partially calcified state Tiedemann conceived to be arthritic deposits, Hilton subsequently described as a species of cysticercus (*Medical Gazette* for February, 1833).

the relations of these to the anatomical structures affected by such cause, exemplifies the rise to the dignity of a science.

"Knowledge is Power": but what of half-knowledge?

Microscopic discovery of an otherwise invisible parasite has enabled the practitioner to administer the remedies applicable to arrest or annihilate the cause of a direful malady; such knowledge gives also that of the stage beyond which there is no direct or specific remedy. In such phase of medicine, he can act with confidence and prophesy with certainty. Finally, I would refer to another test which, by the analogy of established sciences, bears upon my present subject.

When chemistry was struggling to its goal, a mockery disguised in its rags obtained the confidence of a majority, under the name of alchemy. It was long ere the professors of this pseudo-science lost the patronage of the rich and great, on whose credulity they battened. The extinction of the transmuters is an evidence, small, indeed, but significative, of the true and trustworthy status of the branch of experimental research to which the gifted, single-minded men devoted themselves, to raise chemistry to the status of a science.

Prior to, and for some time after, the promulgation of the Copernican theory, astrology continued to hold its ground against astronomy. The "caster of nativities" was patronised by monarchs, ministers, men of wealth, and lords of fair estates long after the periods disgraced by the persecution of Galileo, and by the cold neglect of Kepler. Finally, arose a Newton; and to the higher evidences of a "science of the stars," I may here add the lower one of the extinction of astrology or its relegation to some obscure almanac.

Are there, then, we may ask, at the present date, practitioners, professors of curative methods, analogous, in medicine, to the astrologers and alchemists at former periods of astronomy and chemistry? Do they, in like manner, obtain countenance and support, as did those empirics, from Prime Ministers and non-scientific people of rank and fortune.

In the degree in which the unlicensed dentist, the bone-setter, the mesmeriser, and homœopathist may flourish or get means of subsistence, may be estimated, in some degree, the stage at which inductive medicine has reached, on its rapidly advancing career, to the status of a science.

AN ADDRESS
ON
VACCINATION IN RELATION TO CHICKEN CHOLERA AND SPLENIC FEVER.*

By M. PASTEUR, Paris.

Gentlemen,—I had no intention of addressing this admirable Congress, which brings together the most eminent medical men in the world, and the great success of which does so much credit to its principal organiser, Mr. Mac Cormac. The goodwill of your esteemed president has decided otherwise. How could one, in fact, resist the sympathetic words of that eminent man whose goodness of heart is associated in no small degree with great oratorical ability? Two motives have brought me to London. The first was to gain instruction, to profit by your learned discussions; and the second was to ascertain the place now occupied in medicine and surgery by the germ theory. Certainly I shall return to Paris well satisfied. During the past week I have learned much. I carry away with me the conviction that the English people is a great people; and as for the influence of the new doctrine, I have been not only struck by the progress it has made, but by its triumph. I should be guilty of ingratitude and of false modesty, if I did not accept the welcome I have received among you and in English society as a mark of homage paid to my labours during the past five and twenty years upon the nature of ferments—their life and their nutrition, their preparation in a pure state by the introduction of organisms (*ensemencement*) under natural and artificial conditions—labours which have established the principles and the methods of *microbie* (microbiotism), if the expression is allowable. Your cordial welcome has revived within me the lively feeling of satisfaction I experienced, when your great surgeon Lister declared that my publication in 1857 on milk-fermentation had inspired him with his first ideas on his valuable surgical method. You have reawakened the pleasure I felt when our eminent physician Dr. Davaine declared that his labours upon *charbon* (splenic fever or malignant pustules) had been suggested by my studies on butyric fermentation and the vibrio which is characteristic of it.

Gentlemen, I am happy to be able to thank you by bringing to your notice a new advance in the study of micro-organisms as applied to the prevention of transmissible diseases—diseases which for the most part are fraught with terrible consequences, both for man and domestic animals. The subject of my communication is inoculation in relation to chicken cholera and splenic fever, and a statement of the method by which we have arrived at these results—a method the fruitfulness of which inspires me with boundless anticipations.

Before discussing the question of splenic fever vaccine, which is the most important, permit me to recall the results of my investigations of chicken cholera. It is through this inquiry that new and highly important principles have been introduced into science concerning the virus or contagious quality of transmissible diseases. More than once in what I am about to say I shall employ the expression virus-culture, as formerly, in my investigations on fermentation, I used the expressions, the culture of milk-ferment, the culture of the butyric vibrio, etc. Let us take, then, a fowl which is about to die of chicken-cholera, and let us dip the end of a delicate glass rod in the blood of the fowl with the usual precautions, upon which I need not here dwell. Let us then touch with this charged point some *bouillon de poule*, very clear, but first of all rendered sterile under a temperature of about 115° cent. (239° Fahr.), and under conditions in which neither the outer air nor the vases employed can introduce exterior germs—those germs which are in the air or on the surface of all objects. In a short time, if the little culture vase be placed in a temperature of 25° to 35° cent. (77° to 95° Fahr.), you will see the liquid become turbid and full of tiny micro-organisms, shaped like the figure 8, but often so small that under a high magnifying power they appear like points. Take from this vase a drop as small as you please, no more than can be carried on the point of a glass rod as sharp as a needle, and touch with this point a fresh quantity of sterilised *bouillon de poule* placed in a second vase, and the same phenomenon is produced. You deal in the same way with a third culture vase, with a fourth, and so on to a hundred or even a thousand, and invariably within a few hours the culture liquid becomes turbid and filled with the same minute organisms. At the end of two or three days' exposure to a temperature of about 30° cent. (86° Fahr.), the thickness of the liquid disappears, and a sediment is formed at the bottom of the vase. This signifies that the development of the minute organism has ceased—in other words, all the little points which caused the turbid appearance of the liquid have fallen to the bottom of the vase; and things will remain in this condition for a longer or shorter time, for months even, without either the liquid or the deposit undergoing any visible modification, inasmuch as we have taken care to exclude the germs of the atmosphere. A little stopper of cotton sifts the air which enters or issues from the vase through changes of temperature.

Let us take one of our series of culture preparations—the hundredth or the thousandth, for instance—and compare it in respect to its virulence with the blood of a fowl which has died of cholera; in other words, let us inoculate under the skin ten fowls, for instance, each separately with a tiny drop of infectious blood and ten others with a similar quantity of the liquid in which the deposit has first been shaken up. Strange to say, the latter ten fowls will die as quickly and with the same symptoms as the former ten: the blood of all will be found to contain after death the same minute infectious organisms. This equality, so to speak, in the virulence both of the culture preparation and of the blood is due to an apparently trivial circumstance. I have made a hundred culture preparations—at least, I have understood that this was done—without leaving any considerable interval between the impregnations. Well, here we have the cause of the equality in the virulence.

Let us now repeat exactly our successive cultures with this single difference, that we pass from one culture to that which follows it, from the hundredth to, say, the hundred and first, at intervals of a fortnight, a month, two months, three months, or ten months. If, now, we compare the virulence of the successive cultures, a great change will be observed. It will be readily seen from an inoculation of a series of ten fowls, that the virulence of one culture differs from that of the blood and from that of a preceding culture, when a sufficiently long interval elapses between the impregnation of one culture with the micro-organism of the preceding. More than that, we may recognise by this mode of observation that it is possible to prepare cultures of varying degrees of virulence. One preparation will kill eight fowls out of ten, another five out of ten, another one out of ten, another none at all, although the micro-organism may still be cultivated. In fact, what is no less strange, if you take each of these cultures of attenuated virulence at a point of departure in the preparation of successive cultures and

* We have availed ourselves of the excellent translation published in the *Times*, which, on comparing it with the MS. of M. Pasteur, we have found very accurate.

without appreciable interval in the impregnation, the whole series of these cultures will reproduce the attenuated virulence of that which has served as the starting point. Similarly, where the virulence is null, it produces no effect.

How, then, it may be asked, are the effects of these attenuated virulences revealed in the fowls? They are revealed by a local disorder, by a morbid modification more or less profound in a muscle, if it is a muscle which has been inoculated with the virus. The muscle is filled with micro-organisms, which are easily recognised because the attenuated ones have almost the bulk, the form, and the appearance of the most virulent. But why is not the local disorder followed by death? For the moment, let us answer by a statement of facts. They are these: the local disorder ceases of itself more or less speedily, the micro-organism is absorbed and digested, if one may say so, and little by little the muscle regains its normal condition. Then the disease has disappeared. When we inoculate with the micro-organism the virulence of which is null there is not even local disorder; the *natura medicatrix* carries it off at once, and here, indeed, we see the influence of the resistance of life, since this micro-organism, the virulence of which is null, multiplies itself.

A little further, and we touch the principle of vaccination. When the fowls have been rendered sufficiently ill by the attenuated virus which the vital resistance has arrested in its development, they will, when inoculated with virulent virus, suffer no evil effects, or only effects of a passing character. In fact, they no longer die from the mortal virus, and for a time sufficiently long, which in some cases may exceed a year, chicken cholera cannot touch them, especially under the ordinary conditions of contagion which exist in fowl-houses. At this critical point of our manipulation—that is to say, in this interval of time which we have placed between two cultures, and which causes the attenuation, what occurs? I shall show you that in this interval the agent which intervenes is the oxygen of the air. Nothing more easily admits of proof. Let us produce a culture in a tube containing very little air, and close this tube with an enameller's lamp. The micro-organism in developing itself will speedily take all the oxygen of the tube and of the liquid, after which it will be perfectly free from contact with oxygen. In this case it does not appear that the micro-organism becomes appreciably attenuated, even after a great lapse of time. The oxygen of the air, then, would seem to be a possible modifying agent of the virulence of the micro-organism of chicken-cholera; that is to say, it may modify more or less the facility of its development in the body of animals. May we not be here in presence of a general law applicable to all kinds of virus? What benefits may not be the result? We may hope to discover in this way the vaccine of all virulent diseases; and what is more natural than to begin our investigation of the vaccine of what we in French call *charbon*, what you in England call splenic fever, and what in Russia is known as the Siberian pest, and in Germany as the *Milzbrand*.

In this new investigation, I have had the assistance of two devoted young *savants*, MM. Chamberlain and Roux. At the outset, we were met by a difficulty. Among the inferior organisms all do not resolve themselves into those corpuscle-germs which I was the first to point out as one of the forms of their possible development. Many infectious micro-organisms do not resolve themselves in their cultures into corpuscle-germs. Such is equally the case with beer-yeast, which we do not see develop itself usually in breweries, for instance, except by a sort of fissiparous production. One cell makes two or more which form themselves in wreaths; the cells become detached, and the process recommences. In these cells, real germs are not usually seen. The micro-organism of chicken cholera and many others behave in this way, so much so that the cultures of this micro-organism, although they may last for months without losing their power of fresh cultivation, perish finally like beer-yeast which has exhausted all its aliments. The anthracoid micro-organism in artificial cultures behaves very differently. In the blood of animals, as in cultures, it is found in translucid filaments more or less segmented. This blood or these cultures freely exposed to air, instead of continuing according to the first mode of generation, show at the end of forty-eight hours corpuscle-germs distributed in series more or less regular along the filaments. All around these corpuscles matter is absorbed, as I have represented it formerly in one of the plates of my work on the diseases of silkworms. Little by little all connection between them disappears, and presently they are reduced to nothing more than germ-dust. If you make these corpuscles germinate, the new culture reproduces the virulence peculiar to the thready form which has produced these corpuscles, and this result is seen even after a long exposure of these germs to contact with air. Recently we discovered them in pits in which animals dead of splenic fever had been buried for twelve years, and their culture was as virulent as that from the blood of an animal recently dead.

Here I regret extremely to be obliged to shorten my remarks. I should have had much pleasure in demonstrating that the anthracoid germs in the earth of pits in which animals have been buried are brought to the surface by earthworms, and that in this fact we may find the whole etiology of disease, inasmuch as the animals swallow these germs with their food.

A great difficulty presents itself when we attempt to apply our method of attenuation by the oxygen of the air to the anthracoid micro-organisms. The virulence establishing itself very quickly, often after four-and-twenty hours in an anthracoid germ which escapes the action of the air, it was impossible to think of discovering the vaccine of splenic fever in the conditions which had yielded that of chicken cholera; but was there, after all, reason to be discouraged? Certainly not. In fact, if you observe closely, you will find that there is no real difference between the mode of the generation of the anthracoid germ by fission and that of chicken cholera. We had, therefore, reason to hope that we might overcome the difficulty which stopped us by endeavouring to prevent the anthracoid micro-organism from producing corpuscle-germs, and to keep it in this condition in contact with oxygen for days, and weeks, and months. The experiment fortunately succeeded. In the ineffective (*neutre*) *bouillon de poule* the anthracoid micro-organism is no longer cultivable at 45° Cent. Its culture, however, is easy at 42° or 43° Cent., but in these conditions the micro-organism yields no spores. Consequently it is possible to maintain in contact with the pure air at 42° or 43°, a mycelian culture of bacteridia entirely free of germs. Then appear the very remarkable results which follow. In a month or six weeks the culture dies. That is to say, if one impregnates with it fresh *bouillon*, the latter is completely sterile. Up till that time life exists in the vase exposed to air and heat. If we examine the virulence of the culture at the end of two days, four days, six days, eight days, etc., it will be found that long before the death of the culture the micro-organism has lost all virulence, although still cultivable. Before this period it is found that the culture presents a series of attenuated virulences. Everything is similar to what happens in respect to the micro-organism in chicken cholera. Besides, each of these conditions of attenuated virulence may be reproduced by culture; in fact, since the *charbon* does not recur a second time (*ne récidive pas*), each of our attenuated anthracoid micro-organisms constitutes for the superior micro-organism a vaccine—that is to say, a virus capable of producing a milder disease.

Here, then, we have a method of preparing the vaccine of splenic fever. You will see presently the practical importance of this result; but what interests us more particularly is to observe that we have here a proof that we are in possession of a general method of preparing virus vaccine based upon the action of the oxygen and the air—that is to say, of a cosmic force existing everywhere on the surface of the globe. I regret to be unable from want of time to show you that all these attenuated forms of virus may very easily, by a physiological artifice, be made to recover their original maximum virulence. The method I have just explained of obtaining the vaccine of splenic fever was no sooner made known, than it was very extensively employed to prevent the splenic affection. In France, we lose every year by splenic fever animals of the value of 20,000,000 francs. I was asked to give a public demonstration of the results already mentioned. This experiment I may relate in a few words. Fifty sheep were placed at my disposition, of which twenty-five were vaccinated. A fortnight afterwards, the fifty sheep were inoculated with the most virulent anthracoid micro-organism. The twenty-five inoculated sheep resisted the infection; the twenty-five non-inoculated sheep died of splenic fever within fifty hours. Since that time, my energies have been taxed to meet the demands of farmers for supplies of this matter. In the space of fifteen days, we have inoculated in the department surrounding Paris more than 20,000 sheep and a large number of cattle and horses.

If I were not pressed for time, I should bring to your notice two other kinds of virus attenuated by similar means. These experiments will be communicated by-and-bye to the public.

I cannot, conclude, gentlemen, without expressing the great pleasure I feel at the thought that it is as a member of an International Medical Congress assembled in England that I make known the most recent results of vaccination upon a disease more terrible, perhaps, for domestic animals than small-pox is for man. I have given to vaccination an extension which science, I hope, will accept as a homage paid to the merit, and to the immense services, rendered by one of the greatest men of England, Jenner. What a pleasure for me to do honour to this immortal name in this noble and hospitable city of London!

PROFESSOR CURTIUS has been appointed Rector, and Professor Westphal Dean of the Faculty of Medicine, in the University of Berlin.

DEMONSTRATION OF ARTHROPATHIC AFFECTIONS OF LOCOMOTOR ATAXY.

By M. CHARCOT,

Professor of Pathological Anatomy in the University of Medicine, Paris.

[Professor Charcot, in making a demonstration in the course of an address at the Museum of the International Medical Congress, spoke as follows].

This is the wax model of a woman aged 60, named Berthelot. This patient has been shown for several years at the Salpétriére as one of the best existing types, showing the character of ataxic affections of the joints. The first symptoms of the disease began about 20 years ago. She had first the lightning pains and pains around the waist, disturbances of the sight, inco-ordination of movement, but never any gastric attacks. About 15 years ago, the disease showed itself in the left knee, and subsequently walking became impossible. Four years ago, an affection of the left shoulder-joint showed itself; then disease of the right shoulder-joint and of the right hip, and ultimately a disease of the articulation of the right jaw.

The wax model is accompanied by the skeleton and by photographs, showing the different attitudes of the patient during the different stages of the disease, during the latter period of her life. The whole skeleton has been preserved.

This is the first time that a complete skeleton of the kind has been preserved. It is common to preserve individual joints, but in this case, as the whole skeleton has been preserved, all the joints can be examined, and all the points of lesions have been found, which were not suspected during life. Thus, for example, there existed a fracture of the pelvic bone of the right side, which had not given rise to any appreciable symptom during life. This fracture presents the peculiarity that consolidation had occurred on the inner side, with considerable production of callus, whilst externally there was no consolidation and no callus. As to the lesions, it will be observed, that they present all the character of ataxic lesions of the bones, that is to say, especially, it will be observed, that there are considerable atrophy and erosion of the head of the bone, without the production of stalactites, or the ordinary pathological conditions of dry arthritis. With this are shown sections of the spine, indicating that there existed posterior sclerosis of the spinal cord. There are also shown sections of the bone, made by Dr. Blanchard, which indicate that in this atrophic condition of a bone, a marked pathological lesion is the widening of the Haversian canals. There is thus in these cases, as in many others, an existence of disease of the joints, with fracture of the bone. Fracture of the bones and the diseases of the joints appear to belong to the same pathological condition, that is to say, when the disease attacks the diaphyses of the bone, the atrophy is shown by fracture; when it attacks the joints we get the wasting of the head of the bone, with an erosion of the surface.

[Professor Charcot has kindly presented the wax figure to the Museum of St. Thomas's Hospital, where it will be deposited, and can be studied by those interested in the subject. He had previously presented to the Museum at St. Thomas's Hospital, specimens of the disease affecting knee-joint in another case; and he had also presented to the Museum of the College of Surgeons, of England, a preparation, showing the same affection in the shoulder-joint. On the occasion of the visit of the British Medical Association to Manchester, Professor Charcot also presented to the Museum at Manchester, a similar preparation taken from the shoulder-joint of another person. It is extremely remarkable, and pathologically, as well as historically, noticeable to relate that, neither in the great Museums of France or England, or any place known, prior to the observations of Dr. Charcot, were there any characteristic specimens of this disease. Thus in the Museum of Dsepres, which is usually known as containing fine specimens of all sorts, and rich in bone-diseases, there was no specimen showing this disease of the bones, until Professor Charcot presented three or four specimens of the kind.

Sir James Paget has recently addressed to Professor Charcot the following letter, on the subject, dated August 5th.

"My dear Professor Charcot,—As you will be speaking on the morbid conditions of the joints and the bones associated with locomotor ataxy, I beg you to let me call your attention to a question, whether there are not instances of [illegible] which has lately for the first time appeared, or, at least, has lately become much more frequent than formerly it was.

"There is, I think, evidence for this opinion in the fact, that specimens of this disease are very rarely, if ever, to be found in any but the most recently collected museums. I can speak positively of only some of those in London; but among these are the museums of the Royal College of Surgeons and of Saint Bartholomew's Hospital, in which are specimens of diseased bones and joints, collected from 1770 to the present time. Till the time at which you called attention to these morbid states, neither of these museums contained one specimen; and yet they include all the examples of diseased bones collected by many surgeons and good anatomists, some of whom preserved every bone that appeared to them strange or rare. I refer, particularly, to John Hunter, Howship, Langstaff, and Stanley, of whom I can be quite sure that, if they had ever seen specimens of the disease which you have described, they would have regarded them as treasures to be carefully preserved. No specimen has been preserved by any one of them; and yet they gathered all that was unusual in morbid anatomy from hospitals, dissecting-rooms, workhouses, and grave-yards.

"I take the liberty of suggesting this question to you as one of those of great interest, not only in general pathology, but in the history of diseases. Besides, it may lead many to believe, as I do, that a good pathological museum may be a very valuable historical record.—Believe me, my dear Professor, sincerely yours, JAMES PAGET."

At the same time as Professor Charcot demonstrated the observation, he showed other pathological subjects illustrating the same disease. The case was that of a patient named Cressy, who died at the age of forty-five. Her health had been good up to the age of thirty-five, but she had always inhabited damp places. The ataxy commenced at the age of thirty-four, with pains round the waist and gastric attacks; the disordered movement quickly followed the pain. From 1870 to 1878, the patient was able to walk about, when supported on some one's arm, but for the next year walking had become impossible. The patient could not precisely state when the disease of the hip-joint began, but she was only aware that the hip-joint cracked in movement. In May 1880, all the symptoms of ataxy were observed—limited, however, to the abdomen and to the lower limbs: 1. Gastric attacks; 2. Girdle pains; 3. The patient was very undecided in the account which she gave of the lightning pains of the limbs; 4. Loss of reflex in the knee; 5. Double disease of the joint of the hip, great mobility of the articulation, no swelling, cracking of the articulation. Death occurred on May 8th, 1880.

The specimens are interesting, as being particularly well calculated to explain the progress of the disease, by comparison which they offer to the condition of the right hip with the left hip-joint. On the right side, the lower part of the head of the bone is worn away sharply, as if by rubbing against a hard substance, and, as it were, mechanically. The same marks of rubbing are visible on the corresponding part of the iliac bone, but much less distinctly—inasmuch as the effects of rubbing show themselves much more distinctly on the head of the bone than they do on the iliac articulation. On the left side, the head of the bone is completely worn away, and only the great trochanter is left. It is observable that neither on the right side, nor on the left, is any trace of inflammatory reaction, nor any development of stalactites. No trace of detached osseous substance was found in the articular cavity. Thus, finally, in reviewing these preparations, it may be noted that they have quite a special character, not resembling that of any other pathological lesion previously described—so that, to any one who has at all carefully studied these preparations, or any of the others taken from patients suffering from ataxic arthropathy, it is not difficult at first sight, and at once, to distinguish preparations coming from this form of disease, from any other. It is, in fact, a distinctly pathological entity; and well deserves the name (by which it is now known in this country) of "Charcot's disease".]

BEQUESTS AND DONATIONS. Mr. John Mc[illegible] has bequeathed £2,000 to Anderson's College, £1,000 to the Royal Infirmary, £[illegible] to the Western Infirmary, all of Glasgow. Mr. George Campbell, of Ennismore Gardens, formerly a commissioner in lunacy, has bequeathed £300 each to St. George's Hospital, the [illegible] Hospital for Consumption, Queen Square, Hospital, and the Fund for discharged persons from Asylums, Hospitals, and Licensed Houses in connection with the Commissioners in Lunacy.—Miss Georgiana Henderson, of Montague Street, Russell Square, has bequeathed £100 each to the National Hospital for the Paralysed and Epileptic, the Hospital for Women, and the Home for Invalid Ladies.—The Middlesex Hospital has received £150 2s., the result of a performance by the Lancaster Amateur Dramatic Club at the Royalty Theatre, on the 10th [illegible] — The Goldsmiths' Company have given £[illegible] to the Royal Hospital, Chelsea. Mr. G. F. Hodgson has given £[illegible] to the Lancaster Infirmary. Mr. C

AN ADDRESS

ON

UNVEILING THE STATUE OF HARVEY, AND ITS PRESENTATION TO THE TOWN OF FOLKESTONE,

Saturday, August 6th, 1881.

By RICHARD OWEN, M.D., C.B., F.R.S.

GENTLEMEN OF THE COMMITTEE OF THE HARVEY TERCENTENARY MEMORIAL, AND MR. MAYOR,—In now standing in your presence, permit me first to give expression to the grateful sense of the honour conferred upon me by the invitation with which I have been favoured to perform the duty of unveiling the statute of William Harvey, and of presenting, on the part of the subscribers to the memorial fund, to the Mayor and Corporation of Folkestone—the elected representatives of this ancient borough—such lasting memorial in honour of the immortal discoverer of the circulation of the blood.

In the present phase of certain public manifestations of feeling toward labours resulting in, and essential to, that discovery, it is of importance to find, as the list of donations to this memorial testifies, that, besides the names of the eminent practitioners of medicine and surgery of our day, and of the teachers and advancers of the science of physiology, various learned and scientific bodies and intellectual individuals, of all classes, have combined and concurred in testifying that the methods and results of Harvey's discovery have not only laid the foundation of all progress in physiology, but have been the basis of modern scientific medicine and surgery, and, consequently, the source of countless blessings to suffering humanity. Judging by own feelings, no testimony or expression appreciative of labours contributing to the advancement of science and to human welfare, would be more grateful to myself than such as might be vouchsafed in connection with my native town.

If we may be permitted to believe that the shade of Harvey is cognisant of the reception accorded to his great discovery, and its appreciation by posterity, none can be, with greater satisfaction, so spiritually discerned than the statue now unveiled, to perpetuate his memory, in the place of his birth.

Harvey's grounds for such consideration from successors in his divine profession, from cultivators of physiological science, and from his townsfolk, as well as his claims to the endless gratitude of the human race, have been so fully and so frequently set forth by greater masters in medical and physiological science than myself, that my duties on this occasion are reduced to easy dimensions; and any attempt of mine to follow in the steps of Harveian orators must reflect more credit on myself, in relation to the honour of being selected to address you on this memorable occasion, than it can add aught to the appreciation of the labours of the subject of this noble work of British art.

One extrinsic benefit I cannot but think must flow from its presence here, and its contemplation by the ingenuous youth of Folkestone. The elementary education which William Harvey received at the Grammar School of this ancient borough was such as many of the sons of your townsfolk start with—especially those who may aspire to life-work in the medical profession. To them I would crave leave to remark that, at the present day, there is no need, as in 1597, to migrate to foreign universities for instruction in the special sciences of anatomy and physiology; and in whatever metropolitan hospital and medical school a young Folkestonian may be matriculated, he can have no better example to follow than that of his townsman Harvey, who listened in his youth to the demonstrations of Fabricius at Padua, and pondered upon the structures displayed in an Italian anatomical theatre.

Labour then, my young friends who may now listen to me; strive diligently to digest all that may be taught; endeavour to comprehend the meaning of what you see, and subject the explanations which your instructors may offer, to independent reflection and judgment; above all, cultivate the manual arts of unravelling organic structures in the dead subject, and in perfecting your skill in exposing, in the lower living animals, the parts which must be seen or experimented on to yield the needed knowledge of their actions and functions. For, bearing in mind that Harvey, in his day had earned, and justly earned, the renown of the greatest vivisectionist,* why should there not arise another native of Folkestone to gain immortality by conferring inestimable benefits on his fellow-man through physiological discoveries, made by like methods of interrogating Nature, and by equal devotion of manual skill, directed by keen insight and sound judgment.

It is true there are phenomena patent to the eye without need of either dissection or vivisection, suggestive of possible work in the vital machine, and stimulating the application of such manual dexterity in proof of their signification.

Contemplate the course of superficial or subcutaneous veins. If you press the blood, as I now do, at the back of my hand downwards, or, as we say, "distad", towards the fingers, you empty such venous tract a certain way, and the blood does not follow the pressing digit; the vein remains empty, at least for a short time. On removing the pressure it is instantly filled from the finger upwards, or proximad. You may repeat this easy experiment a hundred times, and at any hour of the twenty-four, and the course of the refilling blood is ever the same—from the fingers to the wrist. It is due to the presence of valves in the veins. Harvey gives diagrams illustrative of these experiments, from which he inferred the use of the valves which his master had discovered. Consecutive ponderings compelled him to the steps for ascertaining the mode of action of the several parts of the heart's mechanism, and of the correlated channels of the blood.

One naturally wonders that Fabricius was not led on to procedures essential to an anticipation of his pupil's great discovery; and such sentiment is only abated by experience of the narcotic effect on the mind of a generally and reverently received dogma.

Even Cesalpino, to whom his countrymen have endeavoured to transfer the glory earned by Harvey, could not extricate himself from the accepted doctrine that "the heart and its vessels served to distribute to the body its vital spirits and native heat, rather than such blood as is found in the veins. Therefore, he concluded that Fabricius's valves could not act absolutely as such".*

There is a difference between arterial and venous blood, and our knowledge of its nature and cause rests upon the experiments and discoveries of fellow-labourers in another science—that of chemistry.

Division of labour is an important condition of the advance of knowledge in every field of the phenomena of nature. Most discoveries in physiology, like that of Harvey's, have been suggested or started by previous gains in anatomy.

The lower animals which supplied Galen with so great a proportion of his subjects did, some of them, exhibit what his notions of the work of the heart and its conduits required, viz., intercommunicating channels between the right and left ventricles. Sylvius announced, and Vesalius demonstrated, about the same time (1537), the absence of such intercommunications. The septum or party-wall between the two ventricles they found, in man, to be complete. But the inference to which free cogitation might have led these great anthropotomists, was hidden from them by the pre-conviction of the to-and-fro course of the vital and heat-giving currents.

Vesalius knew, as an anatomist, that one great vessel carried the contents of the right ventricle to the lungs; and that another great vessel brought the pulmonary blood back to the left ventricle by the medium of its auricle: the one was his "Vena arterialis", the other his "Arteria venalis". He knew also the valvular structures connected with each. A pupil of Vesalius, or junior fellow-student of anatomy, named Michael Servetus, drew from these structures the right conclusions as to the functions of those great valve-endowed vessels; in a way and degree closely analogous to the deductions as to the office of the valves of the veins, drawn by the English pupil of the discoverer of those parts.

"There is a transit of the blood", writes Servetus, "from the right to the left side of the heart by a lengthened and complex passage through the lungs."

In 1553, Servetus consigned and printed this discovery in his theological work entitled *Christianismi Restitutio*. Adopting the current and accepted ideas of the natures of the two kinds of blood—now termed "venous" and "arterial", he writes: "Their communication does not take place through the heart's septum, as is generally believed, but by another admirable contrivance, whereby from the right ventricle the subtle blood is agitated in a lengthened course through the lungs; wherein prepared, it becomes of a crimson colour, and, from the 'vena arterialis', is transferred into the 'arteria venalis'. Mingled with the inspired air in the 'arteria venalis', freed by expiration from the fuliginous matter, and become a suitable home of the vital spirit, it is attracted at length into the left ventricle of the heart by the diastole (dilatation) of the organ."

* "A Master of Vivisection." Tollin, "*Die Entdeckung*", etc., p. 340.

* "Non cogimur membranas vasorum educentium laudere in cordis, venarumque dilatatione."

This announcement of the "lesser circulation", unknown to physiology for more than a century after its record, became a lasting possession in human knowledge by Harvey's independent researches, in connection with that of the true nature and way of work of the whole cardio-vascular system—heart, veins, arteries of every part of the human frame—not merely the "circulation of the blood", but of its twofold circulation, and this not by a new or different interpretation of structure, but by visible demonstrations of function.

With respect to the *Christianismi Restitutio* of 1553, it cannot be shown that more than four or five copies of the book ever left the bales in which the whole impression was packed, and which Calvin contrived to get transferred from the printer, and caused to be burnt in the same fire with their author. One copy was taken out for the use of the inquisitor; another was sent, for their inspection, to the "Swiss Council"; a third was given by Calvin to his lawyer Colladon, by way of "brief", with the theological passages underscored on which Servetus was finally arraigned and condemned. Calvin did his utmost to prevent anyone, save himself and his accomplices in the murder, from knowing what Servetus had actually written. Harvey never saw a copy, or knew the physiological observations which the accomplished physician had consigned in his Theological Dissertation.

Not, indeed, until 1694, nearly a century and a half after the abominable cremation of the living author, was the existence of any copy of the work made known to the Republic of Letters, which is indebted for this knowledge to Sir Henry Wotton, in his *Reflections on Learning, Ancient and Modern* (1694). (See the admirable *Life of Servetus*, by Dr. Robert Willis.) The copy in question bears the name of Colladon. An early reprint is now in the British Museum, where I had the pleasure and privilege of showing it to the assembled continental physicians who did me the honour to accompany me, yesterday, through the halls and galleries of the building at Bloomsbury. No! Harvey started on his voyage of discovery with the anatomical observations of Vesalius on the "valves of the heart", and with those of Fabricius on the "valves of the veins".

But, "How worked, how moved the heart?" These were problems to be solved. It is not enough to be yourself convinced of a theory which you have been led to originate. To yield its due results, and confer its benefits on your fellow men, you must give them demonstrative—palpable and visible—proofs of your discovery. And, the more counter your discovery—no longer mere statement or hypothesis—runs to the then accepted views, the more incumbent becomes it, on the part of the discoverer, to demonstrate his proofs. And Harvey did not shrink from such obligation. He was a truly religious man; charitable and compassionate as such. He felt his deep responsibility for the gifts he had received from the Fountain of all Knowledge. He could not but be conscious of the rarity and value of such entrusted talent; he shrunk from the sin of "hiding it under a bushel". Accordingly, he laid bare the heart in a living animal; he showed his hearers and watchers that the organ became erect, and gave the beat which we feel upon the chest; then, that it contracted, became notably shorter and narrower. Grasped by the hand, it was felt to be a firm body; the action was plainly that of a muscle, such as was required to expel a dense fluid, not mere "vital spirits", as was the then accepted doctrine. Furthermore, the relaxation of the heart was shown and seen to be the passive state of the organ, yielding and expanding to extraneous forces driving in the blood, not sucking in, as by a blacksmith's bellows—a hypothetical "vital spirit". Next, Harvey showed, in the heart of a living animal, that there were two distinct motions—one of the auricles, another of the ventricles—these succeeding each other rhythmically; and, when the point of the ventricle was cut off, blood, not "aërial spirit" was seen to spurt therefrom. Moreover, the blood, so experimentally expelled from the left ventricle, was visibly florid, or arterial, while that from the right ventricle was black, or venous. The great vein terminating in the left auricle was shown to carry thither "arterial blood"; those terminating in the right auricle were shown to deliver to it "venous blood". The simultaneously contracting auricles were seen to empty their respective kinds of blood into their respective ventricles; and these, next contracting, and simultaneously, were seen to expel their respective contents, by the pulmonary artery to the lungs, by the aorta to the entire body.

It was absolutely essential to the discovery, to the demonstration, and consequent reception and fruition, of the Harveian doctrine of the circulation, that the discoverer should have satisfied himself, by vivisection, of the facts; and that contemporary physiologists and physicians should be brought to witness those demonstrations. Of their absolute necessity, we have the proof in the surprise which the vivisectional results occasioned in the physiological world, and in the visible plain demonstrations they opposed to the controversial opponents, who strove to make themselves and others regard the ideas of the Harveian circulation of the blood and of the heart's actions therein as absurdities and condemnable innovations on orthodox doctrine.

Such objections compelled the great discoverer to repeat, to vary, and to extend his experiments. "If a live snake", he writes, "be laid open, the heart will be seen pulsating for an hour or more, contracting and propelling its contents, becoming of a paler colour in the systole when it empties itself, of a deeper hue in the diastole when it is filled.....In this animal", Harvey proceeds to say, "the vena cava enters the heart at its lower part, and the aorta leaves it at the upper part. Now, if the vein be taken between the finger and thumb, or seized by the dissecting forceps a little way below the heart, and the incoming current of blood be thereby arrested, you will see the part which intervenes between the obstruction and the heart fall empty, and the heart itself become smaller and of a paler colour, and beat more slowly. But the impediment to the flow of blood being removed, instantly the colour, the size, and the motion of the heart are restored."

I must ask pardon for trespassing on your time, especially of my professional friends and fellow-labourers, with these to them well-known quotations. My excuse is, the "Report of the Annual Meeting of the Society for the Protection of Animals from Vivisection" published in the *Times* newspaper of June 28th, and in the *Daily News* of June 27th, of the present year. This document, issued in the names of estimable men, including some eminent in divinity and in law, threatens Parliamentary prohibition of experiments such as those which have given new powers to the surgeon, and to which Harvey refers in the introduction to his immortal work—*Non ex Libris, sed ex Dissectionibus*—by which term he meant or included the experiments which the Legislature is now asked to prohibit. In reply to such appeal to Parliament, I beg respectfully to remark that, to almost every objection to his conclusions, Harvey responded by some vivisectional demonstration, modified as to subject and method, in order to test such objection. Harvey was conscious that his discovery would give the physician the power to form a truer diagnosis of disease, and consequently a more efficient and successful treatment. That such was the influence of the new doctrine of the circulation on the current medical practice of the day, is shown by the opposition it met from all the older established metropolitan practitioners, whose excuses for non-acceptance took the form of misstatements to ignorant but influential patients, and had the result of injuriously affecting and diminishing the medical practice of Dr. Harvey himself.

How congenial to the feelings, the interests, the wishes of these older doctors of London would have been the alliance of noble lords, church dignitaries, and learned judges of that day, whose influence with the administrative powers might have availed to prohibit the physiologist from making any one of the experiments on which he relied for his own convictions, and those of his disciples, as to the real actions and functions of the heart, of the tracts traversed respectively by the venous and arterial currents, and not merely of the circulation, but of the twofold courses of the blood! Suppose an antivivisectional clamour to have then, as now, besieged the Legislature! Fortunately for Harvey and medical science, Lord Chancellor Bacon, a contemporary of the physiologist, had truer views of the methods of advancing knowledge than have been manifested by some of his successors on the bench of lower grade. Such clamour would have met with no encouragement, in 1628, from the author of the *Novum Organum*. And this leads me to trespass a little longer on your attention, and to refer to the next great advance in the knowledge of the actions and properties of the circulating system.

The discovery in question, which, as conferring a power to cure disease, I am disposed to regard as second only to Harvey's, was that made by John Hunter, in 1780, of the property of the arterial capillaries to enlarge under what he figuratively termed the "stimulus of necessity".

Suppose, for example, a cardinal, a bishop, a learned judge, or an earl of the last century, to have been afflicted with an aneurysm at the bend of the leg; groaning, with a tumour in the ham of the size of a child's head; such tumour pulsating, pressing on the surrounding tissues, the bones, gristles, and nerves; occasioning inflammation and absorption of those parts, accompanied by unintermitting agonising pain, only to be allayed by lethal doses of opium or other deadly narcotic, and threatening imminent dissolution by a bursting of the thinned and inflamed skin. Aneurysms are [illegible] tions. Prior to Hunter's discovery, supplementing Harvey's, the ablest medical authorities could only have assured the noble, right reverend, and learned patients, that the ordinary surgical remedy, excision of the tumour, was, as a rule, fatal. True, about that date, an able surgeon of St. Bartholomew's Hospital, Mr. Pott, had suggested amputation of the thigh, which somewhat diminished the chances of a fatal result; and this was held to be a great advance in the treatment

of the aneurysm in question, and was, as a rule, successful too. In what frame of mind would the wretched sufferer have listened to a statement that, through knowledge acquired by vivisectional experiment, his agony would be relieved, his limb preserved, his malady cured! Our modern so-called "humanitarians" know not what they do, or say, nor care they, as it seems, what benefits to suffering humanity they would obstruct or prevent. They are unconscious of the mistaken ground selected for unfurling their flag of a superior sensibility, are dumb in regard to the much more extensive and fitting fields for active interposition in favour of the lower creation, and in defence of poor animals from tortures inflicted on them by men who have no aims beyond their own gratification and what they miscall "sport?" To the slow sufferings of the wounded pheasant, escaping from the gunner and his dogs, dyeing with its trickling blood the verdure of the [illegible] in which its poor life-blood painfully ebbs away, to this they seem indifferent. For the poor hare or rabbit which has had its jaw broken by an ill-aimed shot and escapes, they care not: they know nothing of the consequences of the healing of the wanton injury. The chisel-teeth have been violently and painfully put out of gear; their law of perpetual growth is no longer controlled by mutual apposition and attrition: the essential instruments for cropping food have been mutilated for man's pleasure, and slow death from starvation is the consequence. When a keeper comes by chance on the emaciated body of such dead and starved hare or rabbit, the curiosity of the tusk-like incisors is offered to an anatomical museum.

But even these inhumanities, inseparable from sport, are scarce comparable to the agonies of the prolonged chase, when fox or stag are ultimately torn by the howling four-footed fiends hounded on by biped masters.

Do our humanitarians hold "annual meetings for the protection of animals from"—tortures inflicted year by year, and by thousands of inflictors for sport only. No! Their sensibilities are solaced at the expense of the blessings to humanity due to a Harvey and a Hunter: they feel no shame in deceiving the public by such unfounded and libellous assertions as that, "the inhuman system of vivisection was not necessary for the purposes of science."—(Report of the annual meeting, etc., *Daily News*, June 27th.)

I must not trespass on your time by the manifold evidences known to my medical and physiological hearers as justifying the terms in which I have referred to the denunciation of such skilled experimenters as the immortal subject of this day's inauguration.

I must restrict myself to the relation thereto of Hunter's discovery of the property of the capillary blood-vessels to enlarge, under conditions which has made the cure of aneurysm in a great proportion of cases sure and painless. John Hunter was not thinking of such result when, pursuing the Baconian method for the advancement of physiological science, he applied it to the elucidation of the singular phenomena of the annual growth and shedding of the antlers of deer.

He had the permission of a gracious Sovereign to make his vivisections on those denizens of Richmond Park. When Harvey had demonstrated that the arteries carried blood, and in one definite direction, such an operation as Hunter proceeded to perform became conceivable in relation to his aim, and by his skilful hands practicable, without affecting the health or life of the animal. Whatever benefit to suffering humanity has been derived from Hunter's experiment, the vivisections of Harvey guiding thereto must come in for their share of the gratitude of humanity.

So guided, the course of Hunter's physiological reasoning led him to put a ligature round the artery supplying the growing antler. The pulsations of the vessels of the formative velvet* ceased, and soon the antler began to cool. The buck was released, and bounded away. About a week after this vivisection, Hunter revisited the park. The animal was caught, and to the experimenter's surprise the vessels of the antler were again pulsating, the velvet had recovered its warmth, the growth was proceeding as usual. Hunter, thereupon, ordered the buck to be killed (scores are hunted and slain annually for venison). He injected the arterial system, thinking he might have been mistaken in the vessel he had tied. No! The canal of the carotid was obliterated. But sundry, and ordinarily minute branches sent off below, or on the heart's side of the ligature, had enlarged, and had carried the blood to other capillaries communicating with the carotid above the ligature, and the enlargement of these previously inconspicuous vessels had restored the supply to the cold antler, and reintegrated the power of growth. "And what scientific result," might ask a member of the Victoria Street Society, "could attend so detestable a practice*"—such "vivisectional pandering to curiosity?"† The result was a power of relieving an enormous amount of human suffering and untimely death.

At Hunter's Hospital—St. George's—cases of popliteal aneurysm were not uncommon. The sufferers were usually coachmen of the rich, subject to the pressure of the hard margin of the box-seat of the vessels of the ham.

Now, Hunter, turning over in his mind the phenomena he had observed and caused in vivisecting the deer, thought thus: "Suppose, instead of amputating the man's limb, I were to cut down and tie the femoral artery. It might stop the flow of blood into the aneurysmal tumour long enough, at least, to allow the blood there to coagulate and form a natural plug; and, if the human capillaries should behave like the cervine's, the man's leg may become nourished independently of the popliteal channel." So Hunter said to his groaning patient, who had previously consented to the happily not performed amputation—and there was no anæsthetic then in use: "My good man, if you will let me make a small cut in your thigh, it is possible I may save your life and your limb." "God bless you, sir," said the sufferer; "do what you think best, so you put me soon out of this torment." Hunter explained to his assistant and the surrounding pupils the results which he hoped and believed would follow a repetition on his patient of the vivisectional experiment on the deer. No sooner was the strong current of blood checked by the ligature of the femoral artery than the tumour ceased to beat and began to diminish. The patient exclaimed, with joy, that the agony in the ham was gone. It is true, the leg, like the antler, began to part with its vital warmth. "Don't apply any artificial heat; simply swathe the foot and leg in flannels", were the vivisectionist's directions. In twenty-four hours, the natural warmth began to return; not so the pulsations of the tumour; this morbid mass went on decreasing. In a few weeks, the coachman walked out of the hospital on both legs, cured of his aneurysm. Surgery became possessed of a new and beneficent power, for which it now had sure physiological grounds. Subsequent mechanical improvements have led to obliteration of the aneurysmal artery by pressure; and the comparatively trifling operation which Hunter substituted for the rarely successful amputation recommended by Pott is now no longer resorted to.

Such are the results—and instances might be multiplied—of vivisectional experiment, yielding, besides the light thrown upon the physiological problem suggesting and requiring the experiment, unexpected guiding power to the truly humane men who devote themselves to the alleviation of the suffering of their fellow-creatures. And note that the "tender-hearted", who set no bounds to the abusive epithets by which they assail and endeavour to arrest such beneficent work, and howl down the inflictor of a slight wound on a single deer, have no remonstrances in favour of the hundreds of the dappled herds which undergo the terrors of the chase, the wounds of the stalker's bullet, and the cutting of the throat, to supply the appetite and please the palate of the gourmand. In view of the Society's Bill for the total Abolition of Vivisection, which was down for second reading in the House of Commons on July 13th,‡ I would remark: Suppose a Parliament of George II had listened to a forbear of the honourable baronet in charge of that Bill, advocating the total abolition of vivisection in the terms quoted below; and that the House, without going the extreme length recommended, had decreed that "no experiment on a living animal should be legal without express permission of the Secretary of State for the Home Department." John Hunter, at a period when he was known to society only as a rising young surgeon, amusing himself with making an anatomical museum, finds himself compelled to go to Downing Street to obtain the requisite licence to solve the physiological problem then monopolising his cogitations. We may suppose the following colloquy to ensue.

Home Minister: "What is the object, Mr. Hunter, of your proposed experiment on the living deer?"

Vivisector: "I want to know how their horns grow."

H. M.: "And what do you propose to do to gratify that desire?"

Viv.: "For one thing, I propose to cut down upon the carotid artery, and tie it."

H. M.: "And what good do you expect to get by inflicting on an unfortunate animal that degree of pain?"

Viv.: "I have nothing further in view, sir, than what I have stated."

* The name given by the keepers to the finely vascular soft covering of the growing antler conveying nutriment to the [illegible] supplying the material of growth. This ended, the "velvet" dries, shrivels, and is rubbed off by the fully "attired" buck.

Reported in *Daily News* of 1881; v. Such are the terms in which a dignitary of the "Church", whose history does not reveal sympathy for human torture and violent death in torments, permitted himself to allude to an indispensable instrument of advance in the healing art.

† *Ib.*, *ib.*, Secretary of the "Society for the Protection", etc.

‡ Reported, etc., *Times* of June 9th. The [illegible] *Daily News* of June 27th, gives the terms of the adopted motion; "That vivisection is a scientific blunder and a moral offence, and ought to be totally abolished."

H. M.: "And so you would pander to your curiosity in regard to the growth of its horns by subjecting a poor deer to your detestable operation. I can give no sanction to such inhuman vivisection, of which you are unable to foresee any scientific results in relation to your own professional purposes and practice."

The discomfited physiologist departs; and mankind continue to die of a tormenting malady, sometimes with, sometimes without, the added operation of amputation at the thigh.

Mr. Mayor and gentlemen, my time, as my fellow-labourers are pleased to recognise, is pretty well occupied, and in the present year more closely and pressingly than usual. It is only a worker who knows the value of time; and this has led me, in acceding to the request which has brought me before you, to ponder in what way and degree I might turn the occasion to most profit. To have made my discourse simply laudatory of its great subject; to have dilated on Harvey's experiments and observations in elucidation of the mysteries of generation, for example, resulting in an enunciation of a law now beginning to be accepted, that every living thing has come from the germ, which Harvey calls "egg" (*omne vivum ab ovo*), of an antecedent living thing,—such treatment would but have been an inferior reproduction of countless previous orations. Therefore it seemed to me to be not only germane to the memory of the great vivisector, but also a duty on whomsoever may strive to follow in his steps, especially with the threatened appeal to the Legislature to totally prohibit such experiments as those to which mankind are indebted for Harvey's and Hunter's great discoveries, to exemplify by such instances as the time permitted the way and degree in which vivisection imparts the power of diminishing and removing the sufferings of our fellow-men.

In conclusion, I beg, in the name of my fellow-labourers in the promotion of the sciences of healing who have availed themselves of the facilities of travelling from London to Folkestone afforded by the South-Eastern Railway Company, to express their grateful and respectful acknowledgments to the chairman and directors of that company for the special train so kindly and liberally provided for the occasion.

Appendix to Address.

"*The Vivisection of Animals.*—The annual meeting of the Victoria Street Society for the Protection of Animals from Vivisection was held on Saturday afternoon, by invitation of Lord Coleridge and Miss Coleridge, at his Lordship's residence, No. 1, Sussex Square, Hyde Park, the attendance being numerous. Among those present were Lord Talbot de Malahide, Cardinal Manning, Lord Mount-Temple, Mr. Lewis Morris, General Colin Mackenzie, Mr. R. H. Hutton, Sir J. E. Eardley-Wilmot, M.P., Mr. R. Reid, M.P., and Miss Frances Power Cobbe. The Chair was taken by the Earl of Shaftesbury, who, in opening the proceedings, congratulated the audience that the society had made considerable progress in establishing in the minds and hearts of men a conviction that the *inhuman system* of vivisection was not necessary for the *purposes of science*.—Mr. Charles Adams, Secretary of the society, in presenting the annual report, spoke of the progress of the society, as shown in the fact that in the first six months of the present year three times as many petitions had been presented to Parliament as in any single year before. He also stated that the finances of the society were in a satisfactory condition, and, in alluding to the publication, under the auspices of the society, of the periodical called *The Zoophilist*, spoke of the great service it rendered in showing that [illegible] —Cardinal Manning, in moving the adoption of the report, said he wished to renew his previous declaration that he would do his utmost towards putting an end to what he believed to be a *detestable practice, not attended with scientific results*. They had been hoodwinked by the legislation on that subject, and believing that it had produced no effect he maintained that what they should now contend for was the *total abolition of the practice of vivisection*. While the torments of animals were real, the benefits to humanity were altogether conjectural. In concluding, he observed that the Oxford Union Debating Society had passed an anti-vivisection resolution by a large majority.—Sir J. E. Eardley-Wilmot, M.P., who has charge of the Bill in the House of Commons on behalf of the society, stated that the object of it is the total abolition of the practice of vivisection in this country.—The report having been adopted, Dr. Gimson moved: 'That vivisection is a scientific blunder and a moral offence, and ought to be totally abolished.' Dr. Berdoe seconded the resolution, which was adopted. —Lord Coleridge, who was warmly received, moved a resolution that the meeting cordially adopted Sir Eardley Wilmot's Bill for the total abolition of vivisection. His lordship deprecated the use of exaggerated language in speaking of opponents of the society, and expressed a hope that many eminent men among them would be converted through the exercise of tolerance and patience. On the other hand he advised the friends of the society not to be influenced by the application to their views of such expressions as 'sentimental' and 'effeminate', and ridiculed the idea that a monopoly of manliness could be consistently claimed by those who defended cruelty to dumb animals.—The resolution having been seconded by General Grant on behalf of the Scottish Anti-vivisection Society, and supported by Professor Sheldon Amos, was adopted, and the proceedings terminated with votes of thanks to Lord Shaftesbury and Lord Coleridge."—*Daily News*, June 27th, 1881.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

GOYDER'S CLINICAL STENCIL-PLATES.

These plates are intended to be useful in recording the results of surgical injury, operation, and disease. They are two in number—male and female; and, by following out the edge of the plate with pencil, a corresponding outline is formed, useful in medical cases to record physical signs, position of tumours, etc. The plates are further perforated by figures, which, when traced out, record the outlines of the femur, humerus, tibia and fibula, clavicle, arm and forearm, leg and foot. By the reversion of the plate, the bone or limb of the opposite side of the body is shown. Lastly, if the corresponding ends of thigh and leg bones be placed in apposition, and united by a few strokes of the pencil, the anterior or posterior surface of the knee-joint, right or left, is depicted. It will be noted that the blocks are half-size. A set of diagrams, drawn by the plates, showing the necessary lines to be added, in order to render the drawings complete, is supplied to each purchaser.



The plates are neatly made by Messrs. Purdy and Martin of Newcastle-upon-Tyne, and are well put up in a convenient case, which will also hold pencils and a small note-book. Price, five shillings, complete.

New Medical School in Canada. The Canada Lancet states that a new Medical School has been recently organised in London, Ontario, under the auspices of the Western University. The following are the names of the members of the Faculty: Dr. Moorhouse, senior, Dean and Professor of Surgery; Dr. Frazer, Medicine; Dr. Moore, junior, Midwifery; Dr. Eccles, Physiology; Dr. Jones, Jurisprudence; Dr. Stevenson, Diagnosis and Therapeutics; Dr. Waugh, Anatomy; Dr. Bucke, Nervous Diseases and Diseases of the Mind; Dr. Burgess, Botany; Dr. Moorhouse, Histology and Pathology; Dr. Hodgetts, Sanitary Science; Dr. Neven, Clinical Surgery; Dr. Arnold, General Medicine; Wm. Saunders, Materia Medica; John Buchanan, Professor in the Arts Course, Chemistry.

BRITISH MEDICAL ASSOCIATION:

SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 13TH, 1881.

THE ANNUAL MEETING AT RYDE.

THE forty-ninth annual meeting of the British Medical Association is held immediately in sequence and almost as a sort of continuation of the International Medical Congress. This meeting of our Association has seemed to many to be held under some circumstances of disadvantage, but the elasticity of naturally developed institutions like the British Medical Association is such, that they readily adapt themselves to the pressure of circumstances. When the managers of the Association became aware that the metropolitan profession were carrying out on a great scale the preparations for receiving the International Congress of 1881, in London, it was felt that the meeting of the British Medical Association, having its own character, its own special relations to the profession, it own special duties to perform, should nevertheless be held in the usual manner, but might easily undergo such slight modifications of time and place, as would in no degree affect the prosperity of either meeting. This idea was suggested to Mr. Barrow, of Ryde, that the meeting, instead of taking place in any great inland or industrial centre, should be held at this charming marine resort, and that thus the dust and toil of London, the pomp and turmoil of a great city, would bring out only in more agreeable contrast the marine beauties, the freshness, and the tranquillity of the charming island. The time of meeting, also, has been postponed for a week; and thus the Association meets in the second week of August, instead of the first. The inhabitants and the profession of Ryde have vied with each other in completing the arrangements on such a scale as to make the Association feel that the meeting will in no way suffer by comparison, according to its degree, with the gigantic gathering which has just been held in London.

The attendance at the Ryde meeting has exceeded expectation. Three addresses have been delivered—one on Medicine, by Dr. Bristowe, the Senior Physician of St. Thomas's Hospital; one on Surgery, by Mr. Jonathan Hutchinson, the senior surgeon of the London Hospital; and one on Obstetric Medicine, by Dr. Sinclair Coghill of Ventnor. The Sections have been well attended—much more so than could have been expected, after the heavy week of work and discussion through which many of those who are now in Ryde have already passed in London in connection with the International Medical Congress. There is a fair sprinkling of foreigners and distant visitors of well-known ability and distinction, whom it is always a pleasure to the British Medical Association to receive as guests at its meetings. The weather continues to favour the sons of Æsculapius; and those who expected that the meeting of the Association this year in Ryde would in any way suffer from the immediately preceding concourse in London have been most agreeably surprised to find that, in all respects, the Ryde meeting has fulfilled the expectation of the administrators of the Association, and promises to furnish all the elements of scientific and social satisfaction. Under the energetic direction of Mr. Barrow, the respected President of the Association, Dr. Pletts, Mr. Green, Dr. Groves, and the local Executive and Reception Committee, arrangements have been made to ensure the efficient working of the Sections, and amply provide for social pleasures. It is needless to say that in the Isle of Wight, with the surrounding excursions, the opportunities of pleasure are endless, or at least far beyond the limits of time within which the business of the Association is carried on.

Having regard to the nine thousand members of the Association, readers of our JOURNAL, who will desire simultaneously to receive reports of the proceedings of the International Congress, we this week give somewhat of the lion's share to the necessarily important and protracted report of the International Congress; but we have reserved adequate space to report some of the addresses and some of the earlier proceedings of our own Association; and we shall, in the subsequent numbers of the JOURNAL, furnish, as usual, complete reports of all that was done at Ryde, and of all the papers read, and the text of the addresses delivered at the annual meeting.

THE INTERNATIONAL MEDICAL CONGRESS OF 1881.

IT is always possible to exaggerate the greatness of events, as it is of monuments, to which we are in too close a proximity; although there is also the opposite danger that, standing too near, we lose something of the sense of proportion, and while enamoured of details, are unable to appreciate the monumental greatness of the whole.

The International Medical Congress of 1881, which has just been held in London, is a medical event of which the magnitude is somewhat overwhelming, and may easily lead us, on the one hand, to overestimate its importance from the very fact of its immense proportions, or, on the other hand, to lose something of the sense of its value in fixing attention too much upon details which may have been unusually well, or somewhat less than usually well, carried out.

Every one must feel—and, indeed, as a matter of fact it is clear—that the members of the Congress have felt that the mere fact of the meeting together in such unprecedented numbers of the leading powers engaged in the study and practice of medicine and the pursuit of collateral scientific work, has been a circumstance of which the influence in the future cannot but belong and deeply felt, and of which the present results are as interesting as they have been delightful. The discussions in which Pasteur, Lister, Bastian, and Béchamp have taken part: the surgical debates in which Thompson, Bigelow, Savory, Erichsen, Esmarch, Volkmann, and Verneuil have exchanged experience and opinions: the pathological comparison of views between Gull, Johnson, and Lancereaux: the exposure by Crichton Browne of the deceptions which beset attempts to bring hypnotism within the range of scientific method: these are only a few examples of instances in which ideas diverge, and yet converge, and experience estimated from different points of view, and gathered from all parts of the world, has been concentrated, contrasted, and discussed. The results have been quickening to the intelligence, suggestive to the thoughts, not only of those who took part, but of those who listened, and will hereafter read the debates. It is not only the master who profits by the exposition and discussion of his views, but the disciples and the audience. Nor is it a small thing even to those who have read the doctrines of a great discoverer to hear the living words issue from his mouth, to watch his own shades of expression, which depict the different degrees of importance and the varying forms of conviction with which he adheres to the opinions which he has formed. The words of Pasteur, of Huxley, and of Lister, inspire even more than their writings, because the orators know how, by the fire of their conviction, to breathe into their words a living force, which the mere dead skeleton of a printed address can never possess.

The brilliant address of the late Dr. Raynaud lost little, if anything, in effect, in the graceful and polished utterances of his friend and representative, Dr. Féréol. The great events of the Congress, however, undoubtedly were the addresses of Virchow, of Simon, and of Pasteur, for they touch principles of research which at the present moment are seriously endangered by popular misapprehension and fanatic clamour; and it is no light thing that at this Congress of the great thinkers and

workers of the age, gathered together to consider all the subjects and parts of medicine, so many of the greatest should spontaneously, without any hint or suggestion, without any thought or concert, and following only the natural flow of scientific truth, and passing along with the stream of research which is tending to the goal of the relief of human suffering, have found themselves drawn involuntarily into the consideration of the vast services which experimental research is now rendering to the advancement of medicine, and to the establishment upon a firm basis of the sciences upon which medical science and the healing art are based. Three thousand men have been gathered in Congress throughout the week, and among them the choicest spirits of the age. They have found not only scientific work worthy of their most earnest labour, and which has engaged their energies from day to day in a manner which we have never seen equalled in any scientific Congress —they have found also a spirit of fraternal welcome animated by the traditions of hospitality which belong to the British soil. They have found an organisation ready to their hands which has been established by months of continuous toil, and by the convergence of the most powerful social, medical, and scientific influences. All the learned societies had put their rooms at the disposal of the Congress: the whole of Burlington House was given up to its sections; neighbouring institutions —the Royal School of Mines, the Royal Institution, the Asiatic Society— generously dispossessed themselves of their apartments for the benefit of the Congress. The Royal College of Physicians has for many months, especially throughout the past week, surrendered the whole of its precincts, usually guarded with so much dignified care, to the unreserved uses of the officers and members of the Congress. The great Corporation of London, by one of those hospitable efforts which it makes only on rare occasions, had, at the cost of many thousands of pounds, transformed the Guildhall of London into a vast reception-hall and banqueting room. The Royal College of Surgeons, lighting the museum of Hunter with the last product of science—the electric light—and filling it with palms and flowers, shared the work of hospitality as on the previous days; and breaking with old traditions, even on Sunday afternoon it had welcomed visitors to the minute inspection of its great scientific stores.

In another part of this number will be found full details of the numerous public or semi-public entertainments given by various metropolitan bodies and by distinguished men to the members of the Congress. Of private hospitalities, it would be endless to speak; from Sir James Paget, who has received every day a hundred guests, throughout the ranks of the profession, there has been but one desire, and that has been that each, according to his own inspiration, within his own means, and according to his own individual tastes, should do honour to our guests, both British and foreign; and, while many have held receptions at which from four hundred to seven hundred members of the Congress have nightly been present, others have entertained in their homes in every possible way, those with whom their studies gave them especial sympathy, or to whom they desired to tender, without any previous knowledge, a graceful hospitality which should inspire sentiments of friendly regard and a satisfactory recollection of our country, our character, and our professional sentiments.

So great an organisation has not been carried out without great preliminary labour for months, and continuous exertion throughout the Congress. Just honour has been paid to Mr. William Mac Cormac, who has from first to last devoted himself to the Congress with a zeal which could not be surpassed, and with a combination of intelligence, firmness, courtesy, and a just sense of proportion, which are the indispensable qualities of an administrator of the first class. He has, moreover, had the skill, which is essential for such success, to select as his assistants gentlemen of intelligence and character, and to inspire them with his own spirit of devotion; with his own determination to strain every nerve to ensure success. At the same time, the very highest zeal was tempered with the most delicate discretion. It is only just that their names should be mentioned in this connection.

Mr. G. H. Makins has acted as Under-Secretary to the Congress. Mr. Cogswell was Assistant Under-Secretary. Both, we believe, were formerly dressers of Mr. Mac Cormac, and the former a house-surgeon at St. Thomas's a few years ago; while the latter is just now appointed house-surgeon. Mr. Makins has been assisting in the work during its whole progress, that is to say, for the last sixteen or seventeen months; Mr. Cogswell since February; and Mr. Little, the second Assistant Under-Secretary, formerly of St. George's, a son of Dr. Little of Park Street, since April last. All of them, and in an especial degree Mr. Makins, have been doing excellent work. Just before the time of Congress, and during the session of the Congress, Mr. Pitts, resident assistant-surgeon St. Thomas's; Mr. Theodore Acland, son of Dr. Acland of Oxford; and Dr. Von Speyr, have given much help.

The work of translating the abstracts was done to a considerable extent from French and German into English by the secretaries of the Sections; but it was, of course, needful to obtain further help, and this was done by Dr. Von Speyr, Dr. Ludwig, Dr. Kraus, Dr. Harris, for the German part of the work; and Dr. Roylett, Dr. Daremberg, Dr. Von Imschoot, and Dr. Ermann for the French.

The work of preparing these abstracts was, as any one knows who looks at the splendid volume of abstracts which has been published in three languages, very considerable, and the accuracy and promptitude with which this part of the work was accomplished, and with which the catalogues were prepared for the Congress, formed not the least or rarest of the many themes of admiration which our courteous and delighted visitors have been good enough to note; for, in bringing to a close these few words, it is but just to say that the efforts which have been made to receive our foreign guests on British soil in a manner worthy of our profession, and adequate to do honour to our foreign colleagues, has been met by them in the most gracious, cordial, and unfeigned expressions of thanks; and, if one may be permitted to reflect faintly the sentiments which they have been good enough to express, by a gratitude not unmingled with admiration. They have recognised to the utmost the sincere desire which the London profession has shown to do justice to the occasion. They have everywhere recognised and avowed the fact that no such Congress has ever yet been held within the memory of any living medical man, and they go so far as to say it is doubtful whether a Congress on so great a scale, organised so completely, and accompanied by incidents of such extreme, considerable and thoughtful hospitality, could well be organised in any other centre than London. This success has been greatly helped by the suave dignity, graceful eloquence, and great social standing of Sir James Paget, who has, if possible, on this occasion added to the estimation in which he is held by the profession throughout the world. Every Congress, however, has its own features; and those who remember the Congress of Amsterdam, while recognising that the Congress of London is in all respects grander in scale, more fruitful in work, and more extensive in its hospitalities, will not fail to bear in grateful memory the peculiar charms of the kindness, of the skilful organisation, and of the excellent work of that Congress, which stands out none the less clearly, and none the less pleasurably, in the minds of any of those who took part in it, than the Congress of London. Nor is there any fear but that the next International Congress, which will succeed that of London, however it may differ in proportion and method, will have its own attractions and its own charms. This, at least, is certain, that the principles of union which it typifies, the advantages of intercommunication which it affords, and the means of comparison and debate which it includes, are fruitful and pregnant principles, which, enforced by judicious and kindly hands, will always produce a congress such as medical men cannot but find it delightful and advantageous to assist in creating.

Our last words, therefore, may be words of gratitude for the past, satisfaction with the Congress which the past week has seen completed, and well grounded hopes for the continuance of these various international gatherings.

THE library of the Royal Medical and Chirurgical Society will be closed for one month from Monday, August 15th next, and will reopen on Thursday, September 15th.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE preparation of a design for the diploma to be awarded by the Parkes Museum in connection with the Hygienic Exhibition now open at South Kensington was entrusted to Mr. Cave Thomas, who has produced a very simple, effective, and original composition, in the centre of which a female figure, representing Sanitary Science, stands at the prow of a boat in the act of casting her "life-buoy" (hygiene) into the seething ocean of human ills. The design is so plastic in its arrangement, that it might be successfully worked out in sculpture. On Monday, Mr. Erichsen and the Exhibition Committee were present at the Exhibition during the afternoon to receive the members of the International Medical Congress. The Exhibition will finally close on the 13th of August.

NEGLECTED ADDRESSES.

WE hope to do a good service to our readers by bringing under their notice the fact that, by the fourteenth section of the Medical Act, they are liable to have their names erased from the *Register* if they fail to answer the Registrar's inquiries in regard to their addresses. The following excerpt from the Inquiry Form will show that it is clearly made known that they should be careful to answer such inquiries. All that is required of medical practitioners is to state in the form sent to members whether the printed address (cut out of the *Register*, and pasted thereon) is correct, or if not to correct it. Although it is difficult to conceive that anybody would, by the neglect of so easy a duty as this, incur the liability thereby entailed on him; yet it is to be feared that some of our readers have neglected it, so that, unless they communicate with the Registrar, they may, in the next edition of the *Register*, fail to find their names.

IMPORTANT NOTICE.—Every registered medical practitioner should be careful to send to the Branch Registrar by whom he was originally registered immediate notice of any change in his address, and *also to answer any inquiries that may be sent to him by the Registrar in regard thereto*, in order that his *correct address* may be duly inserted in the *Medical Register*, otherwise, by Section XIV of the Medical Act (1858), such practitioner is liable to have his name erased from the *Medical Register*, and thus, by Sections XXXI to XXXVII of the said Act, to lose the right to hold certain appointments, to sign valid certificates, or to recover, in any court of law, charges for professional aid, advice, and visits, and the cost of any medicines or other medical or surgical appliances rendered or supplied by him to his patients. Alterations or corrections in answer to this inquiry should be sent to the Registrar of the General Medical Council and of the Branch Medical Council for England, to the following address: W. J. C. Miller, Medical Council Office, 315, Oxford Street, London, W.

Form to be returned signed, and, if necessary, corrected.

Name.	Address.	Date and Place of Registration.	Qualifications.

MEDICAL OFFICERS OF HEALTH.

A JOINT deputation from the Society of Medical Officers of Health and the British Medical Association had an interview with Mr. Dodson, M.P., and Mr. Hibbert, M.P., at the Local Government Board, on the 4th instant, to ask for a reform of the present insecurity in the tenure of office of extra-metropolitan medical officers of health, in consequence of their liability to periodical re-election. Dr. Farquharson, M.P., Mr. Ernest Hart, and many other gentlemen attended. The deputation asked that the Local Government Board should exercise the compulsory powers for which they applied to Parliament, and obtained in the Public Health Act, 1875, to put medical officers of health on the same footing in regard to the tenure of their office as Poor-law medical officers. Mr. Dodson, in reply, expressed his sense of the hardship which must fall upon medical officers in cases where they gave up their private practice for the public service, and then found their careers as public officers of health cut short, and were compelled to return to private practice. The policy of the board had been to encourage fixity of tenure as to induce men of standing to take such posts; but that they could only encourage in combined districts, where they were large, and the salary remunerative. His board would not promote the continuance of districts that were small. He was not in favour of too much centralisation, but preferred to leave matters in local hands. He could not agree altogether that permanent appointments always secured the best men. However, their observations should receive the most careful attention of his board.

THE PUBLIC HEALTH OF VENTNOR.

IN consequence of the articles which have appeared in various medical and other journals with regard to the public health of Ventnor, as described in the recent report of Dr. Ballard on the Isle of Wight, the local board of the place have circulated a report which they received from their sanitary committee in March last, which shows that, long before the publication of Dr. Ballard's report, the local board had addressed themselves with promptitude to the removal of the insanitary conditions which Dr. Ballard brought to their notice in the course of his inspection last year. The committee report as follows.

The year has been signalised by great activity throughout the town in everything relating to sanitary matters. The meetings of the committee were held once a week, and the members kept themselves in constant communication with the surveyor, the medical officer of health, and the inspector of nuisances. The members endeavoured to give their attention in four special directions—viz., to become acquainted with the sanitary state of every dwelling in the town, to perfect the main drainage, to examine into the water-supply, and to bring into thorough efficiency the working of the sanitary administration. The systematic house-to-house inspection of the town has been completed; and the issue of sanitary certificates to approved houses is an important advance in the health-history of the town. The free ventilation of the main drains by open gratings in the roadways has received attention, and the number of ventilators is now sufficient to save the traps of the house-drains from any undue pressure of sewage-gas. The main supply of water to the town is described as typically pure and wholesome, and the quantity is superabundant. The committee endorse the precautions taken by the board against the most remote risk of contamination of the water by directing the overflow of the reservoir into an open stream. In cases where houses do not draw from the main supply, but have private sources, nearly the whole of these sources have been chemically examined by Mr. Hehner, the public analyst for the island, and, where his reports have been unfavourable, the committee have recommended the closing of the wells. (Since the date of the report, the whole of the wells have been examined, and all polluted ones closed.) In a few instances, the board were compelled to have recourse to legal proceedings; but in the very large majority of cases a ready willingness was manifested on the part of the inhabitants to adopt the best means that could be suggested in order to remedy any defect that was discovered. The attention of the committee was also directed to the slaughter-houses; and they recommend constant supervision in every case. The committee seem to have done their utmost to revive the sanitary administration of the town into a state of vigorous efficiency, and by acquainting themselves with the work carried on by the several sanitary officials of the board, and following this work up from week to week, to have accomplished much in this way. The committee cordially record the assistance they have received from the local Medical Association, whose influential interest in the work has added greatly to the power of the committee, and whose advice has been valuable at all times; and they express their thanks to the medical profession generally for their promise to communicate immediately to the medical officer cases of infection that occur in their private practice. The committee also report that, a suitable site for a mortuary having been obtained, the surveyor is engaged in the preparation of necessary plans. The committee feel strongly the importance of the local authority being the possessors of the water-supply; and they urge on the board renewed efforts to obtain the control of the supply. In conclusion, the committee urge the board to be rigid in exacting the thorough compliance of builders with the by-laws, being convinced that this will save much labour, expense, and annoyance in the future.

They also recommend the continuance of reports from the officials with greatly regularity, even although these reports may be largely of a negative character so far as sanitary defects are concerned.

A GOOD EXAMPLE.

THE *Boston Medical and Surgical Journal* reports that the city council of Dover, New Hampshire, becoming alarmed at the frequent occurrence of small-pox throughout New England, at its meeting in the first week of June, passed resolutions appointing a physician in each ward of the city, whose duty it should be to visit every dwelling-house, hotel, workshop, and store, and vaccinate, at the expense of the city, with kine virus, each person who needed it. It was decided by the physicians named in the resolutions to recommend that every person who had not been vaccinated during the last seven years (unless protected by variola) be vaccinated. The work was commenced on June 11th, and was about completed on the 30th. About 3,300 people, out of a population of 12,000, were vaccinated, making the most thorough work of its kind for many years.

PRESCRIBING WITHOUT SEEING.

THE *Wakefield Express* of July 23rd contains a graphic account of a coroner's inquest, which was lately held at Birkenshaw. The case excited some interest in the neighbourhood, as it was believed that death had been accelerated by some alleged negligence on the part of a medical man. It appears that the deceased, a coal-miner, aged 38, was supplied with a bottle of medicine by Dr. Steele of Gomersal; but at the same time, Dr. Steele stated that he would not be able to call and see the patient for two days; if, therefore, the case was urgent, they had better call in another doctor. Subsequently, the patient died without having received any medical attendance, and the coroner ordered Dr. Baker to make a *post mortem* examination. Dr. Baker, having examined the head, and found evidences of acute meningitis, went no further. But this did not satisfy the coroner, and he very properly adjourned the inquest, and ordered that a complete examination should be made. Nothing further was found. Acute meningitis was evidently the cause of death, and the jury returned a verdict in accordance with Dr. Baker's evidence. At the same time, they added an expression of their opinion, that Dr. Steele was not free from blame, inasmuch as he had not visited the patient after sending him medicine. The practice of supplying medicine before seeing a patient may, perhaps, be sometimes unavoidable in the exigencies of a large practice; but it is not calculated to raise the profession in the opinion of the public, or to increase their confidence in the practice of scientific medicine.

SCOTLAND.

PROPOSAL TO INVITE THE BRITISH ASSOCIATION TO ABERDEEN.

AN informal meeting was held in Aberdeen lately, to consider a proposal to invite the above Association to Aberdeen. The last time the Association met here was in 1859, under the Presidency of the late Prince Consort. A small committee was appointed to communicate with the public bodies, societies, and individuals occupying official positions, and ascertain their opinions on the matter. The meeting was favourable to the proposal of inviting the Association for 1883 or 1884.

SMALL-POX IN SCOTLAND.

THE Board of Supervision has issued the following circular to sanitary inspectors: "I am directed by the Board to require sanitary inspectors to report to them, without delay, all cases of small-pox, or suspected small-pox, which may came to their knowledge within their respective districts. The Board will consider any culpable neglect to comply with this requirement as a grave offence.—John Skelton, secretary." A case of small-pox was imported into Aberdeen, last week, in the French fishing-boat *St. Pierre*, which carries twenty-one of a crew, and is from Boulogne. The ship was kept at the mouth of the harbour till the Sanitary Inspector of Aberdeen had been communicated with; thereafter, it was arranged to bring the patient (who had well-marked disease) on shore, and place him in the Cuningarhill Hospital at Aberdeen, which was accordingly done. At Penicuik, there have been at least two cases of the disease, one of which died ten days ago; the second case was reported on Monday, and was removed to the local hospital, while the house was cleansed and disinfected. It may be noted that the second case occurred in the house in which the daughter of the hospital nurse had lodged. In Arbroath, where the disease first appeared, about forty cases have occurred, but the disease has not been at all virulent. At the end of last week, the temporary epidemic hospital was unoccupied. The Public Health Committee have accepted contracts for the erection of a permanent epidemic hospital, to cost £506; to consist of two wards, and to have accommodation for twenty patients.

LEITH HOSPITAL.

A SUM of money amounting to £16,000 has been placed under trust for the benefit largely of Leith Hospital. Two-thirds of the interest on this sum will be devoted towards the maintenance of a ward in the hospital, to be called "The Stead Medical Ward". The remaining third of the interest will be devoted to the relief of persons suffering from incurable diseases, natives of Leith being preferred.

ENTERIC FEVER AND MILK-SUPPLY.

LATELY there was an outbreak of enteric fever in the southern part of Hawick, where all the houses are of recent construction. At a meeting of the local authority held recently, the superintendent of police stated that in nearly every case the houses had been supplied with milk from a farm where the disease prevailed. Cause and effect were here so obvious to the minds of the authorities, that it was resolved to prohibit the farmer in question from sending any more milk to the town in the meantime.

GRADUATION IN MEDICINE.

THE ceremony of capping the graduates in medicine in the three Scotch Universities of Aberdeen, Glasgow, and Edinburgh, took place on August 1st. In Edinburgh, the event was conducted in the large hall of the United Presbyterian Theological College, which was found to be a vast improvement on the place in which this ceremony has been conducted for many years. Lord Chancellor Inglis presided and conferred the degrees: while there was the usual attendance of the Senatus, examiners, friends of the graduates, and the public. Thirty-five graduates who previously held the degree of M.B. received that of M.D., they having been engaged in practice for at least two years, having passed an examination in Greek, and also each having produced a thesis on some professional subject. Of these theses, eleven were commended, four were considered worthy of competing for prizes, and four obtained prizes (gold medals). One hundred and twenty-six candidates received the degrees of M.B. and C.M.; eight received that of M.B.; and one that of C.M. Three candidates passed with first-class honours, and eight with second-class honours. At this time, the special prizes to graduates in medicine are also awarded. Of these, the chief is the Eccles Prize, which is awarded to the graduate who has distinguished himself most highly in all the professional examinations. It was this year gained by Mr. Barclay Josiah Baron, M.B. and C.M. The Beaney Prize for the greatest proficiency in Anatomy, Surgery, and Clinical Surgery, was gained by David Hepburn, M.B. and C.M. The Goodsir Prize was awarded to Matthew Hay, M.D., for the excellence of his dissertation thesis on "The Action of Saline Cathartics". The Buchanan Scholarship was awarded to James Haswell, M.B. and C.M., for excellence in Gynæcology; and the Wightman Prize in Clinical Medicine was gained by Mr. F. W. Grant. After the capping had finished, the graduates were addressed by Professor Annandale, who congratulated them on the progress made [illegible] that day; he also adverted to the importance of making themselves prac-

tical in many matters which at present do not receive enough attention; and finally he gave some good sound advice on the relation that they should occupy to quacks, both outside and inside the profession. The usual handshaking took place at the close of the proceedings.

IRELAND.

DR. W. TRACY BUDDS died suddenly last Sunday at his residence in South Terrace, Cork. Deceased was formerly house-surgeon to the South Infirmary, and afterwards was elected medical officer of Cork Dispensary District, and extra-physician to Cork Fever Hospital.

SMALL-POX IN BELFAST.

AT a meeting of the Belfast guardians last week, a communication was received from Dr. Spedding, in which he reported that a fatal case of small-pox had occurred in Tennent Street; that a subtenant of the house was a purveyor of milk; and that he considered that if the sale of milk continued it would be dangerous. The board accordingly made an order closing the premises for the sale of milk until further notice.

SMALL-POX IN LURGAN.

LAST week, Dr. Adamson, medical officer of the workhouse, reported to the board of guardians that, since their last meeting, eight new cases of small-pox had arisen, but all of a mild nature; and that every precaution had been taken to prevent the disease from spreading. At present, there are twenty-one cases of small-pox in the workhouse; and, of the eight cases above referred to, all but one contracted the disease outside the workhouse. The advisability of obtaining a movable disinfecting apparatus was under consideration, in preference to the recommendation of the Local Government Board, who advised that a closet should be built to which the clothes could be brought and disinfected. As the matter was urgent, the guardians had appointed a committee of five, who now reported that they recommended the board to purchase a movable disinfecting apparatus, advertised at £10, as it could be brought to any part of the union, and could be hired out to persons who wished to disinfect their houses. The Committee, however, wished for more information as regarded the size of the apparatus; and desired the board to authorise them to purchase, on their own responsibility, the apparatus, immediately after the Saturday meeting without applying to the board, as the matter was urgent, a request which was agreed to.

WATERFORD DISTRICT LUNATIC ASYLUM.

DURING the past year, 328 patients were under treatment in this asylum, of which number 55 were admitted as cases of first attack, and 19 relapsed cases. Thirty-nine were discharged last year, 30 being recovered, 7 improved, and 2 incurable. The deaths numbered 17, all from natural causes. On the 31st of last December, there were 272 patients resident in the institution, 67 of whom were married, 189 single, 12 widowed, and in four instances the social condition was unascertained.

CASE OF POISONING BY CARBOLIC ACID IN LIMERICK.

THE city coroner held an inquest last week in reference to the death of Mr. Hone, who died recently from an overdose of carbolic acid, and to which allusion was made in our last number. Evidence was given which showed that, instead of a black draught, carbolic acid had been administered, in consequence of the bottle containing the senna mixture, by some unexplained mistake, having been filled from a bottle containing carbolic acid. The jury returned a verdict to this effect, and recommended that in all medical establishments poisonous drugs should be kept separately and under lock and key. A porter in the medical hall, who was suspected to have caused the disaster, was shortly afterwards charged at Limerick petty sessions with having administered the carbolic acid to Mr. Hone; but the case having been investigated, the charge was dismissed, as there was no evidence to criminate him, and the prisoner was discharged from custody.

CORK DISTRICT LUNATIC ASYLUM.

TWENTY-FOUR of the most suitable female lunatics have been transferred from the Cork Workhouse to this asylum, in consequence of the overcrowding which existed in the female lunatic department of the workhouse. At a recent meeting of the governors, Mr. Goulding proposed that Dr. Eames, resident medical superintendent, be recommended to receive an increase of £100 *per annum* from the Board of Control for good service pay. It was seconded by Captain Fagan, who said it was barely an act of justice to Dr. Eames, to which he did not think any member of the board would object. No one could find the least fault in the way in which Dr. Eames had done his duty while he was connected with that institution. It was but fair to say that he had performed his duty ably and zealously, and everyone connected with the asylum could not but notice the improvement in it during the time it was under his superintendence. It was now a model for all institutions of its kind in Ireland. The resolution having been unanimously adopted, the meeting adjourned.

WEXFORD GRAVEYARDS.

THE Local Government Board for Ireland, in a recent communication to the Wexford Corporation, state that it has been clearly shown by the recent inquiry that the burial-ground accommodation of the town of Wexford is, as it was represented to be, wholly inadequate. Further, that it is indispensable for the health of the inhabitants that a new cemetery should be provided; and that interments in the existing graveyards, or the majority of them, should, in a short time, be prohibited, —reserving, however, the right of burial in certain cases. After the evidence which was given at the inquiry as to the overcrowded condition of the graveyards, and the necessity for closing them, the Local Government Board have felt bound, having regard to the 162nd Section of the Public Health Act, to close the burial grounds; not altogether, but by degrees; commencing with those which appear most overcrowded. The board also suggest that the sanitary authority should take steps with a view to providing a new cemetery in accordance with the 173rd Section of the Act; and they point out that they will incur a serious responsibility if they fail to discharge their duty in this respect. No action was taken by the Council in reference to this communication; and it is to be regretted that so much apathy should exist in reference to this important matter by the Wexford Corporation.

SOCIETY OF APOTHECARIES.—The following gentlemen were elected for the Special Board of Examiners in Arts on August 2nd, 1881: C. E. Armand Semple, M.B., B.A.; Herbert W. Page, M.B., M.A.; W. Peregrine Propert, M.A., LL.D. The following gentlemen were elected at the same time to seats in the Court of Examiners: John C. Thorowgood, M.D.; J. Sherwood Stocker, M.D.; R. Fowler, M.D.; Henry Bullock, Esq.; John Randall, M.D.; William F. R. Burgess, M.D.; Frederick J. Hensley, M.D.; George H. Savage, M.D.; H. Radcliffe Crocker, M.D.; Alfred Carpenter, M.D., Croydon; Robert J. Lee, M.B.; and W. Withers Moore, M.D., Brighton.

SANITARY LEGISLATION IN WISCONSIN.—The Legislature of Wisconsin has enacted a law to prevent the spread of contagious diseases. It forbids the transportation of any dead body within the State borders, unless accompanied by a certificate showing cause of death. It also inflicts a penalty upon physicians in case they conceal any case of infectious disease, and provides penalties for persons suffering under infectious disease who knowingly expose themselves.

A RETURN recently issued shows what the vestries and district boards of the metropolis have done in providing hospitals for the reception of small-pox patients. Out of 39 "authorities", two provided permanent accommodation for small-pox sufferers, six arranged for temporary accommodation, seven "arranged with other authorities", and 24 failed to provide any accommodation whatever. In several instances, the authorities declare that they made efforts to establish hospitals, but failed to succeed.

FORTY-NINTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in RYDE, Aug. 9th, 10th, 11th, and 12th, 1881.

FIRST GENERAL MEETING: TUESDAY, AUGUST 9TH.

THE first general meeting was held in the Town Hall, and was well attended. The chair was taken by the retiring president, Professor G. M. HUMPHRY of Cambridge.

The Minutes of the Previous Meeting were taken as read (having been published in the JOURNAL), and were confirmed.

Election of President.—Sir GEORGE BURROWS said he had been invited to propose a resolution, which he was sure would be accepted with the greatest cordiality by the members: "That Mr. Benjamin Barrow be, and he is hereby elected, President of the British Medical Association for the ensuing year." [*Cheers.*]

Bishop MCDOUGALL, in seconding the resolution, said that he had never known a man of more energy and better heart and understanding than Benjamin Barrow, or one better qualified to become President of the Association.

The resolution was carried by acclamation.

Address of the Retiring President.—Dr. HUMPHRY, in resigning the chair, said: Gentlemen, the dying swan does not yield up his life without a struggle, and commonly without a song. That song, however, must be a short one; and the note of that song is that our great Association has passed through another year of its long eventful life; and it suggests the question, How has it used that year? Has it fulfilled its high functions of promoting the science and the honour of our profession? It has unquestionably been a year of great prosperity; but prosperity and opportunity involve responsibility; and how far have we fulfilled the responsibility which prosperity and opportunity have given us? I think that a reference to our report, to our JOURNAL, and to the various work which has been done by the Committees of the Association, will assure us that we may give a favourable answer to the question. One thing is certain, that prosperity in this Association means the connection of a larger, perhaps an unprecedented, number of men with it; and that means their union together, not for any selfish purposes, not for any mere work of aggrandisement even of their own profession, but their union by the common bond of a desire to promote the welfare of the profession, the welfare of mankind, and their good feeling towards one another. [*Hear, hear.*] They are united more and more by another and no less strong bond—a bond which no time can sever, a bond the links of which grow more numerous and stronger every year—the bond of the memories of those who have worked among us, and who have passed away from us. We cannot but think that those men are still with us, and we cannot but fancy that they are beckoning us on in our work, and that they are saying to us, saying through me, "Go on; your work is a great and noble one; let that work be pure; entertain friendly feelings towards one another, and then your work will be lasting, will endure for ever". Gentlemen, one duty still remains, and that the most pleasant duty of my office: first, to return thanks to you for the honour which you have done me in placing me in this high position; and, secondly, to hand over this position and the reins of office to another—to one who has already been so well spoken of by Bishop McDougall, to one of my oldest friends, to one whom this Association has made, after many years, a new friend: one who combines so largely the qualities of liberality, hospitality, and geniality; and, above all, of that large open-heartedness which goes to make up the character of the fine English gentlemen, not only of him "of the olden time", but him of the present time also, and of all time. To such a gentleman, I most cheerfully cede this post, and I hand over you and this Association to his auspices. [*Cheers.*]

Mr. BARROW then took the chair amidst general acclamation, and delivered an address, which is published at page 249.

Vote of Thanks to Dr. Humphry.—Mr. HUSBAND (Bournemouth) said they had a duty to be performed; and he was sure that every one who had heard the eloquent speech of Professor Humphry would feel ashamed if the resolution which he (Mr. Husband) had been asked to propose were not cordially accepted by the meeting. It had always been usual to propose a vote of thanks for the manner in which he had performed the duties of his office; and on no former occasion had those thanks been more justly due than they were on the present occasion. Dr. Humphry had not only an English, but an European reputation, and had vindicated the right and the power of his University to teach medicine; and when he accepted the chair of the Association the members felt that if they honoured him he honoured them, and was a president who would give them a most successful and useful year. When they remembered the great meeting held in Cambridge, and how greatly they were indebted for its success to Dr. Humphry's organising power, to his genial hospitality, his eloquence, and his scientific attainments, they would all heartily join in passing the resolution:

"That the warm thanks of the Association be given to Professor Humphry for the able and courteous way in which he has filled the office of president, and that he be elected a vice-president for life." [*Cheers.*]

Dr. LONG FOX (Clifton), in seconding the resolution, said he felt it, as an Oxford man, a great pleasure to say anything in praise of Professor Humphry. He appeared to have done for Cambridge what many of them would fain see done elsewhere. Work like that would live for ever. He had no doubt that in the succeeding generation his example would be felt, not in Cambridge only, but in the sister university; and it would be no slight thing for him to feel as age drew on him that he had really done for both what he was now doing for Cambridge.

Dr. HUMPHRY said that, whatever might be expected of the dying, death happily relieved them from all responsibilities. He would only, therefore, thank the members very heartily for the expression of their confidence, and for his election as vice-president, in which office he should take, as he ever had done, a deep interest in the work of the Association.

Report of Council.—Mr. FOWKE, the general secretary, read the annual report of the Council, which was as follows.

"Your Council are glad to meet you in this beautiful island, interesting not only to the lover of nature, but to every medical man, as one of England's most charming and beneficial health-resorts. The Committee of Council, to whom the choice of a place of meeting was remitted by a general meeting at Cambridge, having received an invitation to Ryde, most gladly accepted it, and Mr. Benjamin Barrow was appointed President-elect. Your Council feel assured that you will receive a most cordial welcome, and that, while the beauty of the scenery will enhance the pleasure of your visit, the work of the meeting will be vigorous and successful.

"The financial prosperity of the Association has been fully maintained during the past year. The profit for the year, carried to the balance-sheet, amounts to £3,217, making the total of assets over liabilities at the end of the year 1880, £11,748. The amount invested since the last annual report has been £3,780, viz.: £2,000 in London and North-Western Railway Four Per Cent. Debenture Stock; and £1,780 in Midland Railway Four Per Cent. Debenture Stock. The particulars of the invested capital are as follows.

LIST OF INVESTMENTS.	£	s.	d.
Consols	[illegible]		
London and North-Western Railway Four Per Cent. Debenture Stock	[illegible]		
Midland Railway Four Per Cent. Debenture Stock	[illegible]		
Total	[illegible]		
TRUST FUNDS.			
Stewart Fund, Caledonian Railway Four Per Cent. Debenture Stock	[illegible]		
Middlemore Fund, North British Four Per Cent. Debenture Stock	[illegible]		
Hastings Fund, London and North-Western Four Per Cent. Railway Debenture Stock	[illegible]		
Total	[illegible]		
Grand Total	[illegible]		

"Your Council regret to report to you the resignation, last winter, from the state of his health, of your treasurer, Mr. W. D. Husband, who for nearly six years has performed the duties of that office. The Committee of Council, on receiving Mr. Husband's resignation, passed the following resolution.

"Resolved unanimously: That the Committee of Council, through their Chairman, communicate to Mr. Husband their deep regret on the receipt of his communication, not merely in consideration of the great loss which they sustained by the Association, but likewise for its cause, the serious failure in his health. The part Mr. Husband has given through the many years of active interest in the aims and operations of this Association, and the efficient assistance he has rendered since as President of Council, Treasurer, in promoting their successful accomplishment, fill the Committee of Council with the warmest gratitude, and they desire to express to Mr. Husband their hope that by temporary retirement his health may be restored, and that he may once again resume a more or less active function in these affairs.

"At the same meeting, Dr. Wade was unanimously appointed to the

office until the annual meeting, in accordance with By-law 34, which is

"Dr. Wade's well sustained interest in the affairs of the Association, and his practical acquaintance with all its business details, fully justified the Council in his re-election as Treasurer, and will warrant his re-election by the Association at its present meeting.

"The new members elected from January to December 1880 were 790, of which number 356 paid 10s. 6d., having joined at the half-year. The resignations have been 157, and the deaths have been 124. Among those lost by death, the mention of your late Vice-President, Dr. Falconer, will bring to many here present feelings of the deepest regret. Dr. Falconer filled for nine years the office of Treasurer, which he only vacated to become the President of your Council, and subsequently President of the Association. His devotion to the work of the Association, his wise counsel and genial presence, are lost to us, but his memory will still endure, and your Council feel assured that you sympathise most deeply with his sorrowing relatives.

"Your Council have also to regret the deaths of Dr. Alfred Hudson of Dublin, who gave the address in Medicine when the Association met in Cork in 1879; Dr. Hardwick, Coroner for Central Middlesex; Dr. Lyster of Liverpool; Mr. C. H. Roper of Exeter; Mr. T. Heckstall Smith, who was many years an active and valuable member of the Committee of Council, and whose retirement some years ago from ill-health was a loss to the Association; and, just recently, Mr. S. S. Alford, the indefatigable secretary to the Habitual Drunkards Committee, whose untimely death is mourned by great numbers.

"The total number of members on December 31st last was 8415. Since that date, 787 new members have been elected. The total now upon the register is 9,202.

"On the eve of the fiftieth anniversary of the Association, the Worcestershire and Herefordshire Branch of the Association was legally recognised by your Committee of Council; and your Council learn with much gratification the intention of the profession residing in Worcester, the birthplace of the Association, to invite the members to hold their fiftieth anniversary in that city, and thus not only to secure an agreeable place of meeting, but also to pay a merited tribute to the memory of the founder, Sir Charles Hastings. At the meeting at Chester in 1866, a subscription was started in order to raise a fund which should be devoted to his honour. This movement realised (with subsequent accumulation of interest) £539 13s. 4d., which during the current year has been paid over to the account of the Association, and has since been invested in London and North-Western Four Per Cent. Debenture Stock. Your Committee of Council, considering that the wishes of the donors would be thereby and to that extent satisfactorily carried out, have, at the suggestion of the Worcestershire and Herefordshire Branch, ordered a bust of Sir Charles Hastings from Mr. Brock, the celebrated sculptor, at a cost of 150 guineas. This will be placed in some suitable position in the city of Worcester. Your Council recommend that the surplus be for the present allowed to accumulate.

"It will be remembered that, in his address at the last annual meeting, the President, Professor Humphry, made certain suggestions relative to accumulative investigation of disease. The Committee of Council was requested to consider how such suggestions could be best carried out to a practical result. The Committee of Council appointed a subcommittee to consider the matter, and the proposals of the subcommittee will be offered to you in a separate report, which has been approved by the Committee of Council.

"With regard to other resolutions passed at the last annual meeting held at Cambridge, that referring to obtaining from the Legislature some provision whereby habitual drunkards who become chargeable to the rates should be placed under such restraint as might lead to their being reclaimed, has been referred to the Committee on Legislative Restriction for Habitual Drunkards, who will report upon it to you. The resolution passed by the Public Health Section respecting the communicability of disease to man by animals used by him as food has been under the consideration of the Committee of Council, who have appointed a committee: Dr. Greenfield, Mr. Vacher, Dr. Ewart, and Mr. Fleming, with the President of Council, as *ex officio* member, who have the matter under their consideration; and a vote of £100 has been made by the Committee of Council towards the expense of such investigation.

"The resolution passed at the last annual meeting, that the price of the dinner-ticket should not include any charge for wine, it is proposed to carry into effect this year by having a separate dinner-ticket for those who do not take wine, and your Council trusts that this arrangement will prove convenient.

"The regulations for the conduct of meetings passed at the last annual meeting come into force this year, and your Council would especially draw your attention to two of them, viz.:

"In accordance with that resolution, the reports of the various committees appointed at the last annual meeting have been published in the JOURNAL, and will be presented to you in due course.

"The Scientific Grants Committee; the Committee for obtaining powers for the Proper Treatment of the Habitual Drunkard; the Parliamentary Bills Committee; and that for the Promotion of Medical Reform, have all done good work, which will meet with recognition when their reports are read.

"The Committee of Council having had their attention drawn to the subject of medical education by the Metropolitan Counties Branch, in a series of five resolutions, a subcommittee was appointed to consider them, consisting of Mr. C. Macnamara, Dr. Clifford Allbutt, Dr. A. Carpenter, Dr. G. F. Duffey, Dr. B. Foster, Dr. W. C. Grigg, Dr. C. Holman, Professor Humphry, Mr. Arthur Jackson, Dr. D. J. Leech, Dr. C. Parsons, Dr. A. P. Stewart, and Dr. Edward Waters. This subcommittee drew up a report which the Committee of Council adopted, and ordered to be printed and sent to every member of the medical profession in the United Kingdom, at a cost of about £100. Several of the Branches have held meetings to discuss the report, and your Committee of Council trusts that the report and discussion will help to accelerate reforms in medical education.

"Mr. Arthur Jackson and Dr. Grigg had given notice that they would move at this meeting the alteration of By-law 3, upon the election of members residing in Branch districts by the Committee of the Council, but have withdrawn the motion upon the subject being referred for consideration to a subcommittee of the Committee of Council, consisting of Dr. Grigg, Mr. Arthur Jackson, Dr. Stewart, Dr. Leech, Mr. Husband, the President (Professor Humphry), and the President-elect (Mr. Barrow).

"It is a matter of much congratulation on the part of your Council that, from year to year, the activity of the thirty British and four Colonial Branches, and consequently the influence of the Association, increases. Much of this activity is due to the work of the various honorary Branch secretaries, who devote so much time to their honorary duties without reward, except in the annual grateful thanks of the Association, which your Council again asks you to return. Dr. Alexander Ogston of Aberdeen, Mr. Board of Bristol, and Dr. C. Harrison of Lincoln, retire from their offices after several years of earnest work.

"In conclusion, your Council congratulate you that, whether in point of numbers, earnest and effectual scientific work, public influence, journalistic efficiency, or material prosperity, as tested by its balance-sheet, the British Medical Association has never held a more commanding position."

Dr. CARPENTER, President of the Council, moved:

"That the report of the Council, together with the financial statement for the year ending December 31st, 1880, be approved, adopted, and entered on the minutes."

He said, with regard to the financial position of the Association, it was a considerable satisfaction to find that the finances were in a very good condition; but he wished it to be understood that they were not in a state to entirely correspond with the number of members. Their number was approaching 10,000, and it was evident that £10,000 was hardly enough to ensure them against conditions that might arise from certain results that might happen, and it was right that the members should help the Council as much as possible to increase the fund until it reached £20,000. The number of members on the books was 9,202, and he hoped that at the fiftieth anniversary at Worcester it would have reached 10,000; at least they ought to aim at attaining that result. With regard to their future places of meeting, he ventured to suggest that as the Association had become so large and powerful, it was desirable that they should know where they were to assemble not only next year, but the year after; and he might mention in confidence that proposals had already been made in two places for inviting the Association in 1883—viz., Liverpool and Glasgow. [*Hear, hear.*] As to the reports of the committees, they had been printed in the JOURNAL, and he hoped the members would read them before coming to the meetings, so that when presented they might be taken as read. There was, however, a great deal of work done by the branches and the secretaries, which did not come into the reports. A good deal of work had been done by the Committee of Council that had not yet been completed, and was therefore not reported upon.

Dr. DAVEY (Ryde) said he had much pleasure in seconding the adoption of the report and accounts, not only because of the increasing

members of the Association, but because of the great amount of scientific work which it was doing, and would continue to do, and also because the work of the JOURNAL was so successfully carried out.

Dr. HADDON (Manchester) rose to make some suggestions with regard to the report.

Mr. HUSBAND said the report could only be amended by the Council itself, though the members could make observations upon it.

The PRESIDENT said that no amendment could be proposed to the report, but any member could move that it be referred back to the Council for further consideration.

Dr. HADDON called attention to the last paragraph in the report. It was impossible that a large assembly like that should be unanimous on any one point; but he thought his fellow members would go with him when he said that matters of pure opinion should be kept as far as possible out of the annual report. It might be perfectly true that the Association "never held a more commanding position", but there must be various opinions as to the truth of the several assertions made in the paragraph to which he referred. The statement as to numbers no one would deny. As to "scientific work", he for one was disappointed with the work of the past year, and he thought that instead of advancing they had retrograded. The British Medical Association ought certainly to be progressive, especially now that such advances were being made across the water. As to "public influence", he did not hesitate to say that during past years opinions had been expressed in the JOURNAL which would soon detract considerably from the public influence which they ought to enjoy. They had no opportunity as members of expressing their dissent from those opinions, but on the present occasion they had the opportunity of saying at least what they thought. He would not go into questions on which they might differ, but he would suggest that before such expressions as he alluded to were inserted in the JOURNAL they ought to be subjected to some careful and authoritative criticism, and nothing should appear that was likely to cause disagreement among the members. He knew of no mode more likely to lead to disunion, dissension, and the very breaking up of the Association, than the dissemination of views which were antagonistic to the great majority of the members. As to "journalistic efficiency", he should not question that statement, and he was not prepared to enter into the subject. The "material prosperity" of the Association was no doubt a great fact. No one could doubt that it had plenty of money. He would suggest that the concluding paragraph should read:—"Your Council congratulate you that the British Medical Association has never held a more commanding position." It would be better to leave the other part out, because praising one's self was the last thing that ought to be resorted to.

A MEMBER said he thought Dr. Haddon had himself proved the truth of the clauses in the paragraph to which he had taken exception, and had shown no reason why they should not be adopted.

Dr. CARPENTER said there were two sides to every question. The JOURNAL was open to every member to state his opinion; it would be wrong on the part of the Journal and Finance Committee to stop the expression of opinion on the part of any of the members, and he was sure they would never think of doing anything of the kind. It would be a sad thing for journalism and for the progress of the medical profession if there were not differences of opinion, and he hoped they would continue to exist. He could answer Dr. Haddon, that the matters to which he referred engaged the serious attention of the Journal and Finance Committee, and were not passed over *sub silentio*. It was impossible, however, that among ten thousand members there could be perfect accord in everything. [*Hear, hear.*]

The motion was then put and carried.

Election of Treasurer.—Dr. CHADWICK (Tunbridge Wells) said that during the past year the Association had lost a most able and efficient treasurer; and, whatever might be said as to their riches or poverty, it was certain that the Association was not independent of the services of such an officer. However rich they might be, he concurred in the desire already expressed, that they might be still richer, because, with the prospect of ten thousand members, they could not feel their position perfectly secure without a further accumulation of funds. It was only through failure of health that the late treasurer had been compelled to resign his onerous duties. It devolved upon the members to elect a successor; and, as some months had to elapse before they could be appealed to, the Committee of Council felt it a fortunate thing that they had among them a gentleman in whose ability to fill the office they could place the utmost confidence. He had great pleasure in proposing:

"That Dr. W. F. Wade be and he is hereby elected to the office of treasurer in accordance with By-law 10."

Dr. HERBERT PAGE (London) seconded the motion, which was unanimously adopted.

Dr. WADE said he had on various occasions had the good fortune to receive from his medical brethren marks of their regard and esteem, but he had never received so honourable a distinction as that which had just been conferred upon him. Had it not been for the unfortunate circumstance that he had had an opportunity of ascertaining practically what the duties of the office were, he should have feared to undertake them; but that experience enabled him to say that he ventured to hope that he should be able to discharge the duties to the satisfaction of the members and with advantage to the Association. The unfortunate circumstance to which he referred was the compulsory retirement of Mr. Husband. The members had confirmed the vote of recognition of his services by passing the report of the Council, but it had always been usual for the treasurer, at the end of his three years' term of office, to receive a specific vote of thanks from the Association; and it would be very hard if, because Mr. Husband had been deprived by ill-health of the pleasure to himself and advantage to the Association of completing his term of office, he should also be deprived of a specific and formal vote of thanks. A great deal might be said, if time permitted, as to the value of Mr. Husband's services: they would all agree that the material prospects of the Association, to which reference had been made, was owing to Mr. Husband more than to any other single member of the Association. Mr. Husband would be the first to confess that he had received the loyal support of his colleagues; but it would be an injustice to him not to say that he had been the prime mover in all the changes which had resulted in the present satisfactory pecuniary position of the Association. He proposed:

"That this general meeting present their sincere thanks to Mr. W. D. Husband, for his earnest, wise, devoted, and successful services as treasurer of the Association for the last three years." [*Cheers.*]

Dr. WATERS (Chester) seconded the resolution, which was unanimously adopted.

Mr. HUSBAND, in acknowledging the vote of thanks, said he was proud to be associated with a body of men to whom the thanks not only of the Association, but of the whole profession, were due—men whose conduct was beyond all praise. He was thankful to have been permitted to work with them, and to witness the rising of the Association from the depths of adversity to its present prosperity. He hoped that prosperity would continue to increase; and that, when those who had fought its battles had passed away, men would still be found in the ranks to maintain the interests of the Association, which would, he believed, ever be a great moving element in the promotion of the welfare of the profession. He thanked the members most heartily. When, last winter, he was told by his medical adviser that he ought to give up any great work, he felt that it was a wrench to give up not only that work, but another position which he should have prized above all others, as the crown of his professional life; but he felt that, in his state of health, it was his duty not only to himself, but to the Association, to place the office in abler and more energetic hands. One consolation to him was, that he knew that his successor was one in whom their interests would not suffer, and who would zealously watch and assist in the growing prosperity of the Association. [*Cheers.*]

Report of the Collective Investigation Committee.—Dr. HUTCHINSON read the following report of the Subcommittee of the Committee of Council, on Collective Investigation.

"In presenting their report, the members of this Committee are aware that, though the contemplated work is one of much importance, which may be productive of very valuable results—one which is worthy of the British Medical Association, and which ought to be undertaken by it—yet it is one which will require great and continuous effort to carry it on in an efficient and satisfactory manner. To combine a number of men in the systematic and careful observation and record of facts is difficult under any circumstances, and especially so in the case of medical men, whose irregular and harassing avocations necessarily disincline them to enter upon and continue a labour of this kind.

"It is obvious that success will much depend upon the energy, perseverance, ability, and judgment of the Secretary to the Committee which is proposed. The work that will devolve upon him will be laborious; and, though it will no doubt, to some extent, bring its own reward, the Committee feel that the Association could not expect that such a task should be undertaken gratuitously.

"The Committee further feel that it may be desirable to make some remuneration to those persons who shall be found to give the time and attention which is requisite to make careful observations, and record them well; and they think it will be agreed that a portion of the funds of the Association can scarcely be better employed than in inducing the individual members of the Association to contribute their share to the advancement of medical science by a careful and systematic observation and record of the facts which come under their notice.

"The Committee accordingly have agreed to propose the following resolutions:

"1. That a Committee of seven be appointed annually at the Michaelmas quarterly meeting, by the Committee of Council, to arrange, superintend, and direct the work of combined observation, and be named the 'Combined Observation Committee'. That the Committee have power to add to their number.

"2. That the Committee meet at such times and places as they think fit, and report at least once in each year to the Committee of Council: and that their report be presented at the annual meeting of the Association.

"3. That the Committee shall have power to appoint a Secretary, who shall be paid (£200 annually) from the funds of the Association, and who shall act under the direction of the Committee, and shall hold office during their pleasure.

"4 That the Secretary shall attend such Branch Meetings of the Association as may be desirable for the purpose of explaining the nature and objects of the investigations, and of interesting and directing the members of the Association in the work.

"5. That the travelling and other necessary expenses of the Secretary to the amount of not more than £100 in any year, having been submitted to and approved by the 'Combined Observation Committee', shall be paid out of the funds of the Association.

"6. That communications to the members of the Association, and others, for the purposes of the investigation, shall be made through the JOURNAL, or from the offices of the Association, in accordance with the usual regulations.

"7. That the Branches of the Association be invited to appoint registrars who may assist in the work, and that such registrars shall, together with the 'Combined Observation Committee', form a 'General Committee', to determine from time to time the subjects for investigation, and the manner in which such investigations shall be conducted.

"The following have been suggested as likely to form suitable subjects for combined observation. They are merely mentioned to indicate the kind of work which is contemplated. It would rest with the General Committee to consider their suitability, or to select others. 1. Records of the medical life-history of patients, including the sequelæ of various diseases. 2. Records of the relationship of certain specified diseases—as cancer, tubercle, syphilitic degeneration, osteo-arthritis, chorea, etc.—to any other diseases. 3. Observations respecting epidemic diseases in given districts. 4. The incubation period of contagious diseases; and the duration of contagion. 5. The origin of contagious diseases. 6. The collection of evidence as to the effects of certain remedies. 7. The geographical distribution of diseases. 8. Anthropometrical observations, especially in relation to disease. 9. The hereditary influence of race, climate, occupation, food, etc., in the production of diathesis, or of tendencies to certain diseases."

He said that the report had been prepared in no impetuous and over-confident manner, but was the result of very careful deliberation. It would be observed that the proposed work would be carried on mainly by a secretary, upon whom its success would very materially depend. It would not be right to ask the services of a competent man without something like adequate rumuneration, and the sum proposed to be given, including expenses, was £300. The Committee suggested that it might possibly be desirable to offer remuneration to those members of the profession who might carry out the work in a thorough and efficient manner, but that would be a matter for subsequent consideration. The question at present before them was whether the Committee had recommended the best means of carrying out the intentions of the Association expressed at the last meeting. He moved,

"That the report of the Sub-Committee of the Committee of Council on Collective Investigation be approved and adopted, and that it be referred to the Council to carry it out."

Mr. WHEELHOUSE (Leeds), in seconding the motion, said it had been suggested that the Association was retrograding instead of advancing; but here was a distinct line on which they might advance slowly but steadily, and he had no doubt that the members would readily place at the disposal of the Committee of Council the small sum they had asked to enable them to carry out the work.

Dr. HADDON (Manchester) thought that the matter ought not to be decided at that late hour, and at so small a meeting. He would not oppose the motion, but he did not think that the work had much chance of succeeding as proposed. The work had been suggested in 1864, but the proposal had lain dormant until the Lancashire and Cheshire branch had tried it in 1875. He (Dr. Haddon) was appointed secretary, and the subject of investigation was the duration of infection. It was found to be a most difficult matter to get the required replies, except through the personal influence of the Committee. Their object should be to invite and encourage the general body of members to make reports. The work could not be done in a year. The question could not be answered off-hand, but would require considerable time, and unless some inducement were offered no replies might be forthcoming. It would be a very simple matter to have medals struck to be presented to the members and branch secretaries who assisted most effectually in the work. As to the proposed salary, he thought it far too little, and would suggest that it should be at least £500 a year.

Mr. HUSBAND said there was no intention to prevent the fullest discussion of the subject, but it would be impossible to adjourn it, as the time of the other meetings would be fully occupied with other matters. It was true that the work had been tried as mentioned by Dr. Haddon, but not in the way recommended by the Committee. As to secretary's salary, the Committee had been told that the proposed amount would suffice, but if an additional amount should be required, the Committee would not hesitate to ask for it. There had never been any disposition to keep money back when it was needed in the interests of science. There was a good deal to be learned from hospital and private practice, and they wanted some one to go about the country to see what was doing, and to stimulate persons to observe and register their observations in such a way as to make them useful to the profession.

The motion was unanimously adopted, and the meeting adjourned.

SECOND GENERAL MEETING: WEDNESDAY, AUGUST 10TH.

The second general meeting was held in the Town Hall; Mr. BARROW, President, in the chair.

Committee of Council.—Mr. WHEELHOUSE stated that, at the Council meeting just held, the following gentlemen had been elected to serve as twenty members representative of the Council of the Association in the Committee of Council for the following year: T. Clifford Allbutt, M.D., F.R.S.; T. H. Bartleet, M.B.; J. P. H. Boileau, M.D., Surgeon-Major; L. Borchardt, M.D.; C. Drage, M.D.; B. Foster, M.D.; E. Long Fox, M.D.; A. J. Harrison, M.B.; C. Holman, M.D.; Leslie H. Jones, M.D.; D. J. Leech, M.D.; C. Macnamara, Esq.; F. E. Manby, Esq.; F. Mason, Esq.; R. H. B. Nicholson, Esq.; Henry Power, Esq.; Septimus W. Sibley, Esq.; Henry Stear, Esq.; A. P. Stewart, M.D.; C. G. Wheelhouse, Esq.

President of Council.—Dr. A. CARPENTER said that, at the meeting of the Council just held, it was his duty to lay down the office he had held as President of the Council for the preceding three years; and he had to inform the members that Mr. Wheelhouse had been appointed as his successor. [*Applause.*]

Dr. WATERS (Chester) proposed:

"That the warm thanks of the Association be given to Dr. Alfred Carpenter for the able way in which he has performed the duties of President of the Council for the past three years, and that he be elected a Vice-President for life." [*Cheers.*]

Dr. Carpenter's services in connection with the Association were fresh in the minds of those who had worked in the Council for many years past. They all remembered the admirable address on Health which he had delivered at the meeting in Sheffield, an address in every way worthy of the occasion. In the Council, he had always shown the greatest tact combined with zeal and efficiency. He had presided when business of the gravest character had been before the Council; when many moot points had been discussed. On all occasions, he had managed to preserve, if not unanimity, at any rate good feeling; and he had left behind him, in the memory of the members of the Council, the conviction that he had done good work in it; and that the chair could not be more ably filled than it had been during its occupancy by him. [*Cheers.*] It would be a satisfaction to them to know that, although the Association had lost his services as President of Council, he would still be an active *ex officio* member during the continuance of the long period which his present appearance gave them fair reason to expect. [*Cheers.*]

Dr. CHADWICK (Tunbridge Wells), in seconding the resolution, expressed his entire concurrence in the remarks of Dr. Waters; and said it was a happy thing for the Association that those who had occupied prominent places in its management did not, on resigning office, cease to take an interest in its affairs. Who was so likely to be able to aid them as one who, like Dr. Carpenter, had filled the presidential chair, and therein acquired valuable experience? On that account, he rejoiced that, in accordance with the rules, Dr. Carpenter would be Vice-President for life.

The motion was unanimously adopted.

Dr. A. CARPENTER, in acknowledging the vote of thanks, said he owed a great debt of gratitude to the Council, especially to the senior

members, for the support they had given him during the time he had occupied the chair, inexperienced as he was in the management of so great an Association. There was, no doubt, a great advantage in the retiring officers being appointed as members of the Council for life, because it retained among them men who were acquainted with the working of the Association, and were able to guide it through the shoals through which it might have to pass. With regard to the officers of the Association, he must say he owed to Mr. Fowke (general secretary) a great debt of gratitude, for the way in which he had supported him, instructed him in the different matters that had been brought under their notice, and, at the same time, responded to the suggestions he had made. He thought it right to make that acknowledgment, because the duties that devolved upon the general secretary were very onerous, and very ably discharged. The late treasurer also was willing and able to direct him; and the new treasurer, during the short time he had been in office, had rendered similar service. It was, therefore, not upon himself alone that the management of the Association had devolved. They had a set of officers who were doing their work nobly, and without fee or reward, except that which arose from the feeling that they were earning the appreciation, and would receive the thanks, of the members when they retired from office. He heartily thanked them for placing him in the list of vice-presidents, and could assure them that he should ever entertain towards the Association the regard and veneration which should always be manifested towards so great and important a body of their profession. [*Cheers.*]

Place of Meeting in 1882: *President-Elect.*—Mr. WHEELHOUSE, the new President of the Council, said that an invitation had been received by the Association to hold its next meeting in Worcester; and it was accompanied by the expression of an earnest hope that the invitation would be accepted without any hesitation. It had long been felt that the Association should, if possible, meet at Worcester on the occasion of its fiftieth anniversary, seeing that Sir Charles Hastings, its founder, first established it in that city. He therefore proposed:

"That the cordial thanks of the Association be given to the members of the Worcestershire and Herefordshire branch, for their kind invitation to hold the fiftieth annual meeting in the city of Worcester; and that Dr. Strange of that city, be elected president on the occasion."

DR. A. CARPENTER (Croydon), in seconding the motion, said that the invitation had come not only from the medical men of Worcester and the neighbourhood, but also from the inhabitants of that venerable city, and from the relatives of the founder of the Association. He thought therefore, that they could not do more honour to the Association and to its founder than by heartily accepting the invitation, and he was sure they would meet with a very cord al reception. A suggestion had been made that in 1883 they should meet in Liverpool, and an invitation had been read through the branch secretary, Dr. Davidson. A desire had also been expressed that the meeting of 1883 should be held in Glasgow, but there could be little doubt after the feeling that had been expressed with regard to Liverpool that the meeting of 1883 would be held in that city.

The motion was put and carried.

DR. STRANGE (Worcester) read the memorial which had been presented, inviting the Association to Worcester, and thanked the members for accepting the invitation. The memorial, he said, had been signed by 142 persons. The two counties were small ones, and the Branch contained only 80 members. They had therefore endeavoured to obtain assistance from their neighbours, who had cordially responded to their appeal. They had not thought it desirable to appeal to any large town where the Association might be invited in future years, except in the case of Birmingham, which was so very large a place, and which had so recently received the visit of the Association. He had to ask the indulgence of the members in regard to the visit to Worcester. It was only within a year that a branch had existed there, and the city was comparatively small, but with the assistance of neighbouring towns, especially Malvern, the members could be housed however numerously they might attend. There was ample convenience in Worcester for six or seven sections, if necessary, and he trusted that the meeting would be a useful and enjoyable one.

Address in Medicine.—Dr. BRISTOWE delivered the Address in Medicine. It is published at page 256.

Dr. DAVEY (Ryde) proposed a vote of thanks to Dr. Bristowe for his interesting address, and said the members were greatly indebted to him for the great treat he had given them.

Dr. LONG FOX (Clifton), in seconding the motion, said he thought Dr. Bristowe had proved that homœopathy was not a system of medicine in the sense in which educated men understood the term. With regard to the question of infinitesimal doses, many of them might remember the calculation attributed to the late Sir James Simpson, that the most powerful homœopathic remedy was the solution of a grain of medicine in an ocean of fluid that would extend from the earth to the nearest fixed star. [*Laughter.*] If homœopathy was not a system of medicine, he thought the course with regard to it was extremely clear. [*Hear, hear.*] If a homœopathic practitioner, alleging that the same remedies were used, the difference being only in name, asked an honourable member of a most honourable profession to associate with him in the treatment of a case, it appeared to him to be like asking the Archbishop of Canterbury to associate with the high priest of the lowest fetish in Central Africa. [*Laughter.*] Why were the adherents—he would not say the victims—of homœopathy, to be found among men eminent in piety, sanctity, and benevolence? He believed it was really because they thought that God acted habitually miraculously. But as a reverend profession (as Bishop McDougall had called them), they ought to refuse to countenance so unphilosophical a view of the great First Cause. [*Hear, hear.*] It was surely a much grander view of the Almighty to believe that he always acted by the grand laws that He had Himself laid down. He hoped that Dr. Bristowe would not suppose that he disagreed with anything he had said. He ventured only to differ in regard to the remarks in the latter portion of the Address.

The vote of thanks was carried by acclamation.

Dr. BRISTOWE, in returning thanks, said he knew he had expressed some views not shared by the majority of the members, and he was not surprised at the observations of his friend Dr. Fox.

THE LATE DR. OTIS.

DURING a discussion on August 5th in the section of Military Surgery and Medicine of the International Medical Congress on the transport of sick and wounded in the field, Dr. Gori, of Amsterdam, made reference to the death of Dr. Otis, which drew forth the following remarks from the President, Surgeon-General Longmore.

"Dr. Gori," he said, "has made reference to a calamity about which there can be no discussion. I allude to the eloquent and touching tribute which he just now paid to the services and untimely death of that learned and most distinguished American surgeon. All of us military surgeons who are in this room, to whatever nation we may belong—and every leading nation is represented here at this moment—all of us have benefited greatly, and so long as we are able to pursue our profession must still be benefited, by those grand, impartial, and comprehensive volumes of the surgical history of the great war of the rebellion in the United States which Dr. Otis was spared to complete, and which the Government of the United States have so largely and so liberally distributed among military surgeons in Europe. This seems to be a very fitting occasion, representatives as we are of the science and practice of military surgery in all countries, for us to express our profound regret at Surgeon Otis having been taken away from among us before he was able to complete the greatest of all his many valuable professional works as he had hoped to do, and it seems also to be a fitting opportunity to convey to Surgeon-General Barnes, and through him to all the medical officers of the United States Army, our heartfelt sympathy with them on the great loss their medical service in particular, and at the same time military surgical science in all parts of the world, has sustained in the death of their colleague. I say these few words in the presence of an eminent friend and fellow labourer of Dr. Otis—Dr. Billings—who occupies an important post in the Surgeon-General's office at Washington; and I beg to propose that Dr. Billings be asked to kindly allow himself to be the medium of communicating this, I may truly say, international expression of feeling—for I see plainly you all share with me the sentiments which I have tried to express—to the distinguished chief at the head of his department and to his colleagues on his return to Washington."

Dr. Billings then said: "In behalf of the Medical Department of the United States Army, of the Surgeon-General, and of the colleagues and personal friends of Dr. Otis, I desire to return thanks for, and to express the highest appreciation of, the eloquent tribute which Surgeon-General Longmore has paid to the memory of Dr. Otis. I shall not attempt to add to the eulogy he has pronounced on my late friend and colleague. I can only say that I find I want words to express the emotion with which I have listened to it; and that I shall convey the message with which he has charged me to the best of my ability. You will all, I am sure, be glad to hear that before his death Dr. Otis had completed so much of the surgical history of the war upon which he was engaged as relates to wounds of the extremities. There remains yet to be completed the account of the complications of wounds, such as gangrene, tetanus, septicæmia, etc. Another surgeon of the army who has engaged to write these, and you can readily conceive how difficult he will find it to prepare a report which will be the continuation of, and be constantly compared with, the work of Dr. Otis."

THE INTERNATIONAL MEDICAL CONGRESS.

Thursday, August 4th, 1881.

THE section met from 10 a.m. to 1 p.m.; and again at 2 p.m.

From 1.30 to 3.30 p.m., visits were paid to Guy's, the London, St. George's, St. Mary's, St. Thomas's, and the Westminster Hospitals.

At 4 p.m., the third General Meeting was held in St. James's Hall. The address on Scepticism in Medicine, prepared by the late Professor MAURICE RAYNAUD, was read by his friend Dr. FÉRÉOL. It is published at page 268.

SIR JAMES PAGET said: I am sure you will allow me to propose that we should return Dr. Féréol the formal thanks of this meeting, for his great kindness in reading the address which we have heard, and let us do it with a heartiness which does not usually coincide with formality. For indeed he has proved himself to be the true friend of M. Raynaud, a friend appreciating perfectly his moral and intellectual qualities, in the admirable preface which he gave in so touching a manner, of the life of his friend. His perfect appreciation of M. Raynaud's qualities is such as can be approached by few but those whose minds are constructed after the same pattern. Himself an historian, himself keen in observation, himself clear in telling it, he has done all that could be done to enable us to pass through this hour without feeling bitterly the absence of M Raynaud, whose absence we shall regret when the hour is past, as we have regretted it hitherto, and which we felt deeply when that great calamity removed him from the world and from us. For I shall never forget the manner of his assent to the request that he should give an address. He doubted first and then assented; and I should think that what moved him at last to accept was the happy chance with which I found an expression of his own in that most charming book of his, *Le Médecin*, a book which I had read and been perfectly fascinated with from beginning to end; for I found that in the conclusion of his preface he said that he hoped that on some future day, and in some other place, he might present the profession, and would, with something of the same kind again. He promised; and we hoped that the other time would be the meeting of the Congress, and the other place London. And so his great friend, M. Féréol, has done the best that was possible that it should be. Let us then give him our most hearty thanks for the service he has rendered to us.

Friday, August 5th.

The Sections met from 10 A.M. to 1 P.M., and again at 2 P.M.

From 1.30 to 3 P.M., the members of the Congress visited Bethlem, Charing Cross, King's College, Middlesex, St. Bartholomew's, and University College Hospitals.

At 1.30, Professor Owen demonstrated the Natural History Collection at the British Museum.

The fourth general meeting was held in St. James's Hall, when Dr. BILLINGS, Surgeon United States Army, read an address on Medical Literature. It is published at page 262.

SIR JAMES PAGET: I am sure I should express the feeling of you all, if I were to say that if this single paper were the sole production of the Congress it was worth coming here to meet, that it might be produced. [*Applause.*] We have all known Dr. Billings as a great leading bibliophilist, but I believe there have been very few who have known heretofore, that he does in his person absolutely belie the ordinary character given of the bibliophilist: first that such a man is a lover of books; then that he is not a man of science, then, not a man of practical good sense, then, not a man of wit [*Applause*]. It would be very happy if upon some future day we could hear the whole subject of bibliography treated in so admirable a scientific spirit, not as indicating in books the places where to find scientific knowledge, but to show how, out of scientific books, the history of mankind himself may, for the time, be studied. I remember that, at the time when I lived by my pen, my income might have been many times larger than it was if I had had the good guidance of Dr. Billings, to know how, and when, and where, and in what method, to work at the books; but above all things, I think he has shown us how very much of absolute learning and good practice there may be in the exercise of common sense on all matters of bibliography and of medical science; and I am sure it would be most acceptable to us all if we did but possess one grain of the overflowing wit with which he has made every word to sparkle. I propose that we once more give hearty thanks to Dr. Billings for his address.

Saturday, August 6th.

There was no general meeting on this day; but the Sections met from 10 A.M. to 1 P.M.

Sunday, August 7th.

The members of the Congress attended full choral service in Westminster Abbey at 10 A.M., and in St. Paul's Cathedral at 3.15 P.M. Sermons were preached at the former by the Rev. Canon Barry, D.D., and at the latter by the Rev. Canon Liddon, D.D., D.C.L.

Monday, August 8th.

The Sections met at 10 A.M., and again at 2 P.M.

The fifth general meeting was held in St. James's Hall at 4 P.M., when Professor VOLKMANN, of Halle, delivered an address on Modern Surgery.

Sir JAMES PAGET: I feel that I shall be right if I offer on your part the thanks of the whole Congress to Professor Volkmann for his admirable address on modern surgery. I suppose, that after the fervent discussion of the morning, it might be impossible to say that you are agreed as to the means by which modern surgery has become so vastly better than the ancient, so that such things can be told as Professor Volkmann has told us of its progress in the last fifty years. But there is another view of the matter which we might most confidently take. An address of this kind, delivered at a meeting or a Congress so large as this, will have a clear historic value; it will mark a definite date for certain events and certain conditions of surgery which may from this time onward be constantly referred to. And whatever may be the question as to the methods by which modern surgery achieves its triumphs—triumphs which, I think, very justly deserve the boast which a leading surgeon himself can give of them, there can be no question at all, as reckoned by numbers and plain facts, that surgery now does save life on a large scale; and that hundreds and thousands who, fifty years ago, would have died of their diseases, now, through the power of surgery, live happy lives. [*Applause.*] It marks this era in which this thing can be told—and none can have told it better than Professor Volkmann. [*Applause.*]

M. PASTEUR of Paris delivered an address on Vaccination in Relation to Chicken-Cholera and Splenic Fever, published at page 283.

Sir JAMES PAGET: Gentlemen, I feel that, in offering our thanks to M. Pasteur for the address which he has given us, and for the marvellous work which he has told us, we do but express the opinion of the whole world. [*Applause.*] It is, perhaps, the rare privilege of our science that we can be the first to discern the good that can come out of work like this. That which Jenner did for the good of the human race, M. Pasteur has done for the good of races which are most useful to mankind. [*Applause.*] It is with some bitterness of feeling towards our own race that we hear him tell of what has been the success of his discovery among those who are interested in the lives of cattle on the continent. Jenner had to fight his fight for the benefit of men against a vehement opposition; to that, for the benefit of cattle, which are human property, there is no opposition. It is truly a thing that we may well remember, and it is not a novelty to us who practice our profession, and who have on so many occasions to see how much more valuable a man feels his own property to be than his neighbour's life. [*Laughter.*] There is a different feeling on this now; and I venture to say that another advantage proceeding from the work of M. Pasteur is this: we shall, in the evidence which he gives of the value of vaccination to human property, have another opinion formed as to the value of human life. Property and life will now be more regarded as synonymous than hitherto. [*Applause.*]

Tuesday, August 9th.

Sectional meetings were held from 10 A.M. to 1 P.M.

The concluding meeting was held at St. James's Hall, at 2 P.M.; the chair being taken by the President, Sir JAMES PAGET.

Professor HUXLEY delivered an address on "The Connection of the Biological Sciences with Medicine", which is published at page 273.

The PRESIDENT: Gentlemen, I have to ask you to let me formally, after the manner of a great meeting such as this, offer our thanks to Professor Huxley for the admirable address which he has been so good as to give us. I think we should all agree that there is nothing better for us, than that our work should be criticised in a friendly manner by one who is amply competent to judge it, although not practically occupied in that which most engages our minds; and, of all the men competent to do that, I think we in England know him well enough, and those abroad know him scarcely less well, to say that there is none by whom we would rather be judged than by Professor Huxley. [*Ap-*

plause.] He has all the keenness for criticism, and all the heartiness of the good friend, that we could wish to see combined. [*Applause.*]

Mr. MAC CORMAC (Honorary Secretary-General): Mr. President and gentlemen, at this final meeting of our Congress, it may be truly said that its success, and the results that are likely to flow from it, exceed our most sanguine expectations. [*Applause.*] The total number of members inscribed upon our register is 3,210. One hundred and nineteen meetings of the various Sections have taken place; and these Sections have been in session for a total number of 293 hours, which is equivalent to about twelve days and nights. The attendance at them, as you all know, has been very large; and the interest taken in the proceedings has been very keen. Nor does this include the many additional hours which have been spent in visiting the hospitals of our city and their museums, where we have seen the demonstrations of various diseases; nor in inspecting our museum; nor does it include the time we have spent in listening to the brilliant and eloquent addresses, one of which has just now concluded. [*Applause.*] Our museum has been crowded with visitors; and I have, I hope, the pleasing announcement to make to you, that, in compliance with what I am sure is your desire, the museum will remain open until Thursday. [*Applause.*] I have to mention to you that, from the Physiological Section, it is desired that this resolution should be placed before you:

"That this Congress records its conviction that experiments on living animals have proved of the utmost service to medicine in the past, and are indispensable to its future progress. That, accordingly, while strongly deprecating the infliction of unnecessary pain, it is of opinion, alike in the interests of man and of animals, that it is not desirable to restrict competent persons in the performance of such experiment." [*Loud applause.*]

I have further to report to this meeting that the Executive Committee have received from the Ophthalmological Section a series of resolutions on the subject of the tests most applicable to persons employed in working and observing signals by land and by sea, where the lives of others are involved. They recommend these resolutions for adoption as acts of the International Congress, in order that they may be forwarded, through the Secretary-General, to the President of the Board of Trade, the First Lord of the Admiralty, and the Secretary of State for Foreign Affairs, with an expression of the desire of the Congress that they may be favourably entertained, and that they may be recommended for adoption by the several foreign Governments.

The PRESIDENT: With the advice of the Executive Committee, it has been decided that these proposals shall not be matters of discussion, but that they should simply be put from the chair and voted on; and, if there be any who dissent from them, their names shall be recorded.

The proposals of the Ophthalmological Section were then agreed to, as was also the resolution proposed by the Physiological Section, there being no dissentients.

Mr. BOWMAN: Sir James Paget, and gentlemen,—A most agreeable duty has been committed to me, and I shall not occupy much of your time in fulfilling it. You are all aware that a medal has been struck commemorative of this Congress, bearing the head of Her Majesty the Queen and Empress, by her special grace and favour; and that Her Majesty has thus given a special mark of her approbation of our efforts to promote medical science, and to bring nations together through its means. The medal, I think I may say, is a striking one as a work of art. The Executive Committee, acting in your name, have thought it proper to offer a copy of the medal, in token of the honourable recognition of service rendered, to a very few distinguished men, having claims upon us of a peculiar kind. In the first place, it has been offered to Professor Donders—[*applause*]—who was the honoured president of the last Congress at Amsterdam, and who has manifested his continued interest in the objects we all have at heart, by attending and taking an active part in the proceedings of the present meeting [*applause*]; to Dr. Guye—[*applause*]—to whom, as secretary-general of the Amsterdam Congress, all who attended it were under the greatest obligations, and who is here among us to-day [*applause*]; and to those distinguished men who were designated as readers of the general addresses which have been given in this great hall, and which have every one of them delighted and interested much. I must [illegible] gentlemen, here. We have experienced a deep and common sorrow, which I may say is the only event which, as seems to be inevitable in all human things, has cast some gloom over our present brilliant gathering —the untimely death of the great [illegible], whose address was not, alas, permitted to be read to us by himself, but as though from the tomb, by a dear friend of his, Dr. Féréol, whose engagements, unfortunately, have not allowed him to remain in London till to-day. The Executive Committee have only left to them the mournful satisfaction of offering to Madame Raynaud, with the expression of the sincere and respectful condolence of the Congress, the medal which had been destined for her husband. Dr. Féréol will also receive a medal. The other medals are offered to Professor Virchow, to Dr. Billings, Professor Volkmann, M. Pasteur, and to Professor Huxley. Gentlemen, with the eloquent words of these several most distinguished men still vibrating, as it were, in our ears, it would be needless—it would be superfluous—to dilate upon the grounds on which they are asked to accept at the hands of our President such a mark of our gratitude and esteem as the medal of commemoration may prove. They will accept it, we trust, as it is offered, and find in it a pleasant souvenir of the International Medical Congress of London in 1881. The terms of the resolution are as follows:

"That medals of honour be presented to Professor Donders, president of the last Congress; Dr. Guye, secretary-general of the last Congress; to the givers of addresses at the general meeting; and to Madame Raynaud, as a souvenir of the part her husband was to have taken; to Dr. Féréol, Professor Virchow, Dr. Billings, Professor Volkmann, Professor Pasteur, and Professor Huxley." [*Applause.*]

Professor LISTER: Sir James Paget and gentlemen, I have the greatest possible pleasure in seconding this resolution. All the names which Mr. Bowman has mentioned are those which we delight to honour. At the head of the list stands Professor Donders. I was witness of the noble manner in which he discharged the duties of President of the Amsterdam Congress, exhibiting to all the sympathies of his great and generous heart, and the treasures of his wide and deep culture. [*Applause.*] Next comes Dr. Guye, who was the Secretary-General of the Amsterdam Congress; and I feel that I can pay him no higher, and, at the same time, no truer tribute, than when I say that he was the centre and the soul of the Congress, as Mr. Mac Cormac has been of this. Then come the readers of the general addresses; first, in order of delivery, Professor Virchow, the announcement of whose presence at this meeting was of itself a guarantee of its scientific success, and whose trenchant pleadings in behalf of legitimate experiments upon the lower animals must surely carry conviction to all in whose minds logic is not entirely swallowed up by sentiment. [*Applause.*] Then comes Dr. Féréol, who was so identified with his dear departed friend, that we seemed to hear in the reader the author, and to honour the reader as we did the author; and we all feel it is a most graceful act of our Congress to bestow a medal on Madame Raynaud as a melancholy souvenir, it may be, of this occasion. Third in order of delivery is Dr. Billings, who, in his most eloquent address, so marvellously combined mirth with wisdom, that he amused while he instructed his auditory. [*Applause.*] Fourth is Professor Volkmann, who gave us such a remarkable record of the achievements of modern surgery, in which he himself has taken so conspicuous a share. [*Applause.*] And fifth is M. Pasteur, whose presence here has been one of the glories of our Congress, and who gave us the great privilege of hearing from his own lips, at the earliest possible date, an account of those researches which, whether we regard them in respect of the philosophic character of their method, or the beneficent application of their results, must ever rank among the highest achievements of science. [*Applause.*] And, lastly, comes Professor Huxley, to whom we have already testified our thanks. [*Applause.*]

The resolution having been agreed to,

The PRESIDENT distributed the medals.

Professor VON LANGENBECK: Sir James Paget and gentlemen, I have the pleasing duty of proposing:

"That the Executive Committee be requested to communicate, in appropriate terms, the best thanks of the Congress to all those who, not themselves members of the Congress, have contributed materially to its success."

Mr. PRESCOTT HEWETT: I feel it an honour to second this vote of thanks, coming, as it does, from Professor von Langenbeck. As Chairman of the Reception Committee, I am quite sure you will believe me when I say that everybody, from the highest to the lowest, has done his very best to make this Congress a success. I leave it to the gentlemen who have been participators in the Congress to say whether it has been a success or not.

The resolution was agreed to.

[illegible] "That the thanks of the Congress [illegible] and are hereby offered to Mr. Makin, Under-Secretary to the Congress; and to Dr. Cogswell and Mr. Little, Assistant Under-Secretaries, permanent members on the staff of the Honorary Secretary General, Mr. Mac Cormac, [illegible] both before and during the meetings of the Congress."

Sir J. [illegible] Sir James Paget and gentlemen, I [illegible] with very great pleasure [illegible] ing this resolution. I suppose few in connection with the organisation of the Congress have had better opportunities than I had of judging of

the amount and excellence of the labour, that has been granted us through the medium of those who have so ably seconded Mr. Mac Cormac. The character of a great general or statesman is never better seen than in the selection of his subordinate officers, and Mr. Mac Cormac has shown in this, as in every other way, how supremely fitted he was to be at the head of our organisation. It would be vain for me to attempt to point out to you in how varied ways these gentlemen have served us, how unremitting they have been in their services on all and every occasion, and I second the motion with the most hearty conviction that they thoroughly deserve the thanks of the whole Congress.

The resolution was agreed to.

The CHAIRMAN: The next subject I shall bring before you is one which I am sure you will feel with me it would be impossible to discuss here, and which I shall therefore beg you will move shall be left to the Executive Committee, that they may complete inquiries, and so far as they can decide, rightly decide for you. It is with regard to the next place of meeting. We are honoured here by a proposal from the delegates from the Government of His Majesty the King of Spain. There is also, not indeed a distinct proposal, but a thought amongst many of us, that it would be very well if the next Congress could be held in one of the great northern Scandinavian towns, in Stockholm, or Copenhagen, or Christiania; but so many things will have to be considered on this matter, so many communications must pass between the several Governments and the chief authorities in these places, that I think I may venture to ask you that this, like the rest of the remaining business of this Congress, should be left in the hands of the Executive Committee. [*Applause.*] I am only one member of a large committee, but I will promise for my friend, Sir Risdon Bennett, the president of them, that, although now we seem to have passed through the most critical period of our existence, yet our life for the Congress shall be none the less active hereafter than it has been hitherto.

The proposal was agreed to.

Dr. BILLINGS: Sir James Paget, and gentlemen, it is my privilege to offer to this meeting a resolution with regard to the services which have been rendered to it by the honorary secretary-general—[*applause*]—and, before reading the resolution, I wish to say a word or two. I was asked this morning what were my impressions as to the permanent good result which would be attained by this Congress; and to that I answered substantially this: Our perception of these results is at present dim and confused; it is as those who have been whirled through the green fields and busy towns of old England and modern England—[*applause*]—in some of the fifty or sixty miles an hour express trains, which pass through those countries; and the fields, and the fences, and the milestones are at present a little blended together. [*Laughter.*] But they will all come out in our memories; all the meetings that we have had, all the meetings in the sections, the meetings in this great hall, the friendly and social meetings, the little groups of twos or threes or fives all over this great city, will come together, and they will come out like the figures in the sensitive plate which has been exposed to the light, and upon which the developing solution is poured; and, as we pass to our several homes, whether it be in this island, or across the turbulent channel, or over the rolling billows of the Atlantic—all the scenes of this week, and the talks which at present are so confused, and so dim, and so run together, that we are hardly prepared to say what we have seen, or what we have done, or where we have been—all will come out, and become distinct, permanent pictures. It has been said, over and over again, to this Congress, and to the sections of it, how much its success has depended upon the efforts of a single man, of the man who has been, as it were, the mainspring inside the complicated machinery, which has been set at work and kept in order, and kept beating regularly and up to time, to produce the results which you have all seen; and for which, I am sure, we are all so grateful. The resolution which I offer, therefore, is as follows:

"That the Congress offers the best of all its thanks to the Honorary Secretary-General, William Mac Cormac, Esq.; and declares its sure conviction that the success of this meeting is mainly due to the great energy and judgment, the courtesy and wise discretion, with which, regardless of self-interest and of the cost of time and labour, and looking only to the public good and to the welfare of the medical profession, he has devoted himself to every high purpose that might be attained by this great international work." [*Loud applause.*]

Dr. H. GUENEAU DE MUSSY seconded the motion, which was carried amid great applause.

Mr. MAC CORMAC: Thanks, Mr. President and gentlemen, equal in any degree or measure to your kindness I cannot speak; I can only hope to feel in some adequate degree how great has been your kindness to me. Without that, I could have done nothing. It is not that I have shown kindness and forbearance; it is you. Your presence here has been my greatest help, has been my complete reward. Gentlemen, I cannot sit down without having said how much I owe to the kind friends, my former pupils many of them, who have helped me through the thick of all this work, who have stood by me, who have never failed me. As to thanking our President for all his forbearance, and all his help, and all his assistance, and all his steadfastness, I cannot. I can also only in a feeble manner thank Dr. Billings, who has in such wise and kind words proposed this resolution, and can only tender my heartfelt thanks to Dr. Gueneau de Mussy, who has seconded it. This I can do, and to this I hope you will respond. I can beg your forgiveness for my shortcomings. I can here plead that there has been much of difficulty in this work, and that, however hard I may have tried to avoid them, there must have been sins of omission and of commission. I ask you to forgive me. [*Applause.*]

Professor CHARCOT: I have the honour, of which I am proud, to propose:

"That the best thanks of the International Medical Congress be tendered to Sir James Paget, who, with singular ability, assiduity, and courtesy has presided over its seventh session, in London, from the 2nd to the 9th August, 1881, and who has powerfully contributed to the success of its objects by his high character, his dignified bearing, and his eloquence." [*Applause.*]

Professor DONDERS: Gentlemen, dear colleagues, the duty has been assigned to me to second the vote of thanks to our highly distinguished President. I cannot refuse my homage and gratitude for all that he has done for the success of this Congress. I know that he has not only aided it and greatly promoted its success by his laborious efforts during the week of our meeting, but that for more than a year past it has been his constant object to develope it as far as may be possible into a great means of usefulness to the profession, and through the profession to our several countries and to all mankind. How well he has succeeded you know, and I need not say. Therefore I content myself with simply asking you to agree to the resolution so eloquently moved by my eminent friend and colleague, Professor Charcot. [*Applause.*]

The resolution was agreed to with three cheers.

The PRESIDENT: Professor Charcot, Professor Donders, and gentlemen, it is again my privilege to return my thanks to you, for only a week ago I returned thanks very imperfectly for the honour you conferred on me in electing me your President, and now with a somewhat lighter heart I return them for the honour that you give me in saying that I have done the work fairly well—[*Applause*]—to your satisfaction at least, if not to my own, and your's is that which I had a right most to seek. You have said that I have worked hard for it, and so, indeed, I have, with all those that I have worked with; but for myself I declare that every day of great work was a day of greater pleasure. I have not passed a day without the happiness of individual intercourse with those whom I have most esteemed, nor one day in which I have not seemed to add many to the "troops of friends" that "should accompany old age." [*Applause.*] You have spoken of our good will to all that have arrived, that we should entertain them well and make them happy. My friend Mr. Mac Cormac has said what I also feel. There must, in so great a crowd of things we had to do, have been some lapses—["*No, no*"]—some appearance at least of negligence. If there were, we heartily apologise for them all; but I will venture to say this, that the Congress has been a meeting with a rare quantity of work. You have heard the number of meetings and the number of hours spent in them. I took the trouble to compare those numbers and hours with what might be a fair estimate, so far as we can have one, and I have found that the time which the members of the Congress have spent in their sectional meetings has been altogether, in this week, somewhat more than the time spent by all the London medical societies in one year. [*Laughter.*] I hope to be able to put it more accurately in figures, but of the main fact you may be certain; and if ever we are charged with meeting for pleasure alone, there is a fact well to be remembered, that there are thirteen considerable medical societies in London, and the meetings of our Congress in its sections have surpassed in length of time the whole meetings of one year of all those thirteen societies. But I would not leave it to be a measure merely of time. The attendance in all these sections has, almost every day, surpassed manifold times the meetings in any one of these principal societies; and with perfect respect for them, I may say, in every daily meeting, in every section, there have been addresses given by persons of great distinction from every land, which would have gathered vast meetings to any place in London, in which they would have been so good as to speak. [*Applause.*] Now we come to the end, except, indeed, the place where, the Congress being ended, I hope we may have yet a very happy, and not quite orderly meeting—[*laughter*]—at the Crystal Palace, to which all may come, and all may bring any

number of friends they please, and all will feel themselves free from the control of the President and the officers of the Congress [*laughter*]. And now we have to say "Good-bye." It is not possible that all the work that we have done should be without good fruit: it is not possible that all the mental force which has been here put forth should be, as no force can be, altogether lost: it is not possible that this mental force should be degraded into any lower form than that which may be represented in the happiness of mankind [*Applause*]. But now we must say "Good-bye"—not I to you, but each of us to all. Good-bye, that is: may all good be with you all in the future, and of all good the best which comes of doing good. [*Loud Applause*].

The proceedings of the Congress then terminated.

THE FESTIVITIES OF THE CONGRESS.

THE meeting of the International Medical Congress in London has been marked by an unusually abundant series of banquets, receptions, and excursions.

The first public entertainment was a *conversazione* given on Wednesday, Aug. 3, by the English to the foreign members of the Congress, at the South Kensington Museum. This proved more than usually attractive, in comparison with similar entertainments previously given at the same place, owing to the quadrangle being thrown open and lit up by the electric light, so that the members could walk and take refreshments in the open air. This arrangement, together with the multitude of languages audible to the visitor, gave a very foreign aspect to the scene. His Royal Highness the Prince of Wales and the Crown Prince of Germany honoured the company with their presence. On Thursday, Aug. 4, a banquet was given to a certain number of the members of the Congress, by the Lord Mayor, at the Mansion House.

On Friday, Aug. 5, the Lord Mayor and the Corporation gave a grand reception to the Congress at the Guildhall, which was illuminated by electric light. There were two military bands, and in one of the waiting-rooms off the courts of justice was a company of male and female glee-singers, who delighted the foreigners by singing several old English glees. In the crypt, a supper was laid out for the guests. The Lord Mayor, Lady Mayoress, and Sheriffs received the guests in the Reception Room during the earlier part of the evening; they afterwards walked through the Hall and adjoining rooms, receiving the enthusiastic cheers of the assembled guests.

In the course of the day, a party of members visited Messrs. Penn's works.

On Saturday afternoon, a large number of members of the Congress were received by Dr. Langdon Down, who met them, at Hampton Court; and, after conducting them through the Palace and Gardens, conveyed his visitors by river to his residence, Normansfield, Hampton Wick, where a garden party was given by Dr. and Mrs. Down in honour of the guests.—Mr. and Mrs. Spencer Wells received numerous members of the Congress at their residence, Golder's Hill, Hampstead. The band of the Coldstream Guards, conducted by Mr. C. Thomas, played in the grounds, which, on that fine sunny afternoon, looked at their very best.—Sir Joseph Hooker, at Kew, and Mr. and Mrs. Saunders, at Wimbledon, also gave garden parties.—The Foreign Minister did honour to all the foreign guests, and to many of the provincial and principal metropolitan members of the profession, at a reception at his private residence, at which, notwithstanding his recent disablement by illness, he personally, as well as Lady Granville, did the honours with their wonted and unfailing grace and courtesy.—Dr. Alfred Carpenter accompanied one hundred and twenty guests to inspect the famous Croydon sewage-farm and the Beddington Female Orphan Asylum. The farm, which is a thriving sewage-fed piece of land of some 460 acres in extent, was carefully explored; and the visitors lunched in the old Hall at Beddington, to which Queen Elizabeth was wont to resort in the time of the Carews. It was pointed out to the medical visitors that Aubrey, in his *History of Surrey*, mentions a kind of self-flushing water-closet as being in use at this house; perhaps, as Dr. Carpenter explained, the earliest indication of such a sanitary contrivance. Most of the articles of food at this banquet were the produce of the farm.—An excursion was also made to Hanwell Lunatic Asylum.—The United Hospitals Club gave a dinner to a party of members of the Congress at the Star and Garter, Richmond Hill.—The ceremony at Folkestone is detailed elsewhere in our columns.

On Sunday, the Duke of Wellington having issued invitation cards through the committee of the Sunday Society, the foreign members of the Medical Congress visited Apsley House, and inspected the fine art collection and objects of historic interest which it contains. The Chairman of Committee, Professor Corfield, and the honorary secretary, Mr. Mark Judge, accompanied the party, and they were requested to convey to his Grace the thanks of the members of the Congress for the pleasure which the visit had afforded them. The museum of the Royal College of Surgeons, Lincoln's Inn Fields, was thrown open during the afternoon to the members of the Congress, Professor Flower kindly explaining the contents. The National Picture Galleries at Hampton Court and Greenwich, the National Museums at Kew, the Royal Botanical Society's Gardens, and the Gardens of the Zoological Society, were also visited by many members of the Congress. A visit was also paid to Bethlem Convalescent Hospital at Witley, Surrey. Not the least interesting and useful of the many duties which devolved on the Congress was an excursion to Margate of over sixty members, to inspect the new wing of the Royal Sea-Bathing Infirmary, built by Mr. Erasmus Wilson. The guests were received by the medical officers, and by Mr. Knowles, the architect, who explained the principles on which the building has been constructed. The wing consists of a handsome chapel, capable of holding 300 people; a large tepid sea-water swimming bath; four large wards, each provided with its own separate rooms for the nurse, and lavatory; and two day rooms. The day rooms form, with the old building, a large quadrangle, which will be laid out as a garden. The inner walls and ceilings of the wards are built of fire-bricks with a porcelain surface, so that every part of the internal surface, with the exception of the floor, presents a smooth face of porcelain, incapable of absorbing impurities. The floors are of the hardest teak, and the sash-lines of wire. In the basement of the ward nearest the sea is the machinery for raising, heating, and distributing the sea-water. The cloisters are intended to enable the patients to take exercise and breathe the open air, protected from the wind and rain; and the roof of the four wards is laid out as a terrace, upwards of 200 feet in length, for the purposes of exercise, and from it a magnificent view of the sea may be enjoyed; the south end of the building being almost surrounded by the sea at high-water. The visitors were deeply interested, both with the new buildings and the rest of the institution. Sir Trevor Lawrence, mindful of his connection with the profession in which his father was so distinguished an ornament, and with which his own name is so honourably connected, received three hundred members of the Congress in his beautiful grounds with a kindness and liberal hospitality which will not readily be forgotten; Lady Lawrence acting the part of a most kind, courteous hostess, both to the members of the Congress and the ladies accompanying them.—Mr. Alfred de Rothschild gave a *soirée* at his charming house in Seymour Place, where he entertained a large number of the English and foreign members of the Congress, with a cordiality which made a most pleasing impression on his guests.

On Monday, by the invitation of Messrs. Siemens, Brothers, and Co., a party of about one hundred and fifty members of the Congress paid a visit to the telegraph works at Woolwich. The visitors had a pleasant trip down the river in a saloon steamer specially chartered for the occasion. Reaching the steamship *Faraday* about half-past one they were taken over her, and had an opportunity of seeing the new cable which Messrs. Siemens have made for the Anglo-American Company, being stowed in two of her three huge water-tight tanks, made to hold about six hundred miles of cable each. The portion of the cable with which the *Faraday* will sail in nine or ten days will be joined to the shore end already laid from Penzance, and will go rather more than half-way across to Cape Canso, in Nova Scotia, where the western end of the cable will be landed. The end of the section, about 1,800 miles, carried by the *Faraday* this time, will be buoyed, and the remainder will be taken out by her in another voyage to complete the line. After having the method of laying the cable explained to them, the party were landed at the works, a boat with a crew of boys from the Marine Society's training ship *Warspite* assisting the *Faraday's* men to put the visitors ashore. The inspection of the extensive works of Messrs. Siemens, Brothers, and Co. occupied over two hours, the different workshops in which the making and testing of submarine telegraph cable, and the construction of instruments and apparatus used in telegraphing and railway signalling, being visited, and all the processes explained. In another department the manufacture of electric lamps, and the cables used to conduct electricity for lighting streets and buildings, was going on. The visitors returned to town by steamer, arriving at Charing Cross about five o'clock.

Notwithstanding the heavy rain which fell during the afternoon, a large number of visitors attended the garden party kindly given by the Baroness Burdett-Coutts at her residence at Highgate. Another party visited the docks in the morning. In the evening, the Master and Wardens of the Apothecaries' Society gave a dinner to a limited number of foreign members, and a conversazione was given by the President and Vice-Presidents of the Royal College of Surgeons at the museum of the college, which was illuminated by electric light.

On the same day, Mr. John Merriman guided thirty members of the

Congress to view places of interest in the neighbourhood of Kensington. The round included Kensington Palace, Holland House, and John Hunter's house at Earl's Court. Several human bones, recently dug up in the grounds of the great anatomist's former residence, were inspected with great interest by the visitors.

On Tuesday, Dr. W. Wood gave a garden party at the Priory, Roehampton, and in the evening an informal dinner took place in the Concert Room of the Crystal Palace. It was followed by a pyrotechnic display, the original feature of which consisted in the fire-portraits of Sir James Paget, M. Charcot, and Professor Langenbeck.

UNVEILING OF THE STATUE OF HARVEY, AT FOLKESTONE.

ONE of the most pleasant excursions of the Congress was that to Folkestone on Saturday last, when about one hundred and fifty members, with about thirty or forty ladies, went to Folkestone to view the unveiling of the statue of Harvey, by Professor Owen, C.B. The train was most liberally provided, free of cost, by Sir Edward Watkin, Bart., M.P., and left Charing Cross Station at 1.45. It conveyed from London, amongst others, Professor Owen, Dr. D. Duckworth, Mr. Erichsen, Dr. Owen Rees, Dr. C. West, Dr. Sieveking, Dr. Coupland, Dr. Bastian, Dr. G. Paget (Cambridge), Mr. Barnard Holt, Dr. W. J. Little, Mr. R. J. Pye-Smith (Sheffield), Dr. Broadbent, Dr. C. Dukes (Rugby), Dr. J. G. Glover, Mr. Mitchell Henry, M.P., Mr. Ernest Hart, Dr. J. T. Banks (Dublin), Dr. G. H. Philipson (Newcastle), Professor W. Moore (Dublin), Dr. Klein, Professor A. Gamgee (Manchester), Professor Struthers (Aberdeen), Professor T. Stoker (Dublin), Sir E. Watkin, Bart., M.P., Dr. Talfourd Jones, Dr. S. Gordon (Dublin), Professor Mac Alister (Dublin), Mr. Sydney Jones, Mr. John Gay, Mr. H. Power, Professor Grainger Stewart (Edinburgh), Mr. E. Carver (Cambridge), Dr. Burney Yeo, Mr. W. F. Teevan, Dr. T. Stevenson, Professor W. Rutherford (Edinburgh), Mr. W. H. Lamb, Mr. F. Vacher (Birkenhead), Dr. H. Littlejohn (Edinburgh), Mr. E. Lund (Manchester), Dr. Mahomed, Mr. Symonds, Dr. Ashby (Manchester), Mr. B. Squire, Dr. W. C. Lucey, Dr. R. Atkins (Waterford), Dr. E. Burd (Shrewsbury), Professor Sullivan (Cork), Dr. Hollings (Wakefield), Dr. Quinlan (Dublin), Dr. J. W. Moore (Dublin), Dr. E. Rayner (Stockport), Dr. R. Crocker, Dr. Braidwood (Liverpool), Mr. I. T. Bridgman (Berkeley), and Mr. Georges Eastes; with Professor Reyher (St. Petersburg), Professor Völkers (Kiel), Dr. Niese (Altona), Dr. Lendet (Rouen), Professor Panum (Copenhagen), Dr. I. S. Lombard (Harvard), Dr. Martin (Boston), Professor Albanese (Palermo), Professor Dennis (New York), Dr. Snellen (Utrecht), Dr. Santessen (Stockholm), Dr. Lutaud (Paris), Dr. Saxtorph (Copenhagen), Dr. Lissemer (Dantzic), Dr. Steeves (Canada), Dr. Vidal (Paris), Professor Fournier (Paris), Dr. Hans von Hebra (Vienna), Dr. Max Schaeffer (Bremen), Dr. Quinley (U.S.A.), Dr. Angelucci (Rome), Dr. Newton Shaffer (U.S.A.), Dr. Von Rotmund (Munich), Dr. Focker (Amsterdam), Dr. A. Sydney Roberts (Philadelphia), Professor Rossbach (Würzburg), Surgeon-General Rothe (Dresden), Dr. B. Kraus (Vienna), Dr. Warnatz (Dresden), Dr. Vohtz (Jutland), Dr. Guye (Amsterdam), Professor Lichtenstein (Cologne), Dr. Becker (Berlin), Professor Eulenberg (Greifswald), Dr. C. Bellem (Lisbon), Dr. G. Ennes (Lisbon), Dr. Rydygier (Kulm), Dr. Heer (Lausanne), Dr. Husted (New York), Professor Braune (Leipzic), Professor Konrad (Hungary), Dr. Pacchiotti (Turin), Dr. Glafky (Berlin), Dr. Chiappini, Professor A. Caruccio (Egypt), and Dr. Grant Bey (Cairo). The day was very fine, breezy, and fresh, and the peculiar beauty of the Kentish orchards, hop-gardens, and ruddy-brown wheatfields never showed to greater perfection. The special train rapidly traversed the county, and on its arrival at Shorncliffe Station was met by the Mayor of Folkestone, Sir E. Watkin, the Mayor of Hythe, the Aldermen of Folkestone in their robes of office, Dr. Bowles, Dr. FitzGerald, and other local celebrities. A procession of forty or fifty carriages was soon formed, and the company were thus taken, amidst flags, decorations, and every sign of rejoicing, to the site of the statue, at the end of Castle Hill Avenue, on the Leas, where the commanding site overlooking the sea, and selected for the statue, was much admired. Around the statue, which was veiled, a platform had been erected, on which were accommodated the principal personages engaged in the day's proceedings. These were here received by Mr. W. G. S. Harrison, the town clerk, and local honorary secretary to the Memorial Fund, to the very careful and excellent local arrangements of the mayor and Mr. Harrison, assisted by a small committee of aldermen and doctors, the great success of the day's proceedings was chiefly due.

Here, after silence had been obtained, Mr. GEORGE EASTES, the London honorary secretary, opened the proceedings by a statement as to the well-known career of the celebrated anatomist and physician. He observed that the erection of the statue had resulted in a desire to do honour to a great public benefactor, and to hold up as an ideal for imitation the blameless and hard-working life which had led to that great discovery which had resulted in such benefit to human nature. It was felt that they could not do a more appropriate act than to invite that patriarch of British physiologists, Professor Owen, to unveil the statue of his great predecessor. The professor had accepted that task most willingly, and the committee felt that they were particularly fortunate in having secured his distinguished services. In pursuance of a resolution, he had now to ask Professor Owen to unveil the statue, and present it, on behalf of the subscribers, to the Mayor and Corporation of that town. [*Loud cheers, in the midst of which the statue was unveiled.*]

Professor OWEN then read the address, which we publish at page 286 of to-day's JOURNAL, and presented the statue to the mayor and corporation. The figure is by this time tolerably well known to our medical readers, having been exhibited during the last season in the Royal Academy, as also at two recent *conversazioni* at the South Kensington Museum. It stands on a pedestal of granite, on the front of which is carved in large letters the single word "Harvey", whilst on the back are the dates of Harvey's birth and death, and place of burial.

The MAYOR of FOLKESTONE (Mr. J. B. Tolputt), who was cordially received, said it was now his duty, on the part of the Corporation and inhabitants of Folkestone, to accept this statue which had been so generously entrusted to their care. After referring to the services of those who had undertaken the work of raising that memorial, the Mayor said he could not conclude without observing that to their worthy member, Sir E. Watkin, they were also grateful, for his kind co-operation, and more especially for the liberality of the great company of which he was the head, in placing a special train at their disposal that day. (*Cheers.*)

Canon JENKINGS offered up a very appropriate prayer of consecration, compiled almost entirely from Harvey's works; and Dr. BOWLES, in the name of his fellow-practitioners, addressed to the visitors some warm words of friendly welcome.

The company then adjourned to the Town Hall, where the mayor entertained three hundred guests. As the time was short, speech-makers had to be brief, the mayor himself setting an example. The company, at Professor Owen's invitation, drank in silence to Harvey's memory. In the course of his speech, the Professor remarked that the memory of Harvey was held as dear as with ourselves, and perhaps more dear, on the Continent, and he expressed his special thanks to the medical men of the Netherlands, who were the first to acknowledge the labours of Harvey. Sir E. Watkin proposed Professor Owen's health. Sir Edward gave a very amusing account of a supposed femur weighing two hundredweight found in a railway excavation. It was sent to Professor Owen, who pronounced it to be the jaw-bone of an enormous whale, and further described how it must have come up the Thames with a high tide, been "neaped", and thus left its bones upon a foreign strand. In replying to the toast, Professor Owen, referring to something Sir Edward Watkin had said of Cuvier, told an interesting anecdote. It seems that in 1831 Cuvier came to London, and spent most of his time in the Museum and College of Surgeons. Young Owen happened to be the only member of the College of Surgeons' staff who could speak French, and he was therefore told off to attend the eminent Baron. In this way a close acquaintance was formed. As a last word, the Professor recommended young students to test all their ideas, and secure positive facts, and he excused himself for referring as much as he had done to vivisection by the demonstration against it about two months ago.

Professor ERICHSEN proposed the toast of "The Executive Committee, the Honorary Treasurers, and Honorary Secretaries of the Harvey Tercentenary Memorial Fund"; for which Dr. REES and Mr. EASTES returned thanks. Mr. ERNEST HART proposed the toast of "The Mayor, Corporation, and Townspeople of Folkestone", thanking them very cordially for the splendid reception they had accorded their visitors. Dr. C. WEST returned thanks for the "Doctors of all Lands"; and Mr. MITCHELL HENRY, M.P., responded to the toast of "The Visitors".

Subsequently the special train returned to London, bringing back most of the visitors; others of them, however, took advantage of the liberty accorded to them of remaining at Folkestone until Sunday or Monday.

The statue, which, as we have already stated, is the work of Mr. Bruce Joy, was greatly admired; and the site chosen for it is admirable.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

An ordinary meeting of the Council was held at the College on Thursday, the 11th instant. The minutes of the Quarterly Council of the 14th ultimo were confirmed. Reports were received from the Court of Examiners and the Committee for General Purposes. A letter was read from Professor John Marshall, F.R.S., Senior Vice-President of the College, resigning his office as a member of the Court of Examiners, and his resignation was accepted.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN: EASTERN: WEST SUSSEX DISTRICT.—The next meeting of this District will take place at Midhurst on Friday, September 16th (not on Tuesday, as stated last week); Dr. Robinson and Dr. Lee will bring forward some remarks on the Origin of Enteric Fever; Dr. Robinson the particulars of some cases. Members intending to read papers or bring forward subjects for discussion are requested to send notice to the Honorary Secretary, G. B. COLLET, 5, the Steyne, Worthing.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ANNUAL MEETING.

THE eleventh annual meeting of this Branch was held at Dowlais, on July 14th, under the presidency of PEARSON R. CRESSWELL, Esq., who, with Mrs. Cresswell, entertained the members, on their arrival, to a handsome luncheon.

Mr. T. D. Griffiths, ex-President, having resigned the chair to Mr. Cresswell, a cordial vote of thanks was given to the former.

Letters from Mr. Mac Cormac and Mr. J. H. Wathen to the Honorary Secretary were read; the former thanking the Branch for the liberal donation of ten guineas towards the International Medical Congress, and the latter resigning his position as co-secretary, owing to his removal to Clifton.

Report of Council.—The following report of Council and statement of accounts was read and adopted.

"The Council of the South Wales and Monmouthshire Branch, in presenting their eleventh annual report, would state that, including the two gentlemen to be elected to-day, we now number 160 members, as compared with 167 last year; twelve new members having been added, whilst six have resigned, and two have died—namely, Dr. J. Davies of Ebbw Vale, and Mr. Stanistreet of Cowbridge (unfortunately killed on the railway). Five have been struck off for non-payment of subscriptions.

"Our last annual meeting was held at Swansea, under the genial presidency of Dr. T. D. Griffiths, when forty members attended; and we were gratified by the presence of our old and valued associate Dr. John Williams, now Assistant Obstetric Physician at University College, London, who kindly read a paper. Our autumn and spring meetings were held at Monmouth and Llandilo respectively, at both of which places we had a most cordial reception from our local fellow-members. At these meetings, various interesting papers were read and discussed. A Pathological Subcommittee has been appointed; and the following questions have received attention:—Providing women employed behind counters with some means of taking occasional rest during their prolonged hours of duty (on the motion of Mr. Wathen); the formation of a Medical Benevolent Society for South Wales and Monmouthshire (on the motion of Mr. George A. Brown). On this latter question, your Council desire to submit a suggestion that each member of the Branch should subscribe five shillings a year to the Medical Benevolent Fund. If each Branch of the Association were to adopt such a course, a large increase in the income of the society would result, without unduly taxing any individual member of the Association.

"The arrangements for our meetings during 1881-82 are as follows: autumn, Oystermouth; spring, Tredegar; annual, Cardiff; the days to be fixed by the President, President-elect, and Honorary Secretaries.

"Your Council desire to express their deep regret at the loss of the valuable services of Mr. J. H. Wathen as co-secretary of the Branch, in consequence of his change of residence to Clifton. As one of our most active and energetic members, his removal will be severely felt. We trust, however, to see him occasionally amongst us, as he still remains a member of our Branch. A resolution referring to this matter will be placed before you for your consideration.

"A statement of account is appended, to which it will be seen that we have a balance in hand of £8 13s. 5d., as compared with £7 2s. 6d. last year; £3 3s. have been subscribed for the International Medical Congress, £3 3s. to the Medical Benevolent Fund, and £5 5s. to Mr. Bates, whose circumstances demanded our sympathy.

"Only eighty-seven subscriptions have been paid for the current year, out of one hundred and sixty-six due. Your Council would point out the desirability of these subscriptions being paid as early in the year as possible, as they fall due on January 1st. Attention to this matter would save the honorary secretaries of Branches much unnecessary labour; and, in the matter of bank charges and discount, would materially improve the finances of the Association."

Officers and Council.—The following were elected:—*President-elect:* Evan Jones, Esq., Aberdare. *Members of Council:* Andrew Davies, M.D.; H. N. Davies, Esq.; T. J. Dyke, Esq.; J. Milward, Esq.; J. Russell, Esq. *Honorary Secretaries:* Alfred Sheen, M.D.; and D. Arthur Davies, M.B.

Vote of Thanks and Congratulation to Mr. Wathen.—It was resolved unanimously: "That our best thanks be given to Mr. J. H. Wathen for his services as co-secretary of this Branch; and that, in addition, our warmest congratulations be tendered to Mr. and Mrs. Wathen on the occasion of their recent marriage, accompanied by our best wishes for their long and happy union."

New Members.—Mr. J. E. Prichard, B.A., M.B. (Swansea Hospital), and Mr. J. B. Gabe (Morriston), were elected members of the Association and Branch.

President's Address.—The PRESIDENT (Mr. CRESSWELL) delivered an interesting address on "A History of Listerian Antiseptic Treatment, with Personal Experience of its Use", for which the best thanks of the meeting were accorded him.—A discussion on antiseptic surgery followed, in which Messrs. Edwards, Griffith, Steel, Evan Jones, and Talfourd Jones took part.

Paper.—Mr. E. RICE MORGAN read a paper on Temperatures in Different Parts of the Body.

Alleged Illegal Practice.—Mr. RICE MORGAN brought forward a case of illegal practising in his neighbourhood. It was moved by Mr. E. R. MORGAN, seconded by Mr. G. A. BROWN, and resolved: "That a Subcommittee, consisting of Dr. T. D. Griffiths, Messrs. Eben Davies and E. R. Morgan, be appointed to consider the case, and the propriety or otherwise of taking legal proceedings therein; and to report thereon to the next meeting of the Branch."

Dinner.—The members and visitors afterwards dined together at the Bush Hotel, Merthyr Tydfil.

CORRESPONDENCE.

"HYPNOTISM."

SIR,—As my name has been again mixed up with "Mesmerism", or "Clairvoyance," by association with a *séance* proffered by Dr. Beard to the "mental section" of the Medical Congress, will you permit me to say that I know nothing of Dr. Beard's experiments or performances, and that I have no more, or other, faith, in the phenomena of "hypnotism" than all physiological psychologists possess, and that is as nearly as possible *nil*.

In common, probably, with all who have studied mental disease and disorders, I believe there are certain neuroses in which minds, not so constituted that their faculties converge, and may be focussed, will, under certain conditions or influences, fall into a state of disorganisation akin to the polarisation of light, and when this state occurs, and while it lasts, there is likely to be a disruption of the normal relations between the centres, or congeries of centres, which compose the nervous system. Taking advantage of this disorder an expert operator may succeed in establishing special communication between his mind and the revolving faculties of his subject. Of course the communications thus established must be physical and actual.

There is nothing mysterious in any part of the ordinary course of things in this. The whole phenomena of mind, without exception, are, I believe, purely physical in their nature and mode of causation. "Thought-reading" is a simply, though adroitly, performed process of observing indications. I take the opportunity of making this statement because it has been my misfortune to be misunderstood.—

Yours obediently,
J. MORTIMER GRANVILLE.

18, Welbeck Street, W.

PSYCHOLOGY: OR WHAT?

SIR,—I received last week, in common with several other members of the International Congress, an invitation from Dr. Beard, of New York, to the Waterloo Hotel, Jermyn Street, to witness the demonstration of some hypnotic phenomena in the person of one of his

"trained" patients on Saturday afternoon, the 6th inst. On entering the room, I found a youth delivering a lecture on temperance, to a small audience. The doctor soon after appeared, and proceeded to deal with the patient after the manner of platform mesmerists. On being asked by some present to give a short and systematic clinical exposition of his patient's history and disease, in order that the medical audience he had invited might know "where they were." Dr. Beard apparently evaded the question, till Dr. Crichton Browne undertook the examination of the patient himself. Therefrom were soon elicited the facts that the young "subject" had been in business in Edinburgh, previously to going to New York seven or eight months ago, and was now using a false name. He refused to answer several questions, medical and otherwise, put to him by Dr. Browne; but admitted that he had been conversant with spiritualism in New York, though professedly forgetting the names of the "mediums" with whom he "sat." The result of this examination was so unsatisfactory, that Dr. Browne, with the concurrence of the audience, uttered a protest, but requested Dr. Beard to proceed with the exhibition of the promised phenomena, on the understanding that the meeting regarded the patient's good-faith with considerable suspicion.

Various experiments were shown—none of which, in the opinion of any present, were even striking, much less conclusive. Dr. Beard professed that his patient, in the "trance" state, could rotate on his own axis, without any sense of giddiness. He "demonstrated" this, by causing the entranced man to rotate four or five times, and allowed to walk several paces before the alleged normal state was re-induced. But after a second trial of a *twenty-fold* rotation, and a request from the audience that the awaking should take place *in situ*, the patient fell and passed into a sleep, alleged by Dr. Beard to be part of these curious phenomena, but so conveniently timed and prolonged (in spite of the doctor's statement that the awakening could always be very quickly produced), as served to annihilate both the obvious giddiness and any remaining shred of evidence for the genuineness of the phenomena we had been invited to see.

The so-called "thought-reading" was then brought forward, though Dr. Beard, certainly (unlike Mr. Irving Bishop), repudiated the name, preferring the title body-reading. The doctor thinks that the hypnotic state is a necessary hypothesis to explain this comparatively simple proceeding; and, accordingly, caused the "hypnotised" man to at once do as he wished him. But two more experiments, with *others* to guide the patient, signally failed. Finally, the youth having stated that the phenomena were always produced in him more satisfactorily when the audience was harmonious, and that he considered medical doctors a "set of wolves"; and, further, when he had refused to submit again to be "entranced", in order that a test might be applied to Dr. Beard's repeated statement that *perfect anæsthesia* could be produced in him, Dr. Crichton Browne represented the opinions of many present in the form of a resolution, which expressed that the exhibition was hardly satisfactory, and that evidence of absence of volition on the part of the patient was wanting. This resolution was carried unanimously, by an audience of about fifty members of the Congress, who then left the room.

No exhibition of this kind was made in the Sections. I think that, to some degree, in the interest of science, and more especially in that of practical medicine, the alleged cures of the kind described above should be investigated. That a psychical condition, which may be called by the name of hypnotism, or artificial somnambulism, exists, will probably not be denied.

Of this condition, however, we have not advanced much in knowledge since Dr. Braid studied and expounded it; though the recent work of Heidenhain has done some service by way of illustration.

Its counterfeit is so easily produced, so many of the phenomena being entirely subjective, and offers such a fertile field for imposture, that physiologists and physicians cannot be too jealous in sifting every alleged case that comes before them. The majority of alleged cases, which are probably wholly impostures, require the supervision of the police more than that of the physician; the minority, which are partly or wholly genuine, are more or less pitiable cases of diseases, the "treatment" (or prolongation) of which will probably lead to the ultimate damage or incurability of the patient.—I am, Sir, yours faithfully,

H. DONKIN,
Senior Assistant-Physician to Westminster Hospital, etc.

THE O'BRIEN JONES TESTIMONIAL.

SIR,—Now that the above fund has closed, may I ask you kindly to afford me space in your next number for a few words by way of thanks?

Although the sum subscribed does not, I fear, quite realise the expectations of the Committee to whom I am indebted for having set the movement on foot, it is in reality a very handsome one; and I desire to tender my heartiest thanks, not only to the Committee (for their valued and voluntary labours), but to every individual subscriber to the fund.

The numerous letters expressive of sympathy and approbation which I have received from members of the profession, resident in all parts of the kingdom, and for the most part strangers to me, are gratifying in the extreme. In themselves, they constitute a strong moral support, and go far to compensate one for the trouble, vexation, and annoyance necessarily encountered in such cases.

Lastly, I have to thank Dr. Wilson Fox, who, since the list was closed (and whose name does not, therefore, appear in the published lists), has, in a very kind letter to the treasurer, sent a cheque for £5 5s.—I am, sir, your obedient servant,

ARTHUR O'BRIEN JONES.

The Shrubbery, Epsom, July 30th, 1881.

MILITARY AND NAVAL MEDICAL SERVICES,

ARMY MEDICAL SERVICE.—The following is a list of surgeons on probation in the Medical Department of the British Army who were successful at both the London and Netley examinations. As the positions of these gentlemen are settled by the marks gained in London alone, they only are shown in the following list.

	Marks.		Marks.
*†1. A. M. Davie		21. G. H. Y[illegible]	[illegible]
2. H. W. Hebbard	2[illegible]	22. W. G. Cornish	1[illegible]
3. P. C. C. Bateman	2[illegible]	23. W. Byrne	1[illegible]
4. T. E. Nooring	2[illegible]	24. R. I. O'Brien	1[illegible]
5. J. R. You[illegible]	1[illegible]	25. C. W. [illegible]	1[illegible]
6. J. C. Culling	1[illegible]	26. L. P. Nichols	1[illegible]
7. R. L. D. Hackett	1,855	27. T. C. [illegible]	1850
8. R. T. McGeagh	1,850	28. J. M Laughlin	1,850
9. G. T. Trevenen	1,8[illegible]	29. R. Lowder	1[illegible]
10. H. H. Johnston	1,8[illegible]	30. S. H. Creagh	1[illegible]
11. E. M. Wils[illegible]	1[illegible]	31. F. J. L[illegible]dam	1[illegible]
12. E. J. E. K[illegible]	1[illegible]	32. W. L. Reade	1,8[illegible]
13. J. D. Davies	1[illegible]	33. H. J. Peard	1,875
14. W. G. Birrell	1[illegible]	34. G. S. O'Grady	1455
15. M. Dun[illegible]n	1[illegible]	35. S. J. Rennie	1[illegible]
16. T. R. Lingard	1[illegible]	36. I. Carmichael	1[illegible]
17. C. W. S. Magrath	1[illegible]	37. E. D. Parmar	1[illegible]
18. A. V. Lane	1[illegible]	38. G. W. B. Creagh	1,[illegible]
19. J. W. Beatty	1[illegible]	39. F. T. Wil[illegible]	1[illegible]
20. G. E. Weston	1[illegible]	40. J. Semple	1[illegible]

† Gained the Martin Memorial Silver Medal presented by Professor Maclean.
* Gained the Prize in Military Surgery presented by Sir Joseph Fayrer, K.C.S.I.

INDIAN MEDICAL SERVICE.—List of candidates for commissions a Surgeons in Her Majesty's Indian Medical Service who were successfu at both the London and Netley examinations, August, 1881. As the positions of these gentlemen are determined by the addition of the marks gained at Netley to those previously gained in London, the combined numbers are shown in the following list.

	Marks.		Marks.
*†1. H. T. Griffiths	5210	12. R. G. Cooper	3[illegible]5
‡2. A. Milne	4710	13. M. E. Braganza	3[illegible]5
3. F. D. Cæsar Hawkins	44[illegible]	14. A. T. L. Patch	3835
4. J. A. Cunningham	44[illegible]	15. J. F. Maclaren	3[illegible]5
5. A. G. E. Newland	44[illegible]	16. S. T. Avetoom	3[illegible]5
6. H. C. Hudson	4[illegible]	17. H. W. Stevenson	3[illegible]0
7. R. J. Baker	4[illegible]	18. R. R[illegible]	3[illegible]0
8. A. Silcock	4[illegible]1	19. C. Adams	4[illegible]3
9. P. Mullane	3[illegible]5	20. F. R. DaCosta	2[illegible]5
10. J. W. Rodgers	3920	21. J. K. Kanga	2[illegible]5
11. W. A. Corkery	3[illegible]0	22. A. J. O'Hara	2[illegible]0

† Gained the Herbert Prize.
* Gained the Martin Memorial Gold Medal.
‡ Gained the Parkes Memorial Bronze Medal.

A PHYSIOLOGICAL LABORATORY IN TORONTO.—We learn from the *Canada Lancet* that Dr. Sheard, the Professor of Physiology and Histology in Trinity Medical College, Toronto, has brought with him from Europe copies of the plans of arrangement of the laboratories of Ludwig, Rindfleisch, and Michael Foster; and the corporation of Trinity Medical School purpose making arrangements at an early date for a new building for the special working of physiology and pathology, to be constructed on these plans, where students will be provided each with a separate cloister and laboratory, arranged so as to open directly into a large amphitheatre, where the lectures on physiology and pathology are to be given. Our contemporary trusts that Dr. Sheard may be enabled to do as much for scientific medicine in Trinity Medical College, Toronto, as has been done in Europe by his illustrious preceptor, Dr. Michael Foster, of Trinity College, Cambridge.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at a meeting of the Court of Examiners on the 28th ultimo.

Messrs. Ernest A. Murras, Halsey Street, S.W.; Thomas Unicume, Headcorn, Kent; Thomas Rhodes, Huddersfield; John B. Draper, Manchester; Howard W. Hunt, Bampton, Oxon; William G. P. Alpin, Calcutta; George A. C. Fletcher, Hereford; Henry Blatherwick, Rochester; John A. Shaw, L.S.A., Deal; Robert A. Milligan, Kimbotton; Arthur Hodge, L.S.A., Liskeard; Thomas Marsden, M.B. and C.M. Aberd., Preston, Lancashire; and Alexander S. Kenny, Guildford Street.

Eight candidates were rejected.

The following gentlemen passed on the 29th ultimo.

Messrs. Arthur W. Loveridge, L.S.A., Merthyr Tydfil; Morley E. Clough, Worksop, Notts; Herbert Smith, Weston-super-Mare; Edmund S. Dashwood, L.S.A., Billingford, East Dereham; Thomas B. F. Eminson, L.S.A., Scotter, N. Lincolnshire; Charles H. Daniell, L.S.A., Derby; Joseph H. S. Sumner, L.S.A., Chelsea; Frederick W. East, L.S.A., Lower Clapton; Zachariah Prentice, L.S.A., Canterbury; Frederick H. Norvill, L.S.A., Chester Terrace, S.W.; Edward Davis, L.S.A., Euston Square; Richard P. Roberts, L.S.A., Bangor; James P. Berwitt, L.S.A., Melton Mowbray; and George M. H. Colman, L.S.A., Holland Road, Kensington.

Five candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 4th, 1881.

Cook, Augustus Henry, Hanpstead, N.W.
Coveney, John, Broomfield, Maldon
Davies, John, New Mills, Manoford
Duncan, David, Chester-le-Street
Hart, Wm. Hamilton, 12, Trinity Square, S.E.
Hatton, Edwin Fullarton, Peterborough, Canada
Lipscomb, Arthur Augustus, Forest Hill, S.E.
Russell, Michael Wm. [illegible], Albert Place, W.C.
Sen, Rajani Kanta, Baldara, Bengal
Varley, Clement Leonard, Manchester

The following gentlemen also on the same day passed their Primary Professional Examination.

Batt, Richard Bush Drury, St. Bartholomew's Hospital
Miller, James, St. Thomas's Hospital
Rogers, Harry Cornelius Edwin, University College

MEDICAL VACANCIES.

THE following vacancies are announced :—

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140. Applications to the Chairman of Committee of Management by 5th September.

DONEGAL COUNTY INFIRMARY.—Surgeon. Salary, £100 per annum, in addition to the Grand Jury Presentment of £24 yearly. Election on the 15th August.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Clinical Assistant. Applications to the Secretary by 24th August.

GENERAL INFIRMARY, Leeds.—House-Surgeon. Salary, £100 per annum. Applications to Dr. Clifford Allbutt by August 18th.

GENERAL INFIRMARY, Northampton.—House-Surgeon. Salary, £125 per annum. Application to the Secretary by 29th August.

HECKMONDWIKE INDUSTRIAL CO-OPERATIVE SOCIETY, LIMITED, MEDICAL AID DEPARTMENT. Resident Medical Officer. Applications to the Society, Oak Street, Heckmondwike, by August 29th.

MACCLESFIELD GENERAL INFIRMARY—Senior House-Surgeon. Salary, £100 per annum. Applications to the Chairman of the House Committee by 13th August.

MEMORIAL HOSPITAL, Darlington.—Resident Surgeon. Salary, £[illegible] per annum. Applications to the Committee of Management by 15th August.

NORTH STAFFORDSHIRE INFIRMARY, Hartshill, Stoke-on-Trent—House-Surgeon. Salary, £[illegible] per annum. Applications by August 15th.

NORTH STAFFORDSHIRE INFIRMARY—House-Physician. Salary, £100 per annum. Applications by 17th August.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 22nd September.

PRESTON ROYAL INFIRMARY, Lancaster. Senior House Surgeon. Salary, £[illegible] per annum. Applications, by the 16th August, to Mr. R. T. Easterby, Secretary, 54, Fishergate, Preston.

REETH UNION, North Riding of York.—Medical Officer for the Muker District. Salary, £[illegible] per annum. Applications to J. R. Tomlin, Clerk to the Guardians, Richmond, Yorkshire, by 17th August.

ROYAL VETERINARY COLLEGE.—Lecturer on General and Special Physiology. £180 per annum. Applications to the Secretary without delay.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—Curator for the Museum. Salary, £[illegible] per annum. Applications to the Warden by September 5th.

SUSSEX COUNTY HOSPITAL, Brighton.—House Surgeon. Salary, £[illegible] per annum. Applications to the Secretary by 24th August.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary, £[illegible] per annum. Applications to the Secretary by the 22nd August.

TOWCESTER UNION—Medical Officer for the Blakesley District. Salary, £60. Medical Officer for the Blisworth District. Salary, 60. Applications to the Clerk to the Guardians by 22nd instant.

MEDICAL APPOINTMENTS.

ASHBY, Henry, M.D.Lond., appointed Lecturer on Diseases of Children at the Owens College.

ASHWORTH, J. W., M.R.C.S.Eng., L.R.C.P.Lond., L.S.A., appointed Surgeon to the Barnes' Home, Heaton Mersey.

BENNETT, Fredk. Joseph, M.R.C.S.Eng., L.D.S.Eng., appointed Dental Surgeon to the St. Marylebone General Dispensary.

HARPER, James, M.R.C.S., appointed House-Physician to the Royal Hospital for Diseases of the Chest, *vice* J. W. Batterham, M.R.C.S., resigned.

HERN, John, M.B., appointed Assistant Honorary Surgeon to the Darlington Hospital.

HUXTABLE, L. Ralston, M.B., C.M., appointed Assistant Medical Officer to the Border Counties Asylum, *vice* R. A. P. Forester, B.A., M.B., C.M., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

ROWLAND.—On August 7th, at Gloucester House, Malvern Wells, the wife of Hugh Mortimer Rowland, M.D., L.R.C.P.Lond., of a daughter.

MARRIAGE.

PRICE—HEMMING.—On August 10th, at Kimbolton, Hunts, the Revd. F. W. S. Price, M.A., to Charlotte A. J. Hemming, only child of J. Hughes Hemming, M.R.C.S., and L.S.A., of Kimbolton.

SHERA—WILD.—August 3rd, at the Parish Church, Sheffield, by the Revd. Canon Blakeney, D.D., Vicar of Sheffield and Rural Dean, Henry Arthur Shera, M.R.C.S., only son of Henry M. Shera, LL.D., to Fanny Louisa, second daughter of William Wild, Manager of the Sheffield and Rotherham Bank, Sheffield.

MR. JOHN CROFT is, we understand, likely to become a candidate for the vacancy created by the proposed resignation by Mr. John Marshall of his Examinership in Surgery at the College of Surgeons. Mr. Croft has been Examiner in Surgery at the College of Physicians; has just been elected special lecturer on Clinical Surgery at St. Thomas's Hospital, where he has been teacher of practical surgery for many years.

HEALTH OF FOREIGN CITIES.—The following statistics, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate averaged 33.5, and was equal to 19.6 in Calcutta, 37.3 in Bombay, and 41.9 in Madras; cholera caused 42 deaths in Bombay and 12 in Calcutta, and small-pox 31 in Madras. The death-rate in Alexandria was equal to 46.5, and four fatal cases of whooping-cough were reported. According to the most recent weekly returns, the average annual death-rate in twenty-two European cities was equal to 33.5 per 1,000 of their aggregate population; the average rate in twenty of the largest English towns, during last week, did not exceed 22.9. The rate in St. Petersburg, although showing a decline from that recorded in the previous week, was so high as 56.2; the deaths included 91 from typhus and typhoid fevers, and 149 from diarrhœal diseases. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 21.6, the highest rate being 25.1 in Copenhagen. The Paris rate was 27.7, and somewhat lower than in recent weeks, although the deaths included 41 from diphtheria and croup, and 19 both from small-pox and typhoid fever. The death-rate in Brussels was 27.4, which showed an increase upon that in recent weeks; while the rate in Geneva was but 12.9. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the mean death-rate was 23.4, and ranged from 21.5 in Rotterdam to 24.1 in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged no less than 41.6; the lowest rates were 25.0 in Vienna, and 32.4 in Dresden; while the rates ranged upwards to 44.7 and 48.6 in Breslau and Berlin. Diarrhœal fatality was the main cause of the high death-rates in the German citles; small-pox caused 8 deaths in Vienna, and typhus 6 in Buda-Pesth. In four of the largest Italian cities, the death-rate averaged 31.5; it did not exceed 19.2 in Venice, whereas it was 41.6 in Naples. Measles caused 57 deaths in Naples, and typhoid fever showed some prevalence in Rome and Turin. The death-rate in four of the principal American cities, calculated upon the enumerated population in 1880, averaged 37.4; it was equal to 28.7 in Philadelphia. 37.2 in Baltimore, 38.3 in Brooklyn, and 46.8 in New York. Diarrhœal diseases were the main cause of the excessive mortality in these American cities; diphtheria, however, caused 47 deaths in New York, and small-pox 14 in Philadelphia.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

POST MORTEM EXAMINATIONS IN PRISONS.

SIR,—I entirely concur with "A Prison Surgeon" in the observations he makes in the JOURNAL of July 16th, on the recent recommendation of the Prison Conference that *post mortem* examinations in prisons should be conducted by independent medical men, and not by prison surgeons. I would further venture to hope that the Home Secretary will think twice before he adopts such an ill-advised measure.

The recommendation in question is, on the face of it, an insult to prison officials in general, and especially so to those who are charged with the care of the sick. This, however, would be a matter of little moment if it were either necessary or expedient in the public interests to provide a certain remedy for a crying evil. But, I would ask, Does any such evil exist? Are prisoners commonly done to death? Is the prison death-rate high? And if so, is the remedy proposed likely to be effective? I do not think there are any facts forthcoming which will warrant affirmative answers to these questions. All deaths occurring in prisons attain inevitable publicity through the coroner's inquest, which the law very properly requires in every case. Those who have experience of prison inquests can testify to the jealousy of juries in regard to a prisoner's treatment, and the so-called cases of neglect, which are few in number, attract far more attention than those in which prison officials devote all their care and skill to relieve pain and sickness.

The third report issued by the Commissioners of Prisons shows that the death-rate in local prisons, during the year ending March 31st, 1880, was 8.9 per 1000 of the daily average population; while that of the general population of the kingdom was 20.5. If it is borne in mind by anyone considering these figures that a criminal career does not produce a healthy class, that those who get into the clutches of the law are sentenced to a scale of diet that is calculated to suffice merely for physiological requirements, and that prison offences are followed generally by a reduction of this scanty diet, no better punishment having yet been devised, he must, I think, admit that inmates of prisons showing so low a death-rate receive very efficient protection from their medical attendants. Sudden deaths undoubtedly occur among criminals, as well as other classes; and one case of the kind, with the notoriety it attains, is too often the keynote for a chorus of ill-deserved charges of cruelty and neglect against prison officials. Prisoners themselves, indeed, are aware of this; and it is common to find the more experienced invalids preferring the tender mercies of prison officers to those of workhouse officials.

But if such evils as I have alluded to were even proved to exist, what is the remedy or safeguard suggested by the Prison Conference? That all *post mortem* examinations in prisons should be made by independent medical men.

Whether this measure is to act mainly in the interest of the prisoner or of his custodians is not clear. I cannot see what real protection it can give the prisoner, and yet it would not appear to be unreasonable for him to demand that the same independent medical aid should be open to him during life which the Prison Conference recommends for him after death. This is one conceivable way in which he might benefit by the arrangement. One result of the measure undoubtedly would be to open up a field, in all so-called cases of accident, for conflicts of medical testimony as to the cause of death, in which professional appearances would be pitted against professional interests, with (as has already been the case in some cases) unfortunate factory results. Such conflicts of opinion must always bring discredit on the prison surgeon, and must result in a certain amount of friction between officers or prisoners. I must therefore condemn a proposal which looks to establish this independent and irresponsible tribunal.—I am, sir, your obedient servant,

Aug. 10th, 1881. A PRISON SURGEON.

THE NICETIES OF CANNIBALISM.

We learn from a recent work by Mr. James Dawson, *Australian Aborigines*, that the aboriginal tribes of Australia are not ingrained cannibals, but only eat human flesh [illegible] for ceremonial purposes in connection with mourning for the dead. The flesh of members of another tribe is never eaten. The bodies of relatives of either sex who have lost their lives by violence are alone partaken of; and even then, an instinctive knowledge of sanitary laws forbid their consumption if the body is manifestly unhealthy, in putrid condition, or in a putrid state. The flesh of a healthy fat young woman is considered the best, and the palms of the hands are considered the most delicate portions.

ECZEMA PALMARIS.

SIR,—In reply to your correspondent "F. T. G.", asking for advice in the treatment of eczema palmaris, I beg to offer the following treatment, which has been successful in my hands. Lately I have had a female patient suffering from eczema palmaris, which had resisted treatment for some time. As a last resource, I tried a strong solution of argent. nit., beginning with five grains to one drachm; this I afterwards increased to ten grains. This solution I applied twice a week for about a month. This relieved the patient entirely, and she is now able to follow her usual employment, which she had been unable to do for some time previously. To remove the scales and thickened epidermis, I ordered my patient to hold her hands in water as hot as she could bear it, or even in the steam arising from boiling water. This softens the skin, and allows the solution to get down to the bottom of the deepest fissures. While using the solution, it is better for the patient to wear gloves and abstain from washing her hands.—I remain, yours, etc., R. R.

SIR,—Has your correspondent tried filling fissures with glycerine, simple strapping, wearing of the midwifery India-rubber or other gloves? I shall be happy to correspond with him if I can give him any other suggestions, etc.—I am, yours truly, W. WOODWARD, M.D.

Worcester, August 5th, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Markham Skerritt, Clifton; Dr. Dowse, London; Dr. Thin, London; Mr. F. Shapley, Exeter; Mr. Douglas Hemming, London; Mr. C. F. Hutchinson, Scarborough; Mr. N. W. Davies, Bridgend; Mr. Herbert Page, London; Mr. Wallace Boyce, Shrewsbury; Mr. Allen Fennings, London; Dr. W. A. Brailey, London; Dr. W. Woodward, Worcester; Mr. Richard Barwell, London; Mr. J. Howell Thomas, Wellingborough; Our Edinburgh Correspondent; Mr. F. Long, Wells-next-the-Sea; Mr. J. F. Nisbet, London; Dr. R. Bangay, Cheadle; Dr. M. Foster, Cambridge; Mr. G. Eastes, London; Our Glasgow Correspondent; Dr. J. Fraser, Wolverhampton; Mr. A. Myers, London; Mr. Startin, London; Mr. Malcolm Morris, London: Dr. Charters Symonds, London; Dr. J. Neal, Sandown; Mr. A. E. Bewicke, London; Mr. G. E. Nixon, Shrivenham; Dr. T. R. Fraser, London; Dr. Turner, London; Mr. J. H. White, London; Mr. A. Orchard, Birmingham; Dr. Pletts, Ryde; Dr. Fairlie Clarke, Southborough; Surgeon-Major Dobson, Netley; Dr. J. F. Payne, London; Dr. John Hayward, London; Mr. Vernon Edlin, Petworth; Mr. J. Morris, Swansea; Mr. B. Wills Richardson, Dublin; Mr. J. W. Stride, Brighton; Dr. E. Tibbits, Bradford; Mr. J. G. Barrow, Ryde; Mr. E. Pinder, London; Mr. H. Custance, London; Mr. A. O'Brien Jones, Epsom; Dr. A. H. Evatt, London; Mr. W. Phillips, New York; Our Dublin Correspondent; Mr. W. E. L. Batty, Liverpool; Dr. Barnes, Croydon; Mr. Ray Lankester, London; Mr. Lowndes, Liverpool; Mr. Lawson Tait, Birmingham; Mr. J. R. Bryden, Bristol; Staff-Surgeon J. N. Mulvany, Portsmouth; Mr. Fletcher, Warrington; Mr. G. W. Thompson, Haywood; Dr. R. W. Crighton, Tavistock; Dr. John Harley, London; Mr. Robert Harrison, Jersey; Our Aberdeen Correspondent; Sir Trevor Lawrence, London; Dr. J. W. Norman, London; The Registrar of the University of London; Dr. Baldwin, Columbus; Dr. Mackie, Turvey; Dr. Thompson Hague, London; Dr. Roberts, London; Mr. H. Elliot, London; M.D.St. Andrews; Mr. B. Lamb, London; Dr. MacDowel, Cosgrave; Messrs. Brady and Martin, Newcastle; Dr. Walker, London; Mr. W. R. Davies, Sandbach; Dr. W. Blair, Edinburgh; Dr. W. Millard, Dunbar; Dr. G. Savage, London; Dr. J. Rogers, London; Dr. Prichard Davies, Maidstone; Mr. W. Whitton, Towcester; Mr. S. Bennett, London, etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

ADDRESS IN SURGERY,

DELIVERED AT

THE FORTY-NINTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in RYDE, August 9th, 10th, 11th, and 12th, 1881.

BY

JONATHAN HUTCHINSON, F.R.C.S.,

Professor of Surgery and Pathology in the Royal College of Surgeons; Senior Surgeon to the London Hospital and to the Hospital for Skin-Diseases; Consulting Surgeon to the Royal London Ophthalmic Hospital.

MR. PRESIDENT AND GENTLEMEN,—As we are most of us fresh from a long week's carnival of medical science, I feel sure that you will not desire that I should on the present occasion address you on any subject directly connected with surgical practice. The very successful and industrious Congress which concluded yesterday has had its numberless Section meetings, in which most of us have taken some part; and, if I do not misinterpret the general feeling, it is a longing for a little rest as regards the matters in the discussion of which we have so recently and so fully engaged. I purpose, therefore, to employ the hour which you have done me the honour to entrust to me, in bringing under your consideration certain general topics having reference to surgical ethics, surgical education, and, lastly, the best means of advancing the clinical knowledge of disease.

Five-and-twenty years ago, the surgeons of the metropolis were alarmed, I might almost say scandalised, by a proposal to open a hospital for the treatment of stone and diseases of the bladder. A memorial was got up, and signed first by the ever respected name of Brodie, and then by almost the whole of those then connected with the general hospitals. This memorial severely condemned the multiplication of special institutions, and with particular vigour denounced the one in contemplation. Amongst the names at its foot, mine may be found. I am not ashamed of having signed it then, but I unhesitatingly say that I would sign no such memorial now. Nor can I believe that many of those who then did so would now differ from my present conclusions. Not that the facts then stated have been materially changed, but others have been added. Year by year, we have seen more clearly that, in large communities, special hospitals will develop, and that it is beyond the power of the profession to prevent them. But we have seen more than this: we have seen that they are clearly a gain to the public; not an unmixed gain—for what gain is unmixed?—but still a gain. Even at the time when the memorial to which I have referred was written, it was a matter of necessity to admit that diseases of the eye constituted an exception, and some thought that orthopædic institutions should also be permitted. Since then, I suppose that those for diseases of women, for diseases of children, and perhaps for diseases of the skin, have justified themselves.

The final triumph of ovariotomy did not result from any new discovery. There had been many pioneers. The instruments and the modes of practice which had been devised by others were those which were still employed; but these, in the hands of able surgeons, who gave their whole time and energy to this one subject, and who had, above all, the power of excluding from their special institutions those sources of evil from which a general hospital can never be wholly free—attained for this operation its present proud position. Let us note carefully the two elements of success. It may be that Listerian or some equivalent precautions may in the future make the wards of a general hospital as safe a place in which to open the peritoneal cavity as is a private home or a special hospital; but, even if this be done, they can never supply the familiarity with detail which comes only from constant practice. We must never forget that our profession exists, not for the benefit of ourselves, still less of any special class amongst us, but for our patients; and that its institutions must be so managed, or so modified, that they shall best serve their permanent interests. Nor can I think that there is any real difficulty in making the two coincide. Let the profession set its face, not against specialisms as a whole, but rather against those institutions which are conducted in a narrow spirit. Let it insist upon open elections of officers, free admission of students and practitioners; above all, let it encourage the formation of special departments in our general hospitals, since it is clearly here that they can best be made useful in the education of the student.

These general principles of conduct being granted, I would not oppose the beginning of any speciality, however detailed. Already the comprehensive department of eye-diseases is submitting to some process of natural subdivision, and it will not be long before we shall have in our large cities those who devote themselves chiefly to operations on the eye, those who attend specially to its diseases properly so-called, and those who rectify its congenital or acquired defects by means of optical aids. It by no means follows that because a man is a good operator for cataract, he will be equally familiar with the details of astigmatism. It is impossible to question the fact that the great discoveries in ophthalmology have been made by specialists, and sometimes by those who had devoted their attention chiefly to special branches of that department. Let it be understood that I am not arguing in favour of the promotion of subdivisions of surgical labour, but rather to the effect that, when they come naturally, we should not oppose them. Let us have charity for the various motives by which different men are urged to different courses; let us hold high our standard, inscribed "for the good of all", and allow to natural energy a full and free development. Let us not waste our time in opposing, but seek rather to employ and use.

I rank amongst the gains from the detailed cultivation of special branches of medical pursuit, that it has a definite tendency to destroy specialisms as such, and add their conquered territory to the general possessions. Whilst it does this to a large extent, it also at the same time creates new departments before unthought of, into which science pushes its way, and gives its help towards the mitigation of the many disabilities of man.

Witness what has been done in ophthalmology; how discoveries one after the other have been made, which have been at once added to the knowledge of the general physician. Note how the ophthalmoscope has taken its place with the stethoscope as an indispensable aid to the physician in the diagnosis of disease. The knowledge of diseases of the eye has indeed rapidly attained in the profession at large, and not alone amongst specialists, a very high degree of perfection. I do not hesitate to assert that there are few departments of practice so well and widely appreciated, and few which more definitely attract the attention of students. Nor do the gains to the public from this increase of general knowledge represent the whole gain; for the study of eye-disease must be claimed as especially useful as a training in the art of precise observation. No student masters it who does not become in so doing much better fitted for other fields of clinical research. This study is indeed in relation to other branches of surgery almost what mathematics is in general education. We have but to reflect on such facts as these, and next try to recall what the ignorance of eye-disease was less than a century ago, and what the position held by the oculist and the spectacle-vendor, and we shall be able to estimate a part of the debt which we owe to specialists.

There was a time when diseases of the skin were regarded by the higher class of surgeons with feelings almost allied to contempt. They were repulsive alike in the portrait, and in the person of the patient. They required no operations; and a knowledge of the use of arsenic, and of the constituents of a few ointments and lotions, was held to be all that was needed for their treatment. Then followed a period during the early cultivation of the speciality, when to outsiders it seemed as if it offered only an arena for endless wrangles as to schemes of classification, and for ingenuity in the devising of new names, and affixing to them a countless variety of unclassical adjectives. I am not quite sure that this era has even yet wholly passed away. It may be that there yet lingers a feeling of prejudice to this speciality amongst some who should know better. With the majority, however, and especially amongst our rising pathologists, a wholly different conviction is rapidly superseding such feelings. We are learning to care little about names, and to seek knowledge as to the nature of things; and those who do this in earnest rapidly find out that, of all the departments of pathological and clinical research, there is none which offers such rich and varied attractions as does dermatology. The simple facts that a morbid process in the integument is, from its beginning to its ending, exposed to view, that the aid of the lens may be brought to bear upon it while yet *in situ*, and that the histologist is in very many instances not obliged to wait the death of his patient before he is allowed to gratify his thirst for knowledge of ultimate details, largely justify my assertion. But it is not upon them solely that I rely, when I assert that diseases of the skin ought to be regarded as fundamental in professional education. Many illustrations which they afford of the changes in vascular supply and its results; of the influence of the several parts of the nervous system in the production of disease; of the laws of inheritance; of the numberless varieties in the inflammatory process in connection with diathesis, idiosyncracy, and special forms of poisoning: are far beyond

those afforded by any other department—varied and instructive. Above all, we find in dermatology the most remarkable and conclusive proofs of the direct connection between morbid causes and their effects. I cannot doubt that, possessing these advantages, skin-diseases must in the future be accepted as not only of the utmost interest for themselves, but as invaluable to the physician and pathologist in the elucidation of the phenomena of diseased action, as met with in regions and organs less open to inspection. I by no means claim for this insight into the educational value of a knowledge of skin-diseases that it is wholly of modern growth. It was recognised long ago by the Paris physicians; and the work done by Anthony Todd Thompson, by Jenner, Gull, and above all by Addison, attest to its partial recognition amongst ourselves. But its growth is only recent, and never had dermatology such an army of workers who are not specialists as it at present claims amongst the younger physicians and surgeons, not only in London, but in all parts of the world. In their hands, it is certain before long to assume that foremost place which I claim for it as its natural position.

Let us remember, respecting a large majority of the maladies which it has been the fashion, in some sort, to stigmatise as "skin-diseases", that nothing is more certain than they belong mainly to other departments of pathology. Herpes is a neuritis which simply chances to display some of its symptoms on the skin. Morphœa is an affection of the vaso-motor nerve, leading to changes in bones, muscles, and joints, as well as to those which, from occurring externally, first attracted attention, and still almost monopolise it. In the study of ringworm, we may engage, if we will, in the most interesting investigations as to the laws of life in minute vegetable organisms. Leprosy offers us a dietetic problem of at least equal interest with those which concern gout and rickets. In psoriasis and its allies, we study a heritable peculiarity of health or of skin which shows its effects through a whole life, and is influenced for better or worse in ways that are curiously instructive. Who can doubt the power of drugs who has seen arsenic cause herpes or cure pemphigus? The polymorphism of syphilis is a fact to claim the permanent wonder of all who are well instructed in pathological speculation.

We listened, with delight, last week, to the eloquent words in which, in his opening address, Sir James Paget enforced the duty of charity amongst ourselves. It is in this spirit, I think, that we should meet the various questions which open out in connection with the medical education of women; and that, also, as to consultation with those who, whilst educated amongst us, have openly professed their adoption of peculiar doctrines. I fear that I am here venturing upon ice that is very thin indeed; and I must proceed either with great boldness or extreme caution. I shall prefer the latter. Let me say, then, that the profession of medicine always has offered, probably always will offer, peculiar attractions to those who, with weak principles, and still weaker consciences, desire to make profit by trading on the credulity of their patients. The thing is so exceedingly easy to do. Our real knowledge of disease in many of its departments is very vague, and our knowledge of therapeutics still less certain. There is room on all sides for differences of opinion, and scope for the introduction of new theories and the employment of high sounding epithets. The fatal facilities thus afforded to the charlatan have naturally made the well principled professors of physic very vigilant in guarding our ranks against the introduction of quackery. We wish to be honest, and we wish to associate with none but those who are so. There lived, now more than a century ago, a talented and learned enthusiast, who thought—sincerely, I have little doubt—that he saw his way to an immense reform in the use of drugs. That reform was needed, we all admit. He noticed a few common facts, such as the marvellous subdivision of which odorous substances are susceptible; the change of effect, or even reversal, which accrues from change in the dose of a drug; and that, respecting some few medicines, it was true that they seemed to produce in large doses just what they tended to repress in small ones. I am not here to apologise for Hahnemann. His facts were few, his reasoning illogical, his ignorance of the natural progress of disease and its tendencies to spontaneous recovery, such as would be utterly disgraceful in the present day. Whatever foundation we may grant for his theories, he certainly pushed them to the wildest lengths. His self-confidence, had it been properly balanced, might have become almost sublime.

If, however, we may find theme for marvel in the presumptuous self-sufficiency of this would-be reformer, I do not think that we need seek far for the explanation of the success of his teaching. It inculcated faith in drugs, but it changed their form, and gave us cleanly globules and tasteless fluids for the bolus, pill, and potion, then in vogue. It supplied a theory of cure, as well as its means; and to the intelligent, but, at the same time, not specially trained, its theory sounded at least as good as those of orthodox physic. The love of novelty conspired with a cheerful faith in the possibility of progress, and with delight in escape from the disagreeableness of the old methods, to draw converts to the new creed. Those converts were not the ignorant, nor were they the poor. No wonder that some from our own ranks should have thought they saw their interest in adopting the new method, and equally little that most of those who observed their conduct held the motives of the man who put "homœopath" on his door to be low and self-seeking. In nineteen cases out of twenty, probably the verdict was right; but when the fiat went forth that a homœopath must be either a fool or a knave, I doubt whether the modesty of nature was not somewhat overstepped. There are fools and fools; and we are guilty alike of unkindness and unfairness if we widen that disrespectful epithet over much, and apply it too freely. There is such a combination of weak power for the estimation of facts, with enthusiastic optimism as regards possible progress, which, whilst it in no degree establishes a claim to wisdom, yet scarcely brings its possessor into the category of fools. Amongst the laity, of those who became homœopaths, most were of this character, and some, probably, of those who seceded from our own ranks.

I fear that it may be thought that I am travelling very far from the proper subject of an address on surgery. I also much fear that I may be misunderstood. What, it will be asked, has homœopathy to do with surgery; and why introduce the question of consultations with homœopaths by such a lengthy prelude? Now, it is precisely because homœopathy has nothing to do with surgery that it becomes of interest to us to settle the question in dispute. The circumstances of Lord Beaconsfield's illness are fresh in the memory of us all. We did honour to Sir William Jenner for his stern and manly refusal to have anything to do with what he thought quackery. We sympathised with Dr. Quain in his perception, that the occasion had arrived for the sacrifice of sentiment and the performance of a disagreeable duty. But what particularly struck me in the transaction, and what constitutes my chief reason for mentioning it now, was the reason alleged by Sir William Jenner why he could not meet Dr. Kidd. It was not that he felt compelled on principle to decline all intercourse with the heterodox, but that the patient could not possibly be a gainer by a conference between those who held such different opinions respecting the principles of therapeutics. It is clear that, had it been the aid of a surgeon that was needed, no such reason would have been valid. Homœopaths have not as yet succeeded in developing any new system of surgery. The knife and the catheter are the same to them that they are to us, and are used on the same indications. I never myself wittingly consulted with a homœopath; but I believe that I have, without knowing it at the time, several times met them, and I never yet encountered the slightest difference of opinion. The surgeon, then, cannot possibly feel that he is in any way serving the interest of his patient when he refuses to meet his weak-minded doctor. On the contrary, it may easily be the fact, that he knows that it would be the greatest possible kindness if he would go without an hour's delay. To Boycott a quack on principle is one thing, to attend to the interests of the quack's patient may be another. Hence the duties of surgeons in this matter, and especially of those engaged in consultation practice, have always been very difficult. The obvious incongruity which exists in the case of a physician is not present to the surgeon; his temptations are both more frequent and stronger, and his sources of inward strength are also fewer. He refuses neither for his own good, nor the patient's good, but in obedience to professional rule. With a few exceptions, this rule has been, I believe, honourably upheld by the consulting surgeons of England. There have, however, been some exceptions, and there have been difficulties and annoyances without number. We cannot possibly, in our profession, have one rule for the peer and another for the tradesman. I avow my deliberate conviction that Dr. Quain, and those whose counsel he sought, interpreted the obligations of our profession correctly. We enjoy a law-established monopoly in the art of healing, and we must be very careful how we stint or refuse our services when they are demanded. If, in consultation, it be found that the opinion of the consultant is not that of the consulter, and, if the latter be not willing to waive his own, then the proper course of conduct is clear. But, such inability to act in concert should not be assumed on light grounds surely, or hearsay evidence. Unless the previous knowledge be very special, it should be established at the bedside in each individual case. I am speaking of formal consultations only, not of social intercourse. We know well how to accord and refuse professional honour. If a man be guilty of non-professional conduct, we can blackball him at a society, and avoid his company in social life. We enter upon a course of conduct which needs a wholly different justification if we refuse to meet and confer with him, when the life of a third person is concerned. Here I confess that it seems to me that the claims of the public should stand first, and that if a man's name is on the *Medical Register* we ought to meet him, so long as the consultations result in that which we deem most for the patient's advantage. When-

ever they do not, our duty is clear, and we should readily know how to perform it. Many advantages would, I think, result, if we were to leave with the licensing bodies the responsibility of decision, as to who are to be admitted to the privileges of formal consultation, and who excluded. To do so would save at once much loss of time and of temper, and avoid frequently recurring complexities. It would encourage honesty and openness of conduct, and remove temptation to the secret perpetration of that which is known to be against the professional rule. But, above all, I would urge that it seems to be almost a matter of justice to the third party, our patients, who have surely a right to assume that, when a duly qualified man is employed, they can obtain, in consultation with him, if wished, the aid of any other, who possesses the same diploma. That we run the risk of fostering homœopathy by according to its disciples the courtesy of professional consultation, I do not for a moment believe. It has hitherto been fostered by opposition. Let us have more confidence in the vital energy of truth, and let us venture to let the wheat and the tares grow together till the harvest. We believe that its principal theory is absurd, and much of its practice ridiculous; but, at the same time, we are prepared to admit that gleams of a fruitful suggestion may be occasionally discerned in its discussions, and we can surely afford to leave it as a whole to itself, and let it develop to its natural end.*

I will pass to a less distasteful topic, and proceed to make some suggestions as to the possible improvement in our methods of clinical teaching. It must be noted, in the first place, as a great defect in our English system that it makes no provision for retaining the services of good clinical teachers. It trains them, and then casts them adrift. The early period at which our surgeons and physicians retire from hospital work is a matter of amazement to our foreign *confrères*, and few can doubt that the evil is on the increase. Either by the bribe of private practice or the gentle compulsion of a retirement rule, we induce our best teachers to desist from work in public just at the time when their services are of most value to the student. The names of Paget, Jenner, Erichsen, Gull, and Bowman will occur to us all in illustration of what I assert. Not only do our customs make the early retirement of successful men a matter of necessity, but they often cramp their usefulness to the student during the latter part of the period of their tenure of office, and also hinder their services to science in other directions. Success in our profession means absorption of the whole time and whole mental energy in attention to private practice. No individual surgeon can help himself; he is in the meshes of the social net, and escape is hopeless. It is a change of custom which must effect the reform, and surely such a change is urgently required. It might come, I think, very suitably in some such form as this. Let there be constituted a rank of pure consultants, whose fees shall be so modified as to enable them to make the same incomes that they now do with a third of the personal labour. Let election to such grade be by their respective colleges. Let us no longer leave the time and the energies of our foremost minds at the mercy of any wealthy man who, however trivial may be his ailment, determines to have "the best advice", just as he would seek the most expensive jeweller or buy the most costly wine. They are surely too valuable for that. By the plan which I suggest, leisure would be left to them for study and for teaching, and they would be retained in their proper sphere of public work. Such consultants, having voluntarily restricted their spheres of observation of disease in private, would find it necessary, in order alike to sustain reputation and keep abreast with progress, to retain their public appointments, and to continue to teach. The gain would be a great one to medical education, and also, I think, to the public interest. The evil to which I refer is an increasing one, and it exists to a far greater extent in London than in any other capital.

A large part of the education of students may very suitably be done by young professors. Age adds but little to the ability to deal well with the facts of anatomy and physiology, and it may even detract from it. When, however, we come to the knowledge of disease at the bedside, and the correct estimation of its various symptoms, then experience must tell. Without it there can never be that trust on the part of the student or that free power of illustration, from facts which have been personally observed on the part of the teacher, which are essential to success.

Yet it is precisely this clinical teaching which is of most importance to the student, and in which, if I mistake not, our modern system is most at disadvantage. Apprenticeships have been abandoned, and few that remember their inconveniences can wish to revert to them. Yet they had their uses, and those not trivial ones. They unquestionably often secured to the student a clinical and practical training which is now but too often missed. Permit me to make for your consideration a suggestion of a plan by which possibly most of their advantages might be retained, and others which they did not always possess secured. Let us endeavour to widen the basis of medical teaching, and to enlist, as responsible partakers in this all-important work, a large section of the profession. This might be done if our examining boards were to recognise as private teachers all fellows of their respective colleges, all possessors of diplomas of the higher class, all medical officers of hospitals and dispensaries, indeed, all who could bring proof of the possession of special opportunities or qualifications for clinical teaching. Let it be required of every student that he should bring, in addition to those now required, certificates from two, three, or more of these registered teachers that he had been—in a real and *bonâ fide* manner, under their personal supervision—instructed in practical matters, and that he was in their opinion qualified for a diploma. Make such certificates necessary, but let them not modify in the least the curriculum of the school or the test-examination. To prevent these certificates from being signed in a perfunctory manner, let it be the rule to inform those who signed them of the results obtained by their *protégés*, and if in the course of a five years' period the proportion of rejections should be more than an average, let the name of the teacher concerned be for the next five years removed from the list of those privileged to sign. This plan would, I think, work well in many ways. It would add to the value of the higher diplomas, and increase the number of those who seek them. It would encourage in those registered as private teachers the endeavour to keep well instructed in the knowledge of the day, whilst its advantages to the student—by bringing him into closer personal contact with those interested in his success—are obvious.

How various are the qualifications which are to be desired in the medical practitioner. He should be a gentleman of good manners and address; skilled alike in the principles of biology and in the knowledge of character; able to visualise at short notice the details of human anatomy; and he should carry in his memory, ready for prompt use, the best recipes for a thousand varying forms of ill-health. If we measure his responsibilities by the possibilities of his usefulness and the risks of his failure, they are very great indeed. It may be true that the greater part of his duties are routine and easy of performance, but he may, at a moment's notice, be called upon to deal with the unusual and difficult. Regarded from this point of view, the amount of knowledge required of him is enormous—greater probably than that necessary in any other avocation. It is, further, steadily on the increase; every fresh discovery brings with it something fresh for the general surgeon to master and retain in memory. Hence many of the increasing difficulties in surgical education; hence unquestionably the increasing ratio of plucks to passes at our examining boards. It is not that examiners are more strict, students less able, or teachers less zealous; but simply that the thing to be taught has grown in bulk, and become year by year more and more difficult of attainment within the allotted period. There is nothing whatever to discourage us in the fact, much, indeed, to tend in the opposite direction. But we must boldly meet the changed and ever changing circumstances. An extension of the period of study, a well considered limitation of its subjects, and lastly, a careful development of its methods, are the three measures which severally suggest themselves. The last is, of course, approved by all, and is too obviously desirable to need comment; but concerning each of the others there is room for much debate. As to the extension of the compulsory period of study, such proposals may, I think, be dismissed with the remark that the practice of liberal rejection of candidates imperfectly qualified really amounts to the same thing, and attains its end with more justice to the diligent and able. In the future, it may perhaps come to be considered a great credit to pass the first time, and no disgrace to be referred. Careful men, appreciating the necessities of the case, will probably voluntarily lengthen their period of study. Were the period compulsorily fixed at five or six years instead of four, the careless would still, as now, idle till near the end of it. I cannot but think, therefore, that the practice of early examination, with its necessary result of many rejections, works on the whole better than would any which should make an undiscriminating demand for longer time.

It is impossible not to regard without the utmost jealousy any proposal that the subjects of professional study should be reduced. So far from its being desirable to strike out botany and comparative anatomy, we might [illegible] of the anatomy and [illegible] and animals. It is [illegible]

* [illegible] the [illegible] of the [illegible] the [illegible] the [illegible] the same subject is easily given. Dr. Bristowe dealt with the whole subject, whilst I have [illegible] tions. I have reinstated these paragraphs, in consequence of a general request that they should appear when the address was printed.

may hope for future advance. Having said this, however, we must hasten to admit that a large majority of the profession are to be trained, not so much as biologists, nor even as pathologists, but as practitioners. In our surgical education there is much that is valuable, very much indeed that is of the greatest possible interest, concerning which it still cannot be said that it is essential. It is certainly the duty of both teacher and examiner to draw a strong and clear distinction between essential and non-essential acquirements. Howsoever the latter may fare, the public has a right to demand at our hands that the former shall be in as complete possession as possible. It is no comfort to the glaucoma patient, who has been treated by lotions and leeches until he is blind, to know that his surgeon is a good anatomist; nor will the most excellent knowledge of histology avail to save a practitioner from something in its nature not unlike manslaughter, who believes that he ought to wait for tympanites and stercoraceous vomiting as the chief symptoms of strangulated hernia. It is common sense and practical knowledge of common things that we mainly want. I well recollect an anecdote, which was told to me when a boy, respecting a smart young farm-labourer in my father's employ. This young fellow had incurred the wrath of a half-witted young woman in the village, who, in revenge, said of him: "He can whistle fairly, and he can sing pretty well, but he can't plough straight". This home-thrust so rankled in his breast that his accomplishments became annoyances to him, and he finally left the neighbourhood, unable to bear up under the frequent reminders as to what daft Meg had said. The distinction between the essential and the ornamental was here so strongly emphasised that, although the latter was not in the least depreciated, it stood as less than nothing in comparison with the former. So surely it ought to be with us. Respecting the essential, examiners might perhaps do well to leave nothing to chance, but, regardless of time, to make sure, so far as is possible, that the candidate possesses a really sound knowledge of them. It by no means follows that a candidate who knows what to do in traumatic gangrene is equally up to the mark in reference to purulent ophthalmia; nor does a good knowledge of the latter imply ability to treat prostatic retention with success. Yet these are all equally essential, and they stand pretty much in the same relation to the duties of a surgeon as does straight ploughing to a farm-labourer.

We may reasonably hope that improved methods of instruction, and the application of common sense to our plans of teaching, will do away with the need for any material curtailment of the scope of study. The means provided for the education of students may be classed under three heads: teachers, books, and museums. Of the two former I do not propose to say much, but the last is an attractive topic which I cannot pass. The change which followed on the introduction of printing, in reference to the value of oral instruction, has often been the subject of comment. At the present time this change is complete, and no discoverer or propounder of new doctrines would ever think of bringing his observations before the public in any other way than by the aid of the printing press. He does not expect his hearers to come and listen to his professor's lecture, but he embodies his opinions in a book, and thus sends them broadcast over the world. If, in the first instance, he read a paper or gives a lecture, it is that it may be printed afterwards. The professor of the present day is, for the most part, an exalted development of the tutor, and his duties are almost as much to ascertain that his pupils do really learn from books as to teach them from his chair. Few, indeed, are there who can attract hearers from outside their allotted classes. Nearly all have themselves published books, and their success, in nine cases out of ten, depends far more on their willingness to adapt themselves to the existing state of things as regards the students' requirements—to advise, supervise, and question them upon their abilities in the lines of original research. For the latter, the vocation is elsewhere. I am speaking, of course, of the professors and teachers in our colleges and schools of medicine. They have become the expositors of books, not of their own original and unwritten opinions. It is, I think, not improbable that another development is at hand, which will yet further diminish the importance of our chairs, and of oral instruction in general. I allude to the creation of students' museums. The museum, hitherto, has existed chiefly as an appendage to the chair. Our examining boards have required that teachers of anatomy, physiology, and pathology, should possess or create a museum of specimens from which to select illustrations for lectures. In many instances, these collections have not even been made accessible to students, and in none, until quite recently, has encouragement been given to the student to regard the museum as a place in which he ought to work. In one of our largest European capitals, possessing a flourishing medical school, there was, I believe, until very recently, and I am not sure that things are materially changed now, no museum which a student could enter without the most troublesome formalities. In several other continental cities possessing medical schools, the creation of a pathological collection, worthy the name of museum, is a matter of exceedingly recent date. I claim it as a distinguishing feature of our own country, one, however, which I willingly share with our Scandinavian relations, that our museums have for long been numerous and good, and I further assert that it is amongst the most valuable proofs of life in the scientific spirit which we can show that they are constantly growing and improving. In no country, however, have we as yet seen the full development of museums as means of medical education; and, if I am not much mistaken, these institutions are destined in the future to assume an importance of which we have as yet scarcely dreamed. Well managed, it will be found that the museum may be made to combine the advantages of dissecting-room, ward, lecture-theatre, and book in one, and that it can supply permanently, at all times, and to all comers, opportunities, which are for the most part accessible elsewhere only at special times and to a privileged few. I do not mean that dissected preparations or models can ever supersede or rival work done *propriâ manu* with forceps and scalpel, but they may be made to assist it, to prepare for it, and to supplement it with most excellent results. Hitherto our museums, whether medical or in connection with general knowledge, have been far too miscellaneous. Huge crowded collections of material, some of it of the greatest value, and some of it of very little, have jostled together in a more or less orderly kind of confusion, through which only the well instructed can find their way. They have been, by the majority, visited rather as places of wonderment, or perhaps of bewilderment, than for systematic instruction. Now museums ought to be as legible as books; and, when they are made so, they will be eagerly read. The very most that can be said of our very best, as yet, is that they have approached somewhat to the character of cyclopædias, from which fragmentary information upon all sorts of subjects may be obtained by those who know how to search for it. For students' purposes, something of a different kind is required—something much less voluminous, at once more concise and more consecutive: in fact, to pursue the comparison, more of the nature of a *handbook*. A students' museum should contain those things which a student wants, and those only. They should be well arranged, with plenty of space; and well labelled, not merely with a name, but a description. There should be nothing to distract attention, and everything to favour study. Anatomy should be illustrated by dissected preparations, casts, drawings, and diagrams; and these should be kept in juxtaposition; and from anatomy to pathological change the steps should be direct and clear. Side by side with the normal joint should be the diseased joint; with the specimens illustrating the precise position of the epiphyses, those showing their detachment by violence. No knowledge should be taken for granted in the learner, and as far as possible everything should be demonstrated. I must not go further into detail. Let me conclude what I have to say on this topic by the remark that we ought to have museums for educational purposes, distinct and wholly separate from those which are designed as magazines of facts deposited for the use of original investigators. The two objects are different; and not unfrequently that which is essential to the completeness of the one is useless and cumbersome to the other. In speaking of students, hitherto, I have been thinking of those who have not passed their examinations; but it is the boast of our profession that it possesses countless students of another grade, who have no longer the fear of the examiner before them, but who recognise the fact that even a lifetime is too short to acquire a fair familiarity with the facts of pathology, and who, however long their lives may be, will remain in the position of pupils. For these also—for these, perhaps, especially—museums ought to be provided; and here, again, I make bold to assert that nothing in the least adequate to the wants of the case has as yet been attempted. Our grandsons, if not our sons, will smile at the *dilettante* manner in which we have been content to hunt for the truth in matters of clinical research. We so often treat disease—at any rate, in its less common forms—as if it were sent merely that we should write papers about it, and discuss its nature in more or less detail, and with more or less seriousness, according to the humour of the hour. I do not speak now of the more practical section of the profession—men engaged in the daily and hourly discharge of arduous duties, in the conscientious endeavour to apply well-known rules to the treatment of disease, and only exceptionally concerned in the pursuit of new knowledge. I speak rather of the more ambitious amongst us—and, thank Heaven, they are now very numerous—men who attend societies, compile statistics, collect specimens, and write papers. Of these I assert—may I be permitted to claim for myself a humble position amongst them, and say of us?—that we are far too ready to yield to the temptation of thinking that disease was made for the physician, and

of its importance, and to the ample provision everywhere made for its clinical as well as its scientific cultivation.

If the progress of obstetric medicine is to be satisfactory, if it is to become less empirical and more and more scientific, in the study of pathology must be sought the means of determining the principles on which a rational system of therapeutics are to be founded. It is in a complete knowledge of the anatomy and physiology of the female sexual system that the foundations of uterine pathology must be laid. The elements of this pathology must naturally be sought for in connection with the special physiological conditions which distinguish the female sex. The sexual system dominates the other organic systems in woman. Her nature is altogether more emotional than man's. His nature is objective, and is reflected externally; woman's nature is subjective, and is reflected internally. The sexual system in man does not attain this organic supremacy, therefore he escapes the innumerable referred, sympathetic, or reflex disturbances, to which woman is liable from her physical and mental constitution, through the action and reaction of her sexual system. There is a constant provision going on in her system for the conception and nutrition of a new being, necessitating an organic mobility which in her involves the gravest contingencies.

Menstruation and pregnancy, although strictly physiological in design and general issue, are yet conditions of such extreme organic tension that they may pass, by almost imperceptible degrees, into the domain of pathology. They are essentially physiological, but at the same time potentially pathological. The growth of the human body, although continuous until the adult term is reached, presents certain marked developmental crises which occur at regular epochs, when additional nutritive force seems to be determined to certain organs, in connection with which special functions are thereby established. These cycles of development, as well as their corresponding functions, appear to follow with a limited margin the figure seven and its multiples, and may have led to this numeral being invested with a *quasi* sacred character, and its being brought into prominence as a measure of time and otherwise. The first cycle of seven years corresponds to the period of the first dentition, and to a marked epoch in the development of the cerebrum. The second cycle of seven years marks the attainment of puberty in woman, by the establishment of the process or function of ovulation, as shown by the appearance of the catamenia. Twenty-eight days may be assumed as the average menstrual cycle, while its duration until the climacteric or menopause is reached, at or about the forty-ninth year, corresponds to the completion of the seventh cycle from birth, or the fifth cycle of seven years after puberty, including the whole period of menstrual activity. Pregnancy, again, lasting about 280 days, covers a period of ten catamenial cycles of twenty-eight days. The appearance of the menstrual phenomena proclaims that a new organic system, for the purpose of reproduction, has attained its development. In this periodic function, the nervous and vascular systems are largely concerned. It is characterised by a condition of increased vascular tension or hyperæmia, which, if not relieved by menstrual expenditure or pregnancy, or subsequently by lactation, may not only lead to uterine and ovarian disease, but also to grave disorders of the general health. Another source of uterine troubles, in connection with this function, is to be looked for in excessive, as well as in imperfect, sexual congress. Faulty habits of life again, excess of animal food and stimulants, neglect of bodily exercise, mental fatigue—indeed, all causes which tend to increase either vascular or nervous tension—tend to disease by exaggerating or perverting normal conditions. To these, we must add another order of causation incidental to the condition of pregnancy, to the process of parturition, and to the puerperal state—none being more frequent or grave than those presented as a result of imperfect or interrupted puerperal convalescence. The body, in which the occurrence of conception marks such an organic revolution, which for so many months is the seat of the remarkable changes culminating in delivery, must be in a state of great organic instability, oscillating narrowly between the confines of health and disease.

Obstetric medicine, indeed, offers to the scientific student problems of the most complex and wonderful nature—problems more easily followed and unravelled than many presented by the other departments of medicine. What more extraordinary than the genetic force evoked by the contact and fusion of the male and female fecundating elements in the act of conception? What more remarkable than the forces or changes which determine the periodicity of the special functions in women? What more interesting than the reflex nervous phenomena developed through the cerebro-spinal system, in connection with ovario-uterine disorders? Obstetric physicians, indeed, more than any others, have constantly to take into account and to become familiar with reflex conditions. The abundant organic connections of the nerves of the sexual apparatus in women with those of the cerebro-spinal and sympathetic systems, permit the play of the emotional or psychical element as an influencing or [illegible] power in relation to the functions of the uterine system. This association is full of interest as a potential factor in its morbid manifestations. The explanation of the Protean phenomena of the various forms of hysteria and hystero-epilepsy—the hysteria major of Charcot—is to be found in this connection. The controlling centre of nerve-action in the genital apparatus was long held to reside in the ovaries; but both clinical experience and actual observation have latterly tended to depose them from that position. The survival—nay, even initiation—of sexual desire and pareunia, after removal of both organs in the operation of ovariotomy, affords satisfactory clinical proof that at least the primary sexual nervous centre must be looked for elsewhere. The discovery by Goltz and Frensberg of a nervous centre of sexual power opposite the fourth lumbar spine seems to determine this interesting point, and throws considerable light on hitherto obscure and apparently anomalous phenomena. It is known in the East that castration, performed on the male adult after the exercise of the sexual organs has developed their full power, still leaves the individual capable of the formality of coitus—that is, of erection and orgasm without emission. Eunuchs of this class are accordingly a much less valuable commodity than those castrated in early life or completely mutilated. The explanation is, of course, that the sexual nerve-centre in the spinal cord, having been developed under functional activity, remains active, although part of the sexual apparatus—formerly credited with the essential control of the whole phenomena—has been eliminated. A parallel is afforded by what takes place when a limb, such as the arm or leg, has been amputated *in utero* or blighted *in ovo*. In this case, the portion of the spinal cord corresponding to the nerve-supply of the absent limb remains in its *embryonic* form, undeveloped; but, when the limb has been removed in adult life, the activity of its nerve-centre remains, and sensations and pains continue to be consciously interpreted as coming from the side of the absent member.

There has undoubtedly been latterly a great revival of the former view of the importance of the nervous system in relation to the functions of the other organic systems of the body. More extended researches in microscopic anatomy have greatly tended to this result. The terminations of the nerves have been traced much further then when I published my *Lectures on* [illegible] in 1860. Klein in this country, and Frankenhäuser, Kehrer, Koch, Spiegelberg, and others, have shown that there exists a much more intimate organic continuity between the ultimate nerve-terminations and the other tissue-elements, especially the epithelial, the important bearings of which, both on physiological and pathological processes, cannot be overlooked in its clinical relations. I believe, further—and strict physiological analogy permits the deduction as legitimate—that nerve-force may even be discharged free into and affect the fluid contents of the animal cells, and in the same manner influence the blood itself, which, in every sense and purpose, is a living tissue endowed with the highest organic and functional mobility. It is, perhaps, through this presumed neuro-vascular association that we may find the channel by which maternal impressions are conveyed to the fœtus; and it is more reasonable to suppose that the contents of the blood-vessels are in this manner directly affected by nerve-force, than merely by the contraction and dilatation of their walls. I am not aware that this idea has ever been previously suggested, and I offer it with due reserve. The uterus receives the greater part of its nervous supply from the hypogastric branches of the posterior mesenteric ganglion, and partly also from the sacral plexus. The important observations of Patenks of St. Petersburg show that these also include the coats of the uterine blood-vessels in their distribution. According to the experiments of Basch and Hofmann, electrical irritation of the hypogastric nerves causes contraction of the circular muscular fibres, under which the uterus descends and the os opens; while, under similar excitation of the sacral plexus, the longitudinal muscular fibres contract and the os uteri closes. These latter observations settle definitely the previous but contradictory views of Spiegelberg and of [illegible] power to the hypogastrics, and the latter to the sacrals. The cervix uteri is peculiarly rich in its nerve-supply, as might be expected from its exalted sensibility and active functions. As has been pointed out by Dr. Braxton Hicks, the uterus is the only organ in the body, whose main nervous supply is derived from the sympathetic, to which we have such [illegible] indeed, a great [illegible] Reimann of Vienna found that the uterus separated from the cerebro-spinal axis, and also when removed from the body, responded to irritation by peristaltic and rhythmical movements of the whole organ, even when only a portion [illegible] the body, but maintained at its normal temperature, it exhibited systolic movements for an hour after the death of the animal. The uterus

has then an independent ganglionic system connected with, and therefore influenced by and reacting through, the cerebro-spinal system, but organically related to and derived from the sympathetic. The arrangement and distribution of the uterine blood-vessels is peculiar to that organ, as shown by the investigations of Rouget and Snow Beck. The arterial and venous systems freely anastomose, and seem more dependent on the contractility of the permeated tissues than on the elasticity of their own walls for propelling the blood. Hence the effect of general debility, or, on the other hand, of hyperæmia, in causing or favouring uterine congestion and hæmorrhage. This anatomical peculiarity of the uterine vascular system has important bearings on the occurrence and treatment of parturient and other forms of uterine hæmorrhage.

The great importance of the mucous lining of the uterus, so varied in its structural differentiation, with its elaborate glandular apparatus and great functional activity, must not be overlooked in this connection. The uterine nerves have been traced into the epithelial cells lining its free surface; placing it, therefore, in organic solidarity with distant surfaces, where we know one of its periodic phenomena may be manifested vicariously through reflex action; for vicarious function is simply referred or reflex function. And we must remember that pathological liability is always in relation to complexity of structure and activity of function. More recent studies of the changes in the uterine mucous membrane induced by menstruation and conception have thrown considerable light on the physiological relations of this important structure, especially in relation to ovulation, to conception, to the duration of pregnancy, and to the pathology of one form at least of dysmenorrhœa. Maericke observed, from portions of the uterine mucosa removed by means of a curette during the premenstrual, menstrual, and postmenstrual periods, that in every instance the true or deeper layer of the epithelial lining was completely preserved. If the mucous membrane of the uterus were entirely destroyed during menstruation, it would be a pathological process, no longer a physiological one. It would, indeed, be contrary to all analogy for an elaborate structure to be reproduced, except from histogenic elements left behind for the purpose. Kundrat's investigations show that, for several days before the appearance of the catamenial flow, and probably preceding the discharge of the ovum, the mucous surface is swollen, loose, and almost diffluent, and covered with a whitish or bloody mucus. It is freely injected in parts, and in many instances it is found coloured a deep red. It appears that the uterus is prepared for the reception of the ovum a certain time before the rupture of the Graafian vesicle. The menstrual flow follows, and is caused by the retrograde changes in the surface of the mucous membrane, of the nature of fatty degeneration, which follows the death of the ovum. The impregnated ovum belongs, then, not to a menstruation just past, but to one just prevented by fecundation. In the light of the latest researches, each menstruation simply means the death and extrusion of an unimpregnated ovum, and of the materials prepared *in utero* in anticipation of conception.

Let us now turn to the subject of obstetrics proper, or midwifery. Recent progress in this branch of medicine has consisted more in an extended knowledge of the mechanism of parturition, and in greater precision in the choice of methods and times for interference, than in new means of treatment in operative midwifery, or in novelties in instrumental aids to labour. Exact methods of research have been successfully applied to the elucidation of many interesting and important questions in connection with pregnancy, parturition, and the puerperal state. Among the most urgent questions that present themselves in this category is the prophylaxis of *post partum* hæmorrhage, and of puerperal fever—the two great opprobria of obstetrics, and on the latter of which the antiseptic teaching of Lister has already begun to exert an important influence. The mechanism of parturition, the nature and the amount of the force exerted in that process, and the postural relations of the fœtus and maternal passages, have engaged the attention and have received adequate treatment at the hands of Ribemont, Schultze, Künecke, Schrœder, Haughton, Matthews Duncan, and Hart.

A speculative theory has been lately broached by Dr. Mortimer Granville, suggesting the predetermination of sex by intention. He endeavours to show that the sex of children is determined by the relative ardency of parents. "A preponderance of impulse on the part of the male produces female offspring; while excess on the part of the female parent produces male progeny." But I am sure we have all known families with a large proportion of sons, in which the mothers were physically fragile and sexually apathetic. It is long since the observation was made, that the sex of the older parent prevailed in the progeny in some proportion to the disparity of age. This latter explanation is more in harmony with the law of nature which has determined the relative proportion of the sexes, and seeks to maintain it by providing for the replacement of the sex of that parent of more precarious survivorship, that is, the elder.

An extremely interesting and valuable communication with reference to the time and mode of separating the fœtus and umbilical cord has been made by Ribemont, in a recent number of *Les Archives de Tocologie*, which shows satisfactorily the great influence of the "thoracic aspiration" of the fœtus on the umbilical circulation before its ligature. This was first pointed out by Budin; but is denied, among others, by Schücking. Determined by the manometer, it was found that—1. Tardy ligature of the cord benefits the child by increasing the quantity of blood which is required for the establishment of the third circulation, that is, the fœtal pulmonary. 2. The immediate ligature of the cord deprives the infant of a quantity of blood, larger or smaller in proportion to the time of ligature; and it especially deprives it of necessary blood if the ligature has been applied before the child has breathed. 3. The early ligature of the cord thus compels the abstraction of the blood necessary to establish the pulmonary circulation from the general circulation. The result is a diminution of the arterial tension equal to one-third of the initial tension. 4. The cause of the penetration of the blood into the pulmonary circulatory system of the child is the "thoracic aspiration". This is proved by the constant superiority of the pressure of the blood in the umbilical arteries to that in the umbilical vein. Again, the thoracic respiration is observed to produce considerable oscillations in the tension of the arterial and venous blood. The uterine contractions are utterly insufficient to force any blood along the umbilical vein when the arterial pulsations of the cord have ceased. 5. Thoracic aspiration causes the *sufficient* and *necessary* amount of blood to enter the pulmonary vessels; *sufficient* because, under these circumstances, the tension in the arterial system does not fall; necessary because the arterial tension in the umbilical cord of a newly-born child is never seen to rise after tardy ligature of the cord. Professor W. T. Lusk, of New York, in corroborating Ribemont's views, says that, in children born pale and anæmic, and suffering from syncope, late ligation of the cord furnishes an invaluable means of restoring the equilibrium of the fœtal circulation.

An interesting communication of Dr. Langdon Down, on the obstetrical aspects of idiocy, shows that this condition is due more to prolonged labour than to timely and judicious operative delivery. Of 2,000 cases, 24 per cent. were first-born; only 2 per cent. twins; twice as many male children as female; while, contrary to previous views, only 3 per cent. were forceps cases. In this connection, I may refer to the recent outcry as to a supposed diminution in the size of "the heads of the people", inferring gradual racial degeneracy. The hatters, however, soon settled the question by pointing out that the saleable sizes of hats had certainly become smaller, but that this was due to the change of fashion, which led to hats being worn on the very top of the head instead of over the ears. Analogy forbids the supposition. Heads are probably still enlarging with increasing mental cultivation, as shown probably also in the increasing difficulty of parturition. We know that the armour of former times is much too small for modern heroes.

Dr. Lebert of Nice and Dr. Ortega have followed up the views of Grisolle, published in 1850, as to the deleterious effects of pregnancy on phthisical females. It is still a popular belief that childbearing arrests pulmonary consumption and improves the health of the mother. Lebert's observations support the view of the aggravation of phthisis by pregnancy, but show that the effects of the labour itself are much more prejudicial to the mother. Of thirty-three phthisical girls who married, ten died in their first labours. Ortega has had ninety-five cases under observation. Of these, only thirteen bore more than one child; more than one-third aborted, or were prematurely confined; only eleven out of sixty-four children were suckled by their mothers, and these soon showed signs of insufficient nutrition, and died. Ortega holds that pregnancy hastens the evolution of phthisis, and that delivery is rapidly followed by the death of the mother. I have no doubt of the correctness of these views, which are pointedly borne out by the Registrar-General's Report for 1879, according to which only two women died of phthisis during pregnancy, while no fewer than two hundred and twenty-two died of phthisis after delivery, not classed as due to accidents of childbirth, or metria. I believe, however, the stage of the disease is an important element; and that marriage, when conception can be avoided, from its stimulus to the nervous and nutritive systems, has a beneficial effect on the general health, and through it on the tendency to pulmonary trouble.

As bearing on the subject of the general prophylaxis of childbirth by the anticipation of parturient difficulties, the investigations of Aschfeld

not the physician for disease. We investigate it in the same spirit that an amateur geologist brings to his problems—as a thing which may agreeably exercise our ingenuity and train our minds, upon which we may perhaps base our reputations, and out of which there may perhaps come some good for mankind. We claim to lay aside our work when we are tired of it, and to vote its too urgent pursuit a bore, forgetting that such investigations are to us a matter of the most urgent professional duty, and to our clients one of life and death.

That I may not seem to loose an unaimed shaft, I will take an example, and it shall be one in which almost the whole of the English profession to some extent is concerned. The museum of the Royal College of Surgeons, the Hunterian Collection, with its fifty years' additions, is without a rival in the world. It is a noble museum, and has been nobly cared for by a succession of curators who have made their names famous in science by work done within its walls. It may seem a bold thing to charge against an institution so foremost, that its arrangements are inadequate to the wants of the present day. Amongst the wants of the medical profession at the present time, and amongst those wants which alone a national museum is fitted to supply, is the fullest possible information respecting the symptoms of disease. It is not enough that we illustrate its final results, that we keep in bottles or otherwise the documents which demonstrate its ultimate conditions: we need a pathology of the living as well as of the dead; and everything that human contrivance can do to elucidate this should be attempted. Here we must mark a huge hiatus in the arrangements of our College. There is little or no attempt to illustrate the effects of either disease or injury in the living, and an exceedingly meagre attempt to show what has been done in reference to instruments for surgical treatment. The modeller's art, of which such beautiful examples from Paris have recently been shown to us in the Congress Museum, is at our College "unknown and like esteemed". I must correct myself; for there is, in a topmost gallery, a small collection of models, the gift of our present president. These, however, are only a little series selected from the magnificent array of similar objects to be seen in the St. Louis Museum at Paris. It is imperfect and ill-shown, and the College makes no effort to add to it. A museum adapted to the wants of the practitioner should supplement the hospital, whenever possible, in the display of the outward characters of disease. Nothing in the whole range of diseases of the eye and skin or other external parts, nothing that a speculum can show, or a modeller delineate, should escape it; the common and the rare should alike be there, and the practitioner should be able to resort to its galleries when in doubt as to diagnosis, or desiring to recapitulate his knowledge, with confidence that he will there see all that can be shown. Nothing less than completeness should be the aim, and from all sources copies should be procured where the original cannot be had—the photographer, the modeller, and the artist being employed without regard to expense.

If a surgeon were now to go to our museum and ask to see models which would help him in the diagnosis of the different forms of chancre, or in the recognition of such sores on unusual parts of the body, I fear that he would be disappointed. He might find an unequalled collection of prehistoric skulls, and the skeleton of a splendid whale, but little or nothing in reference to the practical object of the diagnosis of surgical disease. Yet, in proof that it is possible to give such aid, I again appeal to the St. Louis collection.

Let it not be thought that I speak in disparagement of anthropology or comparative anatomy. It is a proud boast of our profession that its members have been foremost in these pursuits, and long may it be sustained. In their liberal cultivation, we follow the example of the founder of our museum, and keep up its most cherished traditions. But surgery has widened much since Hunter's time, and its special cultivation now asserts claims which did not then exist. And these claims are, I cannot but think, primary in such an institution; and, whatever it leaves undone, it should first attend to the duty, of giving all that it can possibly give to the elucidation of human disease and the means of its relief. I cannot, however, believe that a liberal development in the new direction would necessitate any curtailment in the old. Let but a proper appeal be made to the profession, the public, and the Government, and means would surely be forthcoming which would enable our National Museum of Surgery so to develop itself, that no surgeon should ever spend a day in London without a visit to its collection, and none should pass through its rooms without obtaining information which would be of the utmost value to his patients.

There is yet another kind of museum which is, I think, a desideratum, and which I have no doubt the future will possess: I refer to a museum-hospital, in which living persons, the subjects of chronic and incurable diseases of an unusual kind should be collected and encouraged to remain, with, of course, every attention to their comforts, for long periods; every facility being given [illegible] by all members of the profession. From such hospitals I would wholly exclude common cases, such as are useful, nay essential, in the training of the student, and would collect only those likely to be instructive to advanced practitioners. Each case should be carefully studied by competent authorities, and described in an accessible catalogue. A visit to such an institution would be invaluable to the man engaged in busy general practice, and its growing records would become rich mines of information to the clinical investigator. Rare maladies are not to be regarded as mere objects of scientific curiosity, but should be utilised to the utmost, and made, if practicable, familiar to all; for in them often lies the key to the interpretation of other pathological phenomena which are common enough. Let us cease from dilettanteism, and try to economise our resources. When we do so, surely we shall find that there is a better way of dealing with examples of Myxœdema, of Addison's disease, of Charcot's joints, and Morphœa, than by relegating them to the wards of an union asylum, where they will be seen by none. I mention these merely as examples; there are many others concerning which it is equally true that, if opportunities were afforded for their collection together, under conditions of facility for research and inspection, great help would be given both to medical education and to the progress of clinical knowledge.

I should be very sorry if what I have said, perhaps too plainly, as to what appear to me to be defects in our existing arrangements for the promotion of surgical knowledge, should have left the impression that I am in any degree a dissatisfied complainer. I hope that I yield to none in thankful appreciation of what has been accomplished in the past. But surely the fulness of the harvest which we have been permitted to reap, should prompt us to increased diligence in putting in seed for the next. We have every reason to feel encouraged and hopeful, but let us not allow the sentiment of confidence to lull us into sloth.

The chemist and the empirical seeker after new drugs may, I suppose, share the pleasure which must come from the knowledge of how iodide of potassium has made curable a whole phalanx of maladies before hopeless, and not the less full of misery because often accompanied by the bitterness of self-reproach. The operating surgeon may remember the triumphs of ovariotomy, which has restored in health hundreds of mothers to their families. If we could bring together in one place those who, thanks to the ingenuity and industry of Von Gräfe, have been by iridectomy saved from blindness through glaucoma, and are now enjoying the blessing of sight, they would crowd this large hall, and leave no standing room. The abstruse optical researches of Young, Helmholtz, and Donders have borne fruit in the fact that thousands all over the world, whose sight was comparatively useless, now enjoyed it in almost full perfection. The purely practical man may rejoice in remembering how much Sayre's jacket and Martin's bandage have done, and are daily doing, for the mitigation of suffering and the cure of diseases which rendered life a burden. The application of the germ theory to the treatment of wounds has, I doubt not, had for one of its results, amongst many others, that at the present moment there live, scattered in very distant places, many thousands of able-bodied men, the fathers of families, now earning their children's bread, who but for it would long ago have been in their graves. It is true that we as yet see no hope of a cure for cancer, but the pathological doctrine, which is rapidly gaining ground, that many forms are local, and that the precancerous stage should be vigilantly recognised and vigorously treated, is already saving many from becoming its victims.

A few weeks ago, visiting a renowned cathedral, I found inscribed on its floor at long distances apart, three remarkable words, *Credo*, *Spero*, *Amo*. I am not ignorant of the special meaning which in such association was meant to attach to these words, nor would I now for one moment attempt to employ them in a different sense, if I thought it would give pain to the tenderest conscience in this room. But indeed they are words of the widest bearing, and refer to feelings and attainments which lie at the very basis of all human character. We become what we are, we effect what we do, in virtue of what we love, what we believe, and what we hope. I [illegible] those who work in pursuit of a more intimate knowledge of disease are very liable, a spirit of dilettanteism, a willingness to be contented with half results. For that weakness, the cure rests in the *Amo*. He who intensely loves will sympathise with the miseries which afflict his fellow-men, and will be ever zealous for their relief. Nor will he fail to use every opportunity of becoming familiar with the reality of those miseries, and thus warm his sympathies and increase his love. Next [illegible]

truth? From the *Credo* to the *Spero*, in this instance the step is very easy, for they are almost phases of the same sentiment.

I have just enumerated very briefly a very few of the countless encouragements to hope which those conversant with the history of our profession may easily find in the records of the last half-century. Can any doubt that they are but an earnest of far greater triumphs to come? The work that is before us spreads out in a sort of threefold division. We have to apply in the best practicable manner our present knowledge for the benefit of those around us. We have to do our best to increase that knowledge, and, thirdly, we have to find the best means for transferring it to the new generation which will soon succeed to our duties. Medical practice, the advancement of the knowledge of the nature of disease, and the training of our sons—such are our three great spheres of duty. Some of us work in one, some in another, most of us to some extent in all. Let us all seek to love the great final object at which we aim, to believe in the means which we are employing, and to hope confidently of their results.

ADDRESS IN OBSTETRIC MEDICINE,

BY

J. G. SINCLAIR COGHILL, M.D., F.R.C.P.E.,

Interim Lecturer in Midwifery in the University of Edinburgh; late Lecturer on General Pathology in the Edinburgh Medical School; Hon. Visiting Physician, Royal National Hospital, Ventnor.

In rising to deliver the Address in Obstetric Medicine, I must confess I do so with very mingled feelings. In the first place, let me say how deeply sensible I am of the great honour paid me, and, through me, to my professional brethren in the Isle of Wight, in being invited by the President and Council of our Association to occupy so distinguished a position—one which circumstances, to which I need not further refer, render peculiarly gratifying—one for which I am more indebted to your kindness than to my own merit. This feeling of pleasure, however, is only equalled by the deep sense of responsibility which a duty so onerous necessarily involves—intensified, as it must be, by the recollection of the eminent obstetricians who have addressed you on former occasions. I have been reminded that the first to deliver this address was a provincial physician, the late Dr. Thomas Radford of Manchester, a worthy exponent of the great obstetric traditions of its time-honoured medical school. With affectionate remembrance, I next recall my old master, the great Simpson, who, if not the creator of modern gynæcology, was at least the author of its renaissance. Again: the ancient glories of the Dublin school have been worthily represented before you by the late Dr. Beatty, at Newcastle, in 1869. I cannot forget that you have listened to Dr. Matthews Duncan, whose contributions to obstetric literature are such models of the application of the exact method to the investigation of scientific questions. More recently, at Manchester again, you have been privileged to hear one eminent indeed among us—one who has done so much to extend the principles, and to precise the practice of our art—to rear obstetric pathology on the sound basis of its physiological equivalents, and who has striven so eloquently to elevate obstetric medicine to its true position in the medical sisterhood—I refer to Dr. Robert Barnes.

In seeking for a subject on which to address you, I find myself in a position of some difficulty. I have no great discovery in obstetrics to announce to you; I am unable to indicate any new point of departure in our art; I cannot invite you to tread with me on scientific pastures new. I must, therefore, be content to fill a much more humble *rôle*. Nevertheless, such topics as do suggest themselves are neither wanting in number nor in variety; and they possess that interest which attaches to questions of vital importance, not only to us as physicians, but to humanity at large. In obstetric medicine, there are principles still in process of development, problems yet unsolved, methods not yet determined, mysteries still unravelled, results anticipated but not realised. That the address in obstetric medicine is only delivered at irregular intervals of years, shows plainly enough the position assigned to it in the Medical Trilogy, and seems also to indicate the character which such an address ought to assume. I believe, therefore, I shall most usefully discharge the duty assigned me, if I follow this indication, and give my address to some extent a general character, by directing your attention to a few considerations in connection with the claims, intrinsic and relative, of obstetric medicine to increased recognition and cultivation, and the directions in which its development should be encouraged; and, further, to sketch, in form of retrospect, a few of the principal points of progress which have marked its annals during the past triennium. The rapid advances which obstetric medicine has so recently made, and the corresponding changes in pathological views and modes of treatment, render my task by no means easy. I must, therefore, bespeak your indulgence for the imperfect manner in which it may be accomplished

Obstetric medicine comprehends obstetrics proper, gynæcology, and pædiatrics; such is the terminology which represents our old familiar terms: midwifery, and diseases of women, and diseases of children. These Greek derivatives are cumbersome in form, uncouth in sound, and want the ready ring of household words. I humbly submit that we have been especially unhappy in our nomenclature, and I hope some more than usually scholarly obstetrist will take up the subject for serious reform. If we are to retain these terms, why not use obstetrics as the generic term, and substitute tocology for obstetrics proper or midwifery? I make this suggestion as my little contribution to the much-needed reform. I bear in mind, however, that, in a rapidly advancing science, we must be cautious in changing our nomenclature; for change of name with changing doctrine does not necessarily imply progress.

The tendency of modern medicine to cultivation in a great variety of special branches, although favourable to the attainment of technical skill when such is necessary, is in some respects to be deprecated. It is an inclination apt to interfere with the grand ideal unity of medicine as an art based on general principles, and tends to interrupt the harmonious continuity of its scientific development. Obstetric medicine, however, deals exclusively with the special set of organs and functions which distinguish women only, which dominate in a special manner all their other organic conditions, and which present special phenomena, without parallel even in the other sex. The sexual system in women constitutes, in fact, a true *imperium in imperio*. Its functions are so important, and the phenomena, normal and morbid, which they present, are themselves so intrinsically specific in character, and in the nature of the influences they exert over the other organic systems, as to make their study necessarily a specialty in the widest and best sense of that much-abused term. Special qualifications, mental and physical, are requisite for practice in this wide field. Physical energy and powers of endurance, moral courage, rapidity of thought, and readiness of resource in presence of unexpected difficulties immediately involving human life, are more imperatively demanded in this than in either of the sister branches of the healing art. But the unity of our common profession, as much as the interests of those whose physical health and moral well-being are confided to our care, alike require that the obstetrician, to the culture of the physician and the surgeon, should add something more—the culture of his own special department. The more he qualifies himself in the sister branches, the more thoroughly and scientifically will he cultivate his own; since we cannot arrive at an exact knowledge of the state of any one organ, or organic system, without taking into account the state of all the rest in their absolute and related conditions. The mutual relations, indeed, of obstetrics, medicine, and surgery, are so intimate, that no discovery or progress is possible in one without largely influencing the others. We must ever bear in mind that their special pathologies have a common basis in one general pathology.

Considering that to the vast majority of the profession, especially in the earlier part of their career, when their professional character and status is being made, obstetric practice in its several branches forms the bulk as well as the most anxious and engrossing part of their work, it seems incredible that the provision for teaching gynæcology particularly, both systematic and clinical, in our medical schools and hospitals, should still be so limited and imperfect. The very subjects which will most occupy a man's attention at a time when the character of his work may perchance determine professional success, are, in the course of his education, either made optional or left to chance, while other less essential subjects are forced upon him; and he thus enters on his labours imperfectly prepared, or, it may be, profoundly ignorant of all practical acquaintance with what will form a large share of them. Familiarity with the practice of obstetric and gynæcological details can only be acquired by demonstration. It is very much easier to amputate a limb or to pass a catheter, from a description of these operations read out of a book, than to determine the nature of an uterine flexion by means of the sound, or to get a good view of the cervix by means of the speculum. A gynæcological clinique, with ample service, should be established in connection with all our hospitals; and this is the more necessary, that the opportunity for such technical instruction afforded by the old system of apprenticeship is much less freely taken advantage of in the present day. The marked progress of obstetric medicine in America, and its splendid achievements, are no doubt due to some extent to the absence of old-world traditions, but much more to the full recognition

the puerperal penalty paid. We are apt to forget the fate of too many of the survivors, who leave the lying-in chamber for the last time, physically disabled, and incapable of again discharging the great function of womanhood. It was my intention to have referred in some detail to the antiseptic measures already adopted in some of the great maternity hospitals abroad; for instance, those carried out with such distinguished success by Professor von Weber in the great Landes Gebäranstalt in Prague, where the death-rate has been actually reduced to .36 per cent. But the inexorable hand of time warns me to turn to another part of my subject.

We shall now, gentlemen, turn our attention for a short space to the subject of gynæcology.

From their greater organic mobility, women react much more than men to their environment. They are more affected physically by the conditions under which they live; and in no respect are the continuous influences of civilised life more apparent than in the effect they have had of modifying or disturbing the sexual functions in women, and so increasing their morbid liabilities. The higher the civilisation, the more delicate the human product, seems to be a law of social development. The diseases of women naturally arrange themselves round the two great distinguishing functions of their sex. We have one group characterised by disturbances of the function of menstruation, accompanied by, or dependent upon, organic changes in the ovaries, in which the essential phenomena of ovulation are initiated, or in the uterine mucous membrane where they are principally manifested. Another group consist of morbid conditions arising in connection with the reproductive function—conception, pregnancy, parturition. All healthy women living in normal conjugal relations during the greater part of the period of menstrual activity should bear children. It follows, therefore, that, when this has not occurred, or when child-bearing is suspended, morbid conditions, either original or acquired, are present in the sexual apparatus. A heavy puerperal mortality, as I have elsewhere shown, is but part of the penalty the gentler sex pay for the precarious privileges of maternity. Far too many of them rise from the perils of childbed crippled in health and sexually disabled, perhaps for ever. In how many families do parental anxieties centre round an only child?

The diseases of women form so numerous and important a class, that even if we are not, as physicians and surgeons, called upon to treat them ourselves, yet we ought to be able to recognise them, if only to exclude them as powerful factors in other ailments. Gynæcology is a comparatively modern study. There is no department of medicine in which so much remains to be done, notwithstanding what has already been accomplished within the comparatively short time since its revival. This progress, however, unfortunately, has been much more rapid than satisfactory. Perhaps in this respect it has only reflected the character of every new and rapidly extending branch of knowledge. In none has progress been so much from the side of experiment and empiricism. The pathology of uterine affections is still obscure, and requires further investigation as a basis for more and greater precision in treatment. The physiology even of the genital apparatus in women is still capable of much elucidation. No class of diseases present themselves in such protean shapes, obscuring diagnosis and baffling ordinary treatment, as those which engage the attention of the obstetric physician. They are indeterminate in form and progress; they run no regular course; they are very rarely uncomplicated; and in nearly all of them there are neurotic elements which add vastly to the difficulties of the situation. The progress of gynæcology so far has been marked by distinct periods of development, which unfortunately correspond less to advances in physiology and pathology, than to the application of new means of physical investigation and the introduction of therapeutic novelties largely mechanical in character. The progress which might have resulted from these experiments in diagnosis and therapeutic resources has been greatly retarded by too hasty generalisation from isolated and imperfectly observed and recorded facts; hence, narrow views, erroneous theory, and empirical practice, if not worse, have followed one another in a sequence which would be amusing were it not very serious in some of its aspects. The memory of this generation is carried back to an almost prehistoric time, as far as gynæcology is concerned, when diseases of the womb were either altogether ignored or held to be beyond the province of legitimate medicine. The period when the importance of uterine disease began to dawn was yet one of darkness. Prolapsus and leucorrhœa were the presiding pathological conditions; vaginal plugs and injections composed the therapeutics. Next came the speculum or ocular period, disclosing inflammations and ulcerations of the cervix, with caustics and scarifications as their treatment. Then came the distinction—anatomical, physiological, and pathological—between the cervix and body of the uterus, developing intra-uterine medication, to the extent even of pyrotechnics in the form of a sound at a red heat. The uterine sound inaugurated a new era, that of mechanics in uterine pathology and treatment. All ailments were obscured in versions and flexions of the womb, which mechanical appliances could alone relieve and cure. The cervix again became the object of attention. Dysmenorrhœa and sterility were referred to peculiarities in its configuration and to stricture of its canal, which could only be removed by slitting it up. Next the clitoris, as the subject of clitoridectomy, to cure certain reflex troubles, had fortunately only a brief inglorious reign. The ovaries, in turn, long credited with the highest pathological honours, are now apparently doomed to general extirpation unless they ceased to trouble. The female perinæum also, always an object of solicitude to obstetricians, has quite recently been elevated by certain American gynæcologists into a position of eminence in relation to the causation of uterine difficulties, displacements, and such like, almost as great as that accorded by another school to the cervix uteri; indeed, lacerations of the former are made to share with lacerations of the latter in all the pathological honours. According to this school, "the perineal body is a great factor in co-ordinating all the parts within the pelvic cavity". An old acquaintance has again turned up with a new face, in the lacerated puerperal cervix, which, to use the words of one of the latest authorities, "should be stitched up, however slight the laceration". A distinguished American gynæcologist, writing me lately about sundry professional matters in his department, says, in characteristic style, with reference to this procedure and that of oöphorectomy: "Battey's operation is a formidable one, and rarely resorted to as compared with the trifling one of sewing up a lacerated cervix uteri, which seems greatly to occupy some American gynæcologists at present. The frequency of this operation by some has been equalled, in our day, only by the frequency with which the cervix used to be slit as a cure-all. The field is a wide one, and I daresay many old slits will be repaired. Our great master, Simpson, has left behind him a few. The pendulum swings. Time alone will bring the verdict. We are too near the period to speak plainly and judge intelligently about it." The lesson to be learned from all this is, that scientific method has been faulty or wanting, our art has been advancing experimentally in narrow grooves, without unity or comprehensiveness of design, our observations have been partial, and our treatment speculative where not empirical. In fact, our therapeutics have had no foundation in sound pathology. Improved methods of investigation, and refinements in physical diagnosis, have had, unfortunately, the effect of drawing attention from general conditions, in which a large proportion of local troubles have their origin. They have elevated into importance objective symptoms at the expense of subjective. Objective symptoms have the merit of accessibility and exactness; they are easily recorded and readily compared. They are, in a word, more definite. Subjective symptoms ought not, however, to be ignored. They afford information and evidence of changes experienced and felt by the patient preceding those capable of objective recognition. We should not forget that all the knowledge that constitutes the inheritance of modern medicine was thus alone derived. This exclusive study of objective symptoms has undoubtedly had a most injurious effect on the dignity, character, and progress of gynæcology. There has been far too great attention paid to local treatment. The use of instruments for diagnosis and treatment, and direct personal medication, have been greatly overdone. The *nimia diligentia* has been too rampant. I cannot help recalling to your mind the remark of the late Sir John Forbes, in his classic work on [illegible], about "over-active perturbative treatment and mischievous polypharmacy". I am not sure that many of us are [illegible] the effort that is necessary to enable a virtuous, or indeed any woman, to submit to the painful ordeal of local examination and manipulation, or the gradual deterioration of delicacy which in too many its frequent repetition tends to accomplish. When I read of a gynæcologist who states that he has made a vaginal examination by speculum "almost daily for two years", I cannot help thinking that the moral deterioration has extended also [illegible]. When we read of an uterine sound being used with such force as to bend it, we remember that it should not be used with much more force than necessary to pass a catheter into a male bladder. Another gynæcologist recommends the approximate determination of the volume and shape of the uterus being ascertained by [illegible]. Another recommends [illegible] dilatation, to be passed through the speculum! I cannot do better than quote, in this connection, [illegible] medical journals from the editorial pen, under the title of Uterine Therapeutics. "There are few things more characteristic of an untutored intellect than the propensity to 'discover' unlooked-for and startling phenomena as associated with common [illegible] trivial causes.

Speaking generally, it is a case in which either the intelligence or the veracity is open to the gravest suspicion. That a pernicious and demoralising amount of interference with the genital apparatus of females is chargeable against certain practitioners is likewise a proposition, to the truth of which, we are sorry to believe, assent will be accorded by the best men in the ranks of the profession." I trust I shall not be misunderstood in thus expressing myself. I do so, because I feel keenly all that concerns the dignity of that department of medicine with which I have identified myself. As I have said on a previous occasion, I deprecate in the strongest terms the *nimia diligentia* in the treatment of uterine diseases generally. I am strongly of opinion that an endeavour should always be made in the first place to correct the local trouble by treatment directed to correct the general health when affected, and only when this unaided has failed, should local treatment involving manual or operative interference with the parts be attempted. Generally speaking, the speculum should never be used, unless local medication, first by the patient herself, have failed to arrest the abnormal discharges and relieve the local symptoms. The sound should never be introduced unless there be presumptive evidence of uterine flexion, displacement, subinvolution, or the reverse. And, finally, let me say, mechanical treatment of every kind should certainly be withheld in all cases, until relief by rest, position, and local medication has failed to be afforded. The diagnosis in all cases should be inductive—under no circumstances either speculative or experimental.

Time will not admit of my doing more, before leaving the subject of gynæcology, than referring very briefly to one or two of the more recent contributions to the science and art of gynæcology. One of the most valuable is Dr. Hart's (of Edinburgh) investigations into the anatomy of the pelvis and its contents. They shed most valuable light on the physical relations of the uterus and its appendages, especially with reference to the mechanism by which it is supported and maintained *in situ*, and its bearings on displacement of that organ. He shows that the womb is more dependent on the support of the pubic and sacral oblique planes of the pelvic fasciæ, which form a true pelvic floor, than on its so-called ligaments. Prolapsus is caused by the pubic portion slipping past the sacral portion. The pubic layer is triangular, and has comparatively loose attachments, and the uterus lies anteverted (inclined forward) on it. The sacral layer is quadrilateral in outline, and has strong bony attachments. Prolapsus is caused not so much by the weight of the uterus, as by laceration or thinning of the anterior edge of the sacral layer, the plane allowing the relaxed pubic segment to slip past. Increased weight of the uterus does not initiate the movement, but must of course exaggerate it. There are three primary factors in the movement, viz. : (*a*) loss of apposition of the pubic and sacral portions, in most cases started by perineal laceration ; (*b*) loss of "tone" in the anterior triangle or pubic plane ; (*c*) intra-abdominal pressure. It is on such a basis as this that a system of mechanical therapeutics should be founded.

It has been remarked that the tendency of gynæcology is becoming more and more surgical. Indeed, the operations with which the names of Spencer Wells and Thomas Keith are so gloriously identified must be regarded as common ground. It is not so very long since the operation of ovariotomy was pronounced by the unanimous voice of the profession practically as well as theoretically justifiable. The same question can hardly yet be answered in the affirmative with reference to the operation first introduced in America by Dr. Battey, of Rome, Georgia, under the name of Normal Ovariotomy or Oöphorectomy, as a remedy for neurasthenic and other troubles having their origin in ovarian irritation. It has since been extensively repeated in America, on the Continent, and in this country. Call the result what they may, "simply reaching the climacteric earlier than usual", "attaining premature sexual senescence", or "anticipating menstrual senescence", it is a grave matter under any circumstances literally to unsex a woman by an operation dangerous to life, which may even fail to relieve, for what, as far as can be ascertained, is a purely functional derangement. Nothing but conditions immediately threatening life or reason can justify such a proceeding, the necessity for which must always constitute an opprobium in our art. It seems to me that the systematic treatment of neurasthenic disorders practised with such success by Dr. Weir Mitchell of Philadelphia, and recently brought to the notice of the profession by Professor Playfair with such a corroborative record of success, offers an alternative to Battey's operation of the most promising kind. Dr. Weir Mitchell's book was brought to me about four years ago by a lady whose sister had been restored to health under the treatment. Skilled nursing is the great difficulty in connection with carrying out the system successfully.

The operation introduced in America, by Dr. Emmett, of stitching up lacerations of the cervix uteri, has already gained extensive acceptance on the Continent. This accident is alleged to cause eversions of the os uteri, endometritis, leucorrhœa, sterility, abortion, to disturb involution, and to prevent the cure of displacements and flexions of the womb. Verily, a grave catalogue! This accident must certainly be more frequent in its occurrence and more serious in its effects elsewhere than in this country. Dr. Pallen of New York says he has operated on nine hundred cases in six years, in only two hundred of which, however, was there interference with the generative functions, or other symptoms produced. It is very rare to find a multiparous cervix in any other than a dilapidated condition with more or less laceration. I have often found, as no doubt all of you have, a hard fissure on one or other side of the cervix causing pain on pressure, but at once relieved by free scarification, as one would treat a rectal or other fissure.

The name of Dr. Emmett is also associated with another most valuable but very much simpler contribution to uterine therapeutics, in what is known as the "hot vaginal douche". Of this, Dr. Dudley of Chicago says, "in uterine therapeutics, the value of the hot-water douche is perhaps greater than that of all other topical applications combined"; and I heartily endorse the opinion. It should be used as hot as can be borne for twenty to thirty minutes at a time. It can be tolerated comfortably by the vagina at a temperature which the hand cannot bear. It acts by first dilating the arterioles, followed by the tonic result of contraction, which continues for some time. The mucous membrane becomes blanched, the calibre of the vagina diminished, and the surfaces astringed. The whole pelvic circulation is thus influenced and relieved through the vagina. It has also secondarily the valuable effect of removing the restlessness and insomnia of nervous women. Drs. Windelband of Vienna and Lombe Atthill of Dublin recommend it in *post partum* hæmorrhage.

My last reference is to the diseases of children, and it must necessarily be a very brief one.

The association of the diseases of women and children is entirely conventional. There is no essential relation between them. The diseases of children constitute in themselves an entirely new and independent departure from the domain of general pathology. The subjects embraced under the general term pædiatrics form a group so characteristic and interrelated, and otherwise so distinct from either obstetrics or gynæcology, that they merit separate treatment. I trust the time is not far distant when they will attain the dignity of a separate section at our annual meetings. In the meantime, it will be impossible for me to do more than reiterate the assertion of their claims to independent consideration. I would, however, draw your attention for a moment to what I believe to be one of the most interesting aspects of children's diseases. It is their constitutional nature as derived by inheritance. The prevention of disease is now wisely held to be the highest object of medical science, and at no period of life is it so easy to interrupt the hereditary sequence of morbid influences, and prevent their subsequent development. A large proportion of the diseases of adult life result from the environment of the individual, his habits as regards food, stimulants, and exercise, unequal strain on the organic system, the effects of the complex and anomalous conditions of civilised life, in addition to those from specific infections, and other essentially morbid influences. But these conditions not only affect the individuals immediately exposed to them, developing types of humanity more or less physically retrograde, but they produce in the offspring marked diathetic states from their transmission. We accordingly, in infancy, meet with numerous temperamental developments, and diatheses of hereditary origin. They give a distinct complexion to, and largely influence, the character and progress of acquired disease. We are also called upon to treat their corresponding cachexiæ or characteristic morbid developments, which constitute in themselves so many distinct morbid entities or diseases. To a great extent, fortunately, many of these inherited diatheses and their cachexiæ are capable of cure, and all of them of amelioration. The vegetative activity and developmental mobility of youth lend themselves readily to the influences —hygienic, nutritive, and therapeutic—which may be skilfully brought to bear upon them. It is impossible to overestimate the importance of these considerations in relation to the pathology and therapeutics of children's diseases. They certainly have not met with that recognition to which their pathological value entitles them, and I refer to them merely to point out what a field there is here presented to the student of pædiatrics for independent and original research.

BACTERIA.—A Boston professor said, after a late lecture, to one of his class : "The views in regard to bacteria are now so conflicting that I do not understand them." "Why, Professor," said the student, "*that is what we all say.*"

of Leipsig on craniometry are extremely interesting. Aschfeld has ascertained the size of the child *in utero* in two hundred and fifty cases, by applying one limb of Baudelocque's pelvimeter to the occiput *per vaginam*, and the other to the breech as outlined in the contracted fundus externally. In one most important series of observations, he gives the exact relative proportions between the length of the child and the two transverse diameters of the head. I have no doubt that pelvimetry with craniometry are destined to become important elements of scientific obstetric management. Attention also has again been drawn to the facility (first pointed out especially by Wiegand) with which the position of the fœtus and the point of placental insertion can be determined by examination through the maternal walls, and its position rectified, if need be, by external manipulation before and even during labour. Lobat, who has more recently devoted attention to this matter, lays down the following points. 1. Version by external manipulation is possible in certain cases during labour. 2. When the position of the fœtus is transverse, and the placenta is inserted near the os uteri, cephalic version by external manipulation renders the hæmorrhage less severe. 3. When cephalic version is impossible, pelvic version should be resorted to. 4. Dr. Pinard's eutocic bandage is not always necessary to retain the changed fœtal attitude. This is a modified form of binder to retain the head on the brim after version. A head-presentation may thus be secured weeks before delivery.

The intense interest taken by the profession in the discussions on *post partum* hæmorrhage, in the Association Meeting of 1879; and on the forceps, at the Obstetrical Society of London more recently, shows how earnestly attention is devoted to questions bearing so directly on the safety and expedition of labour. The great debate on the forceps, in the Obstetrical Society, must be regarded as one of the most valuable contributions to practical midwifery of our time. Dr. Barnes, in his able opening, stated the advantages of the forceps over its alternatives, ergot, turning, and craniotomy, and formulated the conditions or indications for its employment in a manner that the subsequent discussion only tended to confirm. The statistics brought forward on that occasion show what influence on human life changes in choice of means and times for interference may exert. Collins performed craniotomy in one out of 211 cases, and used forceps in one in 607; Ramsbottom performed craniotomy once in 802 cases, and used forceps once in 670; Dr. Robert Lee, up to 1863, performed craniotomy in 116, and used forceps in 53 cases only. Contrast this with the other extreme of Johnston, who performed craniotomy in the proportion of one in 231, and delivered with forceps one in 10½! This experience is a perfect demonstration of a true method erroneously applied, for the resulting mortality more than neutralised the conservative intention of his method.

In connection with operative midwifery I must refer to the latest addition to the already formidable obstetric armamentarium—the basilyst, invented by my old friend, Professor Alexander Simpson, of Edinburgh. It is constructed on the principle of a terebrator, and designed by a combined perforating and cutting action to break up the base of the skull as a substitute for the cephalotribe, the cranioclast, or the perforator and crotchet. It is declared by its author to be for this purpose *the* instrument of the future.

I would now direct your attention to the subject of *post partum* hæmorrhage, and rather in relation to its prophylaxis than to its treatment. It is, as we well know, one of the gravest of parturient contingencies, whether regarded with reference to immediate danger to life, or to its more remote effects as a starting point of subsequent pathological conditions. I doubt much whether this last aspect of the results of *post partum* hæmorrhage has received adequate recognition at the hands of gynæcologists. In 1876 it was computed that 1,038 lives were lost from this cause; in 1879 the Registrar-General's Report gives 497 deaths from flooding, by far the largest item under the head "Child-birth," but there were 206 deaths from placenta prævia, 39 from retained placenta, 58 from abortion, and 49 from miscarriage. That this form of hæmorrhage is a largely preventable occurrence, is now very generally acknowledged. In the discussion on the subject, at the meeting in Cork, Dr. More Madden expressed the opinion that "with the advancement of our art such cases had gradually become less frequent, and would probably be altogether unknown in the more perfect obstetric practice of the future." In a large experience, both in hospital and private practice, he had seen only two fatal cases. Dr. Fleetwood Churchill, in 2,547 cases in his private practice, has "never known hæmorrhage to occur when firm grasping was applied to the uterus immediately after the child was born, causing it to contract rapidly and expel the placenta into the vagina"; thus in twenty years he "never had to extract the placenta by hand". I have found also from my own experience, now stretching over more than a quarter of a century, that *post partum* hæmorrhage is largely, if not entirely, preventable in otherwise normal labour, and also that, under ordinary circumstances, the smaller the amount of puerperal loss, the quicker and more satisfactory the convalescence. My attention, indeed, has been much drawn to this subject, because eight of the most active years of my professional life were spent in an eastern subtropical climate where this accident was extremely common and fatal to European women. It has been well remarked in relation to *post partum* hæmorrhage, that where labour is conscientiously and intelligently supervised such cases should be few. As Dr. Farr puts it, "The mother's lives lost are at their most valuable age, and skill can do more here in averting danger and death than in other operations". The prophylaxis, however, should be remote as well as immediate. The incidence of this form of flooding, in nearly every case, depends on the management of the second and third stages of labour; but the preventive measures should commence long before its occurrence is imminent. The management of the labour itself is only one part of the prophylactic scheme. The predisposing conditions very often present themselves during pregnancy, and their treatment should form part of a general training of the system to prepare the mother for the approaching ordeal of parturition. These predisposing causes exist in the opposite general states of plethora and of anæmia. In the first-named, the hyperæmia incidental to pregnancy is exaggerated, and the extreme vascular tension resulting supplies the necessary condition. On the other hand, in the anæmic state the uterine muscle partakes of the general malnutrition and consequent want of tone, and, readily exhausted by the parturient efforts, it refuses to contract after delivery and close the placental vascular orifices. I know no condition which illustrates more thoroughly the influence of the luxurious habits of civilised life in giving a morbific liability to a normal process, than in the instance of *post partum* hæmorrhage; nor one in which the indications both for prevention and treatment are more plainly afforded by the study of natural conditions and processes. In the carefully recorded practice of Dr. Swayne, of Bristol, he states 3½ per cent. of his *post partum* hæmorrhage cases occurred among poor, and 6 per cent. among rich patients. These observations on the prophylaxis of *post partum* hæmorrhage, which I have selected as the largest mortality item and the type of the preventable accidents of child-birth, lead us fitly to the consideration of the subject in this connection, above all others of most importance to us and to humanity—viz., general puerperal prophylaxis. The scientific development of surgery is conservative, that of medicine preventive, that of obstetrics ought to and must obey the same law. The question of puerperal fever, or septicæmia, is one of the most urgent that suggests itself in the whole range of obstetrics; it is the great source of death in child-bed. It results from septic influences operating from within or from without, and therefore largely preventable in the light of modern antiseptic treatment. I say largely, because puerperal circumstances present, so far, inseparable difficulties in the way of complete antiseptic precautions. It would not suffice, as has been suggested by an enthusiastic disciple of Lister, to arrange for "the nebulous carbolic reception of the new-born babe", nor would puerperal safety be secured by using an antiseptic apron extending from the umbilicus to the knees of the puerpera.

To show the importance of this subject, I would invite you to consider with me the value we are to attach to the statistics, from which we derive our information as to the extent and variation in the rate of puerperal mortality, and endeavour to ascertain what light they throw on the subject.

Parturition may be physiological in design, but in general result the combined influences of civilised life have unquestionably rendered it largely pathological. As Dr. Edis well puts it: "In the present state of obstetric science, a certain number of deaths from divers causes are inevitable"; but "we must bear in mind we are not dealing with the data of some mysterious disease that baffles our art and bids defiance to our efforts, but with the records of what should be the performance of a mere physiological function". When we reflect for a moment on the number of women who are delivered annually in this country, on the significant proportion of them to whom that event is fatal; when we consider the delicate balance there is between the healthy and morbid aspects of the process, we cannot fail to be struck with the vast influence which even the apparently most insignificant precautions may exert over the result, and the urgent call there is for inquiry into the causes of this enormous mortality, and the possible means of its diminution. If self-preservation is the first law of nature, surely our first duty is to inquire what is the extent of the mortality of child-bearing, and what are the means available for [illegible] The amount of puerperal mortality must be taken as the measure of progress [illegible] the balance to

credit is of the success of a commercial undertaking. According to Merriman's [illegible]

For the [illegible] 1 in 44 [illegible] delivered died.

..	..	17[illegible] 1 in 50	.. ,,
..	..	1720, 1 in 60	.. ,,
..	..	1741, 1 in 71	.. ,,
..	..	[illegible] 1 in 77	.. ,,
,,	,,	1780, 1 in 82	,, ,,
,,	,,	1800, 1 in 100	,, ,,
,,	,,	1820, 1 in 107	,, ,,

In 187[illegible] the Registrar-General's [illegible], it was only 1 in 353. The vital statistics furnished by the State are more valuable in relation to midwifery than to medicine or surgery. The number of registered births fairly represent the number of deliveries, and the maternal deaths the ratio of mortality. With respect to medical and surgical cases, we only learn from the returns how many die from a particular disease, or after a certain operation, but we do not learn the number of cases of which these are the results. These two departments of medicine, therefore, are incapable, approximately even, much less exactly, of estimating the success or failure of treatment.

The phenomena of disease are so unstable and complicated in themselves, and are so susceptible of variation from a variety of influences, that the numerical method as applied to the elucidation of medical problems, in the form of so-called vital statistics, is open to many inherent sources of fallacy. It is impossible, for the most part, to get that accuracy and equality of observation which is requisite with reference to each particular event of the aggregate numerical expression or total. It is quite otherwise in the domain of physical science. The numerical as a subordinate instrument of the inductive method has a great fascination for a particular order of minds; and, if employed with preconceived views, the figures, by some mysterious process of unconscious cerebration, seem to lend themselves, or are at least capable of being so adapted, as to appear to establish the desired doctrine. The profession has more than once seen two able statists arrive at diametrically opposite views from the use of the same body of figures, while a third party has stepped forward and declared himself satisfied that both numerical arrangements supported yet another proposition! In such cases, the true facts lie between the extremes. It has been said by a distinguished political economist that you can prove anything with the same figures. Still, however, according to another great authority on the subject, "statistics do offer a test by which the impressions of unrecorded and limited experience are corrected".

The puerperal statistics published by the Registrar-General, as at present available, are only unfortunately of comparative value. They do not furnish sufficiently absolute data from which to deduce inferences for purposes of exact comparison. They are hence open to the various sources of fallacy notoriously inherent in the purely numerical method of investigation. In the first place, we have no information that all the puerperal convalescences from which the fatal cases were recorded were an equal or sufficient time under the observation of the reporters. Next, the information is derived from returns furnished by medical men, and also by midwives; the relative number of each employed can only be roughly computed at one-third of the former, and two-thirds of the latter. It is evident that the materials furnished by these two widely different classes of reporters will be of correspondingly different degrees of reliability, more especially when we have the discrimination of the two great divisions of puerperal mortality, viz., metria and accidents of childbirth, left entirely to their discretion. Another source of fallacy arises from the opprobrium which notoriously attaches to the accoucheur or midwife in puerperal cases of unfortunate issue. Obstetric human nature must be very different from the ordinary variety if it is unable to resist, even unconsciously, the instinctive tendency there is to refer the result to causes other than that with which it is really concerned. Again, with the spread of education and intelligence among the laity, registration has been year by year becoming more efficiently carried out; and, at the same time, increasing professional knowledge and efficiency, while diminishing the absolute amount of puerperal mortality, are leading steadily towards a more exact recognition of its nature, and consequently of its fuller registration. To illustrate this last proposition, I might refer to the Registrar-General's Abstract, where we find that deaths registered under the head of "Causes ill-defined or not specified" have fallen steadily from 9,687 in 1852, to 1,329 in 1879. Absolute identity of the observations tabulated is as essential to the value of statistics for scientific purposes as the capacity and trustworthiness of the reporters. If we are to compare different sets of puerperal mortality statistics, we must see that the items stated are reported and observed under the identical conditions. One of the most important of these is, as I have already remarked, that the whole puerperal convalescence has been under observation for the same given period. This, however, is by no means the case even in those collected from lying-in hospitals; certainly it is not the case in the out-door practice of maternity charities, and still less in those furnished to the Registrar-General. The conclusion, therefore, is forced on us that these various classes of puerperal statistics can only be used each separately for comparison of its own data from year to year; and that, while the Registrar-General's reports are in themselves interesting, and afford material for general comparison, they do not supply such an accurate, detailed, definite, and uniformly derived body of facts as will serve for the basis of a scientific inquiry, such as is desiderated for our purpose.

The endeavour to ascertain by statistics what might be considered a conventional standard or reasonable rate of puerperal mortality has been made from time to time by some of our greatest obstetric authorities; but the results are imperfect, and, from their wide range of difference, unsatisfactory. Dr. Farr estimates it at 1 in 190; Dr. Matthews Duncan, at 1 in 120 to 100; Dr. McClintock, at 1 in 105. These calculations, however, are based on very unequal data. They include the result of practice in lying-in hospitals, out-door maternity charities, and private practice both at home and in the colonies, besides the practice of obstetric and gynæcological specialists, which necessarily include elements of special morbility. This was evidently and notoriously the case in Simpson's practice, which showed a mortality of 1 in 50. In order to obtain a true standard ratio, which shall be an attainable ideal, we should take the experience of a sufficient number of men in general class practice, partly urban and partly rural, in this country alone. With this view, then, I have collated the last eight lists of consecutive cases of this character, without selection, which have been published in the *Lancet* and BRITISH MEDICAL JOURNAL.

Dr. Cooper R[illegible]	[illegible] cases, 2 deaths,	= 1 in [illegible]
Mr. George R[illegible]	[illegible] cases, 1 deaths (1 non-puerperal),	= 1 in [illegible]
Mr. G[illegible]	[illegible] deaths,	= 1 in [illegible]
Dr. W[illegible]	[illegible] deaths,	= 1 in [illegible]
Dr. Newham	[illegible] cases, [illegible] deaths (1 non-puerperal),	= 1 in [illegible]
Dr. Sawyer	[illegible] cases, 3 deaths (1 non-puerperal),	= 1 in [illegible]
Dr. H[illegible]	[illegible] cases, 4 deaths (2 non-puerperal),	= 1 in [illegible]
Mr. Plaster	[illegible] cases, 4 deaths (2 non-puerperal),	= 1 in [illegible]
	16,022 cases, 47 deaths (15 non-puerperal),	= 1 in 340.9

The total number of cases is 16,022, with 47 deaths, or a mortality equal to 1 in 340.9; or, deducting the 15 deaths from non-puerperal causes, a mortality of 1 in 500.6—say 500. This I take to be a fair standard of death in childbed under the best average conditions on the part of the locality, of the patient, and of the attendant. The inference I draw from the comparison between this ratio and all less favourable, is that the difference between them represents the amount of preventable mortality. I cannot better illustrate this proposition than by pointing out the difference between the puerperal mortality of the nearly equal populations of London, and the North-west of England Registration Districts. In the former, for the year 1879, it amounted to 372 only, while in the latter it was 687. In this same year, if the puerperal mortality of London were in proportion to that of England and Wales, it would have amounted to 496.4, instead of 372 as stated. According to the Registrar-General's Report, the average puerperal mortality for the 33 years from 1847 to 1879 inclusive, was at the rate of 4.9 per 100 of births registered, which is a rate of 1 in 244. The maximum rate was, in 1874, 6.9 per 1000, or 1 in 143; the minimum in 1874, 3.7 per 1000, or 1 in 271. In 1873, the year preceding the maximum, it was 1 in 200. In 1874, there were 1,644 more deaths registered under the head "Metria" than in 1879—the full numbers being 3,108 and 1,644, or 132 and 58 per 1,000,000 respectively. It is most satisfactory to note that the death-rate in childbed has steadily decreased during the five years including and following

1874—when it was		6.9	per 1000
1875—	,,	6	,,
1876—	,,	4.7	,,
1877—	,,	3.9	,,
1878—	,,	3.7	,,

In 1879, it had risen to 3.8 per 1000, or 1 in 268; but this slight fluctuation detracts very slightly from this satisfactory record.

The figures which have just engaged our attention speak plainly enough. They show what amount of change for the better is taking place year by year in the bill of puerperal mortality; they also show what can be done. This mortality has two great sources indicated in the Registrar-General's headings, viz., "Childbirth", and Metria. The former is largely preventable by increased attention and skill on the part of the attendant; the latter by the adoption of those antiseptic precautions with which modern science has already accomplished so much. We must remember that the heavy death-rate is only part of

the puerperal penalty paid. We are apt to forget the fate of too many of the survivors, who leave the lying-in chamber for the last time, physically disabled, and incapable of again discharging the great function of womanhood. It was my intention to have referred in some detail to the antiseptic measures already adopted in some of the great maternity hospitals abroad; for instance, those carried out with such distinguished success by Professor von Weber in the great Landes Gebäranstalt in Prague, where the death-rate has been actually reduced to .36 per cent. But the inexorable hand of time warns me to turn to another part of my subject.

We shall now, gentlemen, turn our attention for a short space to the subject of gynæcology.

From their greater organic mobility, women react much more than men to their environment. They are more affected physically by the conditions under which they live; and in no respect are the continuous influences of civilised life more apparent than in the effect they have had of modifying or disturbing the sexual functions in women, and so increasing their morbid liabilities. The higher the civilisation, the more delicate the human product, seems to be a law of social development. The diseases of women naturally arrange themselves round the two great distinguishing functions of their sex. We have one group characterised by disturbances of the function of menstruation, accompanied by, or dependent upon, organic changes in the ovaries, in which the essential phenomena of ovulation are initiated, or in the uterine mucous membrane where they are principally manifested. Another group consist of morbid conditions arising in connection with the reproductive function—conception, pregnancy, parturition. All healthy women living in normal conjugal relations during the greater part of the period of menstrual activity should bear children. It follows, therefore, that, when this has not occurred, or when child-bearing is suspended, morbid conditions, either original or acquired, are present in the sexual apparatus. A heavy puerperal mortality, as I have elsewhere shown, is but part of the penalty the gentler sex pay for the precarious privileges of maternity. Far too many of them rise from the perils of childbed crippled in health and sexually disabled, perhaps for ever. In how many families do parental anxieties centre round an only child?

The diseases of women form so numerous and important a class, that even if we are not, as physicians and surgeons, called upon to treat them ourselves, yet we ought to be able to recognise them, if only to exclude them as powerful factors in other ailments. Gynæcology is a comparatively modern study. There is no department of medicine in which so much remains to be done, notwithstanding what has already been accomplished within the comparatively short time since its revival. This progress, however, unfortunately, has been much more rapid than satisfactory. Perhaps in this respect it has only reflected the character of every new and rapidly extending branch of knowledge. In none has progress been so much from the side of experiment and empiricism. The pathology of uterine affections is still obscure, and requires further investigation as a basis for more and greater precision in treatment. The physiology even of the genital apparatus in women is still capable of much elucidation. No class of diseases present themselves in such protean shapes, obscuring diagnosis and baffling ordinary treatment, as those which engage the attention of the obstetric physician. They are indeterminate in form and progress; they run no regular course; they are very rarely uncomplicated; and in nearly all of them there are neurotic elements which add vastly to the difficulties of the situation. The progress of gynæcology so far has been marked by distinct periods of development, which unfortunately correspond less to advances in physiology and pathology, than to the application of new means of physical investigation and the introduction of therapeutic novelties largely mechanical in character. The progress which might have resulted from these experiments in diagnosis and therapeutic resources has been greatly retarded by too hasty generalisation from isolated and imperfectly observed and recorded facts; hence, narrow views, erroneous theory, and empirical practice, if not worse, have followed one another in a sequence which would be amusing were it not very serious in some of its aspects. The memory of this generation is carried back to an almost prehistoric time, as far as gynæcology is concerned, when diseases of the womb were either altogether ignored or held to be beyond the province of legitimate medicine. The period when the importance of uterine disease began to dawn was yet one of darkness. Prolapsus and leucorrhœa were the presiding pathological conditions; vaginal plugs and injections composed the therapeutics. Next came the speculum or ocular period, disclosing inflammations and ulcerations of the cervix, with caustics and scarifications as their treatment. Then came the distinction—anatomical, physiological, and pathological—between the cervix and body of the uterus, developing intra-uterine medication, to the extent even of pyrotechnics in the form of a sound at a red heat. The uterine sound inaugurated a new era, that of mechanics in uterine pathology and treatment. All ailments were obscured in versions and flexions of the womb, which mechanical appliances could alone relieve and cure. The cervix again became the object of attention. Dysmenorrhœa and sterility were referred to peculiarities in its configuration and to stricture of its canal, which could only be removed by slitting it up. Next the clitoris, as the subject of clitoridectomy, to cure certain reflex troubles, had fortunately only a brief inglorious reign. The ovaries, in turn, long credited with the highest pathological honours, are now apparently doomed to general extirpation unless they ceased to trouble. The female perinæum also, always an object of solicitude to obstetricians, has quite recently been elevated by certain American gynæcologists into a position of eminence in relation to the causation of uterine difficulties, displacements, and such like, almost as great as that accorded by another school to the cervix uteri; indeed, lacerations of the former are made to share with lacerations of the latter in all the pathological honours. According to this school, "the perineal body is a great factor in co-ordinating all the parts within the pelvic cavity". An old acquaintance has again turned up with a new face, in the lacerated puerperal cervix, which, to use the words of one of the latest authorities, "should be stitched up, however slight the laceration". A distinguished American gynæcologist, writing me lately about sundry professional matters in his department, says, in characteristic style, with reference to this procedure and that of oöphorectomy: "Battey's operation is a formidable one, and rarely resorted to as compared with the trifling one of sewing up a lacerated cervix uteri, which seems greatly to occupy some American gynæcologists at present. The frequency of this operation by some has been equalled, in our day, only by the frequency with which the cervix used to be slit as a cure-all. The field is a wide one, and I daresay many old slits will be repaired. Our great master, Simpson, has left behind him a few. The pendulum swings. Time alone will bring the verdict. We are too near the period to speak plainly and judge intelligently about it." The lesson to be learned from all this is, that scientific method has been faulty or wanting, our art has been advancing experimentally in narrow grooves, without unity or comprehensiveness of design, our observations have been partial, and our treatment speculative where not empirical. In fact, our therapeutics have had no foundation in sound pathology. Improved methods of investigation, and refinements in physical diagnosis, have had, unfortunately, the effect of drawing attention from general conditions, in which a large proportion of local troubles have their origin. They have elevated into importance objective symptoms at the expense of subjective. Objective symptoms have the merit of accessibility and exactness; they are easily recorded and readily compared. They are, in a word, more definite. Subjective symptoms ought not, however, to be ignored. They afford information and evidence of changes experienced and felt by the patient preceding those capable of objective recognition. We should not forget that all the knowledge that constitutes the inheritance of modern medicine was thus alone derived. This exclusive study of objective symptoms has undoubtedly had a most injurious effect on the dignity, character, and progress of gynæcology. There has been far too great attention paid to local treatment. The use of instruments for diagnosis and treatment, and direct personal medication, have been greatly overdone. The *nimia diligentia* has been too rampant. I cannot help recalling to your mind the remark of the late Sir John Forbes, in his classic work on *Nature versus Art in Disease*, about "over-active perturbative treatment and mischievous polypharmacy". I am not sure that many of us are capable of realising the effort that is necessary to enable a virtuous, or indeed any woman, to submit to the painful ordeal of local examination and manipulation, or the gradual deterioration of delicacy which in too many its frequent repetition tends to accomplish. When I read of a gynæcologist who states that he has made a vaginal examination by speculum "almost daily for two years", I cannot help thinking that the moral deterioration has extended also to the medical attendant. When we read of the uterine sound being used with such force as to bend it, we remember that it should not be used with much more force than necessary to pass a catheter into a male bladder. Another gynæcologist recommends the approximate determination of the volume and [illegible] of the uterus being ascertained by a bimanual examination "[illegible]". Another recommends the sound, and yet another tents for cervical dilatation, to be passed through the speculum. I cannot [illegible] quote, in this connexion, what appeared a few days ago in one of our medical journals from the editorial pen, under the title of Uterine Therapeutics. "There are few things more characteristic of [illegible] than the propensity to 'discover' unlooked-for and startling phenomena as associated with common-place and trivial causes.

Speaking generally, it is a case in which either the intelligence or the veracity is open to the gravest suspicion. That a pernicious and demoralising amount of interference with the genital apparatus of females is chargeable against certain practitioners is likewise a proposition, to the truth of which, we are sorry to believe, assent will be accorded by the best men in the ranks of the profession." I trust I shall not be misunderstood in thus expressing myself. I do so, because I feel keenly all that concerns the dignity of that department of medicine with which I have identified myself. As I have said on a previous occasion, I deprecate in the strongest terms the *nimia diligentia* in the treatment of uterine diseases generally. I am strongly of opinion that an endeavour should always be made in the first place to correct the local trouble by treatment directed to correct the general health when affected, and only when this unaided has failed, should local treatment involving manual or operative interference with the parts be attempted. Generally speaking, the speculum should never be used, unless local medication, first by the patient herself, have failed to arrest the abnormal discharges and relieve the local symptoms. The sound should never be introduced unless there be presumptive evidence of uterine flexion, displacement, subinvolution, or the reverse. And, finally, let me say, mechanical treatment of every kind should certainly be withheld in all cases, until relief by rest, position, and local medication has failed to be afforded. The diagnosis in all cases should be inductive—under no circumstances either speculative or experimental.

Time will not admit of my doing more, before leaving the subject of gynæcology, than referring very briefly to one or two of the more recent contributions to the science and art of gynæcology. One of the most valuable is Dr. Hart's (of Edinburgh) investigations into the anatomy of the pelvis and its contents. They shed most valuable light on the physical relations of the uterus and its appendages, especially with reference to the mechanism by which it is supported and maintained *in situ*, and its bearings on displacement of that organ. He shows that the womb is more dependent on the support of the pubic and sacral oblique planes of the pelvic fasciæ, which form a true pelvic floor, than on its so-called ligaments. Prolapsus is caused by the pubic portion slipping past the sacral portion. The pubic layer is triangular, and has comparatively loose attachments, and the uterus lies anteverted (inclined forward) on it. The sacral layer is quadrilateral in outline, and has strong bony attachments. Prolapsus is caused not so much by the weight of the uterus, as by laceration or thinning of the anterior edge of the sacral layer, the plane allowing the relaxed pubic segment to slip past. Increased weight of the uterus does not initiate the movement, but must of course exaggerate it. There are three primary factors in the movement, viz. : (*a*) loss of apposition of the pubic and sacral portions, in most cases started by perineal laceration ; (*b*) loss of "tone" in the anterior triangle or pubic plane ; (*c*) intra-abdominal pressure. It is on such a basis as this that a system of mechanical therapeutics should be founded.

It has been remarked that the tendency of gynæcology is becoming more and more surgical. Indeed, the operations with which the names of Spencer Wells and Thomas Keith are so gloriously identified must be regarded as common ground. It is not so very long since the operation of ovariotomy was pronounced by the unanimous voice of the profession practically as well as theoretically justifiable. The same question can hardly yet be answered in the affirmative with reference to the operation first introduced in America by Dr. Battey, of Rome, Georgia, under the name of Normal Ovariotomy or Oöphorectomy, as a remedy for neurasthenic and other troubles having their origin in ovarian irritation. It has since been extensively repeated in America, on the Continent, and in this country. Call the result what they may, "simply reaching the climacteric earlier than usual", "attaining premature sexual senescence", or "anticipating menstrual senescence", it is a grave matter under any circumstances literally to unsex a woman by an operation dangerous to life, which may even fail to relieve, for what, as far as can be ascertained, is a purely functional derangement. Nothing but conditions immediately threatening life or reason can justify such a proceeding, the necessity for which must always constitute an opprobium in our art. It seems to me that the systematic treatment of neurasthenic disorders practised with such success by Dr. Weir Mitchell of Philadelphia, and recently brought to the notice of the profession by Professor Playfair with such a corroborative record of success, offers an alternative to Battey's operation of the most promising kind. Dr. Weir Mitchell's book was brought to me about four years ago by a lady whose sister had been restored to health under the treatment. Skilled nursing is the great difficulty in connection with carrying out the system successfully.

The operation introduced in America, by Dr. Emmett, of stitching up lacerations of the cervix uteri, has already gained extensive acceptance on the Continent. This accident is alleged to cause eversions of the os uteri, endometritis, leucorrhœa, sterility, abortion, to disturb involution, and to prevent the cure of displacements and flexions of the womb. Verily, a grave catalogue! This accident must certainly be more frequent in its occurrence and more serious in its effects elsewhere than in this country. Dr. Pallen of New York says he has operated on nine hundred cases in six years, in only two hundred of which, however, was there interference with the generative functions, or other symptoms produced. It is very rare to find a multiparous cervix in any other than a dilapidated condition with more or less laceration. I have often found, as no doubt all of you have, a hard fissure on one or other side of the cervix causing pain on pressure, but at once relieved by free scarification, as one would treat a rectal or other fissure.

The name of Dr. Emmett is also associated with another most valuable but very much simpler contribution to uterine therapeutics, in what is known as the "hot vaginal douche". Of this, Dr. Dudley of Chicago says, "in uterine therapeutics, the value of the hot-water douche is perhaps greater than that of all other topical applications combined"; and I heartily endorse the opinion. It should be used as hot as can be borne for twenty to thirty minutes at a time. It can be tolerated comfortably by the vagina at a temperature which the hand cannot bear. It acts by first dilating the arterioles, followed by the tonic result of contraction, which continues for some time. The mucous membrane becomes blanched, the calibre of the vagina diminished, and the surfaces astringed. The whole pelvic circulation is thus influenced and relieved through the vagina. It has also secondarily the valuable effect of removing the restlessness and insomnia of nervous women. Drs. Windelband of Vienna and Lombe Atthill of Dublin recommend it in *post partum* hæmorrhage.

My last reference is to the diseases of children, and it must necessarily be a very brief one.

The association of the diseases of women and children is entirely conventional. There is no essential relation between them. The diseases of children constitute in themselves an entirely new and independent departure from the domain of general pathology. The subjects embraced under the general term pædiatrics form a group so characteristic and interrelated, and otherwise so distinct from either obstetrics or gynæcology, that they merit separate treatment. I trust the time is not far distant when they will attain the dignity of a separate section at our annual meetings. In the meantime, it will be impossible for me to do more than reiterate the assertion of their claims to independent consideration. I would, however, draw your attention for a moment to what I believe to be one of the most interesting aspects of children's diseases. It is their constitutional nature as derived by inheritance. The prevention of disease is now wisely held to be the highest object of medical science, and at no period of life is it so easy to interrupt the hereditary sequence of morbid influences, and prevent their subsequent development. A large proportion of the diseases of adult life result from the environment of the individual, his habits as regards food, stimulants, and exercise, unequal strain on the organic system, the effects of the complex and anomalous conditions of civilised life, in addition to those from specific infections, and other essentially morbid influences. But these conditions not only affect the individuals immediately exposed to them, developing types of humanity more or less physically retrograde, but they produce in the offspring marked diathetic states from their transmission. We accordingly, in infancy, meet with numerous temperamental developments, and diatheses of hereditary origin. They give a distinct complexion to, and largely influence, the character and progress of acquired disease. We are also called upon to treat their corresponding cachexiæ or characteristic morbid developments, which constitute in themselves so many distinct morbid entities or diseases. To a great extent, fortunately, many of these inherited diatheses and their cachexiæ are capable of cure, and all of them of amelioration. The vegetative activity and developmental mobility of youth lend themselves readily to the influences —hygienic, nutritive, and therapeutic—which may be skilfully brought to bear upon them. It is impossible to overestimate the importance of these considerations in relation to the pathology and therapeutics of children's diseases. They certainly have not met with that recognition to which their pathological value entitles them, and I refer to them merely to point out what a field there is here presented to the student of pædiatrics for independent and original research.

BACTERIA.—A Boston professor said, after a late lecture, to one of his class : "The views in regard to bacteria are now so conflicting that I do not understand them." "Why, Professor," said the student, "*that is what we all say*."

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF MEDICINE.

THE Section was opened on August 3rd by an address by the President, Sir WILLIAM GULL, Bart., F.R.S., which was published at page 210 of the BRITISH MEDICAL JOURNAL for August 6th.

LOCOMOTOR ATAXY.

This was the subject of some interesting discussion, especially with reference to (1) the effect of nerve-stretching; (2) syphilis as a cause of the disease.

Nerve-stretching in Locomotor Ataxy.—A dicussion on this subject was opened by Professor LANGENBECK (Berlin), who read a paper in which cases were related in which the operation of nerve-stretching, undertaken to give relief to the pains, had beea followed by improvement in the symptoms of ataxy. It seemed as if the stretching of the sciatic nerve led to beneficial changes in the spinal cord. —Dr. MORGAN (Manchester) had not had much experience in nerve-stretching; but at the present time he had under his care, at the Manchester Royal Infirmary, a case of idiopathic lateral sclerosis, in which there were characteristic gait, ankle-clonus, increased tendon-reflex, and great pain in both lower extremities. The pains were not relieved by morphia or other drugs. It then occurred to Dr. Morgan that nerve-stretching would be of service; accordingly his colleague, Mr. Southam, cut down on the left sciatic nerve and stretched it vigorously, so as to raise the patient from the table. Under the influence of chloroform, and before stretching, the ankle-clonus was most marked; but, immediately after stretching, ankle-clonus ceased in the limb operated on, but remained in the right leg. Pain in both legs, however, had disappeared. In the course of a fortnight, the ankle-clonus returned slightly: 60 beats per minute, compared with a previous 120; but there had been no return of pain. Dr. Morgan thought that nerve-stretching in sclerosis, involving the posterior or lateral columns of the spinal cord, was followed by good results. His patient was in all respects better.—Dr. GRAINGER STEWART (Edinburgh) had met several cases in which pain, with paralysis and other symptoms, showed that there were lesions in the nerves themselves. Of these cases, some had recovered entirely, just as they might occasionally recover in locomotor ataxy. He thought that it would be found that a peripheral affection of nerves existed in these cases, which was quite separate from central changes. The relief obtained by nerve-stretching in these cases was undoubted.—Professor LANGENBECK pointed out that the disease might arise from affections of the periphery of the nerves; and that the affection of the spinal cord might be secondary; that the painful condition of the nerves, which was so remarkable and pathognomonic, could be relieved by stretching; and that, by relieving the pains, the morbid condition in the cord was relieved or checked.—Dr. OGLE (London) asked whether nerve-stretching was most beneficial in those cases in which the origin of disease was central, or those in which it was peripheral?—Dr. BROWN-SÉQUARD (Paris) pointed out that, in section of one-half of the spinal cord, there resulted hyperæsthesia on the side severed, with anæsthesia on the opposite side; and that, when the sciatic nerve was stretched on that side in which anæsthesia was present, it disappeared, and hyperæsthesia appeared instead, and *vice versâ*.—Dr. LANGENBECK replied.

On the Rôle of Syphilis as a Cause of Locomotor Ataxy. By W. ERB, M.D. (Leipzig).—Professor ERB said that his recently published statistics on 100 new cases of typical tabes in male adults (*Medicinische Centralblatt* 1881, Nos. 11 and 12), showed: Cases without previous infection, 12 per cent.; with previous infection, 88 per cent.; amongst them, with secondary syphilis, 59 per cent.; and with chancre, without secondary syphilis, 29 per cent. Up to June 1st, he had observed thirteen other cases. Amongst them, there was but one without previous infection; of the remaining twelve, eight had had secondary syphilis, four only a chancre. In most cases, the first symptoms of tabes occurred from the fifth to the fifteenth year after infection; a considerable fraction, however, occurred from three to five years after infection. On examining all male adults over twenty-five years old, of his *clientèle*, who did not suffer from tabes, and not directly from syphilis, he found 77 per cent. who were never infected; 12 per cent. who had formerly secondary syphilis; and 11 per cent. who had only a chancre. The only possible logical conclusion from these facts was, that there must be a certain etiological connection between syphilis and tabes.—Dr. ALTHAUS (London) could not agree with Professor Erb, that there was an invincible and almost an invariable connection between syphilis and tabes spinalis. He could not admit that the unrecognised existence of urethral chancre explained those cases in which there had been no history of syphilis; nor could he admit the unity of the syphilitic poison. Eliminating these cases, the percentage amounted to little more than 40 per cent. Ancient writers on medical subjects had seen cases of tabes; while it was at least probable that syphilis had only been introduced into Europe at the end of the fifteenth century. Analogy showed that iritis, lupus, psoriasis, and general paralysis of the insane, etc., occurred in syphilitic as well as in non-syphilitic subjects; showing that syphilis did not originate, but rather imitated, morbid processes, leaving all tissues more liable to disease, and more especially local inflammation. He had analysed 1,000 cases of nervous affections, which had occurred in his practice, in regard to a syphilitic history, and found that, while in epilepsy the percentage was only 4, in ataxy it was 90. Amongst these cases, however, there were about 40 per cent. of single primary sores, and others doubtful. Mercury and iodide of potassium did very little good, whilst nitrate of silver, ergot, electricity, etc., often proved beneficial in tabes. Iodide of potassium should, however, be given from time to time, as it seemed to prevent the disease from spreading further.—Dr. GAIRDNER (Glasgow) was not prepared to accept, according to his present information, the conclusion to which Dr. Erb pointed as probably the result of his inquiries; viz., that about 90 per cent. of cases of typical tabes dorsalis had a syphilitic origin. He would, however, not be understood to affirm the absence of a syphilitic history in some cases, or even in a proportion which might justify a belief in its being really a part of the etiological total contributing to the occurrence of the disease. He did not understand Professor Erb to affirm that the mere anatomical form of the lesion in tabes was conformable to the regular types of the secondary or tertiary lesions of syphilis, but rather that there was some other mode of association, so minute on the one hand as to be quite apart from the usual evidence of these, and yet so close as to dominate probably nine-tents of the cases in the aggregate. The whole burden of the evidence was thrown on the statistics submitted; and this gave peculiar importance to the question, how far the facts on which the numbers rested might have been insensibly biased by the personal opinion.—Dr. LANCEREAUX (Paris) said that tabes dorsalis was not produced by syphilis in anything like a majority of cases, nor yet in sufficient a proportion to warrant the theory that syphilis was a greater factor in the production of the disease than other causes. In tertiary syphilis, the lesion was circumscribed, or limited to certain areas; whilst in locomotor ataxy it was spread over one region (lumbar) of the cord, and frequently the whole length of the spinal marrow was affected.—Dr. BANKS (Dublin) had seen a great many cases of tabes, both in hospital and in private practice, in which a notable number had had syphilis, either some years, often many years, previously, or had had an hereditary taint. He believed that the connection existed in about 10 per cent. of ataxic cases. —Dr. ZAMBACO (Constantinople) said that syphilis could be accused of producing every chronic affection. Dr. Lancereaux did not admit a dynamic lesion of syphilis; and, according to him, every nervous syphilitic trouble was necessarily bound down (*i. e.*, manifest) in an organic lesion. He said that syphilis attacked a nervous centre when it arrived at that period in which it destroyed tissues, and left indelible scars and damage. But Dr. Zambaco had shown, in his book on the *Syphilitic Nervous Affections*, that syphilis could profoundly disturb nervous centres without appreciable lesions.—Sir W. GULL believed the question of syphilis to be a much wider one than was generally admitted. He believed he could detect a syphilitic man by his own nose; he could smell him. It was difficult to say what were the ultimate results of syphilis, as there were the direct effect of syphilis and its degenerative effect; and, after having contracted the disease, a man was no longer the man he was, though he might not be at the moment syphilitic.

On Certain little Recognised Places of Tabic Dorsalis (Locomotor Ataxy). By THOMAS BUZZARD, M.D., F.R.C.P. (London).—Attention was drawn to the prominence given both by Romberg and by Duchenne (de Boulogne) to the inco-ordination of movement often observed in tabes dorsalis. Hence the symptom (which was very frequently absent) had come to be regarded as essential. The author accepted Westphal's symptom (the absence of the knee-phenomenon, along with good voluntary power in the anterior muscles of the thigh, as almost positive evidence of the existence of tabes dorsalis when it was associated with any one or more of the recognised symptoms. He related two cases in which the crises gastriques (of Charcot) were so strongly marked as to monopolise attention, which would hardly have happened had the symptom from which Duchenne named the disease been present.

one of these the author found absence of knee-phenomenon, pupils small, contracting in accommodation, but not to light, lightning pains, along with the gastric crisis; but this latter symptom was so predominant that the case was pronounced by others to be one of cancer of the stomach, notwithstanding that the gastric symptoms had existed paroxysmally for fifteen years. In another, correctly diagnosed as tabes dorsalis, and shown to him by Mr. Herbert Page, there was a history of obstinate vomiting and epigastric pain of at least three months' duration. Many cases of so-called "gout in the stomach" might probably be examples of the gastric crises of tabes, as well as some supposed to be due to intestinal obstruction. A like prominence of some other symptoms of tabes might equally absorb attention. Pierret's view, that the disease was essentially a chronic inflammation of sensory fibres, was adopted, and it was urged that, just as optic atrophy might be the dominating symptom in some cases, so atrophy of the auditory nerve might be the prominent one in others, and thus many cases of so-called "nervous deafness" might be examples of tabes dorsalis. In one case, stone in the bladder was the first symptom of tabes dorsalis. The bladder-trouble might be more than usually pronounced, and lead to retention of urine and accumulation of mucus, in which a phosphatic calculus was easily formed.—The PRESIDENT said that Dr. Buzzard had used the older term tabes dorsalis, by which this disease was known some years ago. It was a wider term, since the disease might begin by affections of the bladder, or by gastric symptoms. The late Emperor of the French had stomach and bladder symptoms some time before his fatal illness. It was extremely difficult to determine the seat of the lesion; to determine the seat of pain was easier. Was the seat of the lesion in such cases in the stomach or in the head? Which end of the nerve was affected—central or peripheric?—Dr. GUENEAU DE MUSSY had seen cases in which the gastric pains of tabes dorsalis had been mistaken for gout at the stomach, and quite agreed that many such cases were thus mistaken. But in gouty patients who had vomiting, there was often sudden and great pain at the pit of the stomach, going thence to the intestines; but it was distinctly local. He had a patient who presented undoubted symptoms of tabes dorsalis, who sometimes suffered from gastric symptoms, and at times from a sharp attack of diarrhœa. Thus, a wrong diagnosis might be made if the physician were not careful; but, sooner or later, there would be some alteration in gait, or there might eventually be ptosis, or strabismus, or something showing the presence of a nervous lesion.

Degeneration of the Columns of the Spinal Cord in Tabes Spinalis by failure of Vascular Supply, illustrated by drawings of microscopical sections. By A. ADAMKIEWICZ, M.D. (St. Petersburg).—The PRESIDENT pointed out that in tabes spinalis the disease was probably owing, according to some authors, to a less vital property in the posterior columns of the spinal cord. He likened the change noted by Dr. Adamkiewicz to similar pathological changes in the cirrhotic kidney and liver.

LOCALISATION OF DISEASE IN THE BRAIN AND SPINAL CORD.

A discussion on this subject was opened by Dr. BROWN-SÉQUARD (Paris), who read a paper in which the following questions were proposed for consideration: 1. Are there parts of the brain and spinal cord which, being diseased, give rise to symptoms which no other parts can produce? 2. What is the diagnostic value of certain symptoms to show the seat of disease in the brain or in the spinal cord? 3. What gains have we made in diagnosis by the recent researches on localisation of disease in the cerebro-spinal centres? As regards the first of these questions, he tried to show that, although there is no symptom which alone possesses an absolute pathognomonic value concerning the seat of the disease, there are, however, morbid manifestations, the co-existence of which establishes almost certainly, and sometimes quite certainly, that special parts are diseased. As regards the second question, he spoke of the connection: 1st, of aphasia with disease of the third frontal convolution, the island of Reil, and the occipital lobe on the left or on the right side; 2nd, of the Jacksonian convulsions with some cerebral convolutions; 3rd, of brachial, crural, facial paralysis, and of other kinds of monoplegia, with lesions of certain convolutions; 4th, of cerebral hemianæsthesia with disease of the optic thalamus or of the posterior part of the internal capsule; 5th, of hemichorea with disease of the corpus striatum or of the anterior part of the internal capsule; 6th, of titubation with disease of the cerebellum, and of some parts of the base of the brain; 7th, of diabetes with disease of the floor of the fourth ventricle; 8th, of labio-glosso-laryngeal paralysis with disease of certain groups of nerve-cells of the medulla oblongata; 9th, of some symptoms of labio-locomotor ataxy with disease of certain parts, and of other of the symptoms of that affection, with disease of other parts of the posterior columns of the spinal cord; 10th, of paranæsthesia with disease of the central parts of the lumbo-dorsal enlargement of the spinal cord; 11th, of progressive muscular atrophy with atrophy of the nerve-cells of the anterior grey cornua of the spinal cord; 12th, of the essential infantile paralysis with small foci of inflammation of the part of the grey matter just named; 13th, of intermittent paraplegia with ischæmia of the dorso-lumbar enlargement of the spinal cord. As regards the third question, he showed that considerable advances had recently been made, although much less than was generally believed.—The PRESIDENT remarked that Dr. Brown-Séquard had stated, and in some extent demonstrated, that a lesion of any part of a nerve-centre might produce distant effects by dynamic influence, independent of the circulation. If that were so, many data which had been depended on in clinical medicine must now be given up as useless.—Dr. CHARCOT (Paris) thought that we could not bring our clinical experience into relation with the results of vivisection, and that we ought to be thankful to physiologists who brought forward their experiments, so that errors might be corrected and facts substantiated.—Dr. MACLAGAN (London) referred to the importance of hyperpyrexia in clinical and pathological research. Lesions of the upper part of the spinal cord were followed by remarkable alterations in the heat of the body. Did Dr. Brown-Séquard believe that hyperpyrexia was associated with lesion of the upper part of the cord, which was thus in the position of a "heat-centre"?—Dr. BROWN-SÉQUARD did not believe in the presence of a "heat-centre". Diagnosis must be founded on the majority of facts, or even on the absence of facts.

Epileptiform Convulsions from Cerebral Disease. By J. HUGHLINGS JACKSON, M.D., F.R.S.—The author said that the seizures alluded to began in the arm, or face, or leg; each was believed to depend on an excessive liberation of energy (excessive nervous discharge) by cells of some particular part of the cortex within the so-called motor region of the cerebrum. In all cases the spasm began unilaterally; *a*, in the hand, usually index finger or thumb, or both; *b*, in the face, usually near the mouth, or in the tongue, or in both; *c*, in the foot, usually the great toe. 1. Monospasm (arm, face, leg). 2. Hemispasm: *a*, of the face, arm, and leg; *b*, of the face, arm, and leg, with turning of the eyes and head to the side convulsed. In this range there was usually some spasm of the bilaterally acting muscles of both sides. 3. The other side of the body, or part of it, might be convulsed. This had been explained variously: *a*, on the facts of Wallerian wasting "descending" into the same side (anterior column), and into the opposite side (lateral column) of the cord; *b*, by Broadbent's hypothesis, and by the opposite cerebral hemisphere becoming engaged. When limited, or nearly limited, to an arm, the spasm might go down that limb; but usually it went up. If in hemispasm the spasm began in the hand, it went up the arm and down the leg; if it began in the foot it went up the leg, and, with many exceptions, down the arm. There were few observations on the spreading of spasm (when the convulsion had become bilateral) on the opposite side. The spasm spread in compound order; this was most easily seen in the face. First, there was spasm of the muscles whose movements were largely unilateral in action on one side of the face. Next, there was the compound effect of greater spasm of them, with added spasm of the bilaterally acting muscles of both sides. The author thought that the more suddenly the spasm started, and the more rapidly it began to spread, the greater the range ultimately attained, and the shorter the seizure. The ordinary temporary paralysis after convulsion, beginning in a patient who, before the seizure, had no obvious paralysis, was, in the author's experience, always of the parts first and most convulsed. It varied in degree, from mere inability to pick up a pin, to absolute powerlessness of the hand and arm. It varied greatly in range, from paralysis of the hand to hemiplegia with lateral deviation of the eyes, and probably to greater ranges. The various hypotheses as to the nature of postepileptiform paralysis were mentioned—*a*, congestion induced by asphyxia in the paroxysm: but there was no asphyxia in some local convulsions leaving complete local paralysis; *b*, extravasation of blood: there was in some cases nothing to cause extravasation; *c*, Todd and Alexander Robertson supposed that, after the excessive active process from cortex to muscles, there was corresponding exhaustion of the parts engaged, or of some of them. This hypothesis the author thought most in accord with the facts. The author alluded to Westphal's observations on the deep "reflexes" after epileptic seizures, and to some more recently made on such cases by Dr. Beevor. He pointed out the difficulties in ascertaining the state as to the "reflexes" in postepileptiform paralysis. The state of the "reflexes" should be noted instantly after the paroxysm, and at various times up to recovery. If the "reflexes" were exaggerated on the side temporarily paralysed, they might be more or less so permanently from permanent changes induced in the cord by destructive disease of the cortex; for exaggerated knee-jerk and foot-clonus might be found on the side subject to convulsion several weeks after a

fit, even when there was no obvious paralysis of the leg. Partial temporary aphasia was found in some cases after fits beginning in the right cheek; often, however, after these there was what was called ataxy of articulation. After fits beginning in the hand, the partial temporary aphasia was often a misuse of words, or a reduction to well-organised propositions. There might be some temporary right-sided paralysis with the temporary aphasia. Inability to put out the tongue when told might exist in these, as in other cases of aphasia, when that organ moved well in all automatic operations. Todd and Robertson's hypothesis explained best this temporary aphasia. It also best accounted for the negative physical condition during loss of consciousness after seizures of epilepsy proper, whether there were the positive condition mania, or other actions, as well, for which positive condition it indirectly accounted. Consciousness was usually unaffected in limited convulsion of a limb, of a side of the face, or even of one side of the body. Roughly speaking, consciousness usually ceased when the eyes and head began to turn to the side first convulsed. The more sudden and rapid the spasm, the less was the range attained before consciousness was lost. In the severest epileptiform seizures, consciousness ceased late in the paroxysm; in epilepsy proper, it ceased first thing, or very early. When disease was discovered *post mortem*, it was usually in the so-called motor region. When fits always of the same style recurred, although often in different degrees and ranges, the inference was that there was persistent change in some cells in one locality, such that they occasionally attained high instability, and occasionally discharged excessively. As to the pathology, in some cases the author had not discovered—had no doubt overlooked—a local lesion; in many cases there was tumour. Clinically there was in some cases a condition for embolism; in some there was disease of one ear evidenced by discharge, and of the side opposite that on which the convulsion begins. In some cases, the seizures set in in some part on the side opposite to the side of the head injured; there being in a few of these cases a local depression of the skull. The treatment was partially empirical (bromides, etc.). The use of the ligature, the treatment of syphilis, and the question of trephining in certain cases, were noticed.—The PRESIDENT said that all were aphasic at times, especially when tired or mentally overworked; but that recovery followed rest, sleep, or a good dinner. All were acquainted clinically with cases in which weakness and paralysis of muscles occurred after epileptic or epileptiform convulsions; and even muscles were often subsequently wasted or atrophied.—Dr. ALLEN STURGE asked whether Dr. Hughlings Jackson did not think that aphasia might be a positive as well as a negative sign in epileptiform seizures. Was it not an early symptom of an epileptiform fit? He had seen cases in which aphasia was the earliest symptom; one case especially, in a woman who suddenly was aphasic when she was talking to him as an "out-patient", and in whom there were subsequently (*i. e.*, soon afterwards) convulsions of the right side of the body. When she recovered she said "she could not get her words out". Hence, he concluded there might be two kinds of aphasia: 1, from exhaustion of the speech-centre; 2, coming on primarily from what might be called convulsions of the speech-centre.—Dr. HERMANN WEBER had seen a case of epileptiform convulsions confined entirely to the left side, followed by weakness of that side for three days, and subsequent complete aphasia for ten days afterwards. He had also attended a man, aged 24, who had mitral disease, in whom there had been epileptic convulsions from childhood; these convulsions had temporarily ceased, but returned after great excitement and fatigue.—Dr. BÄUMLER (Freiburg) would employ the term dysphasia rather than aphasia, as the latter term was used loosely, and often to express very different conditions. Cases were met with in which dysphasia came on completely, with or without convulsions, and sometimes this loss of speech constituted the whole attack. He quoted the case of a labourer in Hungary, who, under examination, spoke an "unknown language", but which on careful attention was found to be German syllables and words, jumbled together in a meaningless jargon; the patient had several such attacks. He also referred to a case of tubercular meningitis, in which a similar aphasia was not followed immediately by paralysis or convulsions; the only symptoms at the time being a mumbling or jumbling of words. In the epileptic attacks, the loss of consciousness was not the least important symptom, but that of subsequent amnesia was the most important.—Dr. HUGHLINGS JACKSON, in reply, said that he did not remember an example of aphasia subject to convulsions of the left side; but was sure that such cases occurred, after Dr. Weber's account of his case. If the speech-centre were subject to excessive discharge of nervous force, it was noticeably exhausted. All nervous conditions were duplex—negative and positive. He was quite familiar with cases of temporary loss of speech. As regards local origin of lesion, he never believed in the theory of the third left (Broca's) convolution being the speech-centre; or that it was situated in the island of Reil; but he believed that the third left convolution was the chief portion only of the centre of speech.—Sir WM. GULL asked Dr. Jackson to what he referred the condition of consciousness, which was certainly not mechanical.—Dr. HUGHLINGS JACKSON replied that it was the existing and accepted theory, and it must be disproved; it was the theory in possession. The whole nervous system was a mere sensory-motor mechanism.

Contributions towards Jackson's Epilepsy and Localisation of the Arm-centre. By T. MACKIE, M.D. Glasg. The following were the author's conclusions. 1. Jackson's epilepsy is essentially different in clinical respects from genuine epilepsy. (*a*) The attack consists, as a rule, only of clonic convulsions; the ranges being generally very much developed, and beginning always in the same muscle or group of muscles, it remains either localised altogether, or extends only slowly. (*b*) Consciousness remains intact during the whole, or at any rate the greater part of the attack—the patient being, in fact, the observer of his own attack. 2. Jackson's epilepsy points in its well-developed forms with certainty to a cortical lesion, and allows, with the aid of the paralytic symptoms (different forms of monoplegia) which are either simultaneously present, or follow the attack, the formation of a diagnosis not only of localisation, but often also of the nature of the lesion, 3. Oculo-pupillary and paralytic symptoms—*e.g.*, ptosis, narrowing of the pupil without refractory rigidity, etc.—seem to form a frequent and very remarkable feature in the clinical picture. 4. The arm-centre is situated in the middle third of the anterior and posterior central convolution, and in the adjoining part of the fissure of Rolando. 5. Gradual destruction of this region by the formation of a tumour produces Jackson's epilepsy (which always begins in the arm), and in the further progress, paralysis of the entire upper extremity; whilst the muscles of the face, trunk, and the lower extremities remain completely intact from paralysis.

On Addison's Disease. By E. HEADLAM GREENHOW, M.D., F.R.S. (London).—Dr. Greenhow referred to cases of disease of the suprarenal capsules published previously to Addison's discovery, and described a typical case hitherto unpublished. He also gave an account of the constitutional symptoms, the bronzing of the skin, the pathological appearances, the diagnosis, the causes of the disease, and its pathology. He said that the symptoms of Addison's disease were not due to the destruction of the suprarenal capsules and abrogation of their proper function; for, in some recorded instances, their normal structure must have been destroyed by the pathological process of the disease itself, previously to the development of the symptoms; and it had often been entirely supplanted by cancerous deposit without the occurrence of these symptoms. On the contrary, it seemed almost certain that the symptoms were to be attributed to the damage done by the pathological process to the nerves passing into the capsules, especially the branches of the pneumogastric nerve, and to the neighbouring nerve-plexuses and ganglia, which were compressed by the contracting adventitious tissue in which they were embedded. The discoloration of skin was probably due to the injurious effects of similar pressure upon the nerves of the sympathetic system, and, as shown by Dr. Paget's cases, might exist where the suprarenal capsules were healthy; but these nerves were embedded in and compressed by adventitious growth. This fact suggested a careful study of cases of pigmentation of skin unaccompanied by Addison's disease, in reference to the condition of the nerves, ganglia, and plexuses of the sympathetic system.—Dr. SYMMONS (Naples) said that six years ago he presented to the Brussels Congress a work in which he sustained the argument that Addison's disease ought to be considered a disease of the ganglionic nerve-centres; and that the anatomical alteration of the suprarenals was not so much the origin of the disease, but that they represented, when they existed as diseased organs, the last effects of trophic changes, produced by the nerves which presided over the nutrition of these organs. He advised the direct current to be tried in the treatment.—Dr. GAIRDNER (Glasgow) referred to a case which had occurred to him in private practice. It had been brought under his notice at an advanced [illegible] the disease; and the prognosis was accordingly grave. Dr. Greenhow's prognosis, however, was stated in two extreme terms, and, in some cases at least, the downward progress might be arrested. In this [illegible] examination showed the appearances of the suprarenal capsules to be exactly as figured in Dr. Greenhow's drawing. This case was also [illegible] by Dr. MACKAY (Aberdeen), who pointed out a case of [illegible], as it was, probably the [illegible] of the morbus Addisonii being associated with well marked circular leucodermic patches on the wrists, hands, scrotum, etc., around which the peculiar darkening from pigment followed, as it were diffusely, over the general

surface, being especially dark around the margins of the pale patches. Was the association in question purely accidental; or was there a form of Addison's disease in which the pigment was so irregularly disposed?—Dr. PAGET (Cambridge) said that the facts of the exceptional case, which had been published by him, and cited by Dr. Greenhow, were observed by others as well as by himself; and that there was no doubt whatever of their accuracy. The suprarenal bodies were carefully examined by Dr. Creighton. Dr. Paget had seen the discoloration of the skin in an ordinary case of Addison's disease become rapidly paler, as if disappearing, while the patient was in no other respects improving.—Dr. NOËL GUENEAU DE MUSSY said that experimental physiology tended to prove that the place of origin of pigmentation of the skin in Addison's disease was in the abdominal nervous system.—Dr. MATTERSON (York) wished to confirm the opinion that the morbus Addisonii was probably due to an affection of the solar plexus. He related a case of pulsation of the abdominal aorta, which was diagnosed as aneurysm, but was accompanied by pigmentation of the skin resembling Addison's disease. The patient recovered.—Sir W. GULL said that the discoloration was not local, but diffused; but that condition alone was not sufficient to constitute the disease. The patients were weak, sick, or asthenic. The suprarenal bodies were similar to the pituitary bodies; both having two distinct parts, cortex and centre. The present position of the matter was, "What is the function of the suprarenal and of the pituitary gland?" The pituitary gland must have some important function from its anatomical preservation. Situated as it was in the sella Turcica, it had a cranium of its own within a cranium. He doubted that the prognosis was bad. He thought there were cases of Addison's disease which remained stationary. The direct current, advocated by Professor Semmola, could do no harm, and for want of a better remedy it took up time.—Dr. GREENHOW in reply said that pigmentation did not necessarily prove the presence of Addison's disease, and so far he agreed with Dr. Gueneau du Mussy and Sir W. Gull. Without constitutional symptoms there was no Addison's disease, which really consisted in the progressive asthenia of the patient. The constant current had been used in many cases for six months with subsequent improvement. Leucoderma was not uncommon in other diseases, especially in splenic leucocythæmia. Dr. Paget's case was not a true example of Addison's disease; but was only an example which came under Sir W. Gull's category, as a case of pigmentation. But the case was important, as bearing on the pathology of cases in which pigmentation occurred without disease of the suprarenal bodies.

The Inferior Cervical Ganglion considered as a Correlating Nerve-Centre. By EDWARD WOAKES, M.D. (London).—This paper first detailed certain experiments and observations to prove that impressions made upon nerves in direct communication with the inferior cervical ganglion are appreciated in distant regions, or organs likewise innervated by this sympathetic centre. The labyrinth is one of the areas so affiliated; lesions of it, whether direct or reflex, producing phenomena too pronounced and characteristic to admit of misinterpretation. The general conclusion was that afferent fibrillæ, mostly associated with sensori-motor nerves of this and other sympathetic ganglia, are in reflex relationship with the efferent vaso-motor fasciculi, furnished to the arteries from the same ganglion. There is thus an excito-vaso-motor function between the afferent and efferent elements of a given sympathetic ganglion, which in this way becomes a centre for correlating widely separate areas. This physiological principle was next applied to the elucidation, first, of certain chronic or subacute diseases, the phenomena of which are dramatised in the areas innervated by the inferior cervical ganglion. The associated symptoms of vertigo, *e.g.*, the giddiness, stomach-disturbance, congestive mottling of the hands, præcordial distress, the premonitory aura, etc., were traced to the anatomical relationships of the centre in question. An analogous group of symptoms, in which vertigo was usually absent, was described as due to paresis of this centre. It is chiefly witnessed in so-called neurotic females, and includes among its phenomena palpitation, injection of the palmar integument, a soft goître, or bronchocele, brachial neuralgia, irritable mamma, and occasionally a form of asthma. A distinctive appellation was proposed for this group of symptoms. Next, the application was made of the foregoing principle to explain the cycle of events in some acute diseases. An observed case of rheumatic fever was quoted, which, commencing with acute tonsillitis, and neuralgia of the arms and shoulders, subsequently developed symmetrical wrist and elbow-joint inflammations, and lastly, pericarditis and endocarditis. A comparison of the joint-affections, accruing at a later period after injuries of nerves, with those witnessed in rheumatic fever, tended to show, *ex hypothesi*, that the articular areas are implicated in harmony with allied processes in the tonsils, nerves, heart, etc.

[*To be continued.*]

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 20TH, 1881.

THE WOUND OF THE PRESIDENT OF THE UNITED STATES.

THE reports which have been furnished for the last two or three weeks, by the daily telegrams from the United States, regarding the progress and condition of President Garfield, have been so varying in character, and in many respects so conflicting, that it has been difficult to arrive at any satisfactory conclusion regarding the state of the wound and its constitutional effects; or to forejudge the probable termination of the case. There has evidently been for some time past a prevailing feeling of uneasiness in the public mind in the United States regarding the President's condition, and a general belief that the patient has been gradually losing instead of gaining ground. During the last few days, the hopes of the President's recovery have been almost at the lowest ebb. The excitement has been kept up by sensational articles in some of the American journals, many of which have obviously been based on mere surmises, or on exaggerated reports emanating from persons who could have had no direct or trustworthy means of obtaining the information which they have furnished. The surgical treatment has been severely criticised in some quarters; very unfairly, as it seems to us, inasmuch as the attacks upon the course which has been followed have been made without an opportunity of personal observation of the case, and without making any allowance for the difficulties in which the surgeons in attendance upon it have been placed.

It is not always easy to distinguish between the bulletins, as they appear in the English journals, which have been officially issued by the surgeons in attendance on the President, and those which have been unofficially published by persons more or less directly connected with the executive mansion at Washington, in which the President is lying. This is principally owing to the incomplete manner in which the telegrams are dispatched from the United States to England. The information published in the official telegrams has been usually limited to a few leading particulars regarding the condition of the patient, such as the state of the pulse, temperature, and respiration, or any special changes in the state of the wound, or general health. Had fuller information been given by the surgeons in the official bulletins, there would perhaps have been less opening afforded for suspicions of concealment of matters of importance, and for the expressions of doubt which have been uttered regarding the propriety of the treatment followed. So far as the facts which have been successively announced in the official bulletins are concerned, nothing has been mentioned which has been inconsistent with what might be expected to take place in any case of a bullet-wound, in which a bone has been struck and the bullet so diverted that it has been caused to pursue a deep and tortuous course in muscular tissues, and to pass out of reach of observation or detection by the surgeons. There have been the difficulties arising from the sequestration of necrosed portions of contused bone, or from the escape of detached particles or fragments driven into the surrounding tissues, and acting as extraneous bodies among them; there have been accumulations of pus on occasions when the escape of the secretion by the wound of entrance has been prevented from some cause or other, entailing the usual constitutional irritation, and leading to the

necessity of the evacuation of the purulent deposits by suitable incisions for the purpose; and there has been the ordinary difficulty in maintaining the general strength under the conditions of restraint, prolonged confinement to bed, rather profuse suppurative discharge, and mental anxiety, which the uncertainty regarding the position of the bullet would naturally tend to increase, to which the patient has been subjected. These debilitating influences have, moreover, been aggravated by the exhausting effects of the high atmospheric temperature which has prevailed at Washington during the greater part of the time since the President's wound was inflicted. Nearly all the above-mentioned circumstances are matters which might be anticipated in any tortuous flesh-wound, complicated with injury to a bone, and there has been nothing in the symptoms presented, in the duration of the case, or in the reported state of debility of the patient, to lead us to seek for a further explanation of them in the supposition of the existence of visceral lesions, or other unsuspected complications. So far as the wound itself is concerned, then, we are further led by the facts in the official bulletins still to adhere to the opinion which we have all along been induced to form, from the limited details published regarding the case, and which we have before stated, that, with the exception of the injury done to the lumbar plexus of nerves in the first instance by contusion, the mischief effected by the bullet has been confined to structures external to the cavities of the body. During the last few days, there has been occasional reference in the official bulletins to a symptom which might well give rise to grave uneasiness in the minds of the attending surgeons, viz., obstinate irritability of the stomach, and the occasional occurrence of vomiting. No indications of the supposed cause of this complication have been mentioned. There has been no account of hepatic disorder, nor have any of the usual signs of the more serious mischief attendant upon pyæmic disturbance been alluded to. We may hope, therefore, that this gastric disorder arises from some local and temporary disturbance. One of the telegrams from New York mentions that the President was the subject of habitual dyspepsia, contracted through exposure in campaigning, before he received his wound; and this, if correct, may account for the present gastric disorder under the exhausting circumstances in which General Garfield is now placed. The account, however, hardly tallies with the reports which have been generally published as to the vigorous frame and robust health possessed by the President up to the time he was shot. Under any circumstances, the irritability of the stomach, which seems to have continued for several days and nights, cannot but be regarded as a very serious occurrence; for, irrespective of the exhausting effects of the retching in the already debilitated state of the patient, the artificial supply of nutriment by enemata is at the best a very imperfect substitute for the natural ingestion of food, not merely as means of general sustenance, but also as a source of power for resisting the drain on the system caused by the suppurating wound, and its attendant circumstances. The healing of the wound itself is said to be progressing favourably, so that it is the constitutional condition of the patient to which the attention of the medical attendants has now to be chiefly directed. If the gastric irritability can be overcome, and the natural appetite for food, and digestion, are restored, there appears to be no reason why the resumption of a favourable progress toward recovery should not occur; but if the nausea and vomiting should continue, in spite of the treatment adopted to allay these trying symptoms, there is every reason to fear the debility of the patient will go on increasing, and the ultimate issue of the case must then be regarded with the gravest apprehension.

We have not heard anything of late regarding the presumed site of lodgment of the bullet. Some time ago it was stated, in some of the telegrams on the subject, that its position had been discovered by means of an electric indicator, or induction-balance, arranged and applied by Professor Graham Bell. According to these sources of information, the bullet was shown by the induction-balance to be lying about five inches below the umbilicus on the right side, at a depth of a couple of inches, or thereabouts, beneath the surface. As so little has been reported on the matter since, we are inclined to believe that the statement, like many others which the President's wound has called forth, had no real foundation; or none, perhaps, beyond the limits of some experimental investigations. Although the telephone has become a marvellously effective instrument in the hands of Professor Bell, still there is no disguising the improbability of a successful application of the principles embodied in it to a determination, with anything like precision, of the position of a small piece of lead lying imbedded in the bodily tissues at a depth, perhaps, of several inches beneath the surface. Had the metal of which the bullet consisted been iron, there might be more hope of the induction-balance being brought to a standard of sufficient delicacy to indicate its presence. The side of lodgment of the bullet said to have been made out by the indications of the induction-balance agrees pretty closely with the position given to it by several others who have considered the subject.

Among other articles on the President's wound in the medical journals which have reached us from the United States, is an elaborate communication by Dr. Faneuil Weisse, Professor of Surgical Anatomy in the University of New York. It is published in the *New York Medical Record* of July 16th, and is entitled "Surgical Reflections and Anatomical Observations bearing upon a possible Course of the Bullet that wounded President Garfield". Dr. Weisse obtained a revolver-pistol and cartridges of the same description as those which had been employed by the intended assassin of the President, and made various experiments on the dead subject with them—not for the practically impossible purpose of repeating the precise wound inflicted upon the President, but for determining the penetrating power of the pistol-bullet, and the amount of diminution of force that would result from it being brought into collision with a rib-bone. He found the weapon in many respects a very defective one, and that the penetrating power of the projectile was very largely expended after its impact with the resisting surface of the bone.

From these observations, as well as from reflections on some of the symptoms that followed the injury, and from actual dissections on a subject suspended in an upright position, Dr. Weisse arrived at the following conclusions as to the probable course of the bullet, and its final lodgment in the right iliac fossa. He considered that the bullet, after penetrating the tissues and impinging upon the eleventh rib with sufficient force to fracture it, was turned on its axis so as to point downward; that it was thence deflected downward and forward into the layer of fat behind the external border of the right kidney; and, continuing in the direction of least resistance through the adipose tissue, that it took the inclined curve downward and inward of the anterior surface of the muscle-mass of the lumbar region into the iliac fossa; and that, finally, it perforated the fascia in the sulcus between the iliacus internus and psoas magnus muscles, or the psoas magnus itself, so as to reach the lumbo-sacral cord or one of the sacral nerves in the right half of the pelvis, and in this way inflicted more or less injury on one of the contributing trunks which form the sacral plexus. A peculiar sensitiveness of the skin of the right side of the scrotum, from which the President is said to have suffered, is accounted for by injury to the ilio-hypogastric and ilio-inguinal nerves which would be liable to be met in this supposed track of the bullet.

It must be admitted that this theory of the passage of the bullet into the pelvis is ingenious, and it is, of course, among the possible events in the case. But everyone who is practically familiar with the erratic directions taken by bullets among the tissues of the human body, especially after they have been brought into collision with a resisting surface, is aware how impossible it is, in any particular instance, to predicate the course which has been followed by a projectile which has struck a bone, when once it has passed out of sight, and where there are no local signs to mark its place of lodgment. There is no reason for thinking that the case of the President of the United States presents any exception to this general rule; and, in all other cases, there must be considered to be still great room for doubt, as to the exact manner in which the projectile may have [illegible]

the direction which was taken by it beyond that part of the track which has been exposed to surgical observation. It is not, however, so much the location of the bullet, as the general symptoms of weakness and failure of the digestive functions, which are a real cause of anxiety at the present time regarding the ultimate issue of the President's injuries.

THE INTERNATIONAL PHARMACOPŒIA.

A PROJECT of no small importance—viz., construction of an International Pharmacopœia, which should include a common mode of preparing and prescribing the more important drugs—has been considerably advanced during the last month, as the result of the conference of the International Pharmaceutical Congress held in London. The following resolutions were unanimously passed at this Congress; and will, we believe, be practically acted upon.

"1. The fifth International Pharmaceutical Congress, held in London, confirms the resolution passed at the previous Congresses, as to the utility of a Universal Pharmacopœia, but is of opinion that it is necessary at once to appoint a Commission, consisting of two delegates from each of the countries represented at this Congress, which should prepare within the shortest possible time a compilation in which the strength of all potent drugs and their preparation is equalised. 2. The Executive Committee of this Congress is requested to take the necessary steps that the resolution be speedily carried out. 3. The work, when ready, should be handed over by the delegates to their respective Governments or their pharmaceutical committees. 4. It is desirable that the Committee suggest an uniform systematic Latin nomenclature for the Pharmacopœias of all countries. 5. It is desirable that the Committee take measures that an official Latin translation be made of the Pharmacopœias of different countries which are not now published in that language. 6. It is desirable that the Committee be put in possession of all the manuscripts, including the documents relating to the Universal Pharmacopœia, compiled by the labours of the Society of Pharmacists of Paris, presented at the fourth meeting of the International Congress at St. Petersburg by the Society of Pharmacists of Paris. 7. That the pharmaceutical societies of the respective countries be requested to nominate those members of the Commission not appointed by this Congress, and to fill up any vacancies which may arise from time to time."

In reference to the last resolution, it was explained that some countries were not represented here at all, and others only partially, and they had not the means, therefore, of forming a judgment as to who would be the best persons to appoint, without running the risk of hurting the susceptibilities of distinguished local men. It was thought well to hesitate wherever they did not know where they were going, and to leave to the Pharmaceutical Society of each country not represented to appoint its own representative. Again, in the event of a vacancy occurring, either through death or refusal to act, it was desirable that each country should fill the vacancy from its own body.

The following is the list of delegates nominated: Austria: Messrs. Dittrich and Waldheim. Belgium: Messrs. Gille and Cornélis. Denmark: Messrs. Lotze and Madsen. France: Messrs. Méhu and Petit. Germany: Messrs. Brunnengräber and Carl Schacht. Great Britain: Messrs. Redwood and Peter Squire. Hungary: Mr. Jarmay, and another to be elected by the local Society. Ireland: Two to be chosen by the Pharmaceutical Society. Italy: Mr. Sinimberghi, and another to be chosen. Sweden and Norway: Messrs. Sebardt and Hansen. Russia: Messrs. Martenson and Poehl. Switzerland: Mr. Schaer, and another to be chosen. The United States: Mr. Maisch, and another to be chosen.

We attach no small importance to these proceedings, as there is every reason to consider such an International Pharmacopœia to represent a useful and practicable progress.

ANOTHER melancholy accident from the indiscriminate use of ordinary medicine-bottles alike for medicines and poisons is reported from Margate. A visitor, named John Lands, bought some cyanide of potassium for the purpose of removing marking-ink stains. He accidentally drank some of this deadly poison, thinking it was iron and quinine, and death was the result.

PROFESSOR ESMARCH of Kiel, and Professor Langenbeck of Berlin, have had the honour of being presented to the Queen by the Crown Princess of Germany.

THE attendance at the Ryde meeting included upwards of four hundred and twenty members; and the meeting, as will be seen from our last number, and from the further report which we publish this week, was highly satisfactory and agreeable.

THE scientific business transacted was necessarily somewhat limited by the enormous amount of work which had been done in a similar direction in London during the previous week, and in which eminent members of the Association had taken a full share; but when all reports are completed, the Isle of Wight meeting will compare not unfavourably with similar gatherings.

THE fiftieth anniversary of the foundation of the British Medical Association will be held next year; and in deference to a sentiment with which all will sympathise, it has been resolved to invite the Association to hold it at Worcester, the birthplace and residence of Sir Charles Hastings, the founder of the Association; and this invitation has been cordially accepted. The occasion will be one of very great interest, and the meeting will have all the prestige of a jubilee meeting. Some ingenuity will, no doubt, be exercised in endeavouring to provide at this meeting special features suitable to an anniversary occasion; and nothing can tend more to increase the prestige and profit of such occasions than to secure as the Presidents of Sections and readers of addresses the leading thinkers and workers, and the most eminent professional men in the Association.

AT the jubilee of the British Association for the Advancement of Science, which will be celebrated next month at York, the Presidents of Sections and orators will be chosen exclusively from past Presidents of that Association. The Presidents of the British Association are, however, we believe, selected on a somewhat different principle from those of the British Medical Association; as, in the instance of the British Association, local connection has no weight in the selection of President. Nevertheless, the idea of selecting for the jubilee year, for all available official positions, the most eminent past Presidents of Sections and of meetings, may be found to be a suggestion worth considering.

IN accordance with precedent, the President of Council of the British Medical Association retired this year by rotation, after having filled his three years' term of office. Dr. Carpenter, in retiring, carries with him not only the official thanks, but the warm personal affection and esteem of those with whom he has acted. The conciliatory, courteous, and indefatigable manner in which he has carried out the duties of his office, has been the subject of general remark. Dr. Carpenter is succeeded by Mr. Wheelhouse of Leeds, whose experience in the Council and universal popularity mark his appointment as one predestined to carry success.

DR. STRANGE, President-elect, in a few words, in which he was good enough, in the absence of the editor, to compliment the JOURNAL, at the Ryde dinner, referred to the fact that the friends of the American Medical Association, struck with the efficiency of the BRITISH MEDICAL JOURNAL, and the part which it has played in consolidating and extending the influence of the British Medical Association, have resolved to establish, if possible, a journal after its model, in the hope that it may exercise a like influence on the fortunes of the American Medical Association, the history of which, in point of numbers, is not very dissimilar to the history of our own Association up to the point of the remodelling of the JOURNAL. We have, in fact, received communications from several of the most prominent members of the American Medical Association, asking such information as may assist in carrying out this project, which has been

formally approved by a resolution of the American Association, but of which the details are as yet unworked out; and this information we shall be glad to furnish.

THE most pleasing communication among many which have recently been made to us, publicly and privately, in testimony of the high approval which it is the great privilege of this JOURNAL to win from its foreign and transatlantic contemporaries, has come, during the Congress, from Dr. Billings, the official delegate representing America, who informs us that the American Army Medical Department, of which he is librarian, has resolved to supply officially the BRITISH MEDICAL JOURNAL to the medical officers of that department. In this instance, the BRITISH MEDICAL JOURNAL supersedes another and older medical journal published in this country, which has long delighted to call itself "the leading medical journal"; and this tribute to the superior efficiency of this JOURNAL, coming from so careful, accomplished, and well-read a person as the librarian at Washington, is the most satisfactory testimony which could be borne, and one which will, we doubt not, be as agreeable to members of our Association at large, who are the proprietors of the JOURNAL, as it is to us editorially.

THE hospitalities shown to the British Medical Association by the inhabitants of the Isle of Wight call for warm and grateful recognition. The unbounded hospitality of the President, Mr. Barrow, was proportionate to the immense energy which he threw into his efforts to provide for the success of the meeting, from the moment that he accepted the office of President. He was ably seconded by a considerable staff of his colleagues, but his incessant labour and great energy could alone have succeeded in making so considerable a meeting so highly successful under the circumstances of the year. Dr. Alexander Davey, Dr. Coghill, and the local secretaries, Dr. Pletts, Mr. Green, and Dr. Groves, must also be most earnestly thanked for the large share which they had in contributing to the comfort and efficiency of the meeting.

THE excursion of Saturday was a great effort of liberal hospitality on the part of the inhabitants of the island; nearly three hundred visitors, members of the Association and their friends, being conveyed on a beautiful route round the island, and entertained throughout the day in a most hospitable and brilliant manner. No better opportunity could have been afforded to the members of forming a favourable opinion of the delightful climate, the natural charms, and healthy merits, of this famous resort of invalids and pleasure-seekers; and it is certain that all who took part in the expedition will long remember the claims of the Isle of Wight.

THE Ventnor Hospital, of which Dr. Coghill is the physician, was universally admired; indeed, no other hospital in Europe can compare with it for the completeness with which the cottage system is carried out, and for the combination of comfort and scientific fitness for its peculiar purpose.

PARKES MUSEUM: INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

THE Medical and Sanitary Exhibition organised by the Committee of the Parkes Museum was open for the last time on Saturday (August 13th), when the number of visitors, exclusive of season-ticket holders, was 1,221, making a total of 24,333 visitors for the four weeks during which the exhibition has been open—allowing only for one visit by each season-ticket holder. The closing of the exhibition was taken advantage of by the St. John's Ambulance Association, to give a demonstration of ambulance-practice; and, during the afternoon, a large number of the visitors assembled in the Conservatory, to witness the practice, which was conducted by Major Duncan, Mr. Cantlie of Charing Cross Hospital, Mr. Furley, Dr. Crookshank, and Surgeon-Major Baker. Prizes were competed for by squads of the Grenadier Guards, the Finsbury Rifles, and the Metropolitan Police. Mr. John Eric Erichsen (the Chairman), Dr. Poore, Dr. Steele, Mr. George Godwin, Mr. Rogers Field, and other members of the Exhibition Committee, were present during the day. It is expected that the prizes which have been awarded will be distributed at the annual meeting of the Parkes Museum in the autumn.

LONDON HOSPITAL.

MRS. ELIZABETH LETHEBY has [illegible] scholarship or prize, to be awarded annually to the student in the medical school of the hospital who shows himself most proficient in chemistry. Such scholarship is to be known as the "Dr. Letheby Prize", in memory of her husband, who was for many years lecturer on chemistry at the London Hospital.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND'S report upon the quality of the waters supplied to the metropolis by the various water companies, during July, states that the quality of the Thames water, delivered by the five companies drawing their supply from that source, was, as it had been in the two preceding months, considerably above the average; the samples of water delivered by the West Middlesex, Grand Junction, and Lambeth Companies, were, however, slightly turbid from imperfect filtration.

ADULTERATION OF MILK.

THE most disgusting case of adulteration of milk which has as yet come under notice is reported from Ramsgate. Meeting a milkman on his rounds, the inspector insisted on examining the contents of both of two cans which the purveyor was carrying, objection being made to his looking at the second. He found "a liquid having the appearance of soapy water; in the bottom of the can was a piece of soap, and the liquid gave forth an offensive odour". The milkman admitted that "the liquid was water with which he had washed a wound in his horse's leg". The magistrates, as a matter of course, ordered the contents of the can to be destroyed; but, singular to relate, do not appear to have inflicted any punishment on the vendor of the filthy and presumably dangerous fluid.

RETREATS FOR INEBRIATES.

MR. HOFMANN, the inspector of retreats for habitual drunkards, has just (August 11th) issued his first annual report, which is published as a parliamentary paper. It appears that only two retreats have been established, and that the number of patients admitted to them during the year has been fifteen, eight males and seven females; of these, five have been discharged, and ten remained in the retreats on the 31st of December last. The weekly payments at each retreat ranged from three to four guineas for each patient. In reference to the results obtained, Mr. Hofmann reports: "The short time during which the Act has been in operation is hardly sufficient to enable me to speak confidently as to the results at present. I am unable to point out a single case where a permanent cure has been effected, but I can refer to several cases in which I think some good has resulted; and I am able to say that, as a rule, the general health of the patients has improved during their residence in these retreats; and, notwithstanding some difficulties in carrying out the Act in its present form, I believe that, with a few amendments, which experience of its working will probably show to be desirable, great progress may be made towards attaining the beneficial object for which it was passed."

DEATH DURING THE ADMINISTRATION OF ETHER.

AT the Seamen's Hospital, a death during the administration of ether has unfortunately occurred. The patient was a negro, aged 45, who had been under treatment in the hospital during some months for renal disease. Early in June, a strangulated inguinal hernia was reduced by taxis; and, on this occasion, the patient was placed under the influence of ether quite readily, and without the manifestation of any alarming symptoms. On Monday, August [illegible] was necessary to administer ether, in order to reduce the rupture, which, though not strangulated, was giving rise to distressing symptoms. The patient passed easily under the influence of the anæsthetic, and with

but little of the usual struggling; and the administration was kept up for about ten minutes, whilst the hernia was being reduced, during which time the apparatus was replenished with ether once only. About two minutes after the inhaler had been removed, both pulse and respiration suddenly ceased; and, notwithstanding prompt and active attempts to restore animation, there was no return of vitality. At the *post mortem* examination made on the following day, the kidneys were found to be granular and contracted; the heart much dilated, with slight hypertrophy, but without any valvular lesion. There was also a small amount of ascites, and also some serous fluid in the right pleural cavity. The capsules of the liver and spleen were very thick and opaque. In the lower lobe of the left lung, there were indications of a little bronchitis, but the rest of the lung was sound, and not engorged. The pleura covering the left lung was very thick, indicating repeated attacks of pleurisy. The air-passages contained no frothy fluid. There was a little fluid clot in the heart, but no firm coagula were found either in the cardiac cavities or in the pulmonary artery. The coats of the cerebral arteries were slightly thickened, and rather opaque. The quantity of ether administered was not more than two ounces and a half; and, from the time of the first application of the inhaler to that of death, about a quarter of an hour transpired.

DEATH OF PROFESSOR SPIEGELBERG.

DR. OTTO SPIEGELBERG, Professor of Midwifery and Director of the Obstetric Clinic in the University of Breslau, died on August 10th, in the fifty-second year of his age, of disease of the kidneys. Dr. Spiegelberg graduated at Göttingen in 1853, and in 1858 published his first work, a *Compendium of Midwifery*. In 1861, he was appointed Professor of Obstetrics and Gynæcology in the University of Frieburg. In 1864, he accepted a similar professorship at Königsberg; and in 1865 accepted the professorship at Breslau. Since that time, he has been distinguished for literary activity. In conjunction with Dr. Credé of Leipsic, he established the *Archiv für Gynacologie*, of which seventeen volumes have appeared, and which contain numerous contributions by himself and his assistants. About five years ago, he published a large *Text-book of Midwifery*, the second edition of which he had almost completed at the time of his death. He distinguished himself by his readiness to adopt all new improvements in the obstetric art. The first ovariotomy in Breslau was performed by him, and he operated in all in considerably more than one hundred cases. By his death, the obstetric branch of medicine has, in Germany, suffered a severe loss.

THE PRIZES OF THE FRENCH ACADEMY OF MEDICINE.

THE prizes awarded by the French Academy of Medicine in 1880 were announced in a report recently presented by M. Bergeron. The *Academy Prize*, of the value of 1000 francs (£40), for the best treatise on "The Influence of Diseases of the Heart on Diseases of the Liver, and *vice versâ*", was awarded to Dr. Rendu. The *Civrieux Prize*, of the value of 1,500 francs (£60), "On the part played by the Nervous System in Heart-diseases", was awarded to Dr. Liègeois; a first honourable mention to Dr. Arnaud, and a second honourable mention to Dr. Lamarre. The *Capuron Prize*, of the value of 1,500 francs (£60), on "The Influence of Coxofemoral Luxation on the Formation of the Pelvis", was not awarded, but a sum of 500 francs (£20) was awarded to Dr. Verrier. The *Barbier Prize*, of the value of 7,000 francs (£280), was not awarded; but 2,000 francs (£80) were given, as an encouragement, to Dr. Edmond Delorme, for his paper on "Ligature of the Arteries of the Palm of the Hand"; 1,000 francs (£40) to Dr. Masse, for his paper on "The Influence of the Attitude of the Limbs on their Articulations"; 1,000 francs (£40) to Dr. Christian Smith (of Brussels), for his paper, entitled, "Affections of the Urinary Passages in Man"; and 1,000 francs (£40) to Dr. Burot, for his work on the so-called "Inflammatory Bilious Fever of Guiana". The *Ernest Godard Prize*, of the value of 1,500 francs (£60), was not awarded; but a gratification of 600 francs (£24) was given to Dr. Grasset, for his work on "Localisations in Cerebral Diseases and Diseases of the Nervous System"; 400 francs (£16) to Dr. Damaschino, for his work on the Diseases of the Digestive Passages"; and honourable mention, of 250 francs (£10), to Dr. Marvaud, for his paper on the "Thermometric and Clinical Studies of the principal forms of Fever observed in the Military Hospitals of Algiers"; 250 francs (£10) to Dr. Brissaud and Dr. Josias, for their paper on "Scrofulous Gummata, and their Tuberculous Nature". The *Desportes Prize*, of the value of 2,000 francs (£80), was awarded to Dr. Fonssagrives, for his treatise on "Applied Therapeutics". The *Henri Buignet Prize*, of the value of 1,500 francs (£60), was awarded to Drs. H. Beauregard and M. V. Galippe, for their work entitled, "Guide to the Student and to the Practitioner in the Practical Work of Micrography". A specially honourable mention was awarded to Dr. Badal, for his work on the "Influence of the Diameter of the Pupil and of the Circles of Diffusion on Visual Acuity"; and honourable mention to Dr. Chapuis, for his work entitled, "Influence of Fatty Substances on the Absorption of Arsenic". The *Falret Prize*, "On the Forms of Insanity known under the Denominations of Circular Insanity, Insanity having a Double Form, Insanity in Alternate Forms", was of the value of 1,500 francs (£60), of which 1,000 francs (£40) were awarded to Dr. Ritti, and 500 francs (£20) to Dr. Mordret. The *Huguier Prize*, for the best paper on the "Diseases of Women, and more especially on the Surgical Treatment of those Affections", of the value of 2,000 francs (£80), was awarded to Dr. Henry Petit.

THE HEALTH OF CYPRUS.

A CORRESPONDENT from Cyprus writes to us that the health of this our latest acquisition has so far this year been perfect; there has not been a single case of epidemic disease of any kind amongst the civil population, and the malarial fevers have been so far of a very mild character. A visit of medical inspection to the southern districts of the island gave the following results. The Papho Hospital contained four cases, one each of erysipelas, carbuncle, gonorrhœa, and general debility; the Limasol Hospital, one case only of chronic dysentery, of some months' standing; the Larnaca Hospital, nine cases, five of injuries, two of ophthalmia, and two of gonorrhœa. In the military hospital at Troados, there were only three cases, one each of injury, sciatica, and chronic liver disease. It will be generally conceded few colonies could show such a clean bill of health at this time of the year. The weather is warm, but not excessively so. It was intended that one of the medical officers of the island would have been able to attend the International Congress; but, unfortunately, owing to unforseen circumstances, this has been impossible. This is the more to be regretted, as very erroneous notions are prevalent with reference to Cyprus, which ought, in the public interest, to be corrected.

VOLKMANN'S SURGICAL CLINIC.

DR. J. E. DUDLEY describes, in the *New York Medical Record*, Professor Volkmann's new and carefully constructed surgical hospital at Halle, and the mode of dressing which he employs. Recently, the medical department of the University of Halle has been removed from the centre of the town to a hill overlooking it, and about six buildings have been completed. Of these, the surgical clinic is built upon the pavilion plan. There is a large central building two storeys high. The most pleasing feature of the whole hospital is the precaution taken against possible infection. The floors of the wards are made of the "terrazzo" pavement. This is composed of a conglomerate of small pieces of various coloured stones, pounded into a cement, and then polished flat by drawing immense stones over it. When completed, it is perfectly impervious to water. The corridors are paved with common cement, and the amphitheatre has a tesselated marble floor. The floor of the amphitheatre slopes very slightly towards a centre, where there is an opening to receive all water, blood, etc. In operating, Professor Volkmann does not use a spray. Before beginning to operate, the part is most thoroughly scrubbed with soap-suds and a nail-brush, until no dirt can possibly remain, and then the part is usually shaved. The sponges used in the amphitheatre are kept in seven earthen pails, marked for each day of the week.

Thus no sponge is used in operating unless it has soaked at least one week in carbolic acid. The strength of the solution in these pails is ten per cent. Before operating, the sponges and instruments are placed in a three per cent. solution. From time to time the wound is flooded from a small ordinary watering-pot without the sprinkler, and the pot is held high above the wound, so that the stream may fall with considerable force. The carbolic solution thus used is three per cent. The catgut and silk used for ligatures and sutures are kept on reels which lie continually in carbolic oil, and the ligatures are cut off and handed to the operator only when required. At the completion of the operation, after the wound has been thoroughly flooded and closed, a hand-spray is used during the application of the dressing. The wound is dressed with first a piece of prepared oil-silk protective, only large enough to cover the wound. Above this is placed a wad of very soft carbolised gauze, which is not folded but is shaken apart, and made into a soft mass. An abundance of this is used, then it is covered by an ample piece of gutta-percha protective, reaching far beyond the limits of the wound, and sufficient to render difficult the communication of any discharge with the air. This is held in place with a carbolised gauze bandage, which though, not so handsome as one of cotton cloth, adapts itself much better to the part, and is more secure. All interstices are carefully filled with wads of salicylic cotton, the elasticity of which tends to render the dressing more secure; and when complete, the dressing, though seemingly sometimes redundant, still fully realises the object for which it was applied, viz., the occlusion of the wound. That this method of operation is very successful, is fully attested by the results shown by Professor Volkmann's wards. When the wounds are to be opened and dressed, a simple hand-spray is used, and the wound is again thoroughly rinsed. For this purpose a can filled with a three per cent. solution of carbolic acid is used. In the side of the can, just at its lower border, is an opening to which a rubber tube is attached. This tube has a small nozzle, which can be inserted if necessary into sinuses. This is held above the head by an assistant, and the water thus runs into the wound with considerable force, or, by lowering the can, with as little force as may be desired. Sponges are used only in the primary operations, and never in dressing wounds, but pledgets of absorbent cotton, which after being used are thrown away. The free use of carbolic acid in the amphitheatre often floods the floor, but the opening in the centre serves to carry most of it away; still the feet of the operator and assistants are often wet. Although so much carbolic solution comes into contact with the wound, it is said that cases of carbolic poisoning are very rare. Bandages that are very little soiled are washed, disinfected, and again used in the polyclinic, but not in the operating amphitheatre; other dressings are burned.

SCOTLAND.

GRADUATION AT ABERDEEN UNIVERSITY.

THE medical graduation ceremony, in connection with this University, took place on the 2nd instant. Principal Pirie conferred the degrees on the various candidates. During the past year, thirty-five candidates were promoted to the degree of M.D.; forty-eight to the degree of M.B. and C.M. Mr. William Wilfrid Webb received his degree in Medicine and Surgery, with highest academical honours; and the John Murray Medal and Scholarship was awarded to John Alexander McWilliam, as the most distinguished graduate of the year.

COMBE LECTURES ON PHYSIOLOGY IN ABERDEEN.

THE trustees of the late George Combe have arranged with Professor Stirling, of Aberdeen, to deliver courses of elementary physiology, in relation to health, in Aberdeen, Montrose, and Arbroath, during the ensuing winter and spring. These lectures are mainly intended for the working classes, and are to form part of the plan of lectures which the trustees have already carried out in Dundee, Edinburgh, and Glasgow.

REPORT OF THE COMMISSIONERS ON THE MILK EPIDEMIC IN ABERDEEN.

IT will be in the recollection of the readers of the JOURNAL, that, not very long ago, there was an outbreak in Aberdeen of a somewhat obscure affection, which attacked a large number of persons of both sexes and of all ages; and, though not fatal in any case, was attended by very unpleasant and alarming symptoms. The milk-supply of the city was regarded as the cause of the outbreak; and Commissioners were appointed to report on the matter. This they have now done, and they have arrived at the following conclusions: 1. That the epidemic was caused by poisonous organic matter contained in the milk supplied to the customers from the dairy at Old Mill; 2. That the milk, when taken from the cows, was innocuous, and that it subsequently acquired its hurtful properties; 3. That poisonous organisms were contained in the cistern in the byre at Old Mill, and in the water passing through the cistern, and were thence communicated to the milk, but by what means there was no evidence to show. The delay in issuing the report has been partly due to the late period at which the commissioners received the scientific evidence on the microscopic and other qualities of the milk. It is satisfactory to know that there was no imputation of any wilful contamination of the milk. A number of methods which had been suggested had, in the opinion of the commissioners, all proved fallacious. The contamination was believed to have been of an entirely accidental nature. The inquiry was considered of great importance, as showing the dangers that might arise from an impure water-supply; and also that the disease, which had apparently never before been observed, might arise from what must be a very common conjunction of circumstances, viz.: milk and polluted water. It certainly was remarkable, that in the country districts, where the water-supply was often anything but satisfactory, the peculiar disease which occurred at Aberdeen had never before been recorded by any intelligent medical practitioner. It certainly pointed to the importance of our milk-supply being watched with the most scrupulous care, so that this primary article of food should be supplied to all under the best sanitary conditions. There are numerous appendices to the report, these including a full record of the evidence at the inquiry. We have already referred to this matter, and even now, with the details before us, we cannot say that the result of the investigation is altogether satisfactory, either to the public or those interested in the question on scientific grounds. Great publicity ought to be given to the results, so that all may be allowed to judge on matters so vital to the interests of the public.

SMALL-POX IN PENICUIK.

SOME time ago, small-pox was reported in Penicuick. The patient then admitted to the hospital has been discharged convalescent, and no fresh case has occurred. At Arbroath, two deaths in all have occurred: one on board the ship, and one in the hospital.

HEALTH OF GLASGOW.

THE report of the medical officer of health, for the fortnight ending August 6th, states that there were 424 deaths registered, representing a death-rate of 21½ per 1,000 living. The number of deaths from pulmonary diseases was 134, being a death-rate of 7 per 1,000 living, and constituting 32 per cent. of the total deaths. There were 8 deaths from fever, all being from enteric and none from typhus. The number of deaths from infectious diseases of children was 2[illegible]. There were measles, 7 from whooping-cough, and 5 from scarlet fever. There were 26 cases of fever registered—viz., 23 of enteric (undefined), and 2 of typhus; but, in addition, 132 cases of measles, 18 of whooping-cough, 31 of scarlet fever, 12 of diphtheria, and one of small-pox, were the occasion of various forms of sanitary supervision and control.

IMPORTANT DECISION AS TO PARISH [illegible]

FOR some time, as has been pointed out in the JOURNAL, there has been a difference of opinion between the Glasgow District Lunacy Board and one of the parishes within its boundaries. This parish (the Barony) has declined to pay lunacy rates, on the ground that [illegible] Act which sanctioned the formation of the Glasgow Lunacy District [illegible]

had provided suitable accommodation for its lunatic paupers; and, accordingly, it was entitled to total relief from assessments for lunacy purposes in the Glasgow district. The matter has now been satisfactorily settled by the General Board of Lunacy for Scotland, who have decided that, as there is not at present any power under the statutes to disjoin the Barony parish from the Glasgow Lunacy District, it is only reasonable to grant the Barony parish total relief from assessments for lunacy purposes, other than those necessary for the maintenance and support of the present satisfactory accommodation which it possesses for its pauper lunatics.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending August 6th, it appears that the death-rate in the eight principal towns was 21.1 per 1,000 of estimated population. This rate is 1.3 above that of the corresponding week of last year, and 2.9 above that of the previous week of the present year. The lowest mortality was recorded in Edinburgh—viz., 16.1 per 1,000; and the highest in Paisley—viz., 25.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.3 per 1,000, or 0.2 above the rate for last week. Bowel complaints, as usual at this season, were the most prevalent of the epidemic diseases, the mortality therefrom being most marked in Glasgow. Acute diseases of the chest caused 75 deaths, or 2 more than the number registered last week. The mean temperature was 57.7°, being 1.5° above that of the week immediately preceding, and 0.6° below that of the corresponding week of last year.

IRELAND.

THE authorities of the Limerick Lunatic Asylum attribute the large increase in the number of patients who have been recently admitted to the institution to the injurious effects of the land agitation.

AT Limerick, last week, a farm labourer named Egan was stung by a bee on the elbow; the limb became much swollen, and death took place within an hour from blood-poisoning.

QUEEN'S COLLEGE, GALWAY.

IN the annual report of this college for the session 1878-79 it was stated that its condition was satisfactory, and that its prospects were encouraging. The students attending lectures during that session numbered 167; but in the following session (1879-80) the number reached 180, and in the session that has just closed (1880-1) to 208. These figures indicate a progressive condition; and, taking into account the position of the college, the pursuits, present state of preliminary education, and material condition of the people, it may claim to have achieved a measure of solid success. The progress, condition, and requirements of the medical school require special notice. During the session 120 students attended lectures in this faculty, being the largest number since the opening of the college. The medical school, it must not be forgotten, has been created by the college; no such institution had previously existed in the west of Ireland; and the numbers have increased with a steadiness that gives promise of permanent prosperity. The president, in his annual report, adverts to a particular regulation that insures the efficiency of the instruction. At the present moment, special attention is directed to the question of the value of the lecture-system in medical education, and a proposal has been adopted by the English College of Surgeons that all candidates for its diploma shall be required to undergo an examination in anatomy and physiology at the close of their first year of study; not with a view to exemption from examination in these subjects at the usual time, but in order to ensure that a student's time shall not be wasted by a merely nominal attendance on lectures. Now in the Queen's College, Galway, a daily roll-call has always been in force in every class, and class examinations are frequently held. A daily class-examination is held in the class of anatomical demonstrations, and a weekly one in physiology; and no credit is given for attendance when the answering of the student evinces inattention and inadequate study of the subject. The class certificate thus not merely shews the payment of a fee and the entry of a name on the class-roll, but is a guarantee of continuous study of the subject on the part of the student during the entire session. The president is desirous to direct attention to this essential feature of the Queen's Colleges' system for this reason—that, while a reform of the well-known abuses of the lecture-system has been only partially secured by changes in the rules of a small number of medical institutions, the system of roll-call and class-examinations adopted in this college has avoided the evil from the beginning. The report refers to the pressing need of enlarged accommodation in the anatomical department of the medical school. Attention was called to this subject in former reports, and it is urged that a want so injurious to the prosperity of the medical school and the general interests of the college shall no longer be permitted to exist.

LURGAN UNION.

THE committee appointed by the guardians have ordered a portable disinfecting apparatus, at a cost of £110—not £10, as was previously stated—and the board have approved of the proceeding.—The medical officer of the workhouse has reported that three deaths have taken place from small-pox, that five cases of the disease have been admitted into hospital during last week, and that the usual precautions have been taken to prevent its spreading.

PAYMENT OF MEDICAL SUBSTITUTES.

THE Cavan Board of Guardians appear to consider that they are independent of the Local Government Board, and have issued the following document to their medical officers. "Cavan Board of Guardians, August 6th, 1881.—Dear Sir,—I am directed by the Board of Guardians of this Union to inform you that a resolution was unanimously agreed to at their meeting on the 2nd instant, to the effect that all the medical officers of the Union get notice that they will be required to pay their substitutes in case of illness or on leave; and, if they fail to agree to these terms, that they be called upon to resign. I am directed to inquire whether you are prepared to accept the terms of the resolution.—I am, sir, your faithful servant, JOSEPH GREER, Clerk of the Union." Such arbitrary conduct should not be permitted, and we trust the medical officers will refuse to agree to any such resolution, and will bring the matter under the notice of the Local Government Board.

MIDWIFERY FEES.

IN July of last year, the Lurgan Board of Guardians fixed the sum to be paid for medical assistance in difficult cases of midwifery at ten shillings for the town, and fifteen shillings for the country. However, recently, the services of Dr. Adamson were required in an urgent case of midwifery, and, as he very properly refused the ten shillings, the relieving officer promised him one guinea, which, being contrary to the regulation issued last year by the board, had to be submitted to the Local Government Board for their approval. Last week, at a meeting of the guardians, a letter was received from the Board approving of the relieving officer's action, but stating that it was irregular to pay the money to Dr. Adamson while the resolution was on the books. They further pointed out that the guardians could not legally put a limit to the amount to be paid to the doctor in a case of midwifery. Finally, after some discussion, the resolution passed in July 1880 was rescinded.

LUNATICS IN WORKHOUSES.

ON January 1st, there were in the 163 Irish workhouses 3,573 persons mentally afflicted, being 82 more than at the same date in 1880. During the year, 160 were transferred to asylums, as violent or acute cases, and likely to benefit thereby. In the above total, it is believed that the great majority of the demented poor are included. Inasmuch as wandering lunatics or destitute imbeciles and epileptics are directly removable to poorhouses by the relieving officers of unions in which they may be discovered, it may be inferred that, during the protracted severity of the weather in the past season, and the destitution so pre-

valent throughout the country, most of the unhappy individuals referred to found their way into these institutions. The number of receptacles for the insane in England is relatively three times greater than in Ireland, and an important element for consideration presents itself with reference to the proposed assimilation of the lunacy laws of the two countries. The Act 30 and 31 Vic., cap. 118, authorises two magistrates, on depositions sworn before them, but in the presence of the alleged lunatic, after being examined by a medical man, and on his certificate, to send the party, as being dangerous, to a district asylum. But it has frequently happened that the supposed patient was not insane, although he might have travelled under a police escort some seventy miles to the institution. A similar inconvenience could not occur to the same extent in England, where, apart from other considerations, the distance to be travelled would be small if the party were found not to be a suitable object for detention. As meditated by the proposed Bill, any medical practitioner or apothecary, experienced or otherwise in mental disease, could, on his own certificate, not only have an assumed case of acute insanity, but a congenital idiot or weak-minded epileptic, who, with a little care, might be well treated in an ordinary workhouse at half the cost, transmitted from the extreme point of one county to an asylum at the end of another. The direct tendency of such a power would be not only to fill hospitals for the insane with unpromising cases at a considerable increase of expenditure, but to the exclusion of others more urgent or more hopeful. Further, with reference to the introduction into the proposed Bill of a clause from the English Act which permits the boarding out of lunatics in private families, apart altogether from any intrinsic difficulties or domestic objections, to which latter it is obviously liable, it appears questionable to the inspectors of Irish lunatic asylums whether a like system would be judicious or opportune in the present social condition of Ireland. So far as the restricted accommodation in workhouses admits, on the whole, the insane are liberally treated. Their food is good and sufficient, and their clothing and bedding all that is required; and it is satisfactory to learn that the absence of recoveries in poorhouses among the mentally affected is in some measure counterbalanced by an average mortality certainly not over that of the ordinary inmates.

HEALTH OF CORK.

FROM the report of Dr. John Wall, medical superintendent officer of health, for the four weeks ending July 16th, we learn that the total number of deaths registered amounted to 113 (including 13 in the workhouse, who formerly had resided in the city), 8 of which were due to infectious maladies, and a similar number were infants under one year. During the same period, 169 births occurred, being equal to a birth-rate of 28.03 per 1,000. The annual death-rate per 1,000 inhabitants, calculated on the census of 1881, gives a total ratio of mortality of 18.74; but, if the deaths occurring in the workhouse be excluded, the urban mortality would then amount to only 17.35; from infectious diseases, 1.3; and an infant mortality of 1.3. It is gratifying to observe that, since the commencement of Dr. Wall's reports on the health of the city, the urban death-rate has never been so low as at present, and contrasts very favourably with the corresponding period last year, when the total mortality amounted to 25.62, and 4.29 from infectious diseases. Typhus fever, though still prevalent, has materially abated since previous report.

DEATH OF MR. JOHN DUNCAN, THE ALLOA WEAVER AND BOTANIST. This aged weaver and botanist, who some time ago was the subject of much public attention, and for whom a public subscription was raised, died lately at Droughsburn, Alford, in his eighty-seventh year. The severe winter told upon his health, and the change became apparent in the spring and early summer. Since the beginning of May, he had required constant attention both day and night. About a month ago, he became worse, and soon afterwards he gave instructions to send word to his friends "to tell them I'm dying". He became somewhat better, but only for a brief interval. He then gradually sank, and died peacefully. It is to be regretted that the public recognition of his talents and scientific researches was so tardy, and that the means of supplying comfort to his declining years should not have been forthcoming till he was on his deathbed.

FORTY-NINTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in RYDE, Aug. 9th, 10th, 11th, and 12th, 1881.

THIRD GENERAL MEETING.

Thursday, August 11th.

THE third general meeting was held in the Town Hall; Mr. BARROW, the President, in the chair.

Report of Parliamentary Bills Committee.—Mr. SIBLEY (in the absence of Mr. ERNEST HART, Chairman of the Committee) presented the report of the Parliamentary Bills Committee. It was published at page 241 of the JOURNAL for August 6th. Mr. Sibley added that the deputation mentioned in the last clause of the report had had an interview with Mr. Dodson. He moved:

"That the report of the Parliamentary Bills Committee be received and adopted, and that the Committee be reappointed as follows, with power to add to their number:—Mr. Ernest Hart, Dr. Fancourt Barnes, Mr. J. Wickham Barnes, Dr. Robert Barnes, Dr. J. M. Bryan, Dr. J. C. Bucknill, F.R.S., Dr. Andrew Clark, Mr. J. B. Curgenven, Dr. Davey, Dr. W. C. Grigg, Mr. H. Nelson Hardy, Mr. J. D. Harris, Mr. Reginald Harrison, Mr. W. Douglas Hemming, Dr. A. Henry, Dr. C. Holman, Dr. Norman S. Kerr, Dr. Macmillan, Dr. A. Meadows, Dr. E. Morris, Surgeon Myers, Mr. David Nicholson, Dr. W. Ord, Mr. S. B. Partridge, Dr. J. H. Paul, Dr. G. H. Philipson, Dr. R. Quain, F.R.S., Dr. S. Rees Philipps, Mr. W. Rivington, Dr. Joseph Rogers, Mr. C. H. Rogers-Harrison, Dr. J. Seaton, Mr. Septimus W. Sibley, Dr. A. P. Stewart, Dr. M. W. Taylor, Dr. E. H. Vinen, Dr. Charles Williams."

Dr. RANSOME (Manchester) seconded the motion.

Mr. MICHAEL, Q.C., (London) moved as an amendment:

"That it be an instruction to the Parliamentary Bills Committee to support the Bill for the compulsory notification of infectious diseases, introduced into the House of Commons by Mr. G. W. Hastings."

He said it was a matter of gratification that the medical profession had had a great deal to do with leading public opinion to the present consensus of feeling as to the desirability of a compulsory notification of infectious diseases. Anyone who had had anything to do with carrying out the Public Health Act would admit that it was possible for two children in a family to have an attack of virulent small-pox, in a room where there were assembled two thousand pawnbrokers' pledges belonging chiefly to the poorer classes, without any knowledge of the fact on the part of the sanitary authority or medical officer of health of the district. The wonder was, not that there was so much infectious disease, but that there was so little. He had come to the present meeting for the purpose of protesting against a false step which he feared the Association was proposing to take in showing, before Parliament, an unwillingness on the part of the medical practitioner to notify infectious disease directly to the sanitary authority. Many sanitary authorities had in their private Bills made it compulsory upon, in two cases, the occupier of the house, and, in all others, the medical practitioner, to notify to the public authority the existence of infectious disease; and a Bill had been introduced by Mr. G. W. Hastings, making that which was personal and local a general provision over the whole country; a Bill had also been introduced by Mr. Gray to provide for a similar state of things in Ireland. The general opinion of the profession was, that it was not desirable that the medical practitioner should certify to the sanitary authority, but that he should certify to the occupier of the house, or the person in charge of the sick, who should be required to transmit the certificate. Now, all would acknowledge that what was wanted was efficiency, and that it would [illegible] be secured by requiring the medical practitioner to transmit the certificate to the sanitary authority, instead of interposing another person. It had been objected that the householder, if such a duty were imposed upon him by the State, might be unwilling to call in a medical practitioner, and that in that way the interests of the sick would suffer. He contended that it would act quite differently. It should be remembered that, if no medical practitioner were called in, the duty on the householder would still remain, enforced by a penalty. But, if the allegation were true, it showed that the occupier would [illegible] if left to his own devices, to forward the certificate; and those who raised the objection [illegible] thereby that the Act would be less efficient if it were left to the householder to forward the certificate. Again, it was objected that medical practitioners would be unwilling to send a certificate, because it would disclose to the sanitary authority and

to the public the extent of his large practice. The argument was futile, because the extent of the practice might be known by the sanitary authority, whether the certificates were transmitted by the medical practitioner or by the householder. But the main objection was, that it would be a breach of the confidential arrangement existing between the medical attendant and his patient, if he were required to notify to the sanitary authority the existence of infectious disease. [*Hear, hear.*] If, however, the law were passed as desired, it would become part of the contract subsisting between the medical man and his patient, and therefore the objection vanished into air. As to the payment for the certificate, he thought it should be made by the sanitary authority, and not by the householder, as it was transmitted for the benefit, not of the householder (who might indeed be injured), but of the public. He could remember the time when medical men offered the same objection to certifying in the case of death, but no one would make such an objection now. If the householder had the duty of transmission assigned to him, and he neglected it, what would then be the relation between the medical and the person whose family he was attending? The latter would be prosecuted, and the medical attendant would be a necessary witness in the prosecution. What, then, would become of the "confidence" between them? How much better would it be for medical men to say, "Whatever our own feelings may be, it is for the interests of the public that this should be efficiently carried out, and we will sink our own personal feelings, as we have thousands of times before, in order to promote a great public sanitary object."

Mr. HUMPHREYS (Shrewsbury) seconded the amendment.

Dr. FITZPATRICK (Liverpool) said it was all very well for consulting physicians and surgeons in London and large provincial towns, whom the proposed law would not affect, to advocate its enactment. General practitioners were otherwise situated, and would have all the work thrown upon them for a paltry fee. He maintained that every man should take charge of his own household, and that medical men should not be required to relieve him from the responsibility. Among the lower classes, people often delayed to send for the medical man until the sufferer was *in articulo mortis;* and then they only sent because they happened to belong to some club or benefit society. Under the proposed Act, he believed that state of things would be greatly aggravated, and the number of uncertified deaths would be largely increased.

Dr. JACOB (Dublin) dissented both from the amendment and from the report of the committee. It was not the function of the Association to introduce a Bill to render the notification of disease compulsory upon the medical man. Their duty was not solely a philanthropic one; but they were bound to consider the bearing of all proposed Acts of Parliament upon the medical profession, and to think well before imposing fresh obligations upon it. Any Bill which compelled the medical man to break the confidence reposed in him by his patient would be intolerable; and he believed there were many who, no matter what might be decreed by Parliament, would decline the duty sought to be imposed upon them; so that the Bill, if passed, would be inoperative. One of the effects of the measure would be to throw practice into the hands of practitioners whose consciences were not very tender. If a medical man reported cases of infectious disease in a lodging-house, a school, or a large commercial establishment, was it likely that he would be called into the house again? In a similar case, another practitioner would assuredly be called in, who would perhaps not view the case so strictly, and would not find it necessary to make a very accurate diagnosis between, *e.g.*, scarlatina and herpes. Thus a great amount of disease would be registered under the wrong name, a good deal would escape notification, and thus the Act would defeat itself. A statement had recently been made by the Public Health Committee in Dublin, to the effect that dispensary medical officers were habitually excluded from practice because they had to perform the duty of notifying infectious diseases; and that other practitioners who had no such duty were called in instead, and that they concealed the disease. That was a practical illustration of what he (Dr. Jacob) had said. It was said that the thing was working well in the towns where the Acts were in operation, and that medical men were delighted. He ventured to challenge that statement. If it were true, how was it that the opposition to Mr. Hastings's Bill came from Mr. Thompson, who represented the very borough where notification was carried out in its entirety? He knew that a strong opinion existed amongst medical men, where notification was at work, that they were being called upon to break the confidence of their patients for a very doubtful advantage. He hoped that the matter would be reconsidered by the Parliamentary Bills Committee, and that they would refrain from introducing any Bill of the kind proposed. He had as much objection to indirect as to direct notification, and therefore he did not think that the question could be satisfactorily settled by the compromise proposed in the report.

Dr. RANSOME said he shared Mr. Michael's views as to the desirability of fully carrying out the notification of infectious diseases; but because he disagreed with him as to the best method to be adopted, he supported the report of the Committee. He was convinced that the practice of medical men would be injured if they were obliged to certify the occurrence of infectious disease. People would refrain from sending for a medical man, because in that case they might escape the penalty on the plea of ignorance, which they could not put forward if a medical man were in attendance.

Dr. BORCHARDT (Manchester) thought that the course proposed by the amendment would be impracticable, injurious, and unwarranted. With regard to the report of the Committee, it should be observed that it did not propose to make the notification compulsory upon the medical man, but that the question who should transmit the notice should be taken by the Legislature in Select Committee.

Dr. ROYLE (Manchester) said that the unanimous feeling of the profession in the county of Lancashire was that, if infectious diseases were required to be notified (to which they did not particularly object), medical men should not be made to act the part of spies—[*hear, hear*]—and break the confidence reposed in them by their patients. Some persons seemed to think the medical men ought to do everything for everybody, for some insignificant fee like the sixpenny certificate under the Factory Act. But by no pretext or side-wind would the medical practitioners of the country consent to be the direct senders of the notification, whatever the fee might be. If the occupier of the house neglected his duty, he was the proper person to be punished. The proposed enactment would be highly injurious to the profession, would lead to illegal practice, and increased mortality. He hoped the committee would not be led away by the specious arguments advanced in favour of a measure that would lead to so much deception, concealment, and illegality.

Mr. Michael's amendment was then put, and was negatived by a large majority, only five hands being held up in its favour.

On the motion for the adoption of the report being put,

Mr. SIBLEY explained, in answer to several inquiries, that the committee had recommended that the medical attendant should give an intimation to the parent or guardian of the sick person, on whom should rest the duty of giving information to the sanitary authority.

The motion was then carried by a large majority.

The Address in Surgery was delivered by JONATHAN HUTCHINSON, F.R.S., Senior Surgeon to the London Hospital. It is published at page 309.

Professor HUMPHRY (Cambridge) in proposing "That the best thanks of the Association be given to Mr. Jonathan Hutchinson for his able and interesting Address in Surgery", said that Mr. Hutchinson was one of the true nobles of the profession and of mankind, having spent his life in serious, earnest, noble work, for the good of the community. His address was eminently characteristic of himself, and they might all apply to himself the words he had used with regard to the profession, *credo, spero*, and (above all) *amo*.

Dr. STOKES (Dublin) in seconding the motion, said that in the British School of Surgery there was no representative whose indefatigable industry and keen and brilliant intellect had done such good and lasting work as Jonathan Hutchinson. He had shown that special studies could be pursued without danger; for, while he had devoted particular attention to special subjects, he had never left the broad road on which the very foundations of surgery were built. He regretted, however, Mr. Hutchinson's endorsement of what had fallen from Dr. Bristowe on the question of homœopathy and homœopathists, and he regretted it, not only in the interests of British medicine and surgery, but in the interests of the Association. [*Loud applause.*] It was a satisfaction to those who practised surgery purely that there was no room for homœopathists, however high-minded they might be; and this led him to repeat the saying of a great thinker, that surgery was the salvation of medicine. [*Laughter and applause.*] As to Mr. Hutchinson, whether regarded as a physiologist, or as a pathologist, or as an investigator in any of the branches of science to which he had devoted his attention, they could say of him, "nihil tetigit quod non ornavit".

The motion was carried by acclamation, and was briefly acknowledged by Mr. Hutchinson.

Vivisection.—Dr. HUMPHRY (Cambridge) moved:

"That this Association desires to express its deep sense of the importance of Vivisection to the advancement of Medical Science, and the belief that the further prohibition of it would be attended with serious injury to the community, by preventing investigations which are calculated to provide the better knowledge and the treatment of disease in animals as well as in men."

He said: Before venturing to propose this resolution, I thought long

and seriously upon the subject. I mentioned it to a considerable number of the other members of the Association; and they all, every one to whom I spoke, agreed with me that, whereas there is so much of misrepresentation and exaggeration, to say the least of it, placed before the public on this subject, which is tending to bring the minds of many persons, and, I am sorry to say, of our legislators, to wrong opinions on this matter, it was the duty of us, as members of the profession and of the Association, who know what is right, who know what is the real position of the matter, who know the real importance of vivisection to the advancement of our profession and the welfare of the community—it was our duty in the interest, less, indeed, of our profession than of the general welfare of the public, that we should speak out and state what we think distinctly. Gentlemen, the first argument raised against vivisection is the question *Cui bono?*—that question which stops so many a good thing—what good has it done? What good can it do to medical science and medical practice? To one who surveys the progress of medical science from its beginning, this question seems to be scarcely possible for persons to ask. Why, the truth is, that almost every advance—I am speaking thoughtfully and carefully—almost every advance in our knowledge of the workings of the human body has been made through vivisection. [*Applause.*] Our knowledge of the movement of the blood, our knowledge of the mode of action of the heart, and of the other processes by which the circulation of the blood is effected, of the functions of the nervous system, of the functions of the brain, of the several parts of the brain, of the functions of the spinal cord, of the several parts of the spinal cord, of every nerve which passes from the brain and the spinal cord, of the influence of those nerves over every organ and structure of the body, over the heart, over the lungs, over the stomach, over the pulse, over the kidneys, over the bladder, over the skin, over the muscles, is almost entirely due to vivisection. The knowledge of the great processes of secretion, of the functions of nearly every gland, and of nearly every organ, is due almost entirely to vivisection. What has been the influence of this upon medical treatment? Almost all real great advance in medical treatment has been due to better medical knowledge, and that better medical knowledge is greatly due to the advancement of physiology. Take away the knowledge which we have received through vivisection, and conceive what a chaos would be our knowledge of the human body and our ideas of the treatment of the diseases of the human body! You can scarcely conceive to what we should be reduced. Every man—in the whole history of medicine—every man who has made real advances in the knowledge of the workings of the human body, has done it through vivisection. From Galen, and Vesalius, to Harvey, to Hunter, to Hope, and Brodie—for this, the most practical of modern surgeons, was a vivisector—every one of these men, and they are few among the many, has made his greatest discoveries through vivisection. And in our own day, the observations which have been made, and which have led to the better treatment of wounds (and conceive the importance of that), and the better methods of securing blood-vessels, have been due, as I know, in great measure to vivisection. The man who first employed the carbolic ligature would never have ventured upon it on the human body, had he not first carefully tried it upon animals. And, with regard to that remarkable and most important discovery which was detailed in the International Medical Congress, by Pasteur, and which I regard as one of the greatest discoveries in medicine, and one which perhaps heralds more good to animals, as well as to man, than any other in our time, it is due to experimentation upon animals, and could not possibly have been made without that; and the result of Pasteur's investigations, which are but of yesterday, is that thousands and tens of thousands of sheep in France are being subjected to that inoculating process which he, by experimentation upon animals, has proved to be efficacious to ward them from some of the most malignant diseases. Let the *cui bono* question never be put again; and, if it be, let every medical man at once be ready with a full and complete answer. Indeed, the advantages derived from experiments on dead matter in the chemist's laboratory might as well be questioned as those derived from experiments which have, from time to time, been made upon the living animal in the laboratories of physiologists and pathologists. Another argument against vivisection is, that it hardens the heart and demoralises the men who do it, and the students who see it. Now, is this a fact? We are asked for facts as to the advantages of vivisection; let us ask for facts as to the disadvantages. Is this a fact? Are the men who are compelled to or who do inflict pain upon others, men or animals, of harder hearts than the rest of mankind? Are the surgeons who are continually, day by day, in my early days especially, inflicting long continued, severe, and horrible pains upon their fellow creatures—are they and were they of harder hearts than the rest of mankind? And does it produce any hardening effect upon students? To go a little further, the men who go out with their guns, and leave the partridges and the grouse dying upon the field—do we look upon them as men with hard hearts? The men who go out fishing, who perforate the writhing worm with a hook, who hook the fish and leave it to die on land—do we think of them as men with hard hearts? No, gentlemen, it is the motive that hardens the heart. The springs of charity may be poisoned by a bad motive. If you give a beggar sixpence to get rid of him, that hardens the heart; and if the springs of charity may be poisoned by ill motive, may not the work of vivisection, is not the work of vivisection, hallowed by good motive? Gentlemen, I know something of vivisection. I know that it is practised, whenever it can be so practised, under anæsthesia. Now this is not admitted; but it is a fact. I have never seen an animal tortured when that torture could be prevented. Anæsthetics are almost invariably used, unless there is some special reason against them. I wish this to go forth to the world; and I think the manner in which this is overlooked or not stated is too bad. Anæsthetics, I repeat, are always used when it is possible to use them, and experiments are not performed unless there is a real object for the performance. I know the men to do it, and I know that they are kind-hearted, upright, and honourable men. Let me take one whose name is held up to scorn as a vivisector, Michael Foster. [*Applause.*] A kinder, truer, better, nobler man does not exist amongst anti-vivisectionists—does not exist in the world, perhaps, than Michael Foster. There is not a man of my acquaintance to whom in the hour of trial and in the hour of need I would look for help with greater confidence, though it might be to his own inconvenience or detriment (and that is a test of good-heartedness), no man to whom I would sooner appeal than to him. There is no man who binds others to him by the simple kindness and unselfishness of his nature more than he. There is no man who would form a better president of a society for the prevention of cruelty to animals than he. [*Applause.*] This argument is one which has no foundation whatever in fact. It is said by some of these persons that they would not participate in any benefit which resulted from injury to animals. Then, gentlemen, they must forthwith take their departure out of this poor, bad, low world; for it is perfectly clear that they can never sit down to dinner, that they can never walk abroad without doing injury to some part of the animal world. But is this the principle upon which we act in other things? Why is punishment inflicted on man? Is it to improve the individual? Do we put a man in jail to improve him? We put him in gaol to benefit the community in one way or other. We execute a man surely not to benefit *him*. To my mind, capital punishment has no foundation to stand upon whatever, save that it prevents crime in others; that is to say, it benefits others. We, therefore, are in the habit of torturing and actually killing the human body simply for the purpose of doing good to others. Well, gentlemen, to my mind, if there be demoralisation connected with this matter, it is the demoralisation connected with false statements and imperfect knowledge. I do not know that there is anything in the course of my life which has shaken my feelings with regard to the uprightness, the integrity, and, above all, the fairness of Englishmen, so much as the manner in which this subject of vivisection has been paraded before the public, fortified with exaggeration, with carelessness, with false statement. [*Applause.*] Certainly no demoralisation associated with vivisection is at all to be compared with the demoralisation and damage which is done to the minds and thoughts of the community by the statements which are made against it. I am glad to hear that a resolution similar to the one I propose was passed at the International General Congress, and I believe it was passed unanimously. It is an absolute necessity that vivisection shall be practised, just as it is necessary that dissection of the human body shall be done. If it be not done in a legitimate way, it will be done in some other way. Is it not, then, far better that what must be done should be done in a recognised manner, by Englishmen, supposing them to be less prone to inflict unnecessary suffering than foreigners? Here let me say that I do not make any imputation against foreigners, but remark that the instances of such inflictions are usually adduced from abroad; perhaps, because they therefore are not easy to disprove? Is it not better that it should be done in England under such reasonable regulations as may be found desirable? and English physiologists are as anxious as any other persons that all unnecessary suffering should be prevented. Is it well that Englishmen should be compelled to go abroad, as is even now in some instances the case, for the purpose of prosecuting that method of research which they know to be essential to the advancement of their science? Vivisection must not be viewed from the side of sentiment only. It must be regarded as a matter upon which the welfare of mankind is eminently dependent—so much so, that we must not allow our feelings for the lower animals to sway our judgment, and must no longer allow the exaggerated statements which are made respecting it to pass unchallenged. Disease is increasing with civilisation; and, unless we

meet disease—the disease which civilisation causes—by the powers which civilisation gives us, our people will degenerate; and bear in mind, and let the world bear in mind, that there is no physical degeneration without a moral degeneration. The two go together. The moral and the physical welfare of the people are closely associated with this matter of vivisection; for I am sure that our knowledge of physiology, of pathology, and of the treatment of disease, is to be obtained in the future very largely through it. What we may call dead structure is pretty much worked out; it is living processes that need to be investigated, and living processes can only be investigated while life is going on. Therefore, I do hope that our countrymen will become more reasonable upon this point, and exercise their own reason, and their own thought, and not be led away by the various publications which are issued respecting it, for which, and for the statements that are made in them, I have some difficulty in accounting. I sometimes think that there must be money to be made by them. [*Laughter.*] I have been told there is. However, let our countrymen calmly and dispassionately consider the matter for themselves; and, above all, let our legislators beware how they introduce any additional restrictions, for they will be certain to have a deep, serious, and lasting effect for evil upon the welfare of our country. [*Applause.*] Surely, if there is any class of men whose opinion upon the subject may be confidently taken, it is that of the practical, hard-working members of the Association—men whose desire and efforts to cure disease are equalled only by their desire and efforts to prevent it; men who can have no sinister or selfish motive in agreeing to the resolution I propose, most of whom have not had, and are not likely to have, anything to do with vivisection. It lies out of the path of the men who are engaged in the routine of daily practice. But we know what has been accomplished by it already. We can estimate to some extent what it is likely to do for man and for animals in the future, if those who are, often most unselfishly, devoting themselves to the study of physiology and pathology, are allowed a reasonable liberty in employing this fertile method of inquiry. We claim, therefore, that our voice should be heard when we speak in the interests of humanity, and with a knowledge of what is necessary to promote those interests. I therefore propose the resolution, in the full confidence that it will meet your hearty approval.

Mr. HUSBAND, in seconding the motion, said he was quite content to place the defence of vivisection on the speech of Dr. Humphry, and on the good sense and knowledge of the profession. He was indignant that it should be supposed that they belonged to a cruel profession. They practised it with the noblest motives; and there was not, he believed, a man among them who would inflict the slightest unnecessary cruelty upon the animal creation. He hoped that Dr. Humphry's speech would be printed, and circulated throughout the country, as a noble answer to the vilification of their scientific inquiries. He thought they had been guilty of some little cowardice in the matter, but he could not lay that charge to his own door; for, when an antivivisection meeting was threatened in the city where he resided, he said he would attend it and tell his fellow-citizens the truth, if he stood alone. The meeting was not held, for the promoters of the cause were afraid to face the light.

Dr. DRYSDALE said he was entirely in favour of vivisection, but his recollections of it in Paris were not altogether *couleur de rose;* and he thought it had sometimes a tendency to harden those who practised it too much.

The motion was then put and carried (with one dissentient); and the meeting adjourned.

FOURTH GENERAL MEETING: FRIDAY, AUGUST 12TH.

The fourth general meeting was held at the Town Hall on Friday, Mr. BARROW, President, in the chair.

Address in Obstetric Medicine.—Dr. SINCLAIR COGHILL delivered an address in Obstetric Medicine. It is published at page 314.

Dr. MALINS (Birmingham), in proposing a vote of thanks to Dr. Coghill for his able and interesting address, referred to the unbounded hospitality extended to the members of the Association during its meetings in Ryde; and said that one of their most agreeable reminiscences would be the admirable address to which they had just listened.

Dr. BATTEY (Rome, Georgia), in seconding the motion, took the opportunity of expressing his gratitude for the great kindness and consideration which he had received at the hands of the British Medical Association. Not long since, he had greatly feared the disapprobation of that eminently conservative body—[*laughter*]—in consequence of certain bold propositions that he had made; but he had had abundant reason for deep gratitude for the generous and distinguished consideration that had been accorded both to himself personally and to his work.

The motion was unanimously adopted; and Dr. Coghill briefly returned thanks.

Joint-Committee on State Medicine.—Dr. A. CARPENTER (Croydon) proposed the reappointment of the Joint-Committee of the British Medical and Social Science Associations, namely: Mr. L. Angell, Dr. J. T. Arlidge, Dr. E. Ballard, Dr. C. O. Baylis, Dr. Beddoe, F.R.S., Dr. F. T. Bond, Dr. W. E. Buck, Mr. E. Chadwick, C.E., Dr. A. Carpenter, Dr. G. W. Child, Mr. W. Clode, Mr. R. R. Collins, Dr. W. H. Corfield, Dr. T. O. Dudfield, Dr. G. F. Duffey, Dr. R. Farquharson, M.P., Dr. Farr, C.B., F.R.S., Dr. Cornelius Fox, Dr. W. T. Gairdner, Capt. D. Galton, C.B., F.R.S., Dr. Grimshaw, Mr. Ernest Hart, Mr. G. W. Hastings, M.P., Mr. A. Haviland, Mr. B. Latham, C.E., Mr. J. Liddle, Dr. H. D. Littlejohn, Dr. R. D. Lyons, M.P., Mr. W. H. Michael, Q.C., Mr. F. G. P. Neison, Colonel Oldfield, Dr. H. F. Parsons, Dr. Phene, Dr. G. H. Philipson, Mr. F. S. Powell, Dr. A. Ransome, Dr. B. W. Richardson, Dr. Joseph Rogers, Dr. A. P. Stewart, Mr. G. J. Symonds, F.R.S., Dr. J. W. Tripe, Dr. N. Tyacke.

Dr. WATERS (Chester) seconded the motion, which was unanimously adopted.

Report of the Committee on Restrictive Legislation for Habitual Drunkards.—The Report of the Habitual Drunkards Committee was read. It was published at page 179 of the JOURNAL for July 30th.

Dr. A. CARPENTER (Croydon) moved:

"That the Report of the Habitual Drunkards Committee be received and adopted; and that the Committee be reappointed as follows, with power to add to their number: Dr. Alfred Carpenter, Dr. G. F. Blandford, Mr. William Cadge, Dr. Cameron, M.P., Dr. J. W. Eastwood, Dr. B. Foster, Mr. W. C. Garman, Mr. Carsten Holthouse, Dr. Norman S. Kerr, Mr. Charles Macnamara, Dr. H. Monro, Mr. G. W. Mould, Mr. R. H. B. Nicholson, Dr. J. Rogers, Dr. A. P. Stewart, Dr. Farquharson, Dr. E. H. Vinen."

He said that the cause they were desirous of promoting had met with a serious impediment in the unfortunate loss of the energetic Secretary, Mr. Alford; but he was sure that the office would be filled by Dr. Norman Kerr, who had been appointed as his successor, with the greatest efficiency. With reference to the application to boards of guardians mentioned in the report, he might state that the majority of boards of guardians were opposed to the power of spending money being placed in their hands; but the intelligent boards were in favour of that addition being made to their powers; and he was sure, when the subject was put before them by the new Committee, they would see that they ought to have power to take steps to cure such cases, just as they had power to cure lunatics, and to pay for the cure of idiots.

Dr. NORMAN KERR (London), in seconding the motion, said that the first report of the inspector under the Act was certainly very unsatisfactory, but he could not agree with the statement made in some journals, that the Act had been ineffectual. Those who had had experience in the matter were thoroughly convinced that habitual drunkards could be cured, at least some of them; and they were bound to show the sceptical and unbelieving that that was the fact. In the Home they were endeavouring to establish, he hoped results would be produced which would convince the Legislature and the public that the work in which they were engaged could be successfully accomplished, so that when the present Act expired it would be renewed with far more extensive powers, which would enable them to carry on their operations to a more successful issue.

Dr. STEWART (London), in supporting the motion, said that there were a large number of persons of limited means who at present were absolutely excluded from all chance of separating themselves from the temptation of drink, and he trusted that some steps would be taken for placing the means of withdrawal within their reach.

Mr. WATKIN WILLIAMS (Birmingham) said that he knew personally cases of inveterate drunkards who would be glad to avail themselves of such retreats if they were provided.

Dr. A. CARPENTER said that application would be made to the boards of guardians on the subject, and that the matter would also be pressed upon the attention of the Local Government Board.

The motion was then put and carried.

Report of the Medical Reform Committee.—The report of the Medical Reform Committee was presented. It was published at page 239 of this JOURNAL for August 6.

Dr. WATERS (Chester) proposed: "That the report of the Medical Reform Committee, be received and adopted, and that the committee be re-appointed as follows, with power to add to their number—Dr. E. Waters, Mr. W. D. Husband, Dr. Alfred Carpenter, Dr. M. M. De Bartolomé, Dr. C. Chadwick, Dr. J. G. Davey, Dr. Balthazar Foster, Mr. Ernest Hart, Rev. S. Haughton, Mr. H. Nelson Hardy, Dr. D.

J. Leech, Mr. F. E. Manby, Mr. W. H. Michael, Q.C., Mr. R. H. B. Nicholson, Dr. A. P. Stewart, Dr. W. F. Wade, Mr. C. G. Wheelhouse." He said they had reached a crisis in regard to the objects for which the Association had been long struggling, and which were now, he hoped, on the eve of being realised. They had in the report a statement of the result of something like fifty years' labour of the Association in connection with medical reform. In the second year of the Association, 1833, an admirable paper was read on the subject by Dr. Barlow, in which he had laid down certain principles involving improved preliminary education, professional education, and the passing of such an entrance examination into the profession as would guarantee the public that all who possessed it were qualified, not in one branch of the profession merely, but in the three great branches, medicine, surgery, and obstetrics. A Medical Reform Committee was appointed, and to its persevering and self-denying labours they were indebted for the passing of the Medical Act of 1858. He regretted to say that the members of the committee had passed away, with one exception, Mr. Husband, whose past services had been beyond all praise, and who was still a tower of strength amongst them. After the passing of the Act of 1858, the General Medical Council, which was expected to do great things for the body that had called it into existence, passed some very good resolutions with regard to Preliminary Education, but, though twenty-three years had since elapsed, the recommendations adopted had not been carried out. With regard to obstetrics, Sir Robert Christison, years ago, carried a resolution, stating that the examinations required by many of the corporations did not indicate the attention that the subject deserved. He proposed that no course of less than six months' instruction should be accepted, as a necessary preliminary to examination, and his resolution was carried; but in that matter also the conduct of the General Medical Council had been weak and vacillating, for, from that day to the present, it had done nothing to enforce the resolution. If there had been direct representatives of the profession in the council, the glaring defects which still existed in regard to preliminary education and other matters would not have been allowed to continue. It had been most difficult to prevail against vested interests, but he believed that in the Royal Commission they had a body determined to sift the question to the bottom. The Royal Commission had gone not merely to the General Medical Council, but to all interested in medical reform and to the British Medical Association; and he (Dr. Waters) had given evidence before the commissioners in accordance with the principles for which the Association had always contended. He believed he was correct in saying that at no period in the history of the Association had its influence with the Government been greater than it was at the present moment. The Government was prepared to work in the interest of the public and of the profession, and would naturally expect the profession to support them in the Medical Acts Amendment Bill, which, he believed, would be proposed in the ensuing session of Parliament. He hoped the members would do all they could to assist the Government in the matter, and bring it as far as possible before the members of Parliament, with whom they might be brought into contact, so as to strengthen the hands of the Government in their efforts to settle a long-vexed question.

Mr. WATKIN WILLIAMS (Birmingham) seconded the resolution.

Mr. WICKHAM BARNES (London) objected to the clause in the report with reference to the discontinuance of the representation of the Apothecaries' Society of London in the General Medical Council. He believed that the great body of practitioners throughout the country were in favour of the Society of Apothecaries retaining its present position. It had done great service, and he objected to any confirmation of the recommendation in the report.

Dr. A. CARPENTER explained that the clause objected to by Mr. Barnes was one of a series of resolutions, proposed at a meeting on the subject of medical reform. It was merely a record of what had actually taken place, and had no binding effect upon the meeting.

Dr. STEWART (London) said it appeared, from a subsequent paragraph in the report, that the resolutions in question were really the foundation for the Bill that had been drafted.

Dr. A. CARPENTER said it was not the Bill of the Association.

Mr. HUSBAND (Bournemouth) said that the Bill had been withdrawn, and the report only contained a history of what had actually taken place.

Dr. WATERS said, if it was desired to retain the Society of Apothecaries, the question should be submitted clearly to the members.

Dr. HADDON (Manchester) said that other societies were also mentioned in the report, and he saw no reason for singling out one of them, which, he believed, was not worse than its neighbours.

Mr. HUSBAND said he yielded to no one in respect for the work that the Apothecaries' Society had done; but he believed its day was past, and he did not think it would be for their credit to be any longer connected with a trading company, or a corporation that had to do with the sale of drugs. It might still be necessary in some country places; but he believed it did more to degrade the medical profession than anything else. They ought to legislate, not for the past, but for the present and the future.

Dr. WATERS expressed his concurrence in the observations of Mr. Husband. There was no corporation, he said, which had done more towards the general advancement of medical education than the Apothecaries' Society, but the corporations had had their day; and, many years ago, the Apothecaries' Society, through its representatives, at a conference at which medical reform was debated, declared that they were willing to forego their privileges, if only the College of Physicians of London would undertake the duties that they had previously discharged. As an educational institution, what had the Apothecaries' Society to do with the General Medical Council? It had no school, and it exercised no influence on education except as a mere examining body, and its examinations did not compare with those of the College of Physicians. It was well known that those who desired to pass the most easy preliminary examination went to the Apothecaries' Society. He hoped that the Association would have the courage to stand up for what was strictly right and proper in regard to medical education.

Mr. JABEZ HOGG (London) said that the Apothecaries' Society had no connection with the Apothecaries' Hall for the sale of drugs; and since the Government had required that all practitioners who applied for appointments as Poor Law Medical Officers should have two qualifications, it had been found that the Apothecaries' Society qualification was a very useful one. It would be wrong, he thought, for the Association to confirm a resolution like that referred to in the Report in the face of that requirement on the part of the Government.

Dr. STEWART thought it would be very desirable that the Medical Reform Committee should have some indication of the mind of the Association in reference to the Apothecaries' Society, in order to make the ground plain for its future action with regard to any other Bill that might be introduced.

Dr. KEALY (Gosport) said he had a great respect for the Society of Apothecaries, of which he was a licentiate, but he could not help thinking that it had done its work, and he had recently advised his son to seek a qualification elsewhere. He hoped the day would come when they would get rid of all corporations, and have one simple qualification.

Mr. WICKHAM BARNES moved:

"That it is the opinion of this meeting that the Apothecaries' Society of London should retain all the rights which it at present enjoys."

Mr. D. DE BERDT HOVELL (London), in seconding the amendment, said he desired that some institution should be retained in the profession to acquaint its members with the uses and properties of drugs, in which doctors of medicine were frequently egregiously ignorant. He had recently seen an assistant, who was M.D., actually order carbonate of magnesia and sulphuric acid in the same prescription.

The amendment was then put and negatived by a large majority, and the motion for the adoption of the report was carried *nem. con.*

The Report of the Scientific Grants Committee, published in the BRITISH MEDICAL JOURNAL, August 6th (page 240), was presented.

Mr. HUSBAND (Bournemouth), in the absence of Dr. WADE, moved:

"That the report of the Scientific Grants Committee be received and adopted, that a sum not exceeding £300 be granted for the purposes of the committee, and that the committee be reappointed as follows, with power to add to their number:—Dr. Wade, Dr. A. Carpenter, Mr. W. D. Husband, Mr. Alfred Baker, Dr. Lauder Brunton, F.R.S.; Dr. C. Chadwick, Dr. Michael Foster, F.R.S.; Mr. Ernest Hart, Dr. R. McDonnell, F.R.S.; Dr. W. Rutherford, Dr. Burdon Sanderson, F.R.S.; Dr. E. Sieveking, Dr. A. P. Stewart, Dr. E. Waters, Mr. C. G. Wheelhouse, Dr. S. Wilks, F.R.S."

Dr. ANNINGSON (Cambridge) seconded the motion.

Dr. ROYLE (Manchester) called attention to the fact that Dr. McKendrick and other gentlemen had spent more than the amount allowed, and asked whether it was intended to refund those additional amounts.

Dr. HADDON (Manchester) thought it was hard that gentlemen should have to spend money of their own in carrying on the investigation, and get nothing for it. He thought a better plan than the present would be to close the investigations, and to offer prizes, say of £100 each, for all investigations in the various subjects selected by the committee.

Dr. STEWART (London) said that great results had followed from the labours of the committee, and that Professor Rutherford had told him that, if it had not been for the grant of the committee, his labours would never have been undertaken.

The motion for the adoption of the report was then put and carried.

The Supply of Calf-Lymph.—The following communication was made from the Section of Public Medicine, Thursday, August 11th.

"Proposed by Dr. Drysdale, seconded by Dr. Charles Renner, and resolved: That this Section, whilst having full confidence in the present supply of lymph, expresses a hope that the Local Government Board will proceed without further delay to organise the supply of calf-lymph to public vaccinators from the Central Vaccine Department, as promised last session to Dr. Cameron, M.P."

Votes of Thanks.—The following votes of thanks were unanimously passed.

Moved by Dr. A. CARPENTER (Croydon), and seconded by Mr. M. A. BAZILLE CORBIN (Guernsey): "That the cordial thanks of the Association be given to the Mayor and Corporation of Ryde for their kindness in granting the use of the Town Hall for the annual meeting of 1881."

Moved by Dr. WARD COUSINS (Southsea), seconded by Mr. CORBIN (Guernsey): "That the warm thanks of the Association be given to the Mayor and the inhabitants of Ryde and neighbourhood for their hospitality in giving a reception at the Town Hall upon the occasion of the forty-ninth annual meeting of the Association, and for providing a steamer for the excursion round the Island."

Moved by Mr. DOUGLAS HEMMING (Bournemouth), seconded by Mr. JABEZ HOGG (London): "That the inhabitants of Newport and Ventnor, and the other towns of the Island, be requested to accept the warm thanks of the Association for their hospitality, on the occasion of the forty-ninth annual meeting of the Association."

Moved by Dr. ELLIOTT (Purbrook), seconded by Dr. ROYLE (Manchester): "That the warm thanks of the Association be given to the Committee of the Young Men's Christian Association, for the use of their rooms and library during the meeting."

Moved by Mr. MASON (Bath), seconded by Mr. WRIGHT BAKER (Derby): "That the best thanks of the Association be given to the Right Reverend Bishop McDougall for his eloquent sermon preached upon the occasion of the annual meeting at Ryde."

Moved by Dr. HADDON (Manchester), seconded by Mr. NICHOLSON (Hull): "That the cordial thanks of the Association be given to Sir William Clifford, Bart., the Right Hon. Sir William Hutt, and the Poet Laureate, for their kindness in throwing open their grounds to the members of the Association; and to the Rev. Alfred Locock and Robert Pinnock, Esq., for their hospitality on the occasion of the forty-ninth annual meeting; and to the Directors of the Ryde Pier Company for granting the free use of the Pier to the members of the Association."

Moved by Dr. SYDNEY COUPLAND (London), seconded by Dr. HARRISON (Clifton, Bristol): "That this meeting welcomes with pleasure the foreign guests who have honoured it with their presence, and thanks them for their scientific contributions, which have added greatly to the success of the meeting."

Moved by Mr. MANBY (Wolverhampton), seconded by DR. STEWART (London): "That the best thanks of the Association be given to the Local Executive and Reception Committees, to the Treasurer, Dr. Davey, and to Dr. J. M. Pletts, Mr. Green, and Dr. Groves for organising this meeting at Ryde, and also to Dr. Groves for his additional services in arranging the excursions; and to Mr. Rich for organising the Museum of the Association."

The President having left the Chair, it was taken by Mr. Wheelhouse, President of the Council.

Moved by the PRESIDENT OF THE COUNCIL, seconded by Mr. HUSBAND: "That the warmest thanks of the Association be given to the President, Mr. Benjamin Barrow, for the ability with which he has presided over this the forty-ninth annual meeting of the Association; and to the President and Mrs. Barrow for their generous hospitality, and for affording to the members the gratification of a Garden Party."

THE DINNER.

THE annual dinner was held on Thursday, August 11th, at the Town Hall; Mr. BARROW, President, in the chair.

The PRESIDENT, in proposing the health of the Queen, referred to the deep obligation which the profession owed to Her Majesty for the kindly interest she had always evinced in its welfare, and to her liberal donations to the Benevolent Fund. The toast was duly honoured.

The PRESIDENT, in proposing the health of the Prince and Princess of Wales and the rest of the Royal Family, alluded to the deep interest which all members of the Royal Family had taken in hospitals and in every kind of charity throughout the country.

In proposing the toast of "The Army, Navy, and Reserve Forces", the PRESIDENT commented upon the distinguished services of those bodies, and congratulated the members on the presence amongst them of Mr. Jeston of Henley-on-Thames, who had been in the Peninsular war, and who, at ninety years of age, was looking as blooming as a man of fifty.

Mr. JESTON, in returning thanks for the toast, said he had joined the Duke of Wellington's army, and had been present at Vittoria, Vimiera, Cordova, and Salamanca; but he should hardly have recollected these incidents, but for the medal which Her Most Gracious Majesty had been pleased to bestow upon him. He congratulated the country on the possession of so noble a body as the British Volunteers, and was glad to find that they were so efficient in the performance of their duties, especially in rifle-shooting.

Colonel ATHERLEY and Dr. COGHILL also returned thanks for the toast.

The PRESIDENT proposed "The Army of the United States", with an expression of sympathy towards that country in relation to the condition of President Garfield.

Dr. BILLINGS, in returning thanks, said he had had his attention called once or twice to the supposed exaggerations sometimes used by Americans; and to some extent he could appreciate the observation. He had lately had his attention called to the statement of an American journal, describing a case of malarial fever in the swamps of Arkansas, in which it was stated that the man was "simply an appendage to a huge miasmatic entity, a great malarial cataclysm". [*Laughter.*] It was not so much that the man was afflicted by the disease, as that the disease was afflicted with the man. It would, however be difficult to exaggerate the feelings with which he had listened to the terms in which the President had proposed the toast, and observed the manner in which it had been received. The American army was little more than a skeleton; but, if necessity should arise, he had no doubt that it would take on flesh and muscle very rapidly. He was glad to say that it seemed extremely probable that the President would recover—[*loud applause*]—and he need hardly say that the sympathy that had been manifested towards him since his injury would always be remembered by Americans with the deepest gratitude.

Mr. HUSBAND, in proposing "The Health of the Bishop of the Diocese, and of the Clergy and Ministers of all Denominations", coupled the toast with the name of Bishop McDougall. He said that the toast reminded him that, in days long since passed, the medical man held two positions—not only ministering to the bodily condition of those around him, but to their spiritual welfare. Whatever divisions there might be in or out of the church, he believed the great object of the great body of ministers was to improve the spiritual, moral, and physical welfare of those committed to their charge. He felt proud to see amongst them one who, educated as a medical man, had been animated by a missionary spirit that had impelled him to leave his native land, with all its associations, and to carry the message of his Master to foreign lands. They were greatly indebted to him for the part he had taken at their meetings, and he was sure they would all join in drinking his health with the greatest cordiality.

Bishop McDOUGALL, in returning thanks, said he was exceedingly touched by the generous and hearty way in which the toast had been received. The clerical profession was very nearly allied to the medical, and he believed that both were ordained by God's providence for the good of mankind. If the medical man was often called to "minister to a mind diseased", and afford spiritual comfort at a time when no other was nigh, it also happened that the clergyman was obliged to render bodily assistance, to extract a cataract or amputate a thigh, as had happened in his own case; and most gladly did he render such help. [*Applause.*] He was sorry that the head of the diocese was absent, because, if he had been in the island, he would have welcomed the Association, and returned thanks for the present toast. He was glad to find the influence of medical men daily increasing in society. The world hated priestcraft, mystery, and jugglery of all sorts; and medical men were coming before the world in a straightforward way, expounding the secrets of science, and showing how mankind might be elevated, life prolonged, and God served. [*Applause.*]

The VICAR of RYDE, in proposing the British Medical Association, said he desired to congratulate that body on its entrance on the jubilee year of its existence. The jubilee, he said, was formerly begun with a considerable blowing of trumpets, and he thought it was quite right that the British Medical Association should blow its trumpet on such an occasion. The jubilee year was also an occasion for looking back upon the past and laying plans for the future. He could not pretend to give a catalogue of the successes of the medical profession during the last fifty years; that, however, had been done in the inaugural address of the president. He could, however, form some idea of the advance made during his own short life. He could remember, as one of the painful reminiscences of his boyhood, the emotions excited in his mind by the frequent bleeding to which his mother was subjected by her

medical attendant. He remembered also the days of senna and rhubarb, and the well known spring jar of brimstone and treacle. [*Laughter.*] Since then, what a stride had the profession made! Going in and out amongst his parishioners he had scarcely ever seen a case of bleeding, except under very extraordinary circumstances, and the prescriptive jar of brimstone and treacle was no longer known. The prosperity of the British Medical Association, which they all desired, consisted in a large extension of its privileges to an increased number of members. He understood that it now included 9,000 members, and the number of medical practitioners in England and Ireland amounted to no fewer than 22,000. The Association was an army of men banded together in opposition to the fell enemies of the comfort and well being of the people; and the larger that army the better, not only for the profession, but for the wealth of the nation. He trusted, therefore, that the present jubilee year would be marked by a large accession to the number of the Association, and also by a large extension of liberty amongst them. He hoped that the restriction at present imposed upon them would be speedily removed, and that it would be possible for them to use all the gifts of God for the benefit of the people. [*Applause.*] He hoped also that the year would be marked by a large increase in scientific knowledge. Although knowledge without something better was a dangerous thing, he believed that the knowledge possessed by medical men was usually, if not always, held in subservience to the higher gifts of God.

"Let knowledge grow from more to more,
But more of reverence in us dwell."

That, he was sure, was the wish of all present, and in those three senses, of which he had spoken, he cordially wished prosperity to the British Medical Association. [*Applause.*] He begged to couple the toast with the name of Dr. Carpenter.

Dr. CARPENTER, in returning thanks, said that he thought, when on the previous day, he had laid down the baton of office and handed it to his successor, Mr. Wheelhouse, his responsibilities with reference to the Association had ceased. He had still, however, a duty to perform, which he undertook with some fear, lest anything that might fall from him should be an injury to the Association. There was a responsibility attaching to the toast, which must make itself felt with every man who was called to respond to it in an assembly like that. The Association required very delicate and tender guidance, and they had to avoid some of the rocks ahead, which might seriously impede that progress which the Vicar of Ryde had desired for it. He could not help thinking that the medical profession were very much like the great country across the Atlantic, where there were a number of States banded together for mutual support and protection. Though they differed amongst themselves with regard to their own rights and principles, yet, if any one whatever were attacked it would be found that blood was thicker than water, and that all would unite against the common enemy. In like manner, they had in their profession different degrees, different modes of thought, different kinds of action, specialists, general practitioners, consultants, and the like; yet they were all medical men, and they ought to hang together to support and defend one another, so that when attacked from without they might be able effectively to defend themselves. The Association had been formed for mutual support and protection, and also for the promotion of medical knowledge. It had been sometimes charged against them that they were something of a trades' union, but those who made the charge could know nothing about the constitution of the Association. It had become a power in the country, and, therefore, those who did not belong to them were jealous of them. It was a power that was likely to show itself hereafter in the welfare of the profession, and he said advisedly that whatever was good for the profession was also good for the public. [*Applause.*]

Dr. CHADWICK, in proposing the health of the Ex-President, Professor Humphry, reminded the members of the successful meeting at Cambridge last year, to which Dr. Humphry had contributed so efficiently, and at which he had exhibited a hospitality such as had never been exceeded in the history of the Association. That morning, Dr. Humphry had inaugurated a career of usefulness to the Association by the delivery of a speech to which they must all have listened with pride and gratification—a speech which deserved to be written in letters of gold, and disseminated broadcast throughout the land. [*Applause.*] He had boldly told the truth, and ruthlessly torn away the mask of hypocrisy which had marked the attacks made upon them. The Association was greatly indebted to its past presidents and to the Committee of Council; and few men not in the profession could estimate the value of their services to the public—services which they had rendered at great personal sacrifice. In the great work which they were carrying forward, he was glad to think that they would still have the co-operation of their late President, Dr. Humphry. [*Applause.*]

Dr. HUMPHRY, in returning thanks, said it was a pure pleasure to him to receive the Association in Cambridge. He had received the most valuable assistance on all hands; and Dr. Anningson especially deserved their thanks, as much as he did. It would always be a pleasure to have to do anything to aid the work of the Association, with which he had been connected from his boyish days. His first work in the profession was to make pills, and to bleed for a shilling, to answer the door-bell, take down the shutters, and write letters for the Association. Answering the door-bell was no slight work, and required no little skill and judgment—[*laughter*]—but he gained less credit for it, though he did harder work, than he did as President of the Association. [*Laughter.*] It had been said that the medical profession was to be the great power of the future; and why? Because they were a profession which obtained the greatest variety and the greatest range of knowledge; not simply because it was their work to hand the various members of the human family into the world, to guide them through it, and to conduct them out of it; but because there was a growing conviction that their work was for the good of mankind. He begged, before sitting down, to propose the health of the President of the Association, Mr. Barrow. [*Loud applause.*] Their reception in Ryde had, he believed, been mainly the work of one man, to whose geniality, hospitality, kind feeling, and high character, they were so largely indebted. He was glad to know that their President had won the applause and good feeling of his fellow-citizens, who had testified their sense of his worth in the solid form which public testimonials sometimes took. He had won the esteem of the profession and of the Association by the manner in which he had received them, and had conducted their meetings; and they needed no further reason for heartily drinking his health. [*Applause.*]

The PRESIDENT, in acknowledging the toast, said he hardly knew how to express his gratitude for the manner in which his efforts in connection with the proceedings of the Association had been received. He and his friends had spared no trouble to make the visit of the Association to Ryde agreeable to the members. It had been a great pleasure to him to take part in the work; and, if it pleased God to give him health and strength for years to come, he hoped to see them in the island again. If not, he had no doubt that others would receive the Association with equal cordiality and courtesy. He felt greatly his own deficiencies, and that he did not deserve all the kind things that had been said of him. They were all greatly honoured by the presence of the Association in the island, and were glad that their efforts to receive them had been so ably seconded and so kindly received. [*Applause.*]

Mr. WHEELHOUSE proposed the health of the Mayors of Newport and Ryde. It would have been impossible, he said, for the Association to meet in the Isle of Wight without the kind co-operation of the municipalities of Ryde and the neighbouring towns. They were greatly indebted to the inhabitants of those towns for their kind hospitality; and especially to the Mayors of Newport and Ryde for the assistance they had given, and the accommodation they had provided for the various meetings of the Association.

The MAYOR of NEWPORT acknowledged the toast. He felt it a great honour and privilege to be the guest of the Association on that occasion. He gladly recognised in the medical profession their intellectual vigour and mental culture, together with those qualities of heart, tenderness and sympathy, which, combined, form a noble type of manhood. The medical man exemplified, in his life, the essential and natural characteristics of his profession, and as nearly attained to perfection as it was possible to do. The Isle of Wight heartily welcomed the Association; and he hoped that, when the members returned, refreshed and gratified with their visit, they would remember, when recommending their patients to take a change of air, the healthful atmosphere, the varied scenery, and the low death-rate of the island. [*Laughter.*]

The MAYOR of RYDE also acknowledged the toast. He said that, for many years, the President of the Association and himself had worked most cordially together in seeking the improved sanitary condition of the town, and the general welfare of the inhabitants. He had had the pleasure of presenting to Mr. Barrow the testimonial referred to by Dr. Humphry, in token of the appreciation of the services he had rendered to the borough; and it was now a sincere pleasure to see him occupying the high and honourable position of President of the British Medical Association. In their efforts to improve the sanitary condition of the borough, they had looked to the medical profession for help and sympathy, and not in vain. He had been interested in the discussion with reference to the notification of infectious diseases. He had been afraid that the proposition made would not be carried; but he thought it was evident that local boards and municipal authorities would be comparatively powerless, unless there were some compulsory powers given to

them, enabling them to ascertain where enteric fevers and other infectious diseases existed in a locality. He believed that the medical profession were indifferent as to the fees; at any rate, he was quite certain that the President, in the discharge of his public labours in behalf of the borough, had injured his own private practice.

Dr. WATERS proposed the health of the President-elect, Dr. Strange; and took occasion to refer to the origin of the Association in Worcester, under the auspices of Sir Charles Hastings. The members, he said, had already had some experience of Dr. Strange's capabilities in the admirable manner in which he had conducted the business at some of the sections; and, in the high estimation in which he was held in Worcester, they had an earnest that he would be a president who would conduct the Association, during the jubilee year, in a becoming and efficient manner. [*Applause.*]

Dr. STRANGE said he thought he ought to apologise for the act of temerity, on the part of a small city like Worcester, in inviting the Association to meet within its walls. When the Association met there, thirty-three years ago, under the presidency of Sir Charles Hastings, its numbers were small and insignificant, and they could be easily entertained. Now that the members had so largely increased, their reception and entertainment was a matter of greater anxiety; but the best would be done, and he believed a hearty welcome would be accorded to the Association. He promised that there should not be wanting well-covered tables and hospitable boards to receive the members, and every endeavour would be made to make the Association as commemorative as possible of the honour due to Sir Charles Hastings and his associates, and also to his son, who on many occasions had shown himself a good friend to the profession. He begged, before sitting down, to be permitted to propose the health of the Editor of the JOURNAL, Mr. Ernest Hart. Whatever differences of opinion they might have, so long as the JOURNAL was conducted in such a way as to keep the Association in its proper position before the public, they had reason to be thankful. The JOURNAL had grown until it had become the object of envy to other periodicals; and he had been informed that the American Medical Association had determined to take the BRITISH MEDICAL JOURNAL as a model for their own.

The CHAIRMAN said that Mr. Hart was unfortunately absent, and that, if he had been present, he would have returned thanks for the toast. He then proposed the health of the "guests", which was acknowledged by Dr. Yandell.

The proceedings then terminated.

ENTERTAINMENTS.

SOIRÉE AT THE TOWN HALL, RYDE.—A *soirée* was given to the members and friends of the Association on Wednesday, August 10th, at 9 P.M., in the Town Hall, by the Mayor and the inhabitants of Ryde and neighbourhood. The number present was nearly six hundred, the majority of the guests in whose honour the *soirée* was given bringing members of their families with them, while many well-known inhabitants were present. The guests were received by the Mayor, with whom were Mr. Alderman Barrow (President of the Association), Councillor Riddett, Alderman Barton, Councillor James (to whom the committee were indebted for the splendid flowers which formed a conspicuous and delightful feature in the ornamentation of the room), and other gentlemen. Selected specimens of the remarkable collection of prints, drawings, etc., and the whole of the collections of paintings, sculpture, etc., were exhibited. The band of the Royal Marine Light Infantry, conducted by Herr Kreyer, played a selection of music, and also gave several vocal glees in a manner which won for them warm applause.

GARDEN PARTY.—On Friday, August 12th, the President and Mrs. Barrow received the members and their friends at a garden party in the grounds of the Isle of Wight College.

EXCURSIONS.

STEAM EXCURSION.—A very pleasant excursion took place on Saturday, August 13th, the Mayor and inhabitants having placed the fine steamer *Heather Bell* at the disposal of the members of the British Medical Association. A large number of medical men and their friends, together with the Mayor (Charles Colenutt, Esq.), several members of the Corporation, and a number of the inhabitants, availed themselves of the opportunity. The vessel started from the pier about 9.45, and, proceeding to the westward, slowly steamed past Osborne and Cowes, great interest being manifested by the visitors in Her Majesty's marine residence, and also in the splendid steam yachts, *Victoria and Albert*, and *Osborne*, anchored at the famous yachting station. It had been intended that the steamer should proceed round the island; but this intention was abandoned, in consequence of the captain stating that there was a heavy sea outside. It therefore ran as far as the Needles, and then returned to Cowes, those on board having the opportunity of witnessing many objects of interest and beauty. On returning, those who were desirous of joining the main body of excursionists were landed at Cowes, to the number of about 200. Before, however, doing so, they were entertained by the Mayor with a farewell glass of champagne. Dr. Talfourd Jones took occasion to propose the health of the Mayor of Ryde (Mr. Colenutt), and to thank him and the inhabitants of Ryde, on behalf of the members who had accompanied the excursion, for their generous hospitality, and their liberality in providing the steamer, and for carrying out with such great success the very pleasant excursion. The Mayor, in reply, said that it was very gratifying to find how much the party had enjoyed themselves, and that the great success of the excursion was due to Mr. Gurnell, the honorary secretary to the Excursion Committee, who had carried out all the arrangements so admirably. He begged to thank them for the way in which his health had been proposed and drank. The remainder of those members of the party who did not visit Carisbrooke went back to Ryde in the steamer, and on their way stayed some time to see the Royal Corinthian Yacht Club's Regatta, which took place that day at Ventnor. They afterwards returned to Ryde, much gratified with the pleasant day.

VISIT TO SANDOWN, VENTNOR, AND SHANKLIN.—On Saturday, August 13th, upwards of two hundred members visited these places. At Sandown, a reception committee met the members of the Association at the railway station, and conducted them to the beautiful grounds of Beachfield, kindly placed at the disposal of the committee by Mr. and Miss Tottenham. The band of the 5th Battery, 7th Brigade, Royal Artillery, was stationed on the lawn. The visitors then passed under the rustic bridge on to the rink below, where tea, coffee, etc., had been provided. After partaking of these, Mr. Barrow, the President, expressed the thanks of the Association for the hearty reception given. The party then proceeded to the coaches, which were in waiting to convey them to Ventnor. Each visitor was presented with an elegant card, on one side of which Dr. Neal's report was given, stating that during the past ten years there had been no death from enteric fever in the town, and the death-rate from all causes had been 14.7 per 1,000. At Ventnor, a *dejeuner à la fourchette* was given in the beautiful grounds of Steephill Castle, after which the party visited the Royal National Hospital for Consumption, whence they proceeded to Blackgang, where they were received by Robert Pinnock, Esq., of Newport. The members afterwards proceeded to Carisbrooke and Newport. The members and their friends, who had taken part in the above-mentioned excursions, met, to the number of about four hundred, in the village of Carisbrooke, where the bells of the church rang a welcome on their arrival. The church and the Roman villa were visited by many; the vicar, the Rev. E. B. James, most courteously and readily giving explanations of the various objects of interest and attraction. The party next visited Carisbrooke Castle, where they were received by the Mayor of Newport (Mr. H. J. Orchard), the Mayoress, the Vicar of Newport, the Vicar of Carisbrooke, and other members of the Reception Committee. An elegant and abundant repast was provided in two marquées on the bowling-green. In the larger tent, the Mayor presided, and was supported by the Mayoress, the President of the Association and Mrs. Barrow, the Mayor of Ryde (Mr. Alderman Colenutt), the Rev. E. B. James, and the Rev. Canon Connor; Mr. Alderman F. Pittis occupying the vice-chair. In the smaller tent, the chair was taken by Mr. Alderman Pinnock, who had, earlier in the day, hospitably received the members at his residence at Blackgang. After proposing the toast of "The Queen", the Mayor of Newport said that, wherever the members and friends of the Association had been that day, he was sure that in no place had there been a more earnest desire to give them a hearty reception than at Newport and Carisbrooke. They were glad, indeed, that the Association had fixed upon the Isle of Wight for their meeting; and he trusted that, as they went back to their homes refreshed and strengthened, they would remember the healthful climate, the numerous advantages, and the low death-rate of the Isle of Wight. The Mayor eloquently touched upon the nobility and the beneficence of the medical profession, remarking, in passing, that he thought the tender sympathies which medical men at all times evinced towards their patients did more good than their physic. Trusting that in the future their divine profession might prove even a greater boon to humanity than it had been in the past, and wishing all prosperity to their noble Association, he gave them the toast, coupled with the name of their President, who had won eminence in municipal as well as in medical life, and whom he was glad to greet in the proud and honourable position which he now held. [*Loud cheers.*] Mr. Barrow expressed the thanks of himself and the members of the Association to his Worship the Mayor and the inhabitants of Newport and Caris-

brooke for the splendid reception which had been given them on that occasion. [*Cheers.*] The hospitality had been as unbounded as he was sure the welcome was sincere, and it was the same in all the places they had visited that day. He thanked the Mayor for his kind words in reference to the medical profession. He was sure that the profession, as a body, acted conscientiously, with one object, the good of mankind, and to remedy those ills to which human flesh must always be heir. Once more he thanked the Mayor and the inhabitants of the capital of the island for their handsome, their noble reception of the Association that day. [*Cheers.*] The remembrance of the hospitalities they had experienced in the Isle of Wight would always remain with the members of the Association; and no hospitality had been more marked, more bountiful, than that which they had received at the generous hands of the people of Newport and Carisbrooke: [*Loud cheers.*] Mr. Barrow concluded by proposing the healths of the Mayor, the Vicar, and the inhabitants of Newport, and the Vicar and inhabitants of Carisbrooke. [*Loud cheers.*] The toast was duly acknowledged. Similar proceedings took place in the smaller tent, where Mr. Pinnock presided. The company then separated, and, after rambling with interest over the castle and grounds, they went to Newport, the bells of St. Thomas's Church ringing them a welcome to the old borough. The beautiful parish church, with its many objects of interest, was visited by a large number, and the ancient grammar school also came in for a share of attention.

THE TENURE OF OFFICE OF MEDICAL OFFICERS OF HEALTH.

IMPORTANT DEPUTATION TO THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD.

ON Thursday afternoon, July 14th, a numerous deputation of gentlemen, chiefly from the British Medical Association and from the Association of Medical Officers of Health, waited upon the President of the Local Government Board, Mr. Dodson, M.P., with whom was Mr. Hibbert, M.P., at the Local Government Board's Offices, Whitehall, in order to lay before the Board matters connected with the tenure of office of medical officers of health, to point out the grievances under which medical officers of health in the provinces suffered from insecurity of their positions, and to urge upon the Board the necessity of carrying out more fully the system of combined districts. Mr. Cropper, M.P., headed the deputation, and amongst those who attended upon it were Dr. Farquharson, M.P.; Mr. Ernest Hart, Chairman of the Parliamentary Bills Committee of the British Medical Association; Dr. Bond (Gloucestershire), Dr. Tripe (Hackney), Mr. Murphy (St. Pancras), Dr. Lord (Crewe), Dr. Woodford (Berkshire), Dr. Holman (Reigate), Dr. Statham (Salford), Dr. Armistead (Cambridge), Dr. Jacob (Croydon), Dr. F. Smith (Stockport Union), Mr. Balding, and other medical gentlemen.

Mr. CROPPER, M.P., in introducing the deputation, said he had the honour of introducing to the President of the Local Government Board a large body of well-known m dical gentlemen, who had interested themselves in the question of the tenure of office of medical officers of health, and who wished to lay before him their views upon the subject. There was a most decided feeling among medical officers of health, in different parts of the country, not including London, that there was no permanency of any kind in their appointments; they were only appointed for a certain length of time, and then had to be re-appointed by the boards of guardians. This put the medical officer of health in a false position, but if the system of fixity of tenure were adopted, it would establish the office as a permanent profession in the country, and that profession as a permanent one would attract to its ranks men of eminence who, under the existing state of things, found themselves unable to come forward for appointment. The deputation attended now to ask the Board to consider the advisability of making these appointments permanent, and they would introduce the subject of combined districts. Many districts which had once been associated had been subsequently reduced in number, and of course both the position and emoluments of the doctors of such districts had thereby been interfered with, and they felt themselves not to be in the stable and certain position which they were entitled to. He begged to introduce to the President Dr. Tripe, of Hackney.

Dr. TRIPE said that the subject of the tenure of office of medical officers of health had recently been before the Association of Medical Officers of Health, and at their last meeting they had decided to ask the Local Government Board to receive a deputation upon that subject. The position which medical officers of health held, must to a certain extent influence them in the carrying out of their duties in a proper, independent, and efficient manner. As a point of fact, several medical officers of health had objected to attend upon the present deputation for fear their names should be placed upon the list as attending there, and offence thus be given to the local authorities appointing them. He had been positively informed by many medical officers of health that they did not find themselves at liberty to discuss many matters as they would otherwise have done if they had not been subject to these re-elections. It was evident that, whatever happened, a man in the position of a medical officer of health would not willingly do that which would irritate a certain section of his local authority, which would in any way work against him, or which would induce one or two of his local authorities to go against him and hinder his prospects of being re-appointed. He (Dr. Tripe) must firmly express his belief to the President of the Local Government Board that this was not a reasonable position for a man to be in, for it was a position in which a man must either go against his conscience or against his pocket. The medical officer of health gradually got out of his medical profession, he forgot what was going on in the medical world, he did not keep up his medical practice, and at the end of his tenure of office, he was not in the position he originally was when he first took the appointment. In this way a man got a bias against his profession, and having to consider so many exterior matters, which, although minor to the necessary discharge of his duties, were nevertheless of great importance to him if he desired to keep his office, he could not give that attention to his duties which he would otherwise have done. Being one of the medical officers of health for the Metropolis, he himself was not subject to re-election, but was appointed *sine die*, so long as he behaved himself. Medical officers of health in the country, however, were heavily weighted in every respect under the present arrangements, and their position was very far from what could be wished. Poor Law officers had their superannuation after a certain length of service; and they were not subject to re-appointment. He concluded by strongly urging that the claims of medical officers of health should be carefully considered by the Local Government Board, and that steps should be taken towards making their position more safe and certain.

Mr. ERNEST HART, after remarking that the present was not by any means the first time he had accompanied a deputation to the Local Government Board upon the question of the tenure of office of medical officers of health, went on to say that as many as nine years ago the attention of Mr. Stansfeld was directed to the necessity of placing the appointment of medical officers of health on a firmer and more satisfactory footing. It was urged at that time that the appointments were wholly of a tentative kind, and the advice was given that in a matter so new it was necessary to proceed with caution. There could, he thought, be no question as to the fact that the arguments which applied nine years ago were now no longer tenable. So far from the prospects of the medical officers of health having improved since that period, he could say that they had steadily retrograded. The promises of improvement in their tenure, which had been held out by Mr. Stansfeld, had never been fulfilled, and all expectation as to what was likely to take place when experience was gained in the working of the Public Health Act had long since dwindled away, for the tenure of office was daily becoming more precarious. Those who had devoted most attention to the subject held strongly the opinion that by the formation of a combination of sanitary districts sufficiently large to engage the whole and undivided attention of medical officers of health, it was alone possible to carry out the Public Health Acts in their integrity. The Local Government Board had continuously urged the adoption of this plan, and obtained, in 1875, powers of compulsorily enforcing it. Yet, though in one or two cases immediately after the passing of the Public Health Act of 1875, they did compel unwilling authorities to remain in combination, they had of late not done this, with the inevitable result of inducing local authorities to back out of combinations which they thought occasioned expense which could be avoided by other arrangements, however imperfect or undesirable these might be. In none of the numerous cases where combinations had been broken up had it been alleged that the medical officer of Health had performed his duties with insufficient care or attention, and the deputation felt strongly that, having been induced by promises, which were still unfulfilled, to forsake for the sanitary medical service other branches of the profession, they had a just claim to the protection of the Central Board against the niggardliness and caprice of local authorities, and they looked to that Board for protection. He was sure Mr. Dodson would not need to be told that it was their opinion that it was of the first importance for the efficiency of a medical officer of health that he should feel that there was a reasonable permanency in his appointment. The question or necessity of his re-election was by no means apparent, and its only result was to keep an axe ever over his head, that if he were too out-spoken in the discharge of his duties, he would be

replaced at the next periodical election by one whom the authorities might think likely to be more tractable to their ideas. The deputation felt it to be monstrous that any body of public servants should hold their positions under circumstances so crippling to efficiency, and conditions so humilitating and anomalous as these, and they, therefore, thought that they had a strong ground for asking the assistance of the Local Government Board. They urged that medical officers of health should have the same permanency of office as their brethren in the Poor Law Service, and that no medical officers of health should be dismissed without the express sanction of the Local Government Board. He had with him a note of a number of cases in which combined districts had been broken up altogether or more or less disintegrated, without any resistance on the part of the Local Government Board, who ought to protect the medical officers of health. He proceeded to read the cases, and said there was Huntingdonshire, the medical officer of the district being Dr. Syson; there was Essex, in the case of Dr. Fox (under circumstances of peculiar hardship, of great interest to the district, and without any imputaton as to his efficiency); there was Goole, in the case of Dr. Franklin Parsons; Northampton, in the case of Mr. Haviland; Lytham and Blackpool, in the case of Mr. P. Bird; Westmorland, in the case of Dr. Page; Hertfordshire, in the case of Drs. Ogle and Saunders; Oxfordshire, in the case of Dr. Child; Devonshire, in the case of Dr. Blyth; and Sussex, in the case of Dr. Kelly. These were all examples of very serious injury to the public from the cause which he had mentioned. He would now for a moment or two make allusion to one other especial case, and he must ask the reporters not to mention the name of the medical officer he was about to refer to, for in these cases the gentlemen had a very great fear of their names being published and becoming known to their local authorities. The case he wished to cite was that of Dr. ———, (here Mr. Hart mentioned the name of the gentleman), who was first appointed, in 1873, to a combined district of authorities for a period of three years. At the close of this period, one authority seceded, the Local Government Board making no attempt to prevent the disruption, though all the other authorities urged it to exercise its compulsory powers; while all the medical men of the district memorialised in favour of the gentleman. The doctor was then appointed for life by the six remaining authorities; but the Board refused to confirm the appointment. The authorities then appointed for three years, and in 1876 the whole of the authorities again appointed for life; but the Local Government Board again refused to sanction. Then all the authorities, with one exception, agreed to an appointment for seven years, the one authority wishing the term to be made an annual appointment; and the latter was sanctioned by the Local Government Board, although it was that of so small a minority. Representations were then made by four of the authorities, urging the Local Government Board to issue a compulsory order, and this the Board said that they would do, giving twenty-eight days' notice of its intention to do so. At the end of that period, however, they withdrew the notice, giving for their reason that all the authorities were not in one county. The one authority which was outside the county then applied to the Board to be included in the order, but nothing was done. Lastly, in August 1880, one of the authorities definitely decided to withdraw from the combination on the plea of economy, and gave only ten days' notice of its intention. Although this was only done by a majority of one of its members, and the other authorities were unanimous in their desire to continue the combination, the Local Government Board allowed the secession, which entailed a diminution of the salary of the medical officer of health to the extent of £130 in £600, and thus the district was virtually broken up. The seceding authority, Mr. Hart might mention, had given the doctor a most eulogistic testimonial as to the perfectly satisfactory way in which he had done his work. A more trenchant example could hardly be given as to the difficulties and dangers to which a medical officer of health was liable from the inconsistency of the action of the Local Government Board in regard to the maintenance of combined districts—in one or two cases refusing to let a district be broken up, and in others making no use of its compulsory powers to prevent this being done. He pointed out the extreme injustice to the medical officers of health for the district in the latter cases, where they had no intimation of what their fate would be until the period for which they were elected had actually lapsed. They were thus liable to what was nothing less than summary dismissal; and, in the face of such a state of things as existed, they were paralysed in making the most ordinary arrangements—arrangements vital to their success in life, for their houses, their furniture, or the education of their children. The medical officers of health were, he believed, the only class of officers giving their whole time to any appointment who held that appointment by tenure, and he did not think there was any other class of public servants who could be held up as being in a like position. He instanced the positions of a Poor-law officer of health and of an inspector of nuisances, and said that in both these cases the Local Government Board sanctioned a permanency of tenure. Mr. Hart went on to say that he had mentioned only the previous day, to a very distinguished person, the object of their visit that day, and he said it interested him very much, because it had been his duty to convey to Lord John Russell, when the subject of tenure of office of medical officers of health was under consideration, a letter from Sir Benjamin Brodie on this subject, in which he said it was entirely hopeless to expect that the public health service could be satisfactorily carried out unless a reasonable permanency of tenure was given to the medical officer. [*Hear, hear.*] He knew it was hopeless to expect to obtain efficient men for the service under existing circumstances, and it was within his knowledge that the public health service was very seriously deteriorating, even from its present platform, while it ran the risk of doing so more and more, so long as the position of the medical officer of health remained as weak and doubtful as it at present was. They might make certain that, so long as they continued to act upon that footing, they would never have the best intellects, the highest minds, and the most valuable servants, at a reasonable remuneration. The service which was uncertain as to tenure was highly paid and badly performed, and the Local Government Board would do well in all ways to immediately alter the position of the medical officer of health.

Dr. FARQUHARSON, M.P., remarked that, in accepting the office of medical officer of health, the medical man had to sacrifice a good deal of his own private practice, as, of course, he would not have time to attend to it; and when he sacrificed that he threw over what had taken him a very long time to get, and a very great deal of attention to keep up. And yet he was likely to lose the position for which he had given up his private practice, at a moment's notice. The deputation came that day to ask the Local Government Board to give to the medical officer of health at least a certain amount of fixity of tenure, and he trusted that the subject would receive the favourable consideration of the Board.

Dr. BOND said that, as a member of the class of officers who had been under discussion that day, he might be allowed to say a few words. They had been told the object of the deputation—to ask for security of tenure for the medical officer of health; and it had been shown that the existing tenure was exceedingly insecure. There was one very serious objection he might mention to the habit of re-election at certain periods of the medical officer. It was, that it gave anybody who felt it his interest to do so, an opportunity of having what schoolboys would call a "cockshy" at the medical officer of health; and there were many men who could testify to this having in dozens of cases been done. He would venture to suggest that it should be ordered by the Board that, when a medical officer of health was appointed for a single year, or for any other period of time, the appointment should be considered a necessarily renewable one, unless the authority should show cause why this should not be done. He thought that, if it were absolutely necessary for the authority to give a certain reasonable notice beforehand of its intention to withdraw from the combination, and the Local Government Board were to call upon it for some satisfactory reason for this course, great benefits would be thus given to the medical officers of health, and strength would be given to the fixity of their tenure of office. He spoke as a medical officer who had a considerable acquaintance with medical officers of health, and he could say that in very many combined districts there was a feeling of very great dissatisfaction—a feeling so strong that he was sure, if the present circumstances continued, a great majority would very seriously contemplate withdrawing from the service altogether. This was a matter which placed very seriously in jeopardy a branch of this great and important service.

After a very few further remarks,

The PRESIDENT, in reply, said: The only reply I can make is this, that I am deeply sensible of the very great hardships which must fall upon the medical officer, in some cases, where the gentleman gives up private practice in order to devote his whole time to the duties of medical officer of health, and then finds his salary as medical officer cut off, and that he has to reconstruct a private practice. It has been, I may say, the policy of the board to encourage and promote the appointment of medical officers of health, if not permanently, at all events in such a way as to secure to them such a fixity of tenure as may be a sufficient inducement to men of high standing and position to accept these appointments. We can, however, only do so where the appointment is for a combined district, sufficiently large, and with a sufficiently good salary, to secure the services of a good and efficient medical officer; and it is only in these cases that we can contemplate the desirability of these

situations continuing permanent. Of course, now and then, in some case, it may be that the districts are not such as we contemplate or desire to be permanent; and therefore, in those districts, we could not desire to see an officer appointed permanently. I may mention the case of districts which extend into different counties, or, in other ways, cut into or overlap different areas, and that is not a thing we desire to see perpetuated. Another reason I may mention, which has stood in the way of our compelling the local authorities to make these appointments permanent, has been this: that we are not desirous of adding too much to the exercise of the centralising powers and authority of this Board, more especially when we have it in contemplation, as it has been for many years, of establishing in the different counties representative county authorities, to whom will be handed over powers which are now dealt with by the central authority. I will not now enter into the arguments as to the competitive advantages of permanent service, and service depending upon personal exertion. Of course, I am sensible—you will see that I am—of the advantages of permanent service, in securing the expanse of views of gentlemen of high standing in the profession. On the other hand, it has, perhaps, been rather too broadly laid down that a permanent appointment necessarily secures to a great extent efficiency and economy. We all know that a stimulus is necessary in some cases, and I believe that is obtained by periodical re-election; while economy is, of course, conducible to the public advantage. As regards the argument, complaining that the guardians are not desirous of having to re-elect their officers, I have only to say that we have no reason to complain in that matter. I can only add, that the observations that you have made to-day shall receive the most attentive consideration of my Board. We have to balance the advantages and disadvantages of exercising central, against local authority; and we have to balance the advantages and disadvantages of permanent appointments, against appointments which give the incentive to exercise, requiring reappointment from time to time. I am deeply sensible of the hardships of the position in which the medical man of high standing is placed, if he gives up his private practice in order to give his position, as medical officer of health, his fullest consideration and time; and then suddenly loses that position. All the argumeuts which have been used to-day shall receive the earnest consideration of the board.

Dr. TRIPE tendered the best thanks of the deputation to the President for the way in which they had been received.

The deputation then withdrew.

THE VOLUNTEER AMBULANCE DEPARTMENT.—The Volunteer Ambulance Department has received the following communication from Surgeon-General Shelton, A.M.D., from the War Office, with reference to the services rendered by the bearer company of this department at the recent Royal Review at Windsor.—"Sir,—As President of the Volunteer Ambulance Department, I have the gratification of congratulating the medical officers and men who took part in the recent review at Windsor on the successful result of their labours, as set forth in general orders, dated Windsor, July 10, 1881. Many thanks are justly due to the medical officers and men comprising the Volunteer Bearer Company, under the command of Surgeon-Major Gasteen, A.M.D., all of whom at considerable personal inconvenience and expense, prepared themselves for their coming duties by previous drilling at the Wellington Barracks; as also to the medical officers, Surgeon Westmacott, London Scottish, and Surgeon Lydall, 22nd Middlesex R.V., in charge Field Hospital. Such zeal on the part of all concerned renders my duty as president a pleasing one; and I am not without hope that the detachment will expand, and prove a generous rival to the highly organised Army Hospital Corps, which has done good service at home and in the field. I would add that the department is under obligations to Lieut. Maclure, not only for his services in conjunction with Lieutenant of Orderlies M'Kay, Army Hospital Corps, but for his services and zeal in furthering the formation of the newly-initiated company referred to. Surgeon-Major Gasteen reports that, owing to the excellent training of the Volunteer Ambulance Department, many lives were saved, and much suffering alleviated.—I have the honour to be, Sir, your obedient servant, A. SHELTON, Surgeon-General."

BEQUESTS AND DONATIONS.—"Lady B." has given £3,000 to the fund for rebuilding the National Hospital for the Paralysed and Epileptic. Mr. Thomas Jones Margrave, of Llangennech, Carmarthenshire, bequeathed £300 to the Metropolitan Hospital Sunday Fund.—Miss Barbara McIndoe, of Bath, bequeathed £200 to the Glasgow Western Infirmary, and £100 to the Glasgow Eye Infirmary.—The Drapers' Company have given thirty guineas, additional, to the National Hospital for Consumption at Ventnor, twenty guineas to the Alexandra Hospital for Children with Hip Disease, and twenty guineas to the Dental Hospital of London.

ASSOCIATION INTELLIGENCE.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

Tuesday, August 9th, 1881.

At a meeting of the Committee of Council, held in the Anteroom of the Justice Room of the Town Hall, Ryde, Isle of Wight, on Tuesday, August 10th, 1881; present—Mr. W. D. Husband in the chair, afterwards Dr. A. Carpenter, President of the Council, Professor Humphry, President, Mr. B. Barrow, President-elect, Dr. Bushell Anningson, Dr. L. Borchardt, Mr. J. K. Burt, Dr. Chadwick, Dr. B. Foster, Dr. E. Long Fox, Dr. C. Harrison, Mr. C. Macnamara, Mr. F. E. Manby, Dr. Parsons, Dr. W. Strange, Dr. E. Waters, Mr. C. G. Wheelhouse,

The minutes of the last meeting were read and ordered to be amended.

Read letter from Dr. Milner Fothergill, giving notice of an alteration in By-law 12.

Resolved: "That the whole question of the admission of members be referred to the committee appointed at the last meeting of the Committee of Council, by Minute 635."

Read letter from Dr. Davidson, intimating that it was the desire of the profession of Liverpool to invite the Association to hold their annual meeting in that city for the year 1883.

Read letter from Dr. Coats of Glasgow, stating the desire of the Branch and profession of Glasgow to invite the Association to that city for the year 1883.

The amended annual report was then considered, and ordered to be placed before the Council of to-day.

Resolved: "That the seventy-one gentlemen whose names are on the circular convening the meeting, and the eleven on the supplementary list, subsequently issued, be, and they are, hereby elected members of the Association."

Thursday, August 11th, 1881.

At a meeting of the Committee of Council, held in the Anteroom of the Justice Hall at the Town Hall, Ryde, on Thursday, August 11th; Mr. C. G. Wheelhouse, President of Council, in the chair, Mr. B. Barrow, President, Dr. W. F. Wade, Treasurer, Dr. Bushell Anningson, Mr. T. H. Bartleet, Dr. J. H. P. Boileau, Dr. L. Borchardt, Mr. J. K. Burt, Dr. A. Carpenter, Dr. Chadwick, Dr. A. Davidson, Dr. B. Foster, Dr. E. Long Fox, Mr. A. J. Harrison, Dr. C. Holman, Mr. W. D. Husband, Mr. C. Macnamara, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Dr. C. Parsons, Dr. Rees Philipps, Mr. S. W. Sibley, Dr. E. M. Skerritt, Dr. E. Waters,

Resolved: "That the following be the Journal and Finance Committee for the ensuing twelve months, in accordance with By-law 35: Mr. C. G. Wheelhouse, President of Council, Dr. W. F. Wade, Treasurer, Mr. A. Baker, Dr. L. Borchardt, Dr. A. Carpenter, Dr. Chadwick, Dr. B. Foster, Dr. C. Holman, Mr. W. D. Husband, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Dr. A. P. Stewart, Dr. E. Waters."

Resolved: "That the name of Professor Humphry be added to the Scientific Grants Committee."

Resolved: "That the following be the Arrangement Committee for the annual meeting to be held at Worcester, namely: the President, President-elect, President of Council, the Treasurer, Dr. Chadwick, Dr. A. Carpenter, Mr. Husband, Dr. Coghill, Dr. Groves, Dr. Foster, Dr. Holman, Mr. Everett, Dr. Crowe, and four names to be added, by the President of Council and the President-elect, of local gentlemen, who have undertaken the local arrangements of the meeting."

Resolved: "That Dr. Drage and Dr. Hogarth Clay be informed that the subject of their letters will be again considered at the quarterly meeting in October next."

PROCEEDINGS OF COUNCIL.

Tuesday, August 9th, 1881.

At a meeting of the Council of 1880-1, held in the Justice Room of the Town Hall, Ryde, on Tuesday, August 9th, 1881, Dr. A. Carpenter, President of Council, in the chair, Professor G. M. Humphry, Mr. B. Barrow, Mr. T. E. Amyot, Dr. Bushell Anningson, Mr. W. H. Axford, Mr. J. W. Baker, Dr. G. B. Barron, Dr. J. H. P. Boileau, Dr. L. Borchardt, Mr. J. K. Burt, Dr. C. Chadwick, Mr. H. N. Davies, Mr. S. Felce, Dr. W. H. Fitzpatrick, Dr. B. Foster, Dr. E. Long Fox, Dr. C. Harrison, Dr. H. Hensley, Mr. S. Holdsworth, Mr. W. D. Husband, Mr. E. Jones, Dr. J. W. Kealy, Mr. C. Macnamara, Mr. F. E. Manby, Mr. H. J. Manning, Mr. F. Mason, Mr. G. May, jun., Mr. A. A. Napper, Dr. C. Parsons, Dr. E. Rayner,

Mr. W. Rivington, Dr. W. Strange, Dr. J. R. Thomson, Dr. T. Underhill, Dr. E. Waters, Mr. C. G. Wheelhouse, Mr. T. W. Williams,

The minutes of the last meeting were read and found correct.

The annual report was then considered.

Dr. FITZPATRICK moved, and Dr. BARRON (Southport) seconded, an addition to the report.

The motion having been put from the chair, the same was declared to be lost.

Resolved: "That the report as prepared by the Committee of Council, and now submitted, be approved and adopted, and placed before the annual meeting of this evening."

Wednesday, August 10th, 1881.

At a meeting of the Council of 1881-2, held in the Justice Room of the Town Hall, Ryde, on Wednesday, August 10th, 1881, Dr. A. Carpenter, President of Council, in the chair, Mr. Barrow (President), Dr. W. Strange, Mr. Amyot, Mr. J. W. Baker, Dr. G. Barron, Dr. J. H. P. Boileau, Dr. Borchardt, Mr. J. K. Burt, Dr. Chadwick, Mr. H. N. Davies, Mr. E. Jones, Mr. S. Felce, Dr. Fitzpatrick, Dr. B. Foster, Dr. E. Long Fox, Mr. J. G. Neal, Dr. A. J. Harrison, Mr. A. Harrison, Dr. T. Hayden, Dr. Hensley, Mr. J. R. Humphreys, Mr. W. D. Husband, Dr. J. R. Kealy, Mr. H. R. Ker, Mr. C. Macnamara, Mr. F. E. Manby, Mr. F. Mason, Dr. W. W. Moore, Mr. A. A. Napper, Mr. R. H. B. Nicholson, Dr. Parsons, Mr. A. Prichard, Dr. Rayner, Dr. Rees-Philipps, Dr. W. L. Reid, Mr. W. Rivington, Mr. S. W. Sibley, Mr. E. Noble Smith, Dr. R. S. Smith, Mr. W. D. Spanton, Dr. A. P. Stewart, Dr. W. Stokes, Mr. Jabez Thomas, Dr. J. R. Thompson, Dr. T. Underhill, Dr. W. F. Wade, Dr. A. T. H. Waters, Dr. E. Waters, Mr. C. G. Wheelhouse, Mr. T. W. Williams, Dr. Yellowlees,

Resolved: That Mr. C. G. Wheelhouse be and he is hereby elected President of the Council for the ensuing three years.

Dr. Carpenter having vacated the chair, it was taken by Mr. Wheelhouse.

Resolved unanimously: "That the best thanks of the Association be given to Dr. Carpenter for the able way in which he has performed the duties of the office of President of the Council during the past three years."

The names of the twenty gentlemen, nominated by the Committee of Council for election as members of the Committee of Council, having been placed before the meeting, a ballot was taken, and the same were declared to be elected for the year 1881-82, viz.: T. Clifford Allbutt, M.D., F.R.S.; T. H. Bartleet, M.B.; J. P. H. Boileau, M.D., Surgeon-Major; L. Borchardt, M.D.; C. Drage, M.D.; B. Foster, M.D.; E. Long Fox, M.D.; A. J. Harrison, M.B.; C. Holman, M.D.; Leslie H. Jones, M.D.; D. J. Leech, M.D.; C. Macnamara, Esq.; F. E. Manby, Esq.; F. Mason, Esq.; R. H. B. Nicholson, Esq.; Henry Power, Esq.; Septimus W. Sibley, Esq.; Henry Stear, Esq.; A. P. Stewart, M.D.; C. G. Wheelhouse, Esq.

The President then called upon Mr. Everett of Worcester, who attended with Dr. Strange and others as a deputation from Worcester, to present an invitation to hold the next annual meeting of the Association at Worcester, signed by 143 members, and recommending the nomination of Dr. Strange as President-elect.

Resolved: "That it be recommended to the general meeting of members of to-day that the invitation of the Worcestershire and Herefordshire Branch to hold the fiftieth annual meeting of the Association in the city of Worcester be accepted, and that Dr. W. Strange be nominated President-elect, in accordance with by-laws 7 and 23."

Mr. Reginald Harrison, Dr. Fitzpatrick, and Dr. Waters of Liverpool, reported that the profession of Liverpool was desirous that the Association should hold its annual meeting in 1883 at Liverpool.

Dr. Yellowlees, of Glasgow, also reported the desire of the members and Branch of Glasgow to invite the Association to hold its annual meeting at Glasgow.

Resolved: "That the Council, having received with pleasure an intimation from Liverpool, that an invitation will be given for the year 1883, will recommend to their successors their cordial acceptance of such invitation."

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of this District will take place at Midhurst on Friday, September 9th (and not on Tuesday the 6th, as stated last week); Dr. Robinson in the chair. Dr. Kelly will bring forward some remarks on the Origin of Enteric Fever; Dr. Robinson the particulars of some cases. Members intending to read papers or bring forward subjects for discussion are requested to send notice to the Honorary Secretary, G. B. COLLET, 5, the Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT. The next meeting of this District will be held at the Royal Sea-Bathing Infirmary, Margate, on Thursday, September 8th, at 3 P.M.; Mr. W. Knight Treves, F.R.C.S., in the chair. Members intending to read papers, or make any communications, are requested kindly to inform the undersigned. T. WHITEHEAD RAY, Honorary Secretary. August 17th, 1881.

SHROPSHIRE AND MID-WALES BRANCH: ANNUAL MEETING.

THE annual meeting of the above Branch was held at the Salop Infirmary on Tuesday, July 26th, at 2.30 P.M.; C. B. H. SOAME, Esq., President, in the chair. There was a fair attendance of members of the Branch.

Vote of Thanks to the Retiring President.—A hearty vote of thanks was passed to the retiring President, J. R. Humphreys, Esq., for the able manner in which he had performed the duties of President during the past year.

Vice-President.—Dr. Edward Burd was elected Vice-President for the ensuing year.

Representatives in the General Council.—The following were elected: J. R. Humphreys, Esq.; A. Mathias, Esq.; S. T. Gwynn, M.D.; and the Honorary Secretary.

Branch Council.—The following gentlemen were elected, in addition to the President and Honorary Secretary: J. Beatton, Esq.; W. Eddowes, jun., Esq.; H. J. Elliot, Esq.; S. T. Gwynn, M.D.; J. D. Harries, Esq.; J. R. Humphreys, Esq.; J. Rider, Esq.; H. J. Rope, Esq.; R. W. O. Withers, Esq.

Honorary Secretary.—Mr. H. N. Edwards was reappointed Honorary Secretary for the ensuing year.

New Member.—Mr. F. H. Davies of Dawley was elected a member of the Branch.

Papers.—The following papers were read.

1. The President read a paper on some cases of severe Surgical Injuries by Machinery which had occurred in his practice.

2. Mr. Humphreys read some notes on a case of Lithotomy, and produced three large stones which he had removed. He also showed a stone of a different character which he had removed from the same patient by lithotomy three years ago.

3. Dr. Andrew read a paper on the Treatment of Ozæna.

4. Dr. Alfred Eddowes read some notes on Cases which had recently occurred in his practice.

Dinner.—About thirty members afterwards dined together at the Lion Hotel, where the usual toasts were given and responded to; there was also some very excellent glee-singing.

OUR CONFESSIONAL.

MAGNO INGENIO, MULTAQUE NIHILOMINUS HABITURO, CONVENIT ETIAM SIMPLEX VERI PERORIS CONFESSIO; PRÆCIPUÆQUE IN EO MINISTERIO, QUOD UTILITATIS CAUSA POSTERIS TRADITUR; NE QUI DECIPIANTUR EADEM RATIONE, QUA QUIS ANTE DECEPTUS EST.—(Celsus *De Medicinâ*, Liber viii, cap. 4.)

PLUGGING WITH SOLUTION OF PERCHLORIDE OF IRON.

SOME time ago I was hastily summoned to a case of severe hæmorrhage from the vulva. The patient was an anæmic woman—multiparous—and a little under middle age. She was not now pregnant. She had been suffering from a drain from the genitals for some time back, but this night it had suddenly become much worse, and was now pouring profusely from her. The application of cold to the abdomen, and tight plugging of the vagina, having failed to stop the flow, I now proceeded to plug the vagina with strips of lint soaked in the liquor ferri perchloridi fortior (*B.P.*), having previously made out, by digital examination, that the lower segment of the uterus felt hard to the touch, and that the os was large and very jagged. I dipped the strips of lint in the liquor, and pushed them well up against the os. This stopped the hæmorrhage, but, on removing the plugs, it recurred, and I repeated the operation. On removing these second plugs, the hæmorrhage was cured, but I found that the action of the liquor ferri had abraded the epithelium of the upper part of the vagina. There was, however, no serious sloughing, and no shreds subsequently came away. The patient, however, not getting right all at once, superseded me by a senior practitioner, who had already seen her two or three times in consultation with me, and approved verbally of my proceedings to the patient and her friends. He, however, told her of my little misfortune, and, if one half she says be true, grossly exaggerated it, thus getting me into bad odour.

My intention, however, in recording all this is to call the attention of my brother juniors to the method of plugging with the liquor ferri in cases similar to the foregoing. The practitioner above alluded to confessed that he had once had an experience similar to mine, and that he had since been careful to mix his solution with a little glycerine,

thus obviating all ill effects. This is just the little point I ought to have known, and, I may add, it is just these little points which are passed over by both lecturers and text-books, but which, for all that, are quite capable of either making or marring a man in practice. Hence an argument for at least the partial revival of the apprenticeship system. Σιγμα.

MILITARY AND NAVAL MEDICAL SERVICES.

DEPUTY SURGEON-GENERAL ALEXANDER SMITH, M.D., C.B., has has been appointed principal medical officer at Gibraltar in succession to Surgeon-General Munro, C.B., retired. Dr. Smith served from the commencement of the late war in Afghanistan as principal medical officer of Sir Donald Stewart's field force in Southern Afghanistan, and shared as such in the advance on and occupation of Candahar, the advance on Ghuznee and Cabul, battles of Ahmed Khel and Urzu. Sir Donald Stewart, in his despatches announcing our victory at Ahmed Khel, states that the arrangements for the immediate care of the wounded on that day reflected the highest credit upon Deputy Surgeon-General Smith, C.B., the principal medical officer with the force. For his Afghan services, Dr. Smith received the Companionship of the Order of the Bath, and the medal with clasp for Ahmed Khel. He entered the Army in August, 1846, was assistant-surgeon of the late 37th Regiment in Ceylon, surgeon of the old 47th Foot in Canada, and has done many years' duty in India.

THE TITLE OF SURGEON-MAJOR TO VOLUNTEER SURGEONS.

SIR,—As there still seems to be some uncertainty in the minds of surgeons of volunteer regiments as to whether the title of surgeon-major, as laid down in Mr Manns letter, in the number of the BRITISH MEDICAL JOURNAL for July 23rd, are not quite satisfactory, will you allow me to quote from the Army Circular, issued from the War Office, July 1st, 1881, such portions as refer to this subject? Although your columns are much occupied, yet I think that the quotations below will set this question finally at rest.

Clause 171.—Para. 2. "A certified statement in detail of each officer's service, signed by the adjutant and countersigned by the commanding officer, will invariably accompany applications for honorary rank." 3. "Applications for steps of honorary rank whilst serving, or on retirement, will be submitted to the Military Secretary by commanding officers through the officer commanding regimental districts to the general officers commanding districts. Applications for permission to retain rank on retirement will be submitted by commanding officers to the Military Secretary direct." 8. "All surgeons of the auxiliary forces who have served a period of twenty years in the army, navy, or auxiliary forces, will if duly recommended, as laid down in Paragraph 3, receive a step of honorary rank." 10. "A step of honorary rank, if not already granted whilst serving, with permission to wear such uniform as may from time to time be prescribed by regulation, will be granted to officers retiring from the auxiliary forces when recommended as laid down in Paragraph 3, after the following service." 12. "Surgeons after twenty years' service as commissioned officers." 13. "Officers retiring from the auxiliary forces after a combined service of fifteen years will, if duly recommended as laid down in Paragraph 3, be permitted to retain their rank and wear such uniform as may from time to time be prescribed by regulation."

From the above quotation it will be evident that surgeons of volunteer regiments may retire with the rank of surgeon, and wear their uniform, after fifteen years' service, if duly recommended. Also that surgeons, after twenty years, will receive a step of honorary rank, and be permitted to retire with that rank and retain their uniform. In all cases application must be made in due form according to Paragraph 3 of Clause 171. There can be no doubt that the step of honorary rank after twenty years' service is that of surgeon-major, for the rank of major has already been given in the Circular dated 1877 to all surgeons of regiments appointed before that date. It also follows, from the above, that no name will appear in the *Army List* as surgeon-major until the individual has gone through the above form and been duly recommended. This will probably take some time, as army officials, like other officials, are in no great haste in such matters.—I remain, sir, your obedient servant, JOHN FRASER, M.D., Surgeon 4th Staffordshire R.V.

MR. DODSON has stated that he intends to lay on the table of the House of Commons, a copy of the address on vaccination of the lower animals, delivered by M. Pasteur at the recent International Congress.

PROFESSOR TANNER, Examiner in Agriculture under the Government Department of Science, is in favour of the system of imparting information in dialogue form, and he is apparently of opinion that for beginners an easy and familiar style is best. Thus, in a little book on the principles of agriculture, written by him and just published by Messrs. Macmillan and Co., "Lesson No. 10" commences as follows:—"Do plants ever get sickly and ill, Tom"? said Bill: "They want food as we do, but do they ever get ill?" To this Tom replies: "They look sickly and ill very much too often; but, as they cannot speak, this is the only way they can show us there is something wrong."—"What makes them ill? Is it taking too much good stuff?" asked Bill. "Oh no, no," said Tom; "the plants set you a good example." And so on. Bill, who is of a more inquiring turn of mind, further questions: "You don't mean to say that plants can faint away, as Jimmy Ford did in the Assembly Rooms the other day?" but he is assured by his instructor that the cases are analogous, for, as the latter observes, "both want fresh air, and if they do not get it they look very queer."

PUBLIC HEALTH

POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BURY ST. EDMUNDS.—Mr. Winter Clarke's annual reports on the health of this borough have all been good; indeed, they are quite models of their kind, dealing in detail with the mortality statistics of the place, and with the various sanitary conditions affecting health. Last year, there were 500 births and 317 deaths in the town, equal to rates of 32 and 20 per 1,000. The deaths were less in number than the average of the five previous years, though the population has increased meanwhile. The infantile mortality was much higher than that of either of the two preceding years, the proportion of deaths under one year being 184 per 1,000 births. Mr. Clarke does not fail to notice this high rate, and he analyses the various components of it with considerable minuteness. The inference he draws from the facts which he gives is, that "the great increase in the number of infantile deaths in 1880 was accidental, and not in any way suggestive of grave surmises as to its possible origin". There was a considerable increase in the mortality from zymotic diseases over that for 1879, but this is explained by the unusual fatality of infantile diarrhœa. Measles prevailed epidemically throughout May and June, but the cases were, generally speaking, of a mild character. Isolated cases of scarlatina were frequently met with, and were somewhat more numerous in the last four months. A very severe form of whooping-cough was prevalent in a square containing some of the best appointed artisans' dwellings in the town, but bordering on low meadows exposed to night-mists, and occasionally flooded in wet seasons. A number of cases of typhoid fever are recorded, but they all seem to have had a local origin. Diarrhœa was severely epidemic in August and September. Mr. Clarke's views of the attack is, that it was caused by "climatic influences, taking effect upon weakly, ill cared for, or badly nourished children". As to sanitary conditions, Mr. Clarke is unable to report much improvement in the houses of the poor, which, in an old town like this, are apt to be huddled in squalid and unventilated courts. The undertaking of the removal of refuse by the Town Council has effected a great improvement, but the equally important subject of the removal of excremental filth from the neighbourhood of houses has yet to receive the authority's consideration. The sewerage of Bury St. Edmunds seems to be very partial, and a great many houses have either garden-privies or closets draining into cesspools. A good deal of the water-supply is still derived from wells, which, with such surroundings, must necessarily be exposed to pollution. Mr. Clarke speaks of the continued usefulness of the sanitary hospital, and of the increasing appreciation by the inhabitants of a disinfecting apparatus which the Town Council have set up.

TOTTERSBURY RURAL DISTRICT.—Mr. Macguire's report is somewhat brief for a district with a population of 11,795 persons, but the circumstances of his succession to the health-officership, doubtless to a considerable extent account for this. During the year there were 409 births and 214 deaths, equal to rates of 34.6 and 18.14 per 1,000 respectively. The mortality amongst infants was excessive, and so was that from diseases of the lungs. An epidemic of measles prevailed during the early part of the year, and diarrhœa and typhoid appeared in a sporadic form towards the latter part of the year. Some improvement is noted in excrement disposal, and satisfactory results have arisen from the adoption in some places of earth closets, but the water supply and the drainage arrangements generally appear to need the serious attention of the local authority.

MEDICAL OFFICER OF HEALTH

officer should possess or study?—Yours truly, M. O. H.

control over the details of his duties. A summary view of all these points will be

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following candidates have passed the Preliminary Scientific M.B. Examination.

First Division.

*Bayliss, William Maddock, University College.
*Besant, Annie, Private Tuition.
Bramwell, Fernand Henry, University College.
Braddon, William Leonard, Guy's Hospital.
*Bradford, John Rose, University College.
*Bradford, William Jocelyn, Trinity College, Dublin.
*Brazil, Walter Henry, Owens College.
Caldecott, Charles, Guy's Hospital.
Carless, Albert, King's College.
Chadwick, James, Guy's Hospital.
Crowle, Thomas Henry Rickard, University College and St. Mary's Hospital.
Davenport, Arthur Frederick, University College and Edinburgh.
De Chazal, Edmond Lucien, University College.
Evans, Evan, University College of Wales.
Finley, Frederick Gault, Owens College.
Fisher, Thomas Hammond, Private Study.
Gardner, William Thomas, St. Bartholomew's Hospital.
Goodall, Edward Wilberforce, Guy's Hospital.
Goodall, Edwin, Guy's Hospital.
*Goodman, Roger Neville, St. John's College, Cambridge.
Gray, John Power William, King's College.
Green, Henry Selby, University College.
Greig, Duncan M'Bean, University College.
Harsant, Joseph George, Guy's Hospital and Epsom College.
Haw, Walter Herbert, Charing Cross Hospital.
Hichens, Frank, London Hospital and Epsom College.
Hutton, John Stuart, St. Thomas's Hospital.
Johnson, Raymond, University College.
Kidd, Hugh Cameron, St. Thomas's Hospital.
*Kipping, Frederick Stanley, Owens College.
Lawrence, Thomas William Pelham, University College.
Little, Arthur Nicholas, University College, and Medical School, Bristol.
M'Dougal, Robert Eustace, University College.
Mackinder, Halford John, Epsom College and Christ Church, Oxford.
Melland, Brian, Owens College.
Morison, Frederick William, St. Bartholomew's Hospital.
Nason, Edward Noel, University College.
O'Brien, Patrick Moriarty, Liverpool School of Medicine.
Palmer, Alice Mary, Private Tuition.
Parfitt, Edward Browne, University College.
*Phillips, Francis Barclay Willmer, Guy's Hospital.
*Pilgrim, Eustace Graham, University College and Edinburgh.
Price, Alfred Edward, Guy's Hospital.
Randell, Reginald Maurice Henry, Guy's Hospital.
Rawson, Sidney George, Charterhouse and Guy's Hospital.
Rockley, Henry, Guy's Hospital.
Rowell, George, Guy's Hospital.
*Stocker, Edward Gaved, University and Regent's Park Colleges.
*Tratman, Frank, University College, Bristol, and Private Study.
Washbourn, John Wychenford, Guy's Hospital.
Webb, Helen, London School of Medicine for Women.
*Whalley, Lawrence John, Royal School of Mines.
Wheatley, James, King's College.
Wild, Robert Briggs, Owens College.
Wills, William Alfred, Westminster Hospital.
Woolbert, Henry Robert, University College.

Second Division.

Ackland, Charles Kingsley, King's College.
Alexander, Sidney Robert, Guy's Hospital.
Armitage, Edward Harris, Guy's Hospital.
Baigent, Richard Coventry, Hartley & Birkbeck Institution & Private Study.
Barendt, Frank Hugh, Liverpool School of Medicine.
Barwise, Sidney, Sir Josiah Mason's College, Birmingham.
Bernard, Letitia Caroline, London School of Medicine for Women.
*Boobbyer, John, University College.
Bowden, Ernest Edward, Owens College.
Bowen, Alexander George William, University College, Bristol.
Bright, Eustace Frederick, University College.
Brown, Edward Vipont, St. Bartholomew's Hospital.
Brown, Frederick Nathaniel, Epsom College.
Brown, Herbert Henry, St. Bartholomew's Hospital.
*Cutler, Eustace, Royal School of Mines.
Dale, William Kelynack, King's College.
*Datta, Parvati Nath, University College.
Dimmock, Augustus Frederick, King's College.
Du Boulay, Hubert Houssemayne, Guy's Hospital.
Ehrhardt, Julius Martin, Sir Josiah Mason's College, Birmingham.
Emtage, Edmund Walter, University College.
Evill, Frederick Claude, St. Bartholomew's Hospital.
Failes, Frederick George, St. Bartholomew's Hospital.
Gabriel, Leonard Maurice, St. Bartholomew's Hospital.
Gardner, Henry Willoughby, St. Bartholomew's Hospital.
Gee, Frederick William, University College.
Hamel, Julius, University College.
*Hartog, Philippe Joseph, University College School and Owens College.
Hewan, John, St. Thomas's Hospital.
Hollings, Charles Edward, Owens College.
Holt, Maurice Percy Cue, King's College.
Hoskins, Arthur Percy, Epsom College.
Hutton, John, Owens College and St. Bartholomew's Hospital.
Iddon, William Henry, Owens College.
*Irwin, John Thomas, Owens College.
Jones, Sydney Harold, St. Thomas's Hospital and Private Tuition.
[illegible]
[illegible] Hospital.
Lewis, Percy George, King's College.
[illegible] College.
[illegible], Cambridge.
Mourilyan, Edward Pain, Guy's Hospital.
Mumford, Alfred Alexander, Owens College.
Nevins, John Ernest, University College.
Pietersen, James, St. Thomas's Hospital.
[illegible]
Purslow, Charles Edwin, Mason's and Queen's College, Birmingham.
Sellick, James Henderson, Guy's Hospital.
Spencer, Walter George, Private Study.
Sunder, Charles Edward, University College.
Swain, [illegible] and Bath[illegible]
Thomas, John Lewis, University College of Wales.
Weaver, John James, University College.
Webb, Henry John, University College.
[illegible]
Wilson, Albert, St. Thomas's Hospital.
Wynne, Edward Thomas, St. Bartholomew's Hospital.
Yeomans, James, University College.
Young, Charles Wheeler Forrest, University College.
Yunge-Bateman, Marcus George, Guy's Hospital.

* These candidates have also passed in the mathematics of the First B.Sc. Examination, and have thus become admissible to the Second B.Sc. Examination.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 11th, 1881.

Clegg, John Hague, 25, Canonbury Square, N.
Goulden, James H. Oswald, Stockport.
Mark, Leonard Portal, 62, Pall Mall, S.W.
Minchinton, Henry James, Brixham, South Devon.
Pollard, Joseph, 17, Welbeck Street, W.
Pounds, Thomas Henderson, Chatham.
Scott, Bernard, Brighton.
Voss, Francis Henry Vivian, 26, Clapton Square.

The following gentlemen also on the same day passed their Primary Professional Examination.

Fowler, Charles Owen, University College.
Smith, John, Charing Cross Hospital.
Underwood, John Charles, Guy's Hospital.

UNIVERSITY OF EDINBURGH.—The following gentlemen received degrees in Medicine and in Surgery, on Monday, August 1st, 1881.

[illegible] (The asterisks denote those who have obtained prizes for their dissertations; ** deemed worthy of competing for the dissertation prizes; * those commended for their dissertations.)—John Adam (M.A.Edin.), Scotland, M.B. and C.M., 1877: Typhoid Fever. Reginald G. Alexander (M.A.Cantab), England, M.B. and C.M., 1871: Description of a Portable Clinical Urine Case. Henry Joy Clarke, England, M.B. and C.M., 1878: Cases in Clinical Surgery. **Charles S. Clouston, Orkney, M.B. and C.M. (with Second-class Honours), 1868: Acute Rheumatism and its Treatment by Salicylates. David Collie, Scotland, M.B. and C.M., 1878: The Treatment of some Varieties of Insanity. *Alexander R. Coldstream, Scotland, M.B. and C.M., 1874: The Therapeutics of Pilocarpine. Joshua J. Cox, Ireland, M.B., 1875: Upon Endocarditis; especially its Ulcerative Form. *James T. R. Davison, La Plata, M.B. and C.M., 1678: The Physiological Action and some of the Therapeutic Uses of Strong Doses of Digitalis. *Henry G. Deverell, India, M.B. and C.M., 1877: Angina Pectoris. *Charles E. Douglas, India, M.B. and C.M., 1877: Spinal Irritation. **George A. Gibson (B.Sc.Edin.), Scotland, M.B. and C.M., 1876: The Physiological Action of Duboisia on the Circulation. ***Matthew Hay, Scotland, M.B. and C.M. (with First-class Honours), 1878: The Action of Saline Cathartics. **William Lamb, India, M.B. and C.M., 1875: A Contribution to the Physiology of the Splanchnic Area. **Robert Lawson, Scotland, M.B. and C.M., 1871: The Physiological Action of Extractive Hyoscyamine, and its Employment in the Treatment of Insanity. Alexander Bruce Low, Scotland, M.B. and C.M., 1878: Penetrating Wounds of Joints. Peter M'Bride, Hamburg, M.B. and C.M., 1876: Certain Nervous Symptoms and their Origin. William A. Macnaughton (M.A.Edin.), Scotland, M.B. and C.M., 1878: Puerperal Eclampsia. *Duncan M'Donald (B.Sc.Edin.), Scotland, M.B. and C.M., 1872: Treatment of Malarious Fevers. ***Roger M'Neill, Scotland, M.B. and C.M., 1877: The Diagnostic and Prognostic Value of the Initial Rashes of Small-Pox. *William B. Miller (M.A.St. And.), Scotland, M.B. and C.M., 1873: Syphilis. ***Robert Meodie, Scotland, M.B. and C.M., 1869: Scurvy; with an Outbreak of Scurvy at Thull in the Kuram Valley. *James Murray, Scotland, M.B. and C.M., 1876: A Clinical Study of Pityriasis Rubra. *Arthur M. Oram, Australia, M.B. and C.M., 1879: Rickets. Henry R. Oswald, India, M.B. and C.M., 1875: An Epidemic of Enteric Fever. William E. Pountney, England, M.B. and C.M., 1874: Hæmorrhage during Pregnancy, Labour, and after Delivery. *Oliver Cromwell Shaw, England, M.B. and C.M., 1877: Hystero-Epilepsy, with special reference to Metalloscopy. *Thomas Sanctuary, England, M.B., 1878: Dilatation of the Stomach; its Causes, Symptoms, and Pathological Changes. Andrew Smith, Scotland, M.B. (with Second-class Honours), 1876: The Infectiveness of Phthisis. **David G. Thomson, Scotland, M.B. and C.M., 1878: The Prognosis in Insanity. *Leslie B. Trotter, England, M.B. and C.M., 1874: Goitre in the Forest of Dean. William Turner (M.A.Aberd.), Scotland, M.B. and C.M., 1879: Version *versus* Forceps as a Method of Delivery in Cases of Deformity of the Pelvic Brim. William H. Williams, England, M.B. and C.M., 1874: Medical Supervision of Schools. Robert L. Williamson, England, M.B. and C.M., 1877: The Operation of Skin-Grafting. John Wilson, Scotland, M.B. and C.M., 1878: Medical and Surgical Cases. ***German Sims Woodhead, England, M.B. and C.M., 1878: Medulla Oblongata.

[illegible] (a indicates that the

candidate has passed the examinations with First-class Honours; *b*, that the candidate has passed the examinations with Second-class Honours.)—James H. Aitken, Scotland; Francis J. Baildon, England; John H. Balfour, Scotland; William B. Bannerman, Scotland; *a* Barclay J. Baron, England; John F. Bateson, England; John L. Clark, Scotland; Robert H. Blaikie, Scotland; Thomas Borthwick, Scotland; *b* Robert Bowes, Scotland; William E. Bradley, England; William H. Brodie, Scotland; Thomas Brown, Scotland; David Bruce, Australia; John G. Buchan, Orkney; *b* James A. L. Calder, Jamaica; Henry M. Clark, India; Francis R. S. Cotter, England; James Wharton Cox, Sydney; Duncan G. Crawford, India; William R. Dalzell, India; Camille V. Delepine, France; William Doig, Scotland; William J. Douie, Scotland; Arthur C. Doyle, Scotland; James D. Dunlop, Scotland; Robert Fearns, Scotland; James M. Ferguson, Scotland; Manley M. Fitzpatrick, England; John H. Fraser, Scotland; William W. B. Fry, England; *a* J. Lockhart Gibson, Australia; Alexander Grant (M.A.), Scotland; Leonard Grant, Scotland; Ogilvie Grant, Scotland; Alfred Hartley, England; Septimus Harwood, England; Sydney W. Haynes, England; Joseph Heath, Ireland; *b* David Hepburn, Scotland; Christian L. Herman, Cape Town; *a* James Hewetson, England; Josias M. Hoffman, Africa; Wilhelm Hoegsvold, England; James G. Houseman, England; Louis R. Huxtable, Tasmania; Francis W. Innes, Rangoon; Frederick A. Jelly, England; Robert M'K. Johnston, Scotland; Charles Kennedy, Scotland; William W. Kerr (M.A.), Scotland; Herbert D. King (M.A., B.Sc.), England; Roger Kirkpatrick, India; Robert Laidlaw, Scotland; Robert Laurie, England; Robert J. Lawson, Scotland; *b* George Leslie, Scotland; Charles Low, Australia; James Macdonald (M.A.), Scotland; Roderick J. J. Macdonald, England; George Hugh Mackay, Scotland; Samuel Mackew, England; Norman Maclean, Scotland; Archibald L. Macleish (M.A.Edin.), Scotland; William A. Macleod, Scotland; John F. Macrae, Scotland; John D. Malcolm, Scotland; Walter Mercer, Scotland; James Mill, Scotland; William Morrison, Scotland; George H. Mounsey, England; Henry F. Mudie, Scotland; Walter G. Murray, Ireland; Robert H. Munro, Scotland; Thomas P. Myles, Scotland; Charles E. Nichol, England; Brooke O. Norfor, India; Walter S. Ogilvy, Scotland; James Orr, Ireland; Augustus A. Pechell, England; George C. S. Perkins, England; Henry W. Phillips, England; *b* George Proudfoot, Scotland; George J. Renwick, Australia; Thomas Ridgley, England; David W. L. Ritchie, Scotland; John R. S. Robertson, England; George Virgile Rohan, Mauritius; James Maxwell Ross (M.A.), Scotland; Ernest D. Rowland, England; Alexander F. Russell, Scotland; Johannes Sauer, Africa; William C. Scholtz, Cape of Good Hope; Alfred H. Sevier, Russia; Robert S. Sibbit, England; Robert F. Sinclair, Scotland; William J. Sinclair, Scotland; John Smith (M.A.), Scotland; *b* Simon W. Smith, America; James G. Soutar, Scotland; John Sorley, Australia; Alexander M. Stalker (M.A.), Scotland; Daniel Stalker (M.A.), Scotland; John P. Stallard, England; Peter Standen, England; Gavin Stiell, Scotland; Charles Stuart, Scotland; Robert T. Sutherland, Africa; Adolphe H. Thomas, England; John Thomson, Scotland; *b* Matthew B. Thomson, Australia; John B. Tuke, New Zealand; John P. Tulloch, Scotland; John Valentine, Scotland; *b* Anthony G. Viljoen, Cape of Good Hope; Edward Brooking Cornish Walker, England; Alfred Ward, England; James S. Watson, Scotland; John Waugh, Scotland; *b* Arthur P. L. Wells, England; David Welsh, Scotland; Robert C. Welsh, Scotland; John H. Williams, Wales; Richard F. Williamson, England; George Wilson, Scotland; Henry J. Wolseley, Demerara.

Bachelor of Medicine.—Henry H. Aitchison, England; Richard C. Bennet, Trinidad; Frederick J. W. Cox, Scotland; Frank Fraser, England; William Harding, England; John Hern, England; John Macpherson, Scotland; William Y. Orr, Scotland.

Master in Surgery.—Robert W. Smith, Scotland.

UNIVERSITY OF ABERDEEN.—During the past year, the following candidates, after the usual pass examinations, received degrees in Medicine and Surgery.

Bachelor of Medicine, and Master in Surgery.—Charles Adam, M.B., C.M., Elgin; John Attenborough, M.B., [illegible]; [illegible] Bramwell, M.B., C.M., North Shields; Alfred H. Burton, M.B., C.M., Kensington; [illegible] K. Tutton, M.B., C.M., Eton, Yorkshire; Alexander [illegible], M.B., Master in Surgery, Dumbarton; James Crail, M.D., C.M., Kandy, Ceylon; Harry E. Dixey, M.B., C.M., Cheltenham; Ernest Field, M.B., C.M., Bath; Walter Fowler, M.B., C.M., Castle Hedingham, Yorkshire; Donald M. Fraser, M.B., C.M., Fever Asylum, Homerton; John E. Garner, M.B., C.M., Preston; Heneage Gibbes, M.B., C.M., London; Giles F. Goldsborough, M.B., C.M., London; William Gregory, M.B., Queensland, Australia; [illegible] Colony; William Mackie, M.B., C.M., Wisconsin, U.S.; Douglas D. Malpas, M.B., C.M., Biarritz; William Mearns, M.B., C.M., Gateshead-on-Tyne; Bonner H. Mumby, M.B., C.M., Iver, Bucks; James Neil, M.B., C.M., Macclesfield; James Noble, M.B., C.M., Braemar; Andrew Norrie, M.B., C.M., Monquhitter, Turriff; George Reid, M.B., C.M., Stafford; Thomas W. Richards, M.B., C.M., Canton, Cardiff; George J. Shand, M.B., C.M., Cairnforth, Lancashire; Frederick H. Spooner, M.B., C.M., Reigate; Seymour Taylor, M.B., C.M., London; Winckworth Tonge-Smith, M.B., C.M., London; Herbert R. Vachell, M.B., C.M., Cardiff; Augustus D. Waller, M.B., C.M., London; George A. Wilson, M.B., C.M., Sibsagar, Assam; Robert M. Wilson, M.B., C.M., Old Deer, Mintlaw.

Bachelor of Medicine.—[illegible] William Marsden, Bootle; W[illegible] [illegible], Alfred G. Bateman, London; George Boyes, Aberchirder, Alexander T. Brand, Aberdeen; George Henry Burford, Leicester; Edward Casey, Brantry, Co. Tyrone; Mackintosh A. T. Collie, Alves; William Cooper, Leochel-Cushnie; John Cowie, Ellon; Herbert W. T. Crow, Bournemouth; Alexander Dey, [illegible] Lawson, M.A., Skene; Frederick W. Lerew, London; George Leslie, Port [illegible]

Shoreham; John F. S. Royle, Staines; James F. Ruxton, Aberdeen; Charles L. I. de Seilan, Liverpool; George Shirres, Aberdeen; Aaron Sims, Hinckley; William D. Steel, Abergavenny; William Stuart, Huntly; William W. Webb, London; John A. Williams, Enfield. Of the above-mentioned candidates, William Wilfrid Webb received his Degree in Medicine and Surgery, with highest academical honours; Alexander Theodore Brand, Frederick William Lerew, Duncan James Reid, James Bernard Klingner Robb, M.A., James Ferguson Ruxton, their Degrees in Medicine and Surgery, with honourable distinction. The John Murray Medal and Scholarship was awarded to John Alexander M'William, as the most distinguished graduate of his year.

At the same time, Gray Hassell, William Smith Lunan, James Petrie, were certified as having passed all the examinations, but [illegible] graduate.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the July sittings of the examiners.

James H. Hough, Cambridge; Charles T. Dyce, Wednesbury; George Lewis, County Tipperary; Ronald A. Daniel, Wexford; Thomas L. Crooke, Sheffield; Cornelius Buckley, County Cork; John C. Wood, Sunderland; Simon V. Daly, Cork; Robert W. Mackinstry, Monaghan; David Lloyd, Warwickshire; Thomas F. W. Rowlands, Wales; Thomas G. C. Hesk, Derbyshire; Henry B. S. Curll, Australia; John Hannen, Norfolk; Alexander M. Bremner, Ross-shire; John A. Albrecht, Lancashire; John W. Burbidge, London; Thomas Williams, Anglesea; Ernest O. Stuart, Kent; John S. Gettings, Staffordshire; Arthur Hawkyard, Yorkshire; Henry A. Lownds, Bombay; Winton Dickson, Yorkshire; Joseph F. Smith, Sierra Leone; Edward Ellis, Yorkshire; John W. Irvine, California; William C. Hamilton, East Lothian; Robert L. Dickson, County Fermanagh; John Greenhalgh, Lancashire; Thomas Edwards, Birmingham; Ernest Westbrook, London; Robert G. Adamson, Aberdeen; Robert Ashburner, Ulverston; Maurice Cussen, Kerry; Henry J. Thornton, Margate; Edward H. S. Phillips, Limerick.

The following gentlemen passed their final examination, and were admitted L.R.C.P.Edin. and L.R.C.S.Edin.

William Bain, Caithness; Francis E. Cane, Kilkenny; Charles T. Duce, Wednesbury; Robert Baird, County Mayo; John M. Watson, Lanark; Thomas A. Wise, Bilston, Stafford; William R. Parry-Jones, Anglesea; Kenneth A. J. McKenzie, Manitoba; Dugald Christie, Glencoe; William R. Turner, Tuam; James Armstrong, Dumfriesshire; Michael Carmody, County Limerick; Charles Pope, Yorkshire; Arthur W. E. B. Barrett, Bath; George Hollies, Worcestershire; Arthur G. E. Naylor, Calcutta; Edward M. Laffan, Cork; Elisha H. Monks, Wigan; William J. Spence, Darlington; George P. Baldwin, Wolverhampton; St. David G. Walters, Ystradgynlais; Albert V. Wheeler, Dublin; Arthur E. Yates, Calcutta; William K. Aitken, Edinburgh; William B. Paulin, Halifax, Nova Scotia; John N. Jeffries, County Cork; James H. Ferguson, Bolton-le-Moors; Frederic T. Underhill, Staffordshire; Basil Ronald, Calcutta; Thomas G. Munyard, Paris; David Lloyd, Warwickshire; Arthur W. Aldrich, Miidenhall, Suffolk; James H. Dryden, Edinburgh; Richard F. Walsh, County Cork; James P. Casey, County Limerick; Andrew Stewart, Greenock; James Garry, County Clare; William C. Griffiths, Llangranog; James D. Dunlop, Edinburgh; James J. Taylor, Newcastleton; Arthur K. Scattergood, Leeds; Francis J. Power, Cork; Peter Dunlop, County Down.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentleman passed his first professional examination during the July sittings of the examiners.

Ralph B. Stoney, Roscommon.

The following gentlemen passed their final examination, and were admitted Licentiates of the College.

George A. Berry, Edinburgh; Alexander M. Moore, Devon; Robert Smith, County Kerry; Charles W. Sharples, London; Thomas A. Dickson, Whitehaven; Patrick R. Dennehy, County Tipperary; Thomas W. Shepherd, Somersetshire; John L. Aherne, Limerick; Richard G. Minchin, King's County.

The following gentlemen passed their first professional examination for the Licence in Dental Surgery of the College.

[illegible]; Thomas Mansell, Hanley; John S. Spain, Dover; Henry Blandy, Chesterfield.

The following gentlemen passed their final examination, and were admitted Licentiates in Dental Surgery.

[illegible]; Robert P. Thomson, Dublin.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BRITISH MATERNITY [illegible] tions, etc., to Mr. E. Lilly, the Honorary Secretary, Bridgwater.

[illegible] Assistant to the Chemical [illegible]

BURY ST. EDMUNDS FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION. [illegible]

CHILDREN'S HOSPITAL [illegible]

COOTEHILL UNION—Medical Officer for Tullyvin Dispensary District. Salary, [illegible]

[illegible]

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary £50 per annum. Applications to the Secretary of Medical Committee by 25th August.

GENERAL INFIRMARY, Northampton—House-Surgeon. Salary £— per annum. Applications to the Secretary by 24th August.

HECKMONDWIKE INDUSTRIAL CO-OPERATIVE SOCIETY, LIMITED, MEDICAL AID DEPARTMENT—Resident Medical Officer. Applications to the Society, Oak Street, Heckmondwike, by August 25th.

HOSPITAL FOR CONSUMPTION, Brompton—Assistant Junior Physician. Applications at once to the Hospital.

KNIGHTON UNION—District Medical Officer and Medical Officer of Health combined. Salary, £40 and £15 respectively. Applications by 1st September.

LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £— per annum. Applications to the Chairman of the Committee by September 1st.

NATIONAL DENTAL HOSPITAL AND COLLEGE, 149, Great Portland Street, W.—Dental Surgeon and Lecturer on Dental Surgery and Pathology. Applications by 15th September.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 23rd September.

PARISH OF ST. LEONARD, SHOREDITCH, WORKHOUSE AND INFIRMARY—Resident Assistant Medical Officer. Salary, £— per annum. Applications by 30th instant.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT—Assistant Medical Officer. Salary, £— per annum. Applications to the Clerk to the Managers by September 5th.

ROTHERHAM HOSPITAL AND DISPENSARY—Assistant House-Surgeon. Applications to the House-Surgeon, or to John Barnes, Honorary Secretary.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington—Two Demonstrators of Anatomy. Salary, £— and £— per annum respectively. Applications to the Dean by September 13th.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE—Curator for the Museum. Salary, £150 per annum. Applications to the Warden by September 5th.

SUSSEX COUNTY HOSPITAL, Brighton.—House-Surgeon. Salary, £80 per annum. Applications to the Secretary by 24th August.

SWANSEA HOSPITAL—Resident Medical Officer. Salary, £— per annum. Applications to the Secretary by the 23rd August.

TOWCESTER UNION—Medical Officer for the Blakesley District. Salary, £60. Medical Officer for the Blisworth District. Salary, £60. Applications to the Clerk to the Guardians by 22nd instant.

WEST LONDON HOSPITAL, Hammersmith—Assistant Dispenser. Salary, £65 per annum. Applications, etc., to the Hospital, by the 22nd of August.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road—Surgeon. Applications to the Secretary.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—Matron and Superintendent of Nurses. Salary, £100 per annum. Applications to the Chairman of the Weekly Board by September 19th.

MEDICAL APPOINTMENTS.

BARK, J., M.R.C.S., appointed Honorary Surgeon to the Liverpool Stanley Hospital

BENNETT, F. J., M.R.C.S., appointed Dental Surgeon to the St. Marylebone General Dispensary, *vice* Storer Bennett, L.R.C.P., resigned.

BRYDEN, Richard J., M.R.C.S.Eng., L.S.A.Lond., re-appointed Physician's Assistant to the Bristol General Hospital.

FENNELL, C. J., M.R.C.S., appointed Dispenser to the Royal Hospital, Chelsea.

ILDERTON, H. P., L.R.C.P., appointed Medical Officer to the Openshaw Local Board, Manchester, *vice* F. Ilderton, M.R.C.P., deceased.

JONES, D. Johnston, M.D., appointed Senior Assistant Medical Officer of the Kent County Asylum.

JONES, Robert, M.R.C.S., appointed Honorary Assistant Surgeon to the Liverpool Stanley Hospital, *vice* J. Bark, M.R.C.S.

MACEWEN, W., M.D., re-elected Surgeon to the Royal Infirmary, Glasgow.

NIXON, G. E. P., M.R.C.S.I., appointed Medical Officer and Public Vaccinator for Shrivenham District to the Faringdon Union.

RICHARDSON, J. N., M.R.C.S., appointed Second Junior House-Surgeon to the Huddersfield Infirmary.

SHAPLEY, Frank, M.R.C.S., appointed Assistant Medical Officer to the Glamorgan County Asylum, Bridgend, *vice* John McCracken, M.B., resigned.

SMITH, Wood, M.D., re-elected Physician to the Royal Infirmary, Glasgow.

WADE, Arthur Law, M.D., Junior Assistant Medical Officer to the Kent County Asylum, appointed Superintendent of the Somerset and Bath Lunatic Asylum at Wells.

WHITEHEAD, Walter, F.R.C.S., appointed House-Surgeon to the Manchester and Salford Lock and Skin Hospital, *vice* J. C. Peatson, M.D.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BRUNTON.—On the 17th August, at 54, Welbeck Street, W., the wife of T. Lauder Brunton, M.D., F.R.S., of a daughter.

HARDWICKE.—August 12th, at Purton Lodge, Sheffield, the wife of Herbert Junius Hardwicke, M.D., of a son.

MARRIAGES.

SUCKLING—JEROME.—On the 3rd inst., at the Parish Church, Sutton Coldfield, Warwickshire, by the Rev. W. R. Riland, Bedford, Rector, Cornelius William Suckling, M.B.(Lond.), of Queen's College, Birmingham, to Anna Maria, eldest daughter of the late John S. Jerome, Esq., of Holland House, Sutton Coldfield.

WOODHEAD—YATES.—At Elderscroft, Peebles, on the 17th inst., by the Rev. John McMurtrie, M.A., St. Bernard's, Edinburgh, German Sims Woodhead, M.D., M.R.C.P.E., Demonstrator of Pathology, University of Edinburgh, to Harriett Elizabeth St. Clair Erskine, second daughter of James Yates, Esq., Victoria, Vancouver Island, B.C.

DEATH.

DOLMAN.—On the 17th inst., at Sheepbridge, Chesterfield, Florence Mary, the beloved child of A. H. and C. M. Dolman, Derby, aged seven months.

DYSENTERY is increasing alarmingly in the German army, and many regiments are obliged to discontinue taking part in the manœuvres.

THE 3rd of next month has been fixed for Hospital Saturday.

CENTENARIANS.—Two burials of centenarians are reported from Baia Petih, to have occurred last month at Gyagyo—one, of a woman aged 105, and the other of a man aged 109.

THE APOTHECARIES' HALL OF IRELAND.—At the annual meeting of the General Council of the Apothecaries' Hall of Ireland, convened by authority of the Act of Incorporation on August 1st, 1881, the following members were elected as office-bearers for the ensuing year:—*Governor:* Thomas Collins, Esq. *Deputy-Governor:* Robert Montgomery, Esq. *Court of Directors and Examiners:* Edward H. Bolland, John Evans, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Henry P. Nolan, Jerome O'Flaherty, Edward J. O'Neill, Sir George B. Owens, John Ryan, James Shaw, George Wyse, Esqs. *Examiners in Arts:* H. Colpoys Tweedy, M.D., Sch. University, Dublin; G. Y. Dixon, B.A. *Representative on the General Medical Council:* Thomas Collins, Esq. *Secretary:* Charles Henry Leet.

DR. MORRISON, Medical Missionary at Rampore Bauleah, Bengal, on the staff of the English Presbyterian Mission, reports that although a great part of his time was taken up in 1880 with building a mission-hall and school, the usual dispensary work was carried on. Two dispensaries were open, at which the daily average on dispensing days was 38, and the total number of cases 2,769. The Zenana branch of the work has been carried with an amount of success not anticipated, and the schools have shown marked progress during the year.

THE INTERNATIONAL MEDICAL CONGRESS.—The following resolutions were adopted by the American delegates to the International Medical Congress:—"Resolved: That we highly appreciate the privilege we have enjoyed of attending this Congress, which has been in every sense a great success. That we offer our thanks to the officers of the Congress for the manner in which they have organised and conducted its meetings, and also to the corporations, societies, and individuals, of whose unbounded hospitalities we have had such ample experience; and that we shall always perserve the most pleasant and grateful memories of the uniform courtesy and kindness which we have received, and which will strengthen the ties of friendship which exist between the United States and the mother country.—Montrose A. Pallen, chairman; Henry O. Marcy, Secretary; Austin Flint, President of Committee; Joseph C. Hutchison, D. W. Yandell, Robert Batty, Moses Gurn, Beverley Cole, Henry J. Bigelow—Committee."

PUBLIC HEALTH.—The annual rate of mortality during the week ending Saturday, August 6th, in twenty of the largest English towns, averaged 22.9 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Plymouth 9, Brighton 16, Bristol 17, Wolverhampton 17, Salford 18, Birmingham 19, Sheffield 20, Portsmouth 20, Norwich 20, Bradford 21, Oldham 21, Manchester 22, Leeds 22, Newcastle-on-Tyne 22, London 23, Liverpool 27, Nottingham 27, Hull 28, Sunderland 29, and Leicester 30. Measles showed the largest proportional fatality in Liverpool and Sheffield; scarlet fever in Hull, Nottingham, and Salford; and whooping-cough in Sheffield. The fatal cases of diarrhœa in the twenty towns which had increased from 73 to 776 in the six preceding weeks, declined during the week to 533; the death-rate from this disease averaged 3.7 per 1,000, and ranged from 0.0 and 0.7 in Plymouth and Wolverhampton, to 5.3 and 8.9 in Nottingham and Leicester. In London, 2,242 births and 1,717 deaths were registered. The deaths exceeded the average by 30. The annual death-rate from all causes, which had steadily increased in the six preceding weeks from 19.1 to 27.2 per 1,000, declined last week to 23.4. The 1,717 deaths included 38 from small-pox, 60 from measles, 45 from scarlet fever, 4 from diphtheria, 22 from whooping-cough, 2 from typhus fever, 10 from enteric fever, 2 from ill-defined forms of continued fever, 297 from diarrhœa, 2 from dysentery, and 13 from simple cholera; thus, 495 deaths were referred to these diseases, being 15 below the average. The fatal cases of diarrhœa, which had increased steadily in the five preceding weeks from 72 to 495, declined last week to 297, and were 27 below the average; they included 240 of infants under one year of age, and 41 of children aged between one and five years. The deaths of 5 adults and of 8 infants and

children were referred to simple cholera or choleraic diarrhœa. The deaths from small-pox, which had been 73, 49, 43, and 39 in the four preceding weeks, further declined to 38 last week, but exceeded the average by 20. The deaths referred to diseases of the respiratory organs, which had been 152 and 156 in the two preceding weeks, further rose to 165 last week, and exceeded the average by 6. Different forms of violence caused 53 deaths; 46 were the result of negligence or accident, among which were 25 from fractures and contusions, 7 from drowning, 4 from poison, and 5 of infants under one year of age from suffocation. Six cases of suicide were registered. At Greenwich, the mean temperature of the air was 63.8°, and 1.1° above the average. The mean degree of humidity of the air was 81, complete saturation being represented by 100. The general direction of the wind was S.W., and the horizontal movement of the air averaged 10.4 miles per hour, which was very slightly below the average. Rain fell on Sunday and Monday, to the aggregate amount of 0.52 of an inch. The duration of registered bright sunshine in the week was equal to 37 per cent, of its possible duration. The recorded amount of ozone showed an excess during the week, especially on Sunday.

HEALTH OF FOREIGN CITIES.—The Registrar-General's last weekly return supplies the following statistics, which afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate averaged 32.3 per 1,000; it was equal to 22.5 in Calcutta, 33.8 in Madras, and 37.6 in Bombay. Cholera caused 21 deaths in Bombay and 8 in Calcutta, and small-pox 30 in Madras. The usual large proportions of deaths from "fevers" were recorded in each of the three Indian cities. The rate in Alexandria was 42.6, and six fatal cases of whooping-cough were reported. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 25.6 per 1,000 of their aggregate population, showing the usually marked excess upon the average rate in twenty of the largest English towns, which did not exceed 21.7 last week. The rate in St. Petersburg was equal to 54.4, but the 163 fatal cases of typhus and typhoid fevers showed a considerable decline from the numbers returned in previous weeks. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 19.2, the highest rate being 21.7 in Stockholm; diphtheria caused 7 deaths in Stockholm, and scarlet fever 2 in Copenhagen. The Paris death-rate was equal to 22.7; the deaths included 25 from small-pox, and 38 from typhoid fever. The deaths in Brussels were equal to a rate of 25.3, more than 25 per cent. of the deaths being due to diarrhœal diseases. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 22.2, and the highest rate was 25.1 in the Hague. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged no less than 42.3; it ranged from 26.6 in Vienna, to 45.5 in Breslau, and 53.7 in Berlin. The high death-rates in most of these German cities were mainly due to the excessive fatality of diarrhœal diseases; small-pox caused 12 deaths in Vienna, and 6 in Buda-Pesth. The death-rate was equal to 26.6 in Turin, and to 32.4 in Venice; the high rate in Turin was partly due to the fatality of typhoid fever and diphtheria. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, was equal to 36.1; it was equal to 35.1 in Brooklyn, 31.1 in Baltimore, and 28.6 in Philadelphia. Diarrhœal diseases showed excessive fatality in each of these American cities, infantile cholera causing no fewer than 127 deaths in Philadelphia; diphtheria was again fatally prevalent in New York and Brooklyn.

MERTHYR TYDFIL.—In a densely populated mining district, such as this, a high death-rate must be looked for; but the figure reached last year (25.6 per 100) cannot but be regarded as excessive. During the year there were 1243 deaths, 41 per cent. of which were of children under 5 years of age. The fatal prevalence of measles was the chief factor in swelling the infant mortality, no less than 112 deaths of children being ascribed to this cause. There was a noticeable decrease in the deaths from enteric fever, but 14 fatal cases occurred in association with insanitary conditions. To diseases of the heart 101 deaths are attributed, but as 65 of the deaths were those of persons over 55 years of age, Mr. Dike thinks that the mortality may be attributed rather to the wearing out of the "golden bowl" than to any unhealthy influences surrounding the sick. In the absence of any prevalence of fatal diarrhœa, the health-officer finds occasion to congratulate the sanitary authority upon the excellent quality of the water supplied to the district. Sanitary progress seems slow, for whilst a number of improvements were made during the year, there are still many existing defects which require Mr. Dyke's unremitting attention. The fever hospital, although little used, was successful in preventing the spread of the disease on each occasion of its employment.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT. We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

LAW AS TO [illegible]

INQUIRER asks whether there is any [illegible] upon examination of candidates for life assurance that can be recommended, treating [illegible] in the matter of height and weight, etc.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

BATHING IN TYPHOID FEVER DISCUSSED.

SIR, [illegible] of the paper read by me before the British Medical Association on July 27th, I have brought forward Dr. Brand's treatment of typhoid fever by bathing both in the water used by the people in a district [illegible] and also by him producing typhoid fever by injecting bacilli, reminds me and induces me to think that it would be the origin of typhoid in a [illegible] district where I was [illegible] years ago, was a large one. [illegible] fever was so prevalent in the village that I was told that I could [illegible] the district that they were scarcely ever free, and instead of it being called typhoid, gastric, or [illegible] terms, it was known by the name of the "[illegible]." There was another village within a mile, where [illegible] I [illegible] the conclusion that it must have its origin locally, in either the water they used, or the marshes from a large farm and several small [illegible], which in the [illegible] were much increased in size; therefore, in dry seasons, leaving very [illegible] covered with half-decayed vegetable matter. I pressed my opinion so strongly about the water-supply and the small swamps about the village being the cause, that, after some years, the common land about the village was drained, and pumps put down into wells sunk into the solid rock; and I can, I think, safely say that, for the last four or five years, there has hardly been a case of typhoid. Perhaps, as I am on the subject, it will interest some of your readers to state what my treatment was, and with what success. I gave strict orders they were to have nothing but milk and farinaceous food; all animal food, even down to weak broth or beef-tea, was strictly forbidden; and the only two cases out of a great number for some years' experience that died, I blamed the attendants for giving them, just as they were recovering, some veal broth; the fever returned, and being weak in constitution they died. Medicines given: quinine and nitro-muriatic acid. If diarrhœa or hæmorrhage set in, sulphuric acid and opium, with ether. Strict orders as to cleanliness, and immediate removal of all excreta. What made me more inclined to be convinced it was the water, was the villages adjoining were mixing daily at the various works, yet there was no typhoid amongst them, but they had good water-supply.—I am, etc.,

ROBERT HARRISON, M.R.C.S.Eng., L.S.A.Lond., M.B.M.A.S.

MATÉ.

MR. ERNEST GELDART, of Little Braxted Rectory, Witham, in a letter to the *Daily News*, writes as follows concerning maté. "For some two or three years, I have been a 'maté drinker'; and considering the easy communication and frequent intercourse between England and the Argentine Republic, it has been a source of wonder to me that the drink of Paraguay has not long ago been popularised in this country. In the Paris Exhibition of 1878, the 'yerba', as it is called, was sold; but, judging from an extremely musty and stale specimen which I saw in a friend's hands, was perhaps not calculated to inspire confidence. The tea (or herb, rather) will keep in perfectly good condition for a long time, if preserved in the cow-skin bag in which it is sold; in fact, I have some by me now three years old. The chief difficulty is to make the tea. Although this is done by 'simply pouring boiling water', yet this requires to be done very deftly, or else the pipe through which the drink is sucked becomes clogged with dust and twigs, and the cup which does 'not inebriate' fails also to 'cheer'. The process of making, to be successful, is thus performed: Having procured your 'maté', which is the small gourd from which the tea is drank, put into it two or three spoonfuls of the 'yerba', or tea, and then, closing the top of the maté with the hand, turn it upside down, and shake it well. The object of this proceeding is to bring the dust to the top and the twigs to the bottom (when the cup is returned to its normal position). Having shaken it thus, turn the gourd slowly round till the 'yerba' has fallen back just enough to enable you to remove your hand from the orifice without spilling the contents. Then take the 'bombilla', a silver tube with a pierced bulb at the end, and slip the same carefully under the 'yerba', and turn the 'maté' upright, being very careful not to shake the contents. Then 'pour the boiling water', adding sugar if desired, and the drink is ready when it has stood (say, one minute). Each 'charge' will bear watering perhaps three times, after which it should be cleaned out. I fear that some Europeans will be inclined to object to the process of drinking, which is as follows: The servant, either black or white, always has first suck (in order to clear the tube of dust), the 'maté' is then handed to the party one by one, and all draw in the liquid through the same pipe. But use accustoms one to anything; and I have drunk contentedly from the steaming cup in very mixed and somewhat questionable company ere now, upon the prairie, and should be quite ready to 'repeat the dose'. The drink has one great advantage—it is cheap. If my memory fails me not, it is about one shilling a pound. The maté and bombilla cost, say, ten shillings. I believe, moreover, that it has great 'staying powers'. The Gauchos in South America say that if you want to ride 'long and strong', take a piece of bread and a 'maté'. A Chileno I once met on board-ship said that he went through the famine of the Commune in Paris on 'mate'."

FALSE CONCEPTION.

MR. ADDISON, in the House of Commons, three times attempted to make a speech upon an important question, and each time began as follows: "Mr. Speaker, I conceive", and then stopped. When this occurred for the third time, a witty member arose and said: "I regret exceedingly that my friend has conceived three times, and yet has brought forth nothing. It is a manifest case of false conception."

ABDOMINAL ABSCESS AS A RESULT OF ENTERIC FEVER.

SIR,—In the JOURNAL of July 23rd, I see two cases of "Abdominal Abscess following Enteric Fever" by Dr. Bruce Low. This sequel of enteric fever is, I believe, as stated by him, not a very common one. It may, therefore, be not without interest if you would kindly insert the following similar case, occurring about two years ago, in my own practice.

The patient, a girl twenty years of age, suffered from a well marked attack of typhoid fever, attended with a plentiful crop of rose-coloured spots and very great tenderness in the hypogastrium. About the third week of the fever, a lump was noticed to the left of the umbilicus, which rapidly increased in size, and ultimately gave well marked fluctuation. I accordingly opened it, and gave vent to a very large quantity of the same horribly fæculent pus as Dr. Low alludes to in his case No. 1. The sinus did not thoroughly heal for a month. I may add, my patient was thoroughly free from any scrofulous taint, in fact, a very healthy young woman. Since her illness, she has married, and given birth to one child, the labour being in every way natural.—Your obedient servant,

CHARLES TERRY.

Newport Pagnell, July 30th, 1881.

FISSURED TONGUE.

SIR,—Can any of your readers [illegible] the treatment of the following case? A lady in the middle period of life, of a highly sensitive and nervous temperament, has for [illegible] months past been suffering from a [illegible] tongue, with enlarged and irritable-looking papillæ, especially at the tip, the whole organ being covered with a thick creamy fur, which dries up at night-time. The mucous membrane of the hard palate and gums is extremely vascular and sensitive, and consequently [illegible] painful [illegible] the [illegible] tooth-brush to [illegible] the contact of the tongue with it. There is no specific history, and the salivary apparatus appears [illegible]; [illegible] the whole of the teeth have been extracted, and several artificial contrivances fitted, but she is unable to bear the slightest pressure; besides consulting dentists, she has seen several able medical men, who have exhausted themselves with treatment, both dietetic and therapeutic, directed generally and locally to stomach, mucous membrane, and nervous system. As the case has come under my care, I should be glad of a few hints as to the management of it, if any of your subscribers will favour me.—Yours [illegible],

ALL SAINTS.

81, Clarendon Road, Notting Hill, W.

WARNEFORD should read the words of the various diplomas to which he refers; he will then see that in several instances the rules which he lays down are incompatible with the wording of the diploma.

MEDICAL PRACTICE IN MAURITIUS.

SIR,—Allow me to state that medical men practising in Mauritius are not only all qualified, but highly so, all but a few having either the M.D., M.S., F.R.C.S., or M.R.C.P., of London; the M.D. of Edinburgh; or the M.D. of Paris. In the whole colony, there is only one M.D. of Dublin, and no men practising without at the very least the M.R.C.S. and L.R.C.P. There is no fee for registration, however; every medical man arriving in Mauritius to practise is compelled to produce his diplomas, and a list is published of their names and qualifications, which list you can get on application to M. Shoumeau, Pharmacien, La Chaussée, Port-Louis, Mauritius, by which my statements could be proved.

I think that, should any of your correspondents wish to speak of Mauritius, I should advise them to ascertain facts before publishing at random false statements.—I am, sir, yours truly,

A. B. JOLLIFFE.

University College Hospital, Gower Street, London, July 30th, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. T. Churton, Leeds; Mr. J. Jones, Leeds; Dr. Stirling, Aberdeen; Dr. T. J. Walker, Peterborough; Mr. H. Platt, Scarborough; Mr. J. W. Ashworth, Manchester; Mr. Charles Higgins, London; Mr. T. W. Locke, Chester; Dr. F. Beach, Hull; Mr. E. M. Cooke, Worcester; Mr. G. Eastes, London; Dr. Thin, London; Our Aberdeen Correspondent; Mr. F. W. Loundes, Liverpool; Dr. J. Rogers, London; Dr. Gowers, London; Our Dublin Correspondent; Mr. Mar H. Judge, London; Mr. T. Clarke, Pewsey; Mr. E. Leeds, Ramsgate; Mr. E. L. Freer, Birmingham; Dr. Sawyer, Birmingham; Dr. A. Duncan, London; An Undergraduate; Mr. Ralph Stone, Omagh; An M.B. of Glasgow University; Mr. A. H. Haggard, London; Mr. J. M. Scott, Canterbury; Dr. James Neal, Sandown; Country Member; Mr. J. Howell, London; Mr. T. Whitehead Reid, Canterbury; Dr. H. J. Benham, Ipswich; Mr. G. Barrow, Windsor; Dr. J. S. Bristowe, London; Dr. F. P. Atkinson, Kingston-on-Thames; Mr. T. Taylor, Bolton; Mr. James Eaton, Grantham; Dr. P. M. Braidwood, Liverpool; Mr. Walter Smith, London; Dr. Murrell, London; Our Edinburgh Correspondent; Dr. John C. Maynard, Bishop Auckland; etc.

BOOKS, ETC., RECEIVED.

Rheumatism; its Nature, its Pathology, and its Successful Treatment. By T. J. Maclagan, M.D. London: Pickering and Co. 1881.

A Treatise on Comparative Embryology. By F. M. Balfour, LL.D., F.R.S. In two volumes. Vol. II. London: Macmillan and Co. 1881.

Royal London Ophthalmic Hospital Reports. By J. Tweedy, F.R.C.S. Part II., June, 1881. London: J. and A. Churchill. 1881.

Selections from the Works of Abraham Colles. By R. McDonnell, M.D., F.R.S. London: New Sydenham Society. 1881.

A Treatise on Therapeutics. By A. Trousseau. Ninth Edition. Vols. I, II, and III. London: Sampson Low and Co. 1881.

Diseases of the Nervous System. By M. Rosenthal. With a Preface by Professor Charcot. Vols. I and II. London: Sampson Low and Co. 1881.

A Treatise on Foreign Bodies. By A. Poulet, M.D. Vols. I and II. London: Sampson Low and Co. 1881.

Diagnosis and Treatment of Ear-Disease. By A. H. Buck, M.D. London: Sampson Low and Co. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,,	20 ,,
,, 26 ,,	25 ,,
,, 52 ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF MEDICINE,

At the Annual Meeting of the British Medical Association in Ryde, Isle of Wight, August 1881.

By EDWARD LONG FOX, M.D., F.R.C.P.,
Consulting Physician to the Bristol Royal Infirmary; President of the Section.

ON THE RELATIONS OF THE CONDITIONS OF THE BLOOD AND BLOOD-VESSELS TO THE HEALTH OF THE TISSUES.

Dr. Moxon, in the Croonian lectures of the present year, quotes Professor Virchow to the effect that "we are not to look to the vessels for the initiative in diseases of the textures of the body; that the life of texture is in the texture itself—its pathological as well as its natural life; and that the movements of the blood, in what is called irritative or inflammatory congestion, are secondary to a demand upon the blood and blood-vessels, which demand is made by the proper power of the textural elements." With a full recognition of this truth, the health of a tissue must largely depend on a normal condition of the blood on which this demand is made, and on a healthy state of the vessels through which the demand is supplied. To this line of thought, in connection with the nerve-centres, I invite attention for a few moments.

Taking gout as a starting-point, I put on one side the lately revived suggestion, that the origin of gout lies primarily in a morbid state of the nervous system. Much may be said in favour of this view; whilst, on the contrary, it is difficult to prove that this impaired condition of the nervous centres produces this effect, except in persons hereditarily vulnerable to gout.

But our subject is almost the converse of this. Given gout, on what do the nerve-phenomena, that may manifest themselves in a gouty person, depend?

At our annual meeting, held in Manchester in 1879, Dr. Russell Reynolds sums up the nerve-phenomena that he himself had recognised as occurring with and from gout.

1. Mental disturbances, such as restlessness, insomnia, hysteria, failing memory, want of power of attention, suicidal thoughts, intense melancholy.

2. Pain in the head, of very varied intensity, especially unilateral pain, usually parietal or occipital, forced into almost intolerable severity by movement, and without tenderness of scalp, and not aggravated by mental exertion.

3. Modified sensations, as vertigo, which may be determined by posture; tinnitus aurium in various forms, sometimes of only one ear; deafness, attacks of bewilderment, amounting sometimes to *le petit mal;* certain paræsthesiæ in the limbs, numbness, tingling, creeping, deadness, widely distributed and widely variable; flying and darting pains, simulating those of ataxy.

4. Modifications of muscular action, cardiac palpitation, irregularity of pulse, painful aortic pulsation at and below the epigastrium, various clonic or tonic spasms, priapism; local weakness of muscles, as ptosis, single or double, want of co-ordination of all the limbs. All these phenomena may disappear under anti-gouty treatment, and must therefore depend, not on any coarse structural lesion, but on an abnormality of the blood itself.

I will emphasise the subject of melancholy. "A lady passed several months in the deepest possible depression. She would not employ herself, was fed with difficulty, never spoke except occasionally to express the conviction of her own future damnation. She recovered under colchicum alone; and, much as I dislike this drug, I have never for seven years been able to leave it off with this lady for more than a month at a time, without a tendency to a recurrence of the melancholia."

In other cases, we see the most fanciful delusions, and even considerable excitement, so wholly under the influence of a similar treatment, that they must be placed under the same category. But, though the experience of most of us would verify the phenomena referred to by Dr. Russell Reynolds, there are a series of morbid conditions that depend primarily or secondarily on gouty lesions of the vessels themselves. Amongst these phenomena may be placed a more continuous form of headache; certain disturbances of mind that are more maniacal than melancholiac; epilepsy, with its sequences; and some of the slighter abnormalities of the muscular system, especially, I think, spasm of the muscles supplied by the facial nerve, and of these particularly the orbicularis palpebrarum, and the muscles in its immediate neighbourhood.

The very gradual onset of these phenomena in gouty subjects, their persistence even when the patient may be attacked by a fit of acute gout, their long continuance, the uselessness of all remedies other than gouty in their treatment, and the fairly satisfactory result under so-called gouty regimen over a long period, all point to the fact that these phenomena own a gouty origin, but that they are connected with a condition of mechanical interference with the calibre of the arteries, such as is not unusually met with on *post mortem* examination. And whilst this variety is connected with the first, in each having a gouty origin, it bears a still closer relation to the third variety, in the fact that the vessels are the chief seat of lesion, and that the lesion is tedious, difficult of removal, and not unlikely to lead to prominent morbid results.

I would guard myself from being supposed to mean that this interference with the calibre of the smaller arteries is directly due to urate of soda itself. But the frequency and intensity of atheroma of the arteries in gouty subjects, even short of old age, and where the habits have been temperate, seem to point to the idea that the presence of urates in the blood is specially apt to lead to that degenerative change in the arteries. This is only an analogy with syphilis, in which many suppose (to use Dr. Buzzard's words) that a specific dyscrasia gives rise to equally specific products, which indeed are taken as proofs of a specific dyscrasia; whereas, in many cases, the products are not specific.

My colleague, Dr. Shaw, of the Bristol Royal Infirmary, has lately recorded the *post mortem* examination of a man, who had suffered from left hemiplegia. The important points in the case were these. On running the finger over the surface of the cerebral convolutions, three well-defined sclerotic areas were perceived: 1. Occupying the third superior frontal convolution of the right side; 2. The area of the ascending convolution of the right side; 3. At the right side of the longitudinal figure, about midway between the vertex and the corpus callosum. The sclerosis was found, on section, to be limited entirely to the grey matter, except in the third spot, where it extended into the white substance. In the first spot, the white matter had become considerably softened; and, on section, presented the appearance of a cyst, with firm walls and fluid contents. The left corpus striatum was the seat of degeneration, being yellowish in patches, soft throughout its internal capsule, part of its claustrum, and nearly the whole of its lenticular nucleus. The left carotid artery was blocked by, and also surrounded with, a mass of recent soft lymph; the left posterior communicating artery and the left posterior cerebral were also occluded. The right middle cerebral was blocked, as it lay on the island of Reil; the left middle cerebral was pervious. This case is instructive, not only as showing how fairly a hemisphere may be nourished with the posterior communicating and posterior cerebral arteries blocked (the blocking of the carotid being probably the immediate cause of death), but especially with reference to the effects on the right side, where the right middle cerebral was found obstructed. There was reason to believe that this blocking had been gradual; if not primarily thrombotic, the original embolus allowed some small portion of the blood to pass, and the vessel was only completely blocked later by the thrombotic accumulations: and the result was not primarily softening. Where this existed, considering the rapid supervention of cerebral necrosis, it must have commenced very shortly before death. But the effect of gradual interference with the blood-supply was sclerosis. Softening, as a result of cutting off the blood-supply from a portion of the brain, is common enough in the experience of us all. Sclerosis, as the result of partial thrombotic blocking, or of a diseased condition of artery, that may easily determine thrombosis, and even, before it leads to that lesion, may materially diminish the blood-supply to the region beyond, has hitherto not been so fully recognised—though Hamilton speaks of thickened vessels in cerebral sclerosis.

Does it [illegible] these grosser phenomena in a disease like gout?

The difficulty in assigning symptoms, in these cases of lesions of the brain is, that, at the termination of chronic gout, we often meet with the complication of small granular kidney. This lesion was found in the following case.

A gentleman, aged 75, had been gouty for [illegible] three months, he [illegible] gradually [illegible] and his death was preceded by two days of coma. A fortnight before death, he

had incessant jactitation of the head, both arms, and both legs, which seemed half voluntary, half choreic; and, though very severe, did not trouble him at all. The urine was albuminous. At the necropsy, the skull was very thick. The dura mater externally seemed healthy, but both middle meningeal arteries were rigid. The dura mater on the visceral side was thickened, and presented scattered effusions of blood, equal on the two sides. The arachnoid could be peeled away, leaving the blood on the dura mater. The arachnoid and pia mater were much thickened over all the convexity, evidently a chronic thickening. This was seen to a large extent at the base of the brain. There was no softening of the brain. The vessels were everywhere atheromatous, especially the vertebrals, the basilar, the posterior cerebellar, and the Sylvian arteries with their branches. The kidneys were small, granular, and covered with cysts.

In a case of a lady, aged 68, in whom recovery took place, headache, diplopia, strabismus, with certain paræsthesiæ of the limbs, and with twitching (almost convulsion) of the legs, indicated slight meningitis of the base. She had been gouty, and came of a gouty family. There was no albuminuria. Under counter-irritation, iodide of potassium and lithia, she recovered after a very tedious illness. An advanced arcus senilis, tortuous temporal arteries, and somewhat rigid radials, showed that the arterial system was seriously implicated. In a minor degree, the lesion here was doubtless of a similar nature to that in the previous case, but affecting the softer membranes only.

So much am I inclined to connect subacute fibroid inflammation of the brain and meninges with narrowed calibre of arteries, that I doubt whether such a condition is found, either as cerebral sclerosis, as firm adhesion of the dura mater to the skull, as subacute inflammation of the dura mater on the visceral surface, or as chronic leptomeningitis, without some morbid condition of the cerebral or meningeal arteries of such a nature as to narrow their calibre.

That gout is associated with meningitis, has often been recognised. Next, perhaps, to a morbid condition of the vessels themselves, the most frequent cause of thrombosis is just that hyperinotic state of blood that obtains in gout, and a form of meningitis is produced that resembles tuberculous meningitis.

This morbid condition may vary considerably. The one factor necessary is, that an abnormally small amount of blood should be able to pass. Is the lesion atheroma, tubercle, syphilis? Is it slight arteritis? Is it embolus, so small that, though caught at a bend in the artery, it yet allows a minute stream of blood to pass for a time? Is it one of the varieties of thrombus? The effect may be the same, whatever the ultimate causation.

That this is so in tubercular meningitis, is recognised by all. This lesion never occurs without tuberculous arteries; and a tuberculous artery is one whose calibre is narrowed by pressure from without by tubercle in the adventitia.

I have lately met with a case that had suffered long from the effects of syphilis. There was no albuminuria. The case resembled the first one of gouty pachymeningitis, except that during life there were epileptiform attacks; and after death, although the chronic inflammation of the dura mater was over the whole convexity, the hæmorrhage from the visceral surface was unilateral. Here the vessels were much diseased.

Many observers—Westphal, however, disagreeing—consider that posterior sclerosis of the cord is connected with syphilis in a proportion from 50 to 80 per cent. of all cases. If so, will it not be found—has it not, in fact, been found already—that the posterior spinal arteries are in many instances narrowed; or that the vertebrals themselves, from which these arteries arise, have some obstruction to their calibre? Ross speaks both of gummata forming in the walls of arteries, which may either project from the external surface or into the lumen of the vessel, and in the latter case may obstruct the vessel completely, or be washed off, to be arrested as an embolus in one of the small branches; and of an infiltration of cells, that may take place chiefly in the adventitia of the vessel, or between the intima and the epithelioid lining, these cells undergoing partial organisation and cicatricial contraction; whilst Wilks mentions, in a case of syphilis of the spinal cord, that the most striking change was in the vessels. He quotes also Dr. Mickle's observation of cases of insanity after syphilis, in which the arteries were found thickened, and various degrees of meningitis in different parts of the cortex. It is a very suggestive point, that posterior sclerosis of the cord is tolerably often associated with general paralysis of the insane—a condition not only recognised of late as frequently connected with syphilis, but manifesting *post mortem* just those sclerotic foci in the brain, and that subacute fibrous inflammation of the meninges, of which mention has been made in connection with diseased arteries.

The vessels, too, are found thickened in posterior sclerosis not associated with syphilis. And, to make one more reference, Dr. P. Baumgarten describes the case of a woman aged 32, who suffered from marked cerebral symptoms. At the necropsy, the arachnoid, between the pons Varolii and the chiasma, were changed into a brawny bacon-like tissue. The posterior cerebral arteries must have alone supplied the whole of the cortical region with blood. All the other arteries were extremely diseased, and some obliterated. The middle cerebrals showed marked thickening. With regard to the diffused changes in the vessels, they consisted essentially of endarteritic growths.

The analogy in the pathological appearances is pretty nearly complete between the affection of the arteries in syphilis, with the consequent sclerosis and meningitis, and the interference in the calibre of the arteries in many cases of gout, with the various forms of meningitis found under such circumstances; and the stages in gout, in tubercle, in syphilis, are—1, a dyscrasia; 2, some morbid condition of artery, interfering with its lumen, caused directly or indirectly by the dyscrasia; 3, chronic fibroid inflammation of the meninges or nervous centres, or both.

Nor are proofs wanting in other parts of the body of the truth of this statement. In so-called fibroid phthisis, and still more in the fibroid thickening of lung that often accompanies the growth of tubercle, the original coarse lesion is apparently a vascular one. The same may be said in hepatic cirrhosis, and in alcoholic non-malignant sclerosis at the pyloric orifice. So, too, in gouty cirrhosis of the kidney, long before the blood has become so loaded with effete non-depurated material as to exercise a deleterious action on the arteries, these vessels are found diseased, anticipating, or at most synchronous with, the renal changes. It is, therefore, not to be wondered at, that similar vascular lesions in the neighbourhood or in the structure of the nervous centres should induce the same irritative changes in membranes so largely composed of fibroid connective tissue, and in nervous centres provided with so extensive and so delicate a neuroglia.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF SURGERY,

At the Annual Meeting of the British Medical Association, in Ryde, Isle of Wight, August 1881.

By W. MARTIN COATES, M.R.C.S.Eng.,

Senior Surgeon to the General Infirmary, Salisbury; President of the Section.

ON AN OPERATION FOR THE REMOVAL OF INTERNAL PILES.

Ever since my election to the Presidency of this Section of the British Medical Association, a feeling of intense surprise has been rarely absent from my mind, together with the question: How did it happen that I, a simple M.R.C.S., and of so small reputation, came even to be thought of for the important duty of presiding over the sayings and doings of men to whom I could be content to listen for instruction? I have not been able to so much as imagine an adequate reply to this question.

When, some weeks after my acceptance of the honour, I learnt that I should be expected to give an address, my surprise was turned into something akin to dismay. I have, however, two consolations: 1. That the address is limited to twenty minutes; 2. That I am in the hands of professional brothers, who will judge my shortcomings with generous leniency, and give me credit for sincerity of endeavour.

How to occupy, not unprofitably, the time allotted, and no more, was a problem not easy to solve. To have attempted an oratorical display would have been a foolish impertinence, and it was not in me to achieve success. I came to the conclusion that it would be more decorous in me, and more respectful to you, to bring to your notice an operation for the safe removal of that kind of internal piles having the hæmorrhoidal veins as their seat—an operation to which I have given much thought. I know of no more distressing affection, when it has become chronic. The pain and irritation, aggravated by constipation and defæcation; the exhausting discharges of blood; the occasional difficulty and pain in returning the tumefied and tender parts within the sphincter; and last, though not least, the depression that almost invariably attends this disease, cause an amount of mental and bodily suffering very sad to witness. When this affection has arrived at this degree, there is, as we all know, no cure but by removal.

There are now four recognised operations with this object: the old one, or tying in two portions, leaving the parts to slough away; a second, in which the mucous membrane is first snipped, and the vein alone is tied, which is much less painful; the third, Mr. Cusack's operation by the clamp and actual cautery, modified by Mr. Henry Smith, which is less painful than either, but is not so secure against

hæmorrhage. Of Mr. Pollock's operation, I have no experience; but, probably, the after-pain is not so great as in either of the first three. It was the terrible and continued agony which I witnessed from the old method of tying *en masse*, that induced me to long for, and, at last, to work out the operation which I venture to bring to your notice to-day. All the four operations at which I have glanced have one serious defect. They all leave open wounds, and Mr. H. Smith's a burnt one. All must heal by granulation; and, therefore, all are liable to hæmorrhage, primary and secondary, and are exposed to the liability to septicæmia during the whole period of healing, which generally takes weeks, sometimes many, to complete.

My aim has been to contrive a cutting operation which would, while avoiding the pain of strangulation, sloughing, burning, or crushing, get rid of open wounds, protect the patients from the dangers of hæmorrhage, and leave a simple linear incised wound, closed against irritation or poisoning by the septic contents of the intestines.

The instruments, etc., required are: two of Curling's vulsella (Fig. 1), my clamp, a tenaculum or hook, a pair of scissors curved on the flat, artery-forceps, some needles set in handles such as this, some ligatures and sutures of the finest carbolised catgut, a sponge, a solution of the strength of one part of carbolic acid in 100 of water, and a suppository of two grains of powdered opium.* My clamp (Fig. 2) is made of well-

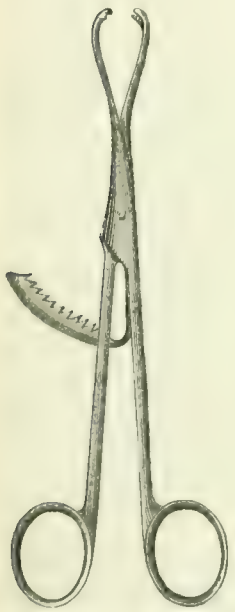


Fig. 1.—Vulsellum.

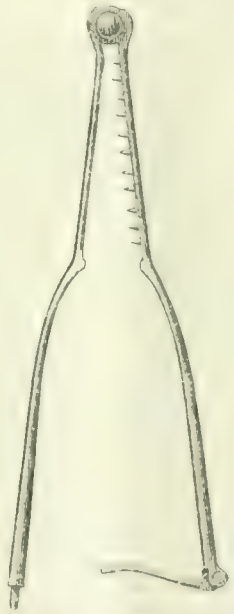


Fig. 2.—Clamp open.



Fig. 3.—Needle.

tempered steel. It is seven inches in length, having at one end a simple hinge, at the other a sugar-nipper fixing. The clamp proper is three inches in length, composed of parallel bars separated by a space of one-eighth of an inch. At the part nearest the handle are two shoulders, which prevent the blades from coming too near to each other, and so unduly pinching the living parts. The bars are a little over one-eighth of an inch in thickness, and are flat at their insides.

Proceeding from the inside of one of the bars are eleven needles, about an eighth of an inch in length, and about an eighth of an inch apart. They, when the clamp is closed, fit into corresponding holes in the opposite bar. The handles, which are four inches long and of steel, gradually separate from each other until they become distant three-quarters of an inch at the fixing. The needles used for the stitches are such as this (Fig. 3). It is stronger and more sharply curved than the ordinary needle of the sort, that it may turn closely around the clamp. The cutting edge, confined to the point, is parallel to the handle. The other part of it is round, that it may make as small a hole as possible laterally. This allows the operator to place the sutures much nearer to each other than he could have done with the edges at right angles.

These minute directions may be thought by some trivial and uncalled for, but not by experienced surgeons.

It is told that Michael Angelo, while working at a bust, was watched by a *dilettante*. The latter became impatient at the apparent slow progress of the work, and asked the artist if he had not nearly finished. "Finished!" exclaimed Michael Angelo, "Why, I have only just begun." "What can there be more to do?" asked the looker-on. "A thousand things", said the sculptor. "The eyelids have to be improved, the nostrils to be refined, and the lips have to be retouched." "Oh!" said the amateur, "these are trifles." "Ah!" replied Michael Angelo, "these seeming trifles make art, make perfection." So it is in surgery and every other art—given, of course, the first design. If the hæmorrhoids have been brought outside the anus by a sharp purge, followed by an enema (as should be always done), those at one side of the anus can be seized, according to their size, by one or two vulsella. If they have not been extruded, or have returned within the orifice, they must be there sought, and brought down—a thing easily done. Great care should be taken to include as much mucous membrane as possible, *and no skin*. This precaution will make the operation much more successful, and much less painful afterwards. The clamp is applied by separating the blades sufficiently widely to embrace the whole of the piles of one side, leaving sufficient space between the skin and clamp to allow the needles to pass between them without piercing the skin. The handles are now fastened, and grasped by the left hand of the operator, who thus obtains complete command of the part to be removed. The needles, armed with the finest carbolised catgut, are passed one after another, at a distance from each other of an eighth of an inch, rather less than more, keeping the needles close to the clamp (Fig. 4).

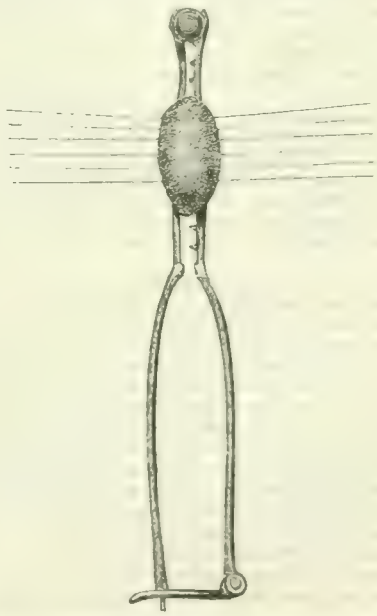


Fig. 4.—Clamp [illegible] Pile, with Sutures [illegible] Clamp.

The catgut threads are detached from the needles by the finger and thumb, by a tenaculum or hook, at the option of the operator, and given one by one to the assistant, who, with one hand above and the other below, presses them against either buttock, keeping the sutures separate. It may be remarked here, that one of the duties of the assistant is to retain the buttocks as separate as possible during the whole operation. The sutures being placed, and kept gently on the stretch by the assistant, the piles are cut off smoothly, quite close to the *outside* of the clamp, the blades of which should now be unfixed and slowly separated, and any pumping artery secured and tied with the finest carbolised catgut, which is cut off at about a quarter of an inch from the knot. The clamp is now removed, and the assistant brings the whole little wound into view by gently pulling upon the sutures. Search is again made for pumping arteries; and, if there be none, the edges of the wound are brought closely together by the sutures, cleansed [illegible] wrung out of a weak solution of carbolic acid in water (1 to 100), dried, and painted with collodion or styptic colloid. A suppository of two grains of powdered opium is now introduced into the [illegible], and the operation

* The clamp and needles are made by Messrs. Weiss, 72, Strand. The drawings are half the size of the instruments.

is complete. If there be piles at the other side of the anus, the process has to be repeated.

The after-treatment consists of the giving a grain of solid opium every six hours by the mouth, to keep the bowels quiet until the fourth day. On the fourth day, a dose of castor-oil is given, followed by an enema of warm olive-oil, which together produce an easy painless evacuation. No dressings are required beyond iced water for the first twelve hours, and then fomentations with a weak warm solution of carbolic acid (1 in 150). The diet should consist, until action on the bowels has occurred, of milk and beef-tea, as leaving least residuum. The patient may be placed on a sofa on the day next after the operation.

I have performed it fifteen times; Mr. Harcourt Coates once. All the patients have done well, without hæmorrhage or other trouble. In one only of the cases was it necessary to secure several arteries. This patient lost three ounces of arterial blood. In neither of the others was half an ounce lost, and in general no artery required to be tied. In three, one small vessel was tied. Venous oozing to a slight extent may be disregarded, as the sutures arrest it when they are tied. In my first trials of this operation, I used Chinese silk ligatures, and sutures, but of late the fine carbolised catgut. Since then, the pain has been greatly lessened—I presume from the yielding of the material from moisture. As might have been and was anticipated, the pain and retention of urine were reduced to a minimum. The former never lasted over twelve hours, and was sometimes so slight that one private patient gotup contrary to orders on the day of the operation, an another (an infirmary patient) was caught by memaking his own bed on the day succeeding it.

The greatest pain I have witnessed after this operation was in a clergyman, who had suffered martyrdom from large ulcerated bleeding piles for the period of twenty years. So frightful was the pain that, when he first consulted me, I was obliged to give him champagne to save him from syncope in my consulting-room. I operated the next day, and he did admirably. The acute pain ceased twelve hours after the operation. The incisions in most of my cases healed by the first intention. In none of them was there the open wound, as in the old operations.

It is true, gentlemen, that my cases have not been numerous; but I am speaking to experienced surgeons, who will perceive at a glance the superiority of a clean incised wound, in which the vessels have been secured before closure, and closed by carbolised catgut sutures, over an open, burnt, or bruised one. I place this attempted improvement in surgery before this important meeting with implicit confidence that you wlil judge it fairly, and will not be influenced by the obscurity of its originator.

It may seem strange to some that I have not hitherto referred to this great Association, the true exponent of the whole medical profession—a profession that may be justly likened to a great army going forth, not to wound or destroy, but to save from disease, pain, and death: an army truly international, composed of men of every clime, carrying its flag to every part of the globe, doing noble and loving service. Untiring, and ready to brave every danger for the sake of others, they too frequently become victims to their devotion—sometimes struck down on the battle-field or in the hospital-tent when attending on the wounded soldier; sometimes dying of fever caught during their devoted care in the fever-hospital, or ship, or the wretched dwellings of the very poor; or—wonderful to relate!—from sucking almost certain death from the trachea of the diphtheritic patient, to save that patient from suffocation. These are the martyrs of the profession, and deserve our loving veneration. Of them I do not dare to speak in my own most feeble words, but will borrow those of one of our greatest poets to sing their elegy.

"They fell devoted, but undying:
The very gale their name seemed sighing;
The waters murmur'd of their name;
The woods were peopled with their fame:
The silent pillar, lone and grey,
Claim'd kindred with their sacred clay.
Their spirits wrapp'd the dusky mountain;
Their memory sparkled o'er the fountain;
The meanest rill, the mightiest river,
Roll'd mingling with their fame for ever."

Yes, our profession has its martyrs; without them, it would be incomplete. But it is not without its trophies; it is true, not of the material or honorary kind, but of a higher—indeed, of the highest—in the annual saving of men, women, and children from disease, pain, and death, by the improvements in the art of healing and sanitation. With a true consciousness of this, worldly distinctions can be dispensed with—indeed, are dwarfed into nothingness.

A few words more, gentlemen, to thank you for your patient attention to my twenty minutes' talk, and to ask your forgiveness if I have wearied you, or, from my inexperience in such matters, have said things unfitted to such a meeting as this.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PUBLIC MEDICINE,

At the Annual Meeting of the British Medical Association, in Ryde, Isle of Wight, August 1881.

By ARTHUR RANSOME, M.D., A.M.,

Lecturer on Public Medicine in Owens College, Manchester.

ON THE NEED FOR A SYSTEMATIC STUDY OF EPIDEMIC DISEASE.

Gentlemen,—It has been usual for the President of each Section of the British Medical Association to deliver a short address in his own subject, during the course of the annual meeting. There is thus a wide range of topics thrown open to me on which to speak; but, amongst the many subjects brought before us, there is not one more important than that of epidemic disease. This branch of study has, during the past year, been far from sterile; many striking discoveries have, indeed, been made, but yet there remains much to be done if it is to satisfy the demands now being made upon sanitary science. I propose, therefore, to take advantage of the opportunity that is now afforded me, to say a few words upon the importance of a systematic and organised study of epidemics.

There are few, probably, who will dispute the importance of such a quest; and, amongst those who have devoted most attention to the subject, there will be found still fewer to assert that it has hitherto been studied in a sufficiently systematic and concerted manner. It is still as true at the present time, as it was in the days of Ramazzini, with regard to the study of epidemics, that "Nihil in re medicâ forsan magis desideratur et minus excolitur". (*Constitutiones Epidemicæ*, lix.) The present time, indeed, seems to be singularly favourable for the consideration of the subject; and encourages the hope that a well organised and combined effort might now be made to solve some of the many problems now before us.

At a time when hygienic principles were struggling to the light, and when the methods of State Medicine had hardly emerged from the region of hypothesis, it was, perhaps, to be expected that men's energies should be mainly directed to finding out defects in the machinery, or, at least, that they should rest contented with trying to make the best of the powers entrusted to them; but this period of uncertainty and trial has surely now, in great measure, passed away. We are also in a much better position as regards the requirements of such an undertaking as I now propose. For let us consider briefly what machinery would be needed adequately to carry out such an inquiry as this would be.

1. There would be needed an army of well-trained observers; for it would be hopeless for any single man, or even for any small body of men, to undertake such a gigantic task.

2. We should require continuous and accurate observations of epidemic diseases, taken at sufficiently short intervals, and having regard to both mortality and sickness; the cases recorded being accurately ascertained both as to time and place of origin.

3. These observations would have to be collected and collated by some central authority.

4. Comparisons would need to be made between these records and certain concurrent circumstances.

5. Local inquiries must be carried out, and directed to the mode of origin of the epidemics, their incidence on different ages, sexes, and occupations, their fatality at different periods, their several varieties; and, finally, their pathology, and their relations to other forms of disease.

6. There would further be needed experimental and other researches on the intimate nature of contagion, and on the microscopic forms associated with each disease.

7. There would remain various geographical, anthropological, and even historical questions, that would need to be investigated before our knowledge could be considered as complete.

It will, doubtless, be acknowledged that these requirements have not hitherto been fulfilled; but surely none of them are unattainable; and the importance of the subject demands that, at any rate, an attempt should be made to meet them. The inquiry is, in truth, of vast extent, and can only be undertaken by a numerous and varied band of investigators. Many of the problems involved, and especially those coming under the last two heads, must necessarily be left to the

skilled physicist, to the experimental pathologist, or even to the student of history and of physical geography. The intimate nature of contagion is a secret "not to be beaten out by every hammer"; but if we exclude from our list, for the present, the purely scholastic and experimental part of the inquiry, and look around for the other conditions that have been enumerated, I think that we shall find that our power of obtaining information and our means of organising the inquiry have vastly increased in the last few years.

First, let us reckon up the numbers of those who both could and would assist us in our quest. Thirty years ago, the department of medicine called sanitary science was represented by so few names, that they could almost be reckoned on the fingers of one hand. Illustrious names indeed! those of Chadwick, Farr, Parkes, Rumsey, Southwood Smith, and Simon—"præclari in philosophiâ et nobiles"; yet they formed only a very small band of pioneers compared with those who were to come after them. But, at the present time, we may surely say that we have a small army of observers in the two or three thousand medical officers of health established in every district of the kingdom. It may be said truly that these men were not appointed for any but immediately practical objects; that their sole functions are to act as medical advisers to their several boards—and this, no doubt, is their first and chief duty; but I hardly think that they themselves will so regard their office: they will recognise their full responsibilities as the physicians of the State, and will be ready, I am sure, to undertake both practical and scientific work that can be shown to be within their scope and for the good of the common weal. I will venture to say, on behalf of the mass of these officers, that they will admit that they have taken the Queen's shilling, so to speak, not as intending merely to defend their districts against the inroads of disease, but holding themselves ready, also, to carry the war into the enemy's country, and to seize fresh ground of vantage from which to act in the future. A second, though a still less valid, objection might be raised to our pressing these observers into our ranks, on the ground of their want of previous training in the work; and, if the attempt at their enrolment had taken place five years ago, I should have acknowledged that there was only too solid a foundation for such a counterplea. It is too true that, on the first coming into force of the Public Health Act of 1875, many men were appointed without any special knowledge of the principles of State Medicine; but this was certainly not the fault of the candidates themselves; it was that of the framers of a measure so haphazard in its character in this regard.

Since then, moreover, most of these medical officers have taken much pains to acquaint themselves with their special duties, and are self-educated to a high degree. It is true, that they are still denied the means of proving their powers, such as would be afforded by a State medicine qualification; but, even in the absence of this distinction, I feel sure that our army would now be found to be better equipped for the work before us, than would have been supposed possible by anyone knowing the difficulties that lie in the way of obtaining a thorough knowledge of a science that is now so rapidly advancing. For all the local inquiries that I have mentioned under the fifth heading, these men would be well adapted; they would still search, as they have so ably sought in the past, for the sources and for the mode of conveyance of the epidemic virus; they would note the track followed by the disease, and would record the influences leading it in one direction or another. They would observe the relation to it of surrounding circumstances, of the weather or of season, even of the state of trade or of the labour-market, and the price and quality of provisions. They would be able to note the concurrence of other complaints; and, as one amongst many other objects of research, I would venture to submit to them the question of the direct infection of the part principally affected by any contagious disease—the throat, for instance, in scarlet fever, the air-passages in measles and whooping-cough, the bowels in enteric fever and cholera; and I would further submit the probability that in many cases some local weakness or some affection of particular organs precedes and prepares for the absorption of the specific poison of the epidemic. This is not the time to enlarge on this point: but I may express my own conviction that the demonstration of some such occurrence, if it were proved to be frequent, would not only be an interesting addition to our knowledge, but would have an important practical bearing. It would explain the undoubted influence of season upon such diseases as measles and whooping-cough, or scarlet and enteric fevers. It would afford a rational explanation of the so-called "epidemic constitution" of the year, and would to some extent account for the remarkable concurrence in the rise and fall, week by week, of some of these disorders in places so far apart, for instance, as London and Manchester.

And there is yet another observation of the older writers that might thus receive elucidation—I mean the alleged "pestilential type" of other coincident disorders. The idea that an epidemic thus impressed its likeness on other diseases through a *κατασταστις λοιμώδης τών ωρεων*, was a common one in ancient times; but I am inclined to think that the truth would be discovered by inverting the order of succession of events, and that careful investigation would show that the so-called pestilential type was present before the onset of the epidemic, and that it was at least one of the predisposing causes of its spread.

There is other material for observation that will no doubt receive its full elucidation from the elaborate study of the scientific pathologist and histologist, but at the present time needing rather the attention of the local observer. Thus, not only are there varieties amongst the several species of epidemics—scarlet fever, for instance, varying from the scarlatina simplex to scarlatina maligna—but the different epidemics are characterised by the operation of the virus upon different tissues of the body. Thus, measles is at one time associated with an unusual number of attacks of pneumonia, and at another—as in a remarkable epidemic at Edinburgh, mentioned to me by my friend Professor Gamgee—it is accompanied by severe forms of croup.

In the recent epidemic of scarlet fever, again, according to my own observation, there have been an unusual number of cases followed by acute nephritis; and in some localities I have been informed that this complication has been the cause of a heavy mortality.

It has been my lot also to witness three severe epidemics of diphtheria, and in each there were characteristic lesions of different parts. The first of these outbreaks was, as is usual in epidemic diseases, the most fatal; and it was remarkable for the number of cases of diphtheritic paralysis that followed it. The second was much milder; but it was singular how very irregular was its mode of attack. In place of appearing on the tonsils, or sometimes in addition to its manifestation there, the exudation appeared in the nasal passages, on the lips, or on the buccal mucous membrane. There was evidence of it in the ears, on the vulva, on blistered surfaces, or even on wounds. In this epidemic, moreover, the peculiar scarlet rash was rarely entirely absent, though it also appeared irregularly, sometimes a fortnight or three weeks after the first commencement of the disease. The third epidemic was chiefly remarkable for the rheumatic symptoms that commonly followed the disease.

It is hardly likely that these proclivities of the disease were confined to the limited area in which the observations were made; but, owing to the absence of any general oversight of the epidemic, it is impossible now to learn whether they were purely local phenomena, or whether they were dependent upon some more universal cause. It is precisely on points such as these that we might hope to obtain most valuable information from members of our guild.

Only by local observers, again, could inquiry be made into the particulars of cases of immunity from certain of these disorders; and, when the observations were brought together and massed with those of other men, we could probably soon learn why these persons escaped; or, again, we should ascertain the truth or falsity of the assertion that children at the breast are less liable to scarlet fever and more prone to whooping-cough than other infants.

The strange predisposition of certain families to such diseases as enteric fever, diphtheria, and measles, would also receive attention; and inquiry might elicit some facts worthy of being placed in apposition with the well-known immunities of certain races, and the proneness of others to contract certain epidemic disorders.

These points of inquiry are only a few out of the many that would open out in the course of the investigation; but it will be observed at once that none of them are without practical significance, and that the work of observation would have a distinct bearing upon the every-day labours of the medical officer of health.

With regard to the regular and continuous observations to be made: it was remarked many years ago by that great physician, Dr. Graves of Dublin, that, for the study of both epidemic and endemic diseases, we need the establishment of a number of medical observatories, whose function it should be to record the appearance and symptoms of these disorders. Many amongst us must assuredly have envied astronomy and meteorology their numerous earnest and careful observers, and the long series of records upon which the principles of these sciences are founded. We should be well satisfied if we could predict the coming of an epidemic, and trace its probable course, as accurately as the astronomer can compute the orbit of an asteroidic planet, or as definitely as an American counts-send us tidings of a coming storm.

At one time it seemed possible that the registration of deaths might [illegible] us in this respect; but it is needless now to point out how little it has accomplished for the study of epidemics. Even the weekly returns of deaths now published in certain large towns are useless for

the purpose of fixing the time of onset of a disease, or the locality in which it originated. The notification of each case as it arises can alone accomplish this; and until recently such intelligence seemed to be beyond our reach. Now, however, its attainment is rapidly coming within the range of "practical politics".

It is now more than twenty years since a private and remarkably successful effort at a representative registration of disease was made in my own city of Manchester, by the aid of its Sanitary Association, and I now look back with much satisfaction to the result. A powerful impulse was then given to the movement by the appointment of the Registration of Disease Subcommittee of this great Association; and we may, without hesitation, ascribe to its influence the success that is now attending the undertaking.

At the present time, there are no fewer than thirteen towns that have obtained private powers for the immediate notification of cases of infectious disease; and even places that are still deprived of this privilege are now provided by the Local Government Board with the means of ascertaining the occurrence of all cases that arise in public practice, or in the Poor-law Medical Service. The special purpose of such a registration of infecticus disease as is rapidly growing up around us is doubtless an immediately practical one, and is intended to provide medical officers with intelligence that shall enable them at once to bring about efficient isolation of the first cases, to apply thorough disinfection, to arrest the spread of an epidemic at its first onset. It is only right that this should be the first object of the sanitary authorities and their officers; and I should be the last to say anything that would interfere with so laudable an application of this first necessary means of meeting the enemy we have to fight. But there is another aspect of the subject that I should be very sorry to find pushed out of sight, even by the busy practical worker, and that is, the scope that is afforded by such a registration of disease for the systematic study of epidemic disease.

The returns, when they are obtained, will hardly be cast aside as useless for further application; they will have been obtained at much cost, and their value for the purposes of future comparison and collation with other data will before long become more clearly apparent. It may be pointed out that the study of the natural history of these diseases would be much facilitated if the returns were marked down in the localities where they originated, upon rough maps similar to those used by the Meteorological Society in tracing the course of cyclones, the isolated cases being indicated by dots, and the larger numbers by circular masses of colour, of a diameter corresponding to the extent of the epidemic. If such maps were published week by week, it would be possible to track an epidemic from its outset, and to note the effects upon it of the measures designed for its destruction. For a more careful and exact study of its history, it would no doubt be necessary to use some less crude method of representation; the numbers of the population at each place would have to be taken into account, and, in order to represent the whole course of the epidemic, something like a diagram in three dimensions would have to be employed. To obtain an accurate representation of the course of an epidemic in any large town, it would also be necessary to break up the gross returns, and to show the incidence of the disease at different periods on each of the chief districts of the place. By massing them together, as is now usually done, we get no doubt an average result; but we entirely lose sight of the track taken by the epidemic, and thus hide out of sight the determining influences that have led it in one direction or another.

Even these returns will be valueless for our purpose, however, without some power of bringing them together, and comparing them with one another and with surrounding conditions. The several detached observations will need to be linked together, and their returns arranged in some central office. The body of our organisation would require a head; its several ganglia would have to be presided over by a brain. I cannot but think that, for this purpose, as well as for the thousand other purposes concerned with the important subject of the national health, we need a Minister of Public Health with a staff of officers, of whom some would be detailed solely for the superintendence and organisation of this branch of the work.

It appears from recent proceedings in Parliament, that there is to be something approaching to a Ministry of Agriculture and Commerce; and surely the safety and physical well-being of the people, and their protection from preventable disease, are more worthy the attention of a Minister of State than the diseases of cattle and sheep, or even than the multitudinous operations of the money-market.

I do not know whether or not we are likely to obtain anything analogous to this arrangement in reference to public health; probably not, if we may judge from the ordinary position of health-questions in Parliamentary proceedings, where there is usually a reversal of the now famous doctrine, that the first duty of a statesman is the health of the people; and "*salus populi*", instead of being the *suprema lex*, is usually taken to be the lowest.

But something less than a Ministry of Health would serve our purpose at present; and we may congratulate ourselves that, at the head of the medical department of the Local Government Board, we have a man of such high scientific attainments as Dr. Buchanan, their present chief, and that, in his addresses to medical officers of health before he received his present appointment, he showed how fully he recognised the importance of their scientific work. Even if, through the exigencies of his office, he should be unable to take an active part in our undertaking, I feel confident that he will not withhold any assistance that may be in his power.

In any case, it is certain that we shall not be left without direction. We may surely count upon aid from the Epidemiological Society, and our own great Association has now taken up the work of combined observation. Much of our proposed labour would fall under this head, and we may confidently rely upon the newly appointed committee both for counsel and assistance.

Already, amongst the subjects set down for immediate investigation, there are two that are closely connected with our subject—1, the duration of infection, and the periods of incubation of infectious diseases; and, 2, the after-life history of persons who have been affected by certain of these complaints. In the course of a few years we may look for the production of a mass of evidence upon these points, and we may at least hope that the doubt and uncertainty on the first of these topics will be brought to an end.

How great a boon the authoritative determination of the duration of infection will be can only be rectified by those who have experienced in actual practice the constantly recurring annoyance now arising from conflicting opinions on this head. This opprobrium to our art is now in a fair way to be removed entirely; and there is no reason why this committee should limit itself to these subjects. If a wider scheme for the study of epidemics could be organised, it would doubtless be competent to undertake the supervision of the work; and amongst the vast number of this great Association, including the ablest men of the profession, some will certainly be found who will willingly devote their knowledge and their energy to our cause.

We come, lastly, to consider what assistance may be expected from purely scientific observations: and here I think that we have reason for greater encouragement. It is now an old story, that living organisms are present in the animal fluids in many infectious complaints. Four years ago, in his address in medicine at the Manchester meeting, Dr. William Roberts ably displayed the then position of the subject, and described the relations of septic bacteria to septicæmia, of spirilla to relapsing fever, and of the bacillus anthracis to splenic fever. It was then well known, also, that micrococci, or microzymes, as they were called by Dr. Burdon Sanderson, were to be found in many other disorders, as in vaccinia, in small-pox and typhoid fever, in diphtheria, erysipelas, and glanders.

Since then, also, Mr. Vacher, of Birkenhead, has confirmed and extended, with regard to measles, an observation of my own as to the presence of certain highly refracting organic particles in the breath of patients suffering from that disease and from whooping-cough. The weight of scientific opinion tends indeed, with constantly increasing force, towards the belief that some such organisms are the cause of all infective inflammations. Within the last few years certainly, the subject has received great attention. New methods have been discovered, by which microscopic atoms of extreme subtlety of outline and minuteness can be made visible, and by which not only can disease-germs be propagated in various cultivation-liquids, but by treatment in various ways their very nature can be changed.

There are no more remarkable observations recorded in biology than those made recently by Drs. Burdon Sanderson, Greenfield, and Ogston in England; by Pasteur and Toussaint in France; and by Koch and Buchner in Germany. These researches deal with the differential separation of the various forms of micrococci in infective fluids and in different animals; with the distinct bacteric forms corresponding to each disease, and often belonging exclusively to different species of animals. Thus, as Dr. Koch remarks, there is "no more striking example than the case of the bacillus and the chain-like micrococcus growing together in the cellular tissue of the ear—the one passing into the blood and penetrating into the white blood-corpuscles; the other spreading out slowly in the tissue in its vicinity, and destroying everything round about; or, again, the case of the septicæmic and pyæmic micrococci of the rabbit in their different relations to the blood; or, lastly, the bacilli, extending only over the surface of the aural cartilage in the erysipelatous disease, as contrasted with the bacillus

anthracis, likewise inoculated in the rabbit's ear, but quickly passing into the blood."

Of still more practical importance, however, are the discoveries of Pasteur and Greenfield: first, as to the agencies by which these infective particles may be conveyed even to the grass upon which animals feed; and secondly, as to the fact, now well corroborated by others, that the virulence of these infections can be attenuated, so as to obtain fluids that will not produce fatal results when inoculated in healthy animals, but which will confer complete protection for the future against further infection. Pasteur's researches on the so-called "fowl-cholera" and on splenic fever open up an entirely new field for research, which is of immense interest to all who are specially concerned with preventive medicine. It would seem, from these experiments, both possible and probable that, in the course of a few years, we shall be able to avert many of these destructive diseases, not only from our cattle and "our feathered friends", but also from our own species. These observations, in fact, take vaccination out of the domain of empiricism, and bring it within the range of biological science. There are, moreover, some other of Pasteur's observations on the possibility of the renewal of virulence of these fluids in the bodies of very young animals, that are of great importance in relation to the spread of disease amongst human beings.

I conceive that this subject is one well worthy of the study, not only of medical officers of health, but of all medical practitioners; and it is one that can only be inquired into by those who are in a position to examine the details of an epidemic. It is not impossible that these inquiries would throw light upon the now obscure question of the regular periodic return of many of these diseases. I have myself suggested that the regular cyclical visitation of epidemics may be accounted for by the supposition that a certain density of the susceptible population is necessary to their spread; and I still think that this is the most probable hypothesis, but it would not preclude the concurrence of other influences.

We might also refer to the critical observation of practical men, the researches of Professor Pettenkofer, of Dr. Thiersch, and of Dr. Burdon Sanderson, on the intensification of the virus of cholera when left in contact with certain forms of organic matter. I suspect that medical officers of health see only too many instances of the fostering power of dirt, and of the increase of fatality of epidemic disease in filthy districts. It would probably need no great length of time to produce well-authenticated facts in support of the above-mentioned experiments, though it may be doubted whether the disease-germs show much discrimination as to what particular kind of dirt they prefer.

The determination of the germicide power of various disinfectants has also been, to some extent, worked out in the laboratories of men of science; but their conclusions still require to be submitted to the test of actual practice, and evidence on this point still needs collecting from the experience of our various local authorities.

On the whole, there is little reason to fear that scientific researches will be wanting in the future; the subject has now been earnestly taken up, not only by individuals, but by many scientific societies, and we shall probably soon reap the fruit of their most important work. Before we leave the subject, however, in the hope that it may receive attention from men of science, I would venture to point out that there is yet much to be discovered with regard to the relations of the unformed ferments to the various living forms conceived in these actions. M. Berthelot was, I believe, the first to show that from yeast a peculiar glycosic ferment could be obtained—a substance like the pyrogen of septicæmia, not organised, which can be separated from the producing organisms, and which, though unable to change sugar into alcohol, can almost instantaneously produce a true fermentative action on cane-sugar (*Comptes Rendus*, vol. i, p. 980).

More recently, M. Toussaint has shown that, although the filtrate from blood containing the *Bacillus anthracis* it no longer gives rise to the organism in a cultivating fluid, and is unable to convey splenic fever, yet, if injected in considerable quantity into the circulation of a healthy animal, it confers complete immunity to the disease. It is certain that the unformed ferments are just as specific* in their operation as the several organised forms concerned in these diseases; and the relations that they hold to each other are well deserving of further study.

I cannot but think that the anomalous behaviour of many cases of diphtheria and of enteric fever would be explained by such an investigation. But I must not trespass any further upon the time of our Section. I have only touched upon a few of the points that would seem to make it probable that an effort for a thorough study of these diseases would now be successful if made with the aid that can be given to it by our great Association: and, in order to end with a practical suggestion, I would propose that our Section should submit the subject to the Committee on Combined Observation, whose appointment will, I am sure, make ever memorable the Ryde meeting of this great body.

AN ADDRESS

DELIVERED AT THE DUBLIN MEETING

THE SUBSECTION OF OTOLOGY,

At the Annual Meeting of the British Medical Association, in Ryde, Isle of Wight, August 1881.

BY URBAN PRITCHARD, M.D., F.R.C.S.,

Aural Surgeon to King's College Hospital; Chairman of the Subsection

AURAL SURGERY AS A BRANCH OF GENERAL MEDICAL EDUCATION.

GENTLEMEN,—I propose calling your attention to what I consider to be one of our great shortcomings in general medical education—I refer to the absence of practically any study of ear-disease—believing that, in what I am about to say, I shall but echo the sentiments of my otological colleagues.

How is it that our friends, who form what has been truly styled the backbone of the profession—I mean the general practitioners—are so lamentably ignorant of the elements of aural medicine and surgery? Nay, I must go further, and ask—How is it that consulting physicians and surgeons are equally ignorant in this matter? I trust that I shall not be giving offence to anyone by this plain speaking. This lack of otological knowledge is not nearly so marked among the profession on the Continent or in America. Why should it be so in our country? I believe it is chiefly due to two causes: first, a profound contempt for aural surgery; and, secondly (of which this contempt is a natural outcome), a want of knowledge of what aural surgery can do for ear-disease.

Gentlemen, let us endeavour, individually and collectively, to remove these false ideas. If we, in this generation, succeed in awakening in our fellow-workers a sense of the importance of this branch of study, we shall indeed have done good work.

In order to remove the first false idea—*i. e*, contempt for aural surgery—let us point to the evils which are likely to result, and which do result, every day, from ignorance of the merest elements of this subject. For example, when a practitioner is at a loss, he frequently gives this advice: "Let the child alone, he will grow out of it." This is a very common form of expectant treatment, or, I should rather say, a very *callous* form of it. Should the case be one of pharyngeal catarrh (a frequent cause of deafness in children), to leave the case alone usually means neglecting the opportunity there is of curing the disease, and letting it drift into an incurable condition. Or, should it be a case of otorrhœa (external or internal), not only may all chance of cure be let slip, but serious complications may result. Of course, I allude to disease of the bone, meningitis, abscess of the brain, or pyæmia.

Sometimes a patient is actually told not to [illegible] discharge stopped, just as if it were a healthy condition. This is no doubt a remnant of the age of humoral pathology, when it was [illegible] advantageous to have a discharging surface, "to let out the bad humour", what-

[illegible]

[illegible] turnips; but emulsin, vegetable or animal albumen, and [illegible] well [illegible]

ever that may have been. But I doubt whether, even then, suppuration from the ear was considered healthy, for the simple reason that the evil was apparent, was visible; for we know—

"What the eye does not see, the heart does not grieve."

So much for negative results. But this contempt also leads to injurious treatment, which is a very positive evil. For example, forcible injections in cases of deafness from depressed membrana tympani—how much harm must result from indiscriminate syringing there? Then there is that common practice of dropping irritating fluids into the ear in cases of earache, which earache, of course, usually means inflammation of the parts.

Again, there is the dangerous proceeding of introducing instruments into the ear in search of foreign bodies, which frequently are not there at all. But the energetical surgeon does not easily give up the search, and renews his efforts, until the organ is severely injured, sometimes even resulting in the death of the patient.

Turning to the second cause—namely, a want of knowledge of what aural surgery can do for ear-disease—that must be met by impressing on our fellow-practitioners the advantages that have been derived from such treatment, constantly bringing to their notice cases which have been cured or improved. Especially should we bring forward the improvable cases, which are by far the larger class; because there is an idea floating about among the profession that ear-disease may be divided into two classes, *curable* and *incurable*, and that between these there is—nothing.

This is a great mistake. Of all the senses, hearing is, perhaps, the one that admits of most gradation of power; and, therefore, common sense would suggest that deafness, the result of disease of the organ, would admit of every degree of improvement.

Let us—I speak now to those who are teachers of this subject in our schools (and I am glad to say that we are a much larger body than we were a few years ago)—I say, let us teachers do all in our power to interest the rising generation of students in the study of this branch of medical knowledge.

In conclusion, I would ask, Can we not do something to induce our examining bodies to include aural surgery in their examinations? I do not mean that candidates should be expected to have gone deeply into the subject, but I do contend that they should be required to show that they understand the elements of it, and that they have attended a certain number of lectures and clinical demonstrations.

Gentlemen, these are the points to which I was desirous of calling your attention, and, although it is not usual to discuss an opening address, I should be extremely glad to hear the remarks of any present. If my opinion be shared by my audience, I should be very pleased if we could form a committee to consider the best means of inducing our examining bodies to include aural surgery in their list of subjects for examination.

ST. GILES.—In a recent report to the St. Giles Board of Works, Mr. Lovett gives some particulars as to the movement of the population in the district since the census of 1871, which, in view of the immense changes that have taken place there under the operation of the Artisans' Dwellings Acts, are very interesting and instructive. Since 1871, the population of the registration sub-district of St. George, Bloomsbury, has declared from 17,843 to 16,662, of St. Giles South, from 19,089 to 14,862, or a decrease of 4,227; and of St. Giles North from 16,497 to 13,733, or a decrease of 2,764, showing a total decrease of 8,172, in a population of 53,429. This decrease is chiefly owing to the carrying out of the Artisans' Dwellings Acts of 1868 and 1875. As far as the latter Act is concerned, the loss is only temporary, for the 1679 persons displaced by the demolition of houses in the Great Wild Street area will probably be re-housed there by the end of the present year. But it is different under Torrens' Act of 1868, for the properties pulled down under that Act, either have not been rebuilt, or they have been converted into warehouses, the owners making no provision for the accommodation of the people displaced. Mr. Lovett thinks that the application of Torrens' Act in the district, by sweeping away unwholesome houses, has certainly improved it, but it has also turned numbers of the poor adrift to seek for lodgings in other parts of the Metropolis. This is certainly one of the most difficult questions that have to be grappled with by the Legislature; and it is to be hoped that its importance will not be lost sight of.

EAST DEREHAM.—Only 19 deaths occurred in the district during the second quarter of the present year, but Mr. Vincent is unable to state that the health of the town is satisfactory. Small-pox has broken out, and 4 cases had already occurred at the date of the report, while it is believed that many more existed under the name of chicken-pox. A decided improvement is noted in the removal of refuse, etc., the scavenging arrangements being undertaken by the Sanitary Authority.

AN ADDRESS

ON THE

LOCAL AND GENERAL TREATMENT OF MALIGNANT TUMOURS OF THE BREAST, AND OTHER EXTERNAL PARTS.

Delivered at the Surgical Section of the International Congress, held in London, August 5th, 1881.

BY M. SEMMOLA, M.D., Professor in the University of Naples.

[M. SEMMOLA commenced his remarks by stating that he was not a surgeon, and therefore apologised for addressing surgeons on a surgical subject. The treatment of malignant tumours by electrolysis was no new idea; twelve years ago, two cases of cancer of the breast had been treated in this way by an American surgeon; since then, Althaus had declared himself against it as a curative method, and Ciniselli had maintained that, as only benign tumours were curable by electrolysis, it was simply useful as a means of diagnosing between malignant and benign growths. M. Semmola, considering these opinions were based on insufficient data, prosecuted the inquiry, with results which he stated in the following words.]

I have always thought that the electric current ought to be looked upon as a powerful producer of trophic changes, and hence useful in the treatment of malignant growths. In the radical treatment of malignant tumours, the most important point to arrive at is the production of a change of direction in the local nutritive processes that the fatal evolution of the neoplasm with all its consequences may be arrested; that is to say, to substitute an innocent morbid process in the place of the primitive morbid process, which is capable, sooner or later, of poisoning the whole organism. Tumours may be destroyed or removed by the actual cautery or the knife, but they are powerless to modify the chemical processes of the surrounding tissues; consequently, electrolysis is far superior to them, for it does not only destroy, but it directly modifies the chemical processes of local nutrition, and hence is capable of completely changing the direction of these nutritive processes.

Without discussing here to what degree carcinoma and sarcoma are purely local diseases, and to what extent constitutional causes influence their production, it is evident that methods of cure must be at the same time both local and general; that is to say, while on one side the neoplastic element must be destroyed, and the perverted direction of the local nutritive processes modified, on the other, the nutritive changes must be energetically stimulated and improved, particularly by exciting excretion of harmful substances from the body. Thus, along with electrolysis, I have always given large and increasing doses of iodide of potassium, from a gramme up to three grammes (15 to 45 grains) a day, continued for a very long time. I have a patient who has taken three grammes a day for six months.

I believe that the chief reason for the failures which have been met with up to the present time in treating malignant new growths in accessible situations, has been that the treatment has been exclusively limited to local destruction, without modifying the general state of the organism, or because the attempt has been made to obtain resolution merely by the general action of medicines. This is, perhaps, not impossible, but it is a futile attempt at present, with the drugs which we possess.

The six cases which I have collected in the ten months during which I have occupied myself with these experiments, in which I have been aided by my learned friend and colleague Dr. Vizioli, Professor of Electro-therapeutics in the University of Naples, consist of one case of epithelioma of the right breast of the size of a large orange, fibro-sarcoma of the right breast, two sarcomata in the right breast, sarcoma in the left breast, and cysto-sarcoma on the upper third of the arm. In all these cases excepting one, the diagnosis was confirmed by eminent surgeons who had advised the removal of the tumour as rapidly as possible; and, in one patient, the case was that of a sarcoma produced eighteen months after another sarcoma had been removed from the same side. I know well how many doubts and errors may occur in the diagnosis of tumours, and that the verdict of the practitioner should never be given without reserve. In these cases, the best guarantees exist that the diagnosis was accurate and certain. In the first place, all the clinical characters were recognised by skilful colleagues, and microscopic examination was made in each case, in which I was assisted by one of our best professors

of pathological anatomy, Dr. Petrone, to whom science is indebted for studies of great importance.

A propos of this microscopical examination, I desire to submit to your indulgent attention a point which is not without interest, because it constitutes a simple method for making microscopical examination by the juice of a tumour. When a Ciniselli's needle is pushed into the centre of the tumour and withdrawn, a drop may be collected on the slide, which is microscopical indeed, but more than sufficient for observation. In one case of very remarkable cure, I have been able to make preparations directly from portions of the tumour which were eliminated by a process of dissecting suppuration, and I have these preparations with me for those who care to examine them. The case was one of a spindle-celled sarcoma. The apparatus employed was that of Stöhrer with small elements, and that of Onimus modified by Professor Vizioli. The oscillation of the galvanometer varied between a minimum of 60° and a maximum of 75° for the apparatus of Onimus and Vizioli; and a maximum of 90° for the apparatus of Stöhrer. In all cases, I employed the water-gradulater, to regulate the degree of the current. The needles were those of Ciniselli, that is to say, well polished steel needles. The needle was thrust deeply, to the extent of from two to three centimètres, or even more, in proportion to the volume of the tumour; and its direction in all cases was towards the centre of the tumour. The punctures were made symmetrical, that is to say, forming circular lines around the nipple, in the two cases in which the tumour occupied nearly the whole breast; and in the other cases, in which the tumours were of a more limited extent, the punctures were placed almost in a network. The introduction of the needle is usually not painful; and it must be done slowly, in consequence of the resistance of the tissue of the tumour, which sometimes calls for considerable force and careful management in introducing the needle. After several punctures have been made, it may happen that almost insurmountable resistance is met with. This no doubt arises from points of sclerosis which have followed the small inflammatory foci produced by the preceding punctures. In these circumstances, if the needle have already entered to a depth of from one to two centimètres, it is unnecessary to persist; but if the obstacle be very superficial, it is better to withdraw the needle and commence the application at a distant point. The same course must be adopted when inflammation has followed the introduction of the needle, so as to render its reintroduction very painful. Usually, that is to say, in five of my cases, it appears to be sufficient to introduce one needle into the tumour, and this is always the negative pole. The positive pole should be applied to the skin, at a greater or less distance from the puncture, with a charcoal button covered with linen, to prevent the formation of superficial scars; the distance depends upon the size of the tumour. In general, the arrangement should be such that the current may traverse the whole of the neoplasm. Only once did I plunge the two needles into the tumour with their points converging at a distance. This variation is determined by the object to be attained, as I shall mention later, that is to say, by the mode of action to which preference must be given, according to the special conditions of the tumour. The patient complains of a sensation of acute pain corresponding to the point of the needle, where it is often said that a tongue of fire seems to traverse the tumour, and sometimes the sensation invades the whole morbid tissue. Another sensation, which indeed corresponds to reality, is that which the patients describe by saying to the operator, "Oh! the bubbles! the bubbles!" and they indicate with the point of the finger spots at which air-bubbles appear to be forming deeply in the neighbourhood of the punctures, and specially above them. I said that this was reality; it corresponds, in fact, to the gases which are developed around the point of the needle by its chemical action; and this is so true, that, when the tumour is small, and the point of the needle, in consequence, is sufficiently near to the cutaneous surface, one may feel by the touch in the neighbourhood of the needles an emphysematous crepitation, which is doubtless due to the gases that have penetrated into the subcutaneous areolar tissue.

The duration of the application is from ten to fifteen minutes, according to the tolerance of the patient and the object which it is desired to attain. One thing well worthy of remark is that, during the whole time of the application, the needle of the galvanometer undergoes oscillations, sometimes very considerable, amounting to from ten to fifteen degrees; and that, during these oscillations, the patient, who may have grown quiet under the dull slow action of the current, utters cries indicating fresh suffering. This fact seems to indicate change of resistance presented to the passage of the current by the different layers of the tissue; and, secondly, resistance to the chemical action, which recommences more or less strongly. The duration of the treatment is sometimes very long. The electric current is not a knife, and it is in this relation especially that its slow modifying action of local nutritive acts may represent a therapeutical action preferable to that of the knife. In the cases which I have observed, the minimum duration has implied twenty-four electric applications made three times a week. But alongside of this minimum must be noticed another case, in which the treatment lasted eight months. This was the large epithelioma mentioned; and it may even be affirmed that the treatment is not yet finished, for at the present moment the patient continues the application once a week. In the cases in which it is urgent to act as I did in the case in which I plunged both needles into the tumour, one or two sittings at most suffice to determine sharp inflammation, quickly followed by suppuration. These cases are, I believe, extremely rare. In all the cases which I have observed, the state of the lymphatic glands surrounding the tumour was quite healthy. But, even if there had been some glandular engorgement, I think electrolysis should be employed all the same. Only in these cases precisely, instead of slow action, it would be necessary to act on the latter method; that is to say, to plunge both needles into the tumour, and to use a very strong current, in order to provoke an inflammatory action, which might be followed by dissecting suppuration—a means of cure which nature exceptionally offers to us.

Acting in this way, I arrive at the following conclusions, which I have the honour to submit to you.

1. The electrolytic treatment, applied to malignant tumours, such as epithelioma, fibro-sarcoma, sarcoma, is capable of curing them by three modes of action; that is to say—(*a*). By producing small foci of inflammation, with consecutive sclerosis. The tumour is reduced to a minimum volume in relation to its primitive size, and there remains in its place a definitive innocent induration like a *caput mortuum* (cicatricial tissue). (*b*). By producing colloid and fatty transformation in the mass of the tumour, especially when it is in course of softening. (*c*). By exciting inflammation with dissecting suppuration, breaking up of the tumour, and its elimination in pieces.

2. With the electrolytic treatment, I have employed iodide of potassium in large doses, administered with great perseverance, so as to modify profoundly the direction of the nutritive changes.

As I have already had the honour to say, I do not present this as a definite and completed method. It is rather a problem for which I have had the good fortune to be able to sketch out an encouraging preliminary formula, the distinct solution of which can only be given by you. I hope that you will be willing to follow in the path which I have indicated, remembering that it is necessary to walk very gently, to proceed with great patience, and not to be too quickly discouraged if the desired solution of a great therapeutic problem be not immediately apparent.

In the treatment of such diseases, the question comes at at once to the lips, Will the tumour reproduce itself after a short time, and thus supply an example only of a new disappointment? I must reply that I do not know, but that it does not appear to me unjustifiable, looking to our biological observation of the action of modifying agents, to hope that it will not. The solution may, perhaps, be presented to the next Congress. Meantime, it may not be out of place to recall an old French proverb, "Qui sait attendre sait tout".

BIRMINGHAM.—Dr. Alfred Hill, in his report on the health of the borough of Birmingham for the quarter ending July 2nd, states that, with a population estimated to the middle of the year at 402,296, the total number of births was 3,754 (1,893 males and 1,861 females). The birth-rate during the quarter was 35.8, against rates of [illegible] 11.6 in the second quarters of 1879 and 1880 respectively. The deaths registered during the same period amount to 1,836, giving an annual death-rate of 18.25 per thousand; in the corresponding quarters of 1880 and 1879, the death-rate was 21.20 and 22.30 respectively. Dr. Hill attributes this considerable and satisfactory fall in the death-rate to the smaller fatality from most of the local (as distinguished from general and zymotic) diseases, but more especially from a fall in the number of deaths from affections of the respiratory organs. The average age at death during the quarter was twenty-seven years and eight months, against twenty-five years and five months last year. Small-pox has shown no material increase during the quarter. The guardians of the poor have instituted a house-to-house visitation, with the object of finding unvaccinated children; and a bill has been distributed to every house in the borough, setting forth the importance of vaccination and revaccination, and giving information as to times and places where the operation can be performed free of charge. The deaths in the quarter from the seven chief zymotic diseases number 218, [illegible] 178 in the same period of 1880. The zymotic deaths were: whooping-cough, 93; scarlet fever, 43; [illegible]; diphtheria, 9; and variola, 1.

RECENT ADVANCES IN THE SURGICAL TREATMENT OF INTRAPERITONEAL TUMOURS.*

BY T. SPENCER WELLS,
Vice-President of the Royal College of Surgeons; Surgeon to the Queen's Household, etc.

I CANNOT thank you for the extremely kind manner in which you have greeted me better than by promising, and by keeping my promise, not to detain you one minute longer than the fifteen allotted to me by the rules of the Congress; and I will at once proceed to remind you that the discussion, in which many of the distinguished surgeons now present will, I trust, take part, is on recent advances in the surgical treatment of intraperitoneal tumours.

The term recent advances, I think, may be considered as including the advances which have been made within the recollection of most of us—the improvements that have been made, the progress that has been secured during our own professional career, during the last twenty to thirty years. And I suppose almost everyone present—certainly everyone who has reached the age of fifty years—can remember a time when the removal of a tumour of any kind from the abdominal cavity was a surgical curiosity, exciting wonder, calling forth serious condemnation, and only encouraged by a very few of the most hopeful of our body.

Long after ovariotomy had risen from the period of distrust, and its mortality had been reduced below that of other operations of less magnitude—long after ovariotomy had secured the sanction of our profession and the confidence of the public—other abdominal tumours were left to run their course. Occasionally, perhaps after a mistake in diagnosis, a uterine tumour was removed; sometimes designedly, but at first almost as a forlorn hope; then, after a time, with an amount of increasing success which has led to the admission of the amputation of uterine tumours, or of enlarged portions of the uterus, among those surgical operations which, if not yet thoroughly accepted, are still recognised as worthy of serious consultation.

Still more recently, excision of the whole uterus affected with cancer has been repeatedly accomplished, and Porro's operation is taking the place of the Cæsarean section. The removal of an enlarged spleen has now been effected in a sufficient number of cases to prove that it is more than a surgical possibility. Not only have cysts of the kidney been cured by drainage, and renal calculi removed, but the displaced, enlarged, or diseased kidney has been extirpated; gall-stones have been removed from the gall-bladder; suppurating hydatid cysts of the liver have been drained; peritoneal hydatid tumours have been excised; and, within the last few weeks, authentic reports have reached us of excisions of portions of the stomach, and of recovery after the removal of more than six feet of the small intestine. This has followed excision of smaller portions of intestine during ovariotomy; and a bolder course has been taken of late years in cases of obstructed intestine, of wounds or rupture of the bladder, and of extra-uterine fœtation. Many of these cases will be brought before you almost immediately by Mr. Lawson Tait, whose table of a very remarkable series of cases I have only received this morning, and have not yet had time to examine.

As some of these subjects have been reserved for discussion in this Section, and others in the Section of Obstetric Medicine and Surgery, I make no further allusion to them now, and pass on to refer to three points on which I trust information will be gained in the discussion which will presently take place. They all appear to me to be intimately associated with recent advances in the surgical treatment of intraperitoneal tumours, and in abdominal surgery generally. These three points are: 1. The union of divided edges, or separated surfaces, of peritoneum; 2. The use of pressure-forceps in preventing, or stopping, or diminishing the loss of blood during and after operations; 3. The practice of drainage in relation to antiseptics.

1. I should not have thought it necessary, after the progress which has already been made in abdominal surgery, to insist at any length upon what I believe now to be a fundamental principle or rule of practice accepted and adopted by all the most experienced and successful operators at home and abroad, if I had not been fiercely attacked by that singular society, which, admitting the right of man to kill all the lower animals, to use them for food, their skins for clothing, their feathers for ornament, to make them labour for our convenience, denies our right to use them for any scientific purpose, or in the hope of benefiting the human race. These curious philanthropists persistently attack me because I sacrificed a few rabbits, dogs, and guinea-pigs, in the year 1859, in order to demonstrate, beyond all doubt, for all time to come, the fact that human life may be saved, and lifelong suffering prevented, by an improved mode of uniting penetrating wounds of the abdominal cavity. They argue that results observed in animals are no guide to what may happen in man; that my observations were not new, and that some believe they are not true; that some think ovariotomy has, on the whole, rather shortened than lengthened the life of woman; and that its mortality has not been lessened by the knowledge gained by my experiments on animals. Of course, I have not taken any notice of these attacks; but I wish to show you exactly what I did, and leave you to judge whether or not the human race has been served by the death of about a dozen animals twenty years ago. Here are the, specimens which I have been permitted to bring hither from the Museum of the College of Surgeons. Before I hand them round, let me tell you exactly what led me to make the experiments. The first three women upon whom I performed ovariotomy all recovered. The fourth died without, as I thought, any good reason why she should have died. I was naturally much interested in the *post mortem* examination, and I obtained the invaluable service of my friend Dr. Aitken to make it. We found that the state of the inner surface of the wound was far from satisfactory. At that time, instead of the sutures I have used of late years, I used harelip-pins and twisted sutures to unite the wound; and we saw at once that some of the pins on the inner aspect of the abdominal wall were bare; the cut edges of the peritoneum were retracted; a portion of intestine was in contact with the wound, the impress of which was obvious on the surface of the gut. Some coagula of blood, and an abundant, consistent, lymphy exudation upon the peritoneal surface of the intestine, corresponded to the edges of the incision and the surface of the wound. Recent lymph glued the opposing surfaces of the intestines to each other. I saw at once how much better it might have been if the peritoneal edges had been accurately brought together, and had united; and thought of doing this in my next case. But I found careful instructions in text-books and treatises to avoid the peritoneum, just as some few surgeons even now fear that they may set up peritonitis, or that pus from the tracks of the sutures may get into the peritoneal cavity. So I determined rather to make the experiment *in corpore vili* than on women. Dr. Richardson kindly helped, by narcotising the animals, some with puff-ball and some with chloroform. In these specimens, where the divided edges, or rather surfaces, of peritoneum have been pressed together, you see that the smooth serous inner coat of the abdominal wall is perfectly restored. You cannot see the stitches on the inside, though plainly visible on the skin; and there is no adhesion of intestine or omentum. When skin or mucous membrane are divided, their edges must be brought together to secure direct union. If they be inverted, union is prevented. The exact opposite holds good with serous membrane. The edges should be inverted, and two surfaces of membrane pressed together, so that the sutures are not seen; and the effused lymph makes so smooth a surface that even the line of union cannot be seen. In these specimens, you can only discover it by the line of sutures in the skin. But mark the contrast in these other specimens, where the peritoneal edges were purposely excluded from the sutures. In every case where the animal was not killed within a day or two, intestine or omentum adheres to the inner surface of the abdominal wall, thus completing the peritoneal sac, at the great risk of intestinal obstruction, or of permanent discomfort to the survivor, to say nothing of a want of firm union and subsequent ventral hernia. One can hardly understand the so-called reasoning which insists that this should not be demonstrated once for all in a few narcotised animals, but that we should grope our way to the realisation of the truth through the sufferings and by the dissection of a series of women. You can examine the specimens now, and they will remain in our College Museum, and will serve, I trust, to dispel any doubt which may still be felt as to the best mode of uniting penetrating wounds of the abdominal wall. And I will go still further, and say that, whenever edges or surfaces of peritoneum are divided or separated, they should, if possible, be reunited. Peritoneum must be opposed to peritoneum; and this can only be done by drawing it over the pedicle, or stump, or divided parts, and fixing or uniting it as an envelope by a line of sutures, or by the uninterrupted suture. I have already urged this so persistently in my works on diseases of the ovaries—in the Hunterian Lectures at the College of Surgeons in 1878—in a paper on the removal of uterine tumours, brought before the British Medical Association at Cambridge last year—and in some recent papers, that I will at once pass to another improvement which has added to the success of abdominal surgery, namely:

* Speech delivered at the opening of a discussion in the Surgical Section of the International Medical Congress.

2. The use of pressure forceps—forcipressure, as it has been termed. I believe I was the first to replace the old "snip", or "clip", or "bulldog", so easily lost in the abdomen, by larger instruments. Mr. Nunneley arranged for a more permanent occlusion of bleeding vessels by tubular forceps; Kœberlé and Péan contrived the "pinces hémostatiques", which I now show in different shapes and sizes, as well as the smooth powerful nickelised instruments, which I prefer. They are here of various sizes, straight and bent at different angles. The smaller are useful in almost any surgical operation, for the temporary stopping of bleeding before ligature, for torsion, or for the suppression of bleeding permanently by crushing together the coats of the bleeding vessels. The larger ones are very useful as means of making an operation almost bloodless—a sort of substitute for Esmarch's bandage, or the elastic ligature, where these cannot be applied. I have found them especially useful when removing uterine tumours. They may be applied as temporary clamps before amputating the growth; and, after this has been cut away, they may be removed one after the other, and all bleeding vessels at once secured by ligature. This may appear to be a little thing, but it stands for much in the sum of daily surgery; it comes in to aid at every moment, and is of almost universal application.

3. The question of antiseptics and drainage is one of far greater difficulty. On the general question of antiseptic surgery I must not enter. Another day, in this section, is specially devoted to this great subject. But the question of drainage, in relation to antiseptics in abdominal surgery, is so curious that I must devote a few minutes to it before concluding. What appears to me so remarkable is, that, while in general antiseptic surgery drainage is so very essential—is, indeed, a fundamental part of the system—in my own experience of ovariotomy, and of the removal of uterine tumours, antiseptics have abolished drainage. I have not even used a drainage-tube for more than three years. Formerly, in cases where much fluid was likely to collect in the abdominal cavity after operation, drainage was necessary. If the fluid did not escape, it putrefied, and poisoned the patient: or had to be removed by puncture, or by reopening part of the wound. Since adopting antiseptic precautions, either fluids do not form—or, if they do, they do not putrefy—and they are absorbed without doing any harm, without leading even to any febrile rise of temperature. I do not say that I have not seen one or two fatal cases, where it might have been better if I had drained—or that, in one or two, part of the wound has not reopened, and permitted the escape of some fluid—but, I do repeat, I have not used a drainage-tube for more than three years; and my present feeling is that the case must be very exceptional indeed in which I shall venture to use one. I trust wes hall hear from Mr. Thornton and others who have more experience of drainage than I have, what they have learned from this practice. Professional opinion on this point has still to be settled; but I think forcipressure may be accepted as unreservedly as union of peritoneal surfaces in all cases of removal of abdominal tumours; and I feel sure that, by careful attention to all needful antiseptic precautions, these operations may now be undertaken with a far more confident expectation of a successful result, than could have been reasonably entertained a very few years ago.

HEALTH OF COLONIAL AND FOREIGN CITIES.—A summary of the weekly returns, with which the Registrar-General is favoured by various local authorities abroad, shows that the average annual death-rate during the second or spring quarter of 1881, in thirty-two colonial and foreign cities, having an aggregate population of nearly fourteen millions of persons, was equal to 30.3 per 1,000. In the twenty-two European cities, the average rate was 31.1 per 1,000, against 20.5 in twenty of the largest English towns. Among the thirty-two colonial and foreign cities, the lowest death-rates were 19.7 in Geneva, 20.4 in Christiania, 21.1 in Rotterdam, and 21.4 in Philadelphia; the rate was, however, equal to 36.1 in New Orleans, 37.1 in Buda-Pesth, 39.6 in Prague, 40.9 in Madras, and 61.8 in St. Petersburgh. In Paris, 316 deaths were referred to small-pox, 264 to measles, 592 to diphtheria and croup, and 416 to typhoid fever. Small-pox was also fatally prevalent in Vienna, Buda-Pesth, New York, and Philadelphia. Diphtheria caused 337 deaths in Berlin, 566 in New York, and 274 in Brooklyn. Scarlet fever showed increased prevalence in Paris, Berlin, Breslau, Brooklyn, and New Orleans. The deaths referred to typhoid fever in Paris, which had been 804 in the first quarter of the year, declined last quarter to 416, and were equal to an annual rate of 0.84 per 1,000; whereas the death-rate from the same disease in London did not exceed 0.12 per 1,000. In St. Petersburgh, no fewer than 1,637 deaths resulted from typhus and typhoid fevers, showing a considerable increase upon the numbers returned in the two preceding quarters, when they were 411 and 1,018 respectively. These 1,637 deaths in St. Petersburgh last quarter were equal to a rate of 9.81 per 1,000, against 0.14 from the same causes in London.

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF MEDICINE.*

On Bacteruria. By WM. ROBERTS, M.D., F.R.S. (Manchester).—For some years, Dr. Roberts had occasionally come across cases in which the urine, at the moment of emission, was loaded with bacteria. The urine had the peculiar grey opalescence indicative of commencing decomposition, and a heavy disagreeable odour, like that of stale fish. The reaction was acid, and the urine showed no tendency to pass into the ammoniacal fermentation. There was, in males, some vesical irritation, marked by more or less frequent and painful micturition. In females, symptoms of vesical irritation were sometimes, at least, absent. Pus-corpuscles were always present in insignificant numbers. The general health did not materially suffer. Some of the cases appeared for many years—the vesical symptoms rising and falling in intervals. The organism appeared as micrococci, and actively moving short rods composed of molecules, often joined together in zigzags. Dr. Roberts concluded that the cases in question depended on the establishment of a colony of bacteria (*Bacterium termo*) in the urinary bladder, and that the proliferation of the organisms, and perhaps certain products of its action as a ferment, gave rise to irritation in the bladder. The condition was not identical, but opposed rather, to that in which the urine (presumably under the action of tht micrococcus ureæ) became ammoniacal in the bladder. It was analogous to those cases in which a colony of sarcina established itself in the bladder. The urine after removal showed little tendency to ordinary putrefaction, and the growth of the organism appeared not to go on in the cold. The condition described was removable in a few days, even after lasting several years, by thirty-grain doses of salicylate of soda twice a day. Cases were given.

On the Origin and Cure of Scrofulous Neck. By T. CLIFFORD ALLBUTT, M.A., M.D., F.R.S. (Leeds).—The purpose of the paper was to insist on the local causation and the local development of many cases of scrofulous neck. While giving due weight to the undoubted influence of heredity in favouring this malady, yet such states might be, and often were, set up in young persons by local causes alone was equally indubitable. Moreover, local causes played a large—perhaps the chief—part in producing the malady in those originally strumous. Artificial scrofula was at least as common as the natural. Of local causes, irritation of neighbouring mucous membranes was the most common; pharyngeal and aural-pharyngeal irritations being far the commonest antecedents, and the septic kind of these the most effective. The glandular enlargements were thus bubonic, and by caseous degeneration became themselves the foci of further like mischief. After minute inquiry into possible morbid influences acting through the mucous membranes, a rapid and complete cure without disfigurement must generally be sought by surgical means. Free incision and enucleation of caseous deposits were essential. The softening mass under the jaw was usually a subcutaneous abscess with more or less thickened walls, which depended upon infection from the deeper lying caseous glands. With these it communicated by sinuous channels, often very obscure. Upon the laying open of these, and the clearing out of the inner foci, care and future safety depended. Many cases were given, in which Mr. Teale had co-operated with the author in carrying out these principles.—Mr. F. TREVES (London) agreed with Dr. Allbutt that a spontaneous origin for scrofulous glands was extremely rare, if not doubtful. In nearly every instance, it was possible to make out some lesion at the periphery. Such lesion acted as the exciting cause only; and he must strongly oppose Dr. Allbutt's view, that scrofula might be due to local causes only. In every case, there was, he believed, a tendency for the gland-apparatus, as well as the other structures, to react upon the most trifling irritation. This might be either hereditary or acquired. In no perfectly healthy person could the glands become scrofula be artificially produced. The most effective exciting causes of these tumours of the cervical glands were those that involved the adenoid tissue of a mucous membrane. Inflammation of the adenoid tissue of the pharynx caused almost immediate enlargement of glands, but an eczema of the face might exist for a long time before it produced such a result. These masses of scrofulous tumours of glands were the neck, the bronchial region, and the mesentery; and it was significant that the glands in these regions received lymph from the largest masses of adenoid tissue in the body, viz., the

* Continued from page 344 [illegible]

naso-pharyngeal mucous membrane, the lungs, and the lining of the intestine. It was important to recognise the fact that the gland mischief extended locally, and that one gland could infect its neighbour by the lymphatic vessels connecting them. He fully agreed with Dr. Allbutt as to the treatment of certain of these glands by operation. The treatment by excision was applicable only to a few cases, to glands few in number, and not yet adherent. The treatment by scooping out the contents of the gland was apt to lead to undermining of the skin and to troublesome sinuses. The treatment he would advise was the actual cautery. The point of a thermo-cautery was thrust into the middle of a gland in one or more directions. Through the sinus thus established the degenerate matter of the gland was gradually discharged. He had practised this method in twenty cases with very good results.—Mr. TEALE (Leeds) could, in a large proportion of cases, trace the beginning of enlarged glands of the neck to acute affections of the mucous membrane of the fauces, resulting from unsanitary conditions of life. The cases in which he had operated had turned out even more satisfactory than he had anticipated. These results were satisfactory; firstly, as to the effect in improving the health; secondly, as to the rapidity of healing; thirdly, as to the condition of the scar; fourthly, as to the absence of subsequent, and possibly consequent, enlargement of other glands. He had observed in the course of his operations that frequently the superficial abscess was led through a small opening in the deep fascia, to be discovered only by careful searching by a director, and leading to a broken-down caseous gland beneath the sterno-mastoid muscle. He was also surprised how generally enlarged glands were in a caseous condition; so that in many instances he was able to eviscerate the degenerated gland-structure by Lister's scoop, leaving the gland-capsule and some portion of a gland too sound to yield to the scooping instrument.—Dr. BOWLES (Folkestone) thought that, notwithstanding the graphic description of the causes of the disease by Dr. Allbutt, the causes were extremely probable only, but not proven. Confirmatory evidence was wanted. He drew attention to a class of cases of so-called scrofulous glands, which rapidly enlarged in anæmic and delicate patients, and which were wholly unaffected by the usual tonic treatment, and were immediately relieved and cured by active saline aperients, followed by iron; and which left no trace behind. In these there was no evidence of local irritation.—Dr. GRIFFITHS (Swansea) was much interested in the subject of Dr. Allbutt's paper. Nine months ago, at a local meeting at Swansea, he expressed identically the same view as Dr. Allbutt had done, on the local causation and development of scrofulous glands in the neck. After considering the primary sources of irritation in decayed teeth, in the mucous membrane of the mouth, pharynx, and nares, he had pointed out that certain diseases of the ear, and eruptions on the face and scalp, were frequently observed as the primary irritation in the causation of scrofulous glands in the neck. Three cases had been distinctly traced to wearing ear-rings. The first case, that of a young woman, ended in scrofulous phthisis. The second had a chain of diseased glands of the neck below the inflamed lobe, extending to the clavicle. She persisted in wearing the ear-rings till the glands in the axilla became affected. She then discontinued wearing the ornament; and, the primary irritation being removed, the lobe of the ear healed, and the morbid action in the glands ceased. The third case was that of a woman aged 45, similar in every respect to the last, with the exception that a large abscess formed in the axilla. He had also no doubt that scrofulous glands in the mesentery (tabes mesenterica) arose, as a rule, in local irritation of the mucous membrane of the intestines. The child, living in mesentery conditions, being "out of sorts", was dosed with various drugs, and had diarrhœa, sickness, etc. No improvement was made in the diet, irritation of the mucous membrane of the intestines was kept up, and was followed by induration of the mesenteric glands. No doubt the same law was observed in the causation of scrofulous glands in the mediastinum. The primary irritation might be in the pleura, in the mucous membrane of the bronchial tubes, or even in the blood-vessels. Not long since, he traced the primary irritation of a suppurating gland at the base of the heart to an atheromatous ulcer in the aorta. Although local irritation was the main factor, hereditary tendency also played an important part in some cases. The hereditary predisposition might be a tendency to the development of a local irritation on the skin, mucous membrane, or elsewhere; or it might be a tendency to the development of scrofulous glands.—Sir WILLIAM GULL (President) was of opinion that affections and enlargements of the glands of the neck were too often attributed to some defect, hereditary or acquired, in the constitution. Such a simple thing as improperly dressing the hair might give rise to enlargement of the cervical glands. When the irritation caused by improperly tying up the hair had been relieved by a natural way of wearing the hair, the enlarged glands disappeared.—Dr. ALLBUTT, in reply, said that there were different degrees of susceptibility to lymphatic enlargement. Some people could not, as it were, contract so-called scrofulous neck; others easily could, from very slight irritation or other cause. Again, a certain class of subjects (such as fair, blue-eyed people) could not bear peripheral irritation without secondary enlargement or inflammation; but these were not necessarily scrofulous.

Eczema and Albuminuria in Relation to Gout. By A. B. GARROD, M.D., F.R.S. (London).—The author made some introductory remarks on the state of the system which precedes the development of the symptoms which constitute "gout". These symptoms were divided into: 1, Functional symptoms, or those arising from disturbances of different organs or systems of the body, but not accompanied with any known or visible alteration in the implicated parts; 2, symptoms attended by visible changes in the structures: these latter are chiefly referable to the joints, the skin, and the kidneys. In the present paper the chief object was to show (1) the particular form of skin-disease which occurs in connection with the gouty diathesis; (2) the nature of the alterations which take place in the kidneys; and (3) the frequency of the occurrence both of skin-disease and albuminuria in cases of gout, under the following heads: (*a*) eczema, the cutaneous development of the gouty diathesis; (*b*) albuminuria, the cause of the occurrence in gout, and the peculiarity of the renal disease. The illustrations of the points under discussion were drawn from about 2,500 well-marked cases of gout.

The Clinical Value of the Examination of the Urine in Bright's Disease. By T. GRAINGER STEWART, M.D. (Edinburgh).—The subject was discussed under the following head: (*a*) Quantity: Diminished: 1, in inflammation (early stage and during exacerbations). Normal: 1, in middle stage of inflammation; 2, in earlier stage of cirrhosis. Increased: 1, in waxy throughout (unless interfered with) and preceding even the albuminuria; in cirrhosis—later stage; 3, sometimes in advanced inflammation and during absorption of dropsies. Suppressed: In inflammation acute and advanced, and in advanced cirrhosis: (*b*) Specific gravity and solids. Influenced: 1, by amount of water; 2, by amount of urea; 3, by amount of other solids; urea in different forms. (*c*) Albumen, serum-albumen, the only very important form; quantity in different forms; explanations. (*d*) Blood. 1, Early inflammation and acute exacerbation; 2, very rarely in waxy kidney; 3, occasionally in late cirrhosis with other hæmorrhages. (*e*) Tube-casts; varieties; different views as to the origin; abundant and varied in inflammation; few in waxy kidney; few in cirrhotic kidney.

On Different Forms of Bright's Disease. By Dr. S. ROSENSTEIN (Leyden).—The following is a summary of the paper. 1. The anatomical basis of the disease described by Bright is the diffuse inflammation of the kidneys. 2. Consequently those demonstrable renal changes, which are not of an inflammatory character—*e.g.*, "the kidney of pregnancy", the "cyanotic induration" observed in conditions of venous obstruction of the system, and the "pure amyloid degeneration", do not represent, though associated with, anasarca and albuminuria forms of Bright's disease, but are independent affections, strictly to be differentiated from this disease. 3. Different forms of Bright's disease are to be distinguished anatomically as well as clinically, according to the "acute" or "chronic" course of the inflammatory process. 4. The acute form is characterised by the emigration of colourless blood-corpuscles (as in inflammations of other organs), and by changes of the epithelial structures, to which, after a short duration, a proliferation of the nuclei of the interstitial tissue is added. This form ends most frequently in recovery, and passes but extremely rarely into the chronic form. 5. The chronic form shows anatomical changes of all the tissue-elements of the kidneys. According to the preponderance of alterations in one or other of these elements, the product appears in the different conditions of the "large white", or the "variegated smooth contracted kidneys", or the "granular white kidney". 6. The clinical observation of some exceptionally suitable cases renders it highly probable that the "white granular kidney" is developed from the "large white kidney", and is consequently to be looked upon as a further stage of the same process. 7. A particular form of "granular kidney" is represented by the "red granular kidney", in so far as this form does not start from a diffuse inflammation, but from "endarteric changes" of the renal vessels, with shrinking of the glomeruli. Closely related to this form in its genesis is the "senile contracted kidney", which is therefore to be associated with it. 8. As to the starting-point of the anatomical changes, no evidence is offered by clinical observation. The latter should, therefore, be limited to the recognition, in general, of the state of the diseased organ—*i.e.*, to recognise whether this is in the state of "enlargement" or of "contraction"; but it ought not to speak of "parenchymatous" or "interstitial" forms, as it does not possess any means of distinguishing between those.

On the Diagnosis of that Form of Acute Renal Disease which is described by Klebs under the name of Glomerulo-nephritis. By GEORGE JOHNSON, M.D., F.R.S. (London).—For a number of years Dr. Johnson had described and demonstrated, under the name of exudation cell-casts or white cell-casts, a form of renal tube-cast characterised by the presence of leucocytes unmixed with renal epithelium; and in his *Lectures on Bright's Disease* (page 35) he stated that "since the publication of Cohnheim's researches, it had occurred to him that these exudation-cells may probably be white blood-cells—leucocytes—which have migrated through the walls of the Malpighian capillaries, and subsequently become moulded into small cylindrical casts within the central canal of the convoluted tubes." The object of the present communication was to direct attention to the relationship between the anatomical observations of Klebs (*Handbuch der. Path. Anat.*, vol. ii., p. 644), Klein (*Path. Trans.*, 1877), and Bryan Waller (*Journal of Anat. and Phys.*, 1880), and his own clinical observations, and to show that the presence of the white cell tube-casts afforded the means of diagnosing the existence of the glomerulo-nephritis of Klebs.

Chronic Bright's Disease without Albuminuria. By F. A. MAHOMED, M.D. (London).—The main object of the paper was to prove that high arterial pressure, in young and apparently healthy persons, if it remain as a chronic condition, will produce the cardio-vascular changes of Bright's disease. It was held that the changes found in red granular kidneys are chiefly vascular in their nature; *i.e.*, thickened vessels, thickened Malpighian capsules, and fibro-hyaline intertubular thickenings; the yellow, or mixed granular kidneys, have, in addition to these, interstitial small-celled growth and epithelial proliferation. Chronic Bright's disease was described as existing typically in three stages: 1. The functional stage, *i.e.*, high arterial pressure without organic change; 2. Chronic Bright's disease without albuminuria (or nephritis), *i.e.*, the cardio-vascular changes, usually with red granular kidney; 3. Chronic Bright's disease with albuminuria, or urine of low specific gravity, *i.e.*, the cardio-vascular changes with the mixed or yellow granular kidney. The present paper was to prove the existence of the second stage without albumiuria. It was founded upon sixty-one cases, in nearly all of which the urine was ascertained to be perfectly normal in quantity, specific gravity, and the absence of albumen, the latter being only occasionally present just before death. Nearly all these cases were diagnosed during life by hypertrophy of the heart and high arterial pressure. Of these, twenty-one cases were fatal, and an account of the *post mortem* examination of each was given; in all the others, the signs were unmistakable, there being in all displacement of the apex external to the nipple-line, and high arterial pressure; in many, evident thickening of the arteries, and other occasional signs. The cases were grouped as follows: cardiac failure, ten cases with eight deaths; lung-failure, eleven cases, six deaths; cerebral disease, nine cases, two deaths; renal dropsy, nine cases, one death; gout, six cases; epistaxis, three cases; various medical and surgical diseases, nine cases, four deaths. There was also four cases with well-marked albuminuria, disappearing temporarily or permanently. The twenty-one fatal cases included five in which there was hypertrophy of the heart without valvular disease; in all, the vessels were thick, but there was little or no renal change.

On Rheumatism, Gout, and Rheumatic Gout. By JONATHAN HUTCHINSON, F.R.C.S. (London).—The following propositions were laid down in this paper. 1. Rheumatism is, in the main, a liability to joint-disease, brought about by exposure to cold and wet, through reflex nervous influences (a catarrhal arthritis). 2. Gout is, in the main, a liability to joint-disease, brought about by certain articles of food, by defect of assimilation and of excretion (a humoral arthritis). 3. In each disease, although the joints suffer most prominently, they by no means suffer alone. 4. In each, by transmission through many generations, a diathesis is formed which is heritable, and which gives peculiarity to the diseases from which its subjects may suffer, and which stamps them as "gouty" or "rheumatic". 5. Gout and rheumatism are very frequently present together. Rheumatism is very often met with without gout, but gout is seldom present without rheumatism. Sometimes the two exist side by side, and attack the same patient at different times; but more frequently they become mixed, and produce a hybrid disease (rheumatic gout). In connection with hereditary descent, various maladies are to be affiliated with gout and rheumatic gout, which differ somewhat from both—certain forms of iritis; hæmorrhagic retinitis; universal crippling rheumatism (chronic rhheumatoid arthritis); some forms of glaucoma, lumbago, sciatica, and neuralgia; nodi digitorum, and possibly hæmophilia.—Dr. GARROD (London) differed from Mr. Hutchinson's conclusions. Two thousand years ago, scarlet fever and measles were confounded one with another; and even forty years ago, when he was a student, all fevers were looked upon and classed as continued fevers. The great advance made during the last forty years was to differentiate disease; but Mr. Hutchinson tried to show that gout and rheumatism merged into each other. Of 1,800 cases in which eczema had been present, all had had acute inflammation of the joints, and at least five-sixths of the cases of eczema were in patients who had had a series of affections of the great toe-joints; and he had never seen eczema in rheumatism. With regard to the appearance of urate of soda in joints along with ulceration of the cartilages, he could not quite reconcile the fact that, in the early stages of gout, there was always urate of soda, and the erosion of cartilages occurred only after prolonged attacks. Mr. Hutchinson's cases were no doubt aged patients, who had suffered from the disease for years. The presence of tophi was admitted as conclusive evidence of gout; but rheumatic arthritis existed certainly to a large extent in Scotland, Poland, and other countries But tophi were very rarely seen in these countries; and Sir R. Christison had said that he had seldom or never seen gout in Scotland, though rheumatism was common. Gonorrhœal rheumatism was surely allied to pyæmia, being associated with a disease of the genito-urinary mucous membrane attended with profuse purulent discharge. Pyæmia was not allied to gout or to rheumatism. Dr. Garrod believed that the children of gouty parents suffered from rheumatic arthritis, but not more from this disease than from any other forms of transmitted illness. They were simply the children of degenerated parents.—Dr. W. ROBERTS (Manchester) said that the best examples of gout that he had seen were in London people who had acquired the practice of drinking porter. He would like to hear from medical men practising on the Continent, and especially those from the Rhine districts, where gout was rare, whether they found that in rheumatic-arthritic patients there was a frequent tendency to gout, either in themselves or their children.—Dr. STOKVIS (Amsterdam) said that cases of true gout were exceedingly rare in Amsterdam; and he only remembered two cases of true gout in hospital practice, in labourers who had lived in very unhealthy conditions. Continental physicians depended, as regards the diagnosis of gout, wholly on the basis laid down by the investigations of Dr. Garrod. In the easy-living classes, he never saw a case of joint-disease, where the diagnosis of gout could be presumed, in which there was not a deposit of uric acid in the joints, or in which the uric acid in the urine was diminished, or was not to be found. Hence, so far as Holland was concerned, true gout was exceedingly rare.—Dr. MACLAGAN (London) said that gout, rheumatism, and rheumatoid arthritis were essentially distinct. In Scotland, gout was almost unknown amongst hospital patients, but rheumatism and rheumatoid arthritis were common. Rheumatoid arthritis was most frequent in young women whose health had been impaired by uterine disturbance or prolonged lactation. In it, there was no acid condition of the blood; the urine was generally pale, and of low specific gravity. The treatment which was applicable to gout and rheumatism did no good. Iron, tonics, and means calculated to restore the general health, afforded the best result. Rheumatism he regarded as of malarial origin. In its production, cold had probably little or no direct influence. Rheumatism was most common in the early years of adult life, and was all but unknown in infancy and old age. It was a disease of temperate rather than of cold climates. Dr. GRAN[illegible], as observed in Canada, was a disease not of common character, and was greatly the result of a want of care in the proper use of flannel, combined with a too free use of alcohol. It was not by any means so common in Canada as was generally supposed. Gout was very rarely seen; and, when a case arose, it partook more of the [illegible] gout. Pericarditis and endocarditis were common associates, particularly in cases associated with debility, the result of excess in the use of alcohol. Salicylate of soda and salicylic acid were the chief agents at present adopted; and, as a general rule, the best safeguards against an attack of rheumatism were careful attention to warmth of clothing (use of flannel), and the regulation of diet, with the non-use of alcohol.—Dr. QUINLAN (Dublin) said that, in Dublin, a great [illegible] of late years taken place with regard to the alcoholic beverage of the humbler classes. When he was a student, the drink [illegible] was whisky; and, although [illegible] he had never seen a case of gout, but plenty of rheumatism. For some years past, porter had been the ordinary drink, the much more expensive whisky being seldom used. Since this change, gout was common enough in the Dublin [illegible]. He [illegible] the aid of his late colleague, Dr. Greenfield, he had examined the great toe-joints in the hospital [illegible] adult patients, with the following results. 1. The kidneys were the seat of lesions in [illegible]. 2. The [illegible] the e, 17 were males [illegible] years, the average being [illegible]. In the kidneys existed [illegible] contracted granular kidney in 12; kidneys

small (5 ounces), cortex atrophied, capsule separated, in 1; kidneys brawny, cysts, capsule non-adherent, in 1; granular surface with cysts, in 1; kidneys very firm, cysts in cortex, which was not wasted; capsule readily separated, surface not granular (aortic disease), in 1; the left kidney, only, had the capsule very adherent at parts, surface very granular (hypertrophic cirhossis of liver), in 1. In other words, in two-thirds of the cases of gouty affection of the toe-joints, there was a decided contracted granular kidney, and in the remaining third there were affections of the kidney allied to the contracted granular state. 4. Among the 96 cases of renal disease were 20 cases of contracted granular kidney, and possibly 4 more. There were, therefore, at least 8, and possibly more, cases of contracted granular kidney in which no gouty deposits were found. These varied in degree as follows: Extreme or typical granular contraction, in 2; contracted granular, in 2; slight granular contraction, in 3; granular contracted with acute nephritis in a man aged 28, in 1.—Dr. LONGHURST (London), agreeing with Dr. Garrod that gout was an affection the chemical exposition of which was lithate of soda, concurred in the belief advanced by Mr. Hutchinson, that both gout and rheumatism must be considered of hereditary nature; the former essentially an affection of the blood, brought about by dietetic causes; the latter having its origin in the nervons system, being especially induced and influenced by atmospheric conditions. Both diseases might, however, occur together in the same person; and the point of distinction was very often difficult to determine. In considering the pathology of gout, much importance must be attached to age; for, whilst rheumatism occurred at all ages, and particularly in early life, gout was rarely seen except at the middle or advanced period, when degenerative changes in the various organs had advanced to a greater or less extent.—Mr. HUTCHINSON accepted the deposit of lithate of soda in a joint as pathagnomonic of gout; but could not go with those physicians who said that all gouty patients had deposits in their joints. He did not think that gout and rheumatism merged into each other so much as they might mix the one with the other; just as spirits—*e. g.*, brandy—would mingle perfectly with water, but brandy did not become converted into water by the mixture—nor *vice versâ*.

On Graphic Representation of Tendon-Reflexes. By A. EULENBURG, M.D. (Greifswald).—Professor Eulenburg said that a graphic representation of the tendon-reflexes is very desirable for many reasons of an experimental nature, as well as for diagnostic and clinical purposes, especially in order to allow a precise measurement of the duration of the periods of latency and convulsion. This is best obtained by registering on a vibrating tuning-fork plate, the registering-plate being fastened to one branch of a large tuning-fork, and put by the latter itself into equal vibrations. The writing lever of a registering apparatus (Brondgeest's pansphygmograph) marks on the vibrating plate, which is laterally moved during the vibrations. The duration of every single vibration being known, this procedure admits a very accurate calculation of the entire curve, as well as of its single parts: moreover, the myogram represents also faithfully and expressively the other characteristic details of the process of movement. In order to ascertain the duration of the period of latency, he delineated with the double lever of the pansphygmograph two curves on the same plate, one of which indicated the moment of irritation (beating the ligamentum patellæ for producing the knee-phenomenon), the other, the moment of the commencement of the contraction. It was found that in healthy adult males there was an average difference of time of 0.0242 seconds; the difference did not exceed 0.03226 seconds. This corresponded to one and a half respectively—two single vibrations of a tuning-fork, which makes sixty-two vibrations in one second. In children, the interception is apparently somewhat stronger, and the duration of the period of latency greater (up to 0.04839 seconds). The duration of the curve of the convulsive period vacillates in healthy people between 6 and 14 vibrations (10-12 in the average). In disease, the duration of the period of latency can be diminished to fractions of one vibration; at the same time, under such circumstances, the contraction is more powerful, and its duration much prolonged (twenty to forty vibrations), *e.g.*, in spastic spinal paralysis, commencing amyotrophic lateral sclerosis, and disseminated sclerosis. In other diseases, on the other hand, the period of latency may be prolonged, the contraction feeble, its duration simultaneously diminished; *e.g.*, in more advanced atrophic spinal paralysis, in neurotic atrophies, and after nerve-stretching. A similar effect is produced upon the tendon reflex by several different anodyne and sedative remedies, in some instances after a preceding augmentation. Strychnia, on the other hand (in the form of subcutaneous injection), increases the tendon-reflex, the period of latency being at the same time shortened; this drug may even be used under certain circumstances, in order to render the completely absent tendon-reflex temporarily perceptible and graphically demonstrable. In cases in which the diagnosis is doubtful, this method of investigation can thus afford valuable assistance.—Dr. BUZZARD (Chairman) asked Professor Eulenburg as to the means by which his tracings were recorded; and, further, whether this so-called reflex phenomenon was really reflex or not. The time occupied by response to the blow on the patellar tendon was too short, according to some physiologists, for it to be of a reflex nature.—Dr. AUGUSTUS WALLER (London) believed the so-called tendon-reflex to be really a direct or peripheral phenomenon, because its latency was the same as that of electrical or other mechanical stimuli; and he had disproved the existence of crossed reflex by experiments on rabbits performed with Dr. Prevost—viz., the crossed movement persisted after all the nerve-paths of the percussed limb had been abolished.—Dr. EULENBURG, in reply, said that he had hitherto thought the phenomenon to be really reflex; but now, since his experiments and researches, he had doubts on the subject. He had seen the tendon-reflex abolished by stretching the crural nerve; and therefore he was of opinion that it might be a peripheral phenomenon.

On Clinical Cardiography. By ADOLPHE D'ESPINE, M.D. (Geneva).—The following were the general conclusions of this paper. 1. Clinical cardiography may be employed both for diagnostic and for prognostic purposes. The indicating drums of Marey give tracings which are comparable with each other, provided they be well applied. The best rate of rotation for registering these tracings is four centimètres in a second. 2. The synchronous tracing of the carotid must be taken as the key of the shock-trace; it replaces in man that of the aortic pulse, and gives the two notches necessary to recognise in the shock-tracing, the portions which are in relation to the two sounds of the heart. The first, or mitral notch, is indicated by the beginning of the carotid pulse; the distance which separates this notch from the beginning of the systolic elevation of the shock, or the carotid delay, marks off in the cardiac tracing the first systolic effort necessary to raise up the sigmoids and overcome the aortic tension; this is the portion of the shock which corresponds to the first sound. The second, or sigmoid notch (diastolic notch of Burdon Sanderson) which corresponds in the carotid tracing to the rise of the wave, or return of dicrobism, indicates in the shock-tracing the pulse which corresponds to the second sound. The error which arises from the time which separates the aortic from the carotid pulse may be ignored; it is at the most from .02 to .03 of a second. 3. The physiological tracings of the ventricular contraction, as well as the shock-tracings, show that the systole is not a single muscular contraction, but a compound of successive efforts, amongst which may be distinguished two principal pulsations: (*a*) the mitral pulsations of the ventricle, which results in forcing the blood of the heart into the aortic reservoir; (*b*) the arterial pulsation, which drives the blood of the aorta into the ultimate limits of the arterial tree. These two pulsations are marked in the carotid pulse; the second alone exists normally in peripheral pulses, such as the radial or femoral. In the normal shock-trace in man, the mitral pulsation alone is well marked, and forms the summit of the tracing. When the aortic tension is heightened, the arterial pulsation appears in the shock, and forms the culminating portion of it (interstitial nephritis—certain physiological shocks after severe muscular effort). The form of the tracing thus recalls that of the intraventricular tracing obtained by the ampulla in the left ventricle of the horse. When the aortic tension is lowered, the line of descent begins after the mitral summit, and is not interrupted, except by a rebound due to the shock, or rebound of the ventricle. 4. Mitral pulsation is sometimes simple, sometimes double. A first single sound corresponds always to a simple mitral pulsation; on the contrary, the more the two pulsations are manifested and distant, the clearer will be the reduplication of the first sound, and the more like the true *bruit de galop*. In the dog and in man, mitral pulsation is simple in the normal state. In the horse it is double, and corresponds to a double click of the auriculo-ventricular valves, very distinct from the presystole. The presystole counts for nothing in the production of the *bruit de galop*. There is never a reduplication of the first sound, because the two ventricles are perfectly synchronous in the first portion of the systole. There may be, on the contrary, reduplication of the second sound, because the closure of the sigmoids may be asynchronous in the aorta and pulmonary artery. 5. We must distinguish—*a*. A *bruit de galop* on the left, due to a double click of the mitral valve; this has its maximum at the apex, and is observed in certain cases of high aortic tension (nephritic *bruit de galop*); *b*. A *bruit de galop* on the right, due to a double click of the tricuspid valve; it is observed in certain cases of high pulmonary tension, such as pulmonary stasis with cardiac weakness in pneumo-typhus, pulmonary stasis, in mitral affections, etc. It has its maximum at the sternum, and has always less tone, and is more fleeting than that on the left (pulmonary *bruit de galop*). .6. The increase of arterial tension seems to be a *sine quâ non* condition for production of the *bruit de galop*, but does not always

suffice. The true mechanism of the double valvular click still remains to be discovered. 7. In the different valvular affections of the left heart (construction, insufficiency), the first sound is always simple, and the mitral pulsation single, as long as there is no complication on the part of the lungs or the right ventricle. 8. From a diagnostic point of view, clinical cardiography reveals three pathognomonic forms: *a.* That of aortic construction, "en large plateau"; *b.* That of interstitial nephritis, "en dos de chameau"; *c.* That of mitral insufficiency, "en pain de sucre". 9. From a prognostic point of view, cardiography gives the exact relation between the two essential factors of the circulation, the force of ventricular propulsion and the arterial tension. *a.* Slowness of propagation of the ventricular wave to the radial pulse (radial delay) is a sign of cardiac weakness, especially if the arterial tension is strong. High arterial tension favours, in fact, the propagation of the ventricular wave; in interstitial nephritis with hypertrophy of the heart, the radial pulse shows two pulsations before the dicrotism, which corresponds to two ventricular pulsations. *b.* The carotid delay is least when the left ventricle is hypertrophied and the aortic tension lowered (aortic insufficiency). It is greatest in aortic constriction. It is variable in interstitial nephritis; it may be considerably increased when the heart is weak and aortic tension considerable; it becomes again normal accordingly as hypertrophy of the heart, and consequently its real force, increases. The systole is the more prolonged and multiple as the disproportion is greater between the resistance to be overcome and the force of the cardiac muscle. Polysystole of the heart is in certain cases (mitral affections) the precursor of asystole. 10. The double diastolic shock is only observed in two diseases of the heart. *a.* In aortic insufficiency with considerable reflux. The double shock being facilitated by dilatation of the ventricle is generally a bad prognostic sign. *b.* In mitral insufficiency, with constriction and hypertrophy in the left auricle. It is an exaggerated wave of the auricle, a kind of anticipated presystole.—Dr. BUZZARD (Chairman) said that cardiography was destined to be one of the most useful methods of diagnosis.—Dr. BARR (Liverpool) said that the carotid pulse could not show what was going on in the ventricle prior to the opening of the semilunar valves. He thought that Dr. D'Espiné's terms, "mitral and arterial pulsation", as representing the successive efforts of the ventricle, were unfortunate, the phenomena being merely the effects of these efforts, and not their cause. The mitral tension was not a pulsation, nor did it represent the first portion of the apicial impulse; but, like the first part of the impulse, it was due to the hardening of the ventricle. The arterial pulsation was not the cause of the final summit, which in great part depended on the recoil of the breast, as advocated by Sir James Alderson. Neither did the first impulse depend on high tension, which merely gave rise to a prolonged and well-sustained impulse. In mitral regurgitation, where the aortic tension was low, the final summit was very high. The assertion of Dr. D'Espiné, "that there is never a reduplication of the first sound, because the two ventricles are perfectly synchronous in the first portion of their systole" was contrary to fact, for he had seen complete asynchronism in his experiments, and had demonstrated it clinically in several cases. He handed round cardiographic tracings which showed complete asynchronism, the left ventricle contracting first, and then the right. He looked upon the *bruit de galop* as rapid reduplication. He also believed that high tension *per se* was not the direct, but only the indirect, cause. That ventricle which was best supplied with blood, and which best retained its muscular irritability, initiated contraction, and gave rise to the first element of a double first sound. It did not necessarily follow that the ventricle which began would first end contraction. The period of systole depended on the amount of blood to be driven, the power of the ventricle to drive it, and the resistance in front: the less the resistance, *cæteris paribus*, the shorter the systole; and so the ventricle which had the least resistance completed its systole before the other, and permitted closure and tension of its semilunar valves, thus causing the first elements of a double second sound.—Sir WILLIAM GULL wished he was more appreciable of the subject under debate. Cardiographs had been brought into use since his time. No doubt the period was not far distant when they would be of great use and of immense clinical value.

On a Method of Ascertaining the Activity of the Biliary Secretion in Different Morbid States of the Liver. By Dr. LÉPINE (Lyons).—In this paper, the author spoke of the origin of sulphur not completely oxidised in the urine in the physiological state; its determination by estimating in one sample of urine the sulphuric acid in the condition of sulphate, and in another sample of the same urine, after oxidation by means of nitrate of potass (not chlorate), the total sulphuric acid. From the difference of the two amounts, the quantity of sulphur incompletely oxidised was calculated. He then referred to the variation and quantity of this unoxidised sulphur in various physiological conditions of the liver, and to the influence of cholagogues, of constipation, etc., upon it. He also noticed the relations of incompletely oxidised sulphur with (1) the sulphur in the state of sulphuric acid (sulphates and sulpho-conjugate acids), and (2) the total nitrogen in 1. Acute icterus; 2. Chronic icterus; 3. Cirrhotic affections of the liver; 4. Fatty degeneration of the liver; 5. Different functional conditions of the liver, especially saturnine colic.—Sir W. GULL observed that the paper was a most exact communication, and showed a distinct line of progress. A paper might be so good as to be above discussion; and it might be a compliment to the author for his audience to remain silent. As for himself, he had not sufficient chemical knowledge to enable him to criticise it.

The Analytical Study of Auscultation and Percussion, with reference to the Distinctive Characters of Pulmonary Signs. By AUSTIN FLINT, M.D. (New York).—The object of the paper was to indicate the pulmonary signs which are determinable by the analytical method of study, and the characters by which they may be readily distinguished. The auscultatory signs referable to respiration, the loud voice, and the whispered voice, were considered; and, afterward, the signs produced by percussion. The characters of the normal respiratory or vesicular murmur were brought into comparison with those of the sign known as the bronchial or tubular respiration. Under the head of bronchial respiration, a new term—broncho-vesicular respiration—was proposed to mark the different grades of solidification below the amount requisite for bronchial respiration. Cavernous respiration was shown to have characters clearly distinguishing it from bronchial respiration. Modifications of cavernous respiration, determinable by means of analysis and comparison, were distinguished as broncho-cavernous and vesiculo-cavernous respiration. A prolonged expiratory sound was stated in the paper to denote either solidification of the lung, or absence of solidification, by characters relating to pitch and quality. The existence or the absence of solidification could thus be ascertained by characters pertaining exclusively to expiration, when an inspiratory sound was wanting. The foregoing respiratory signs, referable to the loud voice, were next taken up. The distinction between simply increased vocal resonance and bronchophony was the object of analytical study. Ægophony was shown to be a modification of bronchophony, differing from the latter in an apparent distance of the resonance and an interrupted or tremulous character. Pectoriloquy, the transmission of speech or articulated words, denoted either a cavity or solidification of lung. The sounds caused by the whispered voice were considered of sufficient practical importance to form a distinct group of physical signs. The abnormal modifications of the normal bronchial whisper were as follows: (1) increased bronchial whisper; (2) whispering bronchophony; (3) cavernous whisper; (4) whispering pectoriloquy. Whispering pectoriloquy might signify either solidification of lung or a cavity. The characters associated with the pectoriloquy enabled the auscultator to decide which one of these two anatomical conditions, in individual cases, was represented by the sign. The paper concluded with the results of the analytical study of the physical signs obtained by percussion. The number of morbid signs furnished by percussion need not exceed six, namely: (1) absence of resonance, or flatness; (2) diminished resonance, or dulness; (3) increased or vesiculo-tympanitic resonance; (4) tympanitic resonance; (5) amphoric resonance; and (6) cracked-metal resonance. These were discussed in succession.—Dr. DOUGLAS POWELL (London) said it was a pity Dr. Flint did not lay down general laws, rather than refer to particular cases. Many of the sounds of prolonged expiration heard in bronchitis and emphysema were really *râles* produced by an interruption of the current of air passing down the tubes; and often there was no such sound if it was not interrupted. With regard to bronchial and cavernous breathing, all had seen the fixed character of the chest in pneumonia, and in lungs which had caverns in them; it was impossible to explain the sounds heard over such lungs by the to-and-fro passage of air; but these sounds might occur by conduction from the glottis.—Dr. D'ESPINE (Geneva) thought that Dr. Flint's paper pointed to the uncertainty of always knowing whether we are listening to a bronchial or a vesicular sound. He had been taught in Germany that, when the sound came from the lung, the consonant V could be used with the sound produced; but, if from the bronchial tubes, the aspirate H could be produced with the sound. The binaural stethoscope was a great aid to diagnosis, as, by its means, the [illegible] sounds of the chest were best detected; but to the ear alone, or an ordinary single tube, the deeper sounds were given off.—Sir WILLIAM GULL (President) asked if it were possible to diagnose a cavity in the lung by any means whatever; or to distinguish always the sounds over a cavern from those over some bronchial tubes.—Dr. MAHOMED (London) said that students had great difficulty in distinguishing chest-sounds. What was wanted was a correct definition of the terms in general use; and, if the Congress were to appoint a committee to determine the meaning of those terms, it would be a

good step in the right direction. For instance, "rhonchus" and *râles* were in many text-books used synonymously; also the terms "bronchial and cavernous respiration". Again, "pectoriloquy" was limited by some to the transmission of whispered sounds, as compared to that caused by the resonance of the larynx. Numerous other examples showed that the confusion of terms was extreme. Dr. THEODORE WILLIAMS (London) said that, before arriving at the conclusions which Dr. Mahomed desired, it would be necessary to unite in using and speaking of one code of instruments. All the first works on auscultation were written when one instrument, the simple tube, was in existence; but now there was in very general use a binaural stethoscope, manufactured of totally different material, which conveyed to the ears sounds totally different from those of the single one; and, further, the description of sounds detected by these instruments did not correspond.—Dr. FLINT, in reply, said that, as regards bronchial and cavernous respiration, Skoda said they were the same in character; but he (Dr. Flint) thought the one was distinct from the other. Bronchial respiration was high-pitched, tubular; and the expiratory sound was also high-pitched. Cavernous respiration was low in pitch, non-tubular; and the expiratory sound was still lower in pitch, and also non-tubular. He agreed with Dr. Mahomed's suggestion. Bronchophony and pectoriloquy were often confounded; and a committee would do good, if they settled the value of the terms. As regarded the stethoscope, the binaural had a great advantage over the single one; as, although the area of sounds was limited with the former, still it distinguished chest-sounds to a remarkable degree. Dr. Flint had used it for a quarter of a century, and advised its use. Although the instrument did give off a sound of its own, still the mind soon became accustomed to the sound, and finally disregarded it.—Sir W. GULL proposed, "That Professor Ewald (Berlin), Professor D'Espine (Geneva), Dr. Douglas Powell (London), Professor Austin Flint (New York), and Dr. Mahomed (London), do constitute a committee to consider, and, if possible, to fix on, some definite terms to be used in auscultation of the chest, so as to form an uniform nomenclature; and to report the result of their labours to the next Congress, wherever that may be held." This was carried unanimously.

On the Value of Baccelli's Sign, "Pectoriloquie Aphonique" in the Diagnosis of Fluid Effusion into the Pleura. By R. DOUGLAS POWELL, M.D., F.R.C.P. (London).—The object of the present note was to record the author's experience respecting a physical sign to which great importance had been attached by Dr. Baccelli (*Archivi di Medicina*; Roma, 1875), as a means of ascertaining the nature of fluid effused into the chest. Dr. Baccelli maintained, that in a case of pleuritic effusion, if the whispered voice were well-conducted and pectoriloquous in character when listened to through the thickness of the fluid, that fluid might be certainly regarded as serous. And, on the contrary, if the whispered voice were ill-conducted, or inaudible, the fluid would be found to be purulent. Dr. Gueneau de Mussy, in an able criticism of Dr. Baccelli's paper (*Union Médicale*, Jan. 4 and Feb. 17, 1876), agreed as regards the clinical utility of this sign. A brief reference to eight cases was given, in which the author had taken the opportunity of ascertaining the presence or absence of Baccelli's sign, immediately before the withdrawal of fluid from the chest. The conclusion was to the effect that, although of considerable value in association with other signs, yet Baccelli's sign is by no means pathognomonic.—Sir WM. GULL alluded to the present uncertainty as to the phonetic sounds produced by fluids of different characters and tensions in the chest. Waves of sound were transmitted to a fluid if a tense membrane were stretched between them; and the intensity and character of the sounds depended on the tensity of the membrane, on the density of the fluid, and the free access of aërial vibrations to the membrane. In cases of dulness on percussion of the chest-wall, the dulness was due either to solid lung or to the presence of fluid; and the diagnosis was generally determined by the presence or absence of ægophony, and pectoriloquy.—Dr. EWALD (Berlin) agreed with Dr. Powell that Baccelli's sign was not sufficient to make a satisfactory diagnosis of pleural fluid. He had heard it where there was no effusion; and, on the other hand, he had not heard it where there was effusion; and the only efficient means of diagnosis was puncture.—Professor SEMMOLA (Naples) said that, in his observations, he had plentifully confirmed the diagnostic value of the symptom indicated by Dr. Baccelli.—Dr. THEODORE WILLIAMS (London) attached great value to Baccelli's sign. He had distinctly by it been able to diagnose pus from other effusions; but also, at times, it had failed him.

The Treatment of Phthisis by Residence at High Altitudes. By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P. (London).—The author first alluded to the effects of great altitudes (12,000 to 20,000 feet) on the human frame, and contrasted them with those of more moderate altitudes (from 4,000 to 10,000 feet), deducing that all advantages of mountain-climates, without their disadvantages, could be obtained at moderate elevations. Statistics were given of cases of phthisis treated by residence at Davos and in the South African uplands, and instances to illustrate the chief climatic effects on the various organs of the body. The influence on the skin is seen in the tanning of the complexion even during winter, which is due to the diathermancy of the air; and in the bracing effect on the sudoriparous glands, causing cessation of night-sweats. Appetite is greatly increased, except in advanced cases of phthisis; and a gain of flesh (from 7 to 25 lbs.) is the result. Daily exercise and frequent mountain-ascents develop the muscular systems largely. The nervous system is stimulated, and not unfrequently becomes over-excited, and want of sleep follows; but, as a rule, less sleep seems necessary at high altitudes. In healthy persons or ordinary chronic cases of phthisis, there is little change of temperature. Where there is a tendency to pyrexia, the exciting influence of the climate develops it; and, if pyrexia already exist, it may increase. Mountain-climates are generally contraindicated in pyrexial phthisis. In consumptives, there is quickening of the pulse, followed later by a return to the normal rate, with a fuller vascular system and a more powerful cardiac impulse. At the commencement of residence, the respirations are more frequent than in the plains; after a time, they gain in depth and diminish in frequency, returning to the normal standard as a gradual expansion of the thorax and lungs occurs. There is nothing remarkable about the respiration-rate of natives. Widening of the chest has been noted by various observers. This expansion was noticed by Dr. Ruedi in ninety-five out of one hundred and five consumptives who passed the winter of 1880-81 at Davos, all stages and conditions of phthisis being included. It may be concluded, therefore, that the enlargement of the thorax is due to direct expansion of its walls from external pressure. The amount of increase in circumference varies from one to three inches. Measurements and tracings had led the author to the following conclusions. 1. As a rule, the portions of the chest-wall overlying the *healthy* lung most frequently undergo dilatation. 2. This may be either in an antero-posterior or lateral direction, or sometimes in both directions. 3. It is more common in the upper regions of the thorax than the lower. 4. If the disease be limited to the apex of the lung, the lower portion of the chest on that side may become expanded, this leading to very remarkable deformities of the thorax. The length of time this expansion continues after a return to low levels varies. In the majority of cases, it is of long duration, and probably permanent. The changes in the thorax are accompanied or preceded by marked increase of resonance over the whole chest, diminution of dulness over the affected areas, the substitution of dry sounds for moist, and the appearance of (emphysematous) crackle around the old lesions, often masking other sounds. The tendency of cavities to contract does not seem greater than in patients treated at low levels. Over the healthy parts of the lungs, the breath-sound becomes harsh and puerile, the inspiration very long, and the expiration short and feeble. Bronchophony and bronchial breathing become less distinct. The appearance of the thorax is striking; the intercostal spaces are hardly seen; the chest is full and well developed, but differs from the barrel-shaped form of large-lunged emphysema.—Dr. NORMAN CHEVERS (London) said that the principle of expanding the chest had long been recommended as a prophylactic measure in phthisis. A high site for phthisis must not be in a tropical or hot climate. High climates alone tried the heart and lungs very severely. Cases of advanced phthisis almost invariably proved fatal within three months after their arrival in India; but persons with healthy lungs, notwithstanding they might have a hereditary tendency to phthisis, generally escaped the disease by taking up their residence in India; but, as Dr. Ewart agreed, they were peculiarly prone to dysentery.—Dr. HERMANN WEBER (London) remarked that Dr. Williams had strikingly illustrated one of the important effects resulting from prolonged stay in high elevations in cases of phthisis. He could entirely corroborate this experience as occurring in a certain proportion, though not in all cases. He had, in addition, experienced that the expansibility of the chest became augmented; that, in some cases, the difference between the greatest circumferences of the thorax two inches above the nipples during perfect inspiration and expiration had increased. Dr. Weber regarded this as the result partly of increased power of the respiratory muscles, partly of increased elasticity of the lung-tissue. He had observed similar changes, though not so great, in cases which had made favourable progress in lower regions. As to the cause of the favourable results obtained in high regions, he thought that climbing had very little to do with them, but that three great factors had to be considered—viz., relative absence of impurity or of matter producing fermentation, dryness, and rarefaction. He did not mean to say that high altitudes were the only localities suitable to the treatment of consumptives, but that good results could be obtained in many cases at the Riviera and Algiers,

and on sea-voyages—in fact, wherever the air was tolerably aseptic; and that in many cases, especially with a strong hereditary element, no climate could prove curative. Careful medical supervision was everywhere one of the most important and most necessary elements; and by careful attention to the frequency and suitability of meals, to the purity of the air in the living-rooms, and to arrangements with regard to exercise and open-air life, good results were obtained occasionally even under less favourable climatic influences.—Dr. LONGHURST (London) said that the desired conditions for consumptive patients were those which would strengthen the whole frame and system, and thus aid nature in throwing off the consumptive habit or disease. Such conditions were to be found in climatic states which insured a warm dry atmosphere, an equable temperature by day, and as little variation as possible between day and night—a condition which would allow, so far as possible, a life in the open air. Suitable clothing, diet, and exercise were important auxiliaries. As to the nature of cases likely to be benefited by high altitudes, it is most important to investigate thoroughly the conditions of health of the sufferer, hereditary tendencies, and states of the other organs of the body, and their functional actions. In those of hæmorrhagic diathesis, or in whom the first sign of tubercle had been hæmorrhage, the frequency of respiration experienced on first residing in a mountain locality would be likely to induce hæmorrhage. It was also most important that the functions of the liver and digestive system be healthy. Cases accompanied with torpid liver and enfeebled digestion were often not benefited. With regard to the increased thoracic expansion, he thought that reliable observations on this head should be made on persons over thirty years of age. Climate during winter in mountain elevations unfortunately varied very much in different years, being sometimes cold and stormy and wet, with frequent fogs. His opinion was that the effects of a residence in high altitudes in phthisis were palliative rather than curative; and, in the earliest suspicion of a consumptive habit or symptom, a long sea-voyage or voyages, and lengthened residence in a healthy climate, offered far greater hope for cure than a residence at high altitudes. He had arrived at such conclusions after careful consideration of the subject, and after lengthened residence and observation of phthisis in both Africa and India, two winters in the Himalayas at a height of between 7,000 and 8,000 feet, and several summers in those mountains.—Dr. ALAN HERBERT (Paris) related the case of an old gentleman, returned from Davos, who consulted him on his way home to England. As soon as he had arrived in Davos, his health was good; but, on returning to the lowlands, he had great dyspnœa. On consultation with a medical brother, they found he had slight pleurisy, and that there was also that condition of heart and arteries which, together with slight albuminuria, showed the presence of interstitial nephritis. Treatment by compressed air was tried, and with good results so long as he continued in such an atmosphere; but there was such a serious condition on a return to air of less pressure, that the treatment dare not be continued. He died three weeks afterwards. He took this case as a counterindication to high altitudes in cases of defective circulation; for, as Dr. Theodore Williams remarked, one of the first results of high altitudes was quickening of the pulse and a fuller condition of the arteries. Therefore careful examination of the heart and vessels was necessary before sending cases to reside on the hills.—Dr. THEODORE WILLIAMS did not reply, owing to want of time.

A vote of thanks to Sir William Gull for presiding was moved by Dr. NORMAN CHEVERS, and carried unanimously.

AN inquest was held last week on the body of Dr. Ernest Powell Wilkins, well known in the Isle of Wight, who, it appeared, died from the effects of an overdose of opium. The jury returned a verdict to the effect that it was inadvertently taken to allay nervous irritability.

DONATIONS AND BEQUESTS.—Lady Harriet M. Scott Bentinck has given £2,000 to University College Hospital, £1,000 to St. Mary's Hospital, £1,000 to the Royal Hospital for Diseases of the Chest, and £700 to the North Eastern Hospital for Children.—The Princess Frederica's Convalescent Home has received £482 1s., the proceeds of an entertainment at Hampton Court Palace on the 5th instant.—Dr. Thomas Rudford of Higher Broughton, bequeathed £200 to be applied under the direction of the medical committee of St. Mary's Hospital, Manchester, in the purchase of cases, etc., to be placed in the Radical Museum at the said hospital.—Mr. Octavius E. Coope, M.P., has given £100, Mr. G. S. Gibson £100, Mrs. Packe 50 guineas, and Mr. John Berners £50, to the Eastern Counties Asylum for Idiots at Colchester.—Mr. A. Skinner has given £3 12s., additional, to the City of London and East London Dispensary.—The Rev. R. Stewart Gregory has given thirty guineas to the Royal Hospital for Diseases of the Chest.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, AUGUST 27TH, 1881.

VIVISECTION.

THE time seems now to have arrived when the medical profession, as a whole, ought to make a firm stand against the arbitrary and eminently hurtful manner in which the Home Secretary interprets the recent Act on vivisection. When this Act was passed, the medical profession were assured that it would be worked in such a way as to allow men fully qualified to carry on the necessary investigations to obtain a licence, and every facility for carrying on such researches, in any department of medicine, in such way as might seem to them to afford reasonable prospect of advancing scientific medicine, and, therefore, of alleviating the sufferings of afflicted humanity.

The experience of the last few months' working of the Act has certainly tended to dispel this view. The present Home Secretary seems bent upon defeating the highest aims and aspirations of the few medical men who find it worth their while to seek the advancement of their profession, even amidst the showers of personal scurrilities that are heaped upon them by "hysterical and hired" agitators, who do not scruple to exaggerate statements, and to invent false ones, to support their propositions—and themselves—before the eyes of a few talented but eminently misguided individuals, and a large array of sentimental people, who have not the courage to carry their principles to their legitimate end, and seek the abolition of field-sports, pigeon-shooting, and innumerable other pastimes which are practised by all and sundry. The timely warning of Virchow must not be lost sight of. His address to the International Medical Congress was a masterly exposition of what anatomy suffered in its progress from fetters of a different yet progress-retarding nature; and he showed how easy the retrograde step might be taken under the influence of sentimental legislation. It was no mere Cassandra-like warning that the great German pathologist proclaimed in his philosophical defence of the experimental method of investigation. Anatomists and pathologists alike may one day find their means of instruction and investigation trammelled and fettered, under the guiding sway of a hysterical sentimentality.

When such eminently qualified men as Professor Thomas R. Fraser of Edinburgh, Dr. Lauder Brunton, and Professor Lister, are refused certificates for carrying on investigations which they declare to be of the highest value to medical science, then it is time that the medical profession should support them in their praiseworthy efforts to obtain that liberal interpretation of the obnoxious Act, which will admit of good work being done, even under difficulties. The effects of prolonged agitation and clamant outcry have of late been amply illustrated in connection with other matters; and if the medical profession will only make a firm stand against the present tactics of working the Act, they may yet secure that liberty and right of experimentation which is absolutely necessary to the furtherance of medicine and surgery. The International Medical Congress and the British Medical Association will not have failed of their purpose, if the resolutions in favour of the continuance of vivisection passed in the Materia Medica and Physiological Sections of the former, and [illegible] Professor Humphry—in a general meeting of the latter, bring them to high places to a consideration of the [illegible] which they

are carrying out towards medical men, and humanity at large. Surely the powerful voices of Simon and Humphry will be listened to, and redress given at once. If not, medical men must agitate and combine, until they obtain complete freedom to carry out their investigations in the spirit that animated Harvey, Hunter, and Claude Bernard.

THE NOTIFICATION OF INFECTIOUS DISEASES.

THE unceasing efforts which have been made by our Association, since the first establishment of its Registration of Disease Committee, to secure the enactment of a general law binding householders to report every case of infectious disease in their households to the sanitary authority have unfortunately not yet had their full fruition, though the introduction in the present session of Mr. Dwyer Gray's Bill to provide for such notification in Ireland has paved the way for legislation on this subject next year. The Government, whilst unwilling to take any direct steps themselves, do not seem to look unfavourably upon private efforts in this direction; and there is certainly great hope for a fair consideration next session of the Bill which is intended to be introduced on behalf of the Association to test the feeling of the House of Commons on this important question. Meanwhile, it is eminently gratifying to notice the unvarying chorus of praise in which the medical officers of health of towns where the system of notification is in force under local Acts speak of its working. Thus Mr. Iliffe, of Derby, who has more than ordinary difficulties to contend with in consequence of the reluctance of the Town Council to build a proper hospital for infectious diseases, expresses, in his last annual report, his belief that the operation of the infectious sections in the Derby Improvement Act of 1876 has materially contributed towards diminishing the number of cases of illness, as well as the number of deaths from fever, etc. It has certainly been of practical value in bringing to light many unsanitary conditions existing in houses and areas, which might otherwise have been overlooked until further disease or death had taken place; and it has enabled the spread of infection to be stopped in many localities, by the adoption of means of isolation, disinfection, etc., and also by keeping children likely to spread disease from attending school and other public resorts, a danger that was formerly only too common. It has been the means of frequently tracing the course of disease, and the origin of the various attacks; and it may be that in the future it may contribute materially towards saving the town from wide-spread epidemics. Moreover, by it many sanitary defects in drainage, water-supply, and the disposal of refuse have been brought under notice and remedied; and the early information of infectious diseases has operated most beneficially on the public health, particularly in instances that more especially have needed intervention, viz., in those localities in which accommodation for isolation was most defective, and therefore where the efforts of the sanitary staff in trying to prevent the spread of these diseases were most strenuously directed. But, beyond these beneficial and practical uses, the notification of disease is also of material interest to the statistician, enabling him to detect the proportion of deaths to attacks, and whether an epidemic is virulent or not; also, at what period of an epidemic a disease is most fatal. He is further in a position to determine whether a town like Derby is ever free from cases of some kind of infectious disease, although the death-list may not for a long period indicate that such disease exists. Scarlet-fever, as a disease of this character, may be particularly referred to; and a good instance of the kind was shown in the last quarter of 1880, when fewer deaths but nearly double the number of cases of illness occurred from this particular disease. "One might be lulled into fatal apathy by relying on the state of the death-table alone, if not kept fully alive to 'breakers ahead' by the notification of infectious diseases."

Mr. Iliffe says that the objections to the Act have been few and far between in Derby. What at first was feared would be an infringement of the liberty of the subject and an invasion of privacy has, by judicious management, turned out in practice to be entirely the reverse. Instead of repulse on visiting houses where infectious disease was known to exist, as a rule thankfulness and gratitude have followed the steps of the medical officer and his inspectors. On the part of the general public, it may be said that opposition has been *nil*. On the part of the medical men, with but one exception, the greatest assistance has also been given. It was hardly to be expected that in every instance a medical man in busy practice can always be accurate and expeditious in his certificates; and it has, therefore, been only when the case appeared to arise from contumacy that steps have been taken to vindicate the authority of the committee. Fortunately, in only one instance was it found necessary to apply legal pressure, and in that case it appeared that there was no desire to evade the law, but an ignorance only as to the application of the Act. Testimony such as this cannot be without its effect upon the minds of our legislators; and if, as we hope and expect, the whole question is referred next year to a Select Committee of the House of Commons for consideration, a body of evidence, well nigh irresistible in its teaching, as to the benefits of compulsory notification, will be adduced, from all parts of the kingdom.

THE WOUND OF THE PRESIDENT OF THE UNITED STATES.

THE reports of the condition of President Garfield during the past week have been of a nature to excite the most serious apprehensions as to the ultimate results of the injury to which he has been subjected. The wound itself does not appear to have presented any fresh features of gravity. All the accounts agree in stating that the surface of the track of the projectile is granulating and contracting healthily; that the suppurative discharges are normal in character; and that, had it not been for the irritation more or less inseparable from the presence of the lodged bullet—which, however, does not give rise to any pain—the wound would apparently have now been entirely healed. But, in spite of all the remedies which have been employed, the digestive organs have not recovered their tone; and, on the whole, there has been a progressive increase of wasting and general debility. The only nourishment swallowed has been in a liquid form, and this at intervals has been rejected by the stomach. When it is remembered that it is now the eighth week since the wound was inflicted, such a condition of the patient is necessarily calculated to cause the greatest anxiety. Moreover, since the 18th instant, there has been mention in the telegrams of inflammation having occurred in the right parotid gland. The inflammation does not appear to have assumed an active character; on the contrary, it is described as painless, and the swelling and hardness of the gland are spoken of in the later telegrams as continuing stationary. This occurrence, it need hardly be stated, is itself sufficiently indicative of the very debilitated condition to which the patient has become reduced. Altogether, notwithstanding the official bulletins contain repeated accounts of slight changes for the better, and are generally couched in encouraging terms, it is evident from the symptoms mentioned, especially from the prolonged failure of the digestive organs, the continued feverish irritation, and the extremely weak condition of the patient, that the prospect of the President's recovery is now exceedingly unfavourable.

We cannot pretend to say, with the amount of information before us, to what special circumstance the extremely reduced condition of the President is to be mainly attributed. A suppurating gunshot-wound, in a situation which involves the necessity of confinement to bed, will unavoidably entail a certain amount of constitutional depression and physical weakness; but, unattended as the wound in the present instance seems to have been by any very grave complications in its progress; free from the exhausting effects of severe pain; and remembering, too, the specially favourable circumstances in which the patient is placed as regards opportunities of surgical skill, nursing, and sanitation, neither the wound itself, nor the confinement arising from it, appear to be sufficient to explain the extremely weak and emaciated condition in which the President is described to be. Some suspicions seem to have been felt regarding the hygienic condition of the Executive mansion at Washing-

ton, in which the patient is placed: for references have been made, in some of the reports which have reached this country, to practical investigations having been instituted on this subject. We know by experience in our own country, that it is not always the largest and most imposing mansions which are the most free from sanitary defects. Has the continued use of the carbolic acid in the dressings applied to the wound had any part in producing the constitutional condition of the patient? is a question which may be asked; for, unquestionably, this agent does seem to exert a special toxic effect on certain individuals. Was the President really in the hale and sound condition of body in which he was supposed to be at the time when he was struck down by the pistol-bullet of his intended assassin? Is the condition of the wound as entirely satisfactory, and is the escape of the discharges as thorough, as they are described to be? These, and many other such questions, will occur to the minds of persons who try, on a consideration of such particulars of the case as the telegraphic despatches describing the successive phases of the wound and its consequences have furnished, to account for the critical condition in which the President of the United States is now placed. No satisfactory solution of such inquiries can be arrived at, until we are in possession of a more complete professional history of the whole case, and especially of its treatment, than has yet been afforded us by those who are in immediate charge of the distinguished patient, whose wound has excited such widely spread interest and sympathy.

THE Congress at Cologne on the Law of Nations has passed a resolution in favour of the metric system of weights and measures.

A NEW hydropathic establishment, erected at a cost of £20,000, has been opened at Baslow, near Sheffield, by Alderman Ward, in the absence of the Duke of Rutland through indisposition,

IT is officially announced that the Queen has been pleased to appoint Dr. James Reid, junior, of Ellon, Aberdeenshire, to be resident medical attendant to Her Majesty, in the room of Dr. W. Marshall, resigned.

DURING the first six weeks of the current quarter, the metropolitan death-rate averaged 24.2 per 1,000, against 17.3 and 21.6 in the corresponding periods of 1879 and 1880.

THE Improvement Commissioners at West Hartlepool have decided to at once inclose, drain, and fence the land for the Jaekson Memorial Park, and also to ask the Local Government Board for permission to borrow £1,700, the estimated cost of the works.

THE Council of the Liverpool University College, incorporated by Royal charter, having collected £100,000 for the endowment of chairs, have purchased a site for £19,000 covering 13,000 square yards, on which they propose that the Liverpool Municipal Council shall erect the buildings necessary, and let the same to them on a lease of 75 years at a nominal rent.

DR. DAVIDSON, Physician to the Liverpool Infirmary, records, in a reprint which we have just received, two cases of locomotor ataxy treated by stretching the sciatic nerves. In the first of them, there was a decided improvement in the ataxic symptoms, and absence of lightning pains and gastric attacks subsequently to the operation; in the second case, an unpromising one, there was no advantage derived.

THE Government of India has for the present refused to award the prize of £100 which it offered some time since for the best "manual of hygiene" for the use of the British soldier in India. Thirty-seven manuals were sent in for the competition, but the judges decided that no one of them was in all respects suitable for the purpose for which a manual was required, as prescribed in the notification offering the prize.

THE Committee of the Westminster Training School and Home for Nurses make a special appeal for assistance. The Committee have now an opportunity of securing an eligible site in the vicinity of the hospital on which a suitable building may be erected, and they appeal to public benevolence for the double purpose of supplying the funds necessary to meet the annual deficiency, and to enable them to carry out their object of erecting a Home for the nurses.

A DEPUTATION of gentlemen engaged in shipping, and residing on the banks of the Thames between Gravesend and Woolwich, informed the President of the local Government Board on August 19th that the sewage from the Crossness and Barking outfalls is creating a great nuisance, and is deleterious to health. Mr. Dodson remarked that there was no evidence of increased sickness or of length of life being abridged, but he promised to consider the statements that had been made.

THE Brighton Corporation, accompanied by the Mayor, made an official inspection last week of the new Sanatorium, erected within ten weeks, at a cost of £5,000, upon a site near the parochial cemetery. The structure consists of three blocks—one for male, one for female patients, and one for offices. It was at first proposed to erect a much larger one, at three times the cost; but the new building will, it is thought, meet all the requirements of the case for some time to come.

ON Saturday afternoon last the Queen, accompanied by Princess Beatrice, and attended by Lady Abercromby, the Hon. Horatia Stopford, Lieutenant-General the Right Hon. Sir Henry Ponsonby, K.C.B., and Major-General Du Plat (Equerry in Waiting), visited the Royal Victoria Hospital at Netley. Her Majesty embarked at Trinity Pier on board her Majesty's yacht *Alberta*, Captain Thomson, and on arrival at the hospital was received by Colonel Sir Chas. Pearson, K.C.M.G., and Deputy Surgeon-General M. F. Manifold, who conducted Her Majesty through several wards which were occupied by wounded and sick men from Afghanistan and the Transvaal.

THE Queen has signified her pleasure to confer upon Mr. Mac Cormac, of St. Thomas's Hospital, Honorary Secretary-General of the late International Medical Congress, the honour of knighthood. This prompt and gracious mark of favour, recognising a public professional service, involving arduous, prolonged, and exceptional labour, performed with singular ability and zeal, will be welcomed by the medical profession, not only as a tribute to the personal deserts of Mr. Mac Cormac, but also as a recognition of the important position taken by our profession on the occasion of the great scientific gathering from all the quarters of the world.

DEATH OF MR. JAMES LUKE.

MR. JAMES LUKE, consulting surgeon to the London Hospital, died at his residence near High Wycombe, on August 13th, aged eighty-two. He was admitted a member of the Royal College of Surgeons in 1822, and in the following year was appointed lecturer on anatomy at the London Hospital. In 1827 he was elected assistant-surgeon, and in 1833 he became one of the principal surgeens to the hospital. In 1843, he was elected a fellow of the Royal College of Surgeons of England. He subsequently became a member of the council, and of the court of examiners, and has filled the office of president of the College on two occasions.

THE STOCKWELL HOSPITALS.

THE annual reports of the medical superintendents of the Stockwell Fever and Small-pox Hospitals have just been issued by the Metropolitan Asylums Board. The report of Mr. McKellar on the fever hospital is extremely brief. During 1880, 882 persons were admitted, 824 discharged, 126 died, and 2 were transferred to the small-pox hospital. Of the 126 deaths, 12 occurred within 24 hours of admission. The general death-rate was 13.8 per cent. Three persons, admitted with scarlet fever, developed measles a considerable time after admission. The first case of this kind was a woman who said that her children at home had measles; the other two cases were in the same ward, and, no doubt, caught the illness from her. Two young children, admitted

with scarlet fever, developed small-pox a considerable time subsequently, but while they were not yet free from scarlatinal desquamation. One of them also had measles, as already mentioned. All five of these patients recovered.

THE CLIMATE OF THE UNDERCLIFF.

At the *déjeuner* given to the members of the British Medical Association at Steephill Castle, on August 13th, the Chairman, Dr. Martin, after some graceful words of welcome to the guests, made some interesting observations on the climate of the Undercliff, which are of much medical interest.—"I have been asked to make some reference to the Undercliff of the Isle of Wight, in which we are now located; but I feel great diffidence in doing so, as the object of this meeting is to do honour to the members of a great profession, and not to give a lecture on the beauties and advantages of a tract of ground which stands alone in its formation, if I except a somewhat similar subsidence of land, I believe, to be found in the Crimea. There may, however, be claimed for the Undercliff scenery of the most charming character, possibly some part of it unrivalled. A wonderfully equable climate; sea-air, which for its purity perhaps is unequalled—standing, as the Undercliff really does, out at sea, and uninfluenced, as it is, by littoral contamination, which but too frequently affects sea-side localities;—a mildness of temperature in the winter, and coolness during the summer, which is hardly realised elsewhere: the maximum temperature during the scorching days of the last month never having exceeded 78°;—a dry soil, an abundant supply of the purest spring-water, and a mild yet tonic atmosphere—these, gentlemen, are advantages of no inconsiderable import; and they have told, and will continue to tell, in its favour as a place of health-resort."

GUY'S HOSPITAL.

Old Guy's men will learn, with regret, that Sister Clinical, who for about twelve or fourteen years has performed her duties with unwavering fidelity, patience, and kindness, has been called upon by the Governors of the hospital to resign her position, because, if is alleged, she is unable to work with the matron. We understand that the medical staff, by their representatives on the taking-in Committee, protested and voted against what they considered to be an act of injustice towards a valued sister, but that they were overruled by the governors, whose confidence in the matron appears still blind and unlimited. It will be remembered that this sister was singled out early in the strife of last year as one to be discredited, but the allegations made against her always fell through; and it must have been awkward for one in authority over her to bear with a sister who had successfully refuted all charges made against her. The injustice of the present proceeding seems to be acknowledged in the act, since, whilst being called upon to resign, the sister is offered a twelve months' salary to retire. If, as we understand is probable, a testimonial should be raised in recognition of her past services, she will not be likely to suffer by dismissal; but the incident again points to the unamiable and unworkable character of the present matron. The governors and staff have met together to reconsider all the rules for the nurses, and seemed surprised to find how little there was to differ upon; but the head of the nursing department is as unpopular as ever, and requires still that valued sisters and nurses should be dismissed to prop up an authority which rests neither on love nor respect. It is remarkable that, when all the world has seen what change is required, those who have the power still seem unable to comprehend where the original mistake was made.

NEW INFECTIOUS HOSPITAL FOR IPSWICH.

Although the existing fever hospital at Ipswich has, thanks to the energy of Dr. Elliston, done good service in its time, it has for some time been felt that it was not of so commodious and permanent a character as was needed for the requirements of the district. Accordingly, a new hospital has been erected on the hills to the east of the town, and this was opened by the mayor with some ceremony on the 18th instant. The hospital stands within a spacious area recessed from the road; and consists of four blocks of buildings, the central block being devoted to the administrative department, residence of the porter and housekeeper, and rooms for a resident medical man and nurses, should it be necessary to employ them during an epidemic. The remaining three blocks, which are approached from the centre block by covered passage-ways, open at the sides, each contain two wards, so that there are facilities for treating at the same time patients of both sexes suffering from three different diseases. In each block, the nurse's room is situate between the wards, and the requisite offices are provided. There are four beds in each ward, making twenty-four in the hospital, but the number could be increased upon pressure. The walls internally are lined with glazed bricks, the rooms are well lighted and ventilated, and every means is taken to diminish the risk of infection.

HOSPITAL ARRANGEMENTS.

The newspapers report at some length an inquest which was held this week on a cabman, who died from injuries received by being thrown from his cab. He was taken to St. Thomas's Hospital, where a surgeon examined him, ordered a dresser to strap his side, and directed him to come next day. The following morning he became worse, and was taken to St. Mary's Hospital, where it was found he had five broken ribs; and he shortly afterwards died. The jury expressed regret that a more efficient examination was not made at the first-named institution, as this would probably have resulted in the discovery of the fractured ribs, and the man's admission as an in-patient. Before commenting on this event, which has given rise to severely critical comments in the daily papers, we should be glad to know what explanation, if any, the hospital authorities have to offer. There has been lately a notable increase of cases in which surgical injuries of a severe but sufficiently obvious character have been overlooked by dressers and house-surgeons, and the patients recklessly sent adrift. St. Bartholomew's, the Middlesex, and now St. Thomas's Hospital, have furnished their quota. Is the race of house-surgeons deteriorating? Or must more stringent regulations be instituted for ascertaining the competence of those who are appointed to these important offices, and more efficient means of making them realise their great and twofold responsibility? Their duty to the public and their duty to the hospital, whose fair fame and character are in their hands, should make house-surgeons and dressers realise the fact that the examination and treatment of "casualties" applying for relief at a public hospital is one of the gravest charges which can be assumed by any man at any period of his career—almost too serious, possibly, for the very young men to whom it is now often intrusted.

COOKERY FOR INVALIDS.

The attention of the authorities of St. Thomas's Hospital has always been directed to promote as much as possible the comfort of their patients. This idea has now, we read, taken a very practical form, for a class will commence on Tuesday, September 6th, of nurses belonging to this hospital at the National Training School for Cookery, Exhibition Road, South Kensington, to receive instruction in the details of sick-room cookery, which will, no doubt, much promote the labours of the medical staff, and provide for the patients suitably prepared food to meet the necessities of the case. This is one of the first classes that has been sent from an hospital for instruction in this most important but much-neglected branch of cookery.

DEATHS IN PUBLIC INSTITUTIONS.

In workhouses, hospitals, and public lunatic asylums, 13,278, or 11.0 per cent., of the total number of deaths in England and Wales were registered last quarter. This proportion exceeded that recorded in any recent corresponding quarter. In the twenty large towns, 6,962, or 17.9 per cent., of the deaths were recorded in the principal public institutions; the percentages in the several towns ranged from 7.1 and 7.5 in Sunderland and Bradford, to 19.7 and 22.4 in Manchester and London. Excluding the twenty large towns, the proportion of institution deaths in the rest of England and Wales did not exceed 7.7 per cent.

THE WORKING OF THE SALE OF FOOD AND DRUGS ACT.

THE just issued report of the Local Government Board contains the usual interesting annual statement as to the analyses of food and drugs performed by public analysts throughout the country in the course of last year. The total number of such samples is given as 17,673, or about 500 more than in 1879. After referring to the extremely partial manner in which the Act is made use of in different counties, the Board urge the importance of local authorities bestirring themselves to procure samples, experience proving that, where this is not done, the Act is scarcely carried out at all. Ordinary purchasers, except in a very few instances, are not found willing to incur the expense and trouble of analyses; and the official purchases amount, indeed, to as many as 97 per cent. of the whole. The proportion of adulterated articles, which fell from 19.2 per cent. in 1877 to 17.2 in 1878, and 14.8 in 1879, again rose to 15.7 in 1880. This result is principally accounted for under the two heads of milk and butter. More than a third of the whole number of samples analysed were of milk, and the percentage of adulterated samples was as high as 21.4, and in the metropolis 27.5. In the City, 16 samples out of 26 were reported against; and in Woolwich 43 out of 81; whilst in St. James, Westminster, all the samples were found genuine. Of the eight most populous provincial towns, Birmingham has the largest proportion of adulterated samples (39 out of 82), Manchester coming next with 35 out of 119. The fact that the milk-trade is largely in the hands of petty dealers has probably led, in some instances, to leniency as regards the amounts of penalties imposed; and the frequent repetition of the offence by the same persons shows that they often find it profitable to pay the fines and go on adulterating. In one case that came before the courts, the milkman was not deterred by seven previous convictions, under which he had paid an aggregate of over £70 in fines alone, and on the eighth conviction was mulcted in the full penalty of £20 and costs. The Board report that the provision of the Act of 1879, authorising the taking of samples at railway stations before delivery to the retailers, has proved very useful, by enabling the dairyman to protect himself against the consignment to him of adulterated milk. It is not surprising to find that samples taken at the railway stations are, as a general rule, of much higher quality than those bought from the retailers. At Liverpool, only 2 of 80 samples so taken were not genuine, and the average quality was at least 15 per cent. richer than the average of milk sold by retailers. Of the samples of bread, about 6.4 per cent. are reported against, the adulterant being generally alum. In one sample, the Essex analyst found no less than 1,305 grains of alum to the quartern loaf. Flour, as sold, seems to be very little tampered with, only 4 out of 409 samples being reported against, among which was some so-called "Russian flour", that consisted solely of potato-starch, with a little sulphate of lime. The Board have nothing new to say of butterine, except that English analysts generally concur in regarding it as unobjectionable on the score of wholesomeness. The percentage of adulterated samples of coffee remains about the same, chicory being still the chief adulterant. So-called coffee is often found to have from 40 to 70 per cent. of chicory in it, and one much lauded article was proved on analysis to consist of 90 per cent. of chicory and only 10 of the genuine article. All the 244 samples of sugar were found genuine, and the application of adulteration to that article would seem, therefore, to be obsolete. Only 67 samples of wine were examined, and nearly all were found genuine, the exception being some so-called "unfermented" wines, known as "Temperance drinks", which professed to be pure grape-juice, but were really mixtures of tartaric and salicylic acids, sugar, and flavouring matter. Some samples of ordinary tent wine were also examined, and found to have been brandied, one of them so freely as to contain the enormous proportion of 40 per cent. of proof spirit. Very little adulteration of beer has been detected. In the metropolis, the 127 samples examined were, without exception, reported as genuine; and in the rest of the country, the few samples reported against for the most part merely contained an excess of salt. In spirits, the percentage of adulteration remains high, though the lowness of the standards of genuineness fixed by the Act of 1879 might have been expected to lead to a different result. In most cases, water alone was added, sometimes with caromel as colouring matter. A substantial improvement was shown in drugs, the proportion adulterated being little more than half what it was in 1879. In some instances, a cheap substitute had been purposely employed in place of a costly drug, as "cinchonine" in lieu of quinine; and a good many of the samples were those of so-called "paregoric", which was reported as adulterated because they were destitute of opium. Amongst other articles, arrowroot was occasionally found adulterated with tapioca, flour, and similar substances, and oatmeal with barley flour. Tea was in some cases reported to have been made up with exhausted leaves, and to have been faced to excess; but the instances of this were so rare as to show that the examination of tea in bond by the Customs analyst has produced an excellent effect on the retail trade. On the whole, the Acts must be regarded as working exceptionally and unexpectedly well; and it may be hoped that, as private purchasers come more to see the benefits of its operation, they will themselves take the measures contemplated by the Act for their own protection, instead of leaving the collection of articles for analysis to be done more or less perfunctorily by paid officials.

AN ARGUMENT FOR VACCINATION.

THE books of the Deptford Smallpox Hospital, which institution takes patients from the whole of the parishes of the metropolis, contain remarkable evidence of the efficiency of vaccination in preventing small-pox from resulting fatally. During the six months ended June 30th last, 546 cases were admitted to the hospital. The vaccinated patients numbered 326, the unvaccinated 264, and those in which it was not known whether the patients had been vaccinated or not 46. The deaths among the vaccinated cases numbered only six, or a percentage of 2.5; whilst of the unvaccinated patients 127 died; making an average mortality of 48 in the 100. Of the 46 doubtful cases, nine died.

VIOLENT DEATHS.

THE deaths referred, during April, May, and June, in England and Wales, to different forms of violence were 4,176, and exceeded the number in either of the two previous corresponding quarters; they were equal to an annual rate of 0.64 per 1,000 of the estimated population, and to 3.5 per cent. of the total deaths. In the twenty large towns, the deaths from violence were equal to an average annual rate of 0.77 per 1,000; and the rates ranged from 0.42 and 0.46 in Leicester and Norwich, to 0.99 and 1.13 in Manchester and Liverpool.

INQUESTS.

DURING the three months ending June last, 6,459 inquest cases were registered in England and Wales, equal to 5.3 per cent. of the total deaths; this proportion exceeded that which prevailed in any recent corresponding quarter. In the twenty large towns, the proportion of inquest cases averaged 6.5 per cent.; it was but 2.9 in Oldham and 3.6 both in Brighton and Wolverhampton, whereas it ranged in the other towns to 9.9 and 10.1 per cent. in Birmingham and Manchester.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of diarrhœa in London, which had been 405, 297, and 210 in the three preceding weeks, further declined to 141 last week, and were 135 below the corrected average number in the corresponding weeks of the last ten years; they included 104 of infants under one year of age, and 25 of children aged between one and five years. Six deaths were referred to simple cholera or cholerine diarrhœa. The deaths from small-pox, which had steadily declined in the six preceding weeks from 73 to 29, rose again to 38 last week. Of the 38 persons dying from small-pox, 13 had resided in the South, 11 in the East, 10 in the North, 3 in the Central groups of districts, and one at South Acton. Four fatal cases belonged to Islington, 3 to Hackney, 3 to Mile End Old Town (all occurring in private dwelling-houses), and 14 in Camberwell. In 14 of the 38 fatal cases of small-pox the medical certificates contained no statement as to the vaccination or non-vaccination of the deceased persons. The number of small-pox patients in

the Metropolitan Asylum Hospitals, which had declined from 1,644 to 692 in the ten preceding weeks, further fell to 647 last week. The new cases admitted to these hospitals were 101 last week, showing a further decrease from recent weekly numbers. The fatal cases of measles showed an increase of 10 upon the number in the previous week, and exceeded the corrected weekly average by 26; 6 occurred in Islington, 4 in Hackney, 7 in Southwark, 7 in Lambeth, and 4 in Greenwich and Deptford. The 51 deaths from scarlet fever were 6 less than those returned in the previous week, and were 11 above the corrected average; they included 4 in Pancras, and 6 in Hackney. Three of the deaths from diphtheria occurred in Pancras. The 28 deaths from whooping-cough were 13 below the corrected average. Of the 2 deaths attributed to typhus, one was of a child aged five years, and the other was of an adult in the Stockwell Fever Hospital. The 15 deaths referred to enteric fever were 2 under the number in the previous week, and were 3 below the corrected average; 3 were returned in Hackney.

STATISTICS OF SMALL-POXAND VACCINATION.

Dr. Bernard reports that a total of 402 patients were admitted during the year 1880 to the small-pox hospital at Stockwell, 387 suffering from small-pox, and 15 from other diseases. Fifty-two died, 239 were discharged, and 111 remained under treatment at the end of the year. The mortality was 12.9 per cent. Of 292 vaccinated patients, 19 died, or 6.5 per cent.; of 24 patients whose vaccination was very doubtful, 8 died, or 33.3 per cent.; and of 86 unvaccinated patients, 25 died, or 29.0 per cent. Dr. Bernard gives a table (showing the state as regards vaccination of the children less than ten years old who were admitted as patients) which indicates very strongly the protection afforded by vaccination. Of children showing good vaccination-scars on their arms, 167 were admitted, with only 3 deaths; of those with imperfect scars, 127 were admitted, with 16 deaths; of those said to be vaccinated, 22 were admitted, with 8 deaths; whilst of 86 unvaccinated, there were 23 deaths. Dr. Bernard says that his experience at the hospital daily shows him the urgent necessity for more stringent measures being taken concerning compulsory vaccination and compulsory revaccination. He would also like to see compulsory notification and registration of small-pox and other infectious diseases. Adverting to the statements made as to the spread of small-pox from hospitals, Dr. Bernard says that he has evidence which directly proves that these statements are not founded on fact. He admits, however, that it is very probable small-pox hospitals may, directly or indirectly, be the means of propagating the disease when improperly conducted. Eleven of the patients walked into hospital: a most fertile source of the spread of the disease, which is likely to continue unless offenders are prosecuted. A very large number of visits were paid to the patients in both hospitals; and Mr. McKellar and Dr. Bernard unite in saying that, so far as they have been able to discover, no case of infection has been caused thereby.

ANTISEPTIC SURGERY.

In the course of his very interesting inaugural address at Birmingham, published in the *Birmingham Medical Review*, Mr. Bartleet discusses the influence of the antiseptic method on the progress of surgery. He speaks of it first in relation to loose cartilages.

"The operative treatment of loose cartilage in the knee-joint has been revolutionised by antiseptic surgery. Cases of this painful affection were, in times gone by, consigned to a life of discomfort, if not of suffering, on account of the risks of operative interference. Various procedures were devised to lessen these risks. It is one of the most marked triumphs of antiseptic surgery, that these operations are now undertaken, not only without risk, but also with a certainty of being free from risk. I have had several of these cases. Their operative treatment has given no anxiety, and has resulted in recovery almost invariably with a movable joint."

Further on, he discusses other uses of the Listerian system.

"The employment of antiseptics", he says, "justifies us in investigating by incision those obscure and often intractable cases of dislocation of the phalanges of the thumb or fingers. I have in two cases lately been enabled by these means to effect reduction which would, I think, have otherwise proved impossible. But to conclude my eulogy of antiseptics, which I fear may be wearisome, I must allude to antiseptic osteotomy. What subcutaneous operations have been to tenotomy, antiseptics are to osteotomy; and although bones had been previously divided both subcutaneously and through open wounds, it is unlikely that the practice of thus treating deformities would have become general, had they not acquired safety and certainty from association with the antiseptic principles and practice. With strict Listerian precautions we are able to make compound fractures in the legs and thighs (at least four in a patient) with apparently no risk to life or limb; indeed, with almost entire absence of surgical fever, we are able to chisel off the inner condyle, causing voluntarily what used to be considered not a serious, but commonly a fatal, injury: to wit, a compound fracture in the knee-joint; and, wonderful to relate, a cure results with the movements of this important and complicated joint absolutely unimpaired. We are able to treat with success otherwise incurable cases of talipes, by calmly and deliberately, and regardless of articulations, cutting or sawing a wedge from the dorsum of the foot. The case is subsequently dressed only two or three times before recovesy is complete! and all this without any rise of temperature of our patient; indeed, so safe appears the operation of antiseptic osteotomy in children, that I am told by my colleague, Mr. Chavasse, that it is not unfrequently performed in the out-patient room of our hospitals—these multiple compound fractures being treated in out-patients."

AN UNPREMEDITATED PORRO'S OPERATION.

We learn, from the *Sydney Evening News* of June 3rd, 4th, and 5th, of a case where fatal consequences followed an operation intended for the extirpation of an extra-uterine cyst, but which happened to be simply enlargement of the abdomen through normal pregnancy. The patient's death was the subject of an inquest, her body being exhumed and carefully examined by two medical men. The patient was a woman aged 32, recently divorced from her husband. One day last December, she consulted Dr. Jones of Sydney, who suspected pregnancy, but believed that she had an ovarian cyst as well. In March, he saw her again, with Dr. Schnette, and both practitioners then believed that they had to deal with a case of abnormal pregnancy. Dr. Schnette sent her to the Benevolent Asylum, Sydney, where she was placed under the care of Dr. Warren, who appears to have examined her with great care, using the sound, which seemed to enter an empty uterine cavity for three and a half inches. He agreed with the diagnosis of the previous observers, and considered that he had to deal with a case of tubo-ovarian pregnancy, at not quite the eighth month of gestation, and decided upon operation, informing Dr. Schnette and others of his decision. The operation was performed under spray, with great skill, as all afterwards admitted. After removing the fœtus and placenta and the cyst, as he believed it to be, he fancied he could feel the uterus beneath the site of the cyst; in fact, from the moment of discovering his error of diagnosis, until the *post mortem* examination was made, he was of opinion that there had been a malformation, and that he had removed the upper segment of an hour-glass uterus. Dr. Schnette, who had offered certain objections to the operation, because he considered the patient had not been long enough under observation in the asylum, nevertheless took an active part in the operation, occupying himself with guarding the intestines from protrusion or injury, so that he could not closely inspect or examine the supposed cyst. One spectator appears to have believed that the tumour was a normal gravid uterus, but the operator still thought he could feel the uterus behind it. Dr. Warren removed the ovaries as well as the uterus, and stated that, had he found out his mistake directly after the removal of the fœtus and placenta through the incision in the uterus, he decidedly should have removed that organ; he would have acted, in fact, on Porro's principle. A drainage-tube was inserted into the abdominal cavity, before the external wound was sewn up. The patient rallied well, but died on the second day of peritonitis. At the *post mortem* examination, the uterus and both ovaries were found to be absent, and a silk ligature encircled the upper part of the vagina; two vessels were also found close by, securely ligatured. The bladder, rectum, and adjacent organs, pelvic and abdominal, were intact, but there was distinct peritonitis.

At the inquest, the jury absolved Dr. Warren and all concerned in the case from all blame; but regretted that there had been no previous official consultation, adding a rider to the effect that the authorities of public medical institutions should always appoint a medical consulting staff, without whose sanction no operation should be performed. Apart from the medico-legal aspects of the case, which involves many points worthy of consideration, but too numerous for discussion here, it is interesting to be reminded how several practitioners, of no mean skill or experience, may, after separate examination of the same case, be mistaken in the diagnosis of a normal gravid uterus. We also see that an operator, with courage enough to perform gastrotomy in the presence of a large number of colleagues and other spectators, may overlook the nature of an uterus in this condition, till he has severed it from its connections. Gently scanning all who, with the best intentions, had a share in the diagnostic and practical errors which led to the patient's death, we may trust that, in future, in suspected cases of extra-uterine pregnancy, surgeons may not, through a preconceived opinion, fall into a similar error, and not find out their mistake until they have opened the uterus, and thus be forced to perform, as, under the circumstances, Dr. Warren rightly performed, an unpremeditated Porro's operation.

CERTIFICATION OF CAUSES OF DEATH.

THE causes of 109,406, or 90.5 per cent., of the 120,825 deaths recorded last quarter in England and Wales were certified by registered medical practitioners, and 6,459, or 5.3 per cent., by coroners in inquest cases. The causes of the remaining 4,960, or 4.1 per cent. of the deaths, were uncertified. The proportion of uncertified deaths showed a decline from that which prevailed in either of the two preceding quarters; in the metropolis it did not exceed 1.4 per cent., whereas it averaged 4.6 per cent. in the rest of England and Wales. Only 0.7 and 1.2 per cent. of the causes of death were respectively uncertified in Wiltshire and Hampshire; whereas the proportion ranged upwards in the other counties to 7.4 in Durham, 7.7 in Huntingdonshire, and 8.5 in Herefordshire. In Wales, 10.7 per cent. of the deaths were uncertified; the proportion being 11.1 in North Wales and 10.4 in South Wales. In the twenty English towns, the proportion of uncertified deaths averaged 2.4 per cent.; it did not exceed 1.4 in London, whereas it averaged 3.3 in the nineteen provincial towns. The percentages in the nineteen towns ranged from 0.2 and 0.9 in Portsmouth and Birmingham, to 5.0 in Sheffield, 5.1 in Leeds, 5.3 in Salford, 5.4 in Oldham, and 5.6 in Hull. Compared with the proportions recorded in the preceding three months, the percentages of uncertified deaths showed a general decline; they were, however, higher in Plymouth, Manchester, Leeds, Sunderland, and Newcastle-upon-Tyne.

THE HEAT-WAVE OF JULY IN EUROPE.

MR. G. J. SYMONS has collected returns from eighty-six English, and a considerable number of foreign, stations, the latter showing the highest temperature for each day in July. The highest temperatures recorded in England were 101.0° at Alton in Hants; 100.0° at Alderbury, Salisbury; 97.1° at Greenwich; 96.7° at Foxgrove, Beckenham; 95.6° at Enfield; two of 95° in London; 94.9° at Eltham Green, Kent; 94.2° at Hornsey, Middlesex; 94.1° at Norwood, and a large number of 94.0° or less at other stations. The temperatures in many parts of England were comparatively low, having been 80.0° at Dover, 79.7° at Stafford, and the same at Cardiff; 78.5° at Wakefield, Yorkshire; 78.4° at Lowestoft; 78.2° at Cheadle; 77.5° at Macclesfield, and the same at Sidmouth, Devon; 71.9 at Llanduduo, Carnarvon; 71.8° at St. Michael's, Lancashire; and only 65.9° at South Shore, Blackpool, Lancashire. At Portree, in the Isle of Skye, the mean temperature for July was the lowest on record. The extremely high temperature in England was, therefore, confined to the North of Hampshire, North Surrey, West Kent, Middlesex, Essex, Suffolk, and Norfolk. The hottest day of the month did not occur in most of the continental capitals on the same day as in England, except at Copenhagen, where the temperature reached 86.5°. But although the heat in Paris was not greatest on the 15th, still it reached to 100 at the Parc St. Maur station, and 97.7° at the Montsouris Observatory, and was 102.2° at Bordeaux. The highest temperature for the month at Lisbon was recorded on the 24th, viz., 93.9°; at Madrid on the 25th, viz., 102.6°; at Rome, 94.8°, on the 6th; at Modena, 94.1°, on the 21st; at Avignon, 101.1, on the 17th; at Bordeaux, 102.4°, on the 18th; at the Montsouris Observatory, Paris, 99.0°, on the 19th; at Parc St. Maur, Paris, 101.1°, on the 19th, and 101.7° at Le Mans on the same day; at Geneva, it was 96.6° on the 19th; at Vienna, 92.3°, on the 16th; at Brussels, 95.4°, on the 19th; at Berlin, 94.5°, on the 20th; at Hamburg, 87.3°, on the 20th; at Moscow, Russia, 92.5°, on the 27th, but only 82.9° at St. Petersburg on the same day. At Christiania, it only reached 81.0° on the 12th. The temperatures at Paris and Brussels on the 19th were the highest recorded for very many years, although at Montsouris the temperature was not so high as on July 9th, 1874, when the maximum reached 101.1°. At Madrid, Vienna, Berlin, and Geneva, the maximum was below that which has been observed on several other occasions. The tables are published in Symons's *Monthly Meteorological Magazine* for August, and give not only the absolute, but the mean, maxima for the month, as well as the minima temperatures and the range.

WATERING-PLACES AND SUMMER RESORTS.

THE statistics of mortality during the spring quarter are given by the Registrar-General, in the last quarterly return, for forty-six of the principal English health-resorts. The mortality given is not that of the actual watering-place itself, but of the districts or subdistricts in which it is situated, which are taken as approximately representing it. As a rule, the death-rate in the watering-place itself is likely to be somewhat higher than in the whole district or subdistrict, the watering-place having more of an urban character than the surrounding country. Occasionally, however, the reverse may be the case. The mean annual death-rate for these forty-six health-resorts, calculated from the mortality in the past quarter, was 16.4; the zymotic rate being 0.8. This contrasts favourably with the rates, themselves low, in the corresponding period of 1880. The zymotic rate was 0.0 in Deal, Bognor, Lyme Regis, Sidmouth, and Weston-super-Mare; while it was 2.2 in New Brighton, 2.3 in Matlock, and 2.9 in Dartmouth and in Whitby. In the last-named place, the rate was entirely due to whooping-cough.

SCOTLAND.

VISIT OF THE QUEEN TO THE EDINBURGH ROYAL INFIRMARY.

ON Wednesday last, the Queen, accompanied by Princess Beatrice and the Duke of Connaught, visited the new Edinburgh Royal Infirmary. In the hall, the Queen was received by Lord Provost Boyd, Lord Shand, Sir James Falshaw, Treasurer Harrison, and a number of the professors. On the suggestion of Sir Henry Ponsonby, a large assemblage of ladies and gentlemen, who had met in the chapel, lined the corridors along which the Queen was to walk. The head-nurses, in their white caps and smart dresses, made a picturesque appearance as they looked over the staircase balcony. Lord Provost Boyd, who showed Her Majesty through the building, welcomed her in the following terms.

"May it please your Majesty,—In the name of the managers of the Royal Infirmary, I beg to convey to your Majesty their most sincere and heartfelt thanks for the honour your Majesty has been pleased to confer upon the institution in thus graciously paying it a visit; and I desire also, in their name, to give your Majesty a most cordial and hearty welcome. I desire, further, to take the opportunity of acknowledging the generosity of your Majesty in being one of the earliest contributors towards the fund for the erection of these buildings, which patronage gave so great a stimulus to the successful accomplishment of the work. If, when visiting the wards, your Majesty is graciously pleased to declare that one of them shall hereafter bear the name of your Majesty, and another that of the late lamented Prince Consort, your Majesty will not only confer a further high honour on the institution, but greatly stimulate the generosity of the public in hereafter providing for its annual maintenance."

The Queen then named Ward No. 29 of the Medical Department (Dr. Claude Muirhead's), after the late Prince Consort, the "Albert Ward". Her Majesty next went to the Surgical Department, and named the 11th Ward (Mr. Joseph Bell's) the "Victoria Ward". She also visited other wards, and took much interest in the patients. Her Majesty was especially interested in the case of several foreigners, and kindly inquired as to the cause of their ailments. Before leaving, the Queen wrote her signature in the visitor's book in the managers' room. The Princess Beatrice and the Duke of Connaught also signed their names. While these proceedings were taking place, Professor Sir Herbert Oakeley played "God Save the Queen" on the chapel organ. The Queen expressed to the Lord Provost her high satisfaction with all the arrangements, so far as she had been able to observe them. On re-entering the carriage to drive back to Holyrood, Her Majesty was loudly cheered.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS.

DURING the month of July, there were registered in the eight principal Scotch towns the deaths of 1,900 persons, of whom 981 were males, and 919 were females; allowing for proportionate increase of population, this was 518 under the average number of deaths for the same month during the preceding ten years. The mortalities of the individual towns were: in Edinburgh, 16 per 1000, and the same in Dundee and Aberdeen; in Greenock and Leith, 18; in Glasgow and Perth, 21; and in Paisley, 23. Thirty-eight per cent. of all the deaths were of children under five years of age; and, in the different towns, the percentage was: in Edinburgh, 32; Leith, 34; Dundee and Aberdeen, 36; Greenock and Glasgow, 39; Paisley, 42; and Perth, 52. Zymotic diseases caused 269 deaths, equal to 14.2 per cent. of the entire mortality (although, in one case, that of Perth, whooping-cough alone caused 17.3 per cent. of the deaths). Of 29 cases of fever, 12 were tabulated as typhus, 16 as enteric, and 1 as simple continued fever. Whooping-cough caused 54 deaths; measles, 52; diarrhœa, 49; scarlet fever, 31; diphtheria, 19; croup, 8; dysentery, 5; and small pox, 2 deaths. To apoplexy, 63 deaths were ascribed; to paralysis, 43; to cardiac diseases, 132; to hydrocephalus, 51; and to premature-birth debility, 43. Inflammatory affections of the respiratory organs (other than phthisis, croup, and whooping-cough) caused 340 deaths, or 17.9 per cent. of the total; while phthisis pulmonalis alone contributed 14.8 per cent. of all the deaths. Of 57 deaths due to violent causes, only one was suicidal. Only one death of a female over 90 years of age was recorded. During the month, the births of 3,588 children were registered, of whom 1,832 were males, and 1,756 females. The mean barometric pressure was less by 0.036 inch; the barometric monthly range less by 0.152 inch; the mean temperature less by 1.5, and its daily range less by 1.7°; the mean humidity less by 2; the rain-depth greater by 1.05 inch; and the wind-pressure greater by 1.00 lb. than the average of the same month during the preceding 24 years. The month was characterised by westerly winds, a barometric pressure below the average, and a small barometric range, while the mean temperature has been lower than the average.

PUBLIC HEALTH IN SCOTLAND DURING 1880.

THE annual report of the Registrar-General of the births, marriages, and deaths, as well as statistics of vaccination, for 1880, has just been issued. During the year, 75,795 deaths were registered, being at the rate of 20.7 per 1,000 of the population; this is considered a moderate death-rate, and is lower than the average of the previous ten years. The mortality in the large towns was greater, being 26.0 per 1,000 of the population; and in connection with the distribution of human beings in towns of various sizes and in country districts, it is shown that the mortality for each 10,000 of the population was as follows: principal towns, 223; small towns, 214; mainland rural districts, 168; and in the insular-rural groups only 162. During March, the greatest number of deaths, 7,319, was registered, equal to 236 *per diem;* the smallest number, 5,571, on the other hand, was in September, and was equal to 186 *per diem;* while the average number for each day was 207. During the year, 124,652 births of children were registered, of whom 8.42 per cent. were illegitimate. Of all these children, 88.621 per cent. were successfully vaccinated; 0.277 were insusceptible, and 1.026 were postponed by medical authority.

IRELAND.

DR. CAMERON, M.P., has been appointed President of the Public Health Section of the Social Science Congress, which holds its meeting this year in Dublin early in October next.

ROYAL UNIVERSITY OF IRELAND.

IT is stated that a meeting of the Senate of this University will shortly be held in Dublin to consider the many questions that arise under the altered Act; and that the first matriculation examination will probably be held in November.

TYPHUS FEVER IN DUBLIN.

IT appears from Dr. Cameron's monthly report on the health of Dublin that, during July, there were 16 more deaths from typhus fever in the city. The admissions to hospital of persons suffering from this disease numbered 90, or a decrease of 29 as compared with June. It may be hoped, from these figures, that the epidemic of typhus is now decreasing. It has never assumed very formidable proportions, but it has been the most fatal of the zymotic diseases in the city during the last year. Looking to the absolute preventability of typhus by proper sanitary precautions, it is to be hoped that the authorities of Dublin will take very seriously to heart the periodical presence of this scourge in their midst.

SMALL-POX IN LURGAN.

THE disease has increased but slowly during the past week, and there are now 28 cases in the Union Workhouse, while 5 deaths have taken place since the outbreak occurred. Two children residing in a street in Lurgan were found to be suffering from small-pox of some weeks' duration; but, although the accommodation was inadequate, their parents refused to allow them to be removed, and legal proceedings will be instituted to punish the offending parties. A notice of motion will shortly be made by one of the guardians, requesting the Local Government Board to hold an inquiry into the origin of the outbreak.

ZYMOTIC DISEASES IN IRISH PROVINCIAL TOWN DISTRICTS.

DURING the June quarter, 26 deaths were recorded from scarlatina in the fifteen provincial town districts, of which 8 took place in Clonmel, 6 in Limerick, and 4 in Belfast. Twenty deaths in Cork were due to whooping-cough, 8 in Limerick, 5 in Kilkenny, and 42 in Belfast; while 67 deaths were ascribed to diarrhœa, of which 24 occurred in Belfast, 13 in Cork, and 7 in Clonmel. There were 105 deaths from fever (48 typhus, 43 typhoid, and 14 simple continued), 24 of which took place in Cork, and 27 from typhoid fever in Belfast; while 11 deaths from typhus, and 8 from typhoid, occurred in Waterford. Two deaths from small-pox were registered in Belfast, being the only fatal cases recorded in any of the provincial districts.

BELFAST ROYAL HOSPITAL.

AT a quarterly meeting of the committee of the Royal Hospital, held last Monday, the medical staff reported that during the quarter 358 patients had been treated in the hospital, and 1,988 at the extern department; while 32 operations and 68 minor operations had been performed. Intimation was made that a sum of £50 would be immediately forthcoming, being a first instalment of a bequest left by Mr. Hugh Wardlaw, to be eventually capitalised; while the Board reported the receipt of £250 out of funds left for charitable purposes by Mr. Thomas Lindsay; and further, that a cheque for £500 had been sent by Colonel Montgomery of Greyabbey, in memory of Arabella Catherine Montgomery, the interest of which was to be applied to the purposes of the charity. As regards the financial condition of the institu-

tion, the Board fear that there may be a deficit at the end of the financial year—viz., the 31st inst. The movement tried last quarter of members of the General Committee and life governors canvassing the town for increased subscriptions, has not made any material progress, and attention is again called to the subject, with a view to a better organisation in future. The Board report also that up to the present no response has been made to a circular addressed on 11th July last, to large employers, as to systematic collections from their workpeople; and they believe that if the necessary exertion is made with a view of obtaining increased annual subscriptions, and also regular contributions from the working classes, that the hospital could be kept up in the full efficiency it is at present, without incurring debt. The Board then proceeded to elect a physician in the room of Professor Cuming, a surgeon in the room of Mr. Fagan, and an assistant-surgeon for the extern department, in the room of Dr. O'Neill. These three retired by rotation, and were re-elected to their respective posts.

DUNDRUM CRIMINAL LUNATIC ASYLUM.

ORDINARY institutions for the insane suffer under one disadvantage—namely, that, as time elapses, they become overcrowded beyond their normal condition; and this result has been more noticeable at Dundrum than elsewhere. The number of admissions naturally exceeds the number of discharges—whether cured or improved—as well as those who die under confinement; whereas, in a criminal asylum, recovery does not necessarily imply liberation. At the present time, for example, there are eighteen individuals in the asylum who are mentally unaffected, independently of a few others on whose actual state of mind it is difficult to pronounce. Dundrum Asylum is intended to accommodate 170 beds, but during last year there was an excess of sixteen for some months; and, after consideration, it was determined that a number of the inmates, who had been under treatment in it from ten to thirty years, might be safely removed to their native district institutions. The selection was limited to aged and inoffensive patients acquitted on indictment as insane, and who, save in instances of puerperal mania, had not been charged with homicide. This arrangement has worked successfully, and obviates the necessity of erecting structural additions to the asylum at a cost of some thousand pounds. The admissions during the year amounted to 21; the discharges as recovered, to 6; as incurable, to 18. Six patients died, all from natural causes, being equal to a percentage of 2.9 on the total number in asylum, and, although less than the death-rate of Dublin, is yet in excess of the average rate for the previous five years, which shows a percentage of 2.6. As regards their social condition: of the 177 inmates present in the asylum on the 31st of last January, 134 were single, 23 married, and 20 widowers or widows. Dr. Ashe, resident medical superintendent, in his report, refers to the difficulties connected with the water-supply of the institution; but it is satisfactory to learn that there is an early prospect of this drawback being remedied by the introduction of the Vartry water.

HEALTH OF DUBLIN.

DURING the month of July, the medical officers of health reported only 31 cases of zymotic disease as having occurred among the poor in their several dispensary districts. Six cases of typhoid, and 5 of small-pox, were removed to the hospital for contagious diseases; each house from whence the patients were taken being promptly fumigated and limewashed, the clothing and bedding used by the sick disinfected and cleansed, and, when found to be bad and filthy, destroyed by fire. During the four weeks ended July 23rd, 25 deaths were registered from zymotic diseases, including 2 from small-pox, typhoid fever 6, and diarrhœa 11, giving a death-rate of 1.5 from this class of diseases. There were 66 deaths recorded from phthisis, and 57 from diseases of the respiratory organs, making a total of 123 deaths from lung-disease in the four weeks, or equal to a death-rate of 7.7. The total births registered were 554, and the deaths 336, showing a natural increase of 218. The average death-rate was 21 per 1000 of the population. It is satisfactory to learn that the town still has a remarkable immunity from the principal zymotic diseases, there not having been reported by the medical officers of health a single case of typhus, and only six of small-pox, for the month; while the Registrar-General's returns show a very light mortality from any of the zymotic diseases.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

SERVICES OF THE BRITISH MEDICAL ASSOCIATION DURING THE YEAR TO THE CAUSE OF THE POOR-LAW MEDICAL OFFICERS.

THE annual meeting of the Poor-law Medical Officers' Association was held in the Odd Fellows' Hall, Ryde, on August 11th, 1881, JOSEPH ROGERS, M.D., in the chair.

Dr. ROGERS addressed the meeting as follows. You are aware that, for some considerable time past, the editor of the BRITISH MEDICAL JOURNAL has opened a certain portion of the paper for comment upon matters relating to Poor-law medical officers throughout the kingdom; and I do not know that I am committing any breach of etiquette in stating that he has mainly referred to me to answer questions and make comments on the various Poor-law questions that crop up in the course of the year. To-day it occurred to me that it would be desirable to bring to your notice, as showing the value of co-operation, some things that have in this way passed through my own hands during the twelvemonth, which are of interest to Poor-law medical officers and to the public.

Taking the period from June 1880 to June 1881, the first thing to which I wish to draw your attention is this. On July 30th, 1880, I called attention to a circular of the Local Government Board, decreeing that all future appointments of medical officers non-resident in their district should be permanent, if all the facts connected with such non-residence had been duly considered by the guardians, and approved by the Local Government Board at the time of election. The importance of that is manifest to those who have been unfortunate enough to be non-resident medical officers. Many a medical officer, living, perhaps, only a hundred yards out of his district, held his appointment subject to annual election; and several valuable men were got rid of by certain boards of guardians in consequence of that regulation. The general order of the Poor-law Local Government Board disposed of that difficulty in the future, and now men, whether non-resident or not, are permanently appointed if, at the time of their appointment, all the affairs connected with their residence have been considered and approved by the Local Government Board.—Mr. CORNWALL: Is that quite correct?—Dr. ROGERS: Yes.—Mr. CORNWALL: I am afraid it is not. I think there are two or three here who can contradict it.—Dr. ROGERS: I saw the general order. It was pointed out to me in the first instance, when it came under the notice of the clerk of our board, that there was only one thing in the order that was not quite satisfactory; it did not refer to the permanent appointment of a medical officer of a workhouse who was not resident in the parish or district. That I look upon as a hardship. It is a point whether it is worth while for us to counsel you to communicate with the Local Government Board upon the subject, and to point out that the exclusion acts unfairly.

On August 7th last year, my attention was drawn to a charge against a highly respectable member of our profession, a workhouse medical officer, Mr. Buncombe, of the City of London Union, who was committed for trial for manslaughter. A murder had been committed by a lunatic pauper, and the jury went so far as to return a verdict of manslaughter against Mr. Buncombe, because they alleged that he had not shown proper care and attention in getting this person out of the workhouse. You are aware that certain formalities have to be gone through, and that, unless they be complied with, there may be great difficulty in getting rid of a pauper lunatic. We tendered our sympathy to Mr. Buncombe, and offered him our support. We were prepared, if the case had gone on, to attend in court, and we would have given evidence in his favour, pointing out that the responsibility of a workhouse medical officer would be enormously increased, if juries were at liberty to return a verdict against a respectable man under such circumstances. Fortunately, however, when the case came before the grand jury, they threw out the bill, and the judge made some severe remarks on the coroner's jury for returning a verdict against a gentleman of such undoubted respectability, and at the same time told Mr. Buncombe that he left the court without any imputation upon his character. I need not say that, for a man of nearly seventy years of age to find himself in such a position, with such an odious charge against him, is a very serious matter.

On August 14th, we drew attention to the practice adopted by St. Mary Abbotts', Kensington, whereby the relieving officers mulcted the medical officers, who certified in cases of insanity, in 7s. 6d. out of every guinea paid; and those who refused against the practice were simply punished by the relieving officer never again calling them in to certify. We felt so strongly upon the matter that we wrote to our President, Sir Trevor Lawrence, asking him to put a question in the

House that would evoke an official inquiry, because, when the subject was first mooted, the guardians denied that the relieving officers were guilty of this conduct.

About the same time, we congratulated Mr. Gentles, of the Derby Union, on the fact that the board had unanimously granted to him a considerable increase in his stipend, which was accompanied with such expressions of confidence in him, and respect for his character and his attention to his duties, that we felt the subject was well worthy of our consideration.

On September 4th, there would be found in the JOURNAL a long report of our proceedings at Cambridge. That meeting was probably one of the most successful that we ever had. We had a large attendance, including many members of the Cambridge board of guardians, who were so carried away by the force of our arguments—notably with regard to the introduction of the dispensary system—that a committee was appointed to take into consideration the provision of medicines by the board. They intended to carry the plan into effect forthwith; but it was necessary to consult the district medical officers. It is to be regretted that, when they were called before the committee of the board of guardians, they said they did not want any dispensary system; they wanted no medicines found for them; all they wanted was a little more money. The thing, therefore, fell to the ground. I did not forget to comment severely on the conduct of those gentlemen as soon as I became acquainted with it.

About the same time in the month of September, in consequence of a question arising in my own parish as regards the eligibility or otherwise of Poor-law medical officers being placed on the commission of the peace, I wrote to the Local Government Board, and asked a distinct question on the subject. They replied, stating that such medical men might be placed upon the commission of the peace; but it must be with a distinct understanding that, if so selected, they did not act as *ex officio* guardians in their own localities. The fact is an interesting one for you to know, because some of you may be desirous of occupying such a position, and you may fancy that you are barred by the fact of your holding a Poor-law appointment.

On September 18th, I wrote an annotation giving the facts connected with the application of Mr. Blackburn to the Barnsbury Union for an increased stipend. Here again, to the credit of the guardians, Mr. Blackburn's application was granted; the principal ground for the vote being the manner in which he had done his duty.

In consequence of the comments that appeared in the JOURNAL, calling attention to the conduct of the district medical officers at Cambridge in refusing the boon offered to them by the board, a letter was written by two of those officers denying the allegation. One of the guardians of the Cambridge Union called upon me, and told me that the version was a perfectly correct one as supplied to me through the Cambridge paper; that the officers had positively refused to entertain the project. I happened also to be here in May last; and saw one of the Cambridge guardians, who told me in conversation the great annoyance that he felt at the conduct of the medical men in that town refusing what the board were prepared to grant.

In the JOURNAL of November 6th, I drew attention to the treatment to which Dr. W. S. Jefferiss, parochial medical officer of Sleat and Strath, Isle of Skye, was subjected. He was called on to resign his appointment by the factor of the noble proprietor, in consequence of his inability to attend one of his lordship's guests, a lady, at a late hour of the night, some miles away; he having just come off a long journey, and having only one horse. He was dismissed from his appointment by the factor, who is omnipotent there—a great man, corresponding to the chairman of our board of guardians. Such a thing could not happen here; but our Scotch brethren are liable to dismissal at any moment, there being no permanency in their appointments. Some of the indignities practised upon our brethren north of the Tweed are monstrous, and, if related, would be received with a feeling of incredulity. One could hardly conceive it possible that such a circumstance as I have mentioned could occur. If Parliament had been sitting at the time, I should have got a question asked in the House. When Parliament did meet, we had so many fresh things to take up, that the matter was not proceeded with.

On November 28th, there appeared an annotation with reference to the Poor-law inquiry at St. Mary Abbotts, Kensington, where it was proved that the allegations of Messrs. Lilly and Liddard were fully borne out. The relieving officers were let off with a censure, and an effort was made by the gentleman who conducted the inquiry to incriminate the complainants. Subsequently our Council voted the expenses of these two gentlemen, because we thought they were fighting a battle for the interests of the profession and of Poor-law medical officers in resisting this exaction.

During December and the early part of January, several annotations of minor importance appeared. On January 22nd, I drew attention to an injustice perpetrated by the board of guardians to which I belonged, in refusing a superannuation allowance to their master-baker, who, after twenty years' service, at sixty-five years of age, had broken down in health. The result was a reconsideration of the case; and ultimately the man was allowed £20 a year, which is all that the poor fellow has now to subsist upon. I had been attending him prior to his breakdown. Of course I did not expect to be paid anything; but, when the man received his first instalment, he sent his wife asking what my account was, and insisted upon paying it. This shows that now and then we do meet with gratitude.

On February 5th, there appeared an annotation on the action of the Irish Poor-law Medical Officers' Association, in reference to superannuation, and I recommended to notice the intelligent activity exhibited by that body.

On February 12th, an annotation appears as to the injustice perpetrated on Mr. Eaton at Grantham, who was refused payment by the Grantham Urban Sanitary Authority for his attendance on some scarlet fever cases. Mr. Eaton was induced to try the chances of a court of law; but there, in consequence of a legal quibble raised by Mr. Justice Stephen, his case broke down, and he was mulcted in heavy costs.

On the 19th of the same month, a question appeared, which I answered, in reference to midwifery fees, and I urged upon my professional brethren how important it was that medical officers should always get an order before giving their attendance in such cases, and so avoid a great deal of trouble.

On April 2nd, I drew attention to the Bill brought in by the Lord Advocate and Sir William Harcourt for the superannuation of Scotch Poor-law officers, and pointed out that the Bill, as drawn, completely excluded nearly all Scotch parochial medical officers. Twelve years ago, a Select Committee of the House of Commons reported in favour of granting to all Scotch medical officers a superannuation allowance; and the fact that two chiefs of the Government could bring in a Bill in which they were excluded, only shows the necessity of that co-operation for which I contend to-day. In the same issue, I called attention to the return of the dispensary medical officers in Ireland who had received superannuation allowance, and showed how much more liberal Irish boards of guardians were to their dispensary medical officers than those in England. There are, of course, cases of refusal to grant superannuation allowances there; but they bear a very small proportion to the number existing in this country.

On May 7th, I wrote an annotation congratulating Mr. Cremer of Norwich on the success of his application for a superannuation allowance. I particularly call attention to it, because the Ratepayers' Association of the town sent a memorial to the board of guardians to request that no superannuation allowance should be granted; but the proposition was carried by a large majority. On the same day, I drew attention to the case of Mr. Paradise, of the Leigh Union, Lancashire, who applied for an increase of stipend under circumstances proving that he was entitled to it; but it was refused, with observations that were most disagreeable, by the guardians of that union.

The number for May 20th contains a full report of our interview with Mr. Dodson on the question of superannuation. The deputation was well attended by members of the association and several members of Parliament; and, though we did not obtain from Mr. Dodson a full promise that the Act should be amended in the direction we required, so as to make it compulsory, yet I think we did good service by the way in which we put our case before him: at any rate, he said so, and that was something gained.

In the same issue, I drew attention to the case of Mr. Hele of Plomesgate Union. His case was an interesting one to all medical officers throughout the kingdom. In July last year, he was requested by an overseer's order, marked "urgent", to go to a lad who had met with an accident by having his leg seriously cut across by a hay-cutting machine. It was found necessary, after consultation, to amputate his leg. Mr. Hele sent in his account to the board of guardians, and he received a curt intimation from the clerk, stating that the board had decided not to pay it. He thereupon wrote and asked for the reason; but they said they had no reason to give. He then wrote to the Local Government Board detailing the circumstances, and asking whether the board of guardians were not bound to pay. They sent the letter of complaint to the board, who, in reply, stated that they had considered Mr. Hele's application at the time the bill was sent in, and saw no reason to alter their determination. The Local Board then said that they could not interfere any further. Mr. Hele again wrote to the Local Government Board, to know whether in future he was bound to obey an overseer's order or not; and he also asked them whether they could advise him as to how he could proceed to recover his fee. They wrote to tell him that he was bound to attend to the overseer's order in the

same way as he was bound to attend to a relieving officer's order; and added "that this Board must decline to afford you any information as to how you can recover your fee". I then wrote the annotation on the subject, in which I gave my views as strongly as I well could. Subsequently, I went to the House of Commons and was introduced to Mr. Firth, member for Chelsea, who consented to put a question to Mr. Dodson with reference to it. In compliance with his request, I drafted a series of seven or eight searching questions. The result was, that Mr. Dodson gave a reply which showed that the department did not like the question; but they were compelled to put such a pressure upon the Plomesgate Board of Guardians, that Mr. Hele got his £5, and a precedent was established, that in future overseers' orders are, by the decree of the Local Government Board, equally binding with relieving officers' orders as regards the question of extra fees. It certainly was a point worth making a fight over.

One June 25th, I drew attention to the case of Mr. Gruggen, of the Silkstone District of the Penistone Union, who applied for an increase of a ridiculously low stipend; and I also called attention to a newspaper report of the undignified conduct displayed by the board of guardians, who refused any increase whatever. The district contained a population of 5,213, spread over an area of 8,830 acres; and the salary which he received, including medicines and the keep of a horse, is £26 a year. In the Denby District of the same Union, there are 4,378 inhabitants on 8,240 acres, and the salary is £25. The Penistone District has 6,095 inhabitants on 17,000 acres; so that it is absolutely necessary for the medical officer to keep two horses; and for that district the salary is £21. The total sum expended in the Penistone Union is £142 a year. It seems utterly incredible; and I expressed my utter contempt for district medical officers who would hold appointments upon such terms. I considered it degrading to the profession for anyone to hold such an appointment for half an hour. I was glad to find that the *Lancet* took the same view, in commenting upon the transaction.

In the same issue, June 25th, there will be found an annotation congratulating the Poor-law Medical Service on the practical success achieved by a question I asked my brother to put in the House, which arose in this way. The medical officer of the South Molton Union, a member of the Association, Mr. Burrows, had a case of strangulated femoral hernia. In the first instance, he sent to the neighbouring town of Tiverton, and a medical man went out to see the case, but he put off the operation for a little time. About thirty-six hours afterwards, he saw that the patient would die if she were not operated upon; and he sent for a friend to come and administer chloroform. Subsequently, Mr. Burrows applied for payment of the services of the chloroform administrator, but he was refused by the board of guardians, who told him that he must pay him out of his £5. I felt that that was a very gross injustice; and I got my brother to put a question to Mr. Dodson in the House, which led to this satisfactory result. My brother said: "There is nothing that the House will not do in the cause of humanity; and I can put the question in such a way that the Department will be bound to grant it." Mr. Dodson, in his reply, intimated that he should revise the whole scale of extra fees, and that attention would be paid to this point; so that the person who administered chloroform in a difficult operation on a pauper patient would be paid for his services, independently of the fee given to the medical man. I think that is a very great achievement for us to have obtained, and it is a distinct proof of the value of co-operation in matters relating to the Poor-law Medical Service.

In accordance with the rule generally laid down, I have always striven, when attending any of these local meetings, to get local knowledge; and I have done so with regard to this island, which is an union by itself. There are nine districts forming one union. I am happy to tell you that, as far as the Isle of Wight Union is concerned, the district and workhouse medical officers have no reason to complain. They are fairly paid for their services. There was a total population at the last census in 1871 of 50,000, and probably it is more than that now. The acreage is 85,000. The total salaries paid, with extras to the district medical officers, amount to £1,139, which I need not say contrasts remarkably with the 15,000 population, 34,000 acres, and £142 salary in the Penistone Union.

There is a matter that I should like to bring to your notice, and it is this. The case was sent to me to comment upon; and I wrote a comment, but it did not appear, there being some doubt as to whether its insertion would have been prudent. The case, however, is one of such gross injustice that I think it right to bring it to your notice, and to make a few observations upon it.

It refers to one Sarah Thacker, of March, Cambridgeshire, who was sent to the county asylum at Fulbourn, and who died about thirty-six hours after admission. The order for her admission contained the following facts indicating insanity observed by myself.

"A refusal to take either food or remedies of any kind. Has not had any nourishment for four days. Is restless and sleepless. Says she cannot take food, because her stomach is closed up. Will retain fluids in her mouth several minutes, and then furtively spit them out. Disturbs her family with cries." Other facts supplied by friends. "That she had threatened to jump out of a bedroom window; and, although she had not attempted violence to any one, keeps the whole neighbourhood in a state of terror.—(Signed) THOMAS O'CONNOR, F.R.C.S.L.Eng."

Evidence was given by Mr. O'Connor and by the relieving officer fully bearing out the facts stated in the certificate; and it was further shown by Mr. O'Connor that it was well-nigh impossible to attend to such a case at the cottage. After that evidence, confirmed as it was by witnesses from the asylum, the coroner, in charging the jury, indulged in observations which I think were most unjustifiable. *Inter alia*, he said: "That the certificate was not properly signed, as it should have been signed on the day of removal, and when all the persons who had to sign it were present...If the magistrate had seen her then, he very likely would have refused to sanction her being sent at all. He must say it was most irregular, and he trusted it would not again occur. Dr. Bacon had no power of refusing to receive her, nor had the visitors; and therefore the greatest care should be observed in signing a certificate, which might have the effect of sending a person to be an inmate of an asylum for years, and perhaps for life.....If this woman had lived to go out, she would have had a cause of action against the doctor and relieving officer for being wrongfully sent to an asylum." After this summing up of the coroner, the jury brought in a verdict "that she was not a fit and proper person to be sent to an asylum".

Now, the coroner's reading of the law was incorrect; because a certificate, when signed, holds good for a certain number of days, and for him to lay down such a construction of the law was altogether wrong. Then, again, this legal luminary appeared to have ignored that there were Commissioners in Lunacy, who look sharply after these things. Then he went out of his way to make a cruel insinuation against a respectable member of our profession—to wit, when he said "that if the magistrate had seen her the day she was removed, he would not have sanctioned her going," etc. To my mind, it was clearly a case for removal to an asylum, as she could not be forcibly fed and properly controlled at home. Remember, that the same thing might occur to any of you, if such a view of the law were to prevail.

Let me now say, though it is a confession of weakness, that we are not so prosperous as we used to be as an Association. I can quite understand that medical men begin to think that they never get anything; and, therefore, they omit to send us the small subscription of five shillings. We cannot, however, go on fighting battles unless we are provided with funds. I will, therefore, suggest the desirability of your converting yourselves into recruiting sergeants, and hunting up members in order to induce them to subscribe. Our expenses are heavy; and if it were not that some of us give a great deal of time, and put ourselves to some considerable expense, the operations of the Association could not be carried on. I think I have given a sufficient proof in the occurrences of the last year of the value of the Association. It rests with the profession at large whether we are to continue our work. Sometimes I have been disposed to give it up; but then something has cropped up, like the success in the Plomesgate Union, and the payment for the administration of anæsthetics, which induces us to say, "Well, there is good to be done; we have helped some lame dog over the stile; and, therefore, let us go on". Still, it would be an encouragement to our worthy friend the Honorary Secretary, and to me as Chairman of the Council, and particularly to Mr. Frost, the Treasurer, if we had a better balance to show. I commend the Association to the notice of members present, and to all whom they may happen to know elsewhere. I trust, gentlemen, that I have said enough to prove that there is some value in co-operation.

Mr. WILLIAM BARNES said the Association was rather poor this year, the members having diminished in number. It was an astonishing thing that the Poor-law medical service should be so apathetic with regard to the Association. A great deal of work did not appear on the steady work from day to day; and the time devoted to the Association by Dr. Rogers was more than would be believed by the members who had no opportunity of observing his continued labours. His own work was chiefly clerical, but it took up a great deal of his time, because, when people were in difficulty, they always [illegible] Association, whether they were members of it or not. Through the efforts of the Association, many medical officers were in a better position than they used to be, and they were indifferent or unwilling to take up cudgels in favour of their less fortunate brethren. [illegible]

that, at any moment, circumstances might arise in which their own position might be affected by the action of their boards of guardians. He thought that, out of consideration to their poorer brethren, they ought to subscribe the small sum of five shillings *per annum*. The superannuation question, which was now absorbing the attention of the Association, was a very important one; and many elderly Poor-law medical officers were naturally in a state of anxiety and expectation respecting it.

Mr. J. CORNWALL (Fairford) proposed a vote of thanks to Dr. Rogers for his continued attention to the interests of the Association. He had been unable to attend the meetings of the council until a few weeks ago, when they met at Royston, and when the case to which reference had been made was taken into consideration. If that case had stood alone, it would have been sufficient to induce them to urge upon their brethren in different parts of the country to assist the Association in every way. He referred to the case of Mr. Hele of Aldeburgh. He thought they had established a precedent which no Local Government Board or board of guardians would ever refuse to acknowledge. It had been a very vexed question for many years in rural districts, when it was considered that it was optional with the guardians to pay attention to an overseer's order or not. He had been so strongly impressed with the importance of the case, that he proposed that nearly all the funds of the Association should be employed to prosecute the board of guardians in the county court for the payment of the fee; and he had no doubt that, if the matter had been taken into court, the chairman of the board would have been surcharged all the expenses. No doubt hundreds of fees had been lost to Poor-law medical officers through the misunderstanding, sometimes perhaps wilful, with regard to overseers' orders; but that question was now settled for ever. He proposed: "That the best thanks of the meeting be given to Dr. Rogers for his address to-day, and for the time he has devoted to the work of the Association during the past year."

Dr. DRYSDALE (London) seconded the motion. He had had the honour of Dr. Rogers's acquaintance for many years, and he knew that few men were able to accomplish all that he had succeeded in doing in behalf of the profession.

Dr. THOMPSON (Bideford), in supporting the resolution, said he had never listened to an address of a more practical character than that delivered by Dr. Rogers, which showed the services that had been rendered to Poor-law medical officers mainly by his individual energy. He should take care to tell his professional brethren what he had heard, and urge them to support the Association; for he felt that a considerable amount of apathy existed amongst many of them. He had been surprised to hear the statement with regard to the proceedings at the coroner's inquest related by Dr. Rogers. He (Dr. Thompson) was himself a local coroner, and he should certainly have been very sorry to incur the displeasure of the intelligent people in his district in the way that had been described. He felt personally indebted to Dr. Rogers for the efforts he had made in obtaining the resolution from the Local Government Board in regard to the administration of anæsthetics. He ought to say, with regard to the South Molton Union, that the board was one of the most liberal in North Devon; the population was only about 17,000, and the medical officers were paid nearly £500 a-year for their services. He wished them all to remember the words of Shakespeare: "The fault, dear brethren, is not in our stars, but in ourselves, that we are underlings." He thought they ought to have some idea what the fair charges should be, in town and country, in proportion to the population. His own view was, that, in a country district, they ought not to take less than £2 for each hundred of the population; and that, in towns, the salary should not be less than £1 for each hundred. At present, there was a great irregularity in the allowance made by boards of guardians. The amount paid in Cornwall to the Poor-law medical service was only about half the amount paid in Devonshire. In the district which he himself attended, he refused to serve unless he received the amount which he had mentioned (£2), for every hundred of the population. He knew the case of one gentleman, in a country district, with a population of 4,350, who received the munificent salary of £26 a-year. In reference to the refusal of payment for certificates as to the eligibility of lives for insurance, he recommended, when that subject was on the *tapis*, all members of the profession to refuse the certificates unless they were paid. With regard to the question of superannuation, he only desired to say that all permissive legislation was bad; but all local Acts were at first permissive, and, after they had been tried, they became compulsory. He trusted that there would be compulsory legislation in reference to the medical profession, as well as in reference to matters of public health and hygiene.

Surgeon-Major HAMILTON EVATT (Woolwich), in supporting the motion, said he regarded Dr. Rogers as a patriot, in working as he had done for the improvement of the condition of medical officers in the country.

The motion was carried by acclamation.

Dr. ROGERS, in reply, said he was deeply indebted to the members for the kind way in which they had spoken of his services. It was twenty-five years since he first commenced his labours in behalf of Poor-law medical officers, and he believed that he had managed to do some good. In the metropolis alone, when he first began, the payment to medical officers in the various districts was £17,000 less than it was at the present moment; the position of medical officers had been vastly improved—so that, whereas they were formerly, comparatively speaking, drudges, they could now call themselves practising physicians, and write prescriptions, while others dispensed the medicines. Unfortunately, in rural districts, they had not been so successful; but that was largely due to the apathy of the profession generally. Ten or eleven years ago, a late President of the Poor-law Board wrote him a letter, referring to what he had done in connection with the amendment of the Poor-law, stating distinctly that, what he had been long urging, was the right thing to be done, and that it would result in the benefit of the community as well as the benefit of the profession; and he hoped that he (Dr. Rogers) would go on fighting the battle in the same way. He added: "Do try to educate your professional brethren up to the refusal of these ill-paid appointments." He had endeavoured to do so to the best of his ability; and he should continue the work so long as he had health and strength. His satisfaction consisted in his having achieved a certain amount of good; but he thought more might have been accomplished if the profession had been a little more united.

Thanks were then voted to the Committee of Council of the British Medical Association, for the facilities afforded for holding the meeting.

IRISH GRADUATES' ASSOCIATION.

THE fourth annual meeting was held at Ryde, Isle of Wight, on Wednesday, August 10th; J. T. Banks, M.D., Physician to the Queen in Ireland, in the chair. The report of the Council was adopted, and ordered to be printed, and a copy sent to each member. It was stated that the number of members at present was 206. Three members died during the year—viz., Drs. Wilbraham Falconer, Peele, and Ward. Letters of thanks for expressions of sympathy sent by the Council to the surviving members of the families of the two former gentlemen were read, and ordered to be included in the minutes; also a letter from Professor Macnaughton Jones, thanking the Council for a resolution sent to him, expressing their sympathy with him during the late investigation relative to the treatment of a patient in the Cork Hospital.

Dr. Edward Waters of Chester was nominated President-elect for the next year. It was decided to hold the usual metropolitan meeting and dinner on March 17th, 1882, and the annual meeting at Worcester in August. Votes of thanks to the retiring President, G. E. Paget, M.D.; to the Committee of Council of the British Medical Association; and to the honorary local secretaries, were passed.

The members present, and friends, to the number of thirty-two, including several ladies, subsequently dined at the Esplanade Hotel. After dinner the usual toasts were proposed. In replying to "Our Guests", Drs. Toner and Dunlap of Washington, and others, made happy replies. "Prosperity to the Association", coupled with the health of the President, was honoured in the usual form.

THE ST. JOHN AMBULANCE ASSOCIATION.—The East and West India Docks Company has sent a further donation of £20 in repayment of the expenses of their recent classes, from the formation of which Lieut.-Colonel Du Plat Taylor reports that great benefit has been derived. Much alleviation of suffering has also been the result, it is added, of stationing the St. John litters at each entrance to the docks, sufferers from accidents being conveyed in these to the hospitals in much greater comfort than can be experienced in cabs. The demonstrations in bandaging, stretcher drill, etc., by the association's pupils at the International Medical and Sanitary Exhibition at South Kensington have been very successful. One of the honorary associates of the Order of St. John, the well known Professor Esmarch, of Kiel, has been so much impressed at witnessing these demonstrations that he intends to start the ambulance movement in Germany.—Two meetings were held at Berwick-on-Tweed last week—one presided over by the mayor, and the other by Captain Milne Home, M.P. Addresses were delivered by Major F. Duncan, R.A., D.C.L., deputy-chairman of the association, and it was resolved to open classes immediately.

MEMBERS PRESENT AT THE ANNUAL MEETING.

THE following list includes the names of members and visitors present at the annual meeting in Ryde, which were entered in the book provided for the purpose in the reception-room.

Alcock, J., Esq., Burcham; Alderson, E. H., M.D., Hammersmith; Aldred, H. A., M.D., Lincoln; Angas, J. L., Esq., Adelaide, S. Australia; Archer, W. A., M.D., Cambridge; Armistead, William, M.B., Cambridge; Ashby, H., M.D., Manchester; Atkinson, R., Esq., Kippenlaw, Hadlow; Aveling, W. H., M.B., Southsea.

Baker, J. Gilbert, M.D., London; Baker, Thomas, Esq., Balham; Baker, J. Wilson, Esq., Derby; Baker, R. L., M.D., Leicester; Baker, S. H., Esq., Oxford; Banks, Thomas, D.D., Esq., Royston; Banks, Miss, Esq., York; Banks, J. T., M.D., Dublin; Bantock, G. Granville, M.D., London; Barker, Alfred J., M.D., London; Barker, R., Esq., London; Barnes, J. Wickham, Esq., London; Barr, T., M.D., Glasgow; Barrett, Surgeon, R.N., Esq., Fareham; Barrs, G. B., M.D., Southport; Barrow, Benjamin, Esq., Ryde; Bartleet, T. H., Esq., Birmingham; Batterbury, G. H., M.D., Wimborne Minster; Battey, R., M.D., Rome, U.S.A. (n.m.); Beaton, Daniel, M.D., Ryde; Beckingsale, D. L., M.D., Chiswick; Beckingsale, J. E., Esq., Newport; Bell, J. H., M.D., Bradford; Benham, S. H., Esq., Pittsburg (n.m.); Bennet, Henry, M.D., Weybridge; Bentham, S., Esq., Southsea; Beresford, C. W., Esq., Ryde; Bernard, Francis R., M.B., Stockwell; Bertram, Augustus L., Esq., Southsea; Beveridge, Robert, M.D., Aberdeen; Billings, J., M.D., Washington (n.m.); Bird, Peter Hinckes, Esq., London; Blenkinsop, J. G., Esq., Longport; Bloxam, W. C., Esq., Merton, Portsmouth; Bonsey, Surgeon-Major, I. H. F., M.D., Netley; Bowman, Lee, M.D., Manchester; Bosworth, F. H., M.D., New York (n.m.); Bridgeman, I. T., Esq., Berkeley; Brierley, J. B., M.D., Manchester; Bristowe, J. S., M.D., London; Brock, H. W., M.D., West Virginia University (n.m.); Brook, W. F., Esq., Farehan; Brooke, A. G., Esq., Stockbury; Brown, T. L., Esq., Leamington; Browne, J. Crichton, M.D., London; Buck, Charles W., Esq., Settle; Buck, T. A., M.B., Ryde; Burrows, Sir George, Bart., M.D., F.R.S., London; Burt, J. K., M.B., Kendal; Byrd, W. A., M.D., Quebec, Hants (n.m.).

Cæsar, R. T., Esq., Shirley; Campbell, J., M.D., Knaphill; Candy, J., M.D., Portland; Carmichael, David, Glasgow; Carpenter, A., M.D., Croydon; Carter, G. R., Esq., London; Chadwick, C., M.D., D.C.L., Lynncourt, Tunbridge Wells; Chappell, W. E., M.D., Cape of Good Hope; Carpenter, James, Esq., Manchester; Clark, A., Esq., London; Coates, W. Martin, Esq., Salisbury; Cockburn, R., Surgeon-General, London; Collins, E. J., Esq., London; Cogswell, J. G., Sinclair, M.D., Ventnor; Cole, R. Beverley, M.D., San Francisco (n.m.); Colthurst, R., M.D.; Bristol; Coombs, M. L. B., Esq., Newport, I.W.; Corbin, M. A. Bazille, Esq., Guernsey; Cordes, A., M.D., Geneva; Cornwall, J., Esq., Fairford; Cory, R., M.D., London; Cossar, L., M.D., Hampstead; Coupland Sydney, M.D., London; Cousins, J. Ward, M.D., Southsea; Cowan, Michael W., M.D., Gosport; Crickmay, Edward, Esq., Laxfield; Critchett, G. Anderson, Esq., London; Crook, Thomas, Esq., London; Cross, F. Richardson, Esq., Clifton, Bristol; Crossby, H. E., M.D., Nice.

Daniel, G. W., Esq., Blandford; Davey, A. G., M.D., Ryde; Davidson, A., M.D., Liverpool; Davies, H. N., Esq., Cymer, Pontypridd; Davis, W. G., Esq., Heytesbury; Dawson, W. H., Esq., Malvern; Dewar, James, M.D., South Queensferry; Diamond, Hugh W., M.D., Twickenham; Dixon, J., M.B., London; Drummond, Henry P., M.D., Ipswich; Drysdale, C. R., M.D., London; Dunkley, W. W., Esq., Foleshill, Coventry; Dunlop, A., M.D., Springfield, Ohio (n.m.); Dutton, T., M.B., London.

Edis, A. W., M.D., London; Elias, Daniel, M.D., Southport; Elliott, E., M.D., Purbrook, Cosham; England, W., Esq., Winchester; Evatt, G. J. H., M.D., Woolwich; Everett, David, Esq., Worcester; Ewart, Joseph, M.D., Brighton.

Falls, W. S., M.D., Bournemouth; Farmer, S., Esq., Parkhurst; Farr, S. B., Esq., Andover; Felce, Stamford, Esq., London; FitzPatrick, W. H., M.D., Liverpool; Fletcher, Thomas Bell, M.D., Leamington; Flower, Thomas, Esq., Warminster; Folker, W. H., Esq., Hanley; Fosbroke, G. H., Esq., Redditch; Foster, B., M.D., Birmingham; Fox, E. Long, M.D., Clifton; Frazer, William, M.D., Bournemouth; Freeman, A. J., M.D., San Remo; Fuller, William, M.B., Oswestry; Fyfe, George, M.D., Andover.

Gaddy, N. D., M.D., Lovett, Indiana (n.m.); Garner, J., Esq., Birmingham; Garrington, Arthur M., M.D., Southsea; Garrington, W. H., Esq., Southsea; Gifford, R. Dyke, London; Gill, T. P., M.D., Tunstall; Gould, R. W., Esq., London; Goodwillie, D. N., M.D., New York (n.m.); Goss, Samuel, Esq., Southsea; Gowers, W. R., M.D., London; Gowing, B., Esq., Salisbury; Grant, D., M.B., Manchester; Grant-Bey, J. A. Sandilands, M.D., Cairo; Gray, C. G., M.D., Ironton, Ohio (n.m.); Green, W. E., Esq., Sandown; Greening, F. J., Esq., Ryde; Greenish, Robert W., Esq., London; Greenway, Henry, Esq., Plymouth; Greenwood, J. W., Esq., Wakefield; Griffiths, T. D., M.D., Swansea; Grimshaw, T. W., M.D., Dublin; Groves, Joseph, M.B., Carisbrooke; Gunn, W., M.D., Rochester; Guye, Dr., Amsterdam (n.m.).

Hackman, L. K., Esq., Portsmouth; Haddon, John, M.D., Eccles, Manchester; Hall, J. G., Esq., Swansea; Hallowes, F. B. Esq., Redhill; Hardie, G. K., M.D., London; Harris, Alfred E., Esq., Gosport; Harrison, A. J., M.B., Clifton; Harrison, Charles, M.D., Lincoln; Harrison, Reginald, Esq., Liverpool; Hart, Ernest, Esq., London; Hartford, H. W., Esq., Christchurch; Haughton, Edward, M.D., B.A., Upper Norwood; Hayden, T., Esq., Dublin; Hayes, I. Minis, M.D., Philadelphia (n.m.); Hemming, W. Douglas, Esq., Bournemouth; Hensley, H., M.D., Bath; Hensman, W., Esq., Taunton; Hicks, J. Braxton, M.D., F.R.S., London; Hitchcock, H. K., M.D., Bournemouth; Hobson, John M., M.D., Croydon; Hodgson, G. F., Esq., Brighton; Hoffmeister, William, M.D., Cowes; Holt, John, Esq., London; Holtzapffel, Theodore, Esq., Wellfield; Holtzapffel, C., M.D., Reigate; Hopcroft, T. F., Esq., Dorking; Hovell, Dennis de Berdt, Esq., Clapton; Hudson, W. Hugh, Esq., Ryde; Humphrey, J. K., Esq., Shrewsbury; Humphry, G. M., M.D., F.R.S., Cambridge; Hunter, E. J., Esq., Gosport; Hunter, W. D., Esq., Tunbridge Wells; Hutchinson, J., M.D., Brooklyn, U.S.A. (n.m.).

Ireland, J., Esq., London.

Jackson, J., Esq., Birmingham; Jacob, A. H., M.D., Dublin; Jamison, A., M.D., St. Helen's; Jardine, J. Lee, Esq., Capel; Jeston, T. W., Esq., Henley-on-Thames; Jones, C. H., Esq., Tunbridge Wells; Jones, S., M.D., Stoke-upon-Trent; Johnston, John S., Esq., Sheffield; Johnston, J., M.D., Bolton; Jolliffe, W. J., Esq., Newport, I.W.; Jones, Evan, Esq., Ty-mawr, Aberdare; Jones, S. J., M.D., Chicago (n.m.); Jones, Talfourd, M.B., Brecon; Jordan, W. Ross, M.D., Portsmouth; Joy, J. Hilton, M.D., Torquay.

Keay, J. W., M.D., Gosport; Kemp, E. H., Esq., Guernsey; Kelly, A. J., M.D., Glasgow; Kennedy, J., M.D., Elie, Fife; Kerr, Hugh R., Esq., Hampstead; Kerr, Norman, M.D., London; Kershaw, A., Esq., Farnworth; Kidger, Henry, Esq., Kennerton; Knott, C., Esq., Portsmouth; Knott, J. F., Esq., Dublin; Kyrsley, William, Esq., Guildford.

Lamb, W. H., M.B., London; Lane, J. E., Esq., London; Lansdowne, J. C., M.B., London; Langton, T. E., Esq., London; Lawson, C., M.D., London (n.m.); Lawson, J. Cosmo, M.D., Stuttgart; Newton; Lewis, C. A., M.D., New York (n.m.); Lilley, C. Herbert, M.D., Portland; Linay, J. N., Esq., London; Llewellyn, B., M.D., Portsmouth; Lloyd, E., Esq., Chepstow; Lloyd, J. H., M.B., Esq., Dorset; Lonmar, W. H., Esq., Bristol; Low, W. H., M.D., Amsterdam; Lucas, W. Vandrey, M.D., Weymouth; Lutaud, D., M.D., Paris (n.m.).

Macartney, W. R., Esq., Dorchester; M'Dermott, M. S., Esq., Wimborne; M'Grath, F. J., Surgeon-Major, Southsea; M'Harry, M. M'Dermott, Esq., London; McIntyre, A. J., M.B., Odiham; McIntyre, J., M.D., Odiham; McKee, E. S., M.D., Cincinnati (n.m.); McKellar, F., M.D., Deputy Surgeon-General, Bengal; Mackenzie, J., M.B., Burnley; McMahon, J. T., Esq., Sandown; Macnamara, C., Esq., London; Malins, E., M.D., Birmingham; Manley, F. F., Esq., Westhampton, Manley, J., M.D., Kirkdale, Lancaster; Marsden, H. J., Esq., Sunderland; Mapother, Edward, D., M.D., Dublin; Marsh, H. O., M.D., Boston, U.S.A. (n.m.); Martin, H. A., M.D., Boston, U.S.A. (n.m.); Martin, W. G., Esq., Bolton; Mashelyne, G. H., Esq., Faringdon; Mason, A., M.D., Boston, U.S.A. (n.m.); Mason, Frederick, Esq., Leek, Staffs; Massey, Isaac, M.D., Newcastle; Matteson, W., M.D., York; Meade, W., Esq., Gosport; Merriman, Charles, Esq., Southsea; Minor, Hugh, M.D., Glasgow; Mitchell, R., Esq., Stratford; Moore, H., M.D., Bristol; Moore, J. W., M.D., Dublin; Moore, W. Wynn, M.D., Brighton; Morgan, Charles, Esq., Steyning; Morgan, E. Rice, Esq., Morriston; Morley, F., Esq., Portsmouth; Morris, Malcolm, Esq., London; Morton, A., Esq., London; Muggeridge, H. H., Esq., Seaford; Murdoch, J. M. P., Plymouth; Murphy, D. D., M.D., New York (n.m.); Murray, James, M.D., Barnard Castle; Murray, J. R., M.D., Surgeon-Major, Southsea.

Napper, A. Arthur, Esq., Cranleigh; Nason, James, M.D., Sandown; Neill, C., M.D., Ryde; Nelson, D. T., M.D., Chicago (n.m.); Nesbeth, S., M.D., Manchester, Newdigate, Thomas, M.D., London; Newitt, John George, Esq., Chapel Allerton, Leeds; Nicholson, R. H. B., Esq., Hull; Norton, A. T., Esq., London; Norton-Taylor, A., Esq., Southsea; Nunn, Philip W. G., Esq., Bournemouth.

Oakes, C., M.B., Leamington; O'Connell, Edward, Esq., Hastings; O'Connor M. R., M.D., Limerick; Olivey, H. P., Esq., Taunton; O'Sullivan, S., M.D. Cork; Owen, Edmund, Esq., London; Owen, William, Esq., London.

Page, H. W., Esq., London; Palmer, J. F., Esq., London; Palmer, J. M., Esq., Armagh; Parsey, W. H., M.D., Warwick; Patton, A., M.B., Finglas, Co. Dublin; Paul, J. H., M.D., London; Paxton, Francis V., M.B., Chichester; Pearse, W. Grindley, Esq., London; Phillips, John, Esq., Narberth; Philpots, E. P., M.D., Bournemouth; Phillips, Bevan, Esq., Ryde; Pitman, N. J., M.D., Farborough, N. Carolina (n.m.); Pletts, J. Menham, M.D., Ryde; Poole, George K., M.D., Upper Norwood; Pritt, Norman, Esq., Hampstead; Pope, R. E., Esq., Portsea; Price, R. G., Esq., Treorky; Prichard, A. Esq., Clifton, Bristol; Pritchard, Urban, M.D., London; Prosser, R., Esq., Bromsgrove; Pye, Walter, Esq., London.

Quimby, J. N., M.D., Jersey City, U.S.A. (n.m.).

Ransome, A., M.D., Bowdon, Manchester; Rawlin, Thomas, Esq., Tunstall; Rayner, E., M.D., Stockport; Redwood, T. Hall, M.D., Rhymney; Rees-Philipps S., M.D., Exeter; Reeve, R. A., M.D., Toronto (n.m.); Reeves, H. A., Esq., London; Reid, William L., M.D., Glasgow; Rendall, W., Esq., Maiden Newton; Rendle, H., Esq., Southsea; Renner, C., M.D., London; Reston, H., Esq., Manchester; Reynolds, Dudley S., M.D., Louisville (n.m.); Rich, A. E., Esq., Ryde; Ring, E. C., Esq., London; Rivington, W., Esq., London; Roberts, A. M., Esq., Buckhurst Hill; Roberts, R., Esq., Festiniog; Robertson, P. F., M.D., Milngavie, Glasgow; Robertson, Robert, M.B., Ventnor; Roe, J. O., M.D., Rochester, U.S.A. (n.m.); Rogers, A. W., Esq., New Jersey (n.m.); Rogers, J., M.D., London; Rogers, J. A., M.D., New Jersey, U.S.A. (n.m.); Rowland, F. W., M.D., Hamilton, Ontario (n.m.); Ross, William A., Esq., Alderney; Royle, P., M.D., Manchester; Rudall, J. T., Esq., Melbourne; Rumbold, T. F., M.D., St. Louis (n.m.); Russell, J. B., M.D., Glasgow; Rygate, J. J., Esq., London.

Samelson, L., M.D., College; Sankey, R., M.D., Birmingham; Saunders, P., M.D., Cobham; Scott, R. R., Esq., Southampton; Scott, James, M.D., Salisbury; Shepard, A. J., Esq., Usk; Sherfy, J. W., M.D., Brooklyn (n.m.); Shinkwin, Thos. C., M.D., Cork; Shuttleworth, G. E., M.D., Lancaster; Sibley, Septimus W., Esq., London; Siddall, J. B., M.D., Ross; Sidebotham, G. W., Esq., Hyde; Silver, A., M.D., London (n.m.); Skerritt, E. Markham, M.D., Clifton; Smart, Sir W. R. E., M.D., London; Smith, C. C., Esq., Redditch; Smith, Charles J., Esq., Brighton; Smith, E. N., Esq., London; Smith, G. N., M.D., Southsea; Smith, Jerome C., M.D., New York (n.m.); Smith, Joseph, Esq., Weybank, Guildford; Smith, R. Shingleton, M.D., Clifton; Smith, T., M.D., Cheltenham; Smith, Walter, Esq., London; Smith, W. G., M.D., Dublin; Somerville, G. H., Esq., Portsmouth; Southam, Frederick A., Esq., Manchester; Sparrow, W. Thompson, Esq., Hartley, Sparrow, G. G., Esq., Southsea; Speer, A. L., M.D., Otterbein, Ohio; Spencer, S., M.D., Rock Ferry; Stainthorpe, Thomas, M.D., Hexham; Stainthorpe, W. W., M.D., Wimborne; Stevenson, W. T., M.D., London; Stevens, G. F., Esq., St. Edmund's; Stewart, G., Esq., Sunderland; Mackenzie, Surgeon, A. F., M.D., London; Stewart, Isaac, Esq., Cowes; Stone, W., M.D., Dorset; Storer, E. M., Esq., London, (n.m.); Strange, W., M.D., Worcester; Sturges, M. J., M.D., Beckenham; Swain, Edward, Esq., London; Symes, Walter J., M.D., Weymouth; Sympson, T., Esq., Lincoln.

Tait, [illegible], M.D., Wimborne; Taylor, M. W., M.D., Penrith; Taylor, W., M.D., Cardiff; Tebbutt, [illegible], Esq., Southsea; Thomas, [illegible], Esq., Ryde; Thomas, D., Esq., London; Thomas, [illegible], M.D., Ryde; Thompson, [illegible], M.D., Bournemouth; Thorp, Samuel, Esq., Cranleigh; Tidy, C. M., M.D., Leamington; Tomes, J. M., M.D., Wimborne; Tomkins, W. F., Esq., Ryde; Tomkins, W. L., Esq., Ryde; Tomkins, [illegible], Esq., Ryde; Tomkins, [illegible], M.D., Folkestone.

Underhill, [illegible], M.D., West Brighton.

Vance, [illegible], Esq., London.

Wade, W. H., M.B., Portsmouth; Wade, [illegible], Esq., Portsmouth; Wade, [illegible], Esq., Portsmouth; Wade, [illegible], Esq

W., Esq., Manchester; Wigg, F. Carter, M.D., Derby; Williams, H. L., M.D., Southsea; Williams, John, M.D., Ventnor; Williams, T. Watkin, Esq., Birmingham; Williamson, J. M., M.D., Ventnor; Wilson, G., M.D., Leamington; Wilson, Thomas, Esq., Wallsend-on-Tyne; Wood, T. A., M.D., Woolton, Liverpool; Woodman, F. A. R., Esq., Clifton (n.m.); Woods, Oscar T., M.D., Killarney; Woodward, Alfred, Esq., Ryde; Wookey, James, Esq., Ventnor; Worley, W. C., Esq., London

Yandell, D. W., M.D., Louisville, U.S.A. (n.m.); Yellowlees, D., M.D., Glasgow.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SOUTH EASTERN BRANCH: WEST SUSSEX DISTRICT. The next meeting of this District will take place at Midhurst on Friday, September 9th (and not on Tuesday the 6th, as stated last week); Dr. Robinson in the chair. Dr. Kelly will bring forward some remarks on the Origin of Enteric Fever; Dr. Robinson the particulars of some cases. Members intending to read papers or bring forward subjects for discussion are requested to send notice to the Honorary Secretary, G. B. COLLET, 5, the Steyne, Worthing.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT. The next meeting of this District will be held at the Royal Sea-Bathing Infirmary, Margate, on Thursday, September 8th, at 3 P.M.; Mr. W. Knight Treves, F.R.C.S., in the chair. Members are invited to meet at the infirmary at 1.30 P.M. to inspect the new wards, by the kind permission of the directors, where luncheon will be provided at 2 P.M. Dinner at the White Hart Hotel at 5 P.M. The following communications have been promised: Mr. S. Woodman—"Some Disorders of the Teeth, and their Influence on Health"; Mr. Knight Treves—"Angular Curvature"; Mr. Whitehead Reid—"Specimen of Cherry-stone Impacted in Vermiform Appendix". T. WHITEHEAD REID, Honorary Secretary.

CORRESPONDENCE.

DR. BEARD'S EXPERIMENTS IN HYPNOTISM.

SIR,—The collapse of Dr. Beard's experiments in hypnotism at the Waterloo Hotel, Jermyn Street, on the 6th instant, was so complete that many of those who were present were disposed to say nothing further on the subject, but to leave the fallen fabric of scientific error to disintegrate in peace. Dr. Beard's letter to the *Times*, however, in reply to Dr. Donkin's exceedingly temperate description of what took place at his hypnotic *séance*, renders it necessary that something further should be said to show that Dr. Donkin's conclusions were not erroneous, but the inevitable corollaries of certain clear demonstrations submitted to the meeting. With your permission, I should be glad to make a few comments on Dr. Beard's hypnotic experiments.

Along with about fifty other members of the Medical Congress, I attended, by invitation, at the Waterloo Hotel, Jermyn Street, on the afternoon of Saturday, the 6th inst., to witness some "new phases of hypnotism," on a "trained subject" specially brought over from America by Dr. Beard. I watched and did my best to analyse the experiments brought before the meeting by Dr. Beard, which, it may reasonably be supposed, were not the least conclusive and striking in his repertory; and the impression left on my mind at the close of the proceedings was that I had been looking on at a performance, which would have been contemptible at a village fair, but which was outrageous when brought forward in the guise of science. Not only were no new phases of hypnotism exhibited, but the old phases were reproduced in the most lame and impotent fashion. Of the experiments of mathematical precision, referred to by Dr. Beard, nothing was seen. Tests precluding the idea of deception were never broached. Invited to witness the phenomena of artificial trance, we were regaled by some stale mesmeric tricks performed by a youth, who was constrained to admit that he was travelling under an assumed name, and that he had taken part in public mesmeric and spiritualistic performances, and who declined to reveal his real name in order that inquiries might be made into his antecedents.

The first step in the proceedings was, of course, to throw the subject into the hypnotic state, and this was done by Dr. Beard with singular celerity. No fixed gaze nor monotonous processes were necessary. Dr. Beard pointed at the subject's nose, and he was in trance-land; he uttered a word, and he was back in Jermyn Street. The suddenness with which these transitions were effected, and the nature of the change produced, were such as to recall a comical reminiscence of a well-educated dog shamming sleep and then snapping at a biscuit. The difference between the trance state and the ordinary condition consisted simply in a set, vacant stare, assumed when a trance was ordered and dropped when it was discontinued, the facial expression characteristic of the trance having in it nothing unique or marvellous—nothing, in fact, which could not be imitated by anyone who was willing to make himself look stupid and ridiculous. It is understood, and was indeed stated, that the trained subject is dominated by Dr. Beard's will, and is thrown by his mandate into a trance from which he can only be released at his pleasure. But this theory is not very strictly adhered to in practice; for twice during the meeting on the 6th inst. the subject took upon himself to come sharply out of his trance without any assistance from Dr. Beard, interposing remarks in the discussion then going on, which proved that he had been keenly alive to all that had been said when he was supposed to be in a state of complete somnambulistic insulation.

The so-called hypnotic state having been induced, the trained subject was directed to favour the company with a temperance lecture, which he at once did, delivering an exhortation which was certainly not beyond the capacity of an average teetotal intellect without any hypnotic stimulant. I have since ascertained from an American physician, that this identical trained subject has been in the habit of delivering exactly the same lecture in New York, so that the hypnotic state does not appear to confer on him any great originality or versatility of thought or expression.

From the temperance lecture, Dr. Beard passed to an experiment designed to prove that the sense of vertigo is abolished in a hypnotical person. The trained subject, we were informed, could rotate on his own axis any number of times without becoming giddy. Looking upwards at Dr. Beard's finger, which was held above him, he turned slowly round five times, upon the finger as a pivot as it were, and then, walking a step or two, stood steady and erect at the word of command. At the suggestion of the meeting, however, he turned round, not five but twenty times, and then, alas! he tumbled over in a state of helpless vertigo. It was curious to remark that the rotations gradually became slower and more laboured as they went on, and that the hypnotic dervish, in spite of his profound abstraction, had accurately counted them as he dropped instantly on the completion of the twentieth turn, although Dr. Beard had not told him to do so, and although no one in the room had audibly counted his gyrations. A dozen gentlemen in the meeting could, with a little practice, have beaten him at this game of whirligig.

The next experiments were in thought-reading, or muscle-reading, as Dr. Beard more properly calls it—the point being to illustrate the supersensitive phase of hypnotism, in which the most delicate indications are interpreted with unerring precision. The trained subject, with Dr. Beard's hand pressed on his forehead, immediately did what that gentleman had agreed to think of, and touched the corner of a chair; but in two subsequent trials with Dr. Drysdale and Dr. Nicolson he signally failed. While Dr. Drysdale was selecting an object to be touched, it was arranged that one of the gentlemen in colloquy with him should look intently and not significantly at a picture on the wall opposite. As was anticipated, the trained subject, with Dr. Drysdale's hand on his brow, went at once to this picture and fixed on it as the object of Dr. Drysdale's thoughts, which were all the time directed towards some words on a diagram suspended over the door.

After muscle-reading came the artificial production of opisthotonos, or rigid arching of the back, analogous to what occurs in tetanus and strychnia poisoning. The subject was stretched on three chairs; the opisthotonos was induced, and, the chair beneath his back having been removed, he was left balancing himself with his heels on one chair and his head and shoulders on the other. He remained in this position for one minute and thirty-five seconds, making the most obvious and violent muscular efforts all the time, and then, being exhausted, he let himself quietly down on the floor without being deopisthotonised by Dr. Beard. His tightly laced boots prevented me from tickling the soles of his feet during this *tour de force*. Had I been able to do so, we should, I suspect, have had emprosthotonos and pleurosthotonos added to deopisthonotos—a medley of very instructive contortions. I have seen an athletic and wide-awake schoolboy perform this feat much better than Dr. Beard's trained and hypnotised subject, maintaining the position for a much longer period, with less display of muscular effort, and with the addition of two volumes of the *Encyclopædia Britannica* on his stomach—the keystone of the opisthotonic arch—all the time.

As to the sensory test, which Dr. Beard's trained subject judiciously and firmly declined, we are now told by Dr. Beard that, in his experiments in New York, he has slowly, before a shuddering assembly, burnt a deep hole in the hand of a hypnotised subject, no indications of pain being exhibited; but the question is not what has been done in New York, but what took place at Jermyn Street; and there his "trained subject", specially imported to illustrate the newest and most remarkable phases of hypnotism, of which Dr. Beard assures us anæsthesia—deeper than that of chloroform—is one of the most characteristic, absolutely refused to submit to any sensory test, manifesting the most evident trepidation at the mere mention of the matter, and

calling medical men "ravening wolves", because they wished to do that which, on the hypothesis of his being a genuine hypnotic, could not have hurt him in the least. I am convinced that there would have been no call for a resort to any such heroic measure as the actual cautery in this case. A common pin would probably have insured apostacy in this modern martyr.

Dr. Beard says, that as to the genuineness of hypnotism all experts are substantially agreed—a statement which cannot be allowed to pass without qualification. All experts are agreed that certain curious phenomena which have been designated hypnotism are witnessed under exceptional circumstances in certain animals and human beings; but most experts are equally well agreed that much that has passed as genuine hypnotism has been rank imposture. No practical physician with a knowledge of nervous disease can read the literature of hypnotism, or critically watch a series of hypnotic exhibitions, without arriving at this conclusion. The difficulty is, to eliminate the imposture and determine what remains. The process of elimination must, I presume, be carried on by the ordinary methods by which error and falsehood are disengaged from truth. Testimony must be sifted, evidence weighed; and hence the paramount importance of determining the credibility of persons who manifest hypnotic phenomena, a large majority of which may be successfully simulated. Dr. Beard thinks the moral character of his subjects a matter of no consequence. His audience at Jermyn Street differed from him on that point; and, having satisfied themselves that the trained subject whom he had introduced to them was not a person on whose uncorroborated testimony on hypnotic experiences they would be willing to rely, they eliminated his whole performance. The individual in question did nothing which the feeblest trickster might not have done; so they refused to set aside the simple and sufficient explanation of chicanery for the far-fetched and unnecessary theory of hypnotism.

But, as regards the genuine phenomena of hypnotism, the residuum that is left when all conscious and unconscious imposture has been winnowed out, a word of warning is desirable. There has been a revival of hypnotism of late years. Popular works on the subject have been published. Scientific interest in it has been re-awakened in connection with recent physiological discoveries, and I have heard of hypnotic experiments having been introduced as a drawing-room entertainment. It is well, therefore, that it should be generally understood that hypnotism is not, as is sometimes imagined, a state of mental exaltation in which, or through which, glimpses may be obtained into an unseen universe, but a morbid condition, tending towards mental enfeeblement and nervous degeneration. I can at once recall three cases of insanity that have fallen under my observation, in which the mental derangement was clearly brought on by mesmeric experiments operating upon persons of delicate organisation; and I have no doubt that, were I to search my experience, I might bring a much more serious indictment against mesmerism or hypnotism as a cause of disease. My belief is, that hypnotism is demoralising and dangerous to those who practise it, and that the amount of instruction to be derived from it is infinitesimal. It ought never to be resorted to for amusement or the gratification of curiosity, and its employment for scientific purposes should be as guarded and economical as other experiments on living animals.

Were it widely recognised that hypnotism is a depraved state of the brain and nervous system, and that only a small percentage of Englishmen and Englishwomen—and these certainly not the best of their race—are capable of being hypnotised, hysterical girls, effeminate youths, and credulous adults would be less prone to dabble in its tainted mysteries.

So much for hypnotism, scientifically considered; but it seems to me that the real question now at issue between Dr. Beard and his critics is not a scientific, but an ethical one. The medical profession in this country and the thinking public generally will accept as final the verdict of a meeting of fifty open-eyed and open-minded doctors who investigated Dr. Beard's experiments and pronounced them valueless. Ingenious lucubrations on the "absolute genuineness" of trance-phenomena, the superiority of hypnotism to considerations of moral character, and the fortitude of Smithfield martyrs, will not now rehabilitate Dr. Beard's "trained subject", nor re-establish the reign of hypnotism in Jermyn Street. But, while wholly discrediting his hypnotic demonstrations, the medical profession and intelligent public would be sorry to do any injustice to Dr. Beard, or without full warrant to accept a version of his relation to these demonstrations, which would not be in accordance with the best traditions and highest precepts of scientific medicine. It may have been that, in the embarrassment of the moment, on the 6th instant, Dr. Beard assumed an attitude and used expressions which were liable to misinterpretation; and it would be well, therefore, I venture to think, if he would answer the following questions, which sum up the principal ethical doubts and difficulties that have arisen out of his demonstrations.

1. Did he know, when he brought his "trained subject" to this country, that he was passing under an assumed name, and did he withhold the knowledge of that fact from several parties of medical men who had witnessed his experiments, and from the meeting of the 6th instant, until it was elicited by the vigorous cross-examination to which the "trained subject" was submitted?

2. Did he know that the "trained subject" had taken part in mesmeric and spiritualistic performances previously to his coming under his cognisance; and, if so, did he withhold the knowledge of that fact from the parties of medical men who were invited to witness his hypnotic achievements?

3. Had he never, until the exposure of the 6th instant took place, had any suspicion that any part of his "trained subject's" performances was a mere piece of acting?

4. Did he inform his audience on the 6th instant that he had exhibited his experiments before the Academy of Medical Science at New York; and was that statement promptly and emphatically contradicted by Dr. Adams, the Secretary of the Academy, who happened to be present?

5. Was he invited, after the failure of his "trained subject" to secure confidence, to join the meeting in expressing satisfaction that a gross case of deception had been exposed, and did he refrain from making any response to that appeal?

Satisfactory answers to these questions would do much to remove misgivings that have arisen as to the attitude which Dr. Beard assumed when his trained subject was stripped of his scientific finery, and shown forth in his true colours.—I am, sir, your obedient servant,

J. CRICHTON BROWNE.

Whitehill, Colvend, near Dalbeattie, N.B., August 20th, 1881.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—With the greatest respect for the readers of addresses in medicine and surgery at the annual meeting at Ryde, I venture to think that they have unwittingly placed our Association in a false position by their unfortunate utterances *ex cathedrâ* on this much debated subject. "Dressed in a little brief authority", they have decided in favour of a course of action which did not commend itself to the President of the Association, to the members who seconded their customary votes of thanks, nor to the many members who loudly applauded the open expression of dissent on the part of these latter.

I think it can hardly be doubted that, unless and until the opinions expressed by Dr. Bristowe and Mr. Jonathan Hutchinson are authoritatively disavowed by the Association, the responsibility for their utterance *ex cathedrâ* at one of its general meetings will naturally fall on the body whose officers (though honorary) for the time being they were.

It would take up too much of your space, were I to refer at any length to the debatable points in connection with the above subject contained in these addresses. But one statement of Mr. Hutchinson's seems to me so contrary to the fact, that I must ask leave to draw attention to it—viz., where he says that "we enjoy a law-established monopoly in the art of healing". Now this is just what, from a somewhat prolonged study of the subject, I had come to the conclusion that we did *not* enjoy; but, unwilling to place my unsupported opinion against that of Mr. Hutchinson, I have consulted Mr. R. H. S. Carpenter, who, as Secretary of the Medical Alliance Association, has devoted more attention to the subject of medical legislation than probably any other man in England, and he confirms me in the view that we do *not* "enjoy a law-established monopoly in the art of healing"; but that, on the contrary, bone-setters, herbalists, syphilis-quacks, *et hoc genus omne*, may and do exercise their vocations without becoming amenable to any law.

I shall be disappointed if Mr. Hutchinson does not either substantiate his statement, or acknowledge that his argument is so far weakened as it depended on the accuracy of his premiss.—Faithfully yours,

August 25th, 1881. H. NELSON HARDY.

HEIFER VACCINE.

SIR,—During his recent stay with me, Dr. H. A. Martin of Boston arranged to supply me with animal vaccine each week, so that those desiring it may get it fresh and at moderate cost. In Dr. Martin's farm vaccine from three different sources of original cowpox is carefully propagated viz., from the Beaugency stock; from the Esneau (Belgian) stock; and from the Cohasset, a recently discovered American source. I shall be happy to supply animal vaccine from these sources as well as I can, but would urge those using it to pay strict attention to the printed rules sent along with the vaccine, and would ask them to kindly re-

timate to me by post-card the results they obtain with this lymph. I should feel obliged by your inserting in an early number of the BRITISH MEDICAL JOURNAL this intimation of a new source of supply for animal vaccine in this country.—Yours truly,

P. M. BRADWOOD.

AN ERROR CORRECTED.

SIR,—In my opening address at the Obstetrical Section of the late Medical Congress, I included the name of Dr. Oldham among eminent *deceased* London obstetricians. I rejoice to find this was an error on my part which I exceedingly regret; and beg you will be good enough to correct it, by publishing this letter in the next issue of your JOURNAL.—I am, yours, A. H. McCLINTOCK.

21, Merrion Square, N., Dublin, August 16th.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS, Friday, August 19th.

M. Pasteur's Paper on Prophylactic Inoculation.—Mr. THOMASON asked the President of the Local Government Board whether he was aware that an exact translation of M. Pasteur's paper on the vaccination of the lower animals was given in the *Times* of August 9th; whether there was any precedent for printing a scientific paper at the public expense; and whether he would reconsider as to so printing M. Pasteur's paper.—Mr. DODSON: I am aware that an excellent translation of M. Pasteur's paper on the inoculation of the lower animals, as delivered by him, was given in the *Times* of August 9th; but the paper which I contemplate laying on the table of the House is a copy of the address, which has had the advantage of being revised by M. Pasteur himself subsequently to its delivery. [*Hear.*] There are numerous precedents for printing scientific papers at the public expense, as may be seen by reference to the reports of the medical officer of the Board, and separate returns; but the present return is not only scientific, but of a very important practical character to agriculturists and others, and one which would justify a precedent in itself. [*Hear.*]

Monday, August 22nd.

Small-pox.—Mr. DODSON informed Mr. Torrens that two medical inspectors of the Local Government Board had been directed to inquire whether the statement was well founded that the aggregation of small-pox patients in certain hospitals had led to an outbreak of small-pox in neighbouring houses. The report had not yet been received.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL DEPARTMENT.—The following promotions and appointments have been gazetted. Deputy Surgeon-General M. F. Manifold, to be Surgeon-General, *vice* D. R. Mackinnon, granted retired pay; Deputy Surgeon-General Alexander Smith, M.D., C.B., to be Surgeon-General, *vice* William Munro, M.D., C.B., granted retired pay; Brigade-Surgeon J. A. Hanbury, M.B., C.B., to be Deputy Surgeon-General, *vice* T. C. O'Leary, M.B., granted retired pay; Brigade-Surgeon Duncan A. C. Fraser, M.D., to be Deputy Surgeon-General, *vice* M. F. Manifold, promoted; Brigade-Surgeon W. M. Webb to be Deputy Surgeon-General, *vice* A. Smith, M.D., C.B., promoted; Surgeon-Major R. W. Jackson, C.B., to be Brigade-Surgeon, *vice* J. A. Hanbury, M.B., C.B., promoted; Surgeon-Major Hector Ferguson to be Brigade-Surgeon, *vice* D. A. C. Fraser, M.D., promoted; Surgeon-Major S. B. Roe, M.B., C.B., to be Brigade-Surgeon, *vice* J. L. Erskine, M.D., granted retired pay; Surgeon-Major F. J. Shortt to be Brigade-Surgeon, *vice* W. M. Webb, promoted; Surgeon-Major Henry R. L. Veale, M.D., to be Brigade-Surgeon, *vice* J. W. Hulseberg, granted retired pay; Surgeon-Major J. Land, M.D., is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon Herbert E. R. Wolridge resigns his commission. The under-mentioned gentlemen to be Surgeons:—A. M. Davies, H. W. Hubbard, C. C. Fitzsimon, M.D., T. E. Noding, John R. Yourdi, M.B., J. C. Culling, R. I. D. Hackett, M.D., R. T. McGeagh, M.D., G. T. Trewman, M.B., H. H. Johnston, M.B., E. M. Wilson, E. J. E. Risk, J. D. Davies, W. G. Birrell, M.B., M. Dundon, M.D., T. R. Lingard, M.B., C. W. S. Magrath, M.B., A. V. Lane, J. W. Beatty, M.D., G. E. Weston, G. H. Younge, W. G. Clements, W. Baptle, M.B., R. F. O'Brien, C. W. Thiele, M.B., F. P. Nichols, M.B., T. Cox, J. McLaughlin, M.D., R. Fowler, S. H. Creagh, F. J. Lambkin, W. L. Reade, H. J. Peard, G. S. O'Grady, S. J. Rennie, J. Carmichael, E. D. Farmar, G. W. B. Creagh, F. T. Wilkinson, and J. Semple.

VOLUNTEER SURGEONS-MAJOR.—The *London Gazette* of August 16th announces that the honorary rank of surgeon-major has been conferred on the following surgeons of Volunteer corps: John W. Howard, 1st Kent Artillery Volunteers; Charles H. Higgins, M.D., 1st Cheshire Engineer Volunteers; James Dunlop, M.D., 3rd Lanarkshire Rifle Volunteers; Robert McNicoll, 21st Lancashire R.V.; Robert Cross, M.D., 13th Middlesex (Queen's Westminster) R.V.; Thomas Gray, M.D., and John H. Paul, M.D., 1st Tower Hamlets R.V.

NAVAL MEDICAL APPOINTMENTS.—The following appointments have been made: Fleet-Surgeons—William Anderson, to the *Duncan*, additional for Royal Marine Depôt at Walmer; Robert Humphrys, to the *Revenge*, additional for Royal Marine Battalion at Cork; James Flanagan, to the *Defence*, *vice* Henry S. Lauder. Staff-Surgeons—George B. Beale, to the *Valorous*, *vice* Martin Magill; Alexander M'Donald, to the *Chloe*, *vice* R. Humphrys; William Graham, to the *Achilles*, *vice* A. M'Donald; Henry S. Lauder, to the *Serapis*, *vice* George W. J. Sutherland; Frederick M'Clement, to the *Thunderer*, *vice* J. Flanagan. Surgeons—Arthur W. Russell, to the Hong Kong Hospital, *vice* Charles L. Vasey; Evelyn R. H. Pollard, to the *Zephyr*, *vice* A. W. Russell; John A. MacMunn, to the *Victor Emmanuel*, *vice* Horace X. Browne; William Hayes, to the *Boadicea*, *vice* E. R. H. Pollard.

THE deaths of the following retired medical officers have been reported at the War Office during the last few weeks, viz.:—Deputy Surgeon-General T. G. Fitzgerald, Surgeon-Major Edward O'Sullivan, Surgeon John Coghlan, and Assistant-Surgeon E. J. Hatchell. Mr. Fitzgerald, who joined the Army Medical Department in April, 1852, retiring in November, 1877, was before Sebastopol as an assistant-surgeon, gaining the Order of the Medjidie, in addition to the two service medals. He was afterwards for many years attached to headquarters at Whitehall Yard, and did duty at Gibraltar prior to his retirement. Surgeon-Major O'Sullivan, whose death is recorded from India, entered the Army in 1864, and did duty for several years as assistant-surgeon of the late 96th Regiment. Surgeon Coghlan was one of the last of the old hospital assistants; a rank abolished in 1830. He joined the service in 1812, and was in the old 86th prior to his retirement in 1844. Assistant-Surgeon Hatchell, whose death occured at Como in his forty-sixth year, was in India with the 1st Battalion 60th Rifles, and did duty on the staff in Dublin until compelled though ill-health to retire on half-pay in 1869.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—First M.B. Examination, 1881. Pass List. Entire Examination.

First Division.

Black, Robert, London and Sussex County Hospitals.
Cave, Edward John, St. Bartholomew's Hospital.
Dunn, Louis Albert, Guy's Hospital.
Gordon, Edward, Owens College.
Gostling, William Ayton, B.Sc., University College.
Grayling, Arthur, St. George's Hospital.
Hind, Wheelton, Guy's Hospital.
Horrocks, William Henry, University College.
Hull, Walter, St. Thomas's Hospital.
Jones, John Hervey, Owens College.
Lawrence, Laurie Asher, St. Bartholomew's Hospital.
Martin, Albert, Guy's Hospital.
Merrifield, Sydney Sargent, King's College.
Perez, George Victor, University College.
Prideaux, Frances Helen, London School of Medicine for Women.
Reynolds, Ernest Septimus, Owens College.
Roughton, Edmund Wilkinson, St. Bartholomew's Hospital.
Scharlieb, Mary Ann D., Madras Medical College and London School of Medicine for Women.
Shore, Thomas William, B.Sc., St. Bartholomew's Hospital.
Targett, James Henry, Guy's Hospital.
Thomson, Theodore, University of Aberdeen and University College.
Thorburn, William, B.Sc., Owens College.
Wilson, Thomas, University College.
Womach, Frederick, B.Sc., St. Bartholomew's Hospital.

Second Division.

Bailey, Charles Frederick, St. Bartholomew's Hospital.
Bennett, Frederick William, Owens College.
Black, William Jones, Owens College.
Bown, Arthur Thomas, St. George's Hospital.
Brown, William Henry, University College.
Caiger, Frederick Foord, St. Thomas's Hospital.
Carnelley, Matthew, Guy's Hospital
Champ, John Howard, Guy's Hospital.
Cockey, Edmund Percival, St. Mary's Hospital.
Cuff, Robert, Guy's Hospital

Dudley, William, Queen's, Birmingham.
Evans, William Arnold, Owens College.
Evans, Willmott Henderson, B.Sc., University College.
Fletcher, John, Manchester School of Medicine.
Floyer, William Wadham, Guy's Hospital.
Glover, John Philip, St. Thomas's Hospital.
Green, Charles David, St. Thomas's Hospital.
Hewer, Joseph Langton, St. Bartholomew's Hospital.
Hill, George William, St. Mary's and St. George's Hospitals.
Knight, Frederick, University College.
Maughan, James, Liverpool School of Medicine and Guy's Hospital.
Meyer, Charles Hartvig Lomb, Guy's Hospital.
Milton, Herbert Meyrick Nelson, St. Thomas's Hospital.
O'Kane, Michael, Guy's Hospital.
Paley, Frederick John, St. Bartholomew's Hospital.
Parry-Jones, Maurice, Guy's Hospital.
Powell, John Joseph, University College.
Short, Thomas Sydney, King's College.
Slater, Druce John, St. Bartholomew's Hospital.
Spencer, Herbert Ritchie, University College.
Tomlinson, Emily, London School of Medicine for Women.
Turner, Alfred Jefferis, University College.
Vann, Alfred Mason, King's College.
Wenyon, Edwin James, B.A., B.Sc., Guy's Hospital.

Excluding Physiology.

Second Division.

Gross, Charles, Guy's Hospital.
Hart, Herbert Wheatley, Westminster Hospital.
Mariner, William Herbert Lister, St. Thomas's Hospital.
Shillito, Henry, Birmingham School.
Tilly, Alfred, St. Mary's Hospital.

Physiology only.

First Division.

Dent, Harry Lord Richards, King's College.

Second Division.

Fox, Robert Fortescue, London Hospital.
Parry, Robert, Guy's Hospital.
Richmond, Charles Ernest, Owens College.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 18th, 1881.

Green, Edward Fenchland, Osborn Villas, Putney.
Longman, Arthur, Andover, Hants.
Rees, Lion, Maesteg, South Wales.
Webster, George Leonard, 35, Portsdown Road, W.

The following gentlemen also on the same day passed their Primary Professional Examination.

Bruce, Robert Marsden, St. Thomas's Hospital.
Thomas, John Henry, London Hospital.
Treadwell, Oliver F. N., St. Thomas's Hospital.
Walker, Joseph, Liverpool Royal Infirmary.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At the Quarterly Examination for the letters testimonial, held on the 25th of July and following days, the under-mentioned gentlemen were successful, and having taken the declaration and signed the roll, were admitted licentiates.

Louis E. Anderson, Thomas A. Baldwin, George V. Byrne, Thomas E. Cahill, Jane Cooke, William J. Corbett, Charles P. Donning, Henry J. Dixon, Robert J. Fayle, Alexander J. Fleming, William Henry Johnson G. Hunt, John M. Kennedy, William Kenny, Frederick W. Kidd, Thomas Magner, Vincent J. Magrane, Bernard Maguire, William L. M'Cormack, James A. Morris, Richard M'Nugent, Charles Parsons, Henry R. Peyton, Frederick Robinson, William S. Scott, Patrick de B. Sherrett, Thomas J. Stafford, James A. Swann, Maurice J. Treston, John Tuthill, William D. Waterhouse, and Miles F. Wilkinson.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BETHLEM HOSPITAL.—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bethlem Hospital, Blackfriars, S.E., by October 1st.

BIRMINGHAM FRIENDLY SOCIETIES MEDICAL INSTITUTION—Medical Officer for [illegible], £200 per annum. Applications to Frederick Gibling, Secretary, marked "Medical," 2, Cooper Street, Summer Lane, Birmingham.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary, £140. Applications to the Chairman of Committee of Management by 5th September.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary, £40 per annum. Applications to the Secretary by the 31st August.

CLINICAL HOSPITAL AND DISPENSARY FOR CHILDREN, Park Place, Manchester.—House-Surgeon. Salary £100 per annum. Applications to Mr. E. W. Marshall, Secretary, 38, Barton Arcade, Manchester, by August 31st.

COOTEHILL UNION.—Medical Officer for Tullyvin Dispensary District. Salary, £100 per annum, with £5 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 29th instant.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—House-Surgeon. Salary, £50 per annum. Applications to the Committee of Management by 1st September.

GENERAL INFIRMARY, Northampton.—House-Surgeon. Salary, £125 per annum. Application to the Secretary by 29th August.

GREAT YARMOUTH HOSPITAL.—Resident House-Surgeon and Dispenser. Salary, £90 per annum. Applications to the Honorary Secretary.

HECKMONDWIKE INDUSTRIAL CO-OPERATIVE SOCIETY, LIMITED, MEDICAL AID DEPARTMENT.—Resident Medical Officer. Applications to the Society, Oak Street, Heckmondwike, by August 24th.

KNIGHTON UNION.—District Medical Officer and Medical Officer of Health combined. Salary, £40 and £10 respectively. Applications by 1st September.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the Committee by September.

NATIONAL DENTAL HOSPITAL AND COLLEGE, 149, Great Portland Street, W.—Dental Surgeon and Lecturer on Dental Surgery and Pathology. Applications by 15th September.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 23rd September.

PARISH OF ST. LEONARD, SHOREDITCH, WORKHOUSE AND INFIRMARY.—Resident Assistant Medical Officer. Salary, £[illegible] per annum. Applications by 30th instant.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.—Assistant Medical Officer. Salary, £120 per annum. Applications to the Clerk to the Managers by September 5th.

ROYAL VETERINARY COLLEGE.—Hospital Surgeon. Salary, £160 per annum. Applications to the Secretary, Royal Veterinary College, Camden Town.

ROYAL FREE HOSPITAL, Gray's Inn Road.—Junior Resident Medical Officer. Applications to the Secretary by the 31st instant.

ROYAL ISLE OF WIGHT INFIRMARY.—House-Surgeon and Secretary. Salary, £80 per annum. Applications to the Secretary by September 10th.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon. Salary, £[illegible] per annum. Applications to the Secretary by the 7th September.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington.—Two Demonstrators of Anatomy. Salary, £[illegible] and £[illegible] per annum, respectively. Applications to the Dean by September 13th.

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—Curator for the Museum. Salary, £150 per annum. Applications to the Warden by September 5th.

ST. LEONARD'S PARISH, Shoreditch.—Resident Assistant Medical Officer. Salary, £100 per annum. Applications by 31st August.

TOWCESTER UNION.—Medical Officer. Salary, £60 per annum. Applications by September 5th.

WANTAGE UNION, Ilsley District.—Medical Officer. Salary, £75 per annum. Applications by 29th August.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—Matron and Superintendent of Nurses. Salary, £100 per annum. Applications to the Chairman of the Weekly Board by September 19th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter.—Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Philipps, Medical Superintendent.

WORCESTER GENERAL INFIRMARY.—House-Surgeon. Salary, £[illegible] per annum. Applications to the Secretary, No. 10, Foregate Street, Worcester.

MEDICAL APPOINTMENTS.

BARTON, T. B., M.D., appointed Surgeon to the Co. Donegal Hospital, Ballyshannon, vice R. Little, F.R.C.S., deceased.

DUTTON, Thomas, M.B., L.R.C.P., appointed Medical Officer and Public Vaccinator to the Marhood District, Westhampnett Union, vice W. C. Cruttwell, M.D., M.R.C.S., resigned.

FORRESTER, R. P., M.D., appointed Senior House-Surgeon to the Preston Royal Infirmary.

HILL, P. E., M.R.C.S., L.S.A., appointed Certifying Factory Surgeon for the Crickhowell District, vice W. J. Clapp, M.R.C.S., resigned.

HULL, E. Gordon, M.B., appointed House-Surgeon to the Stockton-on-Tees Hospital and Dispensary, vice John Haswell, M.D., resigned.

LESLIE, R., M.D., appointed Resident Medical Officer to the Queen Charlotte's Hospital, Marylebone Road, vice C. F. Prothero, M.B., resigned.

PITCHER, G. D., M.B., appointed Medical Officer to the Hampstead Provident Dispensary, vice Herbert Cooper, M.R.C.P., resigned.

STRAHAN, S. A. K., M.D., appointed Medical Officer to the County Asylum, Berry Wood, Northampton.

TURNER, F. L., L.R.C.P., appointed Medical Officer for the Maker District, Keech Union, Yorks.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

ALLEN.—On the 21st instant, at Mount Hugh Villa, Uxbridge Road, Shepherd's Bush, W., the wife of Thomas Allen, L.R.C.P.Lond., of a son.

MARRIAGE.

PYE-SMITH—GILL.—On August 16th, at Charles Church, Plymouth, by the Rev. G. E. Head, M.A., Vicar, Reginald John Pye-Smith, F.R.C.S., to Emily Barbara, fourth daughter of John Edgcumbe Gill, of Plymouth.

DEATH.

WILKINS.—On August 18th, at Newport, I.W., suddenly, Henry Powell Wilkins, M.R.C.S., L.R.C.P., L.S.A., F.G.S., aged 57.

INTERNATIONAL MEDICAL CONGRESS.—We learn that Mr. Barraud's picture of the above subject, for which all the leading visitors sat, will not be published until November. Mr. Barraud has been requested to wait until the middle of October before closing his sittings, as many eminent members of the profession will not be able to sit until then.

Dr. Hammond of New York uses, instead of bromides, a teaspoonful, well diluted, of a mixture of one dram of bromine in eight ounces of water. The results are like those of the alkaline bromides, barring the acne and ulcers that sometimes attend the latter.

Paris has 100,000,000 cubic metres of sewerage to dispose of annually. Allowing 50,000 cubic metres to each hectare, she requires 2,000 hectares of land for this purpose. Six hundred hectares will shortly be secured in the plain of Gennevilliers, and 1,400 have been found in the peninsula of St. Germain.

Sanitary Statistics of Naples.—The sanitary statistics of Naples for the first three months of this year, give the total number of births 4,423, and of deaths 3,689, on 462,519 inhabitants, giving an average death rate per 1,000 of 31.9. Of children up to 1 year of age 699, or 19 per cent., died; from 1 to 5 years 816, or 22.12 per cent. The principal diseases proving fatal were—consumption 411, or 11.1 per cent.; pulmonary diseases 1,008, or 25.7 per cent.; spinal diseases 475, or 12.13 per cent; disease of organs of circulation 322, or 8.7 per cent.; diseases of digestive organs 317, or 8 per cent.; measles 218, or 5.9 per cent.; diptheritis 181, or 3.8 per cent.; typhoid fevers 103, or 2.8 per cent.; fatal cases from whooping-cough 27, scarlet fever 6, small-pox 5, accidental deaths 54, homicides 16, suicides 6.

Cinchona in India.—India seems destined to take a leading place in the production of bark and quinine. so long a practical monopoly of the Peruvians. In the Government cinchona plantations in Southern India the number of trees now planted out is more than four millions and a half. At present a great part of the bark produced appears to be consumed in supplying the medical depots at Calcutta, Bombay, and Madras; but upwards of 3,000 lbs. was last year sold fo the public, and the annual yield is rapidly increasing with the growth of the trees. The actual profit last year on the capital of the plantation is stated to have been 8 per cent.

Public Health.—The annual rate of mortality during the week ending Saturday, August 13th, in twenty of the largest English towns, averaged 21.7 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bradford 14, Wolverhampton 17, Oldham 17, Norwich 18, Plymouth 18, Manchester 18, Sheffield 19, Newcastle-on-Tyne 19, Bristol 20, Birmingham 21, London 21, Salford 21, Portsmouth 22, Hull 22, Brighton 22, Sunderland 24, Liverpool 24, Nottingham 26, Leeds 26, and Leicester 36. Measles showed the largest proportional fatality in Liverpool and Sheffield; scarlet fever in Leicester and Nottingham; and whooping-cough in Birmingham and Leicester. The fatal cases of diarrhœa in the twenty towns, which had been 776 and 533 in the two preceding weeks, were 488 last week, and equal to an annual rate of 3.3 per 1,000; this diarrhœa rate ranged upwards from 0.0 and 0.3 in Oldham and Bradford, to 6.1 and 16.5 in Nottingham and Leicester. Small-pox caused 35 more deaths in London and its suburban districts, but not one in any of the nineteen other provincial towns. In London, 2,477 births and 1,578 deaths were registered. The deaths were 77 below the average, and gave an annual death-rate of 21.5. The 1,578 deaths included 29 from small-pox, 48 from measles, 57 from scarlet fever, 12 from diphtheria, 22 from whooping-cough, 3 from typhus fever, 17 from enteric fever, one from an ill-defined form of continued fever, 210 from diarrhœa, 2 from dysentery, and 7 from simple cholera; thus, 408 deaths were referred to these diseases, being 82 below the average. The deaths referred to diseases of the respiratory organs, which had been 156 and 165 in the two preceding weeks, declined to 148 last week, and were 6 below the average; 77 were attributed to bronchitis and 47 to pneumonia. Different forms of violence caused 61 deaths; 52 were the result of negligence or accident, among which were 27 from fractures and contusions, 7 from drowning, and 6 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 59.0°, and 3.7° below the average. The mean degree of humidity of the air was 85, complete saturation being represented by 100. The general direction of the wind was S.W., and the horizontal movement of the air averaged 14.5 miles per hour, which was 3.9 above the average. Rain fell on four days of the week, to the aggregate amount of 1.76 inches. The duration of registered bright sunshine in the week was equal to 28 per cent, of its possible duration. No ozone was recorded on Wednesday, Friday, or Saturday; whereas the amount on each of the other days was considerably above the average.

Health of Foreign Cities.—The following statistics, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate averaged 31.3 per 1,000; and was equal to 23.2 in Calcutta, 33.3 in Madras, and 35.3 in Bombay. Cholera caused 16 deaths both in Calcutta and Bombay, while 40 fatal cases of small-pox occurred in Madras; fever fatality was, as usual, excessive in each of these three cities. The rate in Alexandria was 41.6, the deaths including 5 from whooping-cough. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 32.2 per 1,000 of their aggregate population; whereas, in twenty of the largest English towns, the average rate did not exceed 21.7; a considerable proportion of this marked excess was due to the fatality of diarrhœal diseases. The rate in St. Petersburgh, although equal to 49.9, was lower than in previous weeks; no fewer than 149 deaths, however, resulted from diarrhœa. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 16.6, the highest rate being 17.1 in Copenhagen; 6 deaths from scarlet fever occurred in Copenhagen, and 3 from diphtheria in Stockholm. The Paris death-rate showed an increase last week to 26.8; the deaths included no fewer than 50 from typhoid fever, and 14 from small-pox. The Brussels death-rate was equal to 26.3, and 5 deaths from typhus and enteric fever were recorded. The 40 deaths in Geneva included 3 from "fever", and were equal to a rate of 3.4. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the average death-rate was only 21.2, the highest rate being 22.3 in Amsterdam, where whooping-cough caused 6 deaths. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 36.7; it ranged from 27.0 in Vienna, to 43.2 in Breslau, and 44.4 in Berlin; these excessive rates were mainly due to diarrhœal fatality. The death-rate was equal to 26.3 in Rome, and 28.7 in Venice; 19 deaths were attributed to "fevers" in Rome, and 22 to diarrhœa in Venice. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 34.2, and was equal to 26.8 in Philadelphia, 28.9 in Baltimore, 31.5 in Brooklyn, and 41.6 in New York. Excessive diarrhœal fatality prevailed in each of these American cities. Infantile cholera caused 80 deaths in Philadelphia and 42 in Baltimore; 8 fatal cases of small-pox were reported in New York.

New Treatment of Abscesses.—Dr. Steven Smith, of Chicago, has inaugurated a new treatment of abscesses, which he affirms to be very successful. It is thus described in the *Chicago Medical Review*. When the abscess points, it is opened and the contents evacuated. The cavity is then injected with carbolised water, and over-distended for two or three minutes. The water is then pressed out, and over the whole area undermined by the cavity, small, dry, compressed sponges are laid and bound down with a bandage. Carbolised water is then applied to the bandage and injected between its layers until the sponges are thoroughly wet, after which a dry bandage is applied over all. The sponges by their expansion make firm and even compression upon the walls of the abscess, and hold them in perfect apposition, thus favouring a union. The dressing is left on for five or six days, unless there is a constitutional disturbance or pain in the seat of the former abscess. It is found, in most cases, when the bandage is removed, that the abscess has completely closed by an approximation of its walls, and the external wound heals readily under a simple dressing of carbolised oil. A case was recently seen where this admirable result was secured in a child, although the abscess was a large one, originating in caries of the head of the femur, and opening on the outside of the thigh. No constitutional disturbance, no discharge, no reaccumulation, and no pain followed its use. Mammary and submammary abscesses have been treated by this method with excellent results.—*Chicago Medical Review*.

Carlisle.—The report on this society for 1880 is a great improvement on that for 1879, which consisted merely of a number of statistical tables. The present report contains characteristic comments by Dr. Elliot, on the various events of importance in the health-history of the year. Dr. Elliot is inclined to take a hopeful view of the sanitary future of the city, though an old town like Carlisle must want ceaseless attention and vigilance. He chronicles with satisfaction the continued usefulness of the fever hospital, which received 21 patients during the year. He waxes eloquent on the need of a public abattoir to take the place of the existing slaughter-houses, which are, with very few exceptions, in "fearfully unsuitable positions." He ridicules the idea of the transmission, by vaccination, of any constitutioual disease of the vaccinifer to the vacciole, but recommends resort at intervals to the cow for lymph, as he thinks that long humanisation may in time impair some of the protective powers of the lymph. He goes at length into the question of the quality of the water supply of the city, and adduces ample chemical evidence to prove its high degree of purity. The birth and death rates for last year, Dr. Elliot calculates at 37 and 22 per 1,000 respectively; both showing a decrease as compared with 1879. Zymotic diseases caused 106 deaths, 42 of which were from diarrhœa. It would have been satisfactory if more particulars had been given as to the 15 deaths from typhoid fever.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye, M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

MEDICAL APPOINTMENTS IN INDIA.

SIR,—I would feel greatly obliged to any of the readers of the BRITISH MEDICAL JOURNAL for any information respecting medical appointments in India, their value, and how they may be obtained; also any particulars about the place. I am, sir, yours truly, M.B.

AN APPEAL.

SIR,—There is now under my care at the London Temperance Hospital a medical brother of excellent qualifications and of good character for professional ability, honesty, and industry. He has lost his position through drink, but he is a man who may probably be restored to usefulness and comfort if he can get another start. He now wishes to [illegible] in the provinces, and I consider. I want to make up a few pounds to prevent his leaving the hospital in a homeless and destitute condition. I also want to know of some medical brother in general practice who would give him [illegible] and at the same time [illegible] are to break his pledge.

I have already contributed my own mite in giving him a start before when in like case, and he did perfectly well for six months; but his then principal believed in "moderation," and [illegible] take a glass of [illegible] ale at lunch and at dinner. His line being thus broken down, and a visit to London bringing him into contact with old drinking acquaintances, he got intoxicated, and was summarily dismissed his situation on his return from London. He appealed to me again, and, after allowing him to suffer some weeks of extreme punitive degradation, I saw adequate grounds for venturing another effort, and again took him into the hospital. He can be seen by anyone who will ask the house-surgeon at the Temperance Hospital for him; and, if any small contribution are sent to me, I will see that they are made good use of, or return them to their donors.—I am, etc., JAMES [illegible], M.D., M.R.C.P.

Grafton Street, Bond Street.

THE [illegible] OF IRON IN CHOREA.

SIR,—During the last few months, I have had under treatment a case of chorea, which, although severe, has yielded to a special remedy, and may, therefore, be interesting.

The patient, an anæmic badly nourished girl, aged 14, was frightened by a dog, and almost immediately afterwards developed choreiform movements. At the time of my visit, two days after the onset, the child's contortions were painful to witness; her sleep was disturbed, and it was with difficulty she could convey her food to her mouth. The heart-sounds were normal, and there was no history of previous cardiac or rheumatic affections. After attending to her digestive organs, I prescribed syrup of hydrobromate of iron (Fletcher's) (*vide* BRITISH MEDICAL JOURNAL, May 7th), in twenty-minim doses. The effect was very marked. The sedative action was speedily apparent, as the convulsive movements became gradually less severe, and the control of the muscles more readily recovered; whilst, at the same time, the anæmia was yielding to the accompanying iron. The continued use of the drug for about twenty days completely removed the affection.

I have used the hydrobromic syrup with strychnia in obstinate constipation from atony of the colon, and also in insomnia from cerebral exhaustion, and in all the cases have been agreeably surprised at the effects produced. It has certainly an advantage over the ordinary iron and quinine preparations in not producing headache, which is no small boon in prescribing for lady patients. I believe that the syrups will prove of inestimable benefit in cases of everyday occurrence, in which a nerve-sedative and a blood-restorative are simultaneously indicated.—Yours truly, JOHN F. HERRING, L.R.C.P.Edin., M.R.C.S.Eng.

Buxton, August 1881.

THE MORPHIA HABIT.

SIR,—Could any of your readers or correspondents who have had experience in cases of the use of morphia subcutaneously, where it has grown into a regular habit, after the occasion for its use has passed away, help me with any hints or suggestions as to weaning such an one from the habit? If they could, it would much oblige one who anticipates much difficulty with such a PATIENT.

MR. C. R. ILLINGWORTH will see that our space is at present much occupied by the reports of recent meetings, which we desire to publish as completely and with as little interruption as possible.

SMALL-POX INOCULATION IN CHINA.

SIR,—I notice in your number of July 30th a paragraph mentioning that vaccination is progressing in China. Lately, in reading Maclean's *Investigation of Epidemic and Pestilential Diseases* (London, 1818), I was [illegible] made by him, but giving no authority to prove it, "that, in Asia, inoculation for small-pox is practised every seven years; and, in China, inoculation is performed by thrusting a piece of cotton soaked in matter into one of the nostrils, and has been practised from time immemorial." As Mr. [illegible] of the [illegible] authority of authors, I think it would be of interest to find out if there is any truth in this statement. Perhaps some of your readers may have come across other authorities in reference to this. I am, etc., W. W. MACLEOD.

Dunbar, August 15th, 1881.

HOW TO ATTAIN OLD AGE.

THE eminent and witty German physiologist, Hoffmann, sums up as follows the means of attaining [illegible] "Avoid excesses [illegible] habits, even bad ones; breathe pure air, adapt the nourishment to the temperament, avoid drugs and doctors, have [illegible] a merry heart, and a contented mind."

PERCHLORIDE OF IRON WITH SPONGE PESSARIES IN CANCER OF THE CERVIX.

SIR,—Your correspondent who relates his experience with perchloride of iron doubtless erred by using it too freely. The best plan to use it is somewhat similar to that related by him, [illegible] with a piece of sponge, [illegible] the point from which the thread will project; then push up a small piece of sponge in the liquor, to which a string is attached. This may be kept in place by a larger pad, having also a string to it, and soaked with oil. If the two strings be now tied together, the whole can be removed easily some days after the first sponging. The strong solution of the perchloride of iron, it must be remembered, is a powerful caustic. I have treated a case of cancer of the cervix with it alone, with the result of effecting a perfect cure. Like all powerful remedies, however, it requires caution in the method of its use.—I am, etc., A. H. F. CAMERON.

2, Shiel Road, Liverpool.

SPONGE PESSARIES IN CANCER.

SIR,—As [illegible] a few words in reply to [illegible] Dr. [illegible] I have been using sponge pessaries in cases of cancer of the uterus for [illegible] and I have had a happy [illegible] I have been able, by their use, to [illegible] and I have [illegible] The method I employ is to [illegible] keep the vessels [illegible] with [illegible] and [illegible] I have used [illegible] to [illegible] I am, sir, yours truly,

M.D.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

PRACTISE IN THE MAURITIUS.

SIR, I have the pleasure of reading in one of the Mauritius daily papers, in which you will find that, in August, 1880, a Mr. L. was prosecuted at Port Louis, and sentence passed against him for practising without a diploma from Mauritius, which he would certainly not have been entitled to practise in England or France.

I hope that this fact will prove that quacks and unqualified men are not allowed to practise with impunity in Mauritius, and will also prevent those belonging to this category to venture going there with the hopes that they would be as little unmolested as they would in England; and they would certainly not bless your correspondent, who seems very badly informed on Mauritius and the medical profession there.

Apologising for the valuable space I have taken, and also thanking you for the hospitality afforded to me by you to reprove the false assertions made on my native country, I remain, sir, your obedient servant,

A. N. JOLLIVET, University College Hospital, London.

THE EFFECT OF REMOVAL OF THE TONSILS UPON THE TESTES.

SIR,—The other day a medical friend mentioned to me that, having excised a patient's tonsils, he was surprised to learn that, shortly after the operation, the patient's wife became pregnant. As the lady had not been in that condition for some years, it has been jokingly remarked that in cases of infecundity it would be well to try excision of the tonsils. The above fact corroborates Dr. Hague's surmise as mentioned in your last issue.—I am, etc., EDW. PINDER, L.R.C.P.

Camberwell, August 2nd, 1881.

SOLVENT FOR GALLIC ACID.

SIR,—With the exception of the substance mentioned below, I am not aware of any means of dissolving gallic acid so as to be useful medicinally, but by alcohol and boiling water, both of which are practically useless. Having, a short time ago, a case of hæmaturia, the result of uric acid gravel, I chanced to prescribe a mixture containing half a drachm of gallic acid, and a drachm and a half of citrate of potash; and, to my surprise, I found that I had a perfectly clear liquid, the gallic acid being completely dissolved. I have since made further experiments; and I find that, with care, twenty grains of citrate will dissolve as much as fifteen grains of gallic acid in an ounce of water, and remain quite clear for any length of time. To be able to give gallic acid in perfect solution is a great advantage, as absorption must take place more rapidly when the salt is in solution than when simply suspended in mucilage; the citrate, being a very simple salt, can do no harm in any cases in which gallic acid is required.—I am, etc.,

Wells-next-the-Sea. FREDERICK LONG, L.R.C.P.Lond.

LIFE ASSURANCE.

MR. DENNE (Birmingham) writes: "Inquirens" will find, in *The Medical Adviser in Life Assurance*, by Dr. Sieveking, published by Churchill, much valuable information concerning the examination of candidates for life assurance.

MR. LOWNE writes: A little book by a Mr. Ingall, a well known actuary, published many years ago, *On the Medical Examination of Candidates for Life Assurance*, might be useful.

CORNS.

SIR,—Would any of my fellow members kindly recommend a reliable cure for corns (soft and hard, and especially for the latter), when occurring on the soles of the feet? Further, would they recommend a good (so-called) anatomical bootmaker, who could overcome peculiarities in the shape of the feet in manufacturing boots? —Yours, etc., SURGEON-MAJOR.

FISSURED TONGUE.

SIR,—With regard to Mr. Allen Fenning's case of "fissured tongue", from reading his description, it appears to me similar to a case in a lady whom I am occasionally called upon to treat; and, though the cure is not permanent, still the patient is relieved of the troublesome complaint for many months at a time. The treatment is as follows: R. Hydrar. bichlor. gr. i potassii iodidi 5i; aquam ad 5vi. M. Sumat 5ss. ter die.—I remain, yours respectfully, L.R.C.P.I.

OVARIOTOMY.

SIR,—Please insert the following suggestions to experts in ovariotomy cases. Tap the cyst through the bladder, at the same time inserting a drainage-tube into the cyst. The tube should have lateral openings, so as to carry away all the urinary secretions. Injections could be forced into the cyst if necessary. I am of opinion that the result will do away with the necessity of subjecting the patient to the painful and uncertain result of removing the ovary.—I am, sir, yours truly,

The Grove, Risca, August 1881. EDW. ROBATHAN.

PHYSICAL EDUCATION.

SIR,—Following up the letters which have appeared in the JOURNAL on the advantage of manual labour in the training of youths (may I say of both sexes), I wish to say that my boy when he left school was slim and delicate. He went to engineering, and worked two years in the pattern shop, rising soon after five in the morning, all weathers. The result was a happy growth in height and muscular power. He has, during the last two years, been diligently studying medicine, and I am happy to say that he is not losing any of his physical force.—Yours ever, A CONSULTING SURGEON.

A VEXED QUESTION.

SIR,—I am M.R.C.S.Eng. and L.R.C.P.Lond., and style myself "Mr. ——, surgeon". My two neighbours are L.R.C.P.Ed., and style themselves "Dr. ——" (men holding the L.K.&Q.C.P.I. also invariably do the same thing). What, I ask, is the law and etiquette of this subject? I have several times heard it said of myself, "He cannot be a properly qualified doctor, or he would style himself such". What right in law or equity have these gentlemen to an advantage over me which is wholly fictitious, but which nevertheless "has money in it"?

I enclose card, and remain, yours, etc., VEXED AND PERPLEXED.

*** Neither has any legal right to the title of Doctor, and, so far as custom is concerned, our correspondent has equal right or absence of right with them. He is, however, entitled to describe himself as "Surgeon and Physician".

THERAPEUTICS OF NITRO-GLYCERINE.

SIR,—I have a case of angina pectoris, and wish to try nitro-glycerine. Will any of your readers advise me as to the proper dose, and the best method to administer it?—Yours, etc., T. D.

MATÉ.

SIR,—I read with great interest a paper on maté in last week's JOURNAL. Having resided in the capital of the Argentine Republic (Buenos Ayres) for thirteen years, I can endorse all that has been said by Mr. Ernest Geldart of the good qualities of maté; and it has been a matter of surprise to me that this "yerba", or herb, has not found its way to England, for, besides being a cheap commodity, it is an invigorating and refreshing beverage, delicious in flavour, and, if once introduced into Great Britain, would, after a time, command an extensive sale and patronage, and, I have no doubt, would compete very favourably with tea or coffee. In the Argentine Republic, it is a very popular drink with all classes, and deservedly so. Its properties are stimulant in character.—I am, yours, DAVID [illegible], L.R.C.P.Ed., etc.

Dr. Arnold's Walnall, August 22nd, 1881.

MEDICAL ETIQUETTE.

A. and B. are practitioners in the same town, but not acquainted. A. is sent for during B.'s absence to attend one of his midwifery cases. Should A. remit the whole or half fee to B.? or what is the proper etiquette in such a case? A. being requested by the patient herself to continue the attendance, she also having sent for A. in the first instance.

*** A. should hand the whole fee to B., and decline to continue attendance, expecting reciprocal courtesy from B. in any like circumstance.

H. N.—The readers of Addresses in Medicine, Surgery, Obstetrics, etc., select their own subjects, and deal with them in their own way without communication with any other person, officially or unofficially, and without any suggestion or censorship. The Committee of Council select, in all cases, gentlemen of acknowledged eminence in their respective departments. The readers of addresses are alone responsible for the choice of subject, and the mode of dealing with it.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. B. T. Lowne, London; Dr. F. T. Roberts, London; Dr. Hamilton, Liverpool; Dr. Ward Cousins, Southsea; Dr. Groves, Carisbrooke; Dr. J. Rogers, London; Mr. T. H. MacIver, Edinburgh; Dr. Bradley, London; Dr. Urquhart, Aberdeen; Mr. Henry Denne, Birmingham; Mr. G. Meadows, Hastings; Dr. Neal, Sandown; Dr. Ransome, Manchester; Dr. Williamson, Ventnor; Mr. G. Eastes, London; Mr. R. C. Gage, Scotstown; Mr. J. F. Herring, Builth; Dr. J. H. Scott, Camberley; Mr. W. Maile, Faversham; Mr. P. J. Lenihan, Salford; Mr. W. Whitton, Towcester; Mr. T. W. Barton, Maidstone; Professor Owen, Richmond; Mr. A. Selwar, Oakhill; Mr. H. Nelson Hardy, London; Mr. B. Flower, Liverpool; Dr. Thompson Leamington; Mr. J. J. Eyrne, Preston; Dr. Alexander, Halifax; Dr. James Edmunds (London); Dr. Saundby, Birmingham; Dr. E. L. Fox, Bristol; Dr. Cameron, Liverpool; Mr. C. R. Illingworth, Clayton-le-Moors; Dr. Tripe, London; Mr. D. E. Flinn, Brownhills; Dr. Williamson, Ventnor; Dr. Buchanan Baxter, London; Surgeon-Major Howard, Colchester; Dr. Dabbs, Shanklin; Dr. Davies, Wrexham; Mr. J. G. Marshall, London; Mr. Bindley (London); Mr. T. J. Verrall; Dr. Dukes, Rugby; Surgeon-Major E. R. Francis, M.B.; Dr. Crichton Browne, London; Mr. G. Martin, Ventnor; Dr. Radcliffe Crocker, London; Mr. A. P. Watkins, Worcester; Dr. W. Millard, Dunbar; Dr. A. Lynch, London; Mr. R. Clement Lucas, London; Dr. Crichton Browne, London; Mr. P. E. Hill, Crickhowell; Mr. James Long, Newcastle-on-Tyne; Mr. Passmore, Brighton; Dr. Payne, London; Dr. U. Pritchard, London; Mr. T. W. Reid, Canterbury; Mr. Nelson Hardy, London; Dr. W. Easby, Cambridge; A Provincial Member, etc.

BOOKS, ETC., RECEIVED.

Clinical Lectures on the Diseases of the Nervous System. By J. M. Charcot. London: New Sydenham Society. 1881.

Harrogate Waters. By Geo. Oliver, M.D. London: H. K. Lewis. 1881.

A Treatise on the Materia Medica and Therapeutics of the Skin. By H. G. Piffard, M.D. London: Sampson Low and Co. 1881.

Minor Surgical Gynæcology: a Manual of Uterine Diagnosis. By P. F. Mundé, M.D. London: Sampson Low and Co. 1881.

Fashion in Deformity. By W. H. Flower. London: Macmillan and Co. 1881.

Mineral Thermal Springs. By G. H. Brandt. London: H. K. Lewis. 1881.

Manual of Dental Surgery and Pathology. By A. Coleman, L.R.C.P. London: Smith, Elder, and Co. 1881.

Essays on the Floating Matter of the Air. By J. Tyndall, F.R.S. London: Longmans, Green, and Co. 1881.

Annals of Chemical Medicine. By J. L. W. Thudichum, M.D. Vol. II. London: Longmans, Green, and Co. 1881.

Surgery for Dental Students. By A. S. Underwood. London: W. H. Allen and Co. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

REMARKS
ON
THE REMOVAL OF THE OVARIES (*a*) FOR DYSMENORRHŒA; (*b*) FOR FIBROID TUMOURS OF THE UTERUS.*

By E. MALINS, M.D.,
Obstetric Physician to the General Hospital, Birmingham.

In no branch of surgery during the past few years has such great and rapid progress been made as in that relating to abdominal operations. The hesitation and frequent apprehension with which the peritoneal cavity was approached in former times have given place to confidence and even eagerness to display the conditions which there lie hidden from outward gaze; and, though the courage of former operators cannot be disputed, or their boldness challenged, I fancy they would have shrunk from opening an abdomen for the mere purpose of diagnosis, or still more for the avowed object only of guiding a knife for manipulation on some external lesion. And yet observation has shown, and experience has confirmed, the fact that opening the abdomen is relatively not only a safe operation, but that, with due precautions, the risks are few, and the mortality exceedingly small.

The operation of oöphorectomy, or removal of the ovaries, affords the strongest evidence of the correctness of these remarks; and, before the enthusiasm attending this successful advance has died away, it will be of advantage to estimate the security of the foundation upon which this rests, and to ascertain how far it has been justified by the results which have been attained.

The object I wish particularly to be kept in view during this discussion is not so much the operation itself—whether it should be through the abdomen or through the vagina—for in separate hands each of these methods has produced satisfactory results; but a candid consideration of the effects of this proceeding in reference to the morbid conditions for which it is undertaken. The mere safety of an operation performed with a fair assurance of success cannot be regarded as a sufficient justification for its performance. Success in operating may be spoken of as brilliant; series of operations may be recorded which show that the patients all, or nearly all, recover; but more is wanted than this. It is required to know how far the patients have been cured, not of the operation only, but of the maladies for which this measure was resorted to. I know an instance, recorded as a successful case of oöphorectomy, where the patient has a large ventral hernia through the line of the incision, which causes more distress than the complaint which the operation was intended to relieve; and I have met with others, published as successful, where the original disturbances were all in active force.

Though, therefore, the practice of oöphorectomy has achieved an undoubted position of success as far as the process itself is concerned, it is a matter of greater moment to be assured of the permanent cure of the patient, and to endeavour to judge fairly and impartially how far it is likely to be promoted by such a proceeding.

With this purpose in view, I propose to take two classes of cases, and to ask your co-operation in forming conclusions as to how far the removal of the ovaries in such is a proper method of treatment, and to what extent it conduces towards the highest consummation of our art—namely, a complete, and therefore satisfactory, return to health.

In the first place, then, we will take dysmenorrhœa. It should be borne in mind that dysmenorrhœa is a symptom only, the initial causes of which are frequently to be found in the ovaries; but, among the Protean forms which it assumes, we may reasonably separate it into two classes:

1. Those relating to functional derangement;
2. Those accompanied by structural disease.

It cannot be denied that we meet with a large number of cases of dysmenorrhœa where there are no uterine signs to account for the pain, where the ovaries cannot be felt as misplaced or enlarged, and yet where there is intense pain, aggravated at the menstrual period. There may be also numerous other nerve-disorders present, and often a history of prolonged and severe suffering of a health-destroying character, described as making the life one combination of misery and wretchedness. Many of these cases are met with among single women of uncertain age, who repeat the often-told tale of disappointment, blighted hopes, mental suffering, and bodily pain. Their state is made worse by menstrual derangements, and they fall back upon the sexual organs as the offending mainspring of their life's ailments: to the profession too often a cloak for ignorance, to the patient a refuge for the destitute, and fostered as the remnant of all that once offered a prospect of pleasure, maternity, and happiness. Still they hover round this cherished idea, and cling with pertinacity to any chance which treatment of these organs affords to relieve their woes and restore their health. The importance of distinguishing between centric and local disturbance in these cases is a matter demanding the closest attention, and one which calls for an unusual degree of knowledge both of nervous disorders and of human nature.

Have we any means of distinguishing functional disorder and organic disease of the ovaries in these cases? I cannot think that we have arrived at perfection in the practice of this distinction. Cases have happened where the most acute and protracted suffering has been exhibited by the patient; and yet, when the ovaries have been removed, there has been nothing found in their examination to account for the previous disorder experienced. In one instance under my own care, where the microscopic examination was compared with the anatomy of the normal ovary by published record, and with ovaries, presumably healthy, taken from a patient who had died from another disease, no appreciable difference was detected. In this case, the improvement was temporary only; and, with a return to her surroundings, which were of an ungenial and depressing kind, the patient lapsed into her previous state of ill-health. In three of the cases related by Dr. Savage, where the ovaries were removed for dysmenorrhœa, no abnormal condition was found. In one of these, he writes, no real benefit was obtained; one is not so much improved as I thought she would be, although her's was a typical case for the operation; and one may, I think, be looked upon as a real success.

Dr. Battey, to whose sagacity we are indebted for the introduction of this operation, and to whose ability and candour we owe so much valuable information on the subject, tabulates fifteen cases, in all of which the ovaries presented palpable signs of disease in their structure (BRITISH MEDICAL JOURNAL, April 3rd, 1880).

From a clinical point of view, then, we cannot always distinguish those cases where the derangement is purely functional; and I think that we must also admit that, where there are a variety of nervous phenomena present, we cannot safely say whether the general condition or the local one is primarily at fault, or what are the exact relations the nerve-manifestations bear to the ovaries.

Hegar (*Birmingham Medical Review*, January 1879, p. 1), indeed, allows the difficulty of determining these relations, and declares that he does not believe that the operation is justifiable unless there be proof of certain ovarian changes, and not then, unless the patient have suffered for a long time, during which she has been under constant observation, and has been frequently examined. If, after long duration of the disease, no alteration of the ovaries be discovered, doubt may reasonably be entertained whether these organs are the primary origin of the disease.

There remains one consideration in connection with these cases to which our attention may profitably be given. Bearing in mind the difficulties attending the diagnosis in these cases, I am of opinion that, where any grave doubt exists, and the patient's state justifies the risk, we shall do right to make an exploratory incision to ascertain the condition of the ovaries, and further, that we shall have the courage to let them alone and close the wound if we find them presenting no traces of morbid alteration; or if, peradventure, one only should be found diseased, the remaining one should be left for the fulfilment of its function. One case of this kind has come under my notice, where the ovaries, being found healthy, were let alone, the patient recovering ultimately from her previous ailments.

In the second class of this division, that is, where there is some structural disease of the ovaries, I cannot think that there is quite so much room for debate; for it is unquestionable that, in some extreme cases previously found to be incurable after long and careful treatment, the health has been securely re-established by the removal of the affected organs. "The difficulty in settling this question", says Dr. [illegible] these, also, we cannot disguise the fact that persistent derangement of function may eventually lead to organic disease, and that this is particularly the case with regard to the ovaries.

[illegible] from various affections of the uterus or of the Fallopian tube, plays an

* Introductory remarks in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association, at Ryde, August [illegible].

active part in creating a tendency which develops ultimately into some disease in structure.

Yet it is surprising to what extent the ovaries may degenerate, and yet discharge their full function; for example, Dr. Goodell relates two cases from Dr. Atlee, where one ovary was removed and the other became cystic, so as to require tapping, yet each woman not only menstruated, but had a child!

The proposed object to be gained in removing the ovaries in particular cases is thus propounded by Dr. Battey: "To produce the vascular and nervous revolution in the system which attends upon the change of life". This, however, does not always happen. Goodell gives a table of twenty-six cases where menstruation still took place, though both ovaries had been removed. "In 143 cases of extirpation of both ovaries during menstrual life, there were 16 which had for some months, as far as I can learn, regular monthly fluxes, and 10 in which such fluxes were either irregular or lessened in amount." In one of my own cases, done nearly two years ago, the patient has menstruated regularly ever since. Dr. Battey, however, openly states the difficulty of defining precisely the field this operation is likely to occupy in the cure of special diseases, and deprecates the attempt to make a classification. He decides his own cases by the following interrogations. Is this a grave case? Is it incurable by any of the resources of the art short of the change of life? Is it curable by the change of life? Hègar gives the following general indications as connected with this aspect of the question: intermescence of the ovary, accompanied with phenomena of irritation; increased sensitiveness to pressure of the ovaries in their normal position, or when displaced into Douglas's space; chronic oöphoritis and peri-oöphoritis; and commencing cystic degeneration; also some neuroses. Now, in almost all these conditions, pain is the chief symptom which calls for relief, and is the one for which our aid is most usually sought. It does not follow that, because an ovary is enlarged or misplaced, it is necessarily painful; still less so that it should be removed; but it must be granted that, in such a condition, it is much more liable to irritation, near or remote congestion, inflammation, and consequently pain, at the menstrual epochs especially; often in the intervals also; as well as more likely to act and be acted upon by the general condition of the patient. The majority of these cases are amenable to judicious treatment, such as peace of mind, rest of body, diet and therapeutic means, of which remarkable instances of cure are given by Dr. Weir Mitchell. But there is a residuum which defy every known method of treatment, where the pain is continuous as well as menstrual, and which drag on their weary lives with apparent hopelessness. These are those which are benefited by removal of the ovaries, and for which it affords a scientific and valuable prospect of cure. It is difficult to form an estimate of the permanent benefit derived; but, as far as I have been able to gather, the following are those noted. Upon this, however, the acquaintance of those present with cases where it has been done will afford more useful addition to our knowledge.

	No.	Per Cent.
Cured	68	75
Greatly benefited	15	17
Not benefited	7	8
	90	
Of the incomplete operations—		
Cured	3	18
Greatly benefited	7	41
Not benefited	7	41
	17	

We now come to the second division of this discussion: the removal of the ovaries for the relief and cure of fibroid tumours of the uterus, principally in those where the amount of bleeding constitutes the chief danger to the life and health of the patient. If, as we have found, doubt often exists about the removal of the ovaries for functional derangements, if less fear need be entertained where there is organic disease of these organs, there can be no diffidence felt as to the propriety and efficacy of this plan of treatment in a great number of cases of fibroid tumour where the hæmorrhage is exhausting and dangerous. In few instances where operative measures are proposed for the mitigation of suffering or the possibility of cure, do we meet with more signal alleviation or more marked arrest in the progress of the disease, than in this operation performed in suitable cases. The difficulty and uncertainty attending the recognised modes of treatment in interstitial fibromyomata of the uterus is proverbial; and while we hold out hope of improvement when the menopause is reached, we are fully aware that we cannot predict the advent of this period, and that, in such cases, it may be prolonged for many years beyond the usual climacteric average, the very irregularity leading to an increased quantity of the flow. I have under my care a lady over sixty years of age, the subject of a fibroid tumour of the uterus, who has profuse metrorrhagia lasting for a week or more, and recurring about every ten days; and I have several patients with similar tumours, near the change of life, anxiously awaiting the palliation which this phase in their existence is expected to bring.

To Dr. Trenholme and Dr. Hègar, almost simultaneously, is due the merit of drawing attention to the marked success associated with this plan of treatment; and the verification by the former of the first case he recorded, two years later, adds an additional interest to the value of the history. To the conclusions drawn by Dr. Battey, he adds a fifth: "To the effect, that the operation is indicated when severe and exhaustive hæmorrhages have occurred at the menstrual periods, which have resisted all forms of treatment."

Hègar reports twelve cases. The women were perishing from constant suffering, and from hæmorrhages, caused by irremediable fibroid tumours of the womb. Both ovaries were removed in each. In three cases, death took place from septic peritonitis; in the fourth, the tumour grew for five months, then the hæmorrhage returned, and the patient died eleven months afterwards, from cystic degeneration of the fibroid. In six, the convalescence was uninterrupted, the menopause was established, the tumour became smaller, and the women were distinctly cured (Goodell, *Lessons in Gynæcology*, p. 322). Of thirty-nine recorded cases, there were nine fatal; but no doubt this mortality, among early cases especially, will be considerably reduced in subsequent operations. Recent improvements in the mode of performing abdominal operations will, doubtless, lead to a much diminished mortality; and, by attention to the general health of the patient, and the time for operating, we may expect much more favourable results. Of course, it is not proposed to have recourse to this operation where the tumours are subperitoneal, or where they are projecting as pedunculated polypi into the uterine cavity; but, where they are interstitial or intramural, causing severe and protracted hæmorrhage, we may, by removal of the ovaries, bring on the menopause, and confidently anticipate a salutary change in the health and safety of the patient.

I have simply drawn an outline of the subject to which our attention has been given for a brief time; and I trust to the accumulated wisdom of those present to fill in the picture with the experience they can offer, so as to make it a worthy contribution to our knowledge. It has been my aim to make it a sketch only; and, as such, to be suggestive for reflection rather than exhaustive. If, by this means, some future improvement may take place in our practice, or thoughts arise which may ripen into ulterior benefit to our fellow-creatures, we may deem that the time occupied in this discussion has not been spent in vain.

MAY IODIDE OF POTASSIUM EXCITE BRIGHT'S DISEASE?—In view of the very large doses which have been advised and are frequently administered in the treatment of syphilis, the question whether iodide of potassium may excite Bright's disease becomes one of considerable importance. In the *American Journal of the Medical Sciences* for July, 1881, Prof. I. Edmondson Atkinson, of the University of Maryland, calls attention to the large proportion of cases treated for advanced syphilis that present, after death, evidences of marked kidney disease; and, in this connection, to the fact that syphilitic renal disorder in its characteristic lesion, the gumma, is comparatively rare, while the forms most frequently encountered are not in themselves syphilitic. In searching for a cause that might produce these changes quite independently of the syphilitic poison, Dr. Atkinson concludes that since iodide of potassium has decided diuretic action, and, as is known to clinical observers, may cause both albumen and casts to appear in the urine, the continuance of this remedy in some cases might lead to the changes observed. He therefore made a series of observations upon seventy cases of late syphilis, of which nineteen presented evidences of renal alterations more or less grave. The relation existing between the administration of iodide in these cases, and the appearance of mucous or hyaline casts and albuminuria, was quite evident; as in a number, the abnormal elements gradually disappeared after the cessation of the remedy. The condition appeared to be catarrhal in character, and the casts were the results of renal irritation. In no case, however, was extensive parenchymatous inflammation of the kidneys excited; but an obvious syphilitic disorder of the kidneys in one case disappeared under the full and systematic use of the iodide. The author's conclusion is that while the evil effects of the iodide of potassium are small and for the most part transitory, the occurrence of more severe alterations is not impossible, nay is probable. To these evil effects some individuals are more susceptible than others.

REMARKS
ON THE
MECHANICAL TREATMENT OF UTERINE DISPLACEMENTS AND FLEXIONS.*

By J. G. SINCLAIR COGHILL, M.D., F.R.C.P.Ed.,
Interim Lecturer on Midwifery in the University of Edinburgh; late Lecturer on General Pathology in the Edinburgh Medical School; Hon. Visiting Physician, Royal National Hospital, Ventnor.

THE present seems a favourable time for re-opening the consideration of what we may term briefly uterine mechanics. Professional opinion is still divided upon this much vexed question; but there are indications that it is undergoing a change. Gynæcologists are still far from being agreed even as to the propriety, much less as to the exact nature, of the mechanical treatment to be employed in this large, important, and interesting class of cases. We have two extremes of opinion as to the clinical importance of uterine displacements and distortions. According to the one, these conditions are always the active or potential source of grave local and general troubles, and should therefore be at once brought under treatment, mainly of a local and mechanical character; according to the other extreme, the conditions in question are to be regarded simply as the passive local expression of troubles to be looked for and treated elsewhere, either in ovarian irritation or in disordered states of general health. It is greatly to be regretted that not only have opinions in regard to these questions been too extreme, but sentiment, if not personal feeling, has too evidently prevailed in their expression.

When trustworthy evidence is adduced in support of certain views as to matters of common interest, it is the duty of those who incline to another opinion to examine carefully and with unbiassed mind the facts stated, to judge of them calmly, and express themselves temperately. But to ignore, to refuse to investigate, and to assert dogmatically contrary opinions, is neither courteous nor scientific. No progress is possible in any direction, were this the attitude and method adopted. Prejudice, unfortunately, has, in this as in other important questions, interfered too often with calm judgment, and has induced an attitude of incredulity and tone of opposition at once unreasonable and unscientific. It is impossible otherwise to explain the conflict of opinion as to questions of fact between scientific men of equal information and opportunity for judgment.

Displacements and flexions of the womb are in no sense obscure, much less speculative in character; they are purely physical conditions, even more capable of recognition than the fractures and dislocations of surgical experience; and their relief and cure by the judicious use of appropriate mechanical appliances are as capable of demonstration as any in the whole domain of medicine. I have had a continuous experience of the mechanical treatment of this class of ailments, extending over a quarter of a century; and I am more and more convinced that it is the only efficient means, when confirmed, for their relief and cure. I readily admit that in incompetent, perhaps in unscrupulous, hands, their employment has often been unnecessary, dangerous, mischievous, and sometimes fatal; but I maintain these are accidental and preventable abuses, and do not in the slightest affect the sound principle of the treatment.

With these preliminary remarks, I will now proceed to state the subject we have to discuss. It resolves itself naturally into a question of pathology and a question of therapeutics. I would, therefore, seek to establish my thesis in two propositions.

1. In some women, certain well defined groups of local symptoms, and evidently related constitutional disturbances, are found associated with certain flexions and displacements of the uterus as the only recognisable organic exciting cause.

2. In appropriate cases, local suffering and constitutional disturbance subside on reduction of the displacement or flexion, and the retention, for a longer or shorter period, of the womb in its normal attitude and axis by mechanical appliances is followed by permanent relief and cure.

1. Nothing in uterine pathology is more remarkable, and often inexplicable, than the varying amount of pain and distress which such conditions involve in different patients. A slight disturbance of uterine equilibrium will produce continuous suffering in one woman, while extreme forms in another will be borne with comparative impunity. This pathological anomaly is often adduced in triumph by the opponents of mechanical treatment. But it is equally well known that in other morbid states phenomenal parallels are observed. In every disease, different patients react differently to the same exciting cause, and this is more evident when the latter is physical in nature and local in action.

Dr. George Johnson has described a case in which a fragment of cloth, of the size of a small pea, lodged in a superficial wound, produced violent tetanic symptoms, which subsided immediately it was removed; and another case in which a much larger mass worked its way from a deeper seat by a slow process of suppuration, without giving rise to the slightest constitutional disturbance. So with respect to uterine dislocations and flexions; some women will have them to an extreme degree without suffering, for a time at least, to any serious extent; in others, a slight lesion will give rise to intense local suffering and great general sympathy. In others, again, the symptoms are either entirely local, or altogether general in character. It would be easy to illustrate each of these conditions from one's case-book. We can have no disturbance of uterine equilibrium without more or less interference with the vascular and nervous supplies of the organ, and, through them, with its secretory apparatus. Hence arise congestion leading to inflammation, morbid sensibility and pain from pressure on the nerve-filaments, and excessive and perverted glandular secretion, as the direct physical results of this disturbance. The clinical importance of these conditions cannot be overlooked as immediate factors in the causation of a variety of functional derangements; and, if not corrected, ultimately, sooner or later, they induce changes of structure of a grave character. Women who are the subjects of uterine distortion and dislocation suffer, more or less, from disturbance or interruption of the two great distinguishing functions of their sex. Menstrual irregularities and sterility are usually present; and are, in most instances, the subjective conditions which attract the attention of the patient, and lead her to seek professional advice, which results in the recognition of the disability.* Great stress has been placed by one eminent advocate of uterine mechanics on the value of diagnosis as a basis of therapeutics. I believe the mere recognition of the morbid state to be an insufficient basis of treatment, without a full knowledge of its etiology and essential pathological nature. Hence, it is impossible to consider the mechanical treatment of uterine troubles, except in connection with them. With respect to the immediate causation of all forms of flexion and version of the uterus, it must be borne in mind that, in addition to stretching or relaxation of the proper ligaments of the womb, the supporting power or rather function of the vagina and its attachments has been more or less reduced, so that there is always at the same time a certain amount of uterine procidence or displacement downwards. The importance of this pathogenetic relation has not hitherto been sufficiently recognised. In fact, there can be no shortening of the vaginal tube from whatever cause, and consequent subsidence of the uterus within the pelvis, without a disturbance of uterine equilibrium to a certain and usually corresponding degree. There is, then, an essential relation between procidentia and version of the womb; and this relation at once and satisfactorily explains the beneficial action of purely vaginal supports, to some extent, in all such cases, and, it may be, completely in slighter forms.

The recent investigations of Dr. Hart into the anatomical relations of the pelvic fasciæ throw a most valuable light on the mechanism of uterine dislocation—indeed, they supply an essential link in the chain of causation. Two layers or planes of fascia, which form a sort of pelvic diaphragm, are mainly concerned in maintaining the uterus *in situ*. The anterior or pubic is roughly triangular in shape, with its base stretching across the pelvis, meeting the anterior edge of the square-shaped posterior or sacral plane, and sustaining the womb between them. The womb inclines forward; the pubic layer is thinner, and naturally looser, on the attachments, than the sacral, and permits the amount of uterine mobility rendered necessary by the varying conditions of the bladder and rectum, and the enlargement of the organ during pregnancy; but, it is to be observed, this normal mobility is provided for to a certain extent forwards and backwards, and upwards, but not downwards. Relaxation of [illegible] fascia will favour uterine displacement; but the direction of that displacement will depend [illegible] If the pubic layer have suffered, anteversion will result; if the sacral layer have yielded, then retroversion will occur. Such, then, is the me-

* Introductory Address in Obstetric Medicine, delivered at the Annual Meeting of the British Medical Association at Exeter, August [illegible]

tions in the condition of its attachments and supports. Increased bulk and weight of the womb might help to produce displacement, and subsequently exaggerate it, but could not alone initiate the movement.

The causation of distortion or flexion, on the other hand, while undoubtedly favoured by displacement or version, is more immediately dependent, as we would expect, on changes in the tissues of the uterus. These altered conditions are chiefly two; namely, atony, for, as has been pointed out, the uterus is to some extent an erectile organ; this loss of tone may proceed from difficient innervation, from anæmia, or other deterioration of general health; or, secondly, actual tissue-degeneration, the effect of superinvolution. Softening of the substance of the womb from a chronic inflammatory process has been alleged by a distinguished authority, but chronic interstitial inflammation—the "irritable womb" of Gooch, so frequently met with—is attended with induration and hypertrophy of the organ.

Cases of acute displacement or flexion of the womb, which occur most commonly in the virgin state, are rarely seen. They are usually seen only when chronic and local and general symptoms have been developed.

Each form of flexion and version produces a characteristic group of dynamical symptoms. In anteversion and anteflexion, the bladder is troubled. In retroversion and retroflexion, the rectum is disturbed; there is more bearing down and pain in the back. In the flexions, there is dysmenorrhœa; in the versions, menorrhagia, especially in retroversion. In flexions, reflex symptoms, particularly gastric, are more common, especially if the seat of flexion, as it usually is, occur near the junction of the neck and body. Sterility attends flexed more than verted states. The physical diagnosis of these conditions, under ordinary circumstances, should be easily made. The sound will, without fail, resolve any doubt. The finger alone, in most cases, is sufficient to detect the exact condition present. In uterine version, backwards or forwards, the axis of the womb is maintained, and the os points backwards or forwards, according to the direction and degree of malposition, but its lips are equal. Rhazes, the Arabian physician, who was familiar with these conditions, recognised the relative position of the os uteri to the vaginal axis as indicating malposition, and actually recommended the reposition of the organ to be effected by pushing or drawing the os uteri in the opposite direction to the displacement. In flexions, the relative positions of os and fundus depend on the extent to which the uterine axis is bent. If of any standing, the cervical lip corresponding to the flexion is found swollen and elongated, from the alteration in the nutrition involved from the corresponding wall being bent on itself.

2. In proceeding to consider my second proposition, I must necessarily confine myself to discussing briefly the principle only of the mechanical means of treatment. The first step in the mechanical treatment is the restoration of the organ to its normal form and position by means of the sound. The real difficulties of treatment, unfortunately, only begin at this point. In cases which have occurred suddenly as the result of some direct violence, such as a fall from a height or on a hard substance, or the lifting of too heavy weights, if they be seen at once, simple reposition by the sound, or even by judicious manipulation, will suffice. But nearly all the cases which come under our observation have existed for some time, and have been gradual in their incidence and development. In all of these it is necessary, after reposition of the womb, to devise means for its retention *in situ;* otherwise the relief which is invariably thus obtained will only be temporary. In a few cases, occasional reposition or straightening with the sound, combined with rest and astringent medicated pessaries, and attention to the general health, may attain the desired result. In flexions, the occasional dilatation of the uterine canal with sponge or tangle tents may overcome the difficulty, by restoring the anatomical equality and increasing the tone of the uterine walls. But, in most cases, vaginal supports or pessaries have to be employed in some form or other. They are, of course, more effective *per se* in versions than in flexions. By exaggerating, by means of the sound, the flexion in the opposite direction from time to time, and wearing a pessary in the interval, I have succeeded in curing many cases. The principle on which the American pessary of the late Professor Hodge is constructed seems most to recommend itself, and in its various modifications this pessary can be made to meet the indications of almost any case. The exact *rationale* of its action is not, I fear, sufficiently understood. In retroversion and retroflexion, the *point d'appui* is behind the symphysis pubis, the other curve of the instrument occupying the posterior vaginal *cul-de-sac*. In anteversion and anteflexion, the perinæum is the *point d'appui*, the opposite bar occupying the anterior vaginal *cul-de-sac*. The great desideratum in all these cases is, that conception may take place, as it frequently does, while the womb is artificially maintained in its normal position. A patient of mine, who was confined, two months ago, under the care of a professional brother, has, after a long childless interval, been twice impregnated while wearing a modified Hodge's pessary, without which she is incapable of rising from her couch. Since her last confinement, the gradual improvement in the condition of the womb which has been going on so long, has culminated in her being able to dispense at last entirely with this mechanical support.

Cases, however, of retroversion and anteversion, and many more of flexed conditions, are encountered, in which local medication and vaginal supports alone entirely fail to relieve even the urgent symptoms that have called attention to the lesion. The question then arises: Do these cases warrant or demand such appliances as the intra-uterine stem-pessary? To this question, I unhesitatingly reply in the affirmative. I am, however, prepared to admit—indeed, it is within my own knowledge—that this treatment has been too often indiscriminately and unnecessarily employed, and often detrimentally in inappropriate cases, or under unfavourable conditions; nevertheless, I maintain that the intra-uterine or stem-pessary can be used with perfect immunity, and with the best effects, in appropriate cases. The uterine tissues, particularly the mucous lining, are in their normal state of low sensibility, and singularly tolerant of manipulation, even of rough usage. It would indeed be strange if they were not, considering how much they are called upon to undergo, in connection with the ordinary discharge of their functions. I have found the uterine cavity, under ordinary conditions, as tolerant of metallic substances as the mouth similarly is of the appliances of the dentist, or as the conjunctiva of the presence of an artificial eye. But, under conditions of irritation or inflammation, it is very different; and, like corresponding structures elsewhere, the uterus becomes highly sensitive, and strongly resents all interference until the morbid state is reduced. One should hesitate to introduce, even temporarily, the uterine sound, much less to leave a foreign body like the stem of a pessary within the cavity of the uterus, were that organ and its associated structures in an irritable or inflammatory state; such conditions must first be reduced by appropriate means, of which rest, local sedatives, and depletion are the most efficient. In any case where it is possible to anticipate difficulty, it were wise to insist upon a probation of rest after introduction, in order to test tolerance. This, however, is not often necessary; indeed, I have very seldom seen the presence of the instrument resented when used with the ordinary precautions just indicated.

In order that the stem-pessary may be retained, and the full benefit of its presence be derived, it is absolutely necessary that it be exactly of the length of the uterine cavity and of the calibre of the os uteri. If it be too long, the bulb of the instrument will not be in contact with the cervix, and the point will irritate the fundus and cause its expulsion; so also, if too short, it will not be retained. I am here speaking of simple homogeneous stem-pessaries of metal or vulcanite; but in cases where there is uterine atony, especially with defective menstruation, I have found great advantage from the introduction of the copper and zinc galvanic pessary. Many patients are perfectly conscious of a feeling of throbbing—of the stimulating effect of this instrument; whereas they are quite unaware of the presence of the simple stem when properly adjusted.

We have here two indications for treatment met with the same instrument: first, the necessary mechanical support; and, secondly, the direct stimulus to the debilitated uterine tissue from the galvanic current developed. This view of the influence of the galvanic current has quite recently received confirmation in the admirable papers by Dr. Dixon Mann on Uterine Electro-therapeutics, which have appeared in the *Lancet*. There are, however, occasionally met with, cases where even still more elaborate appliances than those already referred to are necessary. In extreme cases of version, and especially where flexion and version coexist, and where the organ is low in the pelvis, it may be requisite to combine the intra-uterine stem with a vaginal support. At first, this was attempted, by the late Sir James Y. Simpson, Dr. Gaillard Thomas, and others, to be accomplished by a variety of contrivances having their object to obtain a *point d'appui* externally on the pubes or sacrum, of which many varieties exist, now mostly and very properly relegated to gynæcological museums. For a great many years, so far as I am aware, all instruments on this principle have very properly been abandoned as inefficient, uncleanly, and not unattended with danger. Latterly, the late Sir James Y. Simpson maintained the replaced uterus with intra-uterine stem *in situ*, by introducing under it a gutta-percha plane on a depending stem curved in the direction of the vaginal canal, which, although sometimes difficult and painful to introduce, answered very well.

A combination of intra-uterine stem and vaginal support in vulcanite was introduced by myself some years ago for a case of special difficulty quite cured by its means, and has since been used in

other cases besides some of my own with success. There is also an admirable instrument on this plan invented by Dr. Meadows, which is deservedly in great request for this difficult class of cases; but I fear I must not trespass further on your time. If I have failed to establish the two propositions I set out with, I shall be pleased to think if I have succeeded in removing some of the unfounded prejudice with which the mechanical treatment of uterine displacements and flexions has been, to my mind, so unreasonably regarded.

If those who so strenuously oppose this therapeutic system had any preferable alternative to offer in its stead, there might be some less difficulty in understanding their position; but it is not so. A specimen of the treatment they recommend is embodied in the following quotation, with which I shall conclude. "Time is an important factor in uterine therapeutics. Patients" (suffering from uterine flexions, etc.) "should be kept for a length of time under observation, and should be seen and examined at intervals"! What benefit is to be derived from such a process of expectancy in the class of ailments which we have been considering, it is not easy to discover.

REMARKS
ON
THE RELATION OF DISEASES OF THE NASAL-PASSAGES AND NASO-PHARYNX TO AURAL AFFECTIONS.*

By THOMAS BARR, M.D.,
Aural Surgeon to the Western Infirmary, Glasgow.

THERE can be little doubt that an essential advance has been made, of late years, in the knowledge and treatment of those morbid states of the nasal and pharyngeal mucous membranes which give rise to disease of the ear. We have amongst us to-day two eminent *confrères*, who have contributed not a little to this advance in our knowledge. I refer to my friends, Dr. Guye of Amsterdam, and Dr. Loewenberg of Paris, whose work, in connection with the important subject of adenoid vegetations, has been of the greatest value.

Aural specialists have been of late more and more convinced of the great signification of nasal and pharyngeal diseases in their relation to affections of the ear. We recognise, as one of the well-established points of aural pathology, that this region is not only frequently the place of origin of ear-diseases, but that its morbid conditions have a most important influence on the course and issue of affections of the middle ear; and, therefore, in our modes of examination and in our therapeutic measures, attention to the naso-pharyngeal cavity is looked upon as of the very first importance. Even in cases where no further improvement is to be hoped for in the hearing power, we may often, through treatment of the nasal and pharyngeal mucous membrane, prevent the further advance of the evil.

The apparatus of the middle ear is influenced by very varied morbid conditions of the nasal and pharyngeal spaces. These conditions exert their influence upon the middle ear through the medium of the well-known passage of communication between the upper pharyngeal cavity and the tympanum—the Eustachian tube. By this channel the mucous surface of the middle ear, and that of the pharynx, are directly continuous; while, by the same channel, under certain conditions, free interchange of air takes place between the two cavities. Thus, by these two media of communication, the ear membrane and the air—pathological conditions of the naso-pharyngeal cavities impress themselves upon the structural and functional integrity of the middle ear.

We know that affections of mucous membranes are very apt to propagate themselves by simple continuity. Hence, a large number of diseases of the tympanum and mastoid cells are caused by simple propagation, along the mucous surface of the Eustachian tube, of catarrhal or inflammatory processes, primarily affecting the lining of the pharyngeal cavity. And such diseases of the tympanum and mastoid cells, with their results, may exist even years after the primary cause in the pharyngeal mucous membrane has passed away. No one now disputes that congestion, swollen and hypertrophied conditions of the naso-pharyngeal mucous membrane, very frequently maintain a state of simple or purulent catarrh of the middle ear.

But important changes in the structure and function of the tympanic apparatus may arise from morbid conditions of the nasal passages and pharyngeal cavity, without any extension of inflammatory processes

* Read at a meeting of the Section of Otology of the British Medical Association held at Edinburgh.

along the mucous surface of the Eustachian tube to the tympanum. Here the mischief in the ear is brought about through mechanical interference with the lumen of the pharyngeal mouth of the tube, by the encroachment upon it of swollen, thickened, or hypertrophied tissue in the neighbourhood; or the injury to the ear may be caused by disturbance of that muscular mechanism by which the walls of the cartilaginous part of the tube are, in turn, separated or approximated. Such occlusion of the tube, going on for a length of time, will inevitably lead to permanent changes of structure, and irretrievable defect of function in the organ of hearing.

Upon the due permeability of the Eustachian tube depends the proper degree of tension of the tympanic membrane and the ossicular chain; and there is probably nothing which is so essential to the normal function of the organ of hearing, as the preservation of a due amount of tension in these parts.

It is not possible, in so short a time as it is proper that I should occupy your attention, to go over all the various ways in which morbid conditions of the mucous membrane, of the muscles, and of the nerves of the nasal passages, and naso-pharynx, may and do act upon the ear. I desire just to occupy a few minutes by adverting to a subject which has recently received great attention—not greater, however, than its importance deserves. I refer to the so-called adenoid vegetations in the upper pharynx. We are much indebted to Meyer of Copenhagen, and to Guye of Amsterdam, for their valuable labours in connection with this subject; and, recently, to Loewenberg of Paris, for his important treatise.

As you know, the mucous membrane of the naso-pharynx is very rich in mucous glands. But, besides these, Luschka has described a mass of glandular tissue, which he denominates the pharyngeal tonsil, found chiefly in the roof of the pharynx, but which also extends from the roof along the posterior and lateral walls into Rosenmüller's fossa and over the mouths of the Eustachian tubes. The so-called adenoid vegetations consist of an exuberant growth or hypertrophy of this adenoid tissue, and appear in the form of either tongue-shaped, or globular, or flat excrescences, chiefly on the postero-superior wall, from which, however, they not unfrequently extend to the posterior nares, where they interfere with the due permeability of the nasal passages. The pharyngeal mouths of the Eustachian tubes are often completely veiled by the mass of growth. Meyer found that 7½ per cent. of persons who consulted him with affections of the ear suffered from this morbid state of the naso-pharynx. In connection with and dependent upon this condition, the ear is variously affected; sometimes we find purulent disease, and sometimes simple catarrh, resulting from or maintained by these morbid growths.

Disease in the ear may be caused by these vegetations in various ways: 1. By encroaching upon the pharyngeal mouth of the tube, and thus bringing about mechanical closure; 2. By the concomitant inflammation of the mucous membrane of the Eustachian tube, producing swelling or thickening, with more or less secretion; 3. By the extension of that inflammation to the mucous membrane of the tympanum, or even to the mastoid cells; 4. Through interference with the nasal breathing. When the nasal passages are markedly obstructed, a rarification of the air in the tympanic cavity is produced by every act of swallowing, just as in Toynbee's experiment, and the tympanic membrane with the ossicular chain is forced inwards to an abnormal degree. Or obstruction of the nasal passages may induce mischief in the ear, by causing sudden abnormal condensations of the air in the tympanum. Under the influence of vehement expiratory acts, as coughing, blowing the nose, sneezing, etc., the air, unable to find its way through the nasal passages, may pass through the Eustachian tubes with damaging effect upon the middle ear.

The treatment of these adenoid vegetations is of very great importance, not only for its effects upon the ear, but also in relation to the general health. Although the methods of examination and of treatment employed in diseases of the naso-pharynx do not properly belong to our subject, I would venture to say a word regarding the methods of examining the naso-pharyngeal cavity, and of the modes of treating these adenoid growths which I have found very useful. I refer to digital examination, and to the treatment of adenoid growths by the finger-nail. Since I have begun to explore more frequently the upper pharyngeal cavity with the index finger in persons having disease of the ear, I have found with surprising frequency a hypertrophied condition of the glandular tissue in the vault of the pharynx. By this mode of examination, we can, in most of the cases, gain a pretty clear notion of the condition of the upper surface of the soft palate, of the posterior edge of the nasal septum, of the posterior end of the inferior [illegible], of the [illegible] and of the [illegible]. I might just remark here that it is a mistake to judge of the condition of the upper pharyngeal space from the appearance of the back of the

throat. The latter may appear almost quite normal, and yet the naso-pharynx may be involved in very important morbid changes. The method of scraping away these morbid growths, especially the softer and flatter forms of the excrescences, by the nail of the index finger, has been introduced chiefly by Dr. Guye of Amsterdam. It is the least painful, and probably the safest mode of operation. It can be employed in children, who are much most frequently affected with these growths, when the use of instruments is quite impossible.

From want of time, I have necessarily omitted many points in connection with this interesting and important subject. I trust these will be taken up by some of my eminent *confrères* who have graced us with their presence.

FORTY-NINTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in RYDE, Aug. 9th, 10th, 11th, and 12th, 1881.

PROCEEDINGS OF SECTIONS.

SECTION B.—SURGERY.

Wednesday, August 10th.

THE Section was opened by the President, W. MARTIN COATES, M.R.C.S., who delivered an address, which was published at p. 350 of the JOURNAL for August 27th. The President invited discussion upon his paper; and Mr. MACNAMARA (London) and Mr. REGINALD HARRISON (Liverpool) spoke in high approval of the practical nature of the operation, and of the sound principles on which it was based.

Antiseptic Trocar.—Dr. WARD COUSINS (Southsea) exhibited a new antiseptic trocar, the piston of which was made to work under a covering of India-rubber, and which the inventor had found a perfect guard against septic infection. In answer to Mr. J. B. Brierley, he stated that he had used it with complete success in cases of hydrothorax.

Dr. COUSINS also exhibited a new catheter-tube and urine-reservoir.

A New and Reliable Operation for the Cure of Web-Fingers, etc. By A. T. NORTON, F.R.C.S. (London).—The operation consists of cutting small flaps or tongues of skin from the posterior and anterior surfaces of the hand, with the bases of the tongues on a level with the heads of the metacarpal bones, and of attaching them together by their apices after cutting through the web. The flaps unite by the first intention, and thus any re-development of the web is entirely prevented. The points to be considered in the performance of the operation, in order to ensure a good result, are the following. 1. The flaps should be cut thick, so that their vascular supply may be complete, and the chance of sloughing reduced to a minimum. 2. They should be cut rather narrow, with judgment, otherwise they become compressed laterally and bulge upwards at the margins, instead of lying in adaptation to adjacent tissue. Such compression, of course, interferes with a free circulation of blood through the flaps. 3. The tissue between the knuckles should be cut back, or, if necessary, cut away, so that the apices of the flaps may lie well in contact with each other without tension. 4. The flaps must be of sufficient length to prevent tension when the suture is applied. 5. The apices of the flaps are very small in children, so that a very small needle should be selected to carry the suture, in order to avoid unnecessary injury of the flap. 6. The position of the flaps should be carefully arranged, so that the limit of the new web may be in the line with the natural web of the finger. If the flaps unite, no web can re-form. There is no reason whatever why union by the first intention should not take place, if attention be paid to the above recommendations; and thus one of the most troublesome and unsuccessful of operations is converted into one most simple and most certain of success.—The PRESIDENT and Mr. WATKIN WILLIAMS (Birmingham) spoke on the practical nature of the operation.—In answer to Dr. COUSINS, the author stated that he saw no reason why catgut sutures should not be used to connect the flaps, although, in the case related in the paper, he had used Chinese silk. It was of prime importance to cut the flaps thick, so as to secure their after-vitality.

On the Treatment of Stricture by Stretching. By REGINALD HARRISON, F.R.C.S. (Liverpool).—The author advocated the employment of stretching in certain cases of tight stricture of the urethra where retention had occurred and catheterism was difficult. In using the phrase "stricture-stretching" as best describing the object in view, he did not advocate a new instrument or a new method of treatment; it was to the application of well-recognised principles that he wished to draw attention. Dr. Otis of New York had demonstrated the extent to which the urethra was capable of being dilated; and what was true of the healthy canal would be found to apply, though in a less degree, to the strictured one. The dilator employed by Mr. Harrison was Holt's, with some special adaptations which had been made by Messrs. Krohne and Sesemann. In the first place, there was attached to it a pilot bougie, which, in cases of tight or tortuous strictures, was invaluable. The number of dilating-rods was increased to eight, so that the process of stretching might be gradual; and, in order that there might be no jerking as the several rods were introduced, a spiral spring controlled the separation of the instrument, instead of a screw. The size of the dilator was No. 3 English gauge: the largest rod brought it up to rather over 12, and between these two extremes there were seven gradations. The patient being placed under ether, the dilator was passed fairly into the bladder, and then the several rods were slowly introduced until dilatation was completed. When this was done, a catheter was used, and all urine removed. A full-sized bougie was then passed every third or fourth day until the patient had learnt how to do it himself, when he must be enjoined to continue the practice. In conclusion, the author remarked that he was not recommending this as a panacea, nor as prejudicing other operations to which reference had been made, but as a safe and an efficient expedient for meeting immediate difficulties, and simplifying future treatment. If, in all cases of retention occurring with tight stricture, the use of this or a similar instrument followed upon catheterism, both patient and practitioner would be none the worse for the knowledge that, whatever spasm might temporarily do, at all events there was a way to the bladder, capable of admitting a No. 12 bougie, which had been made without any structural detriment.—Mr. MACNAMARA (London) thought that the operation could be applicable to only a few cases, and spoke strongly of the advantages of the old operation of gradual dilatation, the cures after which were often permanent.—Mr. HARRISON agreed in the main with Mr. Macnamara, but remarked that surgeons were often the creatures of circumstances; and he related the case in which he had first been led, almost by compulsion, to adopt this procedure.—Mr. RIVINGTON (London) had used Holt's instrument occasionally in the same "tender and loving way" as Mr. Harrison, and thought it a very valuable addition to our treatment of this disease.—Dr. ROYLE (Manchester) spoke; and Mr. STOKES (Dublin) endorsed entirely the views of Mr. Macnamara as to the benefits of gradual dilatation. He had seen disastrous consequences—no fewer than three deaths—from immediate dilatation, a method which was always followed by a rapid return of the stricture. He spoke also in high favour of Maisonneuve's operation by internal section, which he had adopted in strictures of the membranous portion, as well as of the anterior portions, of the urethra.—Dr. COUSINS and the PRESIDENT having spoken, Mr. HARRISON replied.

A Further Series of Cases of Immediate Cure of Inguinal Hernia. By W. DUNNETT SPANTON, M.R.C.S. (Hanley).—The author related nine additional cases in which his operation for immediate cure of hernia had been performed, making a total of thirty-four cases. Of these, thirty had been quite successful, and the remaining four much benefited. There had been no death. In some of the patients, no truss had been of the slightest use. A tendon or catgut ligature was employed in three of the cases, passed in a similar manner to the screw, and retained *in situ* until the parts became consolidated. The result in these cases was found to be on the whole less satisfactory than in those treated by the screw alone. In them, however, the beneficial influence of Listerism was most marked, and the author advised its use in every such operation in which an animal ligature was employed. The paper concluded with an appeal to surgeons to give the operation for radical cure a fair trial, and not to rest satisfied with recommending the mere use of trusses; more especially to urge parents, in the case of young children, to have them cured while young by some operation which had been proved to be both safe and effectual.—By the President's request, Mr. SPANTON described the operation, an account of which has been already published.—Mr. HARRISON (Liverpool) remarked that thirty out of the thirty-four cases had been spoken of as "more or less" effectually relieved, and inquired what the author meant by "less effectual", as the requirements of the operation seemed hardly met by such a result.—Mr. MACNAMARA (London) thought that the operation could hardly be compared to hare-lip, for this reason, that there was infinitely more risk; thirty-four had lived, but the thirty-fifth or thirty-sixth might die. He had himself seen three cases of death after Wood's operation, and several with much constitutional disturbance.—Dr. GRIFFITHS (Swansea) had seen satisfactory results from the operation; but in one case it was followed by a sharp attack of orchitis, which he regarded as a serious matter, and he would like to know in how many cases Mr. Spanton had met with the same result. For

himself, he would be more inclined, when a truss had failed to cure or give adequate support, to cut down upon the sac and tie the canal. —Mr. NORTON (London) inquired how many deaths there had been in the thirty-four.—Mr. SPANTON, in reply, stated that there had been no deaths. He had used the expression "more or less" because, in one or two cases, the patients had still to wear a truss, which now, after the operation, was effectual, but had not been so before. He had seen orchitis in perhaps a third or fourth of the cases, but regarded that as a very simple matter.

Thursday, August 11th.

DISCUSSION ON EXCISION OF THE KNEE IN EARLY LIFE.

Mr. STOKES (Dublin) opened a discussion on this subject. After alluding to the different views entertained as to the value of resection, and to the importance of distinguishing between the cases suitable for excision and for amputation, it not being in his opinion right to regard resection as a substitute for amputation, he stated that, in his experience, the majority of cases which in early life demanded resection of the knee were those to which the terms granular, gelatinous, or pulpy thickening of the synovial membrane had been applied. This condition as a rule was a sequela of either a traumatism or a low form of inflammation which came on without any assignable cause, and was the visible sign or outcome of that to which, for want of a better term, was called a strumous, scrofulous, or tuberculous diathesis. He had had large opportunity of studying this disease, which, when once fairly established, he had found wholly unamenable to expectant treatment, and which was in fact but the first act of a drama whose tragical termination was, as a rule, destruction of the joint. If the morbid action had advanced much beyond the synovial limit, and had extensively engaged the other soft structures of the joint, and caries also were perhaps present, the chances of success after resection were largely diminished; and, although the wound might heal without suppuration, and the results appear admirable when the patient left the hospital, yet he had seen examples of return of caries ten or twelve months afterwards, leading to abscesses, and the necessity for amputation. This course of events he had not witnessed when the operation was undertaken at an early stage of the development of the disease. He dissented altogether from the view that, in these cases, the requirements of resection were fulfilled by incision, injection, and drainage of the joint; for, even if the well-known risks of suppuration of the joint were perchance avoided by this plan of procedure, was the ultimate condition, he asked, a better one than it would have been had a resection been performed? He thought not; nor did his experience lead him to agree with the opinion of those who saw an objection to resection in subsequent atrophy or shortening of the limb. The explanation of this lay in the very fact that the operation was done at an early stage of the disease, when it was necessary to remove only a very thin slice of the articular ends of the bones, and the osteogenetic function of the epiphysis was therefore practically not interfered with. In none of the cases which suggested his remarks had he seen either atrophy or deformity. He referred to the faulty methods of dressing formerly in use, and even now not altogether abandoned, after excision, and described that which he himself employed. Listerian precautions were invariably followed, and the limb fixed at absolute rest, by two metallic splints, one applied on the anterior, and the other on the posterior surface of the limb, and retained there by gypsum bandages. The absolute immobility thus secured conduced to the early healing of the wound, and he rarely found more than three or four dressings necessary. He alluded to an accident met with in two or three cases, namely, hæmorrhage coming on some hours after the operation, not from any visible vessel, but from the cut surfaces of the hyperæmic bones. He thought it possible that this might be due to the use of the elastic bandage, and referred to the experience of the Leeds surgeons, who, he learned, had met with the same occasional accident, and who had abandoned the use of the elastic bandage.

Mr. WHEELHOUSE (Leeds) referred to the practice at Leeds, where the operation had fallen into some disfavour during the last few years. It used to be done as a last resource, and, as a result of the removal of large slices of bone, they had had shortened and withered limbs. Mr. Stokes had given the key to the whole secret, which lay in timidity of action, and in allowing the disease to go too far. He agreed with Mr. Stokes in the success of the operation if adopted early. He had seen hæmorrhage coming from the bone after the operation.—Mr. MACNAMARA (London) opposed the view that early resection was a desirable operation. He referred to the marvellous reparative power of children; to the certainty of damage to the future growth of the limb if resection were practised before twelve years, and expressed his confident opinion that cases of undoubted white swelling with pulpy degeneration might be cured by steadily applied pressure with a Martin's bandage, and fixation of the limb.—Mr. PYE (London) Dr. BYRD (Quincy, Illinois), Dr. GRIFFITHS (Swansea), Dr. MARCY (Boston), Mr. SYMPSON (Lincoln), and Dr. HUTCHISON (Brooklyn), took part in the discussion.—Mr. RIVINGTON (London) had seen undoubted shortening after the operation, and said he should regret to see the day when it should be laid down as an axiom that the only remedy was to cut out the joint.—Mr. RICHARDSON CROSS (Clifton) advised early incision, with antiseptic precautions, so as to examine the joint, and remove the diseased part. He referred to a very interesting case, in which he had taken away nearly the whole of a carious condyle, and thought that such an operation, which left a synovial membrane and a movable joint, was infinitely preferable to resection of the whole joint. In his opinion, resection of the knee was almost a thing of the past, and he asked how it was that few cases of resection among the better classes were seen.—The PRESIDENT regarded Mr. Cross's suggestion as a great step in advance. — Mr. FOLKER (Hanley) spoke, and Mr. KNOTT (Dublin) referred to some of the cases of Mr. Stokes which he had seen, and in which there was no shortening.—Mr. STOKES replied. He said he had great respect for Martin's bandage, but he hardly believed that it had any curative effect in the treatment of scrofulous joints, and remarked that the indiscriminate advocacy of this appliance was rapidly placing it in the category of "cure-alls".

Antiseptic Incision and Drainage in Empyema. By F. RICHARDSON CROSS, M.B. (Clifton, Bristol).—The author said that all fluid effusions into the pleura required to be early removed. Full re-expansion of the lung was the aim of treatment; but by prolonged compression the lung was crushed; and by continuous irritation the pleura tended to thicken and form false adhesions, which permanently bound down the affected lung. Every day that the effusion remained, the danger was increased; and, when medical treatment of two or three weeks had been of no avail, the fluid should be partially at least removed. Absorption frequently followed partial removal. In cases of sero-fibrinous exudation, no great danger threatened from putrefaction; but, as the fluid could not be accurately determined before withdrawal, it should be assumed to be putrescible, and all causes of putrefaction should be excluded. Aspiration removed pressure-risks and dyspnœa in all cases; and, if done carefully, produced no ill result except pain, while many cases of pleuritis were put towards recovery. If, however, the fluid were pus, special measures must be taken for its entire removal. A permanent opening at a dependent part of the thorax, with satisfactory drainage, was essential. Clinical experience abundantly proved this necessity for free continuous drainage; it also showed the great risk of admitting to the pus agents that might decompose it and render it fœtid. An early operation, with dependent opening, free continuous drainage, and the reliable antiseptic method of Professor Lister, should result in a complete cure. Cases of long-standing compression of lung would hardly result in its complete re-expansion; but the general health of the patient would recover itself, with more or less contraction of the chest and impaired breathing. The same system of treatment, with antiseptic or stimulating injections in place of precautions, intended to exclude from the first septic influences, should cure most cases of old-standing pleural fistula; and, in a few obstinate cases, drainage and the approximation of the pleural surfaces would be encouraged by resection of a portion of one or more ribs. Three cases of cure—two perfect, one with contracted thorax, otherwise excellent—were related.—Dr. SHINGLETON SMITH (Clifton) thought that, before operative interference, pilocarpin should first be tried; but advocated the use of free incision, with antiseptic precautions.—Dr. MARKHAM SKERRITT (Clifton) remarked that, however much serous effusion might be absorbed, there was no right to expect the same result in the case of pus; and that the empyema should be regarded as an abscess whose walls were formed by the thorax, and which demanded a free opening with antiseptic precautions.

A Novel Treatment of Synovitis. By H. A. MARTIN, M.D. (Boston). —The author's object was to show that "enlargement of joints, from whatever cause arising", could be cured by evacuation of the sac by aspiration, and the subsequent wearing of the pure India-rubber bandage which he had introduced for the treatment of ulcers of the leg. He had treated hundreds of cases by these means, and he had no hesitation in saying that it was the only treatment which ought to be adopted in cases of synovitis.

Recent Advances in Pelvic Surgery. By LAWSON TAIT, F.R.C.S. (Birmingham).—The author laid before the Section several points in which he believed there had been recent advances in the surgery of the pelvis. These were chiefly in connection with the removal of the uterine appendages in a variety of diseased conditions which produced hæmorrhage, pain, and a variety of reflex convulsions which had at least a close association with the menstrual function. Dr. Matthews Duncan

had recently published the statistics of the first group, to the effect that a mortality of five in twenty-six cases in a few years was very disastrous. The author objected to this that, in the first place, there were no statistics known of the mortality arising from hæmorrhage due to the presence of uterine myoma; yet it was a constant source of chronic ill-health, not unfrequently a cause of death. In Dr. West's *Lectures on Diseases* [illegible] cited by Dr. Duncan, was a table of fifty-eight cases, out of a total of ninety-six, in which menstruation was more or less seriously disturbed; and it was recorded that it was excessive in a total of forty-five cases, or nearly one-half. Hence hæmorrhage was a very common condition in myoma. Dr. Duncan also noted that pain was common, for he gave it as a leading symptom in twenty of the same cases. In some of them, the pain was described as being agonising, lasting in one case for sixteen years, recurring for a week at a time in paroxysms, lasting for an hour, to recur every hour and a half or two hours. A variety of surgical proceedings had been employed for relief. Enucleation had been fatal in at least 50 per cent. of the cases in which it was tried; and, according to Gusserow, the mortality of hysterotomy was about 70 per cent. In the course of eleven years, Mr. Tait had seen twenty-six cases in which the conditions seemed to him and to his colleagues to warrant surgical interference after the failure of therapeutic efforts. In the operations performed for these cases, the success had been in exactly a converse proportion to that obtained in the other kinds of proceeding; and therefore the author thought that the operation he had devised and advocated was worthy of further trial. Since the revival of abdominal surgery in 1876, the mortality had fallen to nearly 10 per cent. In a table appended to the paper there were, in addition to the cases of myoma, eight operations performed on account of hæmorrhage due to diseases of the ovaries and tubes. In every one of these cases, the operation was successful and the relief permanent. The group of cases in which the operation was performed for pain included thirty-two, of which twenty-eight were completed operations. There was but one death, and it was due to septic poisoning, which occurred in spite of Listerian precautions. The patients (with this exception) had all been completely cured. Most of them had been treated by various specialists before the operation, and had been subjected to division of the cervix, the use of pessaries, dilatation of the cervix, intra-uterine stems, and a great variety of therapeutics. Twelve had pus in the Fallopian tubes or ovaries. The author said that the pathology of persistent pain due to disease of the ovaries and the tubes was, until such operations came to be performed, absolutely unknown; and it would be some time before sufficient experience could be obtained to enable one to assign all the cases to their proper groups. Hence at first some cases would be operated upon without benefit; and, so long as these were not made worse by the operation, and so long as some of the cases were cured, there would be ample justification for proceeding with its trials. The *à priori* objections, that the operator destroyed the sexual function, and that the patient was no longer capable of responding to sexual desires, were not such as should be considered. The first argument was not true; and if it were, it would be no reason against an attempt to relieve suffering. The second argument, that the operation destroyed fertility, was unnecessary, because the disease for which it was performed had, in the great majority of cases, already done this. Only in those cases in which the operation was done for reflex neuroses were the ovaries found healthy. The time which must elapse after the operation in order to give it a fair trial seemed to be about two years; and of ten cases in which something like that time had elapsed, there had been complete relief in seven. In one case, the operation was incomplete, and therefore no improvement was effected. In the remaining two, only the ovaries were removed, the tubes were left, and the patients menstruated at irregular periods, and had had very marked relief from pain. Experience had shown that, even after relief from pain had been obtained for a considerable number of months, and had become to all appearance permanent, relapses had occurred; but ultimate relief came in due course. Since January 1880, in all the cases where it was possible, the Fallopian tubes were uniformly removed, and much more complete and satisfactory results had been obtained. Concerning the cases of epilepsy, for which only three operations had been performed, in the first two (already published) the satisfactory results recorded had been fully maintained. The third case had not proved satisfactory, but the time was as yet too short to give any decided opinion.

Friday, August 12th.

DISCUSSION ON THE EARLY RECOGNITION AND TREATMENT OF SPINAL CARIES.

Mr. EDMUND OWEN, F.R.C.S. (London), opened this discussion. He remarked that the affected spine too frequently received no offer of therapeutic aid until its pathological bankruptcy was declared; whereas judicious assistance afforded at the proper time might have spared a shameful collapse. It was lamentable to think that angular curvature should have come to express spinal disease, when surely this deformity was the one sign of spinal disease which our treatment should aim at precluding. He instituted a comparison between the various stages of advancing knee-joint disease and advancing spinal disease; and pointed out in detail the symptoms which were as clearly indicative of early spinal caries before deformity had arisen, as were the too familiar symptoms of early joint-disease. The patient must be watched in all his movements; and careful inquiry must be made into his habits, to learn if there had been any change therein; nor must it be imagined that the child had lost his usual agility and delight in childish pleasures simply because he had "growing pains" or "rheumatism". There was urgent necessity to give heed to these little matters, which were full of indication and suggestion. They were the straws which showed the direction of the on-coming breeze; when the pathological storm was raging, almost anyone could read the weather. We must never refuse to listen to, and search out the cause of, the child's oft-repeated complaint; it must be stripped stark naked, and examined, if need be, on several occasions. As to treatment, the best, he considered, was absolute rest on the back, on a firm flat horse-hair mattress, without a pillow. Taken thus at the onset, a few weeks' rest might make the surgeon wonder if his early opinion were correct; if so, so much the better. If the case required longer treatment, then he knew of no better splinting than that afforded by a Sayre's jacket, in the application of which no suspension need be used; but on this he insisted, that, if a jacket be put on a child with early spinal disease, the child must still be kept in bed, to ensure absolute rest. Professor Sayre, he was glad to know, altogether repudiated straightening of the spine when curvature was present, and admitted that suspension was not an essential part of his method.

The PRESIDENT referred to some cases under his own care.—Mr. NOBLE SMITH (London) pointed out some of the disadvantages of Sayre's jacket; the growth of the thorax being, he thought, retarded when it was worn for a long time. He described an instrument for giving the spinal column support, which he had himself used.—Mr. SPANTON (Hanley) thought that the sooner mechanical appliances were abandoned, the better. He had never found it necessary to use the recumbent posture when wearing the jacket, two or three hours' rest each day being sufficient.—Mr. RICHARDSON CROSS (Clifton) would draw a closer analogy between disease of the joints and caries of the vertebræ; and pointed out that he found a comparison of these diseases very impressive when teaching students. It was as bad surgery to leave a spine to go on to angular curvature, as to let a joint go on to ankylosis without treatment. He advocated absolute rest. In his experience, there was nearly always a history of injury.—Dr. GRIFFITHS (Swansea) had never seen prolonged rest injurious. He referred to the difficulty of diagnosis in young girls.—Mr. WATKIN WILLIAMS (Birmingham) spoke of the difficulty of obtaining absolute rest. He knew no treatment so good as that of Sayre's jacket, but remarked that the work of the surgeon was not complete when the jacket was on; the patient must be carefully observed afterwards.—Dr. MARTIN (Boston) and Dr. MARCY (New York) both spoke against the necessity of absolute rest; the former stating that he knew of cases which did not do well until exercise was possible with Sayre's jacket on; and the latter that he was surprised to hear of rest in bed being thought necessary when the jacket had been applied.—Dr. QUIMBY (New Jersey) thought absolute rest in bed desirable for the first two or three weeks, and drew a distinction, as far as the results of treatment were concerned, between cases of traumatic origin, and those with a strumous or syphilitic history.—Mr. OWEN remarked that some of the speakers seemed to him to have wandered from the early to the late recognition and treatment of the disease. When he spoke of rest, he meant absolute rest; and asked, how much rest the surgeon would give to a carious carpus? The answer was—absolute; and so, also, should be the rest for the spine. He thought there could be no improvement on Sayre's method, which had the merit of simplicity. Of course, it had been abused; what treatment had not? but he knew of cases where no harm, and nothing but good, had arisen from wearing the jacket as long as a year, fifteen months, and two years.

Twenty-five Cases of Lithotrity at one Sitting. By W. F. TEEVAN, F.R.C.S. (London).—Mr. TEEVAN read a paper on this subject, and showed several of the calculi which he had removed in the operations.

On the Value of Suspension in Surgery. By HENRY GREENWAY, M.R.C.S. (Plymouth).—This paper was intended to show the value of suspension in the treatment of fractures and certain other injuries and diseases of the extremities, by preventing motion in the part suspended, affording comfort to the patient, and thereby aiding in the reparative

process. To gain these ends, everything depended on the manner in which the suspension was carried out. The mere slinging an injured limb from a fixed point, although preferable to laying it on a bed, would not prevent a certain amount of motion at the seat of injury; for, whatever interfered with the free and easy movement of such limb horizontally, in any direction, was an opposing force, and caused motion in the limb. The various requirements were met in Mr. Greenway's "unilateral limb-suspender" for upper or lower extremities, which had proved, in the practice of many surgeons, of very great service in the treatment of severe fractures, cases of resection, inflamed joints, etc. So perfect was the rest thus obtained, that splints might almost be dispensed with; and fractures, hitherto considered beyond the pale of treatment, had, by this appliance, been treated successfully. Mr. Greenway exhibited his appliance.

Elastic Cord Tourniquet.—Dr. WARD COUSINS showed his elastic cord tourniquet.

Vote of Thanks to the President.—Mr. RICHARDSON CROSS moved a vote of thanks to the President for his able conduct in the Chair. It must have been obvious, he thought, to all that their meetings had been presided over by a surgeon of large practical experience, as evinced both by the operation for hæmorrhoids described in his opening address, and by the remarks which had fallen from him in the discussion of the various papers.—Mr. COATES having expressed his thanks for the vote, and the pleasure it had given him to preside over the Surgical Section, the meeting came to an end.

SECTION C.—OBSTETRIC MEDICINE.

Wednesday, August 10th.

ON REMOVAL OF THE OVARIES FOR DYSMENORRHŒA AND FIBROID TUMOURS OF THE UTERUS.

A DISCUSSION on this subject was opened by Dr. MALINS (Birmingham). His paper is published at page 385.

Dr. COGHILL (Ventnor) thought that the operation had been carried too far. He considered it always a grave matter to remove the ovaries, because the woman was unsexed. As to dysmenorrhœa, there should be no insuperable difficulty in deciding if the ovaries were really its cause. The trouble in the ovary was often purely functional, and it was unjustifiable to remove a healthy ovary. It was different when the ovarian troubles were beyond palliation. Fibroid tumours were often a barrier to the function of reproduction; therefore, in an uterus with inaccessible fibroids, even before the menopause, the operation would be permissible.—Mr. ROSS JORDAN (Birmingham) regarded tenderness of the ovaries as a very unsafe guide in considering their removal. Women soon localised pain there. The amount of pain was a guide, because some felt more pain than others, from difference in constitution, quite irrespectively of hysteria. If the pain were a misery, the woman's estimate should be taken, not our own. He thought the objection about unsexing a woman was trivial, because conception rarely took place in dysmenorrhœa. He considered the operation, with the safeguards mentioned by Dr. Malins, perfectly justifiable.—Dr. THOMPSON (Bideford) said that fibroids were not a bar to pregnancy. He had one case where a woman was satisfactorily delivered of a child in spite of three fibroids.—Dr. MALINS, in reply, was glad to find that his remarks, in the main, agreed with those of the speakers. He disagreed with what had been said about pain as a test; if a patient's own view of her sufferings were taken, we should have to take her view of the treatment. The case could not be gauged by the amount of suffering felt, and the language used in expressing it. The removal of the ovaries for dysmenorrhœa must be carefully hedged round, because evil would result from recklessness. This was expressed now by the abandonment of the name, "normal ovariotomy", and the substitution of "oöphorectomy". Still, it was very difficult, in examining the ovaries, even after their removal, to say what was healthy ovarian structure. It was also far from easy to determine whether ovarian pain in a case was central or reflected, and the attention of neurologists might well be called to the elucidation of this. As to fibroids, it was not intended to operate except when they were large, interstitial, or intramural, and led to protracted or dangerous hæmorrhage. In such cases, the operation afforded great promise.

On the Adaptation of Pessaries in Uterine Cases of Uterine Displacement, by means of a new material called Godiva. By WILLIAM L. REID, M.D. (Glasgow). Dr. Reid said that the question, as to the use of pessaries for relieving and remedying displacements of the uterus, was not in a very satisfactory state. Many medical men did not use them at all, believing that they did more harm than good. There was more or less trouble and difficulty in getting suitable pessaries; and often suffering was caused, or time lost, before success was obtained. This, the author thought, was owing to failure in getting instruments to suit the special circumstances of each individual case. In support of this opinion, the details of two or three cases were given, where only pessaries of a certain shape and size did good, and where such did great good. It was argued, that, a method of easily and rapidly adapting a pessary to the case in hand, would lead to its more efficient use. A composition, made for dental purposes by Mr. Hinds of Coventry, was shown and described, by means of which a pessary could be made, or a vulcanite one altered in shape, in the course of a minute or two. The kind of cases in which this method had been found most useful was mentioned, including those where a retroverted fundus slipped to one side of the posterior bar of the pessary; where a prolapsed ovary found its way into Douglas's pouch, in spite of an otherwise well-fitting instrument; and those where it was of use to fix the instrument in its permanent shape, after it had been introduced into the vagina. Instruments were shown, made or modified in this way, which had been worn and found efficient. The author hoped that, by using this composition in the class of cases, and in the manner described, the effectual use of pessaries would become easier and more satisfactory.—Dr. BALL (York) had great faith in pessaries, but accuracy in fit was all-important. He always succeeded in getting a good fit by using a pliable substance, preferring gutta-percha on wire, and rejecting vulcanite, because it could not be moulded. He measured with the finger to get a guide for size; and then a little manipulation, especially dipping the upper part down, secured an accurate fit.—Dr. MALINS (Birmingham) spoke of pessaries being of immense value, in his experience.—Mr. ROSS JORDAN (Birmingham) considered exactly adjusted pessaries the only scientific treatment of certain cases. Vaginal pessaries did very well for displacements backwards; but he preferred intra-uterine pessaries in anteflexion.—Dr. REID, in reply, remarked on the cost of "Godiva", estimating it at threepence or fourpence a pessary. By washing the material in carbolised water, the medium was again available. It was certainly brittle. In some cases, a wire frame would be advisable; but the brittleness was not a disadvantage. If pessaries were thrust with force into the vagina, the patient suffered for the roughness. At the same time, he had never found the pessary to break; and a pessary was not meant to support any great weight, for then some serious disease must be present. While, however, the ring of substance was perfect, the arch had great strength.

Cases showing the Importance of Exploring the Interior of the Uterus in Post Partum Illness, and especially in Puerperal Fever. By H. ERNEST TRESTRAIL, F.R.C.S., M.R.C.P. (Aldershot).—The object of this paper was to show that in several cases, including puerperal fever, sickness following delivery, hæmorrhage, protracted after-pains, etc., the early examination of the interior of the uterus enabled the real cause of the illness to be arrived at and removed, and serious results prevented. He stated his opinion that puerperal fever arose more frequently than was commonly supposed from the retention of decomposing pieces of placenta, etc., and that their presence in the uterus caused it to contract more forcibly near the os than at the body and fundus, thus causing the retention, rather than the throwing off, of the decomposing and blood-poisoning substances. He also referred to the like action of ergot, as proved by a series of three hundred experiments in *post partum* cases, so that it could not be relied upon to empty the uterus. He also pointed out that no medicinal treatment, nor syringing the uterus with disinfectants, would cause the removal of some clots, which, from their gradual formation and solidity, had become most firmly attached to the walls of the uterus, and could only be removed by the hand; and that thus many cases of *post partum* illness and incipient puerperal fever could be cut short by the internal examination of the uterus, and by no other means.—Dr. MALINS (Birmingham) thought the observations on the local action of ergot were new, and would have [illegible] Mr. Trestrail been present.*—Dr. GRIFFITHS (Swansea) said that Mr. Trestrail had not described any method of exploring the interior of the uterus. He described the way he (Dr. Griffiths) generally proceeded, using a duck-bill speculum, pressing down the uterus into the pelvis; and then the finger, or, best of all, a pile-forceps would be sufficient. But in cases seen only a few hours after confinement, the best way was to wash out with a [illegible] especially after miscarriage, [illegible] was often very useful. He urged the use of the thermometer in the vagina to reveal sources of mischief. The temperature was often 1.5° higher there than in the axilla, when any septicæmia was going on. He mentioned a case where a tuberculous patient, after confinement, had pyrexia; he diagnosed, by [illegible] the pyrexia was [illegible] to

* Mr. Trestrail [illegible]

intra-uterine causes. The diagnosis was confirmed by the appearance of phlegmasia dolens next day.—Dr. BANTOCK (London) endorsed what Dr. Griffiths had said about the value of the thermometer.—Dr. W. C. REID (Glasgow) thought that, where the third stage of labour was carefully managed, the necessity for clearing the uterus should be rare. He recommended pushing the uterus well down into the pelvis, then passing the finger from the vulva, and clearing by the bimanual method. He advised the preliminary washing out of the uterus with a watery solution of carbolic acid, 1 to 50 or 60, pretty warm. This, of course, did not apply to cases where inflammation had taken place; then, chloroform must be given, and the hand introduced into the vagina in order to avoid mischief from straining the already irritated tissues.

Wednesday, August 17th.

THE MECHANICAL TREATMENT OF UTERINE DISPLACEMENTS.

A discussion on this subject was opened by Dr. COGHILL. His paper is published at page 387.

Dr. BANTOCK (London) believed that much of the discrepancy in treatment arose from the want of precision in diagnosis, and the habit (in the case of backward displacements) of not distinguishing between an essential version and flexion. It was impossible to reconcile the differences which existed in the matter of statistics except on the grounds stated. In his practice, he found the order of frequency to be this: retroversion, anteflexion, anteversion, retroflexion. It might sometimes be difficult to say whether a particular case of backward displacement was essentially a version or a flexion, because a version might have flexion superadded, owing to the various degrees of resistance offered to the descent of the body into Douglas's pouch and the ascent of the cervix in the vagina, but it was not impossible. Versions were to be treated by the vaginal pessary alone, and flexions by a combined vaginal and intra-uterine pessary, such as Meadows's. One reason why failure was often met with was, that no care was taken to adapt the size and shape of the pessary to the requirements of the case. In anteflexion, inflammatory conditions must be treated first; in many cases, the sound alone sufficed. When there was constriction of the internal os, division must be practised; and, in many, the stem-pessary was a *sine quâ non* of treatment. He regarded anteversion as the least in degree and in effects, and as least of all requiring treatment. No vaginal pessary had yet been invented, nor was likely to be, which would correct a flexion.—Mr. ROSS JORDAN (Birmingham) spoke of some causes of flexion not referred to by Dr. Coghill, such as subinvolution and small fibroids. He approved of the treatment of retroflexion by intra-uterine pessaries. The use of mechanical means was not often contraindicated by inflammation of the uterus, a condition which he held to be much more rare than some supposed. He did not like Dr. Meadows's pessary, but recommended Dr. Grailly Hewitt's padlock pessary. The speaker had himself devised a very useful instrument, consisting of a stem fixed on an inflatable pad, which had been much approved of by Dr. Marion Sims.—Dr. EDIS (London) agreed with Dr. Coghill, that a slight variation in the position of the uterus would cause aggravated symptoms in one woman, whereas in another woman a greater amount of displacement would scarcely cause any. Inflammatory conditions of the uterus must be removed by depletion, rest, or other measures, before resorting to mechanical appliances. He thought highly of the genu-pectoral position; it relieved congestion. An intra-uterine stem must never be placed in an engorged or inflamed uterus.—Dr. HADDON (Manchester) was sceptical as to the efficacy of the genu-pectoral position. If the inflammatory states were relieved, all that was necessary was done; and he related a case of conception where retroflexion of the womb existed, and no instruments were used. No mechanical treatment should be attempted before inflammatory states had been relieved. He was of opinion that mechanical treatment was wrong in theory and bad in practice. He had seen some great failures in the application of pessaries by those supposed to be adepts in their use.—Mr. BALL (York) said that many women were now actively going about who would be cripples without pessaries. No man was capable of inserting a pessary properly, unless he knew how to make one, so that he could adapt it accurately. Some patients were really unable to bear pessaries, just as some people could never wear an artificial plate made by the dentist. Many patients with version and flexion of the uterus were hyperæsthetic, even where no metritis existed. By keeping the patient in bed and quiet, this feeling subsided, and she became accustomed to the instrument, and bore it. He thought the distinction between retroversion and retroflexion very plain, especially if the sound were used. The position of the os itself was a very plain guide. His experience was, that he saw ten cases of retroversion to one of anteversion; but it was difficult to argue from figures. He urged the great value of pessaries in some cases of fibroids.—Dr. HENRY BENNET (Mentone) supported the views of Dr. Edis. The first thing to do in gynæcology was to make a minute examination, to see everything; and for this he preferred the lithotomy position and a Sims's speculum. He was amazed to hear that some believed inflammation of the uterus to be rare. When these inflammatory conditions were seen, they must be removed before beginning mechanical treatment. After that, a pessary unquestionably gave immense relief. After removing the pessary, a patient needed time to accommodate herself to the want. Cold water injections, the sofa, etc., were required to restore tone to the stretched vagina. He condemned the leaving of pessaries for nine and ten months at a time in the vagina, the patient often being sent to travel during that period.—Dr. BRAXTON HICKS (London) believed in pessaries as of very great service, and particularly in married women with retroverted or retroflected uterus. If the patient was kept on a sofa, the pessary might be put in at once, without waiting for the preliminary treatment spoken of by Dr. Bennet. Some of the greatest difficulties were found in single women whose vagina had a small *cul-de-sac*. No Hodge's pessary was of much use; and a stem-pessary was most serviceable. The cause of difficulty in some cases was, that the patients were very thin.—Dr. NELSON (Chicago) spoke of uterine displacements being probably more a sign than a disease, and urged that in all cases special attention should be given to the structures surrounding the uterus. Parametritis was an important matter to be attended to in the treatment of uterine displacements. This having been done, the mechanical support should be used, but should be discontinued at once if it did any harm. The situation of the ovaries was to be watched; they must come in the way of the pessary. Tightly compressing dress, forcing the organs down into the pelvis, might displace the uterus. Postural treatment, as an adjuvant, was useful. It was best to practise it at night on the bed, then at once to lie down for the night.—Dr. COGHILL (in reply) was glad that the views he had expressed well reflected the sum of the experience of members present in the matter of the mechanical treatment of uterine displacements.

Secondary Post Partum Hæmorrhage. By J. BRAXTON HICKS, M.D., F.R.S. (London).—Dr. Braxton Hicks read cases, with remarks, where the whole or part of the placenta had been retained for some reason or another. The cases were mostly at full term or advanced pregnancy; in many of them imperfect attempts at removal had been made, though subsequently in all it had been accomplished, but with great difficulty. In most of them, secondary hæmorrhage had occurred; in all but one there were offensive discharges. Dr. Hicks had brought forward these cases partly to show the value of the standard rule, which insists that in every case where possible portions of placenta remaining on the uterine wall should be removed; and the cases he narrated illustrated the nearness of death or of great danger when, for some reason or another, the rule could not be or had not been followed. Dr. Hicks advised that, in all cases after delivery where, with floodings, there was offensive discharge, the uterus should be explored.—Dr. CORDES (Geneva) related a case of secondary hæmorrhage which occurred in a patient aged 45, who, 107 days before the hæmorrhage, had what the midwife said was a complete abortion at three months. There was no putrid smell with the bleeding. Ergot, cold, and turpentine, were of no service. The third day he gave two grammes (thirty grains) of quinine. Expulsive pain came on, extruding a piece of placenta as large as the ends of two fingers, quite inoffensive. Thus, after 109 days, this piece of placenta was still what might be called living.—Dr. HENRY BENNET (Mentone) believed that retained placenta, when adherent, was generally due to preceding inflammatory states. When there was much hæmorrhage after abortion, he recommended plugging the cervix, "driving the plug like a cork into a bottle".—Dr. BEVERLEY COLE (San Francisco) said that he invariably, directly after he had handed the child to the nurse, inserted his hand into the uterus and brought away the placenta. It cut short the woman's sufferings, and did away with the risk of *post partum* hæmorrhage. The pressure of the hand in the uterus, moreover, excited contraction. This plan had the advantage of revealing any adhesion at once.—Dr. WILLIAMSON (Ventnor) compared this practice with the reluctance generally felt about introducing the hand into the uterus except under circumstances of necessity, and he asked for the result of Dr. Cole's cases.—Dr. COLE had followed the practice he described for thirty years, and had only had one death from hæmorrhage.—Dr. EDIS (London) protested against Dr. Cole's opinion on this matter going forward as the opinion of the meeting.—Dr. BRAXTON HICKS, in reply, said that adhesion of the placenta did not occur so often as to warrant Dr. Cole's treatment being pursued in every case, lest the placenta was adherent. Nature was able to do her own work.

On Sterility. By ARTHUR W. EDIS, M.D., F.R.C.P. (London).—The fact of many women conceiving within the first year of married life, and then, after an early miscarriage or labour at full term, never again becoming pregnant, was commented on, and an explanation offered. The importance of ascertaining, after a confinement, that the patient had not incurred more than the ordinary penalties of parturition, and that she was left in a fair way to recover her former physiological condition, was insisted on. Even after many years of acquired sterility, a fair proportion of the cases usually met with could be successfully treated, if only pains were taken to ascertain the exact nature and full extent of the injury sustained, and to persevere sufficiently long with treatment.—Dr. BEVERLEY COLE (San Francisco) considered that subinvolution was perhaps the most common cause of women being sterile after having one child or one abortion. The causes of subinvolution were numerous—too early getting up, bad digestion, strumous diathesis; the first was a very common cause of subinvolution in America. He had found superinvolution or atrophy of the uterus more difficult to deal with. He mentioned his usual mode of treating these cases, describing his galvanic pessaries, which consisted of a stem composed of parallel bars of zinc and copper insulated by a thin layer of vulcanite. In thirty cases, he had thus built up the uterus from one inch and a quarter to the normal size within three months.—Mr. ROSS JORDAN (Birmingham) had had several cases like Dr. Cole's, which he had treated similarly.—Dr. HENRY BENNET (Mentone) agreed with Dr. Edis. He mentioned that, at a late census, one million of married people were sterile. The same thing obtained in cattle. One woman in six was sterile. It seemed as if a certain portion of the female creation was destined to be unfertile. He believed that frequent sexual intercourse, setting up inflammatory conditions, was unquestionably a cause. He thought prostitutes were generally sterile because they were recruited from the sterile classes.—Dr. COLE thought sterility should not all be laid to the charge of the wife, fifteen per cent of cases being due to the man.—Mr. ROSS JORDAN (Birmingham) disagreed with Dr. Bennet as to the prostitutes being mainly sterile women. Prostitutes were generally women who had had one child, but were too severely punished by society for their fault.—Dr. BANTOCK (London) agreed with Dr. Bennet as to sterility in a certain proportion of women. Patients often consulted him about being barren. He promised them cure of any local malady, but told them conception was another question.—Dr. MALINS (Birmingham) pointed out that Rokitansky and Grainger Stewart had shown evidences of inflammation in the uterus and its appendages, obstructing the passages, in prostitutes.—Dr. EDIS, in reply, stated that his paper was rather pointed to the cases of patients asking for help, not to prostitutes, in the cause of whose sterility he quite agreed.

Friday, August 12th.

Short and Practical Hints on Natural Labour. By H. H. MUGGERIDGE, LL.D., M.R.C.S. (Seaford). The following is a list of the points touched on in this paper, which the author thought useful for young obstetricians:—Primiparæ, after thirty-five or forty years of age: patience to be observed before the use of forceps; also consultation with an experienced practitioner, if it can be obtained; fears of patients at those ages in first confinement; advice and hints to prevent a hard and lingering labour. Placenta, its expulsion and removal in hour-glass contraction and adhesion. Hæmorrhage from funis of infant after separation by ligature. Retention of portions of placenta. Hæmorrhage and its consequences. Catheter, its use during and after labour and instrumental delivery; necessity of perfect knowledge how to introduce it; case in point. Directions to nurse. Women not pregnant, who think think themselves so; necessity of correct diagnosis. Ovarian tumours. Large hypertrophy of nymphæ and clitoris in primiparous patient thirty-five years of age, pregnant; operation at seven months; delivery at full period with forceps; living child; recovery of patient. Force of imagination and mental disquietude during pregnancy, illustrated by birth of two-headed female at full period, still-born.—Dr. THOMPSON (Bideford) bore testimony to the correctness of the first principles called to mind by the paper; but he objected to pinning the binder; he always had a long one, and tied it in a knot behind the patient. He urged the importance of noting the frequency of the pulse as an indication of impending hæmorrhage. In order not to interfere with this, he avoided giving stimulants. Then, as soon as possible, he put the child into its mother's arms; it was not essential that it should take the nipple. He had never known a case of hæmorrhage where this had been done. In cases where it was difficult to extract the placenta on account of its size, he pressed well on the uterus; then snipped the ligature on the cord, and allowed some blood to escape. This reduced the size of the placenta, and allowed its easy extraction.—Dr. ROGERS (New Jersey) spoke of the need for learning to pass the catheter without exposure. In some cases, however, it was simply impossible, from the swelling of the parts, to find the urethra. On one occasion, even inspection did not at first reveal the meatus, which in this instance opened into the vagina.—Dr. MUGGERIDGE spoke briefly in reply.

The Prognosis of Syphilis in Women and Children. By C. R. DRYSDALE, M.D. (London).—The author said that women were, generally speaking, much more affected by syphilis than men. The virus might awaken any tendency to consumption or scrofula in women; and one form of skin-disease, the pigmentary syphilide, was peculiar to women, or at least extremely rare in men. It was seen mostly in the neck; but Dr. Drysdale had seen it on various parts of the skin. Women, too, frequently lost almost every hair on the body in secondary syphilis, which was rare in men. Periostitis was far more common in women than in men; and so were headache in the secondary period, hydrarthrosis and trembling, with emaciation and prostration. Anæsthesia of various points of the surface of the skin was frequent in women; it was most seen on the backs of the hands, on the mammary gland and the cheeks. Extreme coldness of the surface also occurred in women. The author had seen jaundice several times in women in the secondary period. The generative system was greatly affected in the syphilis of women. During the secondary stage of their disease, they often suffered from leucorrhœal discharges, which were for the most part non-contagious, unless accompanied by some syphilide of the vulva or vagina. In some cases, doubtless, this gonorrhœa was contagious when inoculated on a healthy subject. In a few cases, syphilis caused in the secondary period complete suppression of menstruation, especially when malignant syphilis was present. Secondary syphilis rarely caused sterility; but pregnancy rarely ran its full course, and the patient had an abortion or premature labour if in the secondary period of the disease. Of ninety-seven pregnant women with secondary syphilides, at least thirty aborted. Syphilis was one of the commonest causes of the death of the fœtus. In rare cases, no healthy child was ever born. As a general rule, however, women, even when untreated, tended to have healthy children in three or four years; but he would not recommend anyone to marry a syphilitic woman. Men constantly married a few years after the chancre, and had perfectly healthy offspring. The prognosis of syphilis in infants was extremely bad. His experience corroborated that of the physicians of the Lourcine Hospital of Paris—that very few indeed of such cases of infantile syphilis survived. Those who did survive rarely lived beyond the age of thirty-five, and were liable to have a sickly existence, during the course of which iritis, periostitis, and bone-diseases were frequent.—Dr. THOMPSON (Bideford) mentioned an instance where a patient had had syphilis, and waited until permission was given to marry. The wife had a syphilitic rash; and he considered, in most of these cases, the mother was infected through the fœtus *in utero*.—Surgeon-Major POOLE asked whether Dr. Drysdale really considered that a man might marry in three years after he had contracted syphilis.—Dr. W. L. REID (Glasgow) had no belief in allowing a man to marry who had had syphilis until he had had treatment by mercury, of a quiet kind, but continued for four or five months. It was no proof that he might not become the parent of a syphilitic child that he had for five or even ten years had no distinct symptoms of the disease. Where a wife had had premature labour, evidently syphilitic in origin, he asked the husband for information. A denial usually followed; he was then told that his wife had syphilis, and that she must have got the disease from himself or some other man. This brought out the admission that years ago he had had disease, which, however, had been perfectly cured. A course of treatment by mercury, of both parents, resulted generally in the birth of apparently healthy children.—Dr. BALL (York), speaking of when a man might marry after syphilis, related three cases. In one, the husband had had syphilis three years before marriage. The wife had a premature confinement, and had sore-throat, and even nodes. After she had had a second dead child, coitus was abstained from for two years. The child born subsequently to this period was living, but was under treatment for syphilis. In another case, the wife bore syphilitic children, although six or seven years elapsed between the man's having had syphilis and his marriage. In a third case, on the contrary, a man who had a Hunterian chancre, followed by an ulcer on the tibia, married after one year. The child born was now ten months old, and quite healthy.—Dr. ALDERSON (Hammersmith) related a case where, after waiting three years, the man yet became the parent of a syphilitic child.—Dr. DRYSDALE (in reply) said that the contagion was undoubtedly carried to the mother by the fœtus *in utero*. He thought that, after three years' interval, at any rate, after four, a man might marry; but a woman who had had primary syphilis should never marry. It was sometimes difficult to know how to advise widows who wished

to marry again, but who were syphilised during the previous marriage. In one case when this was done, the child was syphilitic. The prognosis of syphilis, then, was more serious than was generally supposed. Women who had had it should never marry; and men should, at any rate, wait four years.

SUBSECTION OF OTOLOGY.

Wednesday, August 10th.

THE business of the subsection was opened with an address by the Chairman, [illegible], M.D. It was published at page 355 of last week's [illegible]. Discussion on the address being invited by the Chairman,

Dr. LOEWENBERG (Paris) said that, in France, matters were much the same as in England. Aural surgery was not taught in the schools. The elements of aural surgery should be taught to every practitioner—such as the recognition of the membrane by the speculum, the proper use of the syringe, and of Politzer's bag. Special knowledge could not be expected of all practitioners; but, at least, they might be taught not to do harm.—Mr. CRESSWELL BABER (Brighton) considered the importance of the subject could not be overestimated, when it was known how much might be done in the early stages of aural diseases.—Dr. JACOB (Dublin) said that, in Ireland, there was great ignorance of aural surgery among practitioners. As an encouragement to action in this matter, he mentioned the success of a similar movement, in favour of ophthalmology, at the College of Surgeons in Ireland. It would be necessary, however, to be content with a minimum.—Dr. BARR (Glasgow) agreed that students should understand that they might be asked a question in aural surgery; if this were the case, they would pay more attention to it. He narrated a case showing the ignorance of general practitioners of the diagnosis and treatment of ear-diseases.—Dr. LOEWENBERG referred to the action, in the same direction, recently taken in Germany by Professor Von Tröltsch.—Dr. GUYE (Amsterdam) said things were not much better in Holland; and Professor Gruber had told him there was, even in Vienna, the same want of attention to aural surgery among general students.

Relation of Disease of the Nasal Passages and Naso-Pharynx to Aural Affections.—A discussion on this subject was opened by Dr. THOMAS BARR (Glasgow). His paper is published at page 389.—Dr. GUYE (Amsterdam) was desirous of saying a few words respecting his instrument for closing the mouth, and preventing mouth-breathing. The mouth should not be used for normal breathing. He then showed his instrument, the "contra-respirator"; he used it only as an aid to local treatment. Other methods of preventing mouth-breathing were referred to.—Dr. LOEWENBERG (Paris) thought deafness was produced by adenoid growths, both by pressure on the Eustachian tubes directly, and also by the production of inflammation in the naso-pharynx, which extended along the tubes. He referred to the importance of rhinoscopy in the diagnosis and treatment of these diseases. Operative procedures could not be employed safely on the sides of the naso-pharynx without the aid of the rhinoscope.—Dr. REEVE (Toronto) had noticed the fact that, in cases of mucous polypi, the middle ear was not always affected, because the mucous membrane was only affected locally. He referred also to some cases of very large polypi.—Mr. DOUGLAS HEMMING (Bournemouth) remarked on the importance of this subject of postnasal catarrh and of adenoid growths. He believed that increased use of examination of these regions, in almost all cases of deafness, would reveal the existence of a much larger number of such cases than was generally supposed.—Mr. CRESSWELL BABER (Brighton) remarked that he had for some time taken an interest in adenoid vegetations; and, since he had looked for these cases, he had found them very common. In the milder cases, he thought scraping with the finger-nail was sufficient; in more marked cases, he used Catti's forceps, and also the galvano-cautery. He considered that the use of an anæsthetic was advisable in some cases, especially where the naso-pharynx was very sensitive, and in the upper classes.—The CHAIRMAN said all knew what a large number of cases of aural diseases came from disease of the naso-pharynx. In cases of adenoid vegetations, as apart from distinct growths, he had found much benefit from the use of tannin. Those in charge of patients should be thoroughly taught how to employ local means. Some anatomists said enlarged tonsils could not cause deafness; but experience showed that the removal of the tonsils was followed by relief of the deafness.

Thursday, August 11th.

The Study of Aural Surgery.—Dr. EARR (Glasgow) proposed the following resolutions: "1. That a committee be appointed to consider and report on, at the next annual meeting of the Association, the best means of promoting the study of aural surgery, especially in regard to compulsory examination in this subject by the various examining bodies. 2. That the committee consist of the chairman and honorary secretary of this subsection, and (with their consent) all the teachers of otology in the United Kingdom, with power to add to their number."—Mr. CRESSWELL BABER (Brighton) seconded the resolution, which was carried unanimously.

The Treatment of Purulent Discharge from the Ear where the Source of the Secretion is in the Upper Part of the Tympanum and Antrum Mastoideum, with Four Illustrative Cases. By THOMAS BARR, M.D. (Glasgow).—The paper began with a description of the anatomical peculiarities and relations of the upper part of the tympanum and the antrum mastoideum. Reference was then made to the special symptoms and possible dangers which attended this form of suppurative disease of the ear, resulting from these anatomical peculiarities and relations. Inflammatory products were stated to be very apt to be retained in these parts, and thereby to maintain the purulent process. There was not only a difficulty in the spontaneous emptying of these parts, but also difficulty in the efficient use of cleansing and medicated solutions. By the ordinary method of syringing the ear, these spaces were beyond the influence of the injected fluid. Hence these cases belonged to the class of otorrhœa most intractable to treatment. A description was then given of the method of treatment pursued by the writer in such cases. Certain preliminaries to the more essential part of the treatment were first referred to. The value of Siegle's suction-apparatus in aiding the clearing the parts of the purulent secretion was pointed out. The writer then described the method of cleansing away purulent or caseous *débris* from the affected parts by the use of the middle ear-syringe. Then followed a description of the middle ear-syringe used by the author, as well as other forms of middle ear-syringe, and particularly a modification fitted for persons who had great sensitiveness of the mucous membrane of the middle ear. The mode of using the syringe was described, as well as the cleansing and disinfecting solutions which were most suitable. Repeated use of these solutions with the middle ear-syringe was required, before the purulent and caseous *débris* could be cleansed away. After this had been effected, efforts must next be made to remove the chronic inflammation on which the purulent secretion depended. The best kind of application, in the opinion of the writer, for this purpose, was a strong solution of nitrate of silver, injected in small quantity by the middle ear-syringe. The number and frequency of these applications were then indicated. A detailed description followed of four cases in which the mode of treatment advocated in the paper was carried out. It was pointed out, in conclusion, that these cases had been previously treated ineffectively by aural specialists in various ways, none of which, however, included the use of suction and middle-ear injections. It was therefore inferred that the cure or improvement effected in these cases were the results of the special treatment recommended in this paper.—Dr. JONES (Chicago) considered that Dr. Barr had practically treated a practical subject. In these cases, in addition to the use of borated cotton, he had plugged with cotton containing iodine, and had found it very useful.—Dr. JACOB (Dublin) had employed means very similar to those described by Dr. Barr, and had found insufflation of boracic acid very useful. He gave much attention to constitutional treatment, especially in young children.—Dr. LOEWENBERG (Paris) said that boracic acid was very useful where there was a large perforation. When the discharge contained blood, he had always found polypus or granulations present. A large part was played in these affections by atmospheric germs. He had somewhat modified Bezold's boracic acid treatment by combining with it the use of absolute alcohol. He commenced with the alcohol dilute, and gradually increasing it up to absolute strength. The person in charge of the patient should be thoroughly instructed how to syringe the ear, etc.—Dr. WARD COUSINS (Southsea) had used solution of permanganate of potash with great effect.—Dr. GUYE (Amsterdam) observed that in many cases of chronic and acute inflammation perforation of the mastoid was necessary, and mentioned two cases in corroboration of this view. In the first case, which was published some years ago in a Dutch paper, the opening made with a sharp probe penetrated into the cavernous sinus; blood was discharged, and air drawn into the veins, but the patient experienced no bad effect, and was finally quite cured. This might tend to lessen the fears entertained regarding the operation, and with reason, on account of the anatomical variations in the mastoid process. In the second case of very severe inflammation, Wilde's incision produced very good results. After six or eight days, granulations in the external wound may hinder the flow of the secretion. The surface of the bone should be kept open very carefully; and, for this purpose, the edges of the wound might require to be touched with nitrate of silver. If a free opening were maintained, it was often unnecessary to perforate the mastoid.—Mr. DOUGLAS HEMMING (Bournemouth) had used wools impreg-

nated with various substances, as introduced by Dr. Woakes, for the treatment of the naso-pharynx. He had employed alum, boracic acid, iodoform, etc. After syringing, cleansing, and drying the ear, he packed the cavity with the wool, leaving it for some days, and then repeating the proceedings. By this method he had obtained very satisfactory results—the best, probably, with iodoform. He also spoke on perforation of the mastoid, drawing attention to a paper on the subject by Dr. Hotz of Chicago in the *Archives of Otology*, No. 2, 1880, where the indications for the performance of the operation were laid down.—Dr. LOEWENBERG thought incision of the mastoid bone should be avoided if possible. Many cases of mastoid disease were caused by there being an insufficient opening in the membrane for the outflow of the matter which made its way into the mastoid cells.—Dr. GOODWILLIE (New York) described the method of performing the operation, and the form of drill which he used.—The CHAIRMAN, in closing the discussion, said that, as regards dry *versus* wet treatment of otorrhœa, it must depend much upon individual cases. In cases where there was a great deal of muco-purulent discharge, the treatment should begin with lotions, and then the dry method may follow. He agreed with Dr. Loewenberg that there never was discharge of blood unless granulations of some sort were present. He often combined thymol with alcohol, commencing with dilute solutions. Trephining was necessary in acute inflammation where there was pus present in the mastoid cells.

Ear-Protector.—Dr. WARD COUSINS (Southsea) exhibited and described his ear-protector, the object of which is to prevent the sudden access of great noises, of cold air or cold water, to the ear. This might occur in those who are in the habit of bathing, in those working in ironworks, in artillerymen, etc. The protector consists of a small hollow cup of soft vulcanised India-rubber, which is placed in the meatus. It has not caused any irritation, nor does it interfere much with the hearing. It has been found of value by artillery officers and others.—Drs. GUYE and LOEWENBERG spoke favourably of the instrument, and thought it would prove useful.

Instruments.—The remainder of the meeting was devoted to the exhibition of instruments.

Mr. CRESSWELL BABER exhibited Politzer's small hearing-tubes. Professor Politzer had employed them in one hundred and fifteen cases with considerable success; and Mr. Baber had employed them in a few cases with some success.

Mr. BABER also showed his self-retaining nasal speculum, and an improved aural scoop.

Dr. JONES (Chicago) exhibited an improved aural speculum, a modification of Brunton's; also instruments for use with the Eustachian catheter for injecting fluids.

Mr. HODGSON (Brighton) exhibited a modification of Brunton's auriscope, which combined with that instrument the exhausting apparatus of Siegle's speculum.

The CHAIRMAN, in closing the business of the Subsection, congratulated the members on the work; and the proceedings terminated with votes of thanks to the Chairman and the Honorary Secretaries.

NEWTON ABBOT RURAL DISTRICT.—This report also includes the Wolborough and Dawlish Urban District, which form, with the rural area, the combined district held by Mr. Leonard Armstrong; and it affords an excellent example of the working of combined districts, even on so small a scale as the present one. In the Dawlish district, the birth-rate last year was as low as 25.5, whilst in Wolborough it reached 33.0 per 1,000. The death-rate may on the whole be considered satisfactory. It was lowest at Wolborough, where it reached 16.03, the rural district coming next with 18.42, and Dawlish having the comparatively high rate of 22.90. In this last district, the death-rate exceeds that of 1879 by nearly 9 per cent.; but the proportion is calculated on very small numbers. Of the total deaths (88), 50 per cent. were in children under five years of age, and half of these died within the first year of life, many children succumbing to an epidemic of measles that prevailed in the locality. In the rural district, the infant mortality was also excessive, 162 of the total deaths (472) being in children. In this case, the chief factor of this mortality was the epidemic prevalence of whooping-cough and measles. A similarly high rate was recorded at Wolborough, where 35 per cent. of the total deaths (117) were of children under five years of age; and of these, 30 had not attained the age of twelve months. There was a decline in the number of deaths from scarlatina, but bronchitis and acute lung-affections were very fatal. Mr. Armstrong appears to have kept his district under constant inspection, and reports improvements in many directions. From the instances that he gives of carelessness with regard to infection, and ignorance in sanitary matters, it would seem that many of the inhabitants of the district have yet to learn the first principles of public health.

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF OBSTETRIC MEDICINE.

THE Section was opened on August 3rd with an Address by the President, A. H. MCCLINTOCK, M.D., which was published at page 214 of the JOURNAL for August 6th.

DISCUSSION ON TARNIER'S FORCEPS.

Improvements in the Construction and Application of the Forceps. By Professor TARNIER (Paris).—After giving a general summary of the question, Dr. Tarnier said that two reasons had led him to give up the perineal curve of the forceps. 1. In direct applications, the forceps with the ordinary curve was easier to apply than the forceps with the perineal curve. 2. In oblique applications, the convexity resulting from the perineal curve came into contact with one of the ischio-pubic rami, and caused a deviation of the handle of the instrument, whose action then became defective. With forceps having the ordinary curve, when it was wished to impress upon the fœtal head a movement of rotation around the imaginary axis of the pelvic cavity, the handles of the instrument must describe externally an arc of a circle.

On the Curves of Midwifery Forceps. By I. LAZAREWITCH, M.D. (Kharkoff).—The author said that in midwifery forceps there were three curves: the cranial, pelvic, and perineal. The cranial curve was indispensable; without it, it was impossible to grasp and extract the head. Only by the action of this curve the ends of the blades, pressing on the head from above *(vis a tergo)*, caused it to move through the generative canal. The parts of the blades applied to the side of the head, by holding it between them, directed its movement. The greater the dimensions of the head, the greater was the divergence of the extremities of the blades, and the less the pressure on the head from above. In Dr. Lazarewitch's new forceps, the lock rendered divergence of the blades possible, while their parallelism was maintained. In the action of the forceps on the head, besides the *expulsive* power, there was a *compressive* lateral power, exerted by the walls of the generative canal; and, as an additional force, by the action of the hand of the operator. This latter, being injurious, might be entirely avoided by appropriate manipulation and by mechanism of the forceps. The pelvic curve of the blades of the forceps did not answer to the mechanical conditions for the favourable action of the instrument. It increased the opposing force, and might give rise to injuries of the soft parts. The slighter the pelvic curves of the blades, the less was the injury. Forceps without any pelvic curve whatever answered best the mechanical requirements. The perineal curve existed in very few forceps, because the perinæum, by its elasticity, might be dilated to the os coccyx without injury. The traction of the forceps should be directed by the muscular sensation of the hands, and by no special mechanism. The principal and indispensable conditions for good midwifery forceps should be explained. The above positions might be demonstrated with the help of the author's new parallel forceps without the pelvic curve. He cited three important cases in which it had been employed.

Dr. FORDYCE BARKER (New York) said that Tarnier's forceps was a most important step in advance. The only objection to it was, the danger to the soft parts of the mother, which might be cut by it.—Professor A. R. SIMPSON (Edinburgh) was of opinion that Tarnier's forceps was the best. It ensured traction always being made in the axis of the pelvis. The short forceps was a thing of the past.—Dr. BUDIN (Paris) said he was a pupil of Professor Tarnier's, and warmly defended his forceps, and supported it against the objections usually urged against it.—Dr. MATTHEWS DUNCAN (London) stated that, although Tarnier's forceps was an attempt at a scientific instrument, scientific instruments were not always necessarily the best. He thought the question could only be settled by experience.—Professor STEPHENSON (Aberdeen) saw no improvement on the ordinary forceps in the modifications made by Dr. Tarnier.—Dr. R. BARNES (London) considered Tarnier's forceps the greatest advance in scientific midwifery in late years. He, like Dr. Budin, supported it, and combated the various criticisms made by different speakers.—Dr. LOMBE ATTHILL (Dublin) had tried Tarnier's forceps, but preferred Barnes's long forceps, which he always used with success and satisfaction to himself.

Professors TARNIER and LAZAREWITCH [illegible]

Use of the Intermittent Current [illegible] as a Means of Diagnosis. By J. BRAXTON H[illegible], M.D., F.R.S. (London).—The author recalled attention to his paper [illegible] at the

London *Obstetrical Transactions* (1871, vol. xiii, page 216), in which, after showing that the uterus contracted usually at intervals of from five to twenty minutes, during the whole of pregnancy, and that these contractions were readily recognisable by the hand, he proceeded to point out the value of this knowledge as a means of diagnosis. In the present paper, he emphasised this, and gave cases where these contractions occurring (and the author had also lately pointed out that they are indicated by the gastrograph), the diagnosis was set at rest: 1, in suspected extra-uterine pregnancy; 2, in hydramnios, where ovarian cyst was supposed to exist, and paracentesis abdominis was performed through the uterine wall; 3, in cases of pregnancy where tumour was supposed to co-exist; 4, in hydramnios with twin conception, etc.

Dr. MATTHEWS DUNCAN (London) said that Dr. Hicks had overlooked the contractions found in soft fibroma.—Professor HENNIG (Leipsig) remarked that the contractions only gave rise to doubt in diagnosis when pregnancy and uterine tumour were present together.

Proposals for a New Nomenclature in Obstetrics. By A. R. SIMPSON, M.D. (Edinburgh). After reviewing the different principles of nomenclature at present adopted in different countries, Dr. Simpson said that anatomical or topographical relations formed the only satisfactory common basis, and that numerical terms were to be avoided. He discussed the nomenclature under the following heads. 1. The factors of labour: *a*, powers; *b*, passages; *c*, passenger. 2. The diameters of *(a)* the pelvis; *(b)* the fœtal head. 3. The relations of the passages and the passenger: *(a)* presentation or lie of head, pelvis, and trunk; *(b)* position, left and right occipito-anterior and occipito-posterior, left and right sacro-posterior and sacro-anterior, left and right acromio-posterior and acromio-anterior. 4. Movements of flexion, extension, rotation, and restoration.

On a Peculiar Disposition of the Ova in Twin Pregnancy. By P. BUDIN, M.D. (Paris).—Externally it appeared that only a single ovum existed, but on the periphery of the membranes there were two distinct placentæ. Internally there existed two bags of membranes, the one included within the other. After careful dissection, it was seen that this was only apparent; the two ova could be completely separated, they were only in apposition. One of them had probably been implanted upon the uterine wall, at a time when the other had already reached a certain degree of development.

DISCUSSION ON BATTEY'S OPERATION.

Oöphorectomy: Battey's Operation: Spaying: Castration of Women. By ROBERT BATTEY, M.D. (Rome, Georgia).—Dr. Battey said that the terms "spaying" and "castration of women", applied to his operation, were inappropriate and objectionable. "Oöphorectomy" had been introduced in America by Peaslee as a synonym of ovariotomy; moreover, it suggested the removal of an ovary, and not the artificial menopause. "Battey's operation", proposed by Dr. Marion Sims, was a convenient term. The operation was contemplated in 1823 by Dr. James Blundell of London, but not practised. In October 1865, Dr. Battey conceived the idea of producing the artificial menopause by double ovariotomy. Hegar of Freiburg proposed the operation on July 27th, 1872; and Lawson Tait of Birmingham on August 1st of that year; but the cases, both fatal, were not published at the time. On August 17th, 1872, Dr. Battey operated successfully. With regard to the indications, the author said that the operation could not in any case be received as an alternative for other means of cure, but must be held, as it was originally offered, for *dernier ressort*. It had been attempted to classify the diseased conditions, and point out with precision the circumstances, in which the operation was to be done. However carefully such classification might be made, it is to be questioned whether a proceeding so open to abuse should go out to the world as a recognised remedy for amenorrhœa, dysmenorrhœa, menorrhagia, or any other diseased state. Regarding the operation, two points called for special attention. In America, the vaginal and abdominal methods were both in use; but in Europe, the abdominal alone found favour. For the vaginal, it was alleged that (*a*) the mortality was less; (*b*) it favoured perfect drainage; (*c*) air was admitted to the peritoneal cavity in but slight degree; (*d*) the intestinal mass was but little exposed to mechanical irritation. To it might be objected the rather frequent occurrence of formidable adhesions, and the difficulty and even impossibility of dealing with them properly, and effecting complete removal of the ovaries. So excellent, however, had been the results, in well selected cases, that this method should not be wholly abandoned, but practised only when the accessibility of the ovaries and absence of adhesions were well assured. In dealing with the pedicle, the practice of employing the ligature, simple or carbolised, with ends cut short, was well nigh universal. Dr. Battey had, in thirteen instances, severed the pedicle with the *écraseur* alone; in no case had any troublesome hæmorrhage occurred. In the cases collected, the death-rate had been 22 per cent. for the complete operations, and 0½ per cent. for the incomplete. In exceptional cases, after double ovariotomy, the menses had reappeared, regular in occurrence and normal in character. In none of these cases, however, had it been shown that a third, or supplemental, ovary, did not exist, or that fragments of ovarian stroma were not left behind. In Dr. Battey's cases, when even small fragments of the ovaries were left, the menses invariably continued; and, in one instance, a child was even subsequently born. Patients who had been subjected to the operation had not in any case complained of the loss of sexual power; but, on the contrary, they had, in a number of instances, borne testimony to their full competency. Female graces had not been impaired in any case, but a positive gain had often been noted. As regarded general health, as the operation was proposed only as a *dernier ressort;* and in cases of a desperate character, whatever of benefit was secured was to be accounted so much actual gain. Comparing the cases tabulated as complete operations, there were cured 68, or 75 per cent.; greatly benefited, 15, or 17 per cent.; not benefited, 7, or 8 per cent. Of the incomplete operations, there were cured, 3, or 18 per cent.; greatly benefited, 7, or 41 per cent.; not benefited, 7, or 41 per cent. In several instances where the results were unsatisfactory for some months (or even a year or more), the patients were subsequently much improved, and a few were even completely cured. It was premature to set down any case as a failure, until ample time had been allowed for the cyclical change to become complete.

Oöphorectomy. By THOMAS SAVAGE, M.D. (Birmingham).—A record was given of thirty consecutive successful operations performed during the last two years for various conditions—ten being for long-standing and painful prolapse of the ovary, and four for myoma. The author's experience up to the present time led him to consider that, for the two above-named conditions, there was a large field of successful and beneficial practice open to oöphorectomy in properly selected cases; but that, in the cases of so-called ovarian dysmenorrhœa, there was considerable difficulty in coming to a conclusion as to the cases where it would be likely to be suitable; for it seemed necessary that a considerable period must elapse after the operation, in these cases, before the benefits hoped for were apparent. The author thought that the enlargement of the prolapsed ovary was often due to an inversion of the organ into Douglas's space, giving rise, in the first instance, to œdema, and subsequently to areolar hyperplasia, or a cystic condition. With the one exception—the inability to conceive—patients after oöphorectomy possessed every attribute of womanhood. The facility and safety of the operation being fully established, it became a duty to define, as far as possible, the conditions for which it was applicable, also those for which it was inapplicable, so that it might not be abused.

Dr. MARCY (Boston) had done two oöphorectomies *per vaginam*.—Dr. PRIESTLEY (London) thanked Dr. Battey for his valuable paper. He was astonished at the revolution in abdominal surgery. Battey's operation should not be performed except as a *dernier ressort*. He had observed that the ovaries varied in size, just like the testicles.—Mr. KNOWSLEY THORNTON (London) had operated five times with success. He was disappointed at the large mortality of the operation. He had failed to cure dysmenorrhœa by it. He complained that the after-history of the cases operated on had not been fully reported.—Professor MARTIN (Berlin) had twice performed oöphorectomy. The first case was one of uterine tumour, and was successful. The second case was one of dysmenorrhœa, and the operation had not relieved the symptoms for the cure of which it had been undertaken.—Dr. HEYWOOD SMITH (London) said that the presence of adhesions was a frequent source of difficulty.—Mr. LAWSON TAIT (Birmingham) was pleased to find the operation so favourably received. He had had five deaths out of twenty-six cases, in which he had removed the ovaries on account of fibroid tumours.—Dr. BANTOCK (London) related a case in which he had operated for the relief of menorrhagia.—Dr. GOODELL (New York) had not had much experience in the operation. He asked why it was so fatal. He had performed the operation by the vagina and by the abdomen. He preferred the abdominal section, and in future should operate by that direction. He was of opinion that Battey's operation should be resorted to in cases of insanity.—Mr. SPENCER WELLS (London) had only operated once, and then with success. It was difficult to avoid wounding the intestines. He had not seen cases requiring the operation.—Dr. PALLEN (New York) had performed the operation several times.—Dr. MATTHEWS DUNCAN had sanctioned the operation in one case. The sufferings of neurotic women were exaggerated. He had seen patients by whom indescribable agonies were endured go to theatres and balls in the evening. He knew of no death from ovarian pain. In Mr. Lawson Tait's table, he saw that, out of twenty-six cases operated on for fibroids, five resulted in death. He

asked where one could find such a mortality from cases in which the tumours had been left alone.—Dr. MONTERUN proposed to call the operation castration. He was opposed to the operation.—Drs. BATTEY and T. SAVAGE replied.

The Exciting Causes of Hysteria and Hystero-Epilepsy. By GRAILY HEWITT, M.D., F.R.C.P. (London).—The object of the paper was to demonstrate, by the results of clinical observation, that, in cases of hysteria and so-called hystero-epilepsy, the exciting cause of the attacks was distortion of the uterus produced by flexion of the uterus upon itself either forwards or backwards. The attacks were the result of reflex irritation, the irritation consisting in the physical compression and tension of the tissues of the uterus consequent on the forcible bending of the body of the uterus on the cervix. This bending had the effect of producing compression of the uterine tissues at and near the angle of flexion, and, by its interference with the circulation in the uterine tissues, it had the further effect of producing a continuous congestion of the body of the uterus. The evidence offered by the author in support of the above explanation was the recital of eighteen cases observed by him during a period of ten years. In these cases, some of which were cases of severe attacks of hysteria, others identical with those described as cases of hystero-epilepsy, and a few in which the symptoms were of a less severe character, the condition of the uterus was carefully investigated. Marked distortion of the uterus was present in all the cases, the most severe cases being those in which the uterine distortion was greatest. Complete relief from the attacks and hysterical symptoms was obtained in these cases, by a treatment directed to the removal of the uterine distortion. Out of eighteen cases, perfect relief was known to have been obtained in seventeen; the subsequent history was not fully known in one case. Of the eighteen cases related, twelve were cases of anteflexion of the uterus, and six were cases of retroflexion. The complete cessation of the hysterical symptoms in the cases related, and the uniform success of treatment directed to the rectification of the shape and position of the uterus, showed, in the author's opinion, that the exciting cause of the attacks was the flexed condition of the uterus.

The Curability of Uterine Displacements. By PAUL F. MUNDÉ, M.D. (New York). Finding that the text-books either entirely omitted all mention of the possibility of permanently curing displacements of the uterus by any of the methods in use, or gave but vague statements on the subject, and impressed with the importance of having some positive conclusions on this matter, both for the sake of the patient and the satisfaction of the physician, the author had analysed the cases of displacement which had come under his care (895), and had arrived at the following conclusions. 1. Displacements of the uterus are permanently curable in the large majority of cases only when recent, or when a complete tissue-metamorphosis, as occurs during pregnancy and after parturition, takes place. 2. Chronic cases (of more than a year's standing) are but rarely curable permanently, except occasionally under the last-named circumstances. Apparent cures reported by some authors and witnessed by many physicians, soon show themselves to have been but temporary. 3. Pessaries form unquestionably the most practical, rational, and (temporarily) the most efficient means of treating uterine displacements. Cures are but rarely accomplished by them. 4. Medicated (chiefly astringent) tampons, intelligently applied every day by the physician, give the best chances for permanent cure. This is particularly true of prolapsus, but holds good for all forms. 5. Electricity locally applied deserves more extended application. 6. All methods should be persevered in for months and years before success is to be expected.

On the Influence of Uterine [illegible] in the Production of [illegible] Symptoms. Disturbances of Head [illegible] Special Organs. By ARTHUR W. [illegible], M.D., F.R.C.P. (London).—Dr. Edis directed attention to the prevalence of sick-headaches, often extending over many consecutive years, due entirely to some uterine disorder. Evidence of this was given, headaches of many years' duration having disappeared when some unsuspected uterine disorder was removed, other more general remedies having entirely failed to afford relief. The morning-sickness of early pregnancy was shown to be frequently dependent upon some flexion, inflammatory condition of the body or cervix of the uterus, or some well recognised uterine disorder. Relief was obtained by directing appropriate treatment to this latter condition. Uterine epilepsy frequently depended upon ovarian irritation, flexion producing dysmenorrhœa, or other well recognised form of ovarian or uterine disorder. Other neurosal affections, such as asthma, neuralgia, and chorea, were not unfrequently dependent upon some overlooked uterine disorder. Amaurosis, asthenopia, and numerous other pathological conditions of the organ of vision, were often found to be due to morbid conditions of the uterus. Aphonia, spasm of the glottis, sensation of choking, and other similar reflex phenomena, were often traced to alteration in the position or condition of the uterus.

Improvement in the Construction and Application of Uterine Repositors. By E. VERRIER, M.D. (Paris).—After referring to the works of English, German, and American authors who had recommended various postures for redressing displacements of the unimpregnated uterus, Dr. Verrier examined the advantages of an apparatus by means of which the physician could not only give the patient the position desired, but also restore her to the upright without the least shock to her, or the least effort on her part, or on that of the operator. Having explained the means whereby the uterus is suspended in the pelvis, he pointed out the use of his apparatus for restoring the misplaced organ. Every misplacement yielded to this manipulation and position, except, indeed, in cases in which the uterus was pathologically adherent to the neighbouring organs. At the same time, it was admitted that the restored position was not maintained in flexions of the uterus without an intra-uterine stem. The conditions in which the apparatus of Dr. Verrier was suitable were anteversion, retroversion, and prolapsus. In the construction of the apparatus, he at first employed some slips with springs and one or two cushions. He had since had constructed an apparatus which was fixed to the ceiling of a room with springs. Finally, he had had constructed a movable apparatus. The paper contained a drawing showing the mechanism of the apparatus in its perfected form.

On the Mechanical Treatment of some of the Displacements and Diseases of the Uterus. By R. BEVERLEY COLE, M.D. (San Francisco)—The purpose of this paper was rather to introduce to the professio[illegible] a series of original or improved instruments, the result of careful study and long experience, than to discuss the indications or principles involved in their employment. These diseases were considered with reference to their mechanical treatment only, whether complete or auxiliary. Cases of both anteversion, retroversion, and flexion were noticed, in which all pessaries heretofore employed were contra-indicated; and the cause of such contra-indications was referred to. The author described his "imperishable spring pessaries", adapted to use in the most irritable and sensitive cases; also a new and improved galvanic stem-pessary, and an improved gas-cautery; and referred to cases in which the use of these instruments was indicated.

Dr. HEYWOOD SMITH (London) agreed with Dr. Graily Hewitt that the first thing was to remove the cause.—Dr. BYRNE considered the subject an important one.—Dr. MUNDÉ (New York) related a case in which the replacement of the uterus had relieved the patient from symptoms of insanity.—Dr. ROSEBURGH described a new form of pessary for anteversion.—Dr. MARION SIMS said that pessaries could not be relied on. He had seen frequent failures in their use.—Drs. GRAILY HEWITT and COLE replied.

DISCUSSION ON FREUND'S OPERATION.

Total Extirpation of the Uterus. By WILLIAM FREUND, M.D. (Strasburg).—The author said that his experiences of three years, which had elapsed since his first publication on total extirpation of the uterus, and the works by others on the same subject which had appeared within this interval, had rendered his judgment clear as regards the most weighty points in the matter. There could be no question that, in carcinomatous disease of the uterus, extending over a considerable portion of this organ, total extirpation was the operation indicated. Some time ago, surgeons repeatedly recurred to this operation, and tried both the operation through the vagina, and that through incision of the abdominal walls. The results of these attempts were so unfortunate, that for a long time no further were made. When Dr. Freund had put his method to the test, with a favourable result in the first case; and when the first cases operated upon by Dr. Martini in Breslau, Dr. Kochs in Bonn, Professor Olshausen in Halle, Professor Schröder in Berlin, Dr. Veit in Berlin, Professor Spiegelberg in Breslau, Dr. Kuhn in St. Gallen, had likewise proved successful, the hope, and even a somewhat excessive confidence, that he had at last safely solved this great problem of surgery, was intelligible and justified. But when unfavourable results were frightfully multiplied, when also the mournful fact became clear that recurrences did occur, discouragement and opposition appeared on many sides. Greater safety to life, according to most recent experience, was secured by the total extirpation *per vaginam*, carried out according to the principles of Czerny, Billroth, Schröder, Martin, and the abdominal total extirpation, modified according to the directions of Barden[illegible]. [illegible]

tion of the cervix uteri from the vault of the vagina, it was easy to draw up the uterus through the abdominal wound above the symphysis. Dr. Rydygier and the author had carried out this mode of operating, first recommended by Breisky. By drawing up the uterus by the tenaculum-forceps invented by Dr. Freund, the uterus was rendered at once comparatively bloodless. The severing of the cervix all round from the vagina, he had carried out, without chloroforming the patient, immediately before the actual operation. The results of the vaginal total extirpation as regards recovery appeared to be very good; and Kolaczek affirmed that, in the method of abdominal total extirpation, as practised by him and Martini, a fatal result was exceptional. The operation might be undertaken as a not very dangerous one in the early stages of carcinoma and sarcoma, in which it gave a promise of radical cure. Whether the vaginal or the abdominal extirpation was to be performed, must be decided according to the individual case. If the uterus were very large, and the vagina very narrow, the abdominal total extirpation must always be undertaken. With a small uterus and capacious vagina, the vaginal operation was to be preferred; but the abdominal operation had a great advantage, in facilitating and ensuring the carrying out of the separation of the uterus through sound tissue. On July 5th, Dr. Freund extirpated the uterus by the abdominal method, in spite of the uterus having been small and the vagina sufficiently large, in order to remove several cancerous intra-abdominal (iliac) glands. Advanced knowledge had shown that the danger of bleeding was not so great as was once supposed; and the danger of the peritoneal aperture was no longer to be considered—nay rather, that the keeping open of the peritoneal wound was highly desirable.

Dr. MARTIN (Berlin) said the operation was only available in a few cases, because any cancerous infection of the broad ligaments or neighbouring lymphatics rendered the operation useless. He had performed the operation six times; all these six operations were fatal.—Dr. HENNIG (Leipsig) had extirpated the uterus, in 1875, by the vagina.—Dr. MARCY (New York) had never operated by Freund's method. He should prefer the vaginal mode. He exhibited some double rubber tubes for vaginal irrigation and drainage.—Dr. NELSON (Chicago) said that, except in the few cases diagnosed before the disease had spread to the body of the uterus or the adjacent glands, he would extirpate the entire uterus by abdominal section.—Dr. B. COLE (San Francisco) thought some cases called for the vaginal, some for the abdominal, method.—Dr. WYNN WILLIAMS (London) never removed uterine cancer by the knife. He preferred the *écraseur*, followed by the cautery and bromine.—Mr. SPENCER WELLS had not removed the entire uterus affected with cancer, because he had never seen a case where so serious an operation appeared justifiable. The hæmorrhage during operation by the vaginal method might be controlled by a number of pressure-forceps, left hanging out of the vagina until all fear of bleeding was over.—Dr. A. R. SIMPSON (Edinburgh) said nine years ago he heard one of the fathers of gynæcology say that it was only youthful enthusiasm or inexperience that would attack a cancerous uterus. Throughout the present debate, there was no man who said that no operation should be attempted.—Dr. QUIMBY (Jersey City) said it was impracticable to remove the uterus for cancerous disease after the surrounding tissues had become much involved, and especially if adhesion had taken place in the neighbouring parts.

DISCUSSION ON POST PARTUM HÆMORRHAGE.

On the Treatment of Puerperal Hæmorrhage. By R. BARNES, M.D. (London).—The author gave a rapid glance at the conditions which predisposed to hæmorrhage, the physiological conditions which opposed hæmorrhage, and showed how disorder of these conditions entailed hæmorrhage. He took as a starting-point physiological puerperal hæmorrhage; viz., the loss of the excess of blood which, having served in the nutrition of the fœtus, was expelled from the uterus during and after the detachment of the placenta. Any loss beyond this became extra-physiological hæmorrhage, and required the assistance of the physician to check it. He enumerated the hæmostatic powers of the uterus: irritability, retractility, and contractility; irritability, derived directly from the ganglionic centres; contractility, derived from the spinal and cerebral centres. To affect these two sources, it was necessary to act in different ways. He enumerated the modes adopted by Nature for the repression of hæmorrhage: 1. The regular and continued contractions of the uterus; 2. The coagulation of blood in the vessels of the uterus; 3. The reduction of the cardiac pressure, sometimes almost to syncope; 4. The turning aside of the blood-flow from the generative organs. To guide in the choice of remedies, the author divided hæmorrhage into different degrees, according as the diastaltic function was—1, maintained intact, but its action disordered; 2, markedly diminished; 3, suspended. In the first degree, it was endeavoured to secure contraction of the uterus by the aid of cold, heat, ergot, and the rest. In the second degree, recourse was had to the same order of remedies, but with more discretion, inasmuch as they were all capable of overtaxing the remaining powers of the patient. The author analysed the relative powers of ergot, heat, and cold. In the third degree, remedies useful in the first two stages were often harmful. In this extremity, appeal was made to the innate retractility of the uterus, which survived the loss of reflex contractility. The author discussed and rejected faradisation. In the absence of muscular contraction, an equivalent might be found in the corrugation of the internal surface of the uterus by styptics. He compared the two best known—iron and iodine. Iodine, sometimes useful, often disappointed the physician. The author, therefore, trusted to iron. He traced the conditions under which iron should be employed; the preparation and method of its application; the dangers attending its use; and the way to avoid them. He analysed the dangers of uterine injections, ferruginous or others; and showed that the dangers peculiar to iron-injections were few, and for the most part avoidable. The general conclusion of the author was that iron-injections were capable of rescuing women from the dangers of hæmorrhage when all other means had failed.

On the Prevention and Treatment of Post Partum Hæmorrhage. By THOMAS MORE MADDEN, M.D., M.R.I.A. (Dublin).—The author said that death from flooding after delivery should be considered as a generally preventable accident, and in the more perfect midwifery practice of the future would doubtless be entirely unknown. Some eminent modern authorities, who advocated the employment of perchloride of iron and other remedies on the least appearance of *post partum* hæmorrhage, appeared to have an exaggerated idea of the frequency of severe flooding, and to forget that some slight loss of blood was a natural termination of labour. In a practice of upwards of twenty years, Dr. More Madden had only seen one case of death from hæmorrhage after childbirth. The majority of cases of *post partum* hæmorrhage were met with in women who had previously borne children, and the probability of its occurrence was in proportion to the number of the patient's previous confinements. In the Dublin Lying-in Hospital, of eighty-nine cases of this kind, in sixty-five the patients were multiparæ. In such cases, when there was any reason to anticipate hæmorrhage, the membranes should be ruptured as early as possible during labour, so as to allow the uterus to contract gradually and firmly; and a dose of ergotine, or a drachm of the fluid extract of ergot, should be injected hypodermically before the head came to press on the perinæum. As a prophylactic of hæmorrhage, the efficacy of a course of any astringent preparation of iron given during the last months of pregnancy was unquestionable. Hæmorrhage after delivery, from laceration of the cervix uteri, was more common than was formerly the case. This arose from the abuse of the long curved forceps, which was too often resorted to before the full dilatation of the os. The injection of hot water into the uterus was most uncertain in its hæmostatic action, and was only useful in cases of extreme depression of the vital powers from excessive hæmorrhage, and after the failure of other remedies. Neither was the injection of cold or iced water to be depended on. The injection of a strong solution of perchloride of iron, although generally effectual as a styptic, was very hazardous, from the risk of its causing metro-peritonitis. He strongly recommended the introduction of a sponge soaked in a solution of the perchloride of iron, which was to be passed into the uterus (grasped in the accoucheur's hand), and retained there until firm contraction was produced, by which the sponge and the hand were expelled together from the uterine cavity, and the flooding was stopped. At the same time, he laid great stress on external manual pressure over the uterus in all cases until contraction was produced; and he pointed out the possible danger of thus introducing the hand into the uterus, unless when rendered necessary by severe hæmorrhage. With regard to the treatment of collapse from hæmorrhage after delivery, he regarded transfusion, as now practised, as almost useless in the great majority of cases. Instead of transfusion, he advocated the hypodermic injection of large doses of sulphuric ether, as suggested by Von Hecker; and he referred to the history of some instances of the good effects of this remedy in apparently hopeless cases of collapse from *post partum* hæmorrhage.

Dr. DE MONTBRUN said that Dr. Barnes's views respecting physiological puerperal hæmorrhage were very correct. He should like to see them more widely spread, in order to reassure younger medical practitioners.—Professor WINCKEL (Dresden) recommended hypodermic injections of ether over the abdomen. This restored the heart's action, and improved the tone of the blood-vessels. He also used Esmarch's bandages to the arms and legs as a means of autotransfusion.—Dr. B. COLE (San Francisco) said all the usual remedies, including iron injections, were useless. Compression of the uterus was the most trustworthy means of controlling hæmorrhage.—Dr. J. A. BYRNE (Dublin) said although, *more suo*, Dr. Cole had ridiculed the carrying of obste-

trical appliances into the lying-in chamber, he, for his part, never went any distance without them, and always took the perchloride of iron with him. He had saved life by the perchloride of iron when all other remedies had failed.—Dr. MATTHEWS DUNCAN (London) said that for hæmostasis he relied solely on uterine retraction. The intra-uterine injection of perchloride of iron he regarded as more dangerous than the condition it was intended to obviate.—Dr. P. BUDIN (Paris) considered that the proper mode of managing the third stage of labour constituted what might be called the preventive treatment of *post partum* hæmorrhage. All the known remedies should be used. The hæmorrhage should be arrested at any price.—Dr. PLAYFAIR (London) wished to draw attention to the extreme importance of prevention. Hæmorrhage frequently resulted from the improper management of the third stage of labour. In ninety-nine out of one hundred cases of *post partum* hæmorrhage, injections of perchloride of iron were not wanted, but in the one hundredth case nothing else would save the patient's life.—Dr. JONES MORRIS never saw *post partum* hæmorrhage, because he always gave ergot, and compressed the uterus.—Dr. EDIS (London) thought the key-note to the treatment of *post partum* hæmorrhage was the preventive treatment. The patient's general health should be attended to during pregnancy. In extreme cases, the intra-uterine injection of iron solutions, as recommended by Dr. Barnes, were the only means of snatching the patient from imminent death.—Dr. QUIMBY (Jersey City) thought iron injections useless and difficult.—Dr. ROTHE (Altenburg) relied on contraction of the uterus. He had used iron injections three times on one patient. The last time, the patient died.—Dr. MUNDÉ (New York) remarked that, in *post partum* hæmorrhage, every means at hand should be used to check the flow. He had used all the remedies, including iron, with success. Each had its proper place.—Dr. MCCLINTOCK, the President, said promptitude and energy in applying the remedies were of the utmost value. His estimate of the perchloride of iron was very high, and he had used it in a certain number of cases. No speaker had alluded to the marked influence chloroform had in predisposing to hæmorrhage.—Dr. BARNES, in reply, expressed his thanks that so many distinguished men had helped him in the elucidation of the important question before them. Nothing had pleased him more than the decisive clinical testimony borne in favour of his practice by the Dublin School, which he regarded as the greatest in Great Britain.—Dr. MORE MADDEN, in reply to Dr. B. Cole and Dr. Matthews Duncan, said that anyone refraining from prejudice or undue timidity from using the perchloride injection in severe hæmorrhage, and allowing his patient to die from unarrested hæmorrhage, would be as morally responsible for her death as a man who would stand quietly by on the bank of a stream while a fellow-being was drowning, when, by stretching out his hand, he might have rescued him from death.

On Trismus and Tetany of the Uterus in Labour. By GEORGE ROPER, M.D. (London).—The author had selected his subject because of the rarity of the condition, the danger attending it, and the want of reference to it in English text-books. After quotations bearing upon it from the writings of Simpson and of Spiegelberg, the author defined tetany as an affection of the body of the uterus, coming on at the end of protracted labour; trismus as an affection of the neck of the uterus, observed in the early stage of labour. The latter was the subject of the paper. He quoted three cases from Smellie, and then narrated four which had occurred in his own practice. He then enunciated the following propositions concerning this condition. Trismus of the cervix occurs at an early period of the first stage of labour. It occurs most frequently in premature labours, when the cervix and lower segment of the uterus are not fully developed. It is commonly associated with malpresentations. In such cases, rectification of the malposition of the fœtus is not followed, as it usually is, by uterine action, but the body of the uterus remains quiescent, and the spasm of the cervix continues. Even if trismus of the cervix be associated with tetany of the body of the uterus, there is no tendency towards expulsion of the fœtus. Although with trismus of the cervix there is apparently no uterine action, yet it is accompanied by a process of exhaustion which tends to produce death. It occurs often, probably more frequently than with any other complication, with placenta prævia; the implantation of the placenta over the inner os tending to excite an unnatural degree of cervical polarity, as well as producing structural changes in the cervix. In the cases recorded in which trismus of the cervix existed along with placenta prævia, hæmorrhage was not important as a cause of death. Treatment was exceedingly difficult; the methods of treatment which were recommended, and from which good might reasonably be expected, the author had found valueless.

Professor SIMPSON (Edinburgh) said that it was doubtful whether Dr. Roper's cases were really illustrative of a true trismus or spasmodic contraction of the cervix.—Dr. BRAXTON HICKS (London) said Dr. Roper had scarcely explained whether the trismus extended from the os to the whole body of the uterus, or whether it involved only the os and lower uterus.

DISCUSSION ON ANTISEPTIC MIDWIFERY.

Antisepsis in Midwifery. By O. SPIEGELBERG, M.D. (Breslau).—The author said that the great reform in surgery brought about by the antiseptic treatment could not fail to have a deep influence upon the treatment of the complications in childbed, as it was well known long ago that the latter were the same as arose from wounds. If, however, scrupulous cleanliness, which had been advocated long ago, favoured a normal course of the puerperium, the practical gain was not very great. The idea that puerperal wounds were infected, and that inflammation of the genital organs was initiated by germs coming from outside, became more in vogue; and the idea that phlogogenous matter might be produced spontaneously within the genital tract was almost abandoned. The consequence of this idea was recommending the most scrupulous cleanliness of hands and instruments; forbidding practitioners engaged in midwifery to attend other patients; forbidding students engaged in dissecting to attend midwifery cases; forbidding nurses attending cases of puerperal fever to attend normal cases at the same time. The experience that all these measures only slightly reduced the number of bad cases, originated the idea of secondary antisepsis. Intra-uterine irrigations and drainage came into use, but without much avail; the opinion took root that there existed an essential puerperal process. The application of the theory and practice of Lister's system to the puerperium meant the strictest cleanliness and antisepsis during birth, both on the part of the persons attending the mother, and of the mother herself. Air must be prevented from entering the genital tract; and as that was not wholly unavoidable, disinfection by frequent irrigation with antiseptics during birth must be practised. After birth, care must be taken to secure perfect rest for the genital tract to encourage involution, avoiding every intravaginal or intra-uterine manipulation which was not absolutely necessary; if such were necessary, it must be done under strictly antiseptic precautions. Secondary antisepsis—after the infection had taken place—was of not much avail. It was only directly useful in processes of decomposition, so long as they had not passed the surfaces of the tract, and had not yet attacked the parenchyma of the organs. Otherwise, antisepsis was only a palliative, but no trustworthy remedy, since drainage and irrigation did not hit the deep seats of the disease, and did not remove or destroy the entered germs, not to speak of the inconveniences of the practical application of the secondary antisepsis.

Professor WINCKEL (Dresden) said that all the midwives under his direction had printed antiseptic rules. They used carbolic solutions for instruments, examinations, and washings.—Dr. W. L. REID (Glasgow) believed normal labour to be an aseptic process. Antiseptics, to ensure perfect safety, must be used both in normal and in abnormal labour.—Dr. FANCOURT BARNES (London) said that, in the British Lying-in Hospital, all his patients were delivered under the carbolic spray. This disinfected the nurses and pupils round the patient, and at the same time prevented the entrance of any poisonous germs or foul matter into the genital tract, at the moment when it was distended and opened by the exit of the child. All washings of the genitals, syringings, and examinations, were done with carbolic solution. A 1 in 80 carbolic spray was nearly continuously playing in each ward. To secure contraction of the uterus, each patient had a mixture of quinine, opium, and ergot three times a day for the first week after delivery. Since he had instituted the above precautions, it was the exception to find any rise in temperature during the lying-in, whereas before it was the reverse.—Professor MAGGIOLI (Rome) recommended iodoform as an antiseptic.—Dr. GRAILY HEWITT (London) laid stress on allowing the patient a certain degree of motion during the lying-in, so as to allow the drainage of foul fluids from the vagina.—Dr. EDIS (London) thought we could not be too careful in keeping the atmosphere of the lying-in room as fresh and as pure as possible, employing carbolised oil for examination, and washing the hands and cleaning the nails most scrupulously.—Professor LAZAREWITCH (Charkow) said that infection in the lying-in state might arise from more or less decomposing matters finding themselves in contact with wounded blood-vessels and lymphatics. The prevention of infection was secured by keeping the uterus and vagina free from blood-clots.—Dr. TARNIER (Paris) said, in 1856, when he was *interne* at the Maternity, there was a mortality of about 5 in 100; now this was reduced to 2 in 100 in the hospital, and to 0·75 in [illegible] pavilion he had had constructed a few years ago. The chief point in the pavilion was, that every patient had a separate room, which was entered from outside, so that a nurse could only pass from one ward to another

by going outside into the open air.—Dr. MACEY (New York) exhibited his India-rubber irrigation and drainage-tubes.—Dr. QUINBY (Jersey City) thought that the antiseptic system was carried by some members of the profession to an extreme.

Pelvic Contraction in Relation to Craniotomy and to Cæsarean Section. By G. HERMACHE, M.D. (Lille).—The author concluded that when the child was alive at the commencement of labour, and the pelvic contraction was below 78 millimètres, which was the extreme limit of application of the forceps, the Cæsarean section should be performed early; that is, as soon as labour had really set in. It should be done with strict antiseptic precautions. In cases where the child was dead, and the contraction was above five centimètres, embryotomy should be resorted to. At five centimètres and below it, the Cæsarean section should be regarded as an operation of necessity. In conclusion, the Cæsarean section should be the operation of choice; embryotomy the operation of exception.—Dr. MEYER (Copenhagen) denied that the death-rate of embryotomy was fifty per cent. Porro's operation had a death-rate of fifty per cent.

The Reparative Surgery of the Genital Tracts. By MONTROSE A. PALLEN, A.M., M.D., LL.D. (New York).—Dr. Pallen said the accident or deformity requiring treatment might be congenital or acquired. Congenital causes were explained by teratological facts, based upon the study of embryology. An arrest of embryonic development, a fixation of a perfectly normal transitory state, resulted in a permanent anomaly materially affecting the future generative functions. The converse of this was equally productive of mischief, as an excessive developmental impetus resulted in asymmetrical anatomical and physiological correlation, and determined an increase of one or more of the factors of copulation, generation, or parturition, evidenced by the presence of a double uterus and vagina, or a double vagina and single uterus, or the absence of the vagina with rudimentary uterus and well-developed ovaries, etc. The faulty internections of the bladder, vagina, rectum, uterus, oviducts and ovaries indicated certain relations, invariably attended with either dyspareunia, dysmenorrhœa, sterility, or dystocia. Embryological facts were cited to sustain these theories. When no increase either of vascular, muscular, or connective tissue took place, the vagino-cervical fusions were mutually sustentative and supporting; and it was only when the correlation of place and order was destroyed by pathogenetic causes, that the surgeon was called upon to treat lesions following puberty, whilst congenital (teratological) abnormities constantly required surgical interference. Faulty implantation of the vagina upon the cervix uteri, the anomaly of excessive vaginal dimension, or pseudo-hypertrophy of the intravaginal cervix, was invariably associated with sterility, and usually with dyspareunia or dysmenorrhœa. The converse of the above, or defective vaginal dimension (the so-called infantile neck), was likewise inductive of dysmenorrhœa, sterility, and prolapse of both uterus and vagina. Methods of operating for the relief of these conditions were described. The acquired conditions resulting in deformity requiring plastic or reparative operations ensued from parturition: some few were the sequences of pathogenetic causes unassociated with pregnancy. Illustrative cases were given, and new methods of operation were described for the relief of cystocele, rectocele, uterine and vaginal prolapse and procidentia, as well as for lesions associated with lacerations of the cervix or sundering of the perinæum, or disruptions of the connective tissue around the uterus.

Amputation of the Neck of the Uterus for Chronic Metritis. By A. LE BOND, M.D.—The following were the author's conclusions. 1. Amputation of the neck of the uterus may be practised for chronic metritis when the disease has resisted other methods of treatment. 2. The operation, being undertaken for the cure of a disease which never proves fatal, should be performed after the least dangerous method. 3. The neck should be amputated at the fundus of the vagina by means of the galvano-cautery.

On Laceration of the Cervix Uteri, its Causes and Treatment. By J. HENRY BENNET, M.D. (Weybridge).—During the last few years, a new autoplastic operation had been advocated by several eminent gynæcologists, and especially by Drs. Emmet and Pallen, of New York, for the cure of laceration of the cervix uteri occurring during parturition. This operation was not merely recommended in extreme cases, but for every form of laceration, severe or light. Dr. Pallen had found two hundred cases of laceration among nine hundred patients examined for female disease at his New York Hospital, and appeared to think that all these cases demanded the autoplastic operation. According to these views, a considerable portion of the uterine ailments to which women were liable—inflammation, menorrhagia, displacements, etc.—were to a great extent occasioned by this lesion, simple or double, and were only to be radically cured by a serious and delicate autoplastic operation. Dr. Henry Bennet quite agreed with these eminent authorities as regards the frequency of laceration of the cervix uteri during labour, and had pointed out this pathological fact long ago, in 1849, in his work on *Uterine Inflammation*, second edition, p. 25, and in the third, p. 185, at still greater length, although admitting that these lacerations during parturition were often the result of manual or instrumental interference, the cervix being healthy at the time. He then stated that the principal cause was previous inflammation and induration of the cervix, non-softened during the latter period of pregnancy. This morbid condition at the moment of labour gave rise to rigidity of the os, of which it was the principal cause, and subsequently to laceration. He was led to this conclusion in an early period of his obstetrical career, between thirty and forty years ago, by careful observation. He was always in the habit of examining instrumentally, six weeks or two months after labour, all females who had presented morbid symptoms during pregnancy, parturition, or the puerperal state. He thus, early in life, became aware that many such morbid symptoms, including rigidity of the os and laceration, were connected with previous chronic disease of the cervix or uterus. He had attended, during a long gynæcological career, many hundred cases of laceration, slight and severe, without once operating. He always found that, under the treatment of the inflammatory state which attended them, the ulcerated edges healed, the induration-tissues softened, and a mere notch remained. He had never had irrestrainable hæmorrhage from this cause in subsequent labours, or extension of the laceration to the body of the uterus. He thought the operation a totally unnecessary one, unless in some extreme exceptional case. He drew attention to the fact that one generation of surgeons divided the cervix deeply to cure all kinds of uterine disease, and that now another sewed up accidental divisions to cure the same diseases.

Instruments Exhibited.—Dr. VAN DEN BOSEL (Liége) showed an articulated crotchet and a lamineur.—Dr. HENNIG (Leipzig) showed Billroth's pressure-clamps.—Dr. WYNN WILLIAMS showed his intra-uterine stem and shield.—Professor KÜSTNER exhibited a pelvimeter.

Dr. R. BARNES closed the Section with a few valedictory words.

SECTION OF DISEASES OF THE EAR.

THE Section was opened on Wednesday, August 3rd, with an address by the President, W. B. DALBY, F.R.C.S. After some preliminary remarks, he said that, in comparison with some other sections, the subjects selected for discussion, at first sight, perhaps, appeared to be very few, but this arrangement had not been decided upon without due consideration, and with a very distinct purpose. The pathology of certain diseases of the ear might be said to be established, and their successful treatment was without doubt conducted by all upon very much the same routine. There were others upon the pathology of which very different views were held, and in regard to whose treatment the most various methods were advocated and practised. Amongst the latter class, especial prominence should be given to the so-termed proliferous catarrh of the tympanum, its treatment generally, and the several operations which had been devised and practised for its relief. He regarded, therefoe, the present occasion as affording a most unusually favourable opportunity for a thorough discussion upon all points connected with this matter, and the first subject upon the programme, viz., "The value of operations in which the Tympanic Membrane is incised", included all the debatable ground in connection with it. Patients with this affection (certainly one of the most common diseases of the ear) were every day coming under the observation of aural surgeons; and the views and practice of most eminent authorities, whether as regards general treatment or operative proceedings, were of the most different character. This extreme divergence of opinion was enough to indicate the difficulties which surrounded the subject. The next subject for discussion, "Morbid Growths within the Ear", not only included the origin, nature, and treatment, of bony enlargements and extoses in the external meatus, of polypus from whatever part arising, of myxoma, sarcoma, and cancer; but also the treatment of perforations of the membrane, inasmuch as this was a very constant accompaniment and exciting cause of these growths. Probably no portion of the body so well as the ear could be selected to illustrate the doctrine in pathology which taught us that a local irritation must precede a homologous or heterologous formation. The third subject on the list, "The Loss of Hearing where the External and Middle Ears are Healthy", embraced a very large proportion of the conditions under which the hearing was defective, whilst it was at the same time associated with subjective nervous symptoms. In this category would come syphilitic disease (inherited and constitutional) of the nervous structures; that very large class of cases to which the term Menière's disease had been applied; and cases of extreme deafness and perfect hearing alternating] Those instances in which a permanent or tem

porary loss of hearing was without doubt primarily due to emotional influences, formed a most interesting and distinct group in themselves. Amongst aural surgeons, he was sure that mental notes are often taken, by the help of which, if they received expression, the nervous diseases of the auditory apparatus would be sorted into groups, nameless perhaps, but none the less suggestive of the probable termination of the cases, and rich in facts that might serve as a guide to future observers. That such notes, derived from the experience of years, might be laid before the section when the third selected subject was under discussion, he had great hopes.

Discussion on the Value of Operations in which the Tympani Membrana is Incised.

Description of a Modification of Myringodectomy for Sclerosis of the Ear. By A. PAQUET, M.D. (Lille).—The myringodectomy which he proposed, and which he had found successful, was a combination of that of Weber-Liel, in which there was section of the reflected tendon of the tensor tympani muscle, and of that in which an incision, with or without excision of a portion of the membrane, was practised. The blade of the knife he used was two millimètres in breadth and four in width, bent slightly, like a scythe. The procedure was as follows. A puncture was made one and a half millemètres in front of the hammer, and the membrane was divided obliquely, downwards and backwards, in such a manner that the lower extremity of the incision was placed halfway between the umbo and the periphery, and at a point where a line drawn vertically downwards from the umbo would meet it. The incision divided not only the membrane, but also the reflected tendon of the tensor muscle, or at least the tensor ligament of Toynbee. A second incision was now made in the posterior segment two millimètres from, and parallel with, the manubrium, and then passed forwards to meet the lower end of the first incision. By excising a portion of the lower end of the V-shaped curtain thus made, the perforation was rendered durable.—Dr. GUYE (Amsterdam) considered that the cases proper for the operation might be divided into four classes, viz.: 1. Acute inflammation of the cavity; 2. Subacute or chronic catarrh of the tympanum with mucous exudation; 3. Cases of chronic catarrh of the tympanum with grave symptoms of internal ear mischief, tinnitus, vertigo, deafness; 4. Doubtful cases, in which there might be acute inflammation of the cavity, with great pain and fever, and without any swelling of the Eustachian tube. This swelling of the Eustachian tube, which played an important part in the etiology of inflammation of the middle ear, played another critical part when it produced an accumulation of the secreted fluid in the cavity, and in that way caused a perforation of the membrane.—Professor VOLTOLINI (Breslau) said that the means of maintaining a permanent opening in the membrana tympani were as yet to him unknown. The cases in which he advised myringodectomy were those in which there was exudation in the cavity. The diagnosis of the presence of these exudations was best made in sunlight, and the instrument he used was a modification of Brunton's speculum. In some rare cases, he considered it necessary to incise the membrane to reach the bases of certain polypi, which could not be removed otherwise.—Dr. LOEWENBERG (Paris) asked Dr. Paquet for precise indications for his operation. He could not understand why the procedure recommended by Dr. Paquet should produce a permanent opening, when all others had failed. He inquired also as to the frequency of suppuration of the cavity after the operation. He considered that one of the most important applications of the operation was in enlarging an already existing opening in adenoid disease, to give exit to exudation in the mastoid cells.—Dr. GELLÉ (Paris) could not understand the permanence of the perforation made as proposed. He had made many perforations in many methods, but had not yet been able to establish a permanent opening. He could not consider the incisions described sufficient to form a flap.—Dr. PAQUET replied that he looked upon the removal of fluid, and the necessity for the establishment of a permanent opening, as the two principal indications for the operation. The latter was not to be obtained by incisions, but by excisions, as large as they could be made. In these, the nutriment of the membrane was lessened, and this was especially the case in sclerosis of the cavity, making the likelihood of inflammation after the operation less likely, and a permanent opening more probable.—Dr. BARR (Glasgow) agreed with Dr. Guye as to the classes of cases in which the operation was demanded. The results in cases of sclerosis had not, in his hands, been highly successful. He had seen a transient improvement in many. A permanent opening he had never obtained.—Dr. PIERCE (Manchester) thought paracentesis beneficial in tinnitus and pressure.—Dr. PRITCHARD (London) thought it hardly worth while to perforate for the chance of a permanent opening.—Dr. CASSELLS (Glasgow) had never performed tenotomy of the tensor tympani. He had performed paracentesis for the removal of fluids, and in numerous cases where there was pus in the mastoid, with great success. Intratympanic injections, even though they could be introduced into the cavity, were quite useless, as viscid mucus was not soluble in soda, hydrochloric acid, nitric acid, and other powerful solvents.—Dr. LOEWENBERG (Paris) agreed as to the use of incision in accumulations. He considered the rapid healing after the operation to be due to the antiseptic treatment used.—Dr. JONES (Chicago) considered incision of the membrane justified in acute cases where there was fluid, and also perhaps in chronic cases to remove accumulation of secretion, as advised by Hinton. He himself had in these cases found forcing water through the Eustachian tubes answer better. He had never performed tenotomy of the tensor tympani, nor, from the results obtained by others, had he felt justified in performing it.—Mr. SHADFORD WALKER (Liverpool) considered the operation beneficial for the removal of secretion. He agreed with Dr. Jones as to the injection of fluid by the Eustachian tubes. He had never succeeded in getting a permanent opening.—Professor SAPOLINI (Milan) did not consider incision advisable merely to relieve pain.—The PRESIDENT thought the Section was unanimous in advocating incision when there was secretion to be removed. The question whether we could declare the operation advisable in cases of proliferous catarrh, appeared to be still *sub judice*.

Discussion on Morbid Growths in the Ear, and their Treatment.

On the Etiology of Aural Exostoses, and their Removal by a New Operation. By J. PATTERSON CASSELLS, M.D. (Glasgow).—The following were the author's conclusions. The osseous tumours of the external meatus are of two kinds: the one, named hyperostosis, being a hyperplasm; the other, exostosis, being a new growth. These differ from each other in origin, site, shape, structure, and number. Hyperostosis is never seen till the osseous meatus is completely ossified; exostosis appears before the complete ossification of the meatus. Exostosis is found arising from a point near the junction of the osseous canal with its cartilaginous portion; hyperostosis is seen only in the inner or osseous end of the external auditory canal. Hyperostosis is always conical in shape, never pedunculated; in exostosis, there is always a pedicle, and its shape varies. Hyperostosis is of ivory hardness; exostosis, before complete ossification has taken place in the tumour, can be pierced to a varying depth. Hyperostosis is not movable on pressure; exostosis is slightly movable, even after complete ossification. Hyperostosis is often seen without any other disease of the ear, and, if an ear-disease exist, there is no causative relation between them. Exostosis is nearly always complicated with another affection of the ear, past or present. Hyperostosis may exist in the meatus with normal hearing. Exostosis is almost always attended by a defect in the hearing. The deafness which accompanies hyperostosis, in the absence of any other disease of the ear, is due to the size of the growth, and is mostly mechanical; or it is due to the presence of *débris* between or behind the tumours. In exostosis, the defect in the hearing may also be mechanical; this defect, however, is generally due to ear-disease. The operation for the removal of hyperostosis is only justifiable when its mechanical presence has been ascertained to be the sole cause of the deafness, or when a coincident discharge from the ear exists, the escape of which may be hindered, or altogether arrested, by the presence of the tumour. The commonest cause of deafness in hyperostosis is the presence of *débris* around the tumours, either cerumen, epidermic masses, or other matters; or to mechanical irritation and inflammation of the tissues that cover them. The hearing is mostly restored on the removal of the *débris* or inflammation. The removal of hyperostosis is best effected by a mechanical drill, such as dentists use. For the removal of an exostosis, a gouge is the best instrument, because the tumour can be removed at one operation, whereas a hyperostosis usually [illegible] as well as separate sittings. There may be several hyperostoses in an ear, but hardly ever more than one exostosis. Both classes of tumours may exist together in the same ear.

[illegible] LAURENCE TURNBULL, M.D. (Philadelphia).—The [illegible] all morbid growths of the [illegible] heads: 1. Sebaceous, [illegible] and telangiectatic or bloody tumours, associated with caries of the temporal bone or mastoid process, and involving the auditory nerve or some of its branches; 2. Morbid growths, [illegible] the meatus, [illegible] the external meatus, or the [illegible] involve the auditory nerve, causing death from marasmus, pressure on the brain, or [illegible]; 3. [illegible] lymphosarcomata, fibrosarcomata, involving [illegible]

the facial and auditory nerves, the tumours being found at the bottom of the internal ear; 4. Tumours might be gliomata, cerebral tumours, or morbid growths, usually found involving the eye at first; but, in a case described by Bruckner, which was the result of a fall on the back of the head, accompanied with complete deafness, giddiness, and inflammation of the middle ear, pulsating tinnitus, and ending fatally; 5. Fatty metamorphosis of the organ of Corti, resembling sarcoma of the auditory nerve, as described by Moos; amyloid degeneration of the auditory nerve, as described by Voltolini; and corpora amylacea, found in the semicircular canals of man, and described by Lucae. Where morbid growths of the ear could be reached, the only successful plan of treatment was early removal by the knife, preventing danger of hæmorrhage by the use of the ligature, clamp-forceps, a thermo-cautery, or galvano-cautery. Diseased bone should be removed by the forceps, sharp spoon, revolving knives, or the surgical or dental engine. It was most important to remove all vascular or polypoid growths as soon as they were brought to the notice of the aural surgeon. All puncturing or irritating by means of needles, small sharp knives, or caustics, was to be entirely avoided; for all such surgery tended to increase and inflame them, and might change an originally benign growth into a malignant one. The only remedy that Dr. Turnbull found to prevent the spread of malignant growths was some one of the preparations of arsenic; and none had been borne so well as Fowler's solution, given in small doses, and continued for a long period.

Dr. GUYE (Amsterdam) did not agree altogether with Dr. Cassells. Instead of one exostosis gradually increasing until it entirely filled the meatus, there were generally three, which grew until they met, and then ceased to increase, leaving a small Y-shaped passage between them. He had not seen any cases in which it appeared to him necessary to operate.—Dr. LOEWENBERG (Paris) described a case where in both ears there were multiple osseous growths joined by a thin bridge of bone.—Dr. PIERCE (Manchester) narrated a similar case.—Dr. GELLÉ (Paris) spoke of the occurrence of osseous growths in the meatus of the skulls of prehistoric man.—Dr. KNAPP (New York) said, with regard to those formations which had also been investigated by Dr. Clarence Blake, Virchow considered them due to irritation caused by foreign bodies. Dr. Knapp considered exostosis more common than was supposed. He had never seen the canal entirely closed, though very nearly so. He considered syphilis was a cause of hyperostosis.—Dr. PRITCHARD (London) thought, as the result of his personal observations, that exostoses were common among private patients, but rare in hospital practice. This, he thought, was because gout and rheumatism are probably important etiological factors. He narrated a case where, after drilling, nitric acid was injected, and the tumour loosened.—Dr. JONES (Chicago) thought the relative unfrequency of exostoses in hospital practice was probably because, there being little or no pain, and not great impairment of hearing, patients did not apply. He had seen one case where an osseous tumour disappeared without treatment.—Dr. BARR (Glasgow) thought hyperostoses were due to inflammation of the osseous structures, but that exostoses were new growths.—Mr. GARDINER BROWN (London) thought syphilis, gout, and rheumatism the most frequent causes.—Dr. REEVE (Toronto) said the cases of exostosis he had met with were due to localised periostitis from purulent otitis media. They had not generally required operation.—Professor SAPOLINI (Milan) showed an instrument for the removal of polypi, which was ingenious, and, in some cases, would doubtless prove valuable.—Dr. MENIÈRE read a short paper, in which he described a new form of snare.—Dr. GELLÉ (Paris) described a case where a polypus arose from a patch of psoriasis at the bottom of the meatus.

DISCUSSION ON LOSS OF HEARING WHERE THE EXTERNAL AND MIDDLE EARS ARE HEALTHY.

The discussion was opened by Dr. GELLÉ (Paris), who made some remarks on deafness from lesions of nerve; the accommodating apparatus of the ear; and the development of the tympanum. He also showed some preparations of the organ of Corti and of the inner ear.

Physical Diagnosis in Cases of Deafness with Healthy Conditions of the Outer and Inner Ears. By A. LUCAE, M.D. (Berlin). — The exact determination of the conditions of the outer and middle ears is attended with difficulty. Even after the different means of diagnosis have been exhausted, the parts to all appearance healthy may not be functionally perfect. But, supposing these to be healthy, the usual determination of the condition of the inner ear, by placing a tuning-fork on the cranium, is insufficient. There may be conditions present which cause a pathological increase of the perception of sound. The proving of the functional activity is more fully determined by placing a deep fork (*C*), the vibrations of which have just ceased to be perceived by the acoustic nerve while placed on the mastoid process, opposite the meatus, and noting if the vibrations not perceived on the mastoid process are perceived in this position. The longer the fork is heard opposite the meatus, after it has ceased to be perceived through the mastoid, the more certainly is a complication in the sound-conducting apparatus excluded. On the contrary, should the note be heard longer from the mastoid process than opposite to the meatus, a disturbance in the sound-conducting apparatus is determined; but in this case there remains the uncertainty as to there being an affection of the inner ear present at the same time. In order to determine this more fully, the use of the tuning-forks (C^4 and F^4) are useful, which are heard relatively well, even with a considerable affection of the conducting apparatus, but very feebly with disturbances of the nerve-apparatus.

Certain Conditions of the Eye as a Cause of Loss of Hearing by Reflex Irritation. By G. T. STEVENS, M.D. (New York).—The author mentioned cases which had come under his observation, where aural troubles seemed to be undoubtedly due to derangements of sight, the hearing power returning on the relief of the visual defects.

Dr. KNAPP (New York) referred to the occurrence of total deafness on one or both sides, occurring in the course of mumps. Other diseases which produced nerve-deafness were cerebro-spinal meningitis and inherited syphilis.—Mr. CRESSWELL BABER (Brighton) thought it was necessary to find some means of diagnosing purely internal ear-deafness; and drew attention to the effects of pressure on the external ear, on the perception of the tuning-fork placed on the skull.—Dr. PIERCE (Manchester) narrated two cases where twitching of the eyes ceased on the removal of aural trouble. He thought that cases of purely nerve-deafness might be limited to two causes: cerebro-spinal meningitis and inherited syphilis. He narrated one case due apparently to extreme cold.—Dr. BARR (Glasgow) thought that it was not often correct to assert that the middle ear was perfectly healthy, and that the case was one of pure nerve-deafness. The symptoms of Menière's disease might be produced by pressure from the side of the tympanum. As to the causes of nerve-deafness, he agreed with Dr. Knapp. The circulation of the labyrinth was part of the cranial circulation. In some cases of labyrinthine hyperæmia, local bloodletting seemed advisable.—Dr. KNAPP (New York) called attention to blindness and deafness from quinine. A sixty-grain dose of quinine caused complete loss of sight and hearing. The perception of sound returned in twenty-four hours, that of light in three or four months, or more; central vision returned first, peripheral vision remaining long or permanently impaired. Ophthalmoscopically, the vessels of the eye were seen to be empty of blood, and the optic nerve perfectly white.—Dr. JONES (Chicago) thought that, in these cases of quinine-deafness, something must be allowed for the malarial poisoning for which the quinine was given. He had never seen a case of permanent deafness from large doses of quinine.—The PRESIDENT thought Dr. Knapp's remarks would throw light on many points. He considered we could demonstrate the healthiness of the external and middle ears. He thought cases of "emotional deafness" were due to anæmia of the brain, and the experiments narrated by Dr. Knapp might throw some light upon them.

The Functions of the Eustachian Tube. By EDOUARD FOURNIÉ, M.D. (Paris).—Dr. Fournié agreed with those physiologists who considered that the principal functions of the Eustachian tube were to admit air into the tympanic cavity, so as to preserve the air in the cavity in equilibrium with that external to it, and to give exit to the secretions formed in the cavity. Moreover, he believed that one of the essential functions of the tube was to prevent unpleasant resonance of external and internal noises. This function assumed a permanent opening of the tube. By certain experiments he believed he could prove that it was so, and that the muscles usually considered dilators were in reality obturators of the tube.—Dr. RUMBOLD (St. Louis) thought that there was always a passage open to the cavity in the normal state, as the tension of the tympanic membrane ought always to be uniform.

The Cotton Pellet as an Artificial Drumhead. By H. KNAPP, M.D. (New York).—Dr. Knapp preferred the wafer-shaped kind, and considered that they acted as preventives of atmospheric influences, as drainage, and as having acoustic influences. The last action might either be by tightening or by loosening the ossicular chain, according to the point of pressure.—Dr. PRITCHARD (London) thought long drums acted best.—Mr. CUMBERBATCH (London) found them useful; but related a case of an elderly man in which the pressure must be increased the longer they are applied.—Dr. CZARDA showed an artificial drum made of a disc of Lister's antiseptic silk.—Mr. KEENE (London) showed a punched piece of linen which he used.—Mr. M. MILLAN (Hull) said he used woods of different kinds.—Dr. CASSELLS said that the improvement always increases by use.

The Sense of Touch as a Standard of Comparison for Hearing Power. By A. GARDINER BROWN, F.R.C.S.Ed. (London).—The author said that, for examining auditory perceptivity, the tuning-fork was to be

preferred to the watch. Its pitch, being determinable, enabled different observers to compare their results. The Middle-C fork (=256 v.s.) was, for this purpose, an excellent standard of pitch. When the "field of audition" (Knapp) was being determined, higher and lower pitches were made use of. Hitherto the best way of employing a tuning-fork had been to strike it with a measured blow to ensure uniform amplitude of its vibrations, instantly applying it to the patient's head, and noting the *duration* of his hearing power (Magnus). The author had conceived the idea that the point in the lessening amplitude of the vibrations, corresponding with the moment of their loss to the sense of touch in the thumb and finger of the examiner, formed an excellent and convenient standard of reference for the auditory perceptivity of the patient. Hearing power, falling short of this point, the author designated as *minus;* that exceeding it as *plus*, time being reckoned in half-seconds (to save fractions). This might be done by means of a stop-watch, but the author preferred simply counting in half-seconds; this was easily and accurately done after a little practice; or the time might be estimated by a tubular sandglass, which he had had constructed for the purpose. The most suitable points for ordinary examination were over the mastoid for bone-conductivity, and at the focus of the concha for aërial sound-waves.—Mr. PURVES (London) asked how Mr. Brown proposed to estimate the pressure employed, and the sensibility of different observers' fingers?—Dr. KNAPP (New York) and Dr. LOEWENBERG (Paris) objected to the method as being too uncertain for comparisons with other observers.—Mr. PURVES (London) described a method which he had employed for a considerable time by using an ordinary table as a sounding-board, or by applying two bodies to the mastoids of the patient, which were again connected to the mastoids or the meatus of the observer.

Paretic Deafness. By EDWARD WOAKES, M.D. (London).—This paper set forward two chief causes which induce deafness where there was no objective abnormal condition of the external and middle ears—viz., disease of the labyrinth, or of the auditory nerve in some portion of its course or origin, which constituted one group of cases; and neurotic lesions of a paretic character of the muscular apparatus of the middle ear, including the Eustachian tubes, which contributed the second and far more numerous class of such cases. The present communication was confined to the latter group. The symptoms were shown to be characteristic and constant. They were negative as regards the ear, objectively positive as regards the palate and faucial region. The anatomical and physiological relations of the latter to the auditory apparatus were indicated, and the special manner in which they interfered with the mechanism of normal audition was pointed out. The characters which distinguished "paretic deafness" from allied forms of ear-disease were given: then followed certain conditions which might complicate it, and obscure the diagnosis. The causes which induced it were next considered; and, lastly, the treatment adapted to remove the disease, and the prospects of recovery, were discussed, with the details of the cases reported.—Dr. CASSELLS (Glasgow) asked Dr. Woakes what sort of battery he used.—Dr. WOAKES said that he always used the interrupted current.

Caseous Accumulations in the Middle Ear regarded as a Probable Cause of Miliary Tubercle. By THOMAS BARR, M.D. (Glasgow).—In this paper, attention was first drawn to what was said on the subject by such writers as von Tröltsch. An account was given of recent views on the pathology of miliary tuberculosis, as expressed by Buhl and Cohnheim, as well as by eminent British pathologists. There was a general agreement that acute tuberculosis depended on a virus, and that this virus often consists of caseated products of inflammation accumulated in some part of the body. An anatomical description of the cavities of the middle ear was given, the frequency of exudative diseases in these parts was pointed out, and the character of the exudations was noted. The peculiar structure of the middle ear was dwelt upon, because it favoured the retention, drying, and ultimate caseation, of the catarrhal products formed therein. Reference was next made to the facilities for the absorption of the caseated matter afforded by the blood-vessels of the middle ear, and by the lymphatics; absorption by the former leading to general tuberculosis, and absorption by the latter leading to local tuberculosis, and especially to tubercular meningitis. There was special danger of tubercular self-infection when such caseous collections existed in persons of scrofulous tendencies or at the tubercular age. There was a stage in the purulent process when there was greater danger of pyæmic phenomena; but there was also a stage when the tendency to tubercular self-infection was greatest, and that was after the discharge from the ear had spontaneously ceased or had been cured by treatment. Unfortunately, there was a paucity of material derived from observation, on account of the middle ear being usually ignored in *post mortem* inspections and in clinical examinations. By a simple and expeditious plan, the middle ear in the cadaver might be examined by the pathologist. It was urged, in conclusion, that, in in cases of tubercular disease, and especially of tubercular meningitis, attention should be given to the condition of the middle ear.

Cancer of the Cochlea.—Dr. KNAPP showed Professor Politzer's microscopic specimens of carcinoma of the cochlea, and illustrated it by a diagram.

Some of the Difficulties presented in the Diagnosis, Prognosis, and Treatment of a certain form of Middle Ear Deafness. By P. MCBRIDE, M.B. (Edinburgh). The form of deafness it was proposed to discuss was a subdivision of what had been variously described by authors as proliferous inflammation of the tympanum, dry catarrh, otitis media hypertrophica, etc. The symptoms were, well marked deafness, and often tinnitus, rarely vertigo. Examination of the external meatus and membrana tympani gave purely negative results. The membrana might present a certain amount of opacity, but it might be perfectly normal in appearance and move with freedom. In a typical case of this form of deafness, the Eustachian tube was perfectly pervious. Auscultation, while air was blown into the tympanum through the Eustachian catheter, revealed the absence of moisture, and failed entirely to improve hearing. This latter symptom eliminated the probability of the deafness being due to inspissated mucus. This form of deafness could only be ascertained to be due to a tympanic lesion during life, by the tuning-fork test. Perhaps a certain proportion of such cases might come under Dr. Woakes's class of "paretic deafness," but there could be little doubt that others did not. The latter were (1) pendulous state of the palate, and ill-defined faucial pillars, with local anæsthesia; (2) general inability to perform Valsalva's experiment. Dr. Weber-Liel's progressive deafness might be excluded, for, until secondary well-marked changes had occurred, the deafness seemed not to be very pronounced in this form. The deafness in the kind of case described must be due to one or more of the following conditions of the tympanum: 1. Thickening of the mucous membrane or bone, causing impaired movement of the parts concerned in audition; 2. Fresh formation of fibrous tissue, or bone-causing adhesions. Proliferous inflammation of the tympanum might be the remains of an old catarrhal process, which had extended along the Eustachian tube. Or a process ending in any of the described pathological conditions might originate in the tympanum, and produce gradually increasing deafness. Again, sometimes, in syphilitic patients, proliferation seemed to come on with great rapidity. The prognosis was unfavourable. As to the treatment, it was urged by the advocates of fluid injections through the catheter, that they acted by causing inflammation. Would the latter be likely to rupture adhesions or ankyloses? Where fluid injections had been successful, might their action not be mechanical? Of course, in syphilitic cases constitutional remedies were indicated in addition to local treatment.

The Prevention of Dumbness in Cases where it follows Loss of Hearing. By ARTHUR KINSEY, Esq.—The author dwelt strongly on the manner in which those unfortunate children who had lost the power of hearing were neglected, and thus allowed to become the victims of dumbness also. He contrasted the condition of such persons in this country and on the continent; commented on the manner in which the subject had been, till recently, ignored by aural surgeons in this country; and, after a very thorough review of the whole subject, concluded by advocating earnestly more consideration for those unfortunate persons. He was strongly in hopes that some means would be taken by the establishment of means of proper educational treatment to prevent dumbness.—Professor SAPOLINI (Milan) said that he had found that other parts were not fully developed, especially the testicles, in cases of congenital deaf-mutes, and gave some statistics on the point.

Dr. EDWARDS described a case of [illegible] deaf-mutism cured by oropiesis.

[illegible] submitted to his *confrères* some questions as to how the "sonorous waves reach the acoustic nerve". 1. Is the membrana tympani passive; or are there in it active elements of motion? 2. Must the waves of sound [illegible] across the chain of ossicles? 3. Does it [illegible] by the fenestra ovalis or the fenestra rotunda? 4. Is it the middle spiral membrane (scala media) which receives the sound-waves? 5. Is the endolymph of the spiral canal isolated? or does it communicate with the vestibular endolymph?

Mr. [illegible] described experiments, and the results he had obtained, as to "the acoustic potentials of the human auricle".

Dr. LOEWENBERG said that he had found visual examination of the nares a great assistance in cases in which he had experienced difficulty in introducing the Eustachian catheter.

Dr. [illegible] described a catheter, which he used in certain cases.

Dr. KNAPP used a bivalve nasal speculum for the purpose of nasal examination.

SECTION OF DISEASES OF CHILDREN.

THE President, Dr. WEST, delivered an opening address, which was published at page 216 of the JOURNAL for August 6th.

DISCUSSION ON RICKETS AND SYPHILIS.

A DISCUSSION on this subject, which attracted a crowded audience, was introduced by the following paper.

Hereditary Syphilis a the Constant Cause of Rickets. By M. PARROT (Paris).—The author referred to facts in favour of the frequency of hereditary syphilis. He divided the disease into two stages: active syphilis—skin-eruptions, and desquamative affections of the tongue; and past syphilis—cicatrices, and abnormalities of the teeth. He said that a study of the skeleton in these conditions showed changes in bone in the great majority of cases (98 per cent.), in common with one or more of the preceding manifestations of syphilis. He said that there were three kinds of these lesions of bone, which corresponded to the different ages of the individuals, and might succeed each other, or occur together in the same individual, or show themselves in different subjects. They were as follows, in chronological order:

	Epiphysis.	*Diaphysis.*	*Consistence.*
1.	Chondrocalcareous.	Osteophytes (hard).	Hard.
2.	Gelatiniform.	,, ,,	Moderate.
3.	Chondrospongoid.	Osteophytes (spongy).	Soft.

The third kind (chondrospongoid) was identical with the bone-affection, studied till now under the name of rickets. When the three kinds succeeded each other in the same subject, the insensible transition of one into the other was established. The causes which had been considered to be those of rickets could only bring on osteomalacia; now osteomalacia was not rickets. Such alleged causes were of commonplace occurrence, and were inconsistent with each other. Insufficient nourishment was of no importance as a cause; and he maintained that very wasted and cachectic children were not rickety if not syphilitic; while, on the other hand, very fat and fine children might be rickety if syphilitic. Osteomalacia might be produced artificially, but rickets never. The affection called congenital rickets was not rickets, it was achondroplasia. An alteration so typical and methodical as rickets could not, he thought, recognise different and commonplace causes for its origin: it must and did point in all circumstances to a single specific cause; and that cause was hereditary syphilis. At the period when syphilis produced rickets, it has made its last effort. It existed no longer, but had substituted for itself a new affection. This was, he considered, an example of transformation of disease. Finally, he believed that rickets, though originated by a contagious disease, was not contagious.

DR. STEPHENSON (Aberdeen) had made the clinical history of rickets the subject of special study, and the result of this study was emphatically to contradict the statement of M. Parrot, that hereditary syphilis was the constant cause of rickets. His pathological facts were very valuable, but his deductions from them were, in the speaker's opinion, erroneous. The determining element in the production of rickets was not syphilis, or bad hygiene, or any other one cause, but a "constitutional habit" (or diathesis).—M. BOUCHUT (Paris) held that syphilis was not a direct factor in the production of rickets, its only influence in that direction lying in the cachectic state which it produced, an influence which it shared equally with scrofulosis, anæmia, and all those chronic maladies which interfered with a regular development, and produced a condition of malnutrition which affects, not the osseous system alone, but the whole body. The most important of the causes of this cachexia was chronic enteritis, however produced; the prolonged diarrhœa arrested development, and produced all the lesions of rickets. Again, to take the case of a child, able to walk, who was not syphilitic, and fell ill and was confined to bed for five or six weeks; when it was convalescent it would be found to have grown so feeble as to be unable to stand; the bones would be found soft and tender, and the power of walking would not be regained for two or three months. By such circumstances as these rickets was produced; and it could be produced in dogs experimentally. If one half of a litter of puppies were confined and liberally fed diarrhœa was induced, and the animals became rickety; while if the other half were properly fed and allowed to run free, they developed quite regularly; where in this case was the influence of syphilis to be discovered? Syphilis, therefore, he thought, went for nothing in the causation of rickets; the contrary proposition was, he believed, an hypothesis which could not be justified. —Dr. BYERS (Belfast) had had the opportunity of studying the question at the Children's Hospital at Belfast, where rickets was common, but congenital syphilis comparatively rare; and his observations there went against the view that syphilis *per se* was the cause of rickets. He found rickets present where careful inquiry into the health of the whole family elicited no history of syphilis, and he found it absent where he knew that the parents were infected, and where some of the children showed evidence of congenital syphilis. As to cranio-tabes, he believed that it was in syphilitic children that it was most often found, and that it comparatively rarely occurred in rickety children. Even if he found that syphilitic children subsequently became rickety, he would not be inclined to conclude that syphilis was the sole cause of rickets; it would be as reasonable to argue that, because some children who had measles subsequently became rickety, therefore measles was the sole cause of rickets. Mr. Jonathan Hutchinson had often pointed out that syphilis was a great simulator of other diseases; and that in congenital syphilis a general periostitis was very common, which caused a swelling of the ends of the bones and general tenderness, a condition very liable to be mistaken for rickets, with which, however, it had no real connection.—Dr. GIBERT (Havre) said that he was a convert to the views of M. Parrot, but a convert *malgré lui*. It was to certain clinical facts that his conversion was due. One of these was that chronic enteritis was, he found, incapable of producing the osseous lesions of rickets; another was, that rickets could be cured by antisyphilitic remedies more quickly than by any other means; this last argument owed its weight to the adage quoted by M. Guérin—*naturam morborum ostendit curatio*. In conclusion, he asked those who believed that rickets could be produced by improper diet to produce anatomical evidence.—DR. RANKE (Munich) said that he saw four or five thousand children a-year; in this large number of children he saw many cases of rickets, but only comparatively few cases of hereditary syphilis—the latter disease being rare among the inhabitants of Munich. A great many cases of rickets were also brought to him from the country; these children were the offspring of well-to-do peasant proprietors, among whom syphilis might be said to be scarcely known. From his observations, he had come to the conclusion that there was absolutely no etiological connection between rickets and syphilis. He did not, of course, mean to maintain that hereditary syphilis might not, in some rare cases, show a certain resemblance to rickets; Dr. Wigner had, by his able researches, shown that it might. In conclusion, he would remark that he thought it most unscientific to draw, as M. Gibert had done, any conclusion as to etiology from therapeutic observations. If M. Gibert had seen many cases of rickets recover under antisyphilitic treatment, Dr. Ranke could equally say that he had seen many cases get well without any medical treatment at all.—Dr. ROBERT LEE (London), after referring to the statistics of the large number of cases upon which he based his opinions, said that he believed that, when syphilis affected the bones (as it did but rarely), it produced the conditions described by M. Parrot; and that these conditions were special to syphilis, and were not what was termed rickets. He could agree with M. Parrot in the earlier part of his paper, which dealt with the osseous lesion of syphilis, but entirely disagreed with the theory by which he attributed to osteomalacia those conditions which were universally called rickets in England. There was, therefore, a difference in the meaning attached to the terms used; and, since this difference existed, it was impossible to hope for a satisfactory conclusion to the discussion.—Dr. SANSOM (London) said that his observations were opposed to the idea that syphilis was a constant cause of rickets. No doubt, the two conditions were often associated; but he believed the true relation between them was, that syphilis was a cause of a general dyscrasia upon which rickets was engrafted. This dyscrasia was dependent on a variety of causes. A prime phenomenon of rickets was pyrexia; if the pyrexia were combated by cold ablutions (with sea-water by preference), and the cases treated on sound hygienic and medical principles, the rickets became cured; antisyphilitic treatment was by no means a necessity. Though thus differing from his main conclusions, the speaker concluded by paying a high compliment to the admirable researches of M. Parrot on bone-disease in syphilis, which had done infinite good by stimulating the interest of the profession. —Dr. NORMAN MOORE (London) said, that, when he first began to study rickets, he thought that its sole cause was improper alimentation; subsequent observation had, however, convinced him that some cases had a different etiology, and that perhaps, in some cases, syphilis might be the cause. He thought that the geographical distribution of the disease deserved attention; differences in social habit or in climate might perhaps explain how it came about that M. Parrot described, as common, a class of cases that were certainly rare in this country.—Dr. EDDISON (Leeds) objected to any argument in favour of the syphilitic origin of rickets, which was based on therapeutic successes. He had been able to watch, over a long period of time, cases which were certainly benefited by attention to details of hygiene and alimentation. In conclusion, he commented on the absence, in most cases of rickets, of all the ordinary symptoms of hereditary syphilis.—DR. A. JACOBI (New York) said that he believed cranio-tabes was by no means a symptom of syphilis, with which the great majority of cases

had no connection. Mercury was of use in dyspepsia, as an antifermentative; it was also an antiphlogistic, and its alleged efficacy in rickets did not at all prove the syphilitic nature of that disease. It had been found that the administration of mercury in small doses over a long period, tended to increase the number of blood-corpuscles, so that it might be looked upon as a tonic remedy. Syphilis might be one of the causes of rickets, one among many others. M. Parrot maintained that it was the only one, because some rickety children had congenital syphilis; it would be as reasonable to argue that mother's milk was the only cause of rickets, because some children fed exclusively at the breast became rickety.—M. PARROT said that the arguments brought against his views were chiefly directed to two points, etiology and treatment. With regard to the question of etiology, M. Gibert had already answered most of the objections; it was well known that a great numbers of children whose health was greatly reduced by chronic diseases, such as enteritis, bronchitis, Pott's disease, still showed no traces of rickets, and that many rickety children were big and stout. He believed that such causes of ill health as the above led to osteomalacia, that is, to a condition in which the earthy salts partially disappeared, the Haversian canals became enlarged, and the proper firm matrix was replaced by a soft material; and that they did not lead to rickets, that is to say, they did not give rise to a condition in which the essential lesion was the production of spongioid tissue, for without that lesion there could be no rickets. It had been said that rickets could be produced in the lower animals. M. Jules Guérin had advanced this argument, and had concluded that, since these animals were not subject to syphilis, therefore, rickets could not be due to syphilis, but the experiments of M. Guérin had been repeated by M. Tripier, and by himself (M. Parrot), and they had failed to produce rickets; a certain degree of softening of the bones was produced, but not rickets. With regard to treatment, it had been said that, if rickets were due to syphilis, then it ought to be susceptible of cure by antisyphilitic treatment. M. Parrot believed that, during the first two periods of the osseous lesions of hereditary syphilis—namely, those which preceded the period of rickets—a cure might be so effected; but that rickets was, as it were, the expiring effort of syphilis, which then ceased to be, leaving, as an illustration of the transformation of disease, a new malady—rickets—in place of the old malady, syphilis. Were there not, he asked, instances of such transformations among skin-diseases? He prescribed iodide of potassium for rickets, just as it was prescribed for many other pathological conditions not due to syphilis; he had often seen iodine do good in rickets, and he thought that his theory explained how this might be the case.—The PRESIDENT said that it had struck him that some light might be thrown on the question by an appeal to history. The first formal account given of the disease was by Glisson; but there were traces of a disease affecting the young, and producing deformities like those of rickets, long before the period when syphilis was supposed to have been introduced into Europe. The question of the influence of climate, and of geographical distribution, which had been raised by Dr. Moore, was an important one. His impression was, that rickets in Paris was a less severe disease than in London. A Brazilian physician had told him that, though syphilis was common in Brazil, rickets was unknown. It would be interesting in this connection to ascertain whether rickets was frequent in the Pacific Islands, whose inhabitants had been decimated by syphilis. With reference to the symptoms relied on by M. Parrot as indicative of past syphilis, one—the condition of the tongue—he believed he had seen in isolated members of otherwise healthy families; as to cranio-tabes, he felt little hesitation in believing it to be syphilitic. As to the general manifestations of rickets, they often did not appear until the second year, and were ushered in by a general febrile disturbance, and other symptoms pointing rather to a constitutional disease than to a simple affection of the osseous system. One other point was, that the deformities produced by rickets were always attended by an arrest of development; this was not noticed in children evidently syphilitic, and the arrest of development did not affect the whole skeleton alike, for while the long bones and the pelvis were dwarfed, the vertebral column was not shortened. Lastly, there was the possibility of producing rickets in animals, as proved by the experiments of Guérin, Rolf, Voigt, and others. For all these reasons, he could but express his conclusion as to the propositions brought forward by M. Parrot by the Scotch verdict—Not Proven.

A BIRMINGHAM provision-dealer has been fined £5 for selling butterine as butter. Whatever opinion may be held as to the wholesomeness or unwholesomeness of butterine, there is, of course, no question that its sale as butter is a commercial fraud, and is punishable accordingly.

SECTION OF MATERIA MEDICA AND PHARMACOLOGY.

The President, Prof. T. R. FRASER, F.R.S., took the chair; and, after the introductory business, delivered an address, which was published on page 227 of the JOURNAL for August 6th. A vote of thanks for the address was proposed by Dr. SQUIRE of London, and seconded by Professor WOOD of Philadelphia, and carried unanimously.

THE ACTION AND USE OF ANTIPYRETIC MEDICINE ADMINISTERED INTERNALLY UPON SEPTICÆMIA AND ALLIED CONDITIONS.

Professor BINZ (Bonn) read a paper on this subject, of which the following is an abstract. 1. In the present state of our knowledge, there are two modes in which antipyretic remedies may be conceived to operate: first, by increasing the discharge of the pyrexial heat; secondly, by checking its production. 2. The quantity of heat discharged may be augmented by direct withdrawal (tepid water), or by facilitating the circulation through the skin (digitalis, cutaneous irritants). 3. The production of heat may be lessened by repeated cooling of the surface, and especially by the internal use of antizymotics. 4. Febrile diseases commonly owe their origin to the introduction and rapid development of substances akin to ferments. Several of these have been shown to resemble yeast in being low vegetable organisms, or derived from such organisms. They enter the glands, where they undergo multiplication, increase the metabolic processes, generate products of decomposition which exert a paralysing action on the nervous system, and raise the standard of temperature throughout the body. 5. Owing to impaired action of the heart in certain stages of the disorder, or to contraction of the cutaneous vessels, the skin becomes anæmic, and gives off less heat than usual. The internal temperature rises accordingly. 6. Quinine, our chief antipyretic, acts by directly combating the efficient cause of the disorder, and by checking the abnormal metabolism going on in the body. The nervous system takes no part, or only a secondary part, in this operation. In intermittent fevers, quinine prevents the paroxysms by attacking their infective cause. The paroxysms are not the essence—the substantive element—of the disease; they are only a symptom of it. The substantive element is the poison deposited in the colourless corpuscles of many organs, especially the spleen. There are fevers without paroxysms, and paroxysms without fever. It is just those intermittent fevers which run their course without paroxysms that are the most malignant. The malarial poison rapidly causes disintegration of the tissues and the blood, and so paralyses the nerve-centres. 7. The reduction of acute splenic tumours by quinine depends upon the adverse influence exerted by the alkaloid on the infective poison to which the morbid over-action of the spleen and its consequent enlargement are due. "Cessante causa cessat effectus." Even a healthy spleen may be reduced in size by large doses of quinine; the alkaloid vigorously checking the oxidation of its principal elements, the colourless corpuscles. Quinine has no direct influence on the vaso-motor nerves. 8. Quinine attacks the malarial poison with especial energy; on this fact depends the so-called specific action of quinine in intermittent fevers. The same relation, but in a minor degree, subsists between quinine and the infective poison of enteric fever, between mercury and iodine and the poison of syphilis, between salicylic acid and the "irritant" in acute articular rheumatism. 9. An antipyretic which, in one disease, instantaneously arrests the fever, may be wholly powerless in another. The difference depends on the fact that the various antizymotics act very unequally on the individual *schizomycetes* and ferments; one will paralyse them rapidly, by another they will hardly be affected. 10. The past history of therapeutics, and recent achievements in the domain of etiology and pharmacology, entitle us to assume that, by persistent scientific inquiry and practical observation, we may succeed in discovering a specific antidote for every species of infective or septicæmic malady.

The Action and Use of Antipyretic Medicine.—By Professor FORKER (Groningen).—While there is no great difficulty in understanding the mode of action of simple refrigeration in the treatment of pyrexia, that of antipyretic remedies, administered internally, is still obscure. We must assume, either that they lower the temperature of the body by interfering with the circulation, or that they exert a destructive action, in virtue of their antiseptic properties, on the low organisms to which the pyrexial phenomena are presumably due. The second of these hypotheses is the more likely one. It may, of course, be objected that such remedies can never be administered in sufficient quantity to insure their presence in the blood in such proportions as to render it aseptic, or, any rate, to exercise an antiseptic influence. It must not be forgotten that any hostile factor, though not in itself to check the multiplication of the organisms, may succeed in doing so when combined with others equally hostile to bacterial life. It is quite possible, moreover, that antipyretic medicines may accumulate in par-

ticular organs, which may then exert a disinfectant influence upon the blood. Antipyretic remedies may legitimately be given in febrile maladies, when the heat of the body is such as to threaten the patient's life, or even the integrity of his tissues. Under such circumstances, those aromatic remedies which are, at the same time, bacterial poisons, should be preferred to physical methods of refrigeration. But when the temperature of the body does not rise to a dangerous height, the employment of such remedies in antipyretic doses is undesirable; since a degree of heat only a little above the normal temperature of the body is injurious to the vitality or the virulence of the pathogenic organisms. It is quite possible, indeed, that the febrile heat may be one way in which the system reacts against these organisms, and tends towards recovery. In all cases, therefore, when the temperature does not rise so high as to be of itself a source of danger, physical refrigeration should be avoided, and the antipyretic remedies should only be prescribed in relatively small doses.

Tartrate of Quinoline, a New Antiseptic and Antipyretic Agent. By JULIUS DONATH, M.D. (Graz).—Dr. Donath said that, as regards its physiological action, he found that tartrate of quinoline lowers the temperature of the body very materially when introduced into the circulation; in the proportion of 0.2 per cent., it completely prevents the lactic fermentation of milk, the decomposition of urine and gelatine, and the development of bacteria in artificial cultivating-fluids. Therefore, tartrate of quinoline is superior in antiseptic power to sodic salicylic, carbolic acid, quinine, boracic acid, copper sulphate, and alcohol. In the proportion of 0.4 per cent. it prevents the putrefaction of blood and the curdling of milk. In the proportion of 1 per cent. it completely destroys the coagulability of the blood, and lowers the temperature at which albumen coagulates. It is decomposed in the system, and does not appear in the urine. Therapeutically, quinoline is a very powerful antipyretic in enteric and intermittent fever; it has a striking effect in periodic neuralgia, and is an excellent local antiseptic. It may be given to adults in doses of one to two grammes, wrapped up in wafers. Children take it easily, dissolved in equal parts of syrup and distilled water. It does not cause any unpleasant after-effects, and the absence of giddiness and tinnitus is especially noted.

On Influence of Hydrochlorate of Quinine on Malarial Germs. By Dr. CECI (Cerino).—Dr. Ceci gave an account of experimental researches, made in the laboratory of Professor Klebs of Prague, on the influence exerted by quinine-hydrochlorate on the development of germs contained in malarial soils. A cultivation-liquid of a 5 per cent. solution of isinglass was employed, infected from different sources, and in every case it was found that the presence of very minute proportions of this salt exercised a remarkable power in preventing or checking the development of the *schizomycetes*. One part in 800 was sufficient to prevent any development of germs. The *bacilli malariæ* made their appearance very seldom in the cultivation-liquids, even when the proportion of quinine was very insignificant.

Dr. WOOD (Philadelphia) said that the whole study of antipyretics hitherto was scarcely more than a speculation, because the fundamental equation of the problem had been neglected. Elevation of bodily temperature might depend upon detention of heat, as well as upon excessive production of heat; and an antipyretic remedy might diminish fever simply by increasing the dissipation of heat, when it was believed to lessen its production. The very first question should always be, whether the antipyretic influenced the production or the dissipation of heat. Calorimetrical observations were, therefore, absolutely necessary. Many experiments on the influence of quinine on the heat-function had been made by himself and Dr. Reichert in the laboratory of the University of Pennsylvania. In nearly every case there was a slight increase in the production of heat, and always a very great increase in its dissipation. The augmented production seemed to be an indirect result, due to the excessive dissipation of heat.—Professor STOKVIS (Amsterdam) brought forward some new researches bearing upon the question whether the symptoms produced by an artificial elevation of the body were to be identified with the symptoms of fever. This question had to be decided in three ways—the clinical, the pathologico-anatomical, and the chemical. The dangers of fever were not in proportion to the elevation of temperature, as was well exemplified in the case of typhoid fever. Dr. Stokvis gave an account of some experiments, conducted under his direction, to determine whether the chemical waste of the body was the same in artificial elevation of temperature and in fever-heat. It was found, contrary to what was generally stated, that with artificial elevation of temperature there was not only no increase of urea in the urine, but even a slight decrease; while at the same time the quantity of carbonic acid exhaled was increased. Therefore, there was strong reason to believe that there was an essential difference between the chemical disruption of tissues in fever-heat and in artificial elevation of heat. The experiments seemed to prove that, in artificial heating, the fatty compounds and the hydrates of carbon were wasted; while, in fever-heat, all the compounds of the body, especially the nitrogenous, were destroyed. By muscular action the temperature of the body could be more elevated in a healthy man than in any other way, but the equilibrium between the loss and production of heat not being disturbed, as it was in fever, the increase of temperature observed did not reach above 0.5° Cent. (0.9° Fahr.). Here, again, the destruction of fatty tissues and hydrates of carbon was the cause of the increased heat. Dr. Stokvis insisted that no explanation of the action of antipyretics could be given until the pathological process called "fever" was studied in all its details.—Dr. WILBERFORCE SMITH (London) observed that Dr. Binz's paper foreshadowed a study of the clues already existing, which would lead to the probable discovery of germicides which may successfully prevent or cut short specific fevers. Quinine as a specific for ague, and mercury for syphilis, were both germicides. Quinine seemed to have a special effect on fungi, and probably the malarial poison was of a fungous nature. On the other hand, bichloride of mercury appeared to have a special destructive effect on bacteria, and it might be asserted that the germs producing syphilis were of this nature. Moreover, quinine and mercury had special affinity for the same tissues as the diseases affected. Quinine and ague affected the blood and spleen; whilst mercury and syphilis were so related, that it had at times been difficult to decide what lesions were the effect of one, and what of the other.—Dr. CHURTON (Leeds), recalling the fact that body-temperature was the external expression of the molecular activity of various forms of protoplasm, said that their activity was capable of alteration by entirely different kinds of influence; namely: 1, the dynamic or vibratory; 2, the parasitic; and 3, the poisonous. He suggested a subdivision of antipyretics into, 1, dynamic; 2. antiparasitic; 3, antidotal. An antiparasitic would probably also have a dynamic action upon the protoplasms of the organism, especially if the quantity of it in the plasma were relatively large.—Dr. WOOD further remarked that Dr. Stokvis's observations on the urine supported the conclusions which he had formed for some years as the result of calorimetrical observations.—Professor BINZ and Dr. DONATH made some remarks; and the President, Professor FRASER, summed up the discussion. He said that, in the able paper of Dr. Binz, and in the discussion which had taken place, two aspects had been brought before the Section. In the one, the pharmacology of antipyretic agents had been thoroughly considered; while in the other the *modus operandi* of these agents in the pyrexial condition had been discussed rather on a basis of theory than of induction from certainly known conditions. The two aspects were not necessarily in harmony. The one was perfectly independent of the other, and consequently false conclusions were almost certain to be arrived at if the theories or facts of the one class were mixed up or confounded with those of the other. There was naturally a strong tendency to complete the evidence in favour of any particular theory; and accordingly the facts of pharmacology had in many instances been supplemented by facts and theories derived from pathology and clinical observation, the value of which as evidence had often been but little. The two paths of investigation were independent. The state of advancement of the one might be very different from that of the other; and the utmost caution should be taken to keep them distinct until the arrival of the time when the facts of pharmacology might, in therapeutics, be harmonised with those of pathology.

DERBY.—Mr. Iliffe is evidently very much in earnest with his work as health-officer at Derby, though he does not seem to be at all well supported by the corporation. There were in the borough last year 3,045 births and 1,614 deaths, the mortality being equal to a rate of 20.2 per 1,000, against an average for the preceding three years of 22. Amongst infants under one year of age, 442 deaths occurred, equal to a rate of 145.1 per 1,000 births registered. To zymotic causes, 233 deaths were referred, 49 being due to measles, 43 to scarlet fever, and 98 to diarrhœa; 86 of these latter being in the third quarter of the year. In addition to some useful comparative statistics, including a zymotic death-chart, Mr. Iliffe gives a very valuable and interesting account of the working of the clause providing for compulsory registration of infectious diseases, in the Local Improvement Act of 1879 (see p. 366 of the present volume). Some idea of the additional work caused by the operation of the scheme may be gathered from the fact, that no fewer than 1,295 cases were notified, necessitating 4,744 visits, and the fumigation of 638 rooms. Mr. Iliffe again urges the necessity of a proper hospital for the reception of cases of infectious disease, the present accommodation being ridiculously inadequate. This is the more necessary inasmuch as, in the absence of such accommodation, the usefulness of the notification of infectious cases must to a large extent be nullified.

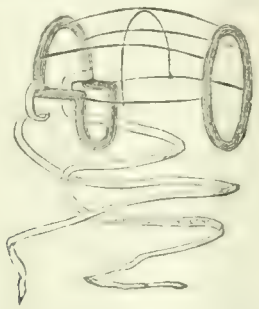
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SANITARY PAINT FOR HOSPITALS AND HOUSES.

THE only award for paint, at the International Sanitary and Medical Exhibition, has been made to the Albissima Paint Company, Lime Street, London, E.C., for their innocuous, brilliant, and durable paint, to which we had lately occasion to refer as being peculiarly advantageous for use both in hospitals, public institutions, and private houses, on account of its unchangeable and durable character; its freedom from lead and other poisonous pigments; and its inodorous qualities. This paint can be used without its being necessary to leave the house. The colouring power of this paint is great, as in use it is economical; but, as painters are prejudiced in favour of the old and poisonous white lead, it is necessary to require the use of Albissima paint.

VACCINATION SHIELD.

THE subject of vaccination and revaccination, by reason of the recent epidemic of small-pox, is naturally attracting a considerable amount of attention; and many would submit themselves for revaccination, but for the inconvenience and pain caused by the rubbing of the sleeve, or the too kindly greeting of their friends. To meet these objections to the practice, I, some months since, devised the shield (see figure),



which, while it prevents the possibility of irritation occurring from contact with clothes, or from pressure, does not in any way interfere with the circulation of the blood. It is light and cool; and, I trust,



may prove of use, both in the case of children vaccinated and of adults revaccinated. It is made in various sizes by Messrs. Arnold of West Smithfield.

JAMES HOGAN, M.A., M.D., 19, Sisters Avenue, Clapham, S.W., and 140, Fenchurch Street, E.C.

THE degree of LL.D. has been conferred by Yale College on Dr. Austin Flint.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 3RD, 1881.

CONSULTATIONS WITH HOMŒOPATHS.

MUCH, we imagine, to the surprise of their hearers generally, and certainly greatly to the surprise of the Committee of Council, or of any of the official members of the British Medical Association, the readers of addresses in medicine and surgery, at Ryde, chose this year to discuss an ethical subject of great delicacy and of controversial character. In selecting the readers of addresses at the meetings of the Association, the Committee of Council are always moved by considerations of scientific eminence; and, had precedents been strictly adhered to, neither Dr. Bristowe nor Mr. Hutchinson would have chosen topics of other than a scientific character for the subject matter of their respective orations. The readers are, however, fettered by no rule in the selection of materials for their addresses; nor has it been at all customary that they should be guided in any way other than by their own spontaneous action, the proclivities of their minds, and the influence of their more recent studies, in framing the outline and in filling in the detail of their addresses.

So far as we know, no subject has ever been suggested to any of the annual readers of addresses; nor have their orations been submitted to censure or revision by any officer of the Association. Certainly, this has been the rule of the last quarter of a century; and it was not departed from, in any respect whatever, on the recent occasion.

Dr. Bristowe and Mr. Hutchinson are universally recognised as two of the ablest, most deeply read, most philosophical, most acute, and most cautious representatives of medicine and of surgery; and, indeed, if two names had to be fixed upon as representing, in the highest degree, the qualities of learning, rectitude, and prudence, it would not be possible to name two gentlemen who, by common consent, are better endowed with those qualities. Nevertheless, without concert with each other, without external suggestion of any kind whatever, and without prior communication either with the Committee of Council, or with any one else connected with the Association, each of these gentlemen has been moved to discuss a question, which belongs neither specially to the subject of medicine, considered as an art and science, nor to the art and science of surgery, but to the ethics of practice.

The greater part of Dr. Bristowe's address was devoted to a minute, careful, and thorough exposition of the fallacies of the homœopathic system of medicine. With masterly analysis and unsparing logic, he discussed its contradictions, its baseless fictions, its false inductions, its feeble display of plausible logic, and its utter worthlessness, scientifically and as a matter of practice. Having devoted to this needless task of slaying the thrice slain all the resources of his logically powerful mind, he concluded by the singular *non sequitur*, that, on the general grounds of growing liberality of public and professional opinion, it was no longer desirable to exclude homœopaths from the privileges of consultation. In the name of that generous spirit of concession, which often follows upon a hot and successful crusade, he asked for a liberal interpretation of the errors and fallacies of the professors of homœopathy; and pleaded that the honest, but mistaken, adherents of lying heresy should be so far received within the pale, as to [illegible] the common courtesies and humanities of [illegible] humane profession.

Mr. Hutchinson, without discussing so generally the extended subject, interpolated in his address a special plea for the acceptance of consultations with homœopaths in surgical cases; pointing out, as has been many times before pointed out, that the manipulations of the surgeon are independent of the shibboleth of homœopathic or any other doctrine, and that the special ground of incompatibility or extreme divergence of theory does not confront the surgeon with the same difficulties with which it opposes the physician in consultation.

The exigencies of the situation appeared to the President of the Association to prohibit any discussion at the moment of the innovating views thus boldly, conscientiously, and generously expressed by two gentlemen who did not shrink, under the impulse of conclusions arrived at by each independently, to express opinions which they must have known beforehand would certainly be unpopular, and must arouse in the minds of a very considerable number of their hearers sentiments of opposition, and probably of anger. Greatly as we may admire, and amply as we are prepared to do justice to, the courage and sincerity of this course, we must express the opinion that, in departing from the traditions attaching to their office, and in introducing burning and controversial arguments upon ethical subjects into a scientific address delivered from a post allotted to them by the Association, the readers of addresses in medicine and surgery were not judicious; and we may also express the hope that what they have done will not be made a precedent in the future.

It is not an agreeable task to have to criticise the course thus pursued by the eminent men selected; but the misunderstanding to which their utterances, given without qualification from their official chairs, have given rise, makes it evident that further silence will be held to confirm such misconstructions.

The reader of the address for the day stands in the position of a clergyman in the pulpit. From his rostrum he delivers, *ex cathedrâ*, an address to which there can at the time be no answer, any more than there can be an answer to the clergyman delivering his sermon; and the peculiarity of this position, and the fact that the reader speaks all the time with the added authority and special publicity guaranteed to him by the official Council of the Association, make it extremely desirable that this post of vantage should not be used for the promulgation of opinions which are eminently calculated to lead to feelings of a very mixed character, and to open up a subject which can only be settled after further debate.

In the present instance, since the rules incidental to the delivery of set orations are adverse to subsequent discussion, and neither time nor opportunity permitted it, it is obvious that, until the Committee of Council meets again at its next quarterly meeting, the subjects raised for discussion cannot easily come up for discussion before the leading members of the Association; and the postponement of such a debate is in itself an inconvenience. Meantime, it is always open to persons not remarkable for benevolence or ingenuousness of suggestion, to attempt to fix upon the Committee of Council some special complicity with the readers of addresses for conclusions delivered from the official rostrum of the Association, and on which subsequent debate was not freely allowed. It is easy to exaggerate the importance of the matter; on the other hand, it is unwise to underrate it; and, after the explicit declarations of opinion by men of peculiar prudence, thoughtfulness, and rightmindedness, it would hardly, we imagine, be possible for the Committee of Council to pass over the question as if it had never been raised. It is quite idle, and it appears to us altogether apart from the real issue, to complicate the question in any way by what occurred on the occasion of the illness of Lord Beaconsfield. No doubt the general agitation of all collateral questions which then arose contributed to induce Mr. Hutchinson and Dr. Bristowe to declare their mind on the general subject of consultation with homœopaths, of which they are in favour; but, on the other hand, in that particular case the very basis was exactly the opposite to that which they favour. A consultation was refused by Dr. Quain in the first instance, in the belief that the gentleman was a homœopath; and, had he assented to that belief, or accepted it as true, no consultation would or could have occurred. The principle, therefore, of non-consultation with homœopaths, was the first basis of the situation; and it was only upon a written declaration that Dr. Kidd was not a homœopath, that he repudiated the title and the practice, and that he claimed to be a practitioner of regular medicine, and undertook to be guided in every way and to carry out minutely the treatment dictated by the physician whom he called in consultation, upon the recognised basis of rational medicine, that Sir Thomas Watson, Sir George Burrows, Sir James Risdon Bennett, and Sir James Paget agreed that it was right that the patient should have the advantage of consultation. In this opinion, and in accepting the declaration of Dr. Kidd that he was not a homœopath, and that he undertook to be guided by and to act upon the will of the physician who was consulted, these gentlemen may have advised Dr. Quain rightly or wrongly. That was a question fully discussed in the past, and one which is an entirely different one from that which is raised by Dr. Bristowe and Mr. Hutchinson. In the former case, the question was one of planting the banner of legitimate medicine upon the territory of the enemy, they making humble submission, and denying their heresies. The proposal of these gentlemen appears to be to raise the ban against homœopaths and homœopathy, and to admit them to the privilege of consultation. On that subject, we may say that we are neither able to appreciate the force of the arguments of Dr. Bristowe and Mr. Hutchinson, nor to accept their conclusions. It appears to us, as it always has appeared, as we have many times stated in discussing this subject, that the rule which forbids such consultations is not an arbitrary rule, nor a mere question of professional etiquette. As all our readers are aware, we have constantly and uniformly maintained that there is not, in our knowledge, any such thing in the whole code of medical etiquette as an arbitrary rule, or any purely professional basis of etiquette. We have always maintained that questions of professional etiquette are really particular cases of general ethics, and that there is no rule of medical etiquette known to us which is anything else than a special application of general ethical rules under formulated conditions. If there were any such rule which could not be defended on the plainest grounds of truth and duty, we hold that it would be the duty of the profession to abrogate it.

The question of consultation with homœopaths appears to us to be one in which the problem may be stated in the simplest language, and of which, when so stated, the solution immediately appears. Is it or can it be the duty of a professional man, whose business in life it is to cure disease and relieve suffering, to cover by the veil of what is called a consultation the fact which ought not to be covered, that the views which he holds as to the treatment of disease are so absolutely opposite to the principles on which the homœopath acts, that real consultation, real advantage to the patient, is out of the question? The statement is threadbare, but, nevertheless, it is worth for a moment developing. To the rational physician—who believes that sensible remedies produce sensible effects, that contraries are opposed by contraries, and that to remove the effect the cause must be removed—the jargon of like cures like, of distant effects by sympathetic agencies, of dynamisation by division, of the treatment of disease by a comparison of the primary physiological effects of a medicine and their correspondence with the symptoms of disease—all this jargon is to him as much an unmeaning language as Chinese would be to a man skilled only in European languages. There could be no possible discussion between a Chinese physician and the European, speaking in different languages, acting upon different principles; nor can there be any profit to the patient in the consultation between a homœopath and a rational practitioner. The pretence of a consultation has a twofold bad effect. In the first place, it is in itself a deception, and therefore a compact into which the honourable physician justly refuses to enter; and, in the second place, it covers the person whom we believe to be acting either irrationally or dishonestly with the cloak of scientific brotherhood. It is therefore, not an arbitrary professional rule, but a common rule of morality, which requires us to refuse to have any professional com-

munion with that person. The patient would be doubly injured—injured at the moment; for any consultation to be of value while he is in the hands of a homœopath, must be a consultation among homœopaths, who talk a common language, who hold like principles, and adopt like remedies; and permanently damaged, because it might strengthen his confidence in a system of toy medicine, if not conscious jugglery. But then it is suggested by Mr. Hutchinson, that the surgeon may meet the homœopath, because surgery is neither homœopathic nor allopathic. Mr. Hutchinson is by far too able a man not to have reflected on the full meaning of what he says; and therefore we should be curious to see how he develops that thesis; for it will probably suggest itself to every one, on reading that part of his address, that the surgeon is as often called upon, and as largely required to employ medical agencies, as the physician. Surgery is only superficial medicine. There may be, and there are, certain cuttings or applications of apparatus; but this is only in the last resort: the operation is the opprobrium of surgery; and how any surgeon, and especially of Mr. Hutchinson's accomplished medical knowledge and great therapeutic and pathological acquirement, can desire to separate the mechanical manipulations from the constitutional and local use of medicine, is to us somewhat puzzling. That he may consent to interfere and dismiss the homœopath is comprehensible doctrine; but that, while taking a patient under his care, he should be so far an accomplice of the homœopathic jugglery as to permit the pretence of homœopathic treatment to coincide with his efficacious intervention, or to foster the homœopathic delusion by pretending any sort of consultation with the homœopath, appears to us to be a position which, on full reflection, Mr. Hutchinson will not find it easy to defend.

On the whole, and speaking with only a general knowledge of the opinions which have always been held by the official bodies of this Association, and by all the leading members with whom we have personal communication, we feel no hesitation in saying, that the Committee of Council will not accept the view suggested by the readers of addresses. In suggesting these views, they acted conscientiously and honourably upon their own personal opinions; they were not, we believe, altogether wise in selecting that opportunity of expressing those opinions. Certainly, they spoke with no other than their own individual authority, and their opinions cannot be accepted as in any way expressing official views.

Since the above was in type, and at the moment of going to press, we have the satisfaction of receiving for publication from the President of the Council, Mr. Wheelhouse, a letter which sets the seal of his authority on the foregoing paragraphs.

PAUPER CERTIFICATES OF LUNACY.

ANY change made in the Lunacy Laws will probably affect the great bulk of the profession, in so far only as it alters the regulations for certifying patients for detention in asylums. Whatever change is made, it must be of importance to the general practitioner, for, though he is not often called on to certify a lunatic, yet when he does so he brings himself into close contact with the law; and often, as recent trials have shown, emerges somewhat damaged from the collision. At present, the law regulating the certifying of lunatics is in an anomalous condition. The main rule is, that no patient can be detained in an asylum without the separate certificates of two medical men, each of which must set forth precisely the "facts indicating insanity" which have been observed by the certifier. These certificates are not valid until they have been reviewed by the Commissioners in Lunacy, who can, and frequently do, refer them to their authors if they be in any respect defective; and in the event of the certificate remaining unsatisfactory for a certain time, the patient becomes free. If, however, the patient be a pauper resident in a workhouse, then the certificates of a medical man and a justice of the peace are sufficient, and the latter need not set forth any "facts indicating insanity", but merely his opinion. In very urgent cases, the certificate of a clergyman is accepted in lieu of that of the magistrate; but in both cases, the certificates must be satisfactory to the Commissioners in Lunacy, or they are invalid. But if the patient be a pauper, and have to be consigned to one of the asylums of the Metropolitan District Board, then the certificates of a medical man and a guardian of the poor are sufficient; and in this case the certificates undergo no review whatever, but are consigned at once to the archives of the asylum. These institutions are, it is true, workhouses in the eye of the law, but *de facto* they are lunatic asylums; the means of detention, the strictures of supervision, the opportunities of gaining discharge, are the same as in other lunatic asylums; and it appears extremely inconsistent to fence the admission into one asylum with rigorous restrictions, while admission into another can be gained by little more than a formality. The anomaly is the greater, because the superintendent of an asylum legally so-called can refuse admission to a patient, while the superintendent of an asylum under the District Board cannot refuse admission if the certificates are in regular form. Whichever system is the proper one, the other must be faulty; and a Lunacy Bill will be far from satisfactory if it do not provide for assimilating the inferior to the better type. As to which system is the better, we have no hesitation in saying that no patient should be detained in an asylum without the separate certificates of two qualified persons, each setting forth the "facts indicating insanity" on which the certificate is grounded.

It is frequently found in workhouse practice that a magistrate cannot be got to attend when he is most wanted; and it is a well attested fact that the transference of a patient is often delayed for several days at the most critical period of his malady, when his treatment in a proper asylum by skilled specialists, with all modern appliances at their disposal, might make all the difference between recovery and permanent disablement. On the other hand, a second medical opinion could always be promptly obtained; and the patient would have the additional safeguard of a second certificate as to facts observed. It is difficult to see why the pauper, who has presumably no one in a position to guard his interests, should be deprived of a safeguard which is granted to his well-to-do fellow. Furthermore, in every case in which a patient is forcibly detained in an asylum, be the title of that asylum what it may, the certificates on which he is detained ought always to be reviewed by the Commissioners in Lunacy. It is manifestly an oversight that the certificates of any two of our leading alienists should be subject to review, and, until reviewed and sanctioned, invalid and incompetent to secure the continued detention of even a furious maniac; while the certificate of a single workhouse medical officer, whose multifarious occupations are likely often to leave him little time for the study of insanity, is, without review, legally valid, and competent to secure the detention of the most harmless patient who is at all weak in mind.

THE museum and library of the Royal College of Surgeons will be closed for one month from Wednesday last for the annual cleaning and rearrangements, and will be re-opened on Monday, October 3rd.

THE Siberian plague is reported to be very prevalent and severe in Novgorod, attacking not only animals, but human beings. It is said that seventy persons in the villages have died of the disease in two weeks.

THE deaths in Athens from typhoid fever average about ten daily. A large number of families have left the city for the country and the islands.

THE Medical Faculty of the University of Berlin proposes the following subjects for prizes in 1882: 1. An experimental examination of the action of nerve-stretching on the peripheral nerves and on the central organs of the nervous system, with reference to the researches of Brown-Séquard; 2. A historical and experimental criticism of the different methods of suture of the intestines.

It is reported that, in addition to the candidates nominated by the College of Professors for the Chair of Pathology in the University of Vienna, the Austrian Government has entered into negotiations with Professor Cohnheim of Leipsic, offering him the post of successor to Professor Heschl.

An important Local Government inquiry has been opened at Henley-on-Thames into the sanitary condition of the town. Memorialists had complained to the Local Government Board that the town had no system of drainage; that the refuse from cesspools drained into the Thames, and that in winter underground rooms were constantly under water.

It is announced that the Linacre Professorship of Physiology at Oxford, vacant by the death of Dr. Rolleston, will not be filled up until November next, by the first day of which month candidates are required to send in their names and testimonials. The professor is elected by the Visitor of Merton College (the Archbishop of Canterbury), the Warden of Merton College (the Hon. G. C. Brodrick), the Presidents of the College of Physicians (Sir W. Jenner, Bart.), the College of Surgeons (Mr. Erasmus Wilson), and the Royal Society (Mr. Spottiswoode).

The Evesham town council has at length taken a much-needed step in deciding to adopt a scheme for supplying the borough with water from springs in the hills six miles distant. The matter has been under consideration ten years, so that the town council can claim no special credit for what they have at last decided to do.

We have received the numbers for 1880 and 1881 of an Italian journal, devoted chiefly to the subject of diseases of the mind and nervous system. It is published at Palermo, under the name of *Il Pisani, Gazzetta Sicula di Scienze Mediche e Psicologiche*, and is under the editorship of Dr. Gaetano La Loggia, the medical superintendent of the Palermo Lunatic Asylum, and Dr. Bernardo Salemi-Pace, the vice-superintendent of the Asylum, and professor of psychiatry in the University, assisted by a staff of contributors holding offices in the University and Asylum. It appears in two or three parts each year, and appears to be conducted with much ability. Among the articles in the numbers before us are: the Science of Thought, by Dr. Salemi-Pace; Progressive Paralysis, by Dr. La Loggia; the Chemistry and Dynamics of Thought, by Dr. Salemi-Pace; the Definitions of Insanity in relation to Psychiatry and Medical Jurisprudence, by the same author; Syphilitic Diseases of the Nervous System, by Dr. Profeta; together with various clinical contributions, reviews, abstracts, etc.

THE UNIVERSITY OF LONDON.

Of the total number of fifty-eight candidates who passed the recent first M.B. examination of the University of London, twenty were successful at the examination for honours. Of these, one obtained places in three subjects, seven in two, and the remainder each in one. The only London medical schools which supplied any successful candidates in the honours division were Guy's, which has nine places among five candidates; University College, which has six places among five candidates; King's College, which has four places allotted to three candidates; St. Bartholomew's, which has five places taken by two candidates; and the London School of Medicine for Women, which has three places taken by the same number of candidates. None of the other medical schools of London appear in the honours list. Among the provincial schools, the only one represented is Owens College, one pupil of which, Mr. William Thorburn, takes the exhibition and gold medal in Physiology and Histology, and a first-class certificate in Organic Chemistry. The same College furnishes also a successful student in the first class for Physiology and Histology. The exhibition and gold medal in Anatomy falls to Frances Helen Prideaux, a student of the London School of Medicine for Women, which furnishes also a successful candidate for first-class honours in Materia Medica and Pharmaceutical Chemistry, and a successful candidate in the second class in Organic Chemistry.

THE WOUND OF THE PRESIDENT OF THE UNITED STATES.

There has been an improvement in the condition of the President in several respects during the past week. There have been, on the whole, an increase of appetite for food and ability to digest it, and consequently some gain in constitutional vigour, as shown more particularly by the suppurative process having assumed a less indolent character in the inflamed parotid gland. Matter has formed within more defined limits, has advanced to the surface in two or three directions, and incisions have been made for its relief, with the result, according to the telegrams, of obtaining a fair discharge of pus, and a gradual change for the better in the state of the gland. The swelling has diminished, the deep discoloration and density have disappeared in a great degree, and there is more freedom of movement of the jaw. Thus several of the dangerous sequelæ, which occasionally follow indolent parotiditis occurring in a patient in a reduced state of debility, seem now to be averted. There is also said to be an improvement in the character of the discharge from the bullet-wound in the loin. The pus, which had become somewhat thin and scanty towards the close of the previous week, has become more copious and thicker in consistence. These facts, it must be admitted, are important indications of amendment, and may well serve to encourage the hopes of those who are in attendance on the distinguished patient; for, provided the amelioration so far obtained be maintained, and no fresh complications arise, no reason appears why a gradual improvement in all other respects should not follow, and ultimate recovery ensue. One of the chief sources of uneasiness, beyond what arises from the general state of weakness and emaciation to which the President is reduced, is the continued frequency of the pulse, and the daily exacerbation of feverish symptoms. But these symptoms do not appear to be more marked than might be expected to attend the long continued suppurative process in any very debilitated patient. Although the pulse is accelerated, the respiration is usually reported to be normal in frequency, and the temperature not in such excess of the ordinary standard as by itself to give rise to any uneasiness. It has been mentioned in some of the unofficial telegrams that the bullet appears to be shifting its position, and to be descending lower in the pelvis; but the grounds on which this assertion has been based have not been described, and, in the absence of this information, we can only conclude that the statement is simply a surmise. It is also stated that a catheter, inserted into the opening of the wound, has passed along a cavity for a distance of twelve inches; but here again the statement has not been accompanied with any description of the direction of this track. Such a sinus, if it exist to the extent named, may result from the gravitation of pus, and cannot, at this late period of the case, be regarded as affording any reliable indication of the path originally opened by the projectile. If there be reliable signs of the bullet having reached any determined position, they have not yet been made publicly known. Altogether, although the improved symptoms that have prevailed during the past week may fairly be taken as holding out a promise of further progressive amendment, and encourage hopes of a more favourable termination than could be entertained at the close of the previous week, there still exist so many elements of uncertainty in the case, and relatively slight accidents might suddenly obtain such a grave character in a patient so greatly reduced as President Garfield is described to be, that the ultimate issue of the injuries to which he has been subjected must be regarded, at the best, as still most doubtful.

SANITATION AT EASTBOURNE.

The Right Hon. James Stansfeld, at a lecture given by Professor Kerr, in the Sanitary and Arts Exhibition, Devonshire-park, Eastbourne, speaking on the subject of sanitation, said that when he passed the Local Government Act a large number of sanitary clauses were struck out in order to get the measure through. One of these clauses was suggested to him by Miss Florence Nightingale, and he understood

that the Local Board of Eastbourne had a clause to the same effect in their bill, whereby they were enabled not only to regulate the junction of house-drains with the sewer, but to go inside the house and see that it was constructed on sanitary principles, without which permission would not be given for occupation. He congratulated the town upon possessing such powers.

THE NIGHTINGALE FUND.

THE report of this fund for the year 1880 states that there were remaining as probationer-nurses in the school at St. Thomas's Hospital on the 31st December, 1880, 32, of whom 12 were special or lady probationers and 20 nurse probationers. From the opening of the school in June, 1860, to the end of 1880, a total of 604 candidates have been admitted, and 357 have left the school, after completing a year's training as certified nurses. The instruction given to the probationers, both in the wards and in class, has not deviated from its usual course. The practical work of the probationers as assistant-nurses in the wards forms the foundation of the training. To the daily practice in the wards is added attendance on lectures, both in class and clinical. The object set forth in the regulations for the admission of special probationers is to train gentlewomen in the practice of hospital nursing, with the view to their entering upon the profession permanently, by eventually filling superior situations in public hospitals; and in order to insure their continuing in the work, an obligation to take service for a period of two years in situations approved by the committee has been imposed. The object for which the training will be given has, too, been extended, so as to include, besides service in hospitals and infirmaries, also nursing the poor at their own homes, under some organised system of district nursing.

PRIZES OF THE ACADEMY OF MEDICINE FOR 1882.

THE following are the list of prizes offered and the subjects proposed by the Academy of Medicine in Paris for the year 1882:—*Academy Prize*, value 1,000 francs (£40). Subject: Generalised Arterial Atheroma, and its Influence on the Nutritive Organs.—*Portal Prize*, value 2,000 francs (£80). Subject: The Lymphatic System from the Pathological Point of View.—*Civrieux Prize*, value 2,000 francs (£80). Subject: Researches on the Causes of Locomotor Ataxy.—*Capuron Prize*, value 2,000 francs. Subject: The Lochia in the Normal State and in Pathological States.—*Barbier Prize*, value 4,000 francs (£160).—The *Godard Prize*, value 1,500 francs (£60), will be awarded to the best work on Medical Pathology.—The *Desportes Prize*, value 2,000 francs (£80), will be awarded to the author of the best work on Practical Medical Therapeutics; rewards will also be accorded to the author or authors on these subjects.—The *Buignet Prize*, value 1,500 francs, will be awarded every year to the author of the best manuscript or printed work on the Application of Physics or Chemistry to the Medical Sciences. It is, however, not open to foreigners or to translations.—*Orfila Prize*. Subject: On Veratrine, Sabadilline, Black Hellebore, and White Varaira. According to the intentions of the testator, this question must be treated from the points of view of physiology, pathology, pathological anatomy, therapeutics, and legal medicine, thus: What became of these poisons after their being absorbed? In what organs are they arrested? At what periods are they eliminated, and in what way? What disturbances do they cause in the functions? What are the symptoms and organic lesions which they excite? What is their action on the fluids of the animal economy, and especially on the blood? What is the best mode of treatment to resist their effects? Finally, What course should be followed to discover these poisons before death, whether in the vomited matters or in stools, in the urine and in other excreted fluids, as well as in the blood? After death, medico-legal examination of these poisons must be undertaken in the digestive canal, in the various organs in the urine, and in the blood. The period after death at which it is possible to discover, or at which it ceases to be possible, must also be indicated. New experiments should be undertaken on the subject of antidotes. Can these poisons, for example, be followed into the blood and into the organs, into which they have been carried by absorption, by using chemical agents which may render them inert, or, at least, inactive? This prize is of the value of 4,000 francs.—*Itard Prize*. This prize, which is triennial, will be awarded to the author of the best work or memoir on Practical Medicine or Applied Therapeutics. In order that these works may have undergone the test of time, it is essential that they should be published at least two years. The value of the prize is 3,000 francs.—*Falret Prize*, value 1,500 francs. Subject: Vertigo with Delirium.—*Saint-Lager Prize*, 1,500 francs; to reward the experimenters who may have produced a thyroid tumour by the administration to animals of substances extracted from the water or from the ground of places in which goître is endemic. The prizes will only be given when the experiments have been repeated with success.—*Saint-Paul Prize*. M. and Madame Victor Saint-Paul have offered to the Academy a sum of 25,000 francs (£1,000) for the foundation of a prize of that value, which shall be awarded to the person, without distinction of nationality or profession, who shall be the first to make known a remedy recognised by the Academy as efficacious and sovereign against Diphtheria. Until the discovery of this remedy, the arrears of income proceeding from the donation will be applied to the encouragement by recompensing for two years persons whose labours and researches on diphtheria shall have appeared to have deserved that recompense.—*Prize on the Hygiene of Infancy*, value 1,000 francs. Subject: Weaning and its Comparative Study in the different regions of France.—The memoirs or works for prizes to be awarded in 1882 must be written in French or in Latin, and accompanied by a sealed envelope, marked with a motto outside, and containing the name of the author. Any candidate who may have directly or indirectly made himself known, will by that fact be excluded from competition. The competitors for the following prizes—Godard, Barbier, Amussat, Buignet, Desportes, Saint-Paul, Itard—address to the Academy their manuscripts or printed works, and are exempt from this latter condition.

THE GERMAN SANITARY CONGRESS.

IT is announced that a combined meeting of the German Association of Public Health and of the German Association for Technical Sanitation will be held in Vienna on September 14th, 15th, and 16th. The questions to be discussed are the following: The Hygienic Requirements in the Laying-out and Use of Cemeteries—reporters, Professor F. Hofmann of Leipzig and Professor Roth of Dresden; The Use and Abuse of Alcohol—reporters, Professor Binz of Bonn and Dr. Bär of Berlin; Sewer-Gases as Disseminators of Epidemic Diseases, and the Direction and Force of the Air-Current in Sewers—reporters, Dr. Soyka of Munich and Dr. Rozsahegyi of Pesth; Demonstration of an Apparatus for Securing the Closure of Syphons and Water-Closets against the Entrance of Sewer-Gases into Houses, by Dr. Renk of Munich; The Methods of Examining Flour, with reference to the present State of the Grinding Trade and to the Adulterations which take place—reporters, Professors Nowak and Vogl of Vienna; The Advantages and Disadvantages of Warming by Heated Air—reporters, Professor Fischer of Hanover, Professor Fodor of Pesth, and Dr. M. Gruber of Vienna.

THE INDIAN MEDICAL SERVICE DEFENCE FUND.

FROM the report for the present year of the executive committee of this association, it appears that, since the establishment of the society last year, the following objects have been fully or partially secured—viz.: the equalisation of the relative army rank of the Indian medical service with the Army Medical Department, and the extension of the new grade of brigade-surgeon to the Indian services; an improved scale of pensions; the abolition of examination for promotion to surgeon-major; the abolition or modification of the system known as unemployed pay for junior officers; honorary rank on retirement after twenty years' service; and honorary promotion to deputy-surgeon-general of all officers appointed Queen's honorary physician or Queen's honorary surgeon. The committee are of opinion that, on these points, the Government have granted as much as could be reasonably expected; but, at the

same time, they assert that Indian medical officers, compelled prematurely to retire on the score of health, are still less liberally treated than officers of the Army Medical Department under similar circumstances; and to this point they have again directed the attention of the Secretary of State in their recent letter. The result has been, that the majority of the objects for which the fund was formed have been attained; and the service, as a whole, has greatly benefited from the changes effected during the past eighteen months—inasmuch that, with the exception of the senior surgeon-major, the pecuniary prospects of every member of the service (from the surgeon-general with Government, to the youngest cadet at Netley) have been materially improved. In these circumstances, the executive at first contemplated a dissolution of the committee, believing that the existence of their organisation was, to a certain extent, inconsistent with the good feeling and confidence which ought to exist between the Government and its officers; but eventually decided to keep the fund together for the present, in a passive form, on the ground that the Indian service has no official representative in this country.

METROPOLITAN OPEN SPACES.

THE new Act dealing with metropolitan open spaces has been printed. There are thirteen sections explaining the powers now conferred on local authorities. Open spaces may be transferred by trustees to local authorities. The Metropolitan Board and Vestry or District Board may carry out the Act jointly, and the Act is to apply to the City of London. There is a provision in the statute by virtue of which closed burial-grounds may be converted into ornamental gardens. It is provided by one section that disused burial-grounds may be transferred to local authorities for the purpose of improving and laying out the same. The law has immediate operation.

DEATH DURING THE ADMINISTRATION OF ETHER.

THREE deaths have recently occurred, which are attributed, directly or indirectly, to the effects of ether given as an anæsthetic. The earliest, in point of time, occurred at Addenbrooke's Hospital, Cambridge. The anæsthetic in this case was administered to a woman aged 50, and Professor Humphry removed a tumour of the lower jaw. After the cessation of the administration of the ether, the breathing became embarrassed; the patient, who had lost a good deal of blood, did not rally, and died in a short time. The *post mortem* examination revealed cancer of the lungs and liver, and death was attributed to asphyxia. Another somewhat similar case occurred at Guy's Hospital on Sunday last. The patient was a man aged 43, who was suffering from a diffuse cellulitis of the palm and wrist, and the anæsthetic was given in order that an abscess might be incised. Before he was thoroughly under the influence of the ether the respiration suddenly ceased, and an immediate examination of the heart showed that its action had also been arrested. The patient had suffered from rheumatic fever, but an examination which was made before the administration commenced did not reveal any *bruit*. At the necropsy the heart and kidneys were very much enlarged, the latter organs weighing together 27 ounces. Until a microscopical examination of the organs has been made, it will be difficult to fully account for the death; but there seems to be little doubt that it may be attributed to some chronic form of renal disease, which had led to hypertrophy and degeneration of the heart, and that the heart thus weakened gave way before the extra strain brought about by the ether. The third case occurred at the London Hospital, and the patient in this case was a young and healthy lad, aged fourteen, who had received a lacerated wound of the wrist, severing the median nerve and several tendons; the operation to unite these occupied about thirty or forty minutes. It was almost concluded, and the administration of ether had ceased, when the boy suddenly vomited a quantity of pultaceous matter, which filled the mouth and fauces; he quickly became cyanosed, and ceased to breathe. The mouth was cleaned out, and artificial respiration resorted to; and Mr. Morgan Davies, the house-surgeon, opened the trachea, and introduced a large tracheotomy-tube. Spontaneous breathing recommenced, and a considerable quantity of vegetable *débris* (currants, etc.) was forced through the tube. The breathing, however, again failed; and, in spite of every effort, the patient sank, and died in about an hour and a quarter after the vomiting began. The *post mortem* examination showed no disease of the viscera, but, wedged into the right bronchus, and quite blocking it, was a piece of the rind of a greengage, rolled up into a firm pellet; and there seems no doubt that death was due to the asphyxia thus produced. The boy had stated before ether was administered that his last meal had been eaten at 2 P.M. The accident occurred at 4 P.M., and the operation was performed at 9 P.M.; so that it seems to be quite clear that no charge of neglect can be made against the house-surgeon, who seems to have acted with much judgment under most trying circumstances.

DR. TANNER.

IT is stated that Dr. Tanner, though twice reputed dead, is still alive, and contemplates paying a visit to Europe soon. A challenge has, it is said, been sent him by a medical man, in response to which the doctor intends to fast for a much longer period than he did before, under the direct observation of the medical sceptic and a number of his friends, in such a manner as to preclude the possibility of receiving sustenance.

TYPHOID FEVER AT UCKFIELD.

THE reports of Mr. W. H. Power are always interesting and instructive; and a recent history by him of a prevalence of enteric fever at Uckfield opens up suggestions which may in the future bear important fruit. The outbreak is in itself of a sufficiently common class. It occurred in a locality which possesses in its water-supply and sewerage arrangements unusual facilities for the spread of infection. The wells which furnish the water-supply of the town are, from their physical circumstances, particularly prone to pollution, whilst the sewers have remained unflushed, and practically unventilated. The outbreak, however, acquires a certain special interest with the previous history of the disease in the place. Until 1879, Uckfield had remained for some years singularly free from enteric fever; and, notwithstanding that cases from time to time occurred, the disease did not spread to other persons. But, in the autumn of that year, it commenced a new phase of existence. In September, two cases occurred nearly simultaneously in separate houses in one street; and these were followed in October and November by eight more cases among persons resident at the Grammar School in the same street. All the persons attacked recovered, and no fresh cases occurred in the town until the following autumn, 1880, when the disease recurred in a far more serious outbreak, which attacked in all thirty-eight persons, and killed five. "There is here", observes Mr. Power, "history of enteric fever, whether imported or of home production, repeatedly failing to propagate itself under conditions apparently singularly favourable for its reproduction, but in the end tending to become seasonal in its occurrence. Also there is history of autumnal enteric fever, infertile at first, under circumstances seemingly conducive to its fertility; but suddenly, in a particular season, developing reproductive powers, to be in a subsequent season fully maintained with widely increased range." Suggestions of this sort concerning the natural history of enteric fever are of no little interest, though perhaps not of immediate practical value. Nevertheless, the subject has its practical side, which should commend itself to local authorities. If, for instance, the question were one of dealing with a noxious weed that, after mere existence during several seasons, suddenly gave signs of having commenced to infest land, there can be no doubt that the agriculturalist whose interests were threatened would not pause to consider the precise source of particular seeds which had, by their germination, produced the earlier examples of the weed in question; he would rather set himself to prevent other seeds, which he would by this time have good reason to believe had become self-sown and broadcast, from producing a greatly increased and more widely distributed crop of weeds at some future season or seasons. In like manner, authorities may well disregard the precise cause of fever

in particular instances, for the sake of going at once to work to remedy those sanitary shortcomings which are known to be associated with the distribution of the fever, so as to secure the inhabitants against a future and, perhaps, far more extensive outbreak than has before been witnessed in the district.

SUPPOSED SUICIDE OF A SURGEON.

THE body of Surgeon-General Best, late of the British Army, of Great Western Terrace, Westbourne Park, has been found in the Thames, near Chiswick, by a waterman named Lewis. Deceased had been missing from his home since the 24th of August, and, it is said, had appeared somewhat disturbed in his mind of late. The body, on which were found watch, chain, etc., and a small sum of money, has been identified by deceased's son-in-law.

OUTBREAK OF SORE-THROAT DUE TO INFECTED MILK.

THE recent discussion at the International Medical Congress on the influence of articles of food on the origin and spread of zymotic disease invests with a special importance any new facts bearing on the subject. With the exception of water, which was excluded from consideration at the Congress, there is no article of food whose influence in spreading infectious disease has of late years been more studied than milk; and the list of diseases in the production of which polluted or infected milk is concerned is year by year extending. To the fact that enteric fever could be, and had been, distributed wholesale through the medium of milk, was subsequently added the knowledge that scarlatina could be spread in the same way, and, later still, diphtheria. The anomalous outbreak at Aberdeen, that occurred in the beginning of the present year, has taught us that there may be other diseases propagated by the same agency; and Dr. George Wilson of Warwick now comes forward with a well worked out history of a curious outbreak of sore-throat happening last year amongst the scholars of Rugby School, and in the town generally, and attacking altogether over one hundred persons. Sore-throat has often been observed before as an incident in epidemics of milk-scarlatina and milk-diphtheria; but there has not previously been, so far as we are aware, any epidemic reported as due to milk in which no symptoms of specific disease appeared amongst any of the drinkers. Dr. Wilson reports that, on the morning of March 22nd, he received information of the outbreak from the headmaster of Rugby School, and found that it had appeared in three out of the eight boarding-houses connected with the school; and that, on the average, about thirty boys in each house were more or less affected. Suspicion at once fell on the milk-supply, inasmuch as these three houses were all supplied by the same milkman, the other houses being supplied by other dealers. The correctness of this inference was established beyond dispute when the inquiry was further carried out among the inhabitants generally; for, after some pressure, a list of his customers was obtained from the dairyman in question; and it was found that, out of thirty-seven families which he supplied in the town, in addition to the school-houses, as many as fifteen had one or more members affected with symptoms exactly similar to those from which the schoolboys were suffering. It was found, too, that the date of attack, which among the schoolboys was from the 16th to the 18th of the month, the majority having sickened on the 17th, corresponded exactly with the date on which the cases in the town fell ill. Minute inquiry was made as to whether any similar cases existed in the town that were not supplied with milk by this dairyman; but not a single typical case could be discovered. It was clear, then, that the outbreak was attributable to some temporary tainting of this particular milk-supply, which occurred probably on the 15th or 16th day of the month. The dairyman received his milk-supply from four separate farms, viz.: his own and three others. No cases of suspicious illness were discovered on any of these farms, nor could the cause be traced to defective sanitary arrangements. In the absence of any other ascertainable cause, Dr. Wilson came to the conclusion, from an admission made by the dairyman himself, that the probable cause was the mixing of milk drawn from the udder of a cow suffering from garget with the other milk. The man admitted that he had a cow suffering from garget at the time, but stated that the milk was thrown away; and he also admitted that neither he nor the milkers could always tell when a cow was suffering from this disease. Dr. Wilson is of the opinion that, at a season of the year when the mucous membrane of the throat and tonsils is liable to be congested, the accidental admixture of pu-cells from an inflamed udder with healthy milk might so taint the supply as to render it quite capable of causing inflammation of the throat, and inducing obscure symptoms of blood-poisoning. But, whatever the exact cause, there could be no doubt that the outbreak was clearly attributable to this particular supply; and it affords one other instance of the many which have already been recorded of the necessity for rigid inspection and supervision of dairies, both of which are at present entrusted to veterinary surgeons and the police.

HEALTH-RESORTS: WALTON-ON-THE-NAZE.

THE public are beginning to awaken to the importance of ascertaining, before trusting themselves for a change of air to the now numerous seaside health-resorts, that the sanitary arrangements of the places to which they betake themselves are of a reasonably perfect kind; and it is becoming the fashion for the local authorities of such places to strain every nerve to secure publicity at this time of the year to the smallness of their death-rate, or to the absence in their district of zymotic disease. But this—as must be patent to any thoughtful man—is by no means sufficient. Unsanitary conditions may and do exist at such places, which only need the spark, so to speak, of a case of enteric fever, to cause a serious explosion of disease. A case in point is Walton-on-the-Naze, which is gradually attaining a considerable reputation as a watering-place near at hand to the jaded Londoner. It is a little place, possessing a population of only about 1,000 persons; but, during the summer, it is estimated that the number of visitors at one time amounts to between 4,000 and 5,000. The great want of Walton-on-the-Naze is drinkable water. There is a water-company who have an artesian well sunk in the chalk, but the water they supply is simply diluted brine. For drinking and culinary purposes, the water of the place is commonly obtained from a pump about a mile from the town, connected with a shallow well. This water is brought into the town by a water-cart, and sold by the bucketful, lodging-house keepers paying during the season as much as two shillings or three shillings a week for drinking-water. The sewerage is very bad, and has an insufficient fall. It is, moreover, unprovided with the means of flushing; and the ventilation, until last year, was of the most imperfect and illusory kind. Even now the facilities for the escape of sewer-air might, with advantage, be still further increased. The larger houses, such as those in which apartments are let to visitors, have, for the most part, in-door water-closets; but in hardly any instance are the sewer-pipes ventilated. The pipes from the scullery-sinks have commonly been taken direct into the drains. The smaller houses have closets out of doors. These have no water laid on to them, being dependent for their flushing on the house-slops poured into them. In consequence of the scarcity of water, the closets and drains are frequently insufficiently flushed, and nuisances from this cause are of frequent occurrence. There are no by-laws in force in the district. About forty new houses have been built in the last ten years, over the direction of which the sanitary authority has had no control. The need of some supervision is only too manifest, and is exemplified in houses above the cottage class. Under these circumstances, it is not surprising that as many as forty cases of continued fever came to the knowledge of the medical officer of health in the course of last year. The cases do not seem to have been at the time properly investigated; but it is stated that they ran a shorter and milder course than typhoid fever, that enteric symptoms were absent, the principal symptoms being those of stomach derangement, epigastric pain, nausea, and loaded tongue. The first case was a servant of an hotel, who began to be ill in February. All the other inmates of the house suffered subsequently, the house-drains being found in a bad condition. The other cases occurred at various periods throughout the year, in many instances several cases happening

in succession in a household. Almost all the houses invaded were drained into the town sewers, and in almost all of them there were defects in the drainage. No doubt, if the epidemic had been properly inquired into at the time, the cause of the prevalence would have been more exactly ascertained; and, in any circumstances, it behoves the local authorities of Walton-on-the-Naze to use their best efforts to secure a more efficient administration of the district, if they desire to maintain its reputation as a health-resort.

THE HEALTH OF GOLD MINERS.

A RECENT report by the physician of a large gold mining company at Murro Velho (Brazil) does not give a very favourable picture of the healthiness of the *employés*. During the year ended 28th February last, 927 patients were admitted to the hospital of the company, 29 remaining there at the end of the year. Of this number, 923 were discharged, and 16 died. The average daily number of patients was 29.9, and the average stay in hospital 11.39 days. The diseases which showed the largest number of cases were bronchitis 135, dyspepsia 117, influenza 90, and rheumatism 76; 73 contusions and 74 wounds being also treated. Thus the principal diseases that came under treatment were those of the respiratory and digestive organs. A large number of the former were of a very acute and severe form, and nearly one-half of the whole deaths that occurred were due to these classes of disease. The average rate of mortality of the blacks during the year was 35.8 per 1,000 from disease alone, and 40.2 per 1,000 including accidental deaths. As many as nearly 10,000 visits were made by and to the natives during the year. This large amount of sickness is attributed to an increase of the population, and to the fact that many of the new *employés* and their families were affected with chronic complaints, difficult and slow of cure. During a short period in the wet season, febrile and pulmonary complaints were more severe and frequent than usual. There was a very high sick-rate amongst the European *employés*, though not quite so high as in the preceding year. As many as 108 separate individuals were on the list in the year; 318 cases of sickness were under treatment for 2,388 days, and 40 of injury for 389 days, being a total of 358 patients that were on the list, and unfit for duty, for 2,777 working days. The death-rate amongst the whites is, however, not given, though it would have been interesting, if only for comparison.

THE TROOPS IN SOUTH AFRICA.

A CORRESPONDENT writes from Newcastle, Natal, under date July 27th:—Several convoys of sick and wounded have lately been despatched to the general depôt at Maritzburg. Captains Lovegrove and Morris, of the 58th Regiment, have both so far recovered as to be able to go in the convoy. The divisional field-hospital is being now evacuated of those cases which should have been invalided before their regiments left India. The sickness is otherwise slight amongst the field-force; 3.80 per cent. of the strength would cover it. The dysentery and diarrhœa, which largely prevailed at first, have almost disappeared; but ague, hepatitis, and chronic rheumatism are comparatively more numerous at present. The remaining eight cases of enteric fever are all progressing favourably under canvas. Great credit is due to the sanitary officer, Surgeon-Major Giraud, for his zeal and energy and circumspection; and the good health enjoyed by the troops in a stationary camp for so long a period is considerably due to his successful endeavours to promote sanitation. The *ennui* and dull monotony of a life on the Veldt is having its effect on the spirits of the men, especially in those of the regiments which have been abroad for so long, and who have been delayed in their return to England. The dry weather still continues. We have had some terrific wind-storms, which are supposed to be the usual precursors of rain; but this has not yet fallen. General Wood is expected from Pretoria on August 4th, and it is thought that the long-wished-for move towards the coast will then commence. It is probable that the bearer company will be used for the charge of the whole of the sick *en route* for Maritzburg later on. This corps has been kept here waiting for eventualities and laurels which never arrived, and so it is thought advisable to employ it in connexion with the convoys of sick for embarkation. The mixed force composing the expedition to Potchefstroom, under General Buller, and in medical charge of Surgeon-Major Smith, has returned to camp, having experienced hardly any sickness on the march. It is surprising how sickness disappears almost entirely amongst troops when they are moving, and this has been especially the case in this colony. Enteric fever stops; ague ceases; chronic rheumatism is not felt; the exercise wards off all hepatic ailments; and the spirits of the troops are infinitely better, although their liquor is temporarily cut off. Since writing the above, I am told that another expedition—this time into Zululand, under General Wood himself—has been decided on, and will take place on the arrival here of the General.

YELLOW FEVER IN SENEGAL.

THERE is such a severe epidemic of yellow fever in the French colony of Senegal, says a contemporary, that the packets of the Messageries Maritimes refuse to receive passengers from that place. Admiral de Lanneau, the governor of the colony, who received on the 28th of July the news of his promotion, was attacked with the fever in the evening of the same day, and died the next morning, his widow being compelled to return to France with her two sons on board a merchant vessel bound for Bordeaux. Lieutenant Faidherbe, a son of the well-known general, is one of the latest victims; and several other officers in garrison there have also died. The colonists complain that the Government has taken no sanitary precautions to check the epidemic; and that, since the construction of a railway into the interior, the negroes arrive at St. Louis in such large numbers that the town cannot be kept healthy.

SCOTLAND.

THE District Board of Lunacy have intimated to the Govan Parochial Board their intention of erecting an asylum, for the accommodation of lunatics in the parish, but chargeable to other places.

HEALTH OF GLASGOW.

THE report of the medical officer of health sets forth, that, during the fortnight ending August 19th, 402 deaths were registered, representing a death-rate of 20½. The number of deaths from pulmonary diseases was 122, being a death-rate of 6 per 1,000 living, and constituting 30 per cent. of the total deaths. There were 9 deaths from fever—viz.: 7 from enteric and 2 from typhus. Infectious diseases of children caused 20 deaths—viz.: 11 from measles, 6 from whooping-cough, and 3 from scarlet fever. There were 45 cases of fever registered—viz.: 31 of enteric fever, and 14 of typhus. There are at present in the hospital at Belvidere 45 cases of enteric fever, 66 of scarlet fever, 23 of measles, 18 of whooping-cough, 28 of typhus, and one of small-pox—in all, 181, as compared with 195 at this day fortnight, and 258 at the corresponding period of last year.

THE MEDICAL ARRANGEMENTS AT THE VOLUNTEER REVIEW IN EDINBURGH.

AT the review of the Scottish and North of England Volunteers by the Queen at Edinburgh, the most complete arrangements were made for the treatment of any cases of sickness or injury that might occur among the Volunteers. Arrangements were made and directions issued by Deputy Surgeon-General J. P. Cunningham, M.D.; but we can only give an outline of what these consisted. At each of the stations where the troops were detrained, there were stationed a Voluntee rmedical officer, and a non-commissioned officer and orderly of the Army Hospital Corps, provided with medical comforts, hospital appliances, and means of ambulance-transport; these were for the benefit of such as might require them on arrival; while in each of the three rendezvous there was a field-hospital, consisting of a large marquee and some smaller tents, thoroughly equipped surgically, and also contain-

ing brandy, beef-tea, and other restoratives; while there was added to each 250 pounds of ice, in case of intense heat—a precaution that was rendered unnecessary by the dreadful weather that prevailed during the entire time of the review. The equipments for the marquees were provided by the Army Medical Department; but the care of them was entrusted to Volunteer medical officers, assisted by trained members of the Volunteer Ambulance Corps. An officer of the Army Medical Corps was attached to each, to provide such appliances as might be necessary; and a non-commissioned officer as compounder of medicines, and four orderlies of the Army Hospital Corps, were told off for duty in the various hospitals. There was a "stretcher party" detached for duty in the different brigades, with the senior medical officer in charge of each; while an army medical officer was attached to each division, to give the benefit of his experience, should it be required. At the hospitals, the Red Cross was displayed. The managers of the Royal Infirmary set apart a ward for the reception and treatment of those who might require prolonged treatment, and seven or eight cases were received into it.

DUNDEE ROYAL INFIRMARY.

THE Infirmary of Dundee has just been benefited to the extent of £1,000, and the Dundee Convalescent Home to the extent of £100, by ex-Provost Rough; and, in his letter to the directors, that gentleman shows a spirit worthy of imitation, and which, if its desire could be carried out, would be of immense value. He writes: "From my long connection with the infirmary, I feel anxious to see its finances in a prosperous condition—especially as I have long desired the admission of patients to be, as in Edinburgh, not by governors' lines, but as their need of such medical relief as our now really noble institution affords. Feeling thus, I have sent my donation as a help to such a right step, as I have often felt pained to witness the sufferings poor patients were put to in obtaining lines of admission."

THE ROYAL INFIRMARY, EDINBURGH.

SUBSEQUENTLY to the visit of Her Majesty the Queen to the Royal Edinburgh Infirmary (noticed in last week's JOURNAL), she graciously sent to the institution a considerable number of engravings as a memento of her visit. The managers of the infirmary have determined that some of these shall be placed in the wards which the Queen had named the "Albert Ward", and the "Victoria Ward". The Duke of Cambridge also visited the infirmary last week, and entered thoroughly into the examination of it; while a considerable number of army officers, who had gone to Edinburgh for the Volunteer Review, inspected the hospital. The Duke visited personally those who had been injured at the Review, and who were in the ward specially set apart for them; fortunately, there are few of them, and none are seriously injured.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General, for the week ending August 20th, it appears that the death-rate in the eight principal towns was 17.8 per 1,000 of estimated population. This rate is 0.8 below that of the corresponding week of last year, and 1.1 below that of the previous week of the present year. The lowest mortality was recorded in Leith—viz., 11.8 per 1,000; and the highest in Paisley—viz., 26.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.7 per 1,000, or the same as the rate for last week. Acute diseases of the chest caused 76 deaths, or less than the number recorded last week. The mean temperature was 54.3°, being 2.0 below that of the week immediately preceding, and 4.7° below that of the corresponding week of last year.

TESTIMONIAL TO DR. MEDLICOTT.—The officers and attendants of the Somerset and Bath Lunatic Asylum, Wells, on Monday, August 22nd, presented Dr. Medlicott, the medical superintendent of the asylum, on the occasion of his leaving, after twenty-one years' service, with a handsome piece of plate, consisting of an oak and silver claret bowl, bearing an appropriate inscription, together with a cruet stand, silver cooler, and set of silver-mounted carvers, as a small token of their esteem.

IRELAND.

TYPHUS FEVER IN CORK.

THE registrar of Cork No. 5 District, in a recent report, states that typhus fever is the only disease of any importance at present in his district; but then it is endemic, owing to its generally overcrowded condition, the numerous lanes with which it abounds literally swarming with people, a family in every room, while the sewerage also is very imperfect. To remedy this state of things, he recently suggested to the urban sanitary authorities that the sewerage in the flat of the city, which has no fall to carry off its contents, might be regularly flushed with water taken from the river higher up at flood-time. This scheme would be both effectual and inexpensive, and would, of necessity, lower the death-rate. As regards the overcrowding—the great cause of typhus—he recommends that the corporation should build houses for the poor on the raised portion of the park along the Victoria Road. The registrar believes that, as regards dwellings, the poor in his district are at present worse off than ever they were, as a great number of the houses in which they lived were thrown down under the Artisans' Dwellings Act a considerable time since, and have not been replaced by other buildings. The subject is one well deserving the attention of the sanitary authorities.

MIDLETON UNION.

DR. RYAN, one of the medical officers of this union, having been dismissed by the Local Government Board, the guardians, at a meeting held last week, passed a resolution requesting a sworn inquiry into the cause of Dr. Ryan's dismissal. They do so, they state, on public grounds, as they wish to have the matter properly and thoroughly investigated. We understand that the Local Government Board have declined to grant an inquiry.

CORK DISTRICT LUNATIC ASYLUM.

ON the 31st of last December there were 870 patients in this asylum, the daily average number of inmates amounting to 840; while the total under treatment during 1880 came to 1,128. Of those admitted, 232 were cases of a first attack, and 31 were relapsed cases. One hundred and forty-one were discharged, of whom 96 were recovered, 38 improved, and 7 were unimproved or incurable. The mortality amounted to 115 deaths, all from natural causes—viz., abdominal affections, 12; thoracic, 35; cerebral and cerebro-spinal, 40; debility and old age, 22; heart-disease, 2; and fever and other diseases, 4. As regards the social condition of the 870 patients in the asylum on the last day of 1880, 635 were single, 188 married, 30 widowers or widows, and in 17 cases the condition was unascertained.

HEALTH OF CORK.

FOR the four weeks ending August 13th the total number of deaths registered in Cork amounted to 113, including 13 dying in the workhouse who had formerly resided in the city, of which 6 were due to infectious maladies, and 21 were infants under one year. During the same period 154 births took place, being equal to 25.54 per 1,000 of the population. The annual death-rate per 1,000 inhabitants, calculated on the above figures, gives a total ratio of mortality of 18.74; but, if the deaths occurring in the workhouse be excluded, the urban death-rate amounts only to 16.66; from infectious maladies, 1.4; and an infant mortality of 3.4. These figures contrast favourably with those of the corresponding period last year, when the urban death-rate stood at 21.55, and 2.55 from infectious diseases. They likewise show an improvement in the four weeks immediately preceding; and it is satisfactory to find that a gradual [illegible] in the annual [illegible] the city.

HEALTH OF DUBLIN.

DURING the quarter ending June 25th, the daily average number of the Dublin Registration Police Districts was 2,409, being equal to an

annual ratio of 1 in 32.2, or 30.1 in every 1000 of the population. The deaths numbered 2,234, affording an annual ratio of 1 in 39, or 25.6 per 1000; and, omitting the deaths (75) of persons admitted into public institutions from localities outside the district, the rate was 24.8 per 1000. The average number of deaths registered in the second quarter of the ten years 1871-80 was 2,353, equivalent to an annual mortality of 27 per 1000. Zymotic diseases caused 235 deaths, being 170 under the number for the preceding quarter, and 254, or 52 per cent. below the average for the June quarter of the last ten years. The deaths from this class of diseases were equal to an annual rate of 2.7 per 1000 of the population. Scarlatina caused but 16 deaths as compared with 56 the previous quarter; diphtheria, 3; measles, 2; whooping-cough, 22, or a decline of 29 as compared with the March quarter; and small-pox, 1. To fever, 90 deaths were due (typhus 54, typhoid 28, and simple continued fever 8), being 55 under the number for the preceding quarter; diarrhœa, 29; and croup, 15. One hundred and eighty-four deaths of children were ascribed to convulsions, being 24 over the average for the corresponding quarter of the past ten years. Phthisis caused 330 deaths, and diseases of the respiratory organs proved fatal in 467 instances, being 442 under the number for the previous quarter; the deaths in this group comprise 329 from bronchitis, 95 from pneumonia, and 33 from lung-disease unspecified. Apoplexy caused 39 deaths; paralysis, 40; cephalitis, 31; epilepsy, 17; and brain-disease unspecified, 47. One hundred and nineteen deaths were ascribed to diseases of the heart and circulatory organs; 31 to liver-disease unspecified; 14 to Bright's disease; and 24 to kidney-disease unspecified. The mean of the mean weekly temperature for the quarter was 50.5°, and the rainfall during the thirteen weeks measured 5.976 inches.

HEALTH OF IRELAND: QUARTERLY REPORT.

DURING the quarter ending 30th June last, there were registered in the 800 registrars' districts in Ireland 34,202 births, being equal to an annual ratio of 1 in every 37.5, or 26.7 per 1,000 of the population; and 23,614 deaths, affording an annual ratio of 1 in every 54.3, or 18.4 per 1,000. The birth-rate during the second quarter of 1881 was under the average of the rate for the corresponding quarter of the previous five years, to the extent of 0.7 per 1,000, but it was 0.5 per 1,000 over the rate for the second quarter of 1880; while the death-rate was below the average of the June quarter of the five years 1876-80, being 1.6 per 1,000, and lower than in any corresponding quarter since 1874. The principal zymotic diseases caused 1,806 deaths, or 7.6 per cent. of the total deaths, and equal to a rate of 35 in every 100,000 of the population. This was 1,254, or 41 per cent. under the number for the corresponding quarter of last year, and was the lowest number of deaths from these diseases ever returned for the June quarter since registration commenced in 1864. Of these 1,806 deaths from zymotic affections, 565 took place in the town population, which numbers only about one-fifth of the whole population of Ireland. Small-pox caused 13 deaths, against 10 in the preceding quarter; measles 53, against 94; diphtheria 67, against 85; and whooping-cough 384, against 475. To scarlatina, 291 deaths were ascribed, being a decrease of 93 as compared with the previous return; and diarrhœa 337, against 386. Fever caused 659, against 687 in the preceding quarter, and comprised 314 from typhus, 222 from typhoid, and 123 from simple fever. In Munster, typhus proved very prevalent and fatal; for example: in the first quarter of the year, there were only 80 fatal cases of typhus in Munster, chiefly in Cork and Kerry; but, in the past quarter, the fatal cases rose to 113, being again concentrated in Cork and Kerry, but showing a tendency to more general distribution throughout the province. These returns prove that, as compared with the previous quarter, a considerable decrease took place in all the principal zymotic diseases during the June quarter, with the exception of small-pox, where a trifling increase (3) of deaths took place.

DR. E. FUCHS, assistant to Professor Arlt of Vienna, has been appointed Professor of Ophthalmic Surgery in the University of Liége.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

SOUTH EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at the Royal Sea Bathing Infirmary, Margate, on Thursday, September 8th, at [illegible]; Mr. W. Knight Evans, F.R.C.S., in the chair. Members are invited to meet at the infirmary at [illegible] to inspect the new wards, by the kind permission of the directors, where [illegible] will be provided at 1 P.M. Dinner at the White Hart Hotel at [illegible]. Papers have been promised: Mr. S. Woodman—"Some Disorders of the Teeth, and their Influence on Health"; Mr. [illegible]—"A Monster Birth"; Mr. Whitehead Reid—"Specimen of Cherry-stone Impacted in Vermiform Appendix."—T. WHITEHEAD REID, Honorary Secretary.

NORTH WALES BRANCH.—The thirty-second annual meeting of this Branch will be held at the Pwll-y-crochon Hotel, Colwyn Bay (near Conway), on Thursday, September 22nd, under the presidency of Dr. Samuel Gamgee of Portmadoc. Dr. William Roberts of Manchester, and Mr. Lawson Tait of Birmingham, are expected to attend as guests. Members of the Branch desirous of reading papers at this meeting are requested to communicate their titles to the Honorary Secretary.—J. LLOYD ROBERTS, Honorary Secretary.

SOUTH-EASTERN BRANCH: WEST SUSSEX DISTRICT.—The next meeting of this District will take place at the Angel Hotel, Midhurst, on Friday, September 9th, at 3.30 P.M.; J. Robinson, M.D., in the chair. Previously to the meeting, Dr. Robinson kindly invites members to luncheon at his house, and will escort them to see the ruins of Cowdray. Dinner at 5.30 P.M. Dr. Kelly will bring forward some remarks on the Origin of Enteric Fever; Dr. Robinson the particulars of some cases.—G. B. COLLET, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will take place at Leighton Buzzard, on Tuesday, September 27th; H. Rogers, Esq., President. Further particulars will be shortly announced. Gentlemen desirous of reading papers are requested to send the titles forthwith to the Honorary Secretary of the Branch, GEO. F. KIRBY SMITH, Northampton.—August 31st, 1881.

CORRESPONDENCE.

THE ASSOCIATION AND ITS ADDRESSES.

SIR,—I have noted, with a feeling of sincere regret, the unfair and unjust tone of the criticism of the *Lancet* with regard to the addresses delivered on Medicine and Surgery before the Association at Ryde. It may be that the spirit of those addresses correctly defined the nature of the feeling entertained by their respective authors towards homœopathy and homœopathists; but to say that they represented, or were in any way an expression of, the views of the executive of the Association, is untrue; and, though they were listened to with the courtesy and attention that it is becoming on the part of a great Association to show towards those gentlemen to whom the delivery of the annual addresses has been entrusted, the dignified repudiation by the audience of the doctrines enunciated suffice to show clearly enough how very far they were from being acceptable to the members of the Association as a body.

And, sir, to insinuate the idea that those addresses have been inspired by the Government of the Association is as absurd as it is untrue. It is manifestly impossible, when we ask gentlemen to read addresses for us, that we should dictate to them either what they shall or what they shall not say; and it is absurd to suppose that we can permit ourselves to be held responsible for what they have said.

As President of the Council, I feel it incumbent upon me to stand forward and say that, neither directly nor indirectly, had any such "inspiration" been for a moment thought of by the Committee of Council, and to declare my conviction that, up to the moment of the delivery of the addresses, no member of that committee had the faintest idea that either Dr. Bristowe or Mr. Hutchinson was about so much as even to touch upon the question either of homœopathy or of homœopathists.

That they should have done so, and have thereby even *seemed* to pledge the Association to any particular line of thought, is no doubt to be regretted; but I claim to be permitted, on the part of the executive of the Association, to repudiate the insinuation that we are in any way responsible for the views enunciated by our readers.—I am, sir, yours very truly, C. G. WHEELHOUSE, President of the Council.

Hillary Place, Leeds, August 29th, 1881.

COMPULSORY PERIODS OF STUDY.

SIR,—In his recent address in surgery, before the British Medical Association, Mr. Hutchinson alludes in one place to "many of the increasing difficulties in surgical education"; and, in referring to an extension of the period of study as a remedy for acknowledged evils, says: "As to the extension of the compulsory period of study, such proposals may, I think, be dismissed with the remark, that the practice of liberal rejection of candidates imperfectly qualified really amounts to the same thing, and attains its end with much justice to the diligent and able. In the future, it may perhaps come to be considered a great credit to pass the first time, and no disgrace to be referred. Careful men, appreciating the necessities of the case, will probably voluntarily lengthen their period of study. Were the period compulsorily fixed at five or six years instead of four, the careless would still, as now, idle till near the end of it. I cannot but think, therefore, that the practice of early examination, with its necessary result of many rejections, works on the whole better than would any which should make an undiscriminating demand for longer time."

Can it be possible that these sentences express the deliberate convictions of such a man as Mr. Hutchinson? If this state of things were fully recognised and formally accepted by the profession—to say nothing for the moment on the claims of our students—think of what the effect would be on examinations and examiners. Rejections at present may, I should think, be fairly called liberal; but, what if the exception became the rule, and the very large majority of men from all our schools went up, just to "try their luck", knowing very well that the chance of failure greatly outweighed any prospect of success? Not only must this bring about a radical change for the worse in the character of our examinations; but, what is of graver consequence, it would, I submit, surely tend powerfully to the degradation of study. To be rejected at an examination is not regarded in the same light now as it was formerly; and I think that those who have the opportunity can see some of the mischievous effects of this change. What would be the result if rejection were accepted as a matter of course? If rejection entailed no discredit, with most men the last state would be worse than the first.

But, even with regard to the diligent and able, does Mr. Hutchinson believe—considering the present state of knowledge, and what is required of the student—that the period now prescribed by regulation is long enough, or could not be extended with advantage? Compare the curriculum of study thirty or forty years ago, and the time allotted to it, with the curriculum and time now, and say whether there has been anything like a proportionate increase. Was the time then in excess of the work to be done in it? Is not the work to be done now in excess of the time? Even for the best men, does any one who can judge think that the few months now allotted to the study of medicine and surgery are at all adequate?

But the chief evil lies deeper, and has wider issues. If men in general, from first to last, really worked in due order at the hospital; giving to each subject, according to their ability, a fair and reasonable amount of time and attention; going up to and passing their examinations only when they were qualified, some earlier and some later, much might perhaps be said in favour of the scheme. But, as the matter stands now, the vast majority of our students are assuredly demoralised by it. Seeing more or less clearly from the beginning what they have to face, or guided by those whose chief concern is to get them "through", genuine thorough work is soon put out of the question; and a process of cramming or grinding is made to do duty for it. The acquisition of real knowledge, and of the ability hereafter to "practise", is made subservient to "getting through"; and the best part, I had almost said the only sound part, of professional education, is begun after the ordeal has been passed. This, I take it, is the great evil of the present state of things: for it strikes destructively at the root of education. It tempts men to substitute base metal for sterling coin; and it does its best to make them succeed in passing it.

Mr. Hutchinson says that, if we prolonged the period, "the careless would still, as now, idle till near the end of it". No doubt; just as now a few of the ablest men can manage to pass a very good examination at the end of the appointed time. But what is the value of this argument? Those who are responsible for medical education ought to consider the majority: they have to legislate for the average man. And, regarding what has to be done, does Mr. Hutchinson, or any one else who is able to form an opinion, believe that the time at present prescribed is sufficient for the purpose? If we know that it is not enough for the ordinary student, what right have we, by our regulations, to tell him that it is? I am, sir, your humble servant,

August 22nd, 1881. WILLIAM S. SAVORY.

IRISH COLLEGE OF SURGEONS.

SIR,—As an effort is being made by a considerable section of the Fellows of the Irish College of Surgeons to save that Corporation from its new education scheme, I trust you will allow me to give a few reasons which are influencing some of us to oppose this so-called reform.

1. While a substantial reduction in the number of lecture courses was held out as a leading principle of the scheme, only three courses have been taken—viz., the botany, one course of anatomy, and one of physiology. As the two last-mentioned courses were hardly ever attended, seeing they were each the third of a triplicate series, the reduction is more apparent than real.

2. The student is to be examined on physiology (presumably to a large extent the physiology of the nervous system, since that of the circulatory, respiratory, and digestion system is specified for the second year's examination) at the end of his third year, though he has had no lectures on the subject since his second year.

3. At the end of his second year (really his first in so far as hospital attendance and lectures are concerned) he is to be examined on the terminations, signs, etc., of inflammation and other subjects, which, if they are not to be left to empiricism, demand some advanced knowledge of surgical pathology.

4. I believe this to be the greatest objection of all. The student in his first year is *recommended* (but not required) to attend two sets of lectures—viz., on anatomy and chemistry. This is his entire year's work, and it is optional with him to do it or not. True, he must pass an examination at the end of the year in—*a.* A Miscellaneous amount of physics which there is no provision for teaching him, so that he must acquire his knowledge as best he may; *b.* Elementary botany; *c.* Elementary chemistry; *d.* Human osteology; *e.* Elementary pharmacy.

Now, if the student spend his first winter in town, taking out, as the Council of the College recommend him, lectures on anatomy and chemistry, that he will not have sufficient fixed employment for attendance on hospitals or dissections during this year is not even recognised; and as I have already stated, for the other subjects of his examination he is left to his own devices. If he remain in the country, he can hardly help falling a victim to desultory habits, which will ruin all hope of future systematic study.

What I believe will be the result of this new scheme in the majority of cases will be somewhat like the following. The student, after passing his preliminary examination, will spend nine or ten months in idleness, or in avocations other than medical; and, when within two months of his first professional examination, appalled by the mechanics, hydrostatics, heat, electricity, and the rest of the physics, he will have recourse to the science-grinder to be coached in the circle of questions in which his examiner is supposed to move. If in Ireland practice were conducted upon the same lines as in England, it might, perhaps, be urged that the student could profitably spend his first year in the surgery of the country practitioner; but with us dispensing when it can be helped is avoided, and, save in county infirmaries, there is no means of giving clinical instruction. The entire ideas and practice of medical men in Ireland would have to be revolutionised, before a youth could be able to spend *bonâ fide* an *annus medicus* in an average county town.

I think, sir, these reasons justify a number of the Fellows of this College in petitioning against a scheme that will lower the status and the education of our practitioners, and in the end injure the prestige and the fortunes of our Corporation.

The scheme was submitted to the general body of the Fellows only a week before the annual meeting. Even at the annual meeting it was carried only by 31 votes to 28, and some of those who voted for it now express their hope that it may not be put in operation. A scheme thus hurriedly laid before the profession can never give satisfaction.

Trusting that the Secretary of State will withhold his sanction till he has better means at command of knowing Irish opinion on this very sweeping change, I am, etc.,

A DUBLIN HOSPITAL SURGEON AND F.R.C.S.I.

HEIFER LYMPH.

SIR,—I noticed a letter in the BRITISH MEDICAL JOURNAL of last week from Dr. P. M. Braidwood, stating that he had arranged with Dr. Martin, of Boston, for a weekly supply of animal vaccine from America, and that he would supply the vaccine from three different sources of original cow-pox, cultivated by Dr. Martin.

Through the kindness of Dr. Cameron, M.P., I had the pleasure of meeting Dr. Martin when he was in London a few weeks, and likewise of receiving from him practical instruction in the method of

vaccinating animals, and of taking and storing lymph from them, as he has practiced in America for fully eleven years. Dr. Martin was also good enough to present Dr. Renner and myself with supplies of the three different stocks of animal lymph in his possession—viz., the Beaugency, the Esneau (Belgian), and the Cohasset (a recent American source). With these I successfully vaccinated a calf.

I am carrying on the vaccination of calves every five or six days with each of the above-mentioned kinds of lymph, and also the stock I have used for now nearly a year, the Utrecht; so that the medical profession in this country can have the vaccine fresh from the heifer without having to wait to get it from America at the lapse of at least a fortnight between the time of its being taken from the animal and their receiving it.—I remain, yours faithfully,

J. W. COOK, M.D.

Manningtree, Essex, 31st August, 1881.

TREATMENT OF CURVES OF THE TIBIA BY ANTISEPTIC OSTEOTOMY.

SIR,—Having seen in the JOURNAL of July 30th Mr. Chavasse's account of his method of treating rickety tibial curves by antiseptic osteotomy, I can bear witness to the perfect success obtained by him in the cases referred to, as I had an opportunity of seeing them at a meeting of the Midland Medical Society in April last. I shall be glad, however, if you will allow me to say a few words on a subject which is of such great interest to all orthopædic surgeons, by whom this class of cases is met with probably more often than any other.

As to the age at which osteotomy should be performed, from the results of some hundreds of cases that have been under my observation at the Birmingham Orthopædic Hospital, I can safely say that there are none under the age of six years that are not amenable to persistent and long-continued treatment with properly constructed instruments, combined with suitable antirachitic medicines. In the case of anterior tibial curves, which often exist in ill-fed and ill-nourished rickety children, the bone assuming a kind of ram's-horn appearance, I grant that the instrumental treatment is anything but satisfactory, as also in the case of anterior femoral curves.

Now, the cases cited by Mr. Chavasse are all under six years of age; and the deductions I wish to draw from my observations in connection with this class of cases are, that the operation is not only perfectly justifiable, but also a great advance in orthopædic surgery, and that, in anterior tibial and anterior femoral curvatures, it may be performed at any age after the child is able to walk; but that in lateral tibial curves I consider instrumental treatment should be persevered with until the child is between seven and eight years of age, for, however slight the risk to life may be under strict Listerian measures, there *is* a risk, which does not apply to the equally efficacious, though certainly more tedious, instrumental treatment.

I should be interested to know, also, the condition of Mr. Chavasse's cases in two or three years' time; for I cannot but think that, despite the constitutional treatment, the rachitic condition would have a tendency to continue to a certain extent in the new bone-tissue, in very young children, so that it would be necessary, even then, to apply an instrument to prevent a return to the curved condition.

In conclusion, although Mr. Chavasse has had such a series of successes in his treatment of these cases as out-patients, I cannot help thinking that a surgeon must feel a certain amount of anxiety in sending a patient away with one or more compound fractures (even with the strictest antiseptic precautions), and leaving the duty of discovering any "feverishness or other abnormal symptoms" to the (if I may coin the word) un-Listerian mind of its mother.—I am, yours faithfully,

EDWD. L. FREER,

Honorary Assistant-Surgeon, Birmingham and Midland Orthopædic Hospital.

PROMOTIONS.—The following surgeons-major have been promoted to the rank of brigade-surgeon. 1. In the Bengal Medical Establishment: Alfred Dale; Benjamin Simpson, M.D.; Robert F. Hutchinson, M.D.; John Picthall, M.D.; George V. Currie; Theobald Ringer, M.D.; Philip W. Sutherland; Alfred Eteson, M.D.; William Watson; Alexander J. Cowie; William J. Palmer, M.D. (since retired); James H. Loch, M.D.; Robert Rouse; James R. Jackson, M.D.; Archibald M. Garden (since retired); John Brake; Alexander Garden; William Walker, M.D.; George A. Watson; Theobald Mathew; James Fairweather, M.D.; Charles J. Jackson; Robert Bird, M.D.; John M. Coates, M.D. 2. In the Bombay Medical Establishment: Lewis S. Bruce; William P. Partridge; Henry Cook, M.D.; John Pinkerton, M.D.; Christopher Joynt, M.D.; William E. Cates; John Cruickshank, M.D.; Charles K. Colston; William H. Colvill.

OBITUARY.

JAMES LUKE, F.R.C.S., F.R.S.

ON the 15th of last month, another name was added to the list of deceased medical men whose labours during the first half of this century have effected a permanent advance in scientific surgery. We allude to James Luke, F.R.S., who died at the ripe old age of eighty-two, at his country residence at Fingest, High Wycombe, Buckinghamshire. So many years have elapsed since he retired from the active pursuit of his profession, that the modern generation of medical practitioners know only the name of James Luke as associated with the subject of Hernia, to which he gave for many years of his life a zealous and successful study. His career affords the most unvaried example of what the combination of surgical aptitude and surgical opportunities will effect. Given a young student with a taste for handling the knife and mechanical invention, and a London hospital, or indeed a hospital in any large and populous city, and the result is almost certain to be a concentration of the mental energies on some one particular subject which receives the closest attention. Poor suffering humanity, in some of the ills that so grievously beset it, finds an unexpected and unlooked-for alleviation. So minute is the study, that the length and form of the incision with the knife is of the utmost importance. James Luke's hobby was hernia. His mode of operation for femoral hernia may be shortly described as this. Make a small longitudinal incision over the seat of stricture, and a subsequent division of the stricture, with as little disturbance of the tissues as possible, and the result will be cure, and not death. He proved the success of his operation by statistics, which showed a very remarkable diminution of mortality in the cases operated upon; and he gave the medical world the benefit of his experience in contributions made to the *Medical Gazette* in the years 1841 and 1843, and in the thirty-first volume of the *Medico-Chirurgical Transactions*, and other journals. Dr. Barker, of Bedford, has done no more than justice to the subject of this memoir when he says in his notice of James Luke, published in the year 1867, that his improved operation for hernia has already saved many lives, and its benefits will be felt as long as mankind require the aid of surgery.

Mr. Luke was born at Exeter in 1798, and in 1816 he became a student at the London Hospital. The great surgeons of that day—Abernethy at St. Bartholomew's, and Sir Astley Cooper at Guy's—helped to give a strong impetus to his turn for surgical science. He was a close attendant upon their lectures, and at the end of five years Mr. Luke began to teach anatomy at the London Hospital. He became lecturer on anatomy at that hospital in 1823, and lecturer on surgery in 1825. Shortly afterwards he was elected assistant-surgeon, and in 1833 he attained the high position of surgeon to the London Hospital, which he held for nearly thirty years. He was twice President of the College of Surgeons: the first time in 1853, and the second time in 1862. He resigned his appointment of surgeon to the London Hospital in 1861, and in the following year he retired from town to country life. When he was President of the College, in 1862, he was "well-known of his brethren" in the medical profession. Twenty years of retirement go far to obliterate the traces of a man's career, and the new generation knows the name only as of one who has been mighty in his day. It cannot be said of Mr. Luke that he had a literary turn in his profession. There are men amongst us who are as gifted in the use of the point of the pen as in the use of the point of the knife, and to them belongs a more enduring record of their labours and skill, and of their special and peculiar achievements. It is, however, reasonably certain that for generations to come Mr. Luke's name will be identified with his successful study of the best operations for hernia, and will be deservedly held in honour by medical men.

At the grand old age of eighty-two he has gone to his rest, and was buried at Kensal Green Cemetery on the 20th ult.

He was twice married. His first wife was Ann, daughter of W. Rayley, Esq., and the family he had by her predeceased him. His second wife was Irene, daughter of Arthur Willis, Esq., and by her, who survives him, he leaves three children—one son and two daughters.

AMERICAN OTOLOGICAL SOCIETY.—At the last annual meeting, held in Newport, Rhode Island, July 26th, 1881, the following gentlemen were elected officers for the ensuing year. *President:* Dr. J. Orne Green of Boston; *Vice-President:* Dr. J. S. Prout of Brooklyn; *Secretary and Treasurer:* Dr. J. J. B. Vermyne of New Bedford; *Committee on Publication:* Drs. J. J. B. Vermyne, C. J. Blake, and J. Orne Green; *Committee on Membership:* Drs. John Green of St. Louis, C. H. Burnett of Philadelphia, and H. G. Miller of Providence.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—First M.B. Examination, 1881. Examination for Honours.—Anatomy.

First Class.

Pridgeaux, Frances Helen (Exhibition and Gold Medal), London School of Medicine for Women.
Wenyon, Edwin James, B.A., B.Sc. (Gold Medal), Guy's Hospital.

Second Class.

Targett, James Henry, Guy's Hospital.
Martin, Albert, Guy's Hospital.

Third Class.

Merrifield, Sydney Sargent, King's College.

Physiology and Histology.

First Class.

Thorburn, William, B.Sc. (Exhibition and Gold Medal), Owens College.
Hind, Wheelton, Guy's Hospital. } equal.
Turner, Alfred Jeffers, University College. }
Reynolds, Ernest Septimus, Owens College.
Thomson, Theodore, University of Aberdeen and University College. } equal.

Second Class.

Knight, Frederick, University College.

Third Class.

Horrocks, William Henry, University College. } equal.
Targett, James Henry, Guy's Hospital. }
Shore, Thomas William, B.Sc., St. Bartholomew's Hospital.
Wenyon, Edwin James, Guy's Hospital.
Cave, Edward John, St. Bartholomew's Hospital.

Materia Medica and Pharmaceutical Chemistry.

First Class.

Vaux, Alfred Monox, (Exhibition and Gold Medal), King's College.
Merrifield, Sydney Sargent, King's College.
Scharlieb, Mary Ann Dacomb, Madras Medical College and London School of Medicine for Women.

Second Class.

Gostling, William Aylen, University College. } equal.
Shore, Thomas William, St. Bartholomew's Hospital. }

Third Class.

Barker, Charles Frederick, St. Bartholomew's Hospital.
Knight, Frederick, University College. } equal.
Stuart, Thomas Sydney, King's College. }
Cave, Edward John, St. Bartholomew's Hospital.

Organic Chemistry.

First Class.

Hind, Wheelton, (Exhibition and Gold Medal) Guy's Hospital.
*Thorburn, William, Owens College.

Second Class.

Targett, James Henry, Guy's Hospital.
Meyer, Charles Herzog Lomo, Guy's Hospital. } equal.
Tomlinson, Emily, London School of Medicine for Women. }

* Obtained the number of marks qualifying for a medal.

The following candidates obtained honours at the recent First B.Sc. and Preliminary Scientific Examination.—Inorganic Chemistry.

First Class.

Maggs, Edward M., First B.Sc. (Exhibition by age for Exhibition), Private Study.

Second Class.

Stroud, Henry, First B.Sc., Owens College.

Third Class.

Small, Evan W., First B.Sc., Christ's College, Cambridge.
Williams, Walter, First B.Sc., St. Peter Martin's College, Birmingham.
Evans, Evan, Prel. Sci., University College of Wales.
Caldecott, Charles, Prel. Sci., Guy's Hospital.
Wright, Mark R., First B.Sc., Private Study, and Firth College, Sheffield.
Bernard, Letitia, Prel. Sci., London School of Medicine for Women.

Experimental Physics.

First Class.

Stroud, Henry, First B.Sc. (Arnott Exhibition and Medal), Owens College.

Second Class.

Mitchell, Alice, First B.Sc., Bedford College.
Bayliss, William M., Prel. Sci., University College.
Williams, Walter, First B.Sc., St. Peter Martin's College, Birmingham.

Third Class.

Wenyon, Edwin James, B.A., B.Sc., Natural Science Tripos, Cambridge. } equal
Vaux, Alfred Monox, First B.Sc., Owens College and Regent's Park College. }
Mariette, Ernest P. A., Prel. Sci., King's College.
Stocker, Edward G., Prel. Sci., University and Regent's Park Colleges. } equal
Besant, Annie, Prel. Sci., Private Tuition. }
Spencer, Walter George, Prel. Sci., Private Study.

Botany.

First Class.

Cheshire, Peter N., First B.Sc., Owens College.
Webb, Henry John, Prel. Sci., University College.
Shipley, Arthur Everitt, First B.Sc., Christ's College, Cambridge.

Second Class.

Braddon, Wm. Leonard, Prel. Sci., Guy's Hospital. } equal.
Weeks, Mary Isabella, First B.Sc., Bedford College. }
Bayliss, William Maddock, Prel. Sci., University College.
Bright, Eustace Frederick, Prel. Sci., University College.
Mitchell, Alice, First B.Sc., Bedford College.

Third Class.

Mariette, Ernest P. A., Prel. Sci., King's College. } equal
Stocker, Edward G., Prel. Sci., University and Regent's Park Colleges. }
Besant, Annie, Prel. Sci., Private Tuition.
Spencer, Walter George, Prel. Sci., Private Study.

Zoology.

First Class.

Bayliss, Wm. Maddock, Prel. Sci. (Exhibition), University College.
Jones, Samuel C., First B.Sc., University College, Wales, Aberystwyth.

Second Class.

Green, Henry Selby, Prel. Sci., University College.
Bright, Eustace Frederick, Prel. Sci., University College.

Third Class.

Stocker, Edward G., Prel. Sci., University and Regent's Park Colleges.
Stroud, Henry, First B.Sc., Owens College.
Melland, Brian, Prel. Sci., Owens College.
Bradford, John Rose, Prel. Sci., University College.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, August 25th, 1881.

Benson, Ernest Walter, Merton, Surrey.
Harris, Walter Thomas, Ipplepen Vicarage, Devon.

The following gentleman also on the same day passed the Primary Professional Examination.

Turner, Alfred James, Charing Cross Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BATH GENERAL OR MINERAL WATER HOSPITAL.—Resident Medical Officer. Salary, £100 per annum, board and apartments. Applications by September 13th.

BETHLEM HOSPITAL.—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C., by October 1st.

BIRMINGHAM FRIENDLY SOCIETIES' MEDICAL INSTITUTION.—Medical Officer. Salary, £200 per annum. Applications to Frederick Girling, Secretary, marked "Medical", 5, Cowper Street, Summer Lane, Birmingham.

BRIGHTON AND HOVE DISPENSARY.—Resident House-Surgeon. Salary £[illegible]. Applications to the Chairman of Committee of Management, [illegible] September.

BURY ST. EDMUNDS FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer. Salary, £[illegible] per annum. Applications to the Secretary by 14th September.

GREAT YARMOUTH HOSPITAL.—Resident House-Surgeon and Dispenser. Salary, £90 per annum. Applications to the Honorary Secretary.

LEICESTER PROVIDENT DISPENSARY.—Medical Officer. Applications to the Chairman of the Board by September 13th.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the Committee by Sept. 12th.

NATIONAL DENTAL HOSPITAL AND COLLEGE, [illegible] Square, W.—Dental Surgeon and Lecturer on Dental Surgery and Pathology. Applications by 15th September.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Physician. Salary £[illegible] per annum. Applications to the Honorary Secretary [illegible]

NEWTON ABBOT UNION.—Medical Officer and Public Vaccinator. Salary £[illegible] per annum. Applications to [illegible]

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney Road.—House-Surgeon. Applications to the Secretary by 26th September.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer. Salary £[illegible] per annum. Applications by September 13th.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary £[illegible] per annum. Applications addressed to the Secretary, by the end September.

POPLAR AND STEPNEY SICK ASYLUM DISTRICT.—Assistant Medical Officer. Salary £[illegible]. Applications to the Medical Superintendent by September 15th.

ROYAL VETERINARY COLLEGE.—Professorship of [illegible] Veterinary Science. Salary £[illegible] per annum. Applications to the Secretary, Royal Veterinary College.

ROYAL ISLE OF WIGHT INFIRMARY.—House-Surgeon. Salary £[illegible] per annum. Applications to the Secretary, Newport.

ROYAL UNITED HOSPITAL, Bath.—House-Surgeon. Salary £[illegible] per annum. Applications to the Secretary, Bath.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—[illegible] Medical Officer. Salary £[illegible] per annum. Applications to the Dean by September [illegible]

ST. BARTHOLOMEW'S HOSPITAL AND COLLEGE.—[illegible] Medical Officer. Salary £[illegible] per annum. Applications by September 5th.

HOWARD ASSOCIATION.—[illegible] Secretary. [illegible]

WEST KENT GENERAL HOSPITAL.—Medical [illegible] Salary £[illegible] per annum. Applications [illegible]

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—Matron and Superintendent of Nurses. Salary, £100 per annum. Applications to the Chairman of the Weekly Board by September 14th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter—Assistant Medical Officer. Salary, £— per annum. Applications before September 14th, to Dr. Philipps, Medical Superintendent.

MEDICAL APPOINTMENTS.

BARTON, T. B., M.B., M.D., L.R.C.S.I., appointed Surgeon to the Donegal County Infirmary, *vice* R. Little, M.B., L.R.C.S.I., deceased.

CLEGG, W. T., M.R.C.S., appointed House-Surgeon to the North Staffordshire Infirmary, *vice* George Russell, M.B., resigned.

ELLIOTT, Horace, M.R.C.S., L.S.A., appointed Senior House-Surgeon to the Macclesfield General Infirmary, *vice* G. D. Pidcock, B.A., L.R.C.P.Ed., resigned.

GOOD, F. T., M.R.C.S.Eng., L.S.A., appointed Deputy Coroner for the Hundred of Toseland, in the County of Huntingdon.

HATTON, G. Stokes, M.B., appointed House-Physician to the North Staffordshire Infirmary, *vice* Horace Elliott, M.R.C.S., resigned.

JONES, R. L., M.R.C.S.E., appointed House-Surgeon to the Carnarvonshire and Anglesey Infirmary, *vice* R. Jones, L.R.C.P.

LEEDS, Edward, M.A., M.B.Oxon., appointed Physician to the Seamen's Infirmary, Ramsgate, *vice* T. A. Henderson, M.D., deceased.

WARD, Edward, B.A., M.R.C.S., appointed House-Surgeon to the General Infirmary, Leeds, *vice* W. H. Brown, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

CLOUTING.—At Thetford, Norfolk, on the 30th August, the wife of J. R. Clouting, M.R.C.S.E., of a son.

WARDLE.—At 4, Belvidere, Bishop Auckland, on the 28th August, the wife of Mark Wardle, L.R.C.P. & S.Ed., of a daughter.

MARRIAGES.

LUNN—NORTHCOTT.—On the 25th August, at St. Mary's Church, Ealing, by the Rev. Herbert Lunn, B.A., Vicar of Christchurch, Wakefield, brother, and the Rev. Henry Martin, B.A., of St. John's, Sunderland, brother-in-law of the bridegroom, assisted by the Rev. E. W. Relton, M.A., Vicar of Ealing, John R. Lunn, L.R.C.P.Lond., M.R.C.S.E., L.S.A., Chief Medical Officer of St. Marylebone Infirmary, third son of W. J. Lunn, M.D., of Hull, to Ida Maund De P., second daughter of W. C. Northcott, M.A., of Rochester House, Little Ealing.

LYONS—SEYMOUR.—On the 31st August, at St. John Baptist's Church, Staveley, Derbyshire, by the Revd. J. Magens Mello, M.A., Rector of St. Thomas, Brampton, Surgeon-Major Richard Thomas Lyons, M.D., of the Bengal Medical Department, to Elizabeth, eldest daughter of the late Martyn Seymour, Esq., of Staveley, and Rodridge House, Heseldon, Durham. No cards.

DR. MARCHAND, *Privat-docent* in the University of Breslau, has been nominated Professor of Pathology in Giessen, in the room of the late Dr. Perls.

BEQUEST.—Mr. T. J. Howell, formerly of Stroud, but who died at Clifton, Bristol, has bequeathed £2000, free of duty, to the Stroud General Hospital.

PRELIMINARY EXAMINATIONS OF THE ROYAL COLLEGE OF SURGEONS.—It is stated that the unprecedentedly large number of 650 candidates will be going through the Arts Examinations for the diplomas of Fellows and Members of the College, at Burlington House next week. As this examination is now abolished by the College, the diminution in the annual income of that institution will be considerable. Seeing there are two examinations held in the year, and the fee paid by each candidate is £2, the amount realised by the above number represents the sum of £1,300.

PUBLIC HEALTH.—The annual rate of mortality during the week ending Saturday, August 20th, in twenty of the largest English towns, averaged 21.7 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Plymouth 13, Sunderland 16, Bradford 17, Bristol 17, Norwich 18, Brighton 18, Leeds 19, Birmingham 20, London 20, Portsmouth 20, Oldham 20, Sheffield 22, Manchester 23, Salford 24, Liverpool 27, Newcastle-on-Tyne 27, Wolverhampton 29, Hull 31, Nottingham 31, and Leicester 37. Measles showed the largest proportional fatality in Liverpool and Bristol, and scarlet fever in Hull, Nottingham, and Leicester. The fatal cases of diarrhœa in the twenty towns, which had been 776, 533, and 488 in the three preceding weeks, further declined to 412 last week; the annual death-rate referred to this cause averaged 2.8 per 1,000 in the twenty towns, and ranged from 0.7 and 1.1 in Plymouth and Bradford, to 7.1 and 9.3 in Hull and Leicester. Small-pox caused 41 deaths in London and its outer ring of suburban districts, and one in Hull. In London, 2,532 births and 1,474 deaths were registered. The deaths were 129 below the average. The annual death-rate declined last week to 20.1. During the past seven weeks of the current quarter, the metropolitan death-rate averaged 23.6 per 1,000, against 17.5 and 21.5 in the corresponding periods of 1879 and 1880. The 1,474 deaths included 38 from small-pox, 58 from measles, 51 from scarlet fever, 9 from diphtheria, 28 from whooping-cough, 2 from typhus fever, 15 from enteric fever, 2 from ill-defined forms of continued fever, 141 from diarrhœa, 3 from dysentery, and 6 from simple cholera; thus, 353 deaths were referred to these diseases, being 98 below the average. The fatal cases of diarrhœa, which had been 495, 297, and 210 in the three preceding weeks, further declined to 141 last week, and were 135 below the average. The fatal cases of measles showed an increase of 10 upon the number in the previous week, and exceeded the average by 26. The 51 deaths from scarlet fever were 6 less than those returned in the previous week, and were 11 above the average. The 28 deaths from whooping-cough were 13 below the average. The deaths referred to diseases of the respiratory organs, which had been 165 and 148 in the two preceding weeks, were 153 last week, and exceeded the average by one; 85 were attributed to bronchitis and 45 to pneumonia. Different forms of violence caused 44 deaths; 34 were the result of negligence or accident, among which were 12 from fractures and contusions, 4 from burns and scalds, 4 from drowning, 2 from poison, and 8 of infants under one year of age from suffocation. Seven cases of suicide were registered. At Greenwich, the mean temperature of the air was 58.1°, and 3.8° below the average. The mean degree of humidity of the air was 85, complete saturation being represented by 100. The general direction of the wind was W.S.W., and the horizontal movement of the air averaged 13.2 miles per hour, which was 3.5 above the average. Rain fell on three days of the week, to the aggregate amount of 0.25 of an inch. The duration of registered bright sunshine in the week was equal to 24 per cent, of its possible duration. The recorded amount of ozone showed an excess on Friday, whereas it was below the average during the rest of the week.

HEALTH OF FOREIGN CITIES.—The following facts, indicative of the recent health and sanitary condition of various foreign and colonial cities, are derived from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the annual death-rate averaged 31.6 per 1,000; it was equal to 21.3 in Calcutta, 33.7 in Madras, and 36.8 in Bombay. Cholera caused 15 deaths in Bombay and 11 in Calcutta, and small-pox 23 in Madras. The proportion of deaths from "fevers" was, as usual, large in each of the three Indian cities. The rate in Alexandria was 41.8, 11 fatal cases of whooping-cough being reported. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 31.4 per 1,000 of their aggregate population; whereas, the average rate in twenty of the largest English towns did not exceed 19.1 last week. The rate in St. Petersburg was equal to 51.6; no fewer than 136 deaths were referred to diarrhœal diseases, and 38 to typhus and typhoid fevers. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 19.0, the highest rate being 20.4 in Copenhagen; 6 deaths were referred to enteric fever in Copenhagen, and 3 to diphtheria in Stockholm. The Paris death-rate was equal to 26.0 (against 18.3 in London), and the deaths included 38 from enteric fever, and 12 from small-pox. The deaths in Brussels were equal to a rate of 24.5, and included 4 fatal cases of measles. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 22.7, the highest rate being 24.7 in the Hague; whooping-cough caused 5 deaths in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged no fewer than 34.4 per 1,000; it ranged from 26.0 and 29.2 in Vienna and Hamburg, to 40.5 and 40.9 in Buda-Pesth and Breslau. Diarrhœal diseases caused especial fatality in Berlin, Hamburg, Breslau, and Buda-Pesth; small-pox caused 10 deaths in Vienna. The death-rate was equal to 21.9 in Rome, 34.9 in Turin, and 47.1 in Naples; no fewer than 60 fatal cases of measles occurred in Naples, and diphtheria and typhoid fever caused 8 and 5 deaths in Turin. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 32.8; it was equal to 23.9 in Philadelphia, 29.5 in Baltimore, 35.8 in Brooklyn, and 36.8 in New York. Diphtheria showed fatal prevalence in New York and Brooklyn; typhoid fever and diarrhœal diseases in Philadelphia and Baltimore.

QUININE WITH NERVOUS SEDATIVES.—Dr. Langdon Gray (*Boston Medical and Surgical Journal*) recommends quinine in doses of five to ten grains when the bromides are to be used in full doses. In epilepsy it increased their anti-epileptic tendency, whilst it diminished or dispelled the bromism. It acts in a similar way to belladonna and hyoscyamin. He believes that it may be a general law that tonics and stimulants increase the sedation and lessen the depression of nervous sedatives. Chloral with whisky, or given in a glass of sherry, acts better than when given alone.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—not necessarily for publication.

PUBLIC HEALTH DEPARTMENT. We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

PHYSICAL DEFINITIONS.

SIR,—I shall be glad to know what is the strength per ounce of saturated solutions of sodæ bi-carbonates, potassæ bi-carbonates, ammoniæ carbonates, potassæ chloras, and magnesiæ sulphas; also a prescription for a cheap and effective cough mixture for ordinary dispensary use?—I am, etc., MEDICUS.

VACCINATION STATISTICS.

SIR,—I desire to make a comment on the paragraph at page 395 of this week's JOURNAL, where the small fatality of 2·5 per cent. in the vaccinated is compared with the large one of 48 per cent. in those known to be unvaccinated. "Oh, but", says the *Vaccination Inquirer*, which we hold by right to popularity. "Vaccination is no protection against small-pox for you had no [illegible] among the vaccinated, and only 264 among the non-vaccinated." The *Inquirer* omits also to state that a true comparison of the numbers would show that the 264 cases have been attacked by the disease (searched out, I might say), among the small minority who still, from ignorance and blind prejudice, remain unvaccinated; while the 326 cases represent those attacked in the protected class, whose numbers a very moderate estimate would place at 19 to 1 of those unprotected. The true proportion is larger than I have stated; but assuming that it is [illegible] persons, the number vaccinated is 950,000, and the number unvaccinated 50,000, then the 264 cases are drawn from the latter comparatively small number, and the 326 from the larger. This sufficiently represents the facts, although roughly; probably the exact figures would do so much more strongly.

Then, in addition to the above, the candid inquirer has to consider that, out of the above assumed number, 950,000, although 326 are attacked, only 6 die; while out of the equally assumed [illegible] are attacked, [illegible] die. The above ought to be enough to convince anyone who is open to conviction—which it is only too evident some few are not.—Yours obediently, GEO. D. BROWN.

Ealing, August 26th, 1881.

SUPERINTENDENTS OF LUNATIC ASYLUMS AND THE TENURE OF OFFICE.

SIR,—I wish to bring before the readers of the BRITISH MEDICAL JOURNAL another exception to that maxim which has long been a foundation-stone of English jurisprudence, nevertheless a rule which has often been proved the stronger by exceptions—"ubi jus, ibi remedium". The case is one especially affecting such of my medical brethren as hold appointments under the Lunacy and Poor-law Acts, and I would draw their attention to the facts.

On June 9th last, I received an intimation from the Committee of Visitors of the Somerset and Bath Lunatic Asylum, that, in three months' time from that date, they would dispense with my services as medical superintendent and medical officer of that asylum, a position to which I was appointed in July 1868, after having been assistant medical officer there for eight years previously. I had, in March of this year, been requested by the committee to resign, but refused to do so, no reason being furnished to me, and no complaint being made against me justifying such a request. I asked the committee to give me a distinct and specific statement in writing of the reasons why they required me to resign, and were dissatisfied with my conduct. They declined to do so, and I am now dismissed from a post which I have occupied for thirteen years, in utter ignorance of any adequate and justifiable grounds for the course which the committee have thought fit to take.

On seeking legal advice as to my position, I am informed that I have no redress before a judicial tribunal, the committee, under the fifty-fifth section of the Lunacy Act, 1853 (16 and 17 Vict. c. 97), having an absolute discretion as to the retention or discharge of their medical officers. This enactment is not construed according to the general and righteous spirit of the law, which requires that the party to be affected by a judgment of any tribunal shall have the opportunity given him of defending himself; but a discretionary power to remove being given to the committee, they may exercise it without notice, and without any statement of the grounds of removal.

Surely, sir, this is not as it should be! It seems to me a most unjust thing that a man may be dismissed from an office to the duties of which he has devoted the best years of his life, that a serious injury may be inflicted on his future prospects, and an irreparable stain cast upon his professional reputation, without any cause being alleged. According to the common law of the land as to employers and employed, there should always be a sufficient reason to justify a master in dismissing his servant. It appears that I and every medical superintendent are in a worse position than any menial or domestic servant, a Committee of Visitors being able to shelter itself from any action for damages for wrongful dismissal, and from the exposure consequent thereon, under the terms of the statute before referred to, and the judicial interpretation thereof.

My object in writing this letter is to call the attention of medical men throughout the country, holding similar appointments to mine, to the terms of the tenure of such offices, that they are liable to be dismissed, as I have been, at the caprice of their employers. It would be unduly trespassing on your space to enter into details vindicating my conduct, and setting myself right before your readers. I simply extract my clear with giving extracts from the year's reports presented by the Committee to the Court of Quarter Sessions.

Report for 1877, presented to the Court of Quarter Sessions held at Taunton, January 1st, 1878: "The management of the asylum, conduct of Dr. Medlicott, the officers and servants thereof, and the care of the patients therein, have been satisfactory."

Report for 1878, presented to the Court of Quarter Sessions held at Taunton, January 1st, 1879: "That the management of the asylum has been satisfactory, as well as the conduct of the officers and servants, and the care of the patients."

Report for 1879, presented to the Court of Quarter Sessions held at Taunton, January 6th, 1880: The Committee have to report that, excepting the very serious inconveniences caused by the epidemics, and the crowded state of the asylum, its state and condition have been satisfactory; and the management of the asylum, and the conduct of the officers, under the peculiar difficulties just referred to, have been satisfactory."

Report for 1880, presented to the Court of Quarter Sessions held at Taunton, January 4th, 1881: "During the past year, the health of the inmates has been good, and the medical treatment, as well for the prevention of disease as for the cure or relief of it, has been satisfactory, as also the conduct of the officers and servants of the asylum."

I trust that the relation of my case, and [illegible] may lead my medical brethren, holding Poor-law appointments, to agitate for a change in the law. I am, sir, yours faithfully,

CHARLES W. C. M[illegible], M.D., M.R.C.S., Superintendent.

Somerset and Bath Asylum, Wells, August 1881.

ACONITE. We quite agree with [illegible] and believe that, under the circumstances stated, a judge would [illegible]

SIR,—Can any member of the British Medical Association [illegible] the most expensive material for making a [illegible] by heat, such as can be used in a private [illegible]

WILLIAM HENSMAN, Brigade Surgeon A.M.D.

1, Alexandra Mansion, South Parade, Southsea, August 24th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE MACCURDA HEATH.

SIR, You have published [illegible] by putting [illegible] the [illegible] to bring to half [illegible] I am, etc.,
14, City Road, E.C., August 15th, 1881.

LUPUS VACCINATED AND SYPHILIS.

SIR, I am in doubt whether a person who has had secondary symptoms, from which he has apparently [illegible] be vaccinated with safety. I have [illegible] had he [illegible] R. D.

TEXT-BOOKS OF MORBID ANATOMY.—The chief text-books in English of morbid anatomy are Wilks and Moxon's *Lectures on Pathological Anatomy* (London, 1875), Harrison Fenwick and Stocking's *Manual of Pathological Anatomy* (edited by Dr. Payne) (London, 1878); Delafield's *Handbook of Post-Mortem Examinations*, etc. (New York, 1872). Dr. Green's well known book is rather a Manual of Pathology than of Morbid Anatomy.

PLASTER-OF-PARIS CASTS.

SIR,—I shall be obliged if some member will, in your column for correspondents, give me a short description of the best way of taking plaster-of-Paris casts of hands, feet, etc.—I am, etc., ZYTHOS.

NITRO-GLYCERINE.

SIR,—All we need say, in reply to "T. D.", in your Journal of this date, that I have found the nitro-glycerine tablets prepared by W. Martindale, 10, New Cavendish Street, Portland Place, London, W., the most convenient and ready method of using nitro-glycerine. Each tablet contains [illegible] which is quite sufficient to begin with. I have also used a one per cent. solution prepared by Corbyn and Co., of which I use one minim doses until I have ascertained the individual susceptibility to the influence of the drug.—Yours truly,
Richmond House, Turvey, Beds, August 27th, 1881. WM. J. MACKIE.

THE letters of Mr. R. H. S. Carpenter and Mr. Holthouse will appear in an early number.

HEIFER VACCINE.

IN inserting Dr. Braidwood's letter on Heifer Vaccine last week, his address—17, Rodney Street, Liverpool—was accidentally omitted.

A VEXED QUESTION.

SIR,—If your correspondent of this date, "Vexed and Perplexed", had been a careful reader of the BRITISH MEDICAL JOURNAL, he would have found, in the following pages of that for the first half-year 1880 (viz., 603, 702, 703, 800, 41, 142), carefully collected data embracing legal opinions quite sufficient to dissipate his perplexity. I trust, in addition to having his perplexity dissipated by the exposition of the law in some of the pages enumerated, your correspondent may also have his vexation allayed by additional practice, resulting from the resumption of his title of physician, which appears to have lain dormant since it was conferred upon him.—Yours truly, PHYSICIAN AND SURGEON.

UNQUALIFIED PRACTITIONERS.

SIR,—With reference to the practising of unqualified practitioners in the colonies, it seems to me that our colonial friends will gain little by bringing their complaints before the press of the mother country; for there are probably few parts of the world in which such persons can practise with so much impunity as they can in England. One of these men has been for years allowed to practise, without any registrable diploma, in a south-coast watering-place. He styles himself "Dr.", and lives in a grand house, drives a smart carriage and pair, and has one of the best practices in the town. He injures nobody except his patients and the qualified medical men of the town; and they probably do not like the invidious task of prosecuting him, as such a course would certainly be attributed to private spite. The Incorporated Law Society prosecutes men who falsely pretend to be solicitors; why cannot the Medical Council do the same to unqualified doctors? Is it too grand or too busy to be able to concern itself with the honour of the medical profession? or does it lack the necessary funds? If so, for what purpose are we made to contribute £5 5s. to its funds for registration?

It seems useless to agitate for direct representation, etc., when the Council does not carry out the obvious and elementary duty of prosecuting unqualified practitioners. A private society prosecutes (and very properly) a few poor fellows who manage "branch establishments" in the slums of London, on behalf of their employers; but why should the great offenders, who drive their carriages and fabricate their diplomas, be allowed to go unpunished? I enclose my card, and remain, sir, your obedient servant, X. Y. Z.

A CARD.

THE following advertisement from an Indian newspaper has been sent to us. "Card. Undersigned having obtained, direct from London, a consignment of pharmaceutical, patent, and proprietary medicines, also toilet requisites, is prepared, after a medical experience of thirty-eight years, to transact business as medical practitioner and dispenser on moderate terms. Francis John Grose, Member of the Royal College of Surgeons, England. The Poplars, Murree".

IMPACTED NEEDLE EXTRACTED BY MEANS OF THE MAGNET.

SIR,—Miss R. consulted me on the evening of July 30th respecting a portion of a large thread-needle that was impacted in the palm of her left hand, and informed me it had been there for a month; and that an endeavour had been made to extract it, when only the point was removed; also that two or three incisions had been made at intervals, and poultices applied.

Upon examination, I found a swelling over the seat of injury; every touch appeared to give pain, extending up the arm. Making a free incision, and probing the wound, I could not detect the needle, although she felt it prickling. I advised her to poultice the hand, and return in a day or two, when I would again see if I could reach it. As she was leaving, I casually said, "Get a magnet and place over the opening, and see if that will displace it". She returned to me on the Monday, and, with a smiling face, in her graphic way informed me "she had got it out"; and gave the following version.

"I got a common penny magnet, and, extending my hand upon the table, whereby [illegible] minutes, [illegible] felt a pricking movement, and, upon looking, found matter at the mouth of the wound. Presently, a small black speck was noticed, and, on still applying the magnet, it brought the point of the needle to view, and finally extracted it."

I [illegible] it was [illegible] black, and without the point. As this is an illustration how accidents of this nature can be [illegible] I [illegible] you may [illegible] you, sir, to [illegible] you may deem [illegible] you may throw.
Lower Wilton Cottages, Upper Norwood, August 4th, 1881. [illegible]

SIR,—The following passage from *Wilhelm Meister* (Book 8) is worth the attention of the [illegible] a meeting [illegible] of lobsters and prawns. "The eagerness of the child, when he saw any living thing suffer injury, affords the greatest [illegible] excellent disposition. The boy made a fierce onslaught on the kitchen-maid for cutting up some pigeons. This exalted conception was, however, soon demolished [illegible] at the least [illegible] flies to pieces. This trait reminded him of many men, who appear in the highest degree [illegible] This is an example of the lines in *Hudibras*:

"Compound for sins they are inclin'd to,
By damning those they have no mind to."

G.

TEMPERATURE OF BATHS. [illegible] subject, kindly tell me of what temperature the water of a tepid swimming-bath should be during spring, summer, autumn, and winter?—R. L. B.

THE INDIAN MEDICAL SERVICE AND THE PROPOSED MEMORIAL TO THE ARMY MEDICAL OFFICERS.

SIR,—My fellow medical officers of the Indian army will hardly credit me, when I inform them that, by the decision of the committee at Whitehall, the proposed memorial to the memory of the army medical officers who fell in the campaigns in Afghanistan and Zululand, is to be confined to the officers of the Army Medical Department, and has not any reference to the memory of the officers of the Indian Medical Service; yet such is the case.

As far as I have been able to gather, twelve medical officers lost their lives from wounds received in action, or from disease contracted during the campaign, whilst serving their country in Afghanistan. Of these, six belonged to the Indian army. The Indian Medical Defence Fund has done good service in pointing out how, under the specious guise of amalgamation, the military branch of the Indian Medical Service has been absolutely raised. It has, however, been reserved for the committee of the proposed memorial to show to the officers of the Indian Service that, notwithstanding this amalgamation of the two services under one Surgeon-General—always, be it remarked, belonging to the Army Medical Department—a memorial, which should have been common to all medical officers who fell in the campaign in Afghanistan, has been reserved exclusively for those of the Army Medical Department.

I would suggest, through the medium of your columns, that a committee be formed in India for erecting, likewise, a memorial to those surgeons of the Indian army who lost their lives whilst serving their country in Afghanistan.—I have the honour to be, sir, your obedient servant,
ANDREW DUNCAN, M.D., B.S.Lond., F.R.C.S., Surgeon late attached to 8th Bengal Cavalry.
8, Henrietta Street, Covent Garden, August 13th, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—
Dr. C. Y. Biss, London; Mr. J. Matthews, Liverpool; Mr. C. G. Wheelhouse, Leeds; Dr. J. Hill, London; Dr. P. H. McKellar, Stockwell; Mr. L. Lyddon, Ramsgate; Dr. C. A. Duckett, Great Yarmouth; Mr. E. Freer, Birmingham; Mr. W. H. Powell, Ross; Physician and Surgeon; Mr. G. D. Brown, Ealing; Mr. J. J. Archbold, Alnwick; Dr. J. Rogers, London; Dr. Hess, London; Dr. P. J. Macnamara, Bruff; Surgeon-General Francis, Clapham; Dr. W. Easby, Cambridge; A Provincial Member; Mr. A. D. MacDonald, Liverpool; Mr. W. Raine, Darlington; Dr. Denne, Edgbaston; A Southsea Member; Dr. Charles Mercier, London; Our Edinburgh Correspondent; Dispenser; Mr. W. Sneddon, Beith; Mr. G. B. Collet, Worthing; Mr. C. H. Glassington, London; Mr. F. T. Good, St. Neots; Our Glasgow Correspondent; Dr. Turner, London; Mr. J. T. Mugford, New Quay; Mr. Hutton Castle, Newport, Isle of Wight; Mr. R. L. Batterbury, Berkhampstead; Dr. Braidwood, Liverpool; Mr. Horsfall, Leeds; Mr. T. H. Brooklehurst, Darley Dale; Dr. F. W. Bernard, London; Mr. Geo. Eastes, London; Our Dublin Correspondent; Dr. Gillespie, London; Mr. J. Ll Roberts, Denbigh; Mr. W. Lockhart, Blackheath; Mr. E. Owen, London; Dr. Cook, Manningtree; Dr. G. W. Hutchison, Chipping Norton; Mr. Clouting, Thetford; Dr. Ormsby, Dublin; Mr. S. Macvie, Chirnside; Mr. F. Rawle, Titchfield; Dr. H. L. Snow, London; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,, ...	20 ,,
,, 26 ,, ,, ...	25 ,,
,, 52 ,, ,, ...	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

REGULATIONS

OF

THE GENERAL MEDICAL COUNCIL AND MEDICAL LICENSING BODIES.

SESSION 1881-82.

RECOMMENDATIONS OF THE GENERAL MEDICAL COUNCIL ON EDUCATION AND EXAMINATION.

PRELIMINARY EXAMINATION.—1. No person is allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education as hereinafter provided.—2. The Executive Committee is to prepare annually and lay before the Council for recognition a list of examining bodies, whose examinations fulfil the conditions of the Medical Council as regards general education.—3. For the present, testimonials of proficiency granted by educational bodies, according to the subjoined list, are accepted; the Council reserving the right to add to or take from the list. (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.) I. *Universities of the United Kingdom. Oxford:* Responsions; Moderations.—*Cambridge:* Previous Examination; Higher Local Examinations; Junior Local Examinations, Certificate to include Latin and Mathematics, and also one of the following optional subjects, viz., Greek, French, German, Natural Philosophy, including the Elements of Statics and Hydrostatics.—*Durham:* Examination for Students at end of first year; Registration Examination for Medical Students.—*Oxford, Cambridge, and Durham:* Examination for Degrees in Arts; Senior Local Examinations, Certificate to include Latin and Mathematics.—*Oxford and Durham:* Junior Local Examinations, Certificate to include Latin and Mathematics, and also one of the following optional subjects: viz., Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—*Oxford and Cambridge Schools' Examination Board:** Certificate to include Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, including the First two books of Euclid; Latin, including Translation and Grammar; and one of the following optional subjects: Greek, French, German, Mechanical Division of Natural Philosophy.—*London:* Matriculation Examination; Preliminary Scientific (M.B.) Examination; Examination for a Degree in Arts or Science.—*Aberdeen, Edinburgh, Glasgow, and St. Andrew's:* Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery; Local Examiners (honours certificates at Aberdeen and St. Andrew's; senior and junior certificates at Edinburgh; senior certificate at Glasgow); Certificates in each case to include English Literature, Arithmetic, Algebra, Geometry, Latin, and also one of the following optional subjects: Greek, French, German, Natural Philosophy.—*Edinburgh:* Preliminary Examination for Graduation in Science.—*Dublin:* Public Entrance Examination; Examination for a Degree in Arts.—*Queen's University (Ireland):* Local Examinations for Men and Women; Certificates to include all the subjects required by the General Medical Council, as set forth in Recommendation 4; Entrance or Matriculation Examination; Previous Examination for B.A. Degree; Examination for a Degree in Arts. II. *Other bodies named in Schedule (A) to the Medical Act.—Society of Apothecaries in London:* Examination in Arts.—*Royal Colleges of Physicians and Surgeons of Edinburgh:* Preliminary Examination in General Education, conducted by a Board appointed by these Colleges combined.—*Faculty of Physicians and Surgeons of Glasgow; and Apothecaries' Hall of Ireland:* Preliminary Examination in General Education.—*Royal College of Surgeons in Ireland:* Preliminary Examination; Certificate to include Mathematics. III. *Examining Bodies, in the United Kingdom, not included in Schedule (A) to the Medical Act.—Royal College of Preceptors:* Examination for a First or Second Class Certificate; provided that in the case of the latter, the candidate has passed in the First or Second Division, and has taken Algebra, Euclid, Latin, and a Modern Language.—*The Examiners for Commissions and Appointments in Her Majesty's Service, Military, Naval, and Civil:* Certificate including all the subjects required by the General Medical Council. IV. *Indian, Colonial, and Foreign Universities, and Colleges.—Universities of Calcutta, Madras, and Bombay:* Entrance Examination; Certificate to include Latin.—*Universities of M'Gill College, Montreal; Bishop's College, Montreal; Toronto; Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Fredericton, New Brunswick; Halifax, Nova Scotia; Dalhousie; Sydney; Adelaide; Medical College, Halifax, Nova Scotia; Michigan College of Medicine:* Matriculation Examination.—*Ceylon Medical College:* Preliminary Examination (primary class).—*University of Manitoba:* Previous Examination.—*University of King's College, Nova Scotia:* Matriculation Examination; Responsions.—*University of Otago:* Preliminary Examination.—*University of Cape of Good Hope:* Matriculation Examination; Examination for a Degree in Arts.—*University of New Zealand:* Entrance Examination.—*Codrington College, Barbadoes:* English Certificate for Students of two years' standing, and Latin Certificate, or "Testamur".—*Tasmanian Council of Education:* Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics.—*Christ's College, Canterbury, New Zealand:* Voluntary Examinations, Certificates to include all the subjects required by the General Medical Council.—*Germany and other Continental Countries:* Gymnasial Abiturienten Examen in Germany, and corresponding entrance examinations to the Universities in other Continental Countries.—4. On and after January 1st, 1882, no person will be allowed to be registered as a Medical Student unless he shall have previously passed a Preliminary Examination in: 1. English Language, including Grammar and Composition;* 2. English History; 3. Modern Geography; 4. Latin, including Translation from the original and Grammar; 5. Elements of Mathematics, comprising (*a*) Arithmetic—including Vulgar and Decimal Fractions; (*b*) Algebra—including Simple Equations; (*c*) Geometry—including the first two books of Euclid or the subjects thereof; 6. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics;† 7. One of the following optional subjects: (*a*) Greek; (*b*) French; (*c*) German; (*d*) Italian; (*e*) any other modern language; (*f*) Logic; (*g*) Botany; (*h*) Elementary Chemistry.‡—5. It is desirable that the examination in general education be left to the Universities and such other bodies engaged in general education and examination as may from time to time be approved by this Council.—6. It is recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases in which decided ignorance in the subjects of general education has been displayed by the candidates, with the name of the board or boards before which the preliminary examinations have been passed; and the licensing bodies are requested to transmit such reports to the Registrar of the General Medical Council.

REGISTRATION OF MEDICAL STUDENTS.—7. Every [illegible] shall be registered in the manner hereinafter prescribed by the General Medical Council.—8. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council,§ and has produced evidence that he has commenced medical study.—9. The commencement of the course of professional study recognised by any of the qualifying bodies, shall not be reckoned as dating earlier than fifteen days before the date of registration.—10. The registration of medical students shall be placed under the charge of the Branch Registrars.—11. Each of the Branch Registrars shall keep a register of medical students, according to a form indicating the name; the preliminary examination, with date thereof; the date of registration, and the place and date of commencement of medical study, as certified by a master, or a teacher, or an official in a medical school or hospital.—12. Every person desirous of being registered as a medical student shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to a form which

* The English is provided for by the following resolution of the Executive Committee: "That, as every candidate for the certificate of the Oxford and Cambridge Schools' Examination Board is required to answer questions in such a manner as to satisfy the examiners that he has an adequate knowledge of English grammar and orthography, this shall be held as conforming to the requirements of the Medical Council in reference to English language."

* The General Medical Council will not consider any Examination sufficient that does not fully test the ability of the candidate—1. To write sentences in correct English on a given theme; attention will be paid to composition as well as to the grammatical construction of sentences. 2. To correct ungrammatically constructed sentences, and to explain derivation and definition of English words in common use.

† This subject may be passed [illegible] as Preliminary to the Professional Examination.

‡ The examinations in General Education [illegible] accepted as hereinafter [illegible], but if any of these subjects Mechanics of Solids and Fluids be not included, a knowledge of these subjects will be required at a subsequent [illegible]

§ Exceptions may be [illegible] a Student possessing a Degree in Arts in any British or Foreign University or College, [illegible] equivalent Examination [illegible] fairly represents a standard of general education [illegible] country

may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and evidence that he has commenced medical study.*—13. The Branch Registrar shall enter the applicant's name and other particulars in the *Students' Register*, and shall give him a certificate of such registration.—14. Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is Registrar, a sufficient number of blank forms of application for the registration of medical students.—15. The several Branch Councils —and in England the Executive Committee, if its meeting be more convenient and the case be urgent—shall have power to admit special exceptions to the foregoing regulations as to registration, for reasons which shall appear to them satisfactory.—16. A copy of the *Medical Students' Register*, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st of December in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply a copy of such authorised list to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to each of the several medical schools and hospitals.—17. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts, any candidate (not exempted from registration) whose name has not been entered in the *Medical Students' Register* at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.—18. The Branch Councils are desired to take means to make these regulations known at the various medical schools.

AGE FOR LICENCE TO PRACTISE, ETC.—19. The age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practice, and the age shall in all instances be duly certified.—20. No licence shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student.†

PROFESSIONAL EDUCATION.—21. The course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act.—22. No teaching or licensing body should insist on the student taking more than one course of lectures on any one subject.—23. The following are the subjects, without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered: 1. Chemistry, including a knowledge of the Principles of Chemistry, and of those details of the science which bear on the study of Medicine, and Chemical Physics, meaning thereby Heat, Light, and Electricity; 2. Anatomy; 3. Physiology; 4. Materia Medica and Pharmacy; 5. Pathology, including Morbid Anatomy; 6. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 7. Surgery, including Surgical Anatomy and Clinical Surgery; 8. Midwifery; 9. Forensic Medicine.—24. The Council will view with approbation any encouragement held out by the licensing bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly professional character.—25. A certificate shall be required by each licensing body from every candidate for its degree, diploma, or licence to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph; and that he is thoroughly informed in every necessary part of the subject.—26. Such a certificate should be received by any licensing body only from an institution where the appointed teacher of vaccination is recognised by the Local Government Board.

PROFESSIONAL EXAMINATION.—27. The different licensing bodies, whether singly or in combination, should frame their examinations so as to secure that the knowledge of every practitioner whose name appears on the *Register* shall have been tested in all the subjects of professional education which the Council has determined to be essential; viz.: (as in Recommendation 23).—28. There should be in future three professional examinations.—29. The professional examinations should be arranged in two divisions; the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study; but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study. The examinations, and the subjects included in each, should be such, and in such order, as may insure, so far as possible, a due continuity and sequence of study.—30. The first division of the examinations should include the following subjects: 1. Chemistry and Chemical Physics; 2. Anatomy: 3. Physiology; 4. Materia Medica and Pharmacy. The second division should include the following subjects: 1. Pathology, including Morbid Anatomy; 2. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 3. Surgery, including Surgical Anatomy and Clinical Surgery; 4. Midwifery; 5. Forensic Medicine. —31. An examination in the earlier subjects of professional study should take place before the end of the first year of professional study. —32. The professional examinations should be conducted both in writing and orally; and they should be practical in all branches in which they admit of being so.—33. Not less than two examiners should take part in every oral and clinical examination.—34. The questions to be answered in writing should be submitted to the whole body of examiners for consideration, and revision, if desirable, before being proposed to the candidates.—35. The written answers should be submitted to more than one of the examiners.—36. Excellence in one or more subjects should not be allowed to compensate for failure in others.—37. The professional examination should be held by the several licensing bodies, except in special cases, at stated periods, to be publicly notified. —38. No University of the United Kingdom should confer any degree in medicine or surgery, whether that of bachelor, doctor, or master, upon candidates who have not graduated in Arts, or passed all the examinations required for the Bachelorship in Arts, or passed, after due course of education, examinations such as are *bonâ fide* academically equivalent to those required for a degreee in Arts.—39. As a general rule, none of the higher degrees or qualifications in medicine or surgery should be conferred on persons who have not shown evidence of higher professional attainments.—40. In the examinations on several of the subjects of the curriculum—such, for example, as chemistry, including chemical physics, physiology, and materia medica—the licensing bodies should limit and define by schedule the extent of examination.—41. In no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly by the lecturer or teacher in that subject in the school in which the candidate has been educated.—42. Observation with the microscope should form part of the examinations of candidates for a licence.—43. Candidates for the final professional examinations should be required to give evidence that they have had opportunities of practical study, with care of patients, as pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or elsewhere.—44. In examinations in anatomy, candidates should understand that they may be called upon to perform actual dissections; and candidates in examinations in surgery should understand that they may be called upon to perform one or more operations on the dead subject. —45. Returns from the licensing bodies enumerated in Schedule (A) of the Medical Act (1858) should be made during the month of January in each year, to the General Medical Council, stating the number of the candidates who have passed their first as well as their second and third examinations, and the number of those who have been rejected at the first and second and third examinations respectively; and the Registrar should forward a sufficient number of forms, with a notice for their being returned in due time.—46. The bodies conferring licences in Dental Surgery should be requested to furnish, during the month of January in each year, according to a certain form, a statement of the

---

Form of application for Registration as a Medical Student.—I hereby apply to be registered as a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. [Name of applicant (to be written in words at length); Surname; Christian name; Preliminary examination, with date thereof; Place and date of commencement of medical study; Applicant's signature; Address; and date of Application.]

Certificate of commencement of Medical Study.—I hereby certify that Mr. ——— has commenced the study of medicine in (insert name of School, or Hospital, or place of apprenticeship, as the case may be); Signature of Master, Teacher, or Official in a Medical School or Hospital. Place and date. To the Registrar of the Branch Council for ——.

N.B.—The word "Master" or 'Teacher" will be held to include any registered practitioner whose pupil the applicant may be at the time. The certificate of examination must testify that the student has been examined in the subjects mentioned in Recommendation 4.

The above form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a Certificate of the applicant's having passed a preliminary Examination, as required by the General Medical Council.

† Exception may be allowed in the case of any Graduate in Medicine of an Indian, or Colonial, or Foreign University, or of any Student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of General Education, shall have spent the whole or three-fourths of that period at an Indian, Colonial, or Foreign University, the several Licensing Bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year, in regard of such exceptional cases.

nature of the examinations—whether written, *viva voce*, or practical (one or all of the three)—and of the number of candidates for their licences, showing the respective numbers passed and rejected.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

ANY person who shall have satisfied the College touching his acquirements in general Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the By-Laws and Regulations of the College, may be proposed to the College to be admitted a Member. (For synopsis of Regulations, *see* pp. 428 and 429).

Every candidate who has prosecuted his studies abroad, whether in part or to the full extent required (except such as shall be exempted), shall nevertheless bring proof of his having attended, during at least twelve months, the medical practice of a hospital in the United Kingdom containing at least 100 beds.

Examinations.—Every candidate for the Membership of the College (except such as are exempted) must pass the following examinations.

First Examination; Monday: 7 to 10 P.M., written questions on Anatomy and Physiology. Tuesday: 7 P.M., *viva voce*, on Dissections and Preparations.

Second Examination; Monday: 1 to 4 P.M., written questions on Materia Medica and on Chemistry in its application to Pathology, Pharmacy, and Toxicology. Tuesday: 1 to 4 P.M., the same subjects; the examination being partly *viva voce* and partly practical: 7 to 10 P.M., written questions on Midwifery and the Diseases peculiar to Women. Wednesday: 7 to 10 P.M., written questions on Surgical Anatomy and on the Principles and Practice of Surgery. Thursday: *Morning*, Practical Examination at the College or in the Surgical Wards of a Hospital; 7 P.M., Principles and Practice of Surgery and Midwifery, *viva voce*.

Third or Pass Examination; Thursday, 2 to 6 P.M., written questions on Medical Anatomy and on the Principles of Medicine. Friday: 2 to 6 P.M., written questions on the Practice of Medicine, including the Principles of Public Health, and on Psychological Medicine. Saturday or Monday: Practical Examination at the College or in the Medical Wards of a Hospital. Tuesday and Wednesday: Examination *viva voce*.

The third or pass examination for the membership will be held on Thursdays, October 20th, 1881; January 19th, April 20th, July 20th, and October 19th, 1882. The first and second examinations are generally held at the commencement of the same months.

Every candidate must give fourteen days' notice in writing of his intention to present himself for examination, at the same time transmitting the necessary certificates. Blank forms of the required certificates may be obtained on application at the College.

By Practical Pharmacy is meant instruction in the Laboratory of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society, or of a recognised Public Hospital or Dispensary. The course of Botany may be attended prior to the commencement of professional studies; and any candidate proving that Botany formed a subject of his preliminary examination will be exempt from attendance on this course. The Principles of Public Health must be comprised in the course of Lectures on Medicine, or in that on Forensic Medicine. The attendance on Lectures on Medicine and Surgery, and in Clinical Medicine and Clinical Surgery, must not commence earlier than the second winter session. A three months' course of Clinical Instruction in a recognised Lunatic Hospital or Asylum may be substituted for the same period of attendance in the Medical Wards of a General Hospital.

Certificates required: Primary Examination.—Evidence of having previously obtained a Degree in Arts from some University of the United Kingdom, or of the Colonies, or from some other University specially recognised by the Medical Council, or of having passed examinations equivalent to those required for a Degree in Arts; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised medical school.

Second Examination.—Evidence of having completed four years of professional study; of having attained the age of twenty-one years; of Instruction and Proficiency in the Practice of Vaccination; and of having attended not less than twenty Labours; and of having discharged the duties of Clinical Clerk and of Dresser, for periods of not less than three months.

Pass Examination.—Proof of having attained the age of twenty-five years; a testimonial of moral character and conduct from a Fellow or Member of the College; evidence of having completed the required course of professional study.

Exemptions.—1. Any candidate who produces satisfactory evidence of having passed an examination on Anatomy and Physiology, conducted by any of the bodies named in Schedule (A) to the Medical Act, and recognised by the College as requiring a course of study and an examination satisfactory to the College, is exempt from re-examination on the subjects of the primary examination. 2. Any candidate who has obtained a Degree in Surgery at an University in the United Kingdom; or (3) who has passed the examination on Surgery conducted by either of the Royal Colleges of Surgeons in the United Kingdom, after a course of study and an examination satisfactory to the College, is exempt from re-examination on Surgical Anatomy, and on the Principles and Practice of Surgery. 4. Any candidate who produces satisfactory evidence of having passed an examination on Chemistry and Materia Medica, required for a Degree in Medicine at an University in the United Kingdom, in India, or in a British Colony, is exempted from re-examination on those subjects. 5. Any candidate who has already obtained the Degree of Doctor or Bachelor of Medicine at an University in the United Kingdom, in India, or a British colony, or who (6) has obtained a qualification entitling him to practise medicine or surgery in the country where such qualification has been conferred, wherein the courses of study and the examinations to be undergone previously to graduation have been adjudged by the Censors' Board to be satisfactory, is exempt (if the Censors think fit) from all or any parts of the examinations, except the Third or Pass Examination. The nature and extent of this examination will, in the case of each candidate, be determined by the Censors' Board. Every candidate for the Membership must, however, translate into English a passage from a Latin author, and he has the opportunity of showing a knowledge of Greek, or of one or more of the modern European languages. 7. If any candidate who has attained the age of forty years produce testimonials, not merely satisfactory as to his moral character and conduct and his general and professional requirements, but further showing that he has improved the art or extended the science of medicine, or has at least distinguished himself highly as a medical practitioner, the Censors may, if they see fit, submit the testimonials to the Fellows at a general meeting, and it will be determined by the votes of the Fellows present, or of the majority of them, taken by ballot, whether the candidate shall be admitted to examination.

LICENTIATES.

The licence of the College is a qualification to practise Medicine, Surgery, and Midwifery. The regulations here given (for synopsis, see pp. 428 and 429) are applicable to candidates who shall have commenced their professional studies after March 25th, 1880.

Of the forty-five months of professional study, one winter and two summer sessions may be passed in either of the following ways: 1. Attending the practice of a hospital, infirmary, or other institution recognised by the College; 2. Receiving instruction as the pupil of a legally qualified practitioner, having opportunities of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction. Professional studies commenced *before* registration, except in the cases of Chemistry, Materia Medica, Botany, and Pharmacy, will not be recognised.

Certificates required: First Examination.—Evidence of having been registered as a Medical Student by the General Medical Council; and of having received instruction in Chemistry, including Chemical Physics (*i.e.*, Heat, Light, and Electricity), in Practical Chemistry, in Materia Medica, in Botany, and in Practical Pharmacy.

Second Examination.—Evidence of having passed the first examination; of having completed, after registration as a student, eighteen months of professional study at a recognised school or schools; and of instruction in Anatomy and Physiology (*see* Table).

Third Examination.—Evidence of being twenty-one years of age; of moral character; of having passed the second examination; of having been engaged in professional study not less than forty-five months (*see* Table); and of instruction in the remaining subjects of study mentioned in the Tables.

The systematic practical instruction in Medicine, Surgery, and Obstetric Medicine comprises practical details—such as: 1. The application of anatomical facts to the investigation of disease; 2. The methods of examining various organs in order to detect the evidence of disease or the effects of accidents; 3. The employment of instruments used in diagnosis and treatment; 4. The examination of normal and diseased structures, whether recent or in a museum; 5. The chemical examination of morbid products; 6. Operations on the dead body; 7. *Post mortem* examinations.

No metropolitan hospital is recognised which contains less than 150, and no provincial or colonial hospital which contains less than 100 patients. A three months' course of clinical instruction in the wards of

TABULAR VIEW OF THE REGULATIONS OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND OF THE SOCIETY OF APOTHECARIES IN LONDON.

	ROYAL COLLEGE OF PHYSICIANS OF LONDON.		ROYAL COLLEGE OF SURGEONS OF ENGLAND.		APOTHECARIES' SOCIETY.
	MEMBERS.	LICENTIATES.	FELLOWS.	MEMBERS.	LICENTIATES.
AGE REQUIRED	Twenty-five.	Twenty-one.	Twenty-five.	Twenty-one.	Twenty-one.
EVIDENCE OF GENERAL EDUCATION BEFORE COMMENCEMENT OF PROFESSIONAL STUDY.	A Degree in Arts of an University, or evidence of having passed examinations equivalent to those for a Degree in Arts.	Certificate of having passed examination in subjects of General Education recognised by the General Medical Council.	Certificate of Registration by the General Medical Council.	Certificate of Registration by the General Medical Council.	Examination in Arts by the Society's examiners; or certificate of having passed an examination in Arts recognised by the Medical Council.
DURATION OF PROFESSIONAL STUDY.	Five years, of which four must have been passed at a school or schools recognised by the College.	Forty-five months; at least three winters and two summers at a recognised school or schools.	Six years; for members, two years in addition to the certificate for the diploma of member.	Four years, or not less than four winter and four summer sessions.	Four years; not less than three winter and two summer sessions at a school or hospital.
COURSES OF LECTURES, ETC., REQUIRED.					
Anatomy and Dissections	Two winter sessions.	A course of Anatomy; Dissections 12 months.	Lectures during two winters; dissections three winters.	Lectures, two winters; dissections, two winters.	First two winter sessions.
Physiology	Two winter sessions.	Physiology and Practical Physiology, each one course.	Lectures one winter; and Practical Physiology, another session.	Lectures, one winter; Practical Physiology, another session.	First two winter sessions.
Chemistry	Six months.	Instructions; time not specified.	One course.	One course.	First winter session.
Practical Chemistry	Three months.		Three months.	Three months.	First summer session.
Materia Medica	Three months.		One course.	One course.	First summer session.
Practical Pharmacy	Three months.		Three months.	Three months.	Three months.
Botany	Three months.		Not required.	Not required.	First summer session.
Morbid Anatomy	Six months; including instruction in hospital *post mortem* room.	One course, with instruction in *post mortem* room.	Lectures, three months; demonstrations, three winters and two summers.	Lectures, three months; demonstrations in *post mortem* room.	Third winter session.
Medicine	Two winter sessions.	One course.	One course.	One course.	Last two winter sessions.
Clinical Medicine	Three winter and three summer sessions.	Nine months.	One winter and one summer session.	One winter and one summer session.	Third winter session.
Surgery	Two winter sessions.	One course.	One winter session.	One winter session.	Not required.
Clinical Surgery	Two winter and two summer sessions.	Nine months.	Two winter and two summer sessions. Observation and examination of patients for three months.	Two winters and two summers. Observation and examination of patients, three months.	Not required.
Practical Surgery	Not required.	Required.	Six months.	Six months.	Not required.
Midwifery and Diseases of Women.	Three months; not less than twenty labours.	One course; not less than twenty labours.	One course; not less than ten labours.	One course; not less than ten labours.	Second summer session; twenty cases of labour.
Clinical Study of Diseases of Women.	Six months.	Three months.	Not stated.	Not stated.	Not stated.
Forensic Medicine	Three months.	One course.	One course.	One course.	Second summer session.
Hospital Practice	Medical practice, three winters and three summers; surgical, three winters and two summers.	Medical and surgical practice, three winter and two summer sessions.	Surgical practice, four winters and four summers; medical practice, one winter and one summer.	Surgical practice, three winters and two summers; Medical practice, one winter and one summer.	Medical practice, beginning with second winter session to end of period of study.
Hospital Appointments	Clinical clerk, six months.	Clinical clerk, six months; dresser, six months.	Dresser, six months; house-surgeon or dresser, six months.	Dresser, or (after a year of study) charge of patients under superintendence of a surgeon, six months.	Clinical clerk, six weeks at least.
Other Certificates	Instruction and proficiency in Vaccination. Moral character, from a Fellow or a Member. Registration as a Student as directed by Medical Council.	Practical Instruction in Medicine, Surgery, & Obstetric Medicine. Instruction and proficiency in Vaccination. Moral character. Registration as a Student.	Instruction and proficiency in Vaccination. Comparative Anatomy, one course. Operations on Dead Body.	Instruction and proficiency in Vaccination.	Having been examined at class examinations. Instruction in Vaccination. Moral conduct.

NUMBER OF EXAMINATIONS.	Three.	Three.	Two.	Two.	Two.
FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS.	After end of second winter session. Subjects: Anatomy and Physiology.	After registration as a student; Chemistry and Chemical Physics; Materia Medica, Medical Botany, and Pharmacy; and Osteology.	After third winter session; in Anatomy and Physiology.	After second winter session; Anatomy and Physiology.	After second winter session; Physicians' Prescriptions & Pharmacy, Anatomy and Physiology, General & Practical Chemistry, Botany, Materia Medica and Histology.
SECOND EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	After four years of professional study in Surgical Anatomy and Surgery; Materia Medica; Chemistry in its application to Pathology, Pharmacy, and Toxicology; Midwifery and Diseases of Women; Examination of Surgical Patients.	After eighteen months of study subsequent to first examination; Anatomy and Physiology.	After six years of professional study; in Surgery, including Surgical Anatomy and Pathology, and Medicine (Medicine not required from candidates holding approved diplomas, degrees, or licenses, or from those intending to obtain a medical qualification; in the latter case, the diploma of the College is not issued until proof of having passed the medical examination is produced).	After end of fourth year of professional education; in Surgical Anatomy, Surgery, and Medicine.	At end of medical studies, in Medicine, Pathology, Therapeutics, Midwifery and Diseases of Women and Children, Forensic Medicine, Toxicology and Microscopical Pathology.
THIRD EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS.	After completion of required course of study. Subjects: Medical Anatomy, Medicine, including Public Health and Psychological Medicine; Examination of Medical Patients.	After forty-five months of study; two years after second examination; Medical and Surgical Anatomy and Pathology, including Morbid Anatomy; Principles and Practice of Medicine and of Surgery; Midwifery and Diseases of Women. (Forensic Medicine, Public Health, and Therapeutics are included.)			
FEE PAYABLE.	£31.	£15 15s.; £5 5s. at each examination. Candidate rejected at any examination must pay additional £3 3s. before readmission to examination.	At first examination, members £5 5s., non-members £10 10s.; retained in case of rejection. At second examination, member, £10 10s. (above charge for stamps); if not a member, £21 (over and above charges for stamps). In each case, £10 10s. is retained in case of rejection.	£22; £5 5s. at first examination; after failure at this examination, candidate must pay an additional £3 3s. before being again admitted. At Pass Examination, £5 5s. retained on each failure.	Certificate of qualification to practise, £6 6s.; half retained in case of rejection, and accounted for at subsequent examination. First examination, £3 3s., retained in case of rejection and accounted for subsequently.
REJECTED CANDIDATE.	After first examination, not admitted within three months; after second examination, not till end of six months. In each case, evidence of professional study in interval required. After third examination, not readmitted except by permission within one year.	After rejection at first or second examination, not again admitted until end of three months; after third examination, not till end of six months.	After rejection at first examination, candidates not again admitted for six months; after second examination, not till end of one year, unless Court of Examiners shall otherwise determine.	After rejection at primary examination, candidate must dissect for three months; after rejection at second examination, must attend Surgical Hospital Practice and Lectures on Clinical Surgery for six months.	After rejection at first examination, candidate cannot be again admitted till after three calendar months; after examination for licence, not till after six calendar months.
CANDIDATES (1) EXEMPTED FROM PARTS OF THE EXAMINATIONS, OR (2) ADMITTED UNDER SPECIAL CIRCUMSTANCES.	(1) Candidates who have passed examinations in Anatomy and Physiology of any other licensing body; who have obtained Degrees in Surgery; or have passed examination in Surgery of a College of Surgeons; or who have obtained degrees in Medicine. (2) Candidates who are above forty years of age; provided that the evidence and testimonials are satisfactory.	(1) Candidates who have elsewhere passed examinations in the subjects of the first and second examinations; who have obtained Degrees in Surgery at a recognised University; who have passed an examination in Surgery at a College of Surgeons; who have obtained foreign qualifications entitling them to practise Medicine or Surgery.	(2) Candidates who have degrees in Arts of a recognised University in the United Kingdom are required to study for five years only; and members of College, after eight years, admitted to professional examination, on production of certificate of fitness signed by three Fellows.	(2) Candidates who have studied in Scotland or in Ireland, or at recognised Foreign or Colonial Universities; members or licentiates of the other Colleges of Surgeons in the United Kingdom; and Graduates in Medicine or Surgery of a recognised University; admitted to professional examination on production of the necessary certificates or diplomas.	Graduates in Medicine of British Universities; licentiates and members of Colleges of Physicians and Surgeons in the United Kingdom or of Apothecaries' Hall in Ireland; candidates who have passed the first professional examination of other boards; candidates apprenticed before August 1st, 1858, or who commenced hospital attendance on or before October 1st, 1861.

a recognised Lunatic Hospital or Asylum, may be substituted for the same period in the medical wards of a General Hospital.

Exemptions.—Any candidate who shall produce satisfactory evidence of having passed an examination in any of the subjects of the first examination, or an examination in Anatomy and Physiology as required for a degree in medicine or surgery, at an university in the United Kingdom, in India, or in a British Colony; or an examination in Anatomy and Physiology conducted by either of the Royal Colleges of Surgeons in the United Kingdom or by the Faculty of Physicians and Surgeons of Glasgow, will be exempt from re-examination in the respective subjects. Any candidate who shall have obtained a Degree in Surgery at an University in the United Kingdom, or who shall have passed the Examination in Surgery conducted by a Royal College of Surgeons of the United Kingdom, or the Faculty of Physicians and Surgeons of Glasgow, after a course of study and an examination satisfactory to the College, will be exempt from re-examination on Surgical Anatomy and Pathology, including Morbid Anatomy, and on the Principles and Practice of Surgery. Any candidate who shall have obtained a Foreign Qualification which entitles him to practise Medicine or Surgery in the country where such qualification has been conferred, after a course of study and an examination equivalent to those required by the regulations of the College, shall, on production of satisfactory evidence as to age, moral character, and proficiency in vaccination, be admissible to the Pass Examination, and shall be exempt from re-examination on such subjects as shall in each case be considered by the Censors' Board to be unnecessary.

The examinations will be held in February, April, July, October, and December, unless otherwise appointed.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

FOR synopsis of Regulations, *see* pages 428 and 429.

I. *Preliminary General Education and Examination.*—1. Candidates are required, before the commencement of their professional education, to obtain a certificate of having been registered by the General Medical Council. In the case of any Colonial, Indian, or Foreign student not registered by the General Medical Council, the conditions of admission to the professional examination for the diploma will be determined by the Council of the College. 2. The examination in English, Classics, and Mathematics, conducted by the Board of Examiners of the College of Preceptors, under the direction and supervision of the College, ceases from and after the 31st December, 1881. [The last examination was held on September 6th, 7th, and 8th; and, according to the Regulations of the College, no further examinations of the kind will be held.]

II. *Professional Education.*—The following are recognised modes of commencing professional education:—1. Attendance on the practice of a Hospital, or other public institution recognised by this College. 2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College.

a. By the Practical Course of General Anatomy and Physiology, it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not intended that the learners shall perform vivisections.

b. The certificates of attendance on Lectures must include evidence that the student has attended the practical instructions and examinations of his teacher in each course.

c. The Course of Practical Surgery is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of anatomical facts to Surgery, on the living person or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases or accidents on the living person or on the dead body; the performance, where practicable, of the operations of Surgery on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise.

d. The course of lectures on Chemistry is not required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

e. The certificate of instruction in Vaccination must be such as will qualify its holder to contract as a Public Vaccinator under the Regulations at the time in force of the Local Government Board.

III. *Certificates, etc.*—Certicates of attendance upon the practice of a recognised Provincial or Colonial Hospital unconnected with, or not in convenient proximity to, a recognised Medical School, will not be received for more than one Winter and one Summer Session of the Hospital Attendance required by the Regulations of this College; and in such cases Clinical Lectures will not be necessary, but a Certificate of having acted as Dresser for at least six months will be required.

IV. *Professional Examinations.*—The First or Primary Examination is partly written and partly demonstrative. The Second or Pass Examination is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients. A candidate, having entered his name for either the Primary or the Pass Examination, who shall fail to attend the meeting of the Court for which he shall have received a card, cannot present himself for examination within three months afterwards.

Candidates can claim exemption from examination in Medicine under the following conditions; viz.:

1. The production by the candidate of a Degree, Diploma, or Licence in Medicine, entitling him to register under the Medical Act of 1858, or a Degree, Diploma, or Licence in Medicine of a Colonial or Foreign University approved by the Council of the College.

2. A declaration by the candidate, prior to his admission to the Final Examination for Membership or Fellowship, that it is his intention to obtain either of the Medical Qualifications mentioned in the foregoing paragraph, in which case the Diploma of the College will not be issued to him until he shall produce either the said Medical Qualification or proof of having passed the several examinations entitling him to receive the same.

The candidates under the special regulations referred to in the table at page 429 must produce, *a*, the several certificates required for the degrees or diplomas in the respective countries; *b*, the diploma, licence, or degree of the College or University; together with, in each case, a certificate of instruction and proficiency in Vaccination, and satisfactory evidence of having been occupied, after passing the Preliminary Examination, at least four years, or during four Winter and four Summer Sesions, in the acquirement of professional knowledge.

DIPLOMA OF FELLOW.

For synopsis of Regulations, see pages 428 and 429.

The paragraphs marked *a*, *b*, *c*, *d*, in the Regulations for the Membership, are also applicable to the Fellowship.

Gentlemen who were Members of the College on September 14th, 1843, are admissible to the Fellowship by election. Fellows of the Royal Colleges of Surgeons of Edinburgh or of Ireland, or of the Faculty of Physicians and Surgeons of Glasgow, are admitted to the Fellowship *ad eundem* under special regulations.

SOCIETY OF APOTHECARIES, LONDON.

FOR synopsis of Regulations, see pages 428 and 429.

Examination in Arts.—Examinations in the subject of preliminary education will be held at the Hall of the Society in January, April, and September, on days of which due notice will be given. Candidates will be examined in the following branches, and no candidate will be approved unless he show a competent knowledge of each branch:—1. The English Language; 2. The Latin Language; 3. Mathematics; 4. One of the following subjects, at the option of the candidate: (*a*) Greek; (*b*) French; (*c*) German; (*d*) Natural Philosophy. The Examinations will take place in the following order: Friday, 10 to 11.30, English; 11.30 to 1, Latin; 2 and 4, Mathematics; Saturday, 10 and 12, Optional Subjects.* Candidates who pass are arranged in two classes; the first in order of merit, the second in alphabetical order. Candidates must pay the fee (One Guinea) at least one week before the examination.† If a candidate fail to pass the examination, the fee will not be returned to him; but he will be admissible to either or both of the two next following examinations in Arts without additional fee, upon giving at least one week's notice. Certificates in Arts granted by any of the bodies whose certificates are recognised by the Medical Council will be accepted as equivalent to having passed the above examination.

Professional Examinations.—The Court meets every Wednesday and Thursday; and candidates are required to attend at 4.30 P.M. Every candidate intending to offer himself for examination must give seven

* The examination in the English Language comprises: the leading features of the language; its structure and grammar, and English composition. The examinations in Latin, Greek, French, and German comprise, besides translations, questions in grammar; and in each, except Greek, translation from English into the foreign language.

† The following form of notice must be copied and written in full by the candidate. I (name in full), residing at (address), intend to present myself for the Preliminary Examination in Arts, at the Apothecaries' Hall, London, on the , and that I intend to take as my optional subject. Signature . The above has been written and signed in my presence, by the abovenamed candidate, with whom I am personally acquainted. Signed, A. B.; Address, X. Date

days' notice, and must at the same time deposit all the required testimonials, with the fee, at the office of the beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturdays, 10 to 2.

Modified Examinations.—1. All Graduates in Medicine of British Universities will be admitted to a clinical and general examination in the practice of Medicine and Midwifery. 2. Licentiates of the Royal College of Physicians of London or of Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a *vivâ voce* and clinical examination in the Practice of Medicine, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of the King and Queen's College of Physicians in Ireland, or for the joint Licence of the Colleges of Physicians and Surgeons of Edinburgh, the Licence of the Faculty of Physicians and Surgeons, Glasgow; the first professional examination for the Degree of M.B., or Master in Surgery, in the Universities of Oxford, Cambridge, Durham, or London; or the second part of the professional examination for the Degree of M.B., or Master in Surgery, in the Universities of Edinburgh, Aberdeen, St. Andrew's and Glasgow; or the second examination for medical and surgical degrees in the Irish Universities; or the first examination for the Licence of the Apothecaries' Company, Dublin, will be admitted to a single examination in Materia Medica and Anatomy (to those candidates who have not undergone an examination in those subjects), Practice of Medicine (including Clinical Medicine), Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, which examination will be partly written and partly *vivâ voce*. 4. Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first Anatomical examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; the Royal College of Surgeons, Ireland, will have to undergo the two examinations, but are only exempt from writing on Anatomy and Physiology in their first examinations. 5. The cases of Graduates of Foreign and Colonial Colleges and Universities will be considered on their respective merits. All qualified candidates, unless registered, will be required to produce their diplomas.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY student must reside either in one of the Colleges or Halls, or in a Licensed Lodging-House, for three years. During these three years, he has to pass two examinations in Arts and one in either Mathematics, Natural Science, or Law and Modern History; when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honours, he has to pass a third examination *in Literis Humanioribus*. A student deciding to graduate in medicine, must, after passing the requisite examination for the degree of B.A., spend eight terms (two years) in study prior to a scientific examination for the degree of Bachelor of Medicine, unless he shall have taken a first or second class in the natural science school, when he may go in at the first opportunity for the first M.B. Examination. Two years after passing this Examination, and after four years of professional and scientific study, he may go in for the second or practical examination for the M.B. degree. These four years of medical study may be spent either in or out of Oxford, in an approved medical school. Each examination is conducted partly in writing and partly *vivâ voce*, and part of each is practical. The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine; those of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), Materia Medica, Therapeutics, Pathology, the principles of Surgery and Midwifery, Medical Jurisprudence and General Hygiene. Every candidate at the second examination is examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus; or in one of these and in some modern author approved by the Regius Professor (such as Morgagni, Sydenham, or Boerhaave).

For the Degree of Doctor in Medicine, a dissertation has to be publicly read three years after taking the M.B. Degree.

The medical examinations take place annually in Michaelmas Term.

Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen, and other Colleges, by competitive examination in natural science. Each year, a Radcliffe Travelling Fellowship is competed for by anyone who, having taken a first-class at any of the Public Examinations of the University, or having obtained some University Prize or Scholarship open to general competition, proposes to graduate in medicine. The Travelling Fellows receive £200 a year for three years, half this period being spent in study abroad.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must—1. Reside in the University two-thirds of each of nine terms; 2. Pass the previous examination (both classical and mathematical); 3. Pursue medical study for five years, unless he have obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case four years only are required.

There are three examinations for the Degree of Bachelor of Medicine. They are partly in writing, partly oral, and partly practical, and include chemical analysis, the recognition and description of specimens (healthy, morbid, and microscopical), dissections, and the examination of patients. They take place twice annually, commencing on the Thursday following the first Monday in December; and in the Easter Term, on the Thursday next but one preceding the general admission to the B.A. degree.

The subjects of the first examination are—1. Chemistry and other branches of Physics; 2. Botany. The student may present himself for this examination at any time after he has passed the previous examination. He is required to produce certificates of having diligently attended one course of lectures on Chemistry, including manipulations, and one course on Botany.

The subjects of the second examination are—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy and Pharmaceutical Chemistry. Before presenting himself for this examination, the student must have completed two years of medical study; he must have attended hospital practice during one year, must have practised dissection during one season, and must have diligently attended a course of lectures on each of the subjects of examination.

The subjects of the third examination are—1. Pathology and the Practice of Physic (two papers); 2. Clinical Medicine; 3. Midwifery; 4. Principles of Surgery; 5. Medical Jurisprudence. Before presenting himself for this examination, the candidate must have completed the course of medical study, must have attended the medical practice of a recognised hospital during three years, and the surgical practice during one year at least, and must produce certificates of having attended one course of lectures on each of the following subjects: 1. Pathological Anatomy; 2. The Physiological and Therapeutical Action of Remedies; 3. Principles and Practice of Physic; 4. Clinical Medicine; 5. Clinical Surgery; 6. Medical Jurisprudence; 7. Midwifery; 8. Of having attended ten cases of Midwifery; 9. Of having acquired proficiency in Vaccination*; 10. And of having been Clinical Clerk for six months at least at a recognised hospital; or of having, subsequently to the completion of his attendance on hospital practice, attended to practical medicine, with special charge of patients, in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless he himself be duly qualified.

After these examinations have been passed, an Act must be kept in the Schools in the following manner. The Professor of Physic assigns the day and hour for keeping the Act, of which public notice has to be given eight days before. The candidate reads a thesis, composed by himself, on some subject approved by the professor; the professor brings forward arguments or objections for the candidate to answer, and examines him *vivâ voce*, as well on questions connected with his thesis as on other subjects in the faculty of a more general nature.

DOCTOR OF MEDICINE.

This degree may be taken by a Bachelor of Medicine in the ninth term after his inauguration (this occurs on the commencement day next following the admission to the degree). He is required to produce certificates of having been engaged five years in medical study, to keep an Act similar to that for M.B., and to write a short extempore essay on some one (at his choice) of four topics relating severally to Physiology, Pathology, Practice of Medicine, and State Medicine.

A Master of Arts may proceed to the degree of M.D. in the twelfth term after his inauguration as M.A. without having taken the degree of M.B. He must pass the three examinations for M.B., and keep the Act and write the extempore essay for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice as are required of the candidate for the degree of M.B.

* The Certificate must be [illegible] Government Board.

MASTER IN SURGERY.

The subjects of the examination for this degree are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery.

Before admission to this examination, the candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended the surgical practice of a hospital for three years, of having been house-surgeon or dresser for six months, and of having attended—1. A second course of lectures on Human Anatomy; 2. One course of lectures on the Principles and Practice of Surgery; 3. Lectures on Clinical Surgery during one year; 4. Of having practised Dissection during a second season.

The examination takes place at the same times as those for M.B., and in a similar manner. The candidate is required to perform operations on the dead body, and to examine patients in the hospital.

A notice is published early in the Michaelmas and Easter Terms, stating when the examinations for Medical and Surgical degrees commence, and the date when candidates are required to send to the Regius Professor of Physic notice of their intention to offer themselves for examination and the necessary certificates.

Each candidate pays three guineas to the Registrary of the University on giving notice of his intention to offer himself for his first examination. He pays two guineas before the second examination.

Schedules defining the range of subjects in the first examination, and of the Comparative Anatomy in the second examination, also schedules for the requisite certificates, and a list of the Schools of Medicine recognised by the University, may be obtained, on application, from Mr. English, at the Anatomical Museum.

UNIVERSITY OF LONDON.

THE following examinations will be held in the University of London in 1881-82.

Preliminary Scientific Examination: Monday, July 18th.

Bachelor of Medicine (M.B.) First Examination: Monday, July 25th.

Bachelor of Medicine (M.B.) Second Examination: Monday, November 7th.

Bachelor of Surgery (B.S.): Tuesday, November 29th.

Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, November 28th.

Subjects relating to Public Health: Monday, December 12th.

The certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the examination.

The fee for each examination is Five Pounds.* If a candidate withdraw, or fail to pass either of the examinations, the fee is not returned; but he is admitted without further payment to *two* subsequent preliminary scientific, first M.B., second M.B. or B.S. examinations, or to *one* subsequent M.S. or M.D. examination, provided that he give notice to the Registrar at least fourteen days before the commencement of the examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required—1. To have passed the Matriculation Examination (unless he has taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras, and Latin was one of the subjects in which he passed); 2. To have passed the Preliminary Scientific Examination; 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom; 4. To pass two examinations in Medicine.

Preliminary Scientific Examination.—Candidates are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies. For the Preliminary Scientific Examination, candidates are examined in Inorganic Chemistry; Experimental Physics; Botany and Vegetable Physiology; Zoology. They must show a competent knowledge in all the subjects.

First M.B. Examination.—The candidate must have passed the Preliminary Scientific Examination at least one year previously, and must produce certificates—1. Of having completed his nineteenth year; 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of three of the following subjects: Descriptive and Surgical Anatomy, Physiology and Histology, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine;* 3. Of having dissected during two winter sessions; 4. Of having attended a course of Practical Chemistry; 5. Of having attended to Practical Pharmacy, and having acquired a practical knowledge of the preparation of medicines. Candidates are examined in Anatomy, Physiology and Histology,† Materia Medica and Pharmaceutical Chemistry, Organic Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *viva voce* interrogation, by demonstration from preparations and specimens, and by dissections.

Examination for Honours.—Any candidate who has passed the examination in all its subjects at one time may be examined for Honours in—1. Anatomy; 2. Materia Medica and Pharmaceutical Chemistry; 3. Physiology and Histology; 4. Organic Chemistry. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself most in each of the first and third divisions receives an exhibition of £40 *per annum*, and in each of the others £30 *per annum*, for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the second M.B. examination within three academical years from the time of passing the first M.B. examination. Under the same circumstances, the first and second candidates in subjects 1 and 3, and the first candidate in subjects 2 and 4, receive each a gold medal of the value of five pounds.

Second M.B. Examination.‡—No candidate is admitted to this examination within two academical years of the time of his passing the first examination, nor without certificates:—1. Of having passed the first M.B. examination; 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the first examination; 3. Of having conducted at least twenty labours;§ 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine;‖ 6. Of having, after having attended Surgical and Medical Hospital Practice for at least twelve months subsequently to passing the first M.B. examination, attended to Practical Medicine, Surgery, and Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months—such attendance not to be counted as part of the hospital practice prescribed in 4 and 5; 7. Of having acquired proficiency in Vaccination.¶ The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics, and Hygiene, Surgery, Medicine, Obstetric Medicine, Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *viva voce* interrogations; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparations. Candidates are expected to write prescriptions in Latin, without abbreviations.

Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any candidate who has passed the second

For the degree of Doctor of Medicine, the fee will continue to be Ten Pounds to all such as, having taken their M.B. degree under the former regulations, shall not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

* The subjects numbered 2, 3, and 4, must be attended after passing the Matriculation Examination, or taking a degree in Arts in the above-named Universities.

† Any candidate may postpone his examination in Physiology and Histology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in any subsequent year; but he cannot compete for honours on either occasion; and he cannot be admitted as a candidate at the Second M.B. Examination until at least twelve months after he has passed his examination in Physiology and Histology.

‡ Any candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former regulations, is required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present regulations; at which examination he is not allowed to compete for honours.

§ Certificates will be received from any legally qualified practitioner.

‖ The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

¶ Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council

M.B. examination may be examined for Honours in—1. Medicine; 2. Obstetric Medicine; and 3. Forensic Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Obstetric Medicine and in Forensic Medicine receive each £30 *per annum* for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a gold medal of the value of five pounds.

BACHELOR OF SURGERY.

The candidates must produce certificates—1. Of having passed the second examination for the degree of Bachelor of Medicine in this University; 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on Surgical Anatomy and Surgical Operations; by examination, and report on cases, of surgical patients; by performance of operations upon the dead subject; by application of surgical apparatus; and by *vivâ voce* interrogation.

Examination for Honours.—Any candidate who has passed the B.S. examination may be examined for Honours in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 *per annum* for the next two years, with the style of University Scholar in Surgery; and the first and second candidates each receive a gold medal of the value of five pounds.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery* in this University; 2. Of having attended subsequently—(*a*) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (*b*) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (*c*) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.† 3. Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *vivâ voce* interrogation; and the candidates are examined in Logic and Psychology,‡ and in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of twenty pounds.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having special relation to Medicine. The examination is conducted by printed papers and *vivâ voce* interrogations; and candidates are examined in Logic and Psychology, and in Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of twenty pounds.

UNIVERSITY OF DURHAM.

THERE are two Licences and three degrees conferred; viz., a Licence in Medicine and a Licence in Surgery, and the Degrees of Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. A certificate of proficiency in Sanitary Science is also awarded.

The regulations for the licence and degree of Bachelor, so far as regards the course of study, the subjects of each examination, and the certificates required, are similar; but the candidate for a degree must produce evidence of general education in addition to that implied in the certificate of registration as a medical student.

The examinations for the licences and degrees above named are conducted at the College of Medicine, and in the Infirmary, at Newcastle-on-Tyne. Candidates are examined (1) by printed papers of questions, (2) practically, (3) *vivâ voce*. Every candidate who intends to present himself for any of the above-named examinations must give at least twenty-eight days' notice to the Registrar of the College, and must at the same time send the fee, £5, and the necessary certificates. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, he shall not receive back the fee, but shall be allowed to enter for one subsequent examination of the same kind without the payment of any additional fee.*

BACHELOR OF MEDICINE.

The course of attendance on Lectures and Hospital Practice required is the same as that required by the Royal College of Surgeons of England, together with the following additional courses: Botany and Therapeutics, each three months; Public Health and Medicine, each six months; Medical Hospital Practice and Clinical Lectures on Medicine, each one winter and one summer session.

For this Degree there are two Professional Examinations, the first being held in October and April, the second in June and December. The first will commence on October 10th, 1881, and April 24th, 1882; and the second on December 5th, 1881, and June 19th, 1882. The subjects of the First Examination are Anatomy, Physiology, Chemistry, and Botany. The candidate must produce the following certificates: 1. Of registration as a medical student; 2. Of (*a*) Graduation in Arts at one of the following Universities, viz., Oxford, Cambridge, Durham, Dublin, London, Queen's (Ireland), Edinburgh, Glasgow, St. Andrew's, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College (Kingston); or (*b*) of having passed the Preliminary or Extra-Professional Examination for Graduation in Medicine at one of the following Universities, viz., London, Edinburgh, Glasgow, St. Andrew's, Aberdeen, and Queen's (Ireland); or (*c*) the Preliminary Examination in Arts qualifying for the Membership of the Royal College of Physicians of London, or of having passed the Preliminary Examination in Arts for the Degrees in Medicine of the University of Durham. This Examination is held twice yearly, in April and September, at the same time as the Registration Examination.†

Application for admission must be made at least one month before the Examination. The Fee will be £1. Candidates who, at the commencement of their professional education, passed the Arts Examination for Registration only, may pass in the extra subjects required, either *before or after* presenting themselves for the First Examination for the Degree, but must do so before presenting themselves for the Second Examination. 3. Of attendance on two courses of Anatomy, on one of Physiology, on one of Theoretical and one of Practical Chemistry, and on one of Botany; of twelve months' Dissection; and of attendance on a course of Practical Physiology of not less than thirty lessons.

The subjects of the Second Examination are Medicine, Surgery, Pathology, Midwifery, and Diseases of Women and Children, Medical Jurisprudence, Materia Medica and Therapeutics, and Public Health. Candidates must produce the following certificates: 1. Of being not less than twenty-one years of age; 2. Of good moral character; and 3. Of attendance on the remainder of the course of medical and surgical study as prescribed by the Royal College of Surgeons of England; together with the following additional subjects, viz., one course of lectures on Medicine, one on Therapeutics, and one on Public Health, and Medical Hospital Practice with Clinical Lectures during one Winter and one Summer Session. There must be proof that the whole course of professional study has occupied at least four years.

One of the four years of professional education must be spent in attendance at the College of Medicine, Newcastle-upon-Tyne. During the year so spent, the candidate must attend at least two courses of lectures in the Winter Session, and two in the Summer Session, together with the Class and Test Examinations held in connection with those classes; and must also attend Hospital Practice and Clinical Lectures at the Infirmary during the same period. Candidates may fulfil this portion of the curriculum at any period before they present themselves for the Final Examination for the Degree. They are not required to reside at Durham. The other three years of the curriculum may be spent either at Newcastle upon-Tyne or at one or more of the Schools recognised by the Licensing Bodies.

The successful candidates for the First and Second Examinations

* Candidates who have obtained the degree of Bachelor of Medicine previously to 1866, will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery, and their attendance on surgical practice required by Regulation 2, may commence from the date of the M.B. Degree.

† One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

‡ Any candidate who has taken the degree either of B.A., B.Sc., or M.D., in this University, is exempted from this part of the examination; and any candidate who has passed the Second M.B. Examination, may at any subsequent M.S. Examination present himself for Logic and Psychology alone, if he so prefer; thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.—An analogous exemption is allowed in the case of candidates for the degree of M.D.

* There are special regulations in the case of practitioners of fifteen years' standing. See next page.

† The next examination will commence on September [illegible] and will embrace the following subjects, viz.: Arithmetic, Greek, [illegible] Euclid: Books III and IV [illegible] Cæsar's De Bello Gallico, French, Scripture History, Geography, [illegible] Staat Friedrich's des Grossen, Mechanics, Hydrostatics, [illegible] English History before the Norman Conquest. Another examination will commence on April 18th, 1882.

for the Degree of Bachelor in Medicine will be arranged in three classes, the first and second, honour, according to merit, and the third or pass, in alphabetical order.

Candidates who have completed part of their curriculum elsewhere may pass their First Examination previous to entering at Newcastle, and are recommended to commence their year of residence at Newcastle at the beginning of the Winter Session.

DEGREE OF DOCTOR OF MEDICINE.

Candidates must not be less than twenty-four years of age, must have obtained the Degree of Bachelor of Medicine at last two years previously, and have been subsequently engaged in medical and surgical practice. Each candidate must write an essay on some medical subject selected by himself and approved by the Professor of Medicine, and to pass an examination thereon; and must be prepared to answer questions on the other subjects of his curriculum, so far as they are related to the subject of the essay. A Gold Medal will be awarded to the Candidate who presents the best Essay (provided that the Essay is judged to be of sufficient merit). The successful Candidate will be permitted to publish his Essay. Candidates, for their Essays, must use folio-ruled paper, according to pattern, to be obtained of the Secretary of the College of Medicine. The Essays will be retained by the Faculty of Medicine.

DEGREE OF MASTER IN SURGERY.

Candidates must have passed the Examination for the Degree of Bachelor in Medicine, and must have attended one Course of Lectures on Operative Surgery. Each Candidate will have an additional Paper on Surgery, and will have to perform operations on the dead body, and to explain the use of instruments.

THE DEGREE OF DOCTOR OF MEDICINE FOR MEDICAL PRACTITIONERS OF FIFTEEN YEARS' STANDING, WITHOUT RESIDENCE.

Practitioners of fifteen years standing are admitted to examination for the Degree of Doctor of Medicine under the following regulations. 1. The candidate shall be registered by the General Council of Medical Education and Registration of the United Kingdom. 2. He shall have been in the active practice of his profession for fifteen years as a qualified practitioner. 3. He shall not be under forty years of age. 4 He shall produce a certificate of moral character from three registered members of the medical profession. 5. If the candidate shall not have passed, previously to his Professional Examination (in virtue of which he has been placed on the *Register*), an Examination in Arts, he shall be required to pass an Examination in Classics and Mathematics.* 6. If the candidate shall have passed previously to his Professional Examination (in virtue of which he has been placed on the *Register*), a Preliminary Examination, he shall be required to translate into English passages in any of the parts specified below of any one of the Latin authors mentioned:—Cæsar—*De Bello Gallico*, first three books; Virgil—first three books of the *Æneid;* Celsus—first three books.† The candidate shall have on opportunity of showing proficiency in Greek, Moral Philosophy, or some Modern Language.‡ 7. The canditate shall be required to pass an Examination in the following subjects:—i. Principles and Practice of Medicine, including Psychological Medicine and Hygiene; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology—Medical and Surgical; v. Anatomy—Medical and Surgical; vi. Medical Jurisprudence and Toxicology; vii. Therapeutics. 8. The fee shall be Fifty Guineas. 9. If the candidate shall fail to satisfy the Examiners, the sum of Twenty Guineas shall be retained; but, if he shall again offer himself for the Examination, Forty Guineas only shall then be required.

Examinations, in accordance with the above regulations, will commence on December 5th, 1881, and June 19th, 1882; and will last four days on each occasion, in the College of Medicine, Newcastle-on-Tyne. Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Register of the University of Durham College of Medicine, Newcastle-on-Tyne, on or before November 1st, 1881, and May 1st, 1882, together with the fee and the before-mentioned certificates.

* The subjects for this examination shall be as follows:—1. An English Essay. (A short essay on some subject to be specified at the time of the examination.) 2. Arithmetic. 3. Euclid—Books I and II. 4. Latin—Translation from Virgil, *Æneid*, Books I and II, together with Grammatical Questions. 5. One of the following subjects:—i. Greek—Translation from Xenophon's *Memorabilia*, Books I and II, with Grammatical Questions; ii. French—Translation from Voltaire's *Charles XII*, with Grammatical Questions; iii. German—Translation from Goethe's *Dichtung und Wahrheit*, Book I, with Grammatical Questions; iv. Elements of Mechanics, Pneumatics, and Hydrostatics; v. Some Treatise on Moral, Political, or Metaphysical Philosophy.

† The candidate may choose for himself any one of the three above-named authors on whose works to be examined.

‡ For these subjects no extra marks are awarded.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

No one can obtain the Licence of the College under the age of twenty-one years. Every applicant must produce evidence of having been engaged in the study of Medicine during at least four years subsequently to registration as a student, including attendance during not less than four winter sessions, or three winter and two summer sessions, at a recognised medical school. He must produce certificates of having attended the following courses at an university or medical school: Anatomy, Practical Anatomy, Chemistry, Practice of Medicine, Clinical Medicine, and Principles and Practice of Surgery, each a six months' course; Practical Chemistry, Materia Medica and Pharmacy, Physiology, Clinical Surgery, Midwifery, Medical Jurisprudence, General Pathology or Pathological Anatomy, and Practical Pharmacy, each a three months' course. He must have attended the practice of a public hospital (containing not fewer than eighty beds), during not less than twenty-four months, twelve of which must have been spent in the medical wards. He must also have attended for six months the practice of a public dispensary, or have acted for six months as clinical clerk or dresser in a hospital; or have been engaged during six months as a visiting assistant to a registered practitioner. He must also have attended at least six cases of labour under the superintendence of a qualified medical practitioner, and have studied vaccination under a competent and recognised teacher. He must have passed the Preliminary Examination in Literature and Science,* and had his name inscribed in the General Medical Council's *Register* of Medical Students, previously to the commencement of his medical studies. Masters and Bachelors of Arts of any British or foreign university, whose course of study may be approved of by the College, will be exempted from the preliminary examination; also those who have passed the examination of the national educational bodies, or of any of the licensing boards recognised by the Medical Act.

The Professional Examination will be divided into two parts: 1. Anatomy, Physiology, Chemistry; 2. Materia Medica and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Surgery, Midwifery, Medical Jurisprudence, Clinical Medicine. No candidate will be admitted to the first examination until the end of the second winter session, or to the second until he has completed four years of professional study. The preliminary examination will be held on October 15th and 17th, 1881; April 11th, 12th, and July 8th and 10th, 1882. The first professional examinations on October 5th, 1881; January 11th, April 19th, July 19th, and October 11th, 1882. The second professional examination will be held on Thursdays and Fridays following the first professional examination.

Candidates who have passed the first professional examination before a qualifying body (provided it be as extensive as that required by this College) will be at once admitted to the second examination.

No candidate is admissible to examination who has been rejected by any other licensing board within the previous three months. Every candidate must sign a declaration that he has not been rejected within this period.

The Fee for the Licence is £15 15s. A candidate for the first professional examination pays £6 6s., and for the second or final £9 9s.; but, if exempted from the first professional examination, he must, before appearing for the final, pay the whole fee of £15 15s. If a candidate be unsuccessful at the first professional examination, £3 3s.; and at the second or final £4 4s. will be retained. This regulation will also apply to cases in which the candidate may have been previously rejected.

Candidates may be admitted to special examination by bringing forward satisfactory reasons, and paying an extra fee of £5 5s. Should the candidate be unsuccessful, £11 11s. will be returned to him.

FELLOWSHIP AND MEMBERSHIP.

No one can be elected a Fellow of the College until he has been at least one year a Member, and has attained the age of twenty-five years.

Any Licentiate of a College of Physicians, or Graduate of a British or Irish University, with whose knowledge of Medical and General Science the College may be satisfied, may be admitted a Member of the College, provided he shall have attained the age of twenty-four years.

Every motion for the election of a Fellow or Member shall be made at a quarterly meeting of Fellows by one of the Fellows present, and seconded by another; and this motion shall be determined by ballot at the next quarterly meeting—a majority of three-fourths being necessary to carry it in the affirmative.

* For the subjects, see note to regulations for double qualification.

The following additional regulations shall apply to all candidates for membership whose petitions are received after March 1st, 1882.

1. Every candidate for the membership (except such as shall be admissible under the provisions of Section 4) shall be required to pass an examination: (1) On the Principles and Practice of Medicine, including Therapeutics; (2) On one of the following subjects, to be selected by the candidate: (*a*) Pathology, including Morbid Anatomy; (*b*) Medical Jurisprudence and Public Health; (*c*) Midwifery and the Diseases of Women; (*d*) Psychological Medicine.

2. Application for the membership shall be made through the Secretary, who shall transmit to the candidate a copy of the Regulations and Plan of Examination, together with a Form of Petition.

3. The candidate shall return the petition duly filled up to the Secretary, and shall at the same time transmit Testimonials of recent date from well-known members of the profession, certifying as to his professional and social standing. These documents shall be submitted to the Council, who shall also employ such other methods of scrutiny as they may deem necessary. If satisfied as to the eligibility of the candidate, the Council shall authorise his examination by the Board of Examiners, who shall report the result of the examination to the Council. If the report of the Examiners be satisfactory, the Council shall report the same to the College at the next quarterly meeting, when it shall be competent for a motion to be made for the election of such candidate to the Membership of the College.

4. If any candidate who has attained the age of forty years, and has been a Registered Practitioner for not less than ten years, shall produce testimonials showing that he has been distinguished for his scientific attainments, or eminence as a Medical Practitioner, the Council may, if they see fit, exempt him from the whole or any part of the prescribed examination.

5. The dates of the Examinations for the year ending July 31st, 1882, shall be April 11th and 12th, June 13th and 14th, and July 13th and 14th; but application must be made to the Secretary not less than one month previous to the date of the Examination at which the candidate proposes to appear.

Fees.—The fee to be paid by a Member shall be £31 10s. A Licentiate who has obtained the Licence prior to the 1st of August 1876, when raised to the rank of Member, pays £21; a Licentiate obtaining the Licence subsequent to that date, when raised to the rank of Member, pays £15 15s. When a Member is raised to the rank of Fellow, he pays £31 10s., exclusive of stamp-duty (£25). All candidates for Fellowship or Membership must lodge their fees and the amount of stamp-duty payable with the Treasurer previously to presenting their petitions.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE DIPLOMA.

THE regulations regarding schools of medicine, preliminary examination, and professional study and examination, are similar to those for the double qualification (see below), except that the third course of Medicine is not required. The first professional examinations will be held on October 18th, 1881; January 24th, March 28th, April 18th, and July 18th, 1882. The second examination takes place immediately after the conclusion of the first.

At the second examination, the student, in furnishing the statement of his professional study, must, if he have been an apprentice, insert the name of his master, the date of his indenture, and the length of time for which he was bound. If he have been apprenticed to a Fellow of the College, he must also produce his discharged indenture.

Recent Dissections, Anatomical Specimens, and articles of the Materia Medica are employed in the examinations; and all candidates are required to write out formulæ of prescriptions, and are subjected to a practical examination in the Surgical Hospital.

The Fees are: for the first examination, £6 6s.; for the second, £9 9s. At the first examination, £3 3s.; and at the second £5 5s., will be returned to unsuccessful candidates.

Candidates who have passed the first examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second Professional Examination under the same conditions as are described in the regulations for the double qualification. The fee will be £15 15s.; and unsuccessful candidates will receive back £11 11s.

Candidates desirous of special examinations on other days than those fixed, must present a case to be submitted to the consideration of the authorities of the College. They must produce certificates of the whole of the prescribed course of study, and of having passed the preliminary examination, and must state the earliest and the latest days within which they can present themselves. The fees are as follows: viz., £20 for first and second examinations, of which £12 will be returned to candidates remitted on the first examination; but no part of the money will be repaid to candidates who, having passed the first, are unsuccessful in the second examination; £17 for second examination. Of this, no part will be returned to the candidate, if unsuccessful.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

DOUBLE QUALIFICATION IN MEDICINE AND SURGERY.

THE examination for this qualification is conducted by a Board, in which each College is represented, for examination in the branches common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. Students passing that examination are enabled to register two qualifications: Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

Every candidate must have followed his course of study in an University, or in an established School of Medicine, or in a Provincial School specially recognised by the Colleges of Physicians and of Surgeons of that division of the United Kingdom in which it is situate. Under the title of Established School of Medicine are comprehended the medical schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Preliminary Examination in General Education.—All candidates for the Diplomas of the Colleges must have passed the complete examination in General Education,* and have had their names inscribed in the General Medical Council's Register of Medical Students at the commencement of their professional studies. Certificates of having passed the examinations in General Education, conducted by certain other educational bodies, will be accepted. Each candidate who intends to undergo the preliminary examination must give in his name to the officer of either College not less than two days before the day of examination. He must pay a fee of Ten Shillings. If unsuccessful, he must pay Five Shillings for each subsequent examination.

Professional Education.—1. Candidates must have been engaged during forty-five months after the preliminary examination in professional study, including not less than four winter sessions', or three winter and two summer sessions', attendance at a recognised medical school. 2. The candidate must have attended the following courses of lectures: Anatomy, two courses† of six months each, and Practical Anatomy, twelve months; or Anatomy, one course of six months, and Practical Anatomy, eighteen months; Physiology, not less than fifty lectures; Chemistry, Practice of Medicine, Clinical Medicine,‡ Medicine (a third course, either Practice or Clinical, at option),‡ Principles and Practice of Surgery, Clinical Surgery,‡ Surgery (a third course, either Principles and Practice or Clinical Surgery, at option),‡ each six months; Practical or Analytical Chemistry, Materia Medica, Midwifery and Diseases of Women and Children, Medical Jurisprudence, and Pathological Anatomy,§ each three months.‖ 3. He must also produce certificates:—*a*. Of having attended at least six cases of labour under the superintendence of a registered medical practitioner. *b*. Of having attended, for three months, instruction in Practical Pharmacy. The teacher signing the certificate must be a Member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses me-

[illegible]

attended during the attendance at the Hospital whe[illegible]

one hundred lectures, with the exception of Clinical Medicine and Clinical Surgery.

licine to his own patients. *c.* Of having attended, for twenty-four months, a public general hospital containing, on an average, at least eighty patients. *d.* Of having attended, for six months, the practice of a public dispensary specially recognised by either College; or of having been engaged for six months as assistant to a registered practitioner. *e.* Of having been instructed in vaccination; the teacher signing the certificate must be a registered practitioner. It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.

Professional Examination.—1. Candidates for the double qualification are subjected to two professional examinations. 2. Opportunities for both examinations are presented six times in each year. On each occasion, the candidates write answers to questions; and are examined orally on the days immediately succeeding. 3. Unsuccessful candidates are remitted to their studies for not less than three months. 4. The first examination embraces Anatomy, Physiology, and Chemistry; and takes place not sooner than the end of the second winter season. 5. Candidates must apply to the Inspector of Certificates on or before the Friday preceding the day of examination; and must produce certificates of attendance on those courses of lectures which have reference to the subjects of the examination, and evidence of having passed the preliminary examination. 6. The sum of £8 8s. must be paid to the Inspector of Certificates for this examination not later than 9 A.M. of the Saturday preceding it. This sum will be considered as paid to account for the entire fee of £21 payable for the two Diplomas. 7. In the case of a candidate being unsuccessful at this examination, £5 5s. will be returned to him. 8. The second examination embraces Medicine, Surgery and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and takes place after the termination of the winter session of the last year of study, at least forty-five months after the examination in general education. 9. Application for examination must be made to the Inspector of Certificates not later than the Monday previous to the day of examination. 10. Every candidate must produce—*a.* Satisfactory evidence of having attained the age of twenty-one years; *b.* A certificate of having passed the preliminary examination unless this certificate have been already seen by the Inspector; *c.* A certificate of registration in the books of the General Medical Council; *d.* A certificate of having passed the first professional examination; *e.* The certificate mentioned under Professional Education, Sections 2 and 3 (above); *f.* A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session. 11. The fee for this examination is £12 12s., which must be lodged with the Inspector not later than 9 A.M. of the Tuesday preceding the examination. 12. On the production of the above documents, and after receiving the fees, the Inspector gives the candidate a letter authorising the examiners to take him on trial. 13. In case of a candidate being unsuccessful at this examination, £8 8s. will be returned to him. 14. Candidates who have passed the first professional examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second professional examination on producing certificates of the whole course of study prescribed, of having passed their preliminary and first professional examinations, and of having been registered as students. If any of the three subjects of the first examination have been omitted, the candidate will have to undergo an examination on the omitted subjects; and none of the subjects set down in Section 8 will be omitted at the second examination. The fee payable by such candidates is £21, and unsuccessful candidates will receive back £16 16s. 15. In addition to the written and oral examinations, all candidates are subjected to practical Clinical Examinations in Medicine and Surgery. 16. No candidate is admissible to examination who has been rejected by any other Licensing Board within the preceding three months.

Communications from candidates to be addressed to Mr. Joseph Bell, 20, Melville Street, Edinburgh.

The following will be the periods of examinations for the Double Qualification for the year 1880-81. *Preliminary Examination in General Education*, October 15th and 17th, 1881; April 11th and 12th, and July 8th and 10th, 1882. *First Professional Examinations.*—Tuesdays, October 25th, 1881; January 31st, April 4th and 25th, July 11th and 25th, 1882. *Second Professional Examinations.*—These will take place immediately after the conclusion of the first professional examinations. In no case will they be begun on an earlier day than the Thursday of any period.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

REGULATIONS FOR THE DIPLOMA.

THE regulations respecting the Curriculum of Professional Study, and the Fees, are similar to those of the Royal College of Surgeons of Edinburgh.

Preliminary Examinations in General Literature will be held on October 21st, 1881, and March 31st, June 30th, September 8th, and October 20th, 1882.* The Fee is Ten Shillings. Candidates will be furnished, on application to the Secretary, with a form of application, which they must fill up and transmit to him at least four days before the examination.

The First Professional Examinations take place on October 18th, 1881, and January 11th, April 4th, July 19th, and October 18th, 1882; *the Second Professional Examinations* on October 25th, 1881, and January 16th, April 10th, July 24th, and October 23rd, 1882. Applications for admission to the first examination must be made four days, and to the second examination a week, before the respective examinations.

Students are strongly recommended to avail themselves of opportunities of studying Ophthalmic and Mental Diseases, Natural History, Comparative Anatomy, and Practical Physiology, in addition to what is required in the Curriculum.

The examinations are conducted partly in writing and partly orally. Recent Dissections, Anatomical Specimens, the Microscope, Physiological Apparatus, Chemical Tests, Surgical and Obstetrical Instruments and Apparatus, Articles of the Materia Medica, Pathological Specimens, and Toxicological Tests and Specimens, may be employed. Candidates are also subjected, at the second examination, to a Practical Clinical Examination at the Hospital, and may be examined practically in Operative Surgery.

Candidates who have passed the examination in Anatomy, Physiology, and Chemistry, before any of the Licensing Bodies enumerated in Schedule (A) of the Medical Act, on complying with the regulations in other respects, are admitted to the second professional examination, under the conditions described in the regulations for the double qualification of the Colleges of Physicians and Surgeons in Edinburgh. Graduates and Licentiates in Medicine of other bodies are exempt from examination in Medicine and Materia Medica.

The Fee for the diploma is £15 15s.; £6 6s. is paid at the first examination, of which £3 3s. is retained in case of rejection; and £9 9s. for the second examination, of which £4 4s. is retained if the candidate be rejected.

A candidate, on showing a sufficient reason, may be admitted to examination on a day specially arranged, on paying an extra fee of £5 5s.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Faculty of Physicians and Surgeons of Glasgow, and the Royal College of Physicians of Edinburgh, conjointly grant their Diplomas after one series of examinations before a Board of Examiners in which each body is represented. The regulations as to the curriculum of study, and the fees, are similar to those for the conjoined examinations of the Royal Colleges of Physicians and Surgeons of Edinburgh. The first examinations will be held on October 18th, 1881, and January 11th, April 4th, July 19th, and October 18th, 1882; the second examinations on October 27th, 1881, and January 19th, April 13th, July 27th, and October 26th, 1882.

* The examinations will embrace the following subjects:—1. English Language, including Writing to Dictation, Grammar, and Composition (in 1882, also History of England, 1603 to 1837; and Geography of the British Isles). 2. Latin: Translation from Cæsar, *De Bello Gallico*, Book IV; Virgil, *Æneid*, Book VI; and from an author not presented; Questions in Grammar, History, and Geography; an Exercise in rendering English correctly into Latin, the Latin words being supplied. 3. Arithmetic, to Vulgar and Decimal Fractions inclusive; 4. Algebra, including Simple Equations. 5. Geometry: First two Books of Euclid (questions will be given on the third Book of Euclid, but the answering of them will be optional). 6. Natural Philosophy; Elementary Mechanics of Solids and Fluids (after January 1st, 1882, this subject may be passed either as preliminary, or before or at the first professional examination). 7. One of the following subjects at the option of the candidate. *a.* Greek: Xenophon's *Anabasis*, Book III. *b.* French: Molière, *La Misanthrope*. *c.* German: Schiller's *Wilhelm Tell*. In the English, Latin, Greek, French, and German papers, special stress will be laid on accurate grammatical knowledge. Translations of English into Greek, French, and German, will be required from candidates examined in these languages.

UNIVERSITIES OF EDINBURGH, GLASGOW, ABERDEEN, AND ST. ANDREW'S.

REGULATIONS RESPECTING DEGREES IN MEDICINE.

[THE Regulations of these Universities are nearly similar. We therefore give but one statement, noticing points of difference when necessary.]

Three Medical Degrees are conferred by each University: viz., Bachelor of Medicine (M.B.), Master in Surgery (C.M.), and Doctor of Medicine (M.D.). The Degree of C.M. is not conferred on any person who does not also at the same time obtain the Degree of Bachelor of Medicine.

Preliminary Education.—The preliminary branches of extraprofessional education are English, Latin, Arithmetic, the Elements of Mathematics, and the Elements of Mechanics; and candidates must also pass an examination in at least two of the following subjects: Greek, French, German, Higher Mathematics, Natural Philosophy, Logic, Moral Philosophy.* The examinations on both classes of subjects take place† before the commencement of medical study.‡

The Universities of Glasgow and St Andrews include Natural History. In Edinburgh, Natural History [illegible] Professor [illegible] A Certificate [illegible] Arts [illegible] to the [illegible] examination.

† In Edinburgh, examinations on the above subjects will be held on October 4th, 5th, 6th, 7th, and 8th, and March [illegible]th, [illegible]th, [illegible]th, and [illegible]th. 1. English: Writing a passage from dictation; Composition, with correction of sentences of bad English; Grammar, with analysis of sentences and derivation and definition of some common English words; History and Geography. 2. Latin: For October 1881 and March 1882, Cæsar, *De Bello Gallico*, Book V; and March 1883, Livy, Book V; an easy passage from a Latin Prose Author not previously read; passages of English (such as shall be chosen from a Latin Author) to be translated into Latin, the more difficult Latin words being given. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III; and Wilson's *Elementary Geometry*, Book I, II, and III; and the Elementary Rules of Algebra, including Simple Equations. A knowledge of Geometry alone will not be sufficient. 5. Elements of Dynamics (Mechanics): Elementary Kinematics, Statics, Kinetics, and Hydrostatics; Text-book, Blaikie's *Elements of Dynamics*. At least two of the following subjects, to be selected by himself, before he can be admitted to the [illegible] examination: 1. Greek: For October 1881 and March 1882, Xenophon, *Anabasis*, Book III, with Grammatical Questions; For October 1882 and March 1883, Xenophon, *Anabasis*, Book IV, Book VI, and the Discourse of Xenophon to the Greeks, or Williams' *Introduction to Greek Prose Composition*, Part II, III, and V; and Williams' *Scala Græca* and Greek Syntax, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 2. French: For October 1881 and March 1882, Voltaire, *Siècle de Louis XIV*, Chaps. XXII and XXIII; Corneille, *Le Cid*, Acts I and II; For October 1882 and March 1883, Lamartine, *Jeanne d'Arc*; Guizot, *Histoire de la Révolution d'Angleterre*, Vol. I; Molière, Comédies, Book I, II, III, and IV, Book VI, and the Discours sur la Comédie; Racine, Comédies, or Williams' *Introduction to French Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 3. German: For October 1881 and March 1882, Wieland, *Auswahl aus Prosaischen Schriften*, Theil V, No. 5, Neuntes Buch; For October 1882 and March 1883, Lessing, *Minna von Barnhelm*, Act I, II, III, IV, and V; Goethe, *Hermann und Dorothea*, Gesang I, II, III, IV, and V; Schiller, *Geschichte des Dreissigjährigen Krieges*, Buch I, II, III, and IV; Gerstäcker, *Die Flusspiraten des Mississippi*, pp. 1–44, 77–[illegible]. 4. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin. 5. Logic: For October 1881 and March 1882, Jevons' *Elementary Lessons in Logic*, Chaps. I–XIII, and Exercises, pp. 1–141, 177–[illegible]; For October 1882 and March 1883, Jevons' *Elementary Lessons in Logic*, Chaps. XIV–XXIII, and Exercises, pp. 141–177, and Appendix, pp. 178–[illegible]. 6. Moral Philosophy: For October 1881 and 1882, and March 1882 and 1883, Fraser's Selections from Berkeley, pp. 1–44, 77–[illegible]. 7. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin.

‡ Candidates [illegible] will take place on October 5th, 6th, 7th, and 8th, 1881; and on March [illegible]th, 9th, 10th, and 11th, 1882. *Examination in Literary Part.* The candidate must pass in all the subjects of this division before registration by the Branch Registrar of the General Council. 1. English: Writing correctly a passage to dictation; Composition of a short Essay on a given theme; Questions in Grammar, with analysis of sentences and the derivation and meaning of some common English words; English History from 1603 to 1688; Geography of the British Isles. [Candidates in October 1881 will not be examined in Geography.] 2. Latin: Virgil, *Æneid*, Book II; Sallust, *De Bello Catilinario*, chaps. 1–13. Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied; Questions in Grammar and Construction. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III; Algebra, as far as Simple Equations. 5. Elements of Dynamics (Mechanics): Elementary Kinematics, Statics, Kinetics, and Hydrostatics; Text-book, Blaikie's *Elements of Dynamics*. At least two of the following subjects, to be selected by himself, before he can be admitted to the [illegible] examination: 1. Greek: For October 1881 and March 1882, Xenophon, *Anabasis*, Book III, with Grammatical Questions; For October 1882 and March 1883, Xenophon, *Anabasis*, Book IV, Book VI, and the Discourse of Xenophon to the Greeks, or Williams' *Introduction to Greek Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 2. French: For October 1881 and March 1882, Voltaire, *Siècle de Louis XIV*, Chaps. XXII and XXIII; Corneille, *Le Cid*, Acts I and II; For October 1882 and March 1883, Lamartine, *Jeanne d'Arc*; Guizot, *Histoire de la Révolution d'Angleterre*, Vol. I; Molière, Comédies, Book I, II, III, and IV, Book VI, and the Discours sur la Comédie; Racine, Comédies, or Williams' *Introduction to French Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 3. German: For October 1881 and March 1882, Wieland, *Auswahl aus Prosaischen Schriften*, Theil V, No. 5, Neuntes Buch; For October 1882 and March 1883, Lessing, *Minna von Barnhelm*, Act I, II, III, IV, and V; Goethe, *Hermann und Dorothea*, Gesang I, II, III, IV, and V; Schiller, *Geschichte des Dreissigjährigen Krieges*, Buch I, II, III, and IV; Gerstäcker, *Die Flusspiraten des Mississippi*, pp. 1–44, 77–[illegible]. 4. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin. 5. Logic: For October 1881 and March 1882, Jevons' *Elementary Lessons in Logic*, Chaps. I–XIII, and Exercises, pp. 1–141, 177–[illegible]; For October 1882 and March 1883, Jevons' *Elementary Lessons in Logic*, Chaps. XIV–XXIII, and Exercises, pp. 141–177, and Appendix, pp. 178–[illegible]. 6. Moral Philosophy: For October 1881 and 1882, and March 1882 and 1883, Fraser's Selections from Berkeley, pp. 1–44, 77–[illegible]. 7. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin.

At St. Andrew's, the Examination takes place during the first week of the session. The following are the subjects. English: The qualifications of candidates will be tested by the style and general character of their written translations and answers, and by their knowledge of the derivations of words employed in Medicine. Latin: Cicero, *De Officiis*, Book I; Virgil, *Æneid*, Book II. Mathematics: Elementary Rules of Arithmetic, including Vulgar and Decimal Fractions; Euclid: Books I and II; Algebra, as far as Simple Equations. Natural Philosophy: Composition and Resolution of Forces; the Lever, the Wheel and Axle, the Pulley, and the Inclined Plane; and the Centre of Gravity. Natural History: Outlines of Natural History; or two Books of Homer. Greek: Xenophon, *Anabasis*, Book III; Sallust, *De Bello Catilinario*, or two Books of Homer. French: Voltaire, *Siècle de Louis XIV*, Chaps. XXII and XXIII; Corneille, *Le Cid*, Acts I and II. German: Wieland, *Auswahl aus Prosaischen Schriften*, Theil V, No. 5, Neuntes Buch; Lessing, *Minna von Barnhelm*, Act I, II, III, IV, and V. Logic: Jevons' *Elementary Lessons in Logic*, Chaps. I–XIII, and Exercises, pp. 1–141, 177–[illegible]; Jevons' *Elementary Lessons in Logic*, Chaps. XIV–XXIII, and Exercises, pp. 141–177, and Appendix, pp. 178–[illegible]. Moral Philosophy: Fraser's Selections from Berkeley, pp. 1–44, 77–[illegible]. Mathematics: Euclid, Books I, II, III, IV, and V. Algebra, Plane Trigonometry, and the Elementary Propositions on the Straight Line, Circle, and Conic Sections, treated analytically. The Examiners recommend [illegible] Wilson's *Elementary Geometry*, Books I, II, III, and IV; Todhunter's *Plane Trigonometry*, Chaps. I–VI, with the Examples; Todhunter's *Plane Coordinate Geometry*, Chaps. XV, XVI. Natural Philosophy: Elementary Mechanics. Hydrostatics and Pneumatics. (Although a knowledge of the principles of Mechanics and Hydrostatics will be required, candidates [illegible] pass the examination at the end of [illegible] Natural History: Nicholson, *Introductory Text-book of Zoology*, Part I. Logic: Jevons' *Elementary Lessons in Reasoning*. Moral Philosophy: Fraser's Selections from Berkeley. Physics: [illegible] *Introduction to the Physical Sciences*.

A Degree in Arts (not honorary) in any one of the Universities of England, Scotland, or Ireland, or in any Colonial or Foreign University specially recognised by the University Courts, exempts from preliminary examination. The Universities also recognise examination in Arts by any corporate body whose examinations have been recognised by the General Medical Council, and also approved by the University Court, so far as regards all subjects comprised in the examination of the said corporate body.

DEGREE OF BACHELOR IN MEDICINE AND MASTER IN SURGERY.

Candidates for the Degree of Bachelor in Medicine or Master in Surgery must have been engaged in medical and surgical study for four years—each *Annus Medicus* being constituted by at least two courses of not less than 100 lectures each, or by one such course, and two courses of not less than 50 lectures each; with the exception of the clinical course, in which lectures are to be given at least twice a week.

Every candidate for the Degree of M.B. and C.M. must give sufficient evidence by certificates—1. That he has studied Anatomy, Chemistry, Materia Medica, Institutes of Medicine or Physiology, Practice of Medicine and of Surgery, Midwifery and the Diseases of Women and Children,* General Pathology,† during courses including not less than 100 lectures; Practical Anatomy, a course of the same duration as the preceding; Practical Chemistry, three months; Practical Midwifery, three months at a Midwifery Hospital, or attendance on six cases under a registered medical practitioner; Clinical Medicine and Clinical Surgery, each course of not less than 100 lectures, or two courses of three months; Medical Jurisprudence, Botany, Natural History, including Zoology, courses of not less than 50 lectures. 2. That he has attended for at least two years the Medical and Surgical Practice of a General Hospital with not fewer than 80 patients. 3. That he has been engaged for at least three months in compounding and dispensing drugs at the Laboratory of a Hospital or Dispensary, of a Member of a Surgical College or Faculty, Licentiate of the London or Dublin Societies of Apothecaries, or a Member of the Pharmaceutical Society of Great Britain.‡ 4. That he has attended, for at least six months, the out-practice of a hospital or the practice of a dispensary,

* In Edinburgh, examinations on the above subjects will be held on October 4th, 5th, 6th, 7th, and 8th, and March [illegible]th, [illegible]th, [illegible]th, [illegible]th, and [illegible]th. 1. English: Writing a passage from dictation; Composition, with correction of sentences of bad English; Grammar, with analysis of sentences and derivation and definition of some common English words; History and Geography. 2. Latin: For October 1881 and March 1882, Cæsar, *De Bello Gallico*, Book V; and March 1883, Livy, Book V; an easy passage from a Latin Prose Author not previously read; passages of English (such as shall be chosen from a Latin Author) to be translated into Latin, the more difficult Latin words being given. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III; and Wilson's *Elementary Geometry*, Book I, II, and III; and the Elementary Rules of Algebra, including Simple Equations. A knowledge of Geometry alone will not be sufficient. 5. Elements of Dynamics (Mechanics): Elementary Kinematics, Statics, Kinetics, and Hydrostatics; Text-book, Blaikie's *Elements of Dynamics*. At least two of the following subjects, to be selected by himself, before he can be admitted to the [illegible] examination: 1. Greek: For October 1881 and March 1882, Xenophon, *Anabasis*, Book III, with Grammatical Questions; For October 1882 and March 1883, Xenophon, *Anabasis*, Book IV, Book VI, and the Discourse of Xenophon to the Greeks, or Williams' *Introduction to Greek Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 2. French: For October 1881 and March 1882, Voltaire, *Siècle de Louis XIV*, Chaps. XXII and XXIII; Corneille, *Le Cid*, Acts I and II; For October 1882 and March 1883, Lamartine, *Jeanne d'Arc*; Guizot, *Histoire de la Révolution d'Angleterre*, Vol. I; Molière, Comédies, Book I, II, III, and IV, Book VI, and the Discours sur la Comédie; Racine, Comédies, or Williams' *Introduction to French Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 3. German: For October 1881 and March 1882, Wieland, *Auswahl aus Prosaischen Schriften*, Theil V, No. 5, Neuntes Buch; For October 1882 and March 1883, Lessing, *Minna von Barnhelm*, Act I, II, III, IV, and V; Goethe, *Hermann und Dorothea*, Gesang I, II, III, IV, and V; Schiller, *Geschichte des Dreissigjährigen Krieges*, Buch I, II, III, and IV; Gerstäcker, *Die Flusspiraten des Mississippi*, pp. 1–44, 77–[illegible]. 4. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin. 5. Logic: For October 1881 and March 1882, Jevons' *Elementary Lessons in Logic*, Chaps. I–XIII, and Exercises, pp. 1–141, 177–[illegible]; For October 1882 and March 1883, Jevons' *Elementary Lessons in Logic*, Chaps. XIV–XXIII, and Exercises, pp. 141–177, and Appendix, pp. 178–[illegible]. 6. Moral Philosophy: For October 1881 and 1882, and March 1882 and 1883, Fraser's Selections from Berkeley, pp. 1–44, 77–[illegible]. 7. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin.

‡ Candidates [illegible] will take place on October 5th, 6th, 7th, and 8th, 1881; and on March [illegible]th, 9th, 10th, and 11th, 1882. *Examination in Literary Part.* The candidate must pass in all the subjects of this division before registration by the Branch Registrar of the General Council. 1. English: Writing correctly a passage to dictation; Composition of a short Essay on a given theme; Questions in Grammar, with analysis of sentences and the derivation and meaning of some common English words; English History from 1603 to 1688; Geography of the British Isles. [Candidates in October 1881 will not be examined in Geography.] 2. Latin: Virgil, *Æneid*, Book II; Sallust, *De Bello Catilinario*, chaps. 1–13. Translations of passages from authors not prescribed, and of English passages into Latin, the principal Latin words being supplied; Questions in Grammar and Construction. 3. Arithmetic: The Common Rules, including Vulgar and Decimal Fractions. 4. Elements of Mathematics: Euclid, Books I, II, and III; Algebra, as far as Simple Equations. 5. Elements of Dynamics (Mechanics): Elementary Kinematics, Statics, Kinetics, and Hydrostatics; Text-book, Blaikie's *Elements of Dynamics*. At least two of the following subjects, to be selected by himself, before he can be admitted to the [illegible] examination: 1. Greek: For October 1881 and March 1882, Xenophon, *Anabasis*, Book III, with Grammatical Questions; For October 1882 and March 1883, Xenophon, *Anabasis*, Book IV, Book VI, and the Discourse of Xenophon to the Greeks, or Williams' *Introduction to Greek Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 2. French: For October 1881 and March 1882, Voltaire, *Siècle de Louis XIV*, Chaps. XXII and XXIII; Corneille, *Le Cid*, Acts I and II; For October 1882 and March 1883, Lamartine, *Jeanne d'Arc*; Guizot, *Histoire de la Révolution d'Angleterre*, Vol. I; Molière, Comédies, Book I, II, III, and IV, Book VI, and the Discours sur la Comédie; Racine, Comédies, or Williams' *Introduction to French Prose Composition*, Part II, III, and V, and Williams' *Scala Græca and Greek Syntax*, Book IV, sections 1 and 2, Accidence, Elementary Etymology, and Composition. 3. German: For October 1881 and March 1882, Wieland, *Auswahl aus Prosaischen Schriften*, Theil V, No. 5, Neuntes Buch; For October 1882 and March 1883, Lessing, *Minna von Barnhelm*, Act I, II, III, IV, and V; Goethe, *Hermann und Dorothea*, Gesang I, II, III, IV, and V; Schiller, *Geschichte des Dreissigjährigen Krieges*, Buch I, II, III, and IV; Gerstäcker, *Die Flusspiraten des Mississippi*, pp. 1–44, 77–[illegible]. 4. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin. 5. Logic: For October 1881 and March 1882, Jevons' *Elementary Lessons in Logic*, Chaps. I–XIII, and Exercises, pp. 1–141, 177–[illegible]; For October 1882 and March 1883, Jevons' *Elementary Lessons in Logic*, Chaps. XIV–XXIII, and Exercises, pp. 141–177, and Appendix, pp. 178–[illegible]. 6. Moral Philosophy: For October 1881 and 1882, and March 1882 and 1883, Fraser's Selections from Berkeley, pp. 1–44, 77–[illegible]. 7. Latin, Greek, English, and German, questions in Grammar will be set, and passages to be translated into Latin.

At each University, the candidate for the Degree of Doctor of Medicine must, before or at the time of his obtaining the Degree of Bachelor of Medicine thereafter, have passed a satisfactory examination in Greek and Latin. Moral Philosophy, and in one at least of the following subjects, namely, French, German, Higher Mathematics, Natural Philosophy, and Natural History.

* Two courses of Midwifery, of three months each, are required in Edinburgh, a six months' course, provided different departments [illegible] Medical Hospital in each of the courses.

† Of a three months' course of lectures on Morbid Anatomy, together with a supplemental course of Practice of Medicine or Clinical Medicine. [illegible] Pathology is not required at Aberdeen.

‡ In the Laboratory of an Hospital or Dispensary of a Registered Medical Practitioner, or of a Member of the Pharmaceutical Society of Great Britain [illegible] Glasgow.

or of a registered practitioner. Evidence of a practical knowledge of vaccination is also required.

One of the four years of medical and surgical study must be in the University granting the degree sought. Another year must be either in the same University, or in some other University entitled to give the Degree of Doctor of Medicine.* [At St. Andrew's, no one can be re-received as a candidate for the Degree of Bachelor of Medicine or Master in Surgery unless two years at least of his four years of medical and surgical study shall have been in one or more of the following Universities and Colleges; viz., the Universities of St. Andrew's, Glasgow, Aberdeen, Edinburgh, Oxford, or Cambridge; Trinity College, Dublin; and Queen's College, Belfast, Cork, or Galway.] Attendance during at least six winter months on the medical or surgical practice of a General Hospital which accommodates at least eighty patients, and during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Ireland, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the University Court, may be reckoned as one of the four years.† All candidates not students of the University attending the lectures of Extra-Academical Teachers, must, at the commencement of each year of attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation Fee.

Every candidate must deliver, at such time of the year as may be fixed by the Senatus Academicus—1. A declaration, in his own handwriting, that he is twenty-one years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.‡

The examinations are conducted in writing and *vivâ voce*, and, as far as possible, by demonstrations of objects and other practical tests. They are divided as follows:

EDINBURGH: 1. Chemistry, Botany, and Natural History; 2. Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3. Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4. Clinical Medicine and Surgery in a hospital. Students may be admitted to examination on the first division at the end of their second year, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*. Candidates may be admitted to examination on the first two divisions at the end of their third year, or to the four examinations at the end of the fourth year.

GLASGOW: 1. Chemistry, Botany, and Natural History; 2. Anatomy and Physiology; 3. Regional Anatomy, Materia Medica and Pharmacy, and Pathology; 4. Surgery, Clinical Surgery, Medicine, Clinical Medicine, Therapeutics, Midwifery, and Medical Jurisprudence. Students may be examined in the first division of subjects after attending the required courses during three sessions; in the second division, after five sessions from the time of the commencement of their studies; in the third division, after the conclusion of the third winter's session of attendance upon medical classes; in the fourth division, at the first term for the final examination after the conclusion of their curriculum of study.

ABERDEEN: 1. Botany, Natural History, Chemistry, and Anatomy; 2. Regional Anatomy, Institutes of Medicine, Materia Medica, and Surgery; 3. Practice of Medicine and General Pathology, Clinical Medicine, Clinical Surgery, Midwifery, and Medical Jurisprudence.

ST. ANDREW'S: 1. Chemistry, Botany, Elementary Anatomy, and Materia Medica; 2. Advanced Anatomy, Zoology with Comparative Anatomy, Physiology, and Surgery; 3. Practice of Medicine, Clinical Medicine, Clinical Surgery, Midwifery, General Pathology, and Medical Jurisprudence.

At both these Universities, the examination in the first division of subjects cannot be passed before the end of the second year (except that at Aberdeen the examination in Botany and Natural History may be passed at the examination term preceding the winter session); the examination in the second division cannot be passed before the end of the third year; and that in the third division not before the end of the fourth year. Candidates may be admitted to examination on the first two divisions at the end of the third year, or to the three examinations at the end of the fourth year.

A rejected candidate is not again admitted to examination at either of the Universities unless he shall have completed another year of medical study, or such portion of a year as may be prescribed by the examiners.

The professional examinations will be held at the following times: *Aberdeen*—April and July, directly after the close of the session. *Edinburgh*—First Examination, October 13th and 14th, 1881, and April 3rd and 4th, 1882; Second Examination, April 6th and 8th, 1882; Clinical Examination, May 3rd, 1882; Final Examination, June 1st, 1882. *Glasgow*—First, Second, and Third Examinations, beginning on October 1st, 1881, and April 7th, 1882; Fourth Examination, Clinical, June 9th, 1882; Written, July 11th, 1882.

DEGREE OF DOCTOR OF MEDICINE.

The Degree of Doctor of Medicine may be conferred on any candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to having received the Degree of Bachelor of Medicine, for at least two years in attendance on a Hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The candidate must be a Graduate in Arts, or must, before or at the time of obtaining his Degree of Bachelor of Medicine,* or thereafter, have passed a satisfactory examination in Greek, and in Logic or Moral Philosophy, and in one at least of the other optional subjects of the examination in general education (see page 437). At Aberdeen, Edinburgh, and Glasgow, he must submit to the Medical Faculty a thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.†

Candidates who commenced their medical studies in Edinburgh before February 4th, 1861, in Aberdeen before the first Tuesday in November 1861, and in Glasgow before October 1st, 1861, are entitled to be examined for the Degree of Doctor of Medicine, under the regulations then in force in each University respectively. At Edinburgh, candidates settled for a period of years in foreign parts, who have complied with all the regulations for the Degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiner of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year. The candidate must produce a certificate of age, and three certificates from medical men of acknowledged reputation as to his professional position

* Entitled to grant Degrees in Medicine. *Glasgow.*

Students of Medicine in the London Schools and in the School of the College of Surgeons in Dublin can obtain there two *Anni Medici* out of the four required for the Edinburgh Degrees in Medicine. Courses of Lectures in these Schools are regarded as equivalent to Lectures on the corresponding subjects in this University, except Materia Medica and Midwifery, which, being only three months' Courses in them, are not equivalent. One *Annus Medicus* may be constituted by attendance on Practical Anatomy and Hospital Practice during the winter session. Another *Annus Medicus* by attending either (*a*) full winter courses on any two of the following subjects: Anatomy, Physiology, Chemistry, Pathology, Surgery, Medicine, Clinical Surgery, Clinical Medicine; or (*b*) on one such Course and a three months' Course on any two of the following subjects: Botany, Practical Chemistry, Natural History, Medical Jurisprudence. If the student selects the arrangement prescribed in (*a*), certificates of attendance on either a third winter Course, or a third three months' Course, will also be accepted. The other subjects, and the additional Courses, not given in London or Dublin, required for the degrees of the University, will have to be attended at the University. In Provincial Schools, where there are no Lecturers recognised by the University Court, a Candidate can have only One *Annus Medicus*, and this is constituted by attendance on a Qualified Hospital along with a course of Practical Anatomy; but in a Provincial School where there are two or more Lecturers recognised by this University, a Second *Annus Medicus* may be made by attendance on at least two six months', or one six months' and two three months', recognised Courses.—*Edinburgh.*

† The other two years may be constituted by attendance upon courses in the great Hospital Medical Schools of London or Dublin; and, in default of such attendance, one of the four years may be constituted by attendance on any general Hospital containing not less than eighty beds, provided attendance has been given at the same time on a course of Practical Anatomy.—*Glasgow.*

‡ The University of St. Andrew's requires an Inaugural Dissertation to be presented previously to the final examination for M.B. In the other universities, no Thesis is required until the candidate seeks the Degree of M.D.

* Or within three years thereafter.—*St. Andrew's.*

† No Thesis will be approved by the Medical Faculty which does not contain either the results of original observations in Practical Medicine, Surgery, Midwifery, or some of the sciences embraced in the curriculum for the Bachelor's Degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise reference to the publications quoted, so that due verification may be facilitated.—*Edinburgh.* There is a similar regulation in the University of Glasgow.

and experience. The examination is conducted in writing and *vivâ voce* on Materia Medica and General Therapeutics, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery and Diseases of Women and Children.

The Graduation Fees in each of the Universities are—for the Degree of M.B., three examinations, each £5 5s.=£15 15s.; for the Degree of C.M., £5 5s. additional; for the Degree of M.D., £5 5s. additional to that for M.B., together with Government stamp duty (£10).

The fee for graduating under the old Regulations in Edinburgh is £25. At St. Andrew's, the fee for the Degree of M.D. under the Section relative to Registered Medical Practitioners is 50 guineas; if the candidate fail to pass, £10 10s. (which is to be paid before the examination) is retained. Stamp duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

Stated Examinations for the Licences of the College in Medicine and Midwifery are held in the week following the first Friday in each month, except August and September.

LICENCE IN MEDICINE.

Every candidate for the licence of the College to practise Medicine must produce satisfactory evidence—1. Of character, from a Fellow of the College, or from two registered practitioners. 2. Of having passed an examination in general education, held by some one of the examining bodies recognised by the General Medical Council. 3. Of having been engaged during a period of four years in the study of Medicine. 4. Of having attended courses of lectures on the following subjects, at schools recognised by the College: Practical Anatomy, two courses; Physiology or Institutes of Medicine, Chemistry, Practical Chemistry, Materia Medica, Medical Jurisprudence, Practice of Medicine and Pathology, Surgery, and Midwifery—each one course. 5. Of having attended for twenty-seven months a recognised Medico-Chirurgical Hospital, in which clinical lectures and clinical instruction in Medicine are given; the attendance not to be for more than nine months in any one year, viz., six winter and three summer months; and of having, for not less than three months, studied Fever in a recognised Clinical Hospital, containing fever wards, and of having recorded, from daily personal observation, at least five cases of fever, to the satisfaction of the attending Clinical Physician. [This by-law will not be compulsory in the case of candidates who commenced their hospital attendance before October 1879. Candidates who commenced their hospital studies between September 1876, and October 1879, must furnish evidence either of having, during nine months of their hospital attendances, studied in a hospital containing fever wards, or of having conformed with the by-law referring to five fever cases.] 6. Of having attended Practical Midwifery and Diseases of Women for six months at a Lying-in Hospital or Maternity recognised by the College; or, where such hospital attendance cannot have been obtained during the course of study, of having been engaged in Practical Midwifery under the supervision of a registered practitioner holding public appointments; in either case, not less than twenty labour-cases must have been actually attended. 7. Of having lodged the admission fee in the Royal Bank of Ireland to the credit of the College.

Examinations.—The professional examination is divided into two parts: 1. Anatomy, Physiology, Chemistry, and Materia Medica; 2. Practice of Medicine, Clinical Medicine, Pathology, Medical Jurisprudence, Midwifery, Hygiene, and Therapeutics. Candidates may be examined in the subjects of the first part at the termination of the second year of study, on producing the certificates in these subjects, or in all the subjects of their education, on the completion of their medical studies. No candidate can be examined in all the subjects of the first and second parts in the same month. The examinations are conducted by printed papers, orally, and at the beds [illegible].

Exempted Cases.—Candidates qualified as follows are required to undergo the second part only of the professional examination, viz.: 1. Graduates in Medicine of any University in the United Kingdom, or of any Foreign University approved by the College; 2. Fellows, Members, or Licentiates of the Royal College of Physicians of London or Edinburgh; 3. Graduates or Licentiates in Surgery; 4. Candidates who, having completed the curriculum laid down above, shall have passed the previous professional examination or examinations of any of the licensing medical authorities in the United Kingdom. Candidates thus qualified, as specified in Sections 1, 2, and 3, must fill up a schedule and present their registration certificate (or their medical or surgical qualification), as well as certificates of character, of practical midwifery, and of attendance on a clinical hospital which receives cases of fever. Candidates whose case is met by Section 4 must produce, in addition to the certificates required from candidates for the licence, a certificate from the licensing medical authority to the effect that such previous professional examination has been successfully passed.

Any registered practitioner of *five* years' standing may be admitted to examination for the licence of the College, on producing his certificate of registration, with satisfactory reference, and is exempted from the examination by printed questions.

Unsuccessful candidates may be admitted to re-examination after not less than two months.

LICENCE IN MIDWIFERY.

Candidates for the licence in midwifery, who are not licentiates in medicine, may be admitted to examination on the following qualifications: 1. The degree or licence in medicine or surgery from any University or College of Physicians or Surgeons in the United Kingdom; 2. Testimonials as to character; 3. Certificates of having attended *(a)* a course of lectures on midwifery in a school recognised by the College; *(b)* practical midwifery and diseases of women, as in Section 6 of the regulations for the Licence in Medicine.

Candidates who are licentiates in medicine of the College, or who have passed the examination for such licence, may be admitted to examination for the licence in midwifery on lodging their fees and signifying their wish to the registrar a week at least before such examination.

Registered practitioners of *five* years' standing are admitted to examination for the licence in midwifery on producing their certificate of registration with satisfactory reference, and are exempted from the examination by printed questions.

Fees.—The fees are—For the licence to practise medicine, £15 15s., which may be divided as follows: viz.: examination at the termination of the first period of study, £5 5s; final examination, £10 10s. Examination for the licence to practise midwifery, £3 3s. Examination for the licences in medicine and midwifery, if obtained within a month, to be lodged in one sum, £16 16s. Special examination for the licence to practise medicine, £21; for the licence to practise midwifery, £5 5s. The admission fee, less the sum paid to the examiners, is returned to any candidate rejected at any of the College examinations.

MEMBERSHIP.

Every candidate for the Membership of the College (not admitted before December 12th, 1878), is required to produce satisfactory evidence—1. Of having attained the age of twenty-five years. 2. Of being a Licentiate of this College for three years at least, computed from the day on which he shall have subscribed his name on admission as a Licentiate; or a Licentiate of one year's standing, who shall be a Graduate of Arts of an University in the United Kingdom at the time of his obtaining the licence; or a Licentiate of one year's standing, who shall be a registered practitioner of seven years' standing at the time of his obtaining the licence. 3. Of having attended courses of practical instruction in Ophthalmology and Histology. 4. Of having held during at least six months the office of resident physician or resident medical pupil, or of having acted during the same period as medical clinical clerk, in a recognised hospital; or of having been in medical charge for at least twelve months of a public institution for the treatment of the sick. 5. He must also produce a testimonial of moral character and professional conduct from a Fellow or Member of the College, or from a Fellow of one of the Colleges of Physicians of London or Edinburgh. 6. He must not be engaged in trade, nor must he compound or dispense medicines except in cases of extreme urgency; nor must he practise medicine or surgery in partnership.

The examinations are held quarterly. Every candidate must pass an examination in Pathology; Medical Anatomy; Histology; Medical Chemistry; Principles of Public Health, including Climatology and Meteorology; Psychology; Forensic Medicine; and Clinical Medicine. The fee for the examination is £21. The examinations are held in January, April, July, and October.

Candidates who were admitted Licentiates of the College before December 12th, 1878, may be admitted Members of the College, under the following conditions. 1. They shall comply with Clauses 1, 2, 5, and 6, as above stated. 2. They shall satisfy the College that they have, since their admission as Licentiates, obeyed the by-laws of the College. Should the College be satisfied that they have complied with the above regulations, they shall be admitted Members without fee or examination, on taking the declaration required of Members.* Should the candidate wish to obtain the parchment diploma of Membership, he shall pay one guinea.

* [illegible]

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LETTERS TESTIMONIAL.

[The subjoined regulations are those which have been in force up to the present time. A new scheme of education and examination has, however, been prepared by the Council of the College, and awaits the approval of the Secretary of State. It is, however, strongly opposed; and, as its ultimate adoption is an uncertain matter, its publication is deferred.]

Every person requiring to be registered as a pupil on the College books shall, if the Council think fit, be so registered on the payment of five guineas. Registered pupils are admitted to the Preliminary Examination of the College without further fee, and are permitted to study each weekday in the Museum, to read in the Library; also to attend the Lectures on Comparative Anatomy, and to obtain a certificate for such attendance, without payment of any fee. No student can be admitted as a candidate to any of the stated examinations, or to the special examinations for the Letters Testimonial, until he has been enrolled as a registered pupil, and also passed a preliminary examination.

Registered pupils may present themselves, without payment of any further fee, for the Preliminary Examination at any period previous to the commencement of professional studies. Non-registered pupils pay one guinea. Students who have passed any of the Preliminary Examinations recognised by the General Medical Council, in which the Greek language is compulsory, are exempt from any further preliminary examination, and are entitled to become registered pupils.

Candidates for Letters Testimonial may present themselves either at a special or at a stated examination.

Special Examinations.—Every registered pupil shall be admitted, upon payment of a special fee of £5 5s. in addition to the ordinary fee of £21, to a special examination for Letters Testimonial, on producing evidence that he has passed a Preliminary Examination in which Greek is compulsory; that he has been engaged in the study of his profession for not less than four years; that he has attended during three years a recognised hospital where Clinical Instruction is given; that he has attended three courses each of Lectures on Anatomy and Physiology, and on the Theory and Practice of Surgery and of Dissections, accompanied by demonstrations; two courses of Lectures on Chemistry, or one course of Lectures on General and one on Practical Chemistry; one course each of Lectures on Materia Medica, Practice of Medicine, Midwifery, Medical Jurisprudence, and Botany; and that he has received instruction in vaccination under a recognised vaccinator, and is practically acquainted therewith.

The subjects for examination are the same as for the Stated Examinations. A rejected candidate will only be entitled to receive back £15 15s.

Stated Examinations are held in April, July, and November. Candidates must be registered pupils, and are divided into two classes—Junior and Senior.

The Junior Class must produce certificates of having passed a Preliminary Examination in which the Greek language is compulsory, and of having attended three courses each of Lectures on Anatomy and Physiology, and on Practical Anatomy with Dissections; two courses of Lectures on Chemistry; one course each of Lectures on Materia Medica, Botany, and Forensic Medicine. This class is examined in Anatomy, Histology, Physiology, Materia Medica, and Chemistry.

The fee for this examination is £5 5s., in addition to the registration fee of £5 5s.; it is not returned in case of rejection, but is allowed the candidate in case he presents himself a second time for examination.

The Senior Class must produce certificates of having attended three courses of Lectures on the Theory and Practice of Surgery, one course each of Lectures on the Practice of Medicine, and on Midwifery; also of attendance on a recognised Hospital for three Winter and three Summer Sessions. This class is examined in Surgery, Operative Surgery and Surgical Appliances, Practice of Medicine, Medical Jurisprudence, and Prescriptions.

The fee for the Senior Class Examination is £15 15s., returnable to the candidate in case of rejection.

The examinations are partly written and partly oral.

In addition to the foregoing fees, a fee of £1 1s. is paid to the Registrar. Every candidate rejected at a Stated Examination, on applying for re-examination, must pay £2 2s., in addition to the regular fees.

FELLOWSHIP.

Every registered pupil or licentiate may be admitted to examination for the Fellowship on producing a certificate that he is twenty-five years of age, and that he is a Bachelor of Arts, or has been examined with a view to ascertain that he has obtained a liberal preliminary education; also a certificate, signed by two or more Fellows of the College, of general good conduct. He must have been engaged in the acquisition of professional knowledge not less than six years (five years being required in the case of Bachelor of Arts), during three of which he must have studied in one or more of the schools and hospitals recognised by the Council. The other three years may have been passed in any approved school. He must also have acted as House-Surgeon or Dresser in a recognised hospital; and must have attended the lectures required of candidates for Letters Testimonial, together with one course of lectures on Comparative Anatomy, and one on Natural Philosophy. He must present a thesis on some medical subject, or clinical reports, with observations of six or more medical or surgical cases taken by himself.

Licentiates of the College, who cannot show that they have followed the course of study specified, may, at the expiration of ten years from the date of their diploma, be admitted to the examination for the Fellowship, on producing satisfactory evidence that they have conducted themselves honourably in the practice of their profession.

Each candidate for the Fellowship is examined on two days. The subjects of the first examination are Anatomy and Physiology (Human and Comparative): those of the second—Pathology, Therapeutics, the Theory and Practice of Medicine and Surgery, and Clinical Surgery. The examinations are both oral and written. The candidates must perform Dissections and Operations on the dead bodies. Rejected candidates cannot present themselves a second time until after one year.

The fee payable is £21 if the candidate be a Licentiate, or £36 15s. if he be only a registered pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he pays, if a Licentiate, £31 10s.; if only a registered pupil, £47 5s. Fellows entering on the country list, who may subsequently settle as practitioners in Dublin, or within ten miles thereof, must pay £10 10s. to the College.

DIPLOMA IN MIDWIFERY.

Any Fellow or Licentiate of the College is admissible to the examination for a Diploma in Midwifery on producing certificates of having attended a course of Lectures on Midwifery and Diseases of Women and Children; the Practice (for six months) of a Lying-in Hospital, or of a Dispensary for Lying-in Women and Children; and that he has attended at least thirty labours.

Candidates are examined on the Organisation of the Female; the Growth and Peculiarities of the Fœtus; the Practice of Midwifery, and the Diseases of Women and Children; and, if approved of, receive a licence or diploma.

A rejected candidate is not again admitted to examination within three months, nor unless he produces satisfactory evidence of having been engaged in the study of Midwifery subsequently to his rejection.

The fee is £1 6s. if the Midwifery Diploma be taken out within one month from the date of the Letters Testimonial; afterwards it is £2 2s.

APOTHECARIES' HALL OF IRELAND.

EVERY candidate for the Licence to Practise is required to undergo a Preliminary and a Professional Education and Examination.* The Arts Examination is held four times in the year, viz., the third Thursday in the months of January, April, July, and October. Unsuccessful candidates are remitted to their studies for six months.

Professional Education and Examinations.—Every candidate for the Licence to Practise Medicine and Pharmacy must produce certificates: 1. Of having passed an examination in Arts previously to entering on professional study. 2. Of registration as a medical student, at least forty-five months before admission to the final professional examination. 3. Of being at least twenty-one years of age, and of good moral character. 4. Of pupilage to a qualified apothecary, or of having been otherwise engaged at Practical Pharmacy for twelve months subsequently to having passed the examination in Arts. 5. Of having spent four years in professional study. 6. Of having attended the following courses, viz.: Chemistry, Anatomy and Physiology, Prin-

* The following are the subjects of Preliminary Examination:—*Compulsory.* 1. English: Grammar, Composition, Modern Geography (on and after January 1st, 1882), and the leading events of English History. 2. Arithmetic and Algebra: Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: The First Two Books of Livy, or the First Two Books of the *Æneid* of Virgil, and Latin Prose Composition. 5. One of the following: *Optional:* *a.* Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics. *b.* Greek; *c.* French; *d.* German; *e.* Italian; *f.* Any other Modern Languages; *g.* Logic; *h.* Botany; *i.* Elementary Chemistry.

ciples and Practice of Medicine, and Surgery, each during one winter session; Demonstrations and Dissections, each during two winter sessions; Botany and Natural History, and Forensic Medicine, each during one summer session; Practical Chemistry (in a recognised Laboratory) and Materia Medica, each during three months; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (twenty cases); instruction in Vaccination. 7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session. 8. Of Practical Study, with care of patients, as apprentice, pupil, assistant, clinical clerk, or dresser in Hospital, Dispensary, or with a registered Practitioner. 9. Of having performed the operation of Vaccination successfully under a recognised Vaccinator.

The Examination for the Licence to Practise is divided into two parts.

The first part comprehends Chemistry (including Physics), Botany, Anatomy, Physiology, Materia Medica, and Pharmacy; the second, Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene.

The first part may be undergone after the candidate has passed an examination in Arts and attended the requisite courses of Lectures; and the second after the completion of his studies at the termination of the fourth winter session.

Candidates at the examination on Anatomy are liable to be called on to perform Dissections; and at the examination on Surgery to perform one or more Operations on the dead subject.

The professional examinations will commence, the first examination on the first, and the final examination on the second, Mondays in January, April, July, and October, and will be continued on the succeeding Tuesdays and Wednesdays; clinical examinations will take place (in the final division) on Thursdays. The first three hours of each day will be devoted to writing answers to papers, and afterwards there will be an oral and practical examination on the subjects.

Candidates who fail to pass the first part of the professional examination will be remitted to their studies for three months; and, at the final examination, for six months.

Doctors of Medicine of any of the Universities of the United Kingdom, and Licentiates of a Royal College of Physicians, or Surgeons of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the *Medical Register*, and who, having first passed an examination in Arts, have also passed twelve months at Practical Pharmacy, may obtain the Licence of the Hall by undergoing an examination—the former two in Surgery and Pharmacy, and the latter in Medicine and Pharmacy.

Licentiates of the London Society of Apothecaries must undergo an examination in Surgery for the Licence.

Candidates must lodge their testimonials and the fees, and enrol their names and addresses with Mr. Charles Wright, at the Hall, in Dublin, a clear week prior to the day of examination.

UNIVERSITY OF DUBLIN.

THE degress in Medicine and Surgery granted by the University are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Mastery in Surgery; 5. Master in Obstetric Science. It also grants Licences in Medicine; Surgery, and Obstetric Science.

BACHELOR IN MEDICINE.

A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same examination at which he takes his Degree of B.A., or at any subsequent examination, provided the requisite medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Theoretical and Operative Surgery; Chemistry; Practical Course of Institutes of Medicine; Practice of Medicine; Midwifery. *Summer*—Botany; Institutes of Medicine; Comparative Anatomy; Materia Medica and Pharmacy; Medical Jurisprudence. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary). Six months' dissection, and three months' laboratory instruction in Chemistry. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other recognised hospital recognised by the Board.*

A certificate of personal attendance on fever cases, with names and dates of cases. Six months' instruction in Practical Midwifery,* including clinical lectures. Practical instruction in Vaccination. Any of the winter or summer courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows.† Students who shall have diligently attended the practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

Candidates for the Degree of M.B. must pass the Previous Medical Examination and the Bachelor of Medicine Examination.

The *Previous Examination* comprises Botany and Materia Medica; Physics and Chemistry; Descriptive Anatomy and Institutes of Medicine (Practical Histology and Physiology). The examination in Descriptive Anatomy includes examination in the dead subject. It is not necessary that the student should pass in all these subjects at the same examination.

There are three Previous (Half M.B.) Medical Examinations held each year, immediately before each M.B. examination, together with a Supplemental Examination in the same subjects, at the close of the summer session.

Bachelor of Medicine Examination.—The candidate for the M.B. examination must have previously passed the Previous Medical Examination in all the subjects, and have lodged with the Medical Registrar, on a certain day to be duly advertised, certificates of attendance upon all the courses of study above prescribed.

Candidates must pass a final examination in the following subjects: Physiological Anatomy; Practice of Medicine; Surgery; Midwifery; Medical Jurisprudence; Institutes of Medicine (Pathology and Hygiene). The fee for the *Liceat Examinandum* is £5; for the Degree of M.B., £11.

Members of the Royal College of Physicians or Surgeons of Dublin, London, or Edinburgh, who are Graduates in Arts of Oxford, Cambridge, or Dublin, are admissible to the Examination for M.B. They must first take the B.A. Degree *ad eundem*.

DOCTOR IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the Degree of Bachelor in Medicine for three years. He must also read a Thesis publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic. The total amount of fees for this degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also pass a public examination. The Curriculum of study comprises the following, in addition to the complete Course for the Degree of Bachelor in Medicine: Theoretical and Operative Surgery and Ophthalmic Surgery, each one course; Dissections, two courses. Candidates must perform surgical operations on the dead subject, and are examined in Bandaging and Minor Surgery, and in Surgical Pathology. Candidates for the Degree of Bachelor in Surgery, who have already passed the examination for the Degree of Bachelor in Medicine are examined in Anatomy and Surgery only. Fee for the *Liceat ad Examinandum*, £5; for the Degree of Bachelor in Surgery, £5.

MASTER IN SURGERY.

A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the Degree of Bachelor in Surgery for three years; and must read a Thesis publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor. Fee for the Degree of Master in Surgery, £11.

MASTER IN OBSTETRIC SCIENCE.

A Master in Obstetric Science must have passed the M.B. and B.Ch. Examinations, and produce certificates of having attended; 1. One winter course in Midwifery; 2. Six months' practice in a recognised Lying-in Hospital or Maternity; 3. A summer course of Obstetric Medicine and Surgery; 4. Two months' practice in the Cowpock Institu-

Maternity.

Lectures in each course.

tion. Existing Graduates in Medicine, of the standing of M.D., may present themselves for examination without producing certificates of attending 3. and 4. Fee for the Degree of Master in Obstetric Science, £5.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine, Surgery, or Obstetric Science, must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

Licentiate in Medicine.—The Medical course and examination necessary for the Licence in Medicine are the same as for the Degree of M.B. A Licentiate in Medicine, on completing his Course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the degree fees, without further examination in Medicine.

Licentiate in Surgery.—The surgical course and examination are the same as for the Degree of Bachelor in Surgery.

Licentiate in Obstetric Science.—The course of study and examination are the same as for the Degree in Obstetric Science.

Fee for the *Liceat ad Examinandum* in Medicine or Surgery, £5; for the Licence in each of the three cases, £5.

QUEEN'S UNIVERSITY IN IRELAND.

DEGREES IN MEDICINE AND SURGERY.

THIS University grants the Degrees of Doctor in Medicine and Master in Surgery, and a Diploma in Midwifery. It includes three Colleges—the Queen's Colleges of Belfast, Cork, and Galway—each of which possesses a Faculty of Medicine. The curriculum of medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Botany, Anatomy and Physiology, Practical Anatomy, Materia Medica and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above courses of lectures must be attended in one of the Queen's Colleges; the remainder may be taken, at the option of the candidate, in any University, College, or School, recognised by the Senate of the Queen's University. Candidates are required, before graduating, to have also attended, in one of the Colleges of the Queen's University, Lectures on Experimental Physics and one Modern Continental Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the practice during six months of a recognised Medico-Chirurgical Hospital containing at least sixty beds, together with clinical lectures delivered therein; and, during the second period, a recognised Midwifery Hospital, with clinical lectures therein delivered, for three months; or a Midwifery Dispensary for the same period; or ten cases of labour, under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated; and eighteen months' practice of a recognised Medico-Chirurgical Hospital containing at least sixty beds, with clinical instruction.

Candidates must pass three Examinations—the First University Examination, the Second University Examination, and the Degree Examination.

The First University Examination may be passed either in June or in September. It comprises a Modern Language, Experimental Physics, Zoology, and Botany. Students may present themselves for examination at any time after the close of the first Winter Session. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the prescribed course of study in the subjects of examination.

The Second University Examination may be passed either in June or September. It comprises Anatomy, Physiology, Materia Medica, and Chemistry; to which will be added Zoology and Botany in the examination of candidates who have not previously passed the First University Examination. Candidates who are in this position may either undergo their examination in Modern Languages and Experimental Physics as a part of the Second Examination, or may present themselves for examination in these subjects at any time between the Second University Examination and the Degree Examination. Students may present themselves for the Second University Examination at the termination of the first period of the curriculum, or at any subsequent period; but no student can postpone his Second University Examination, nor his examination in Modern Languages and Experimental Physics, until he presents himself for his Degree Examination. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period.

Examinations for the Degree of M.D., M.Ch., and the Diploma in Midwifery, will be held in June and September. The Fee for each Degree is £5, and the Fee for the Diploma in Midwifery is £2. Each Fee must be lodged with the Secretary before the corresponding examination begins.

Degrees in Surgery and Diplomas in Midwifery will only be conferred on candidates who hold the Degree of Doctor in Medicine of the University. The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education, and includes Clinical Medicine and Clinical Surgery. The examination for the Degree of M.Ch. comprises an examination in the Theory and Practice of Surgery, including Operative and Clinical Surgery.* The Examination for the Diploma in Midwifery comprises an examination in the Theory and Practice of Midwifery and the use of obstetrical instruments and appliances.†

Candidates who graduate with honours will be arranged in two classes. Candidates who take a First Class will receive a Medal and Prize; candidates who take a Second Class will receive a Prize. Both Honour and Pass Examinations are held in September. The Examination held in June is a Pass Examination.

Two Exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be awarded annually at the First University Examination in Medicine. The regulations concerning these Exhibitions, and all other information, will be found in the *Queen's University Calendar*, or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

IN addition to the Tables of the Classes, hours of attendance, and fees, given at pages 444-5, we subjoin the points of most interest in the Programmes issued by the several Medical Schools. At each hospital, clinical instruction in Medicine, Surgery, and Midwifery, is given in the wards and in the out-patient department; and also in various special departments, as stated in the table at pages 444-5 and in the subjoined notes. All hospital appointments, except where otherwise specified, are made without extra fee.

ST. BARTHOLOMEW'S HOSPITAL.—*The Hospital* contains 710 beds: viz., 227 for medical cases, 322 for surgical cases, 26 for diseases of the eye, 20 for diseases of women, and 81 for syphilitic cases; while 34 are at the Convalescent Hospital at Highgate. Children are admitted into both the medical and surgical wards.

Museums, etc.—The Anatomical Museum, and the Museums of Materia Medica and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Library is open every day, winter from 9 to 5, except on one week of the Christmas vacation and one month in the long vacation.

College.—Students attending the hospital or medical school are admitted to residence on the recommendation of a medical officer of the hospital; and such recommendation may be obtained by commencing students on adducing satisfactory evidence of good moral character. The entrance fee is £2 2s.; and a deposit of £3 3s. is required, which will be returned to the student on leaving the College, subject to deduction of whole or part for wilful damage to furniture. Resident students are expected to dine in the hall every day.

Special Departments, etc.—Surgical consultations are held on Thursdays at 1.30. In addition to the courses mentioned at page 444, Dr. Matthews Duncan teaches Practical Gynæcology in the wards for Diseases of Women, on Tuesdays, Thursdays, and Saturdays, at 2 P.M. The Demonstrator of Morbid Anatomy gives a detailed demonstration at 11 on Fridays, winter and summer. The Ophthalmic Wards are visited at 1.30, on Tuesdays and Thursdays by Mr. Power, and on Thursdays and Saturdays by Mr. Vernon; the ophthalmic out-patients are seen at 2 o'clock, on Tuesdays and Thursdays by Mr. Power, and on Wednesdays and Saturdays by Mr. Vernon. Mr. Vernon gives Ophthalmic Demonstrations at 2 P.M. on Wednesdays in the winter session. Mr. Marsh sees orthopædic cases at 2 on Mondays, and Mr. Butlin patients with diseases of the larynx at 2.30 on Fridays. Demon-

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before January 1st, 1875, will be exempted from the examination in Surgery. Candidates for the Degree in Surgery, who graduated in Medicine at a later period, will be required to undergo a paper and oral examination in the Theory and Practice of Surgery, and an examination in Operative and Clinical Surgery.

† Candidates for the Diploma in Midwifery who obtained the Degree of M.D. in the University before January 1st, 1872, will be exempted from this further examination.

strations in Practical Surgery are given by the demonstrators, Mr. Butlin and Mr. Walsham, at 3.30 P.M. on Mondays, Wednesdays, and Fridays during the winter; also in the Christmas Vacation and during the summer.

Appointments.—Four House-Physicians and four House-Surgeons (who must be qualified to practise), and an Assistant Chloroformist, are appointed annually. A Resident Midwifery Assistant and an Ophthalmic House-Surgeon are appointed every six months. Each of these officers is provided with rooms, and receives a salary of £25 a year. The Clinical Clerks to the medical in-patients, and the Clerks to the Physician-Accoucheur, are chosen from the most diligent students. Dressers to the surgical in-patients and the surgical casualty department are selected to the number of thirty-two in each year from the students (of the first year) who pass the best examination in the subjects of the first year. Other in-patient dresserships may be obtained by payment of the usual fees (see p. 446). There are also clerks and dressers to the Assistant-Physicians and Assistant-Surgeons in the general and special departments.

Exhibitions, Scholarships, and Prizes.—Two Open Scholarships in Science, value of each £130, tenable for one year, to be competed for on September 26th. For one of the scholarships, candidates must be under twenty; for the other, under twenty-five years of age. The subjects are Physics, Chemistry (theoretical and practical), Botany, and Zoology. The successful candidates must enter at St. Bartholomew's Hospital in the October succeeding the examination. Jeaffreson Exhibition: £50; examination on September 26th; subjects, Latin, Mathematics, and any two of the following languages—Greek, French, German. Candidates for the Open Scholarships and the Jeaffreson Exhibition must not have entered to the hospital practice of any metropolitan medical school. Preliminary Scientific Exhibition, £50, for one year, on October 20th, for students of less than six months' standing; holder of Open Scholarship not eligible; subjects, Physics, Chemistry (theoretical and practical), Botany, and Zoology. Three Junior Scholarships, of the value of £50, £30, and £20, after the general examination in first year's subjects at the end of the winter and summer sessions. Treasurer's Prize for Practical Anatomy, junior. *Second Year:* Foster Prize for Practical Anatomy, senior. Harvey Prize for Practical Physiology. *Second or Third Year:* Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Wix Prize: subject, The *Religio Medici* of Sir Thomas Browne. Hichens Prize: subject, Bishop Butler's *Analogy*. *Third or Fourth Year:* Lawrence Scholarship and Gold Medal, value £42: subjects, Medicine, Surgery, and Midwifery. Two Brackenbury Scholarships in Medicine and Surgery. Candidates for the Lawrence and Brackenbury Scholarships may not compete before the end of the third winter session, nor later than the beginning of the fifth winter session in the hospital. Bentley Prize, for the best report of not less than twelve medical cases occurring in the hospital during the previous year. The Kirkes Gold Medal for Clinical Medicine; open to students of not less than two or not more than four years' standing.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers, demonstrators, and the medical tutor. All students of the first year are examined at the close of the first winter and first summer sessions. Classes are held to prepare candidates for the examinations of the University of London.

The Abernethian Society, composed of the teachers and students of the hospital, meets every Thursday at 8 P.M. during the winter.

Communications regarding the Hospital and Medical College must be addressed to Dr. Norman Moore, the Warden of the College, St. Bartholomew's Hospital.

CHARING CROSS HOSPITAL.—The hospital contains 180 beds, of which some are set apart for Diseases of Women and of Children.

The Library and Museum are open daily from 9 A.M. to 4 P.M. The Library is closed at 1 P.M. on Saturday.

Special Courses.—Matriculated students are admitted to the practice of the Royal Westminster Ophthalmic Hospital (50 beds). Clinical instruction in the Diseases of Children is given twice a week by Dr. Colquhoun.—Dr. Robert Smith will give practical instruction in Auscultation in Health and Disease on Fridays, at 1.30. In February and March, Mr. J. H. Morgan will give a course of six demonstrations on the Use of the Laryngoscope.—Dr. Houghton will instruct in case-taking.—Mr. Whitehead will give instruction in the use of the Ophthalmoscope.—Mr. Woodhouse Braine and Mr. G. H. Bailey give instruction in the administration of Anæsthetics in the operating theatre every Thursday. Practical instruction in Surgery is given as follows: 1. Operative Surgery, by Mr. Bloxam, on Monday, Tuesday, and Thursday, at 9 A.M., in the summer; 2. Minor Surgery, by Mr. Cantlie, twice a week during winter and summer; 3. Surgical Pathology, by Mr. Morgan, at 1 P.M. on Thursday, during the summer.

Appointments.—A Medical and a Surgical Registrar, each with a salary of £40 a year, are appointed. Resident Medical and Surgical Officers (who must be qualified to practise), and Resident Obstetrical Officers, Assistant Medical and Surgical Officers, are appointed by competitive examination for six months. Clinical Clerks and Surgeons' Dressers and Pathological Assistants are appointed for four months. All Students must hold an In-Patient Clerkship and an In-Patient Dressership, after the first professional examination, in order to obtain certificates of hospital attendance. Students may serve as assistant to the Dental Surgeon for three months.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, value £30 and £20, tenable for one year, awarded in October, after examination in English, Latin, French or German, and Mathematics, with either Chemistry, Mechanics, German, or French. Intending candidates must give notice before September 17th. The Llewellyn Scholarship of £25, open to all matriculated students who have just completed their second year; examination in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery. The Golding Scholarship, £15 a year, open to all matriculated students who have just completed their first year; subjects of examination, Descriptive Anatomy, Physiology, Materia Medica, and Chemistry. The Periera Prize of £5, to matriculated students who have completed their third year, for the best clinical reports of cases in the hospital (medical and surgical in alternate years). The Governors' Clinical Gold Medal; examination on subjects of clinical lectures during the session, and on medical and surgical cases in the hospital. Silver and Bronze Medals and Certificates of Honour in all the classes.

Examinations.—Classes are held to prepare students for the Preliminary Scientific Examination of the University of London, and the Primary Fellowship Examination of the Royal College of Surgeons.

Residence.—Arrangements have been made with several members of the hospital staff to receive resident pupils.

Information may be had of the Dean, Mr. Francis Hird; or the Sub-Dean, Dr. J. Mitchell Bruce.

ST. GEORGE'S HOSPITAL.—The *Hospital* contains 351 beds, of which 205 are devoted to surgical, and 146 to medical, cases. There are special wards for cases of diseases of the eye and diseases of women. Children are received into the women's wards.

The Library and Reading Room and the Museum are open daily.

Special Subjects.—Orthopædic out-patients are seen by Mr. Bennett every Wednesday at 2. Dr. Whipham sees patients with Diseases of the Throat on Thursdays at 2, and gives instruction in the use of the laryngoscope, etc. Dr. Ewart will give a course of demonstrations on Physiological Chemistry on Monday at 2, and on Wednesday and Friday at 10, during the winter session. Mr. Turner will give demonstrations in Osteology daily (except Wednesday and Friday at 10). Mr. Bennett gives a course of Practical Surgery (including minor surgery, bandaging, case-taking, etc.) for second years' students, and Mr. Dent a course of Operative Surgery for third years' students; both at 3 P.M. on Mondays, Wednesdays, and Fridays, in the summer time.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon, are appointed, half-yearly, from among the perpetual pupils.* The House-Physicians and House-Surgeons are appointed on the nomination of the Medical School Committee; they hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit 50 guineas with the Treasurer, which will be returned on the expiration of their term of office, if they have satisfactorily performed their duties. An Obstetric Assistant is appointed annually; he must be a legally qualified practitioner. He resides and boards in the hospital, and receives a yearly salary of £100. A Curator of the Pathological Museum, a Medical and a Surgical Registrar, and a Demonstrator of Anatomy are appointed annually from among the senior pupils, each with a salary of £50. A Microscopical Pathologist and an Ophthalmic Registrar are appointed annually, each with a salary of £25. Two Assistant Medical Registrars are appointed every six months by competition. This office must be held before competing for that of Assistant House-Physician. An Assistant Surgical Registrar is also appointed: this office must be held, alternately with that of Ophthalmic Assistant,

[*Continued on page 448.*]

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1881-82.

For further particulars regarding each Hospital and Medical School, see pp. 442 and 448, et seq.

	St. Bartholomew's Hospital.	Charing Cross Hospital.	St. George's Hospital.	Guy's Hospital.	King's College and Hospital.
Physicians	Dr. Andrew..dy.ex. Th., 1.30 Dr. Southey .. M. W. S., 1.30; Tu. Th., 3 Dr. Church.... daily, exc. W., 1.30 Dr. Gee..M. W. F. S., 1.30	Dr. Pollock..M. Th.) .. Dr. Silver..Tu. F.) .. Dr. Green..W. S.) ..	Dr. Barclay..M. F., 1 Dr. Wadham..T. F., 1 Dr. Dickinson..Tu. S., 1 Dr. Whipham..M. W. S., 1	Dr. Wilks..M. Th. S., 1.30 Dr. Pavy..M. W. F., 1.30 Dr. Moxon..M. Tu. Th. F., 1.30 Dr. Fagge..M. Th. S., 1.30	Dr. Johnson..M. Th., 2 Dr. Beale..Tu. F., 2 Dr. Duffin..W. S., 2 Dr. I. B. Yeo..Tu. F., 1.30
Assistant-Physicians	Dr. Duckworth..W. S., 11 Dr. Hensley..M. Th., 11 Dr. Brunton..Tu. F., 11 Dr. Legg	Dr. Bruce..Tu. F. Dr. Houghton..M. Th. Dr. R. Smith Dr. Colquhoun..W. S.	Dr. Cavafy..M. F., 12 Dr. Watney..Tu. S., 12	Dr. Pye-Smith Dr. Taylor..M. F., 12.30 Dr. Goodhart..W., 12.30	Dr. Ferrier..M. Th., 1.30 Dr. Baxter..W. S., 1.30 (Win.) Dr. Curnow. W. S., 1.30 (Sum.)
Obstetric Physicians *Assist.-Obstetric Physicians*	Dr. M. Duncan..M. Th. S., 2 Dr. Godson..Tu. W. S., 9	Dr. J. W. Black..Tu. F.	Dr. Barnes..Tu. S., 2 Dr. Champneys..Th., 2	Dr. B. Hicks....Tu. F., 1.30 Dr. Galabin.. M. F., 1.30; (o.-p.), Th. S., 12.30	Dr. Playfair..Tu. Th. S., 2 Dr. Hayes (o.-p.) M. W. F., 12.30
Diseases of the Skin *Surgeons*	Mr. M. Baker..F., 1.30 Mr. Savory..daily, 1.30 Mr. T. Smith..daily, exc. Tu., 1.30 Mr. Willett..daily, 1.30 Mr. Langton..daily, 1.30	Dr. Sangster..M. Th. Mr. Barwell..Tu. F. Mr. Bellamy..M. Th. Mr. Bloxam..W. S.	Dr. Cavafy, Th., 1 Mr. Holmes..M. Th. F., 1; W., 1.30 Mr. Rouse M. Th. F., 1; W., 1.30 Mr. Pick. Tu. Th. S., 1; W., 1.30 Mr. Haward..Tu. Th. S., 1; W., 1.30	Dr. Pye-Smith..Tu., 12.30 Mr. Bryant..M. Th., 1.30 Mr. Durham..M. Th. F., 1.30 Mr. Howse..W. S., 1.30 Mr. Davies-Colley..M. Th., 1.30	Dr. Duffin..Tu. Mr. Wood..Tu. Th. S., 1.30 Mr. Lister..M. W. F., 1.30 Mr. H. Smith..M. W. F., 1.30 Mr. R. Bell..M. Th., 1.30
Assistant-Surgeons	Mr. M. Baker..W. S., 12.30 Mr. Marsh..M. Th. F., 12.30 Mr. Butlin..M. Th., 12.30	Mr. Cantlie..M. Th. Mr. Morgan..Tu. F. Mr. Whitehead..W. S.	Mr. Bennett..M. F., 12 Mr. Dent..Tu. S., 12	Mr. Lucas..Th. S., 12.30 Mr. Golding-Bird..M., 12.30 Mr. Jacobson..W., 12.30	Mr. Rose..Tu. F., 1.30 Mr. Cheyne..W. S., 1.30
Ophthalmic Surgeons	Mr. Power..Tu. Th., 1.30 Mr. Vernon..Th. S., 1.30	At Royal Westminster Ophthalmic Hospital	Mr. B. Carter..W. S. 2; F., 1.15 Mr. Frost (asst.)..W. S., 2	Mr. Bader..Tu. F., 2 Mr. Higgens (o.p.) Tu. F. 12.30	Mr. McHardy..M. Th., 1
Aural Surgeons	Mr. Cumberbatch..M., 2.30	Mr. Cantlie..M., 3	Mr. Dalby..Tu., 2	Mr. Purves..Tu. F., 1	Dr. U. Pritchard..Th., 2
Dental Surgeons	Mr. Coleman..F., 9	Mr. Fairbank..M. W. F. 9.30	Mr. Winterbottom..Tu. S., 9	Mr. Moon. Tu. 1.30; Th. 12.30	Mr. Cartwright..Tu. F., 10
Clinical Medicine	The Physicians..F., 1	The Physicians	The Physicians..M., 2	The Physicians (Win.)..S., 1.30; the Assistant-Physicians (Sum.)..W., 1.30	Mr. Johnson..alt. M., 3 Dr. Beale..alt. Tu., 3 Dr. Duffin..alt. F. (Win.) 3 Dr. B. Yeo..alt. Tu. (Sm.) 3
Clinical Surgery	The Surgeons..S., 12.45	The Surgeons	The Surgeons..Tu., 2	The Surgeons (Win.)..W., 1.30; the Assistant-Surgeons (Sum.)..F., 1.30	Mr. Wood..Tu. Th., 1.30 Mr. Lister..M. W., 2
Clinical Midwifery and Diseases of Women	Dr. M. Duncan..(Dis. of Women) alt. Th., 1	Dr. J. W. Black..Twice a week	Dr. Barnes..F., 2	Dr. Hicks (Winter). W., 1.30; Dr. Galabin (Sum.) . Tu., 3	Dr. Playfair....alt. Th. in Winter, 2
Operations	Wed. and Sat., 1.30; on Eye, Tu. Th., 1.30	Thursday..2	Thursday, 1; Eye, F., 1.15	Tuesday and Friday, 1.30; Eye, M. F., 1.30	Mr. Wood and Mr. Smith..S., 1; Mr. Lister..F., 2
WINTER LECTURES.					
Physiology	Mr. Baker..M. Tu. Th., 2.30 Dr. Klein (Histol.)	Dr. Silver..M. Tu. W. F., 3	Dr. Watney and Mr. Dent ..Tu. W., 3; F., 11	Dr. Pye-Smith..M. W. F., 4.15	Dr. G. F. Yeo..Daily, 12.15
Anatomy, Descriptive & Surgical	Mr. Langton & Mr. Marsh ..Tu. W. Th. F., 9	Mr. Bellamy..M. W. F., 9; S., 12	Mr. Pick..M. W. F., 3	Mr. Howse & Mr. Davies-Colley..Tu. W. Th. F., 9	Dr. Curnow (sen.)..M. Tu. W. Th., 9; (jun.) W. Th., 11.15; F., S., 9
Anatomical Demonstrations	Mr. Bruce-Clarke, Mr. Edwards, Mr. Ballar, and Assistants..10 to 5 to 4	Mr. Cantlie..daily, 9 to 4; S., 9 (Sum., 9 to 1 daily)	Mr. Turner and Assistant-Demonstrators	Dr. Carrington, Dr. Horrocks, Dr. White, and Assistant..daily, 10 to 4	Dr. Curnow
Chemistry	Dr. Russell..M. W. F., 10	Mr. Heaton..M. W. Th., 11	Mr. Donkin..Tu. Th. S., 11.30	Dr. Debus and Dr. Stevenson..Tu. Th. S., 11	Mr. Bloxam..M. W. Th., 10.15
Medicine	Dr. Andrew and Dr. Gee.. M. Tu. Th., 3.30	Dr. Pollock..M W. Th., 4	Dr. Barclay and Dr. Dickinson..M. W. Th., 3	Dr. Wilks and Dr. Pavy.. M. W. F., 3	Dr. Beale..M. F., 4; W., 5
Surgery	Mr. Savory..W. Th. F., 2.30	Mr. Barwell..Tu. F., 4; Th., 3	Mr. Holmes & Mr. Rouse M. W. F., 9.30	Mr. Bryant & Mr. Durham ..Tu. Th., 3.30; S., 2.45	Mr. H. Smith..Tu. W. Th., 4
SUMMER LECTURES.					
Materia Medica	Dr. Lauder Brunton..Tu. W. Th. S., 10	Dr. Bruce..Tu. Th. S., 9	Dr. Owen..M. W. F., 3	Dr. Moxon..Tu. Th. F., 3	Dr. Baxter..Tu. W. Th. F. 9
Botany	Rev. G. Henslow..M. F., 10; W., 11.30	Dr. Colquhoun..Tu. F. S., 11	(Vacant.)	Mr. Bettany..Tu. Th. S., 11 &	Mr. Bentley..M. Tu. Th. F., 12.15
Midwifery	Dr. Matthews Duncan.... daily, 9	Dr. J. W. Black....M., 4; Tu. W. F., 3	Dr. Barnes and Dr. Champneys..M. W. F., 9	Dr. Braxton Hicks..Tu. W. Th., 9; Dr. Galabin..F., 9	Dr. Playfair....Tu. W. Th. F., 9
Forensic Medicine	Dr. R. Southey..Tu. F., 2.30; Th., 3.30	Dr. Houghton..M. W. F. 9	Dr. Wadham..Tu. Th. S., 9	Dr. Stevenson..Tu. Th., S., 10	Dr. Ferrier..M. Tu. W. F., 4
Practical Chemistry	Dr. Russell..M. Tu. F., 11	Mr. Heaton..M. W., 10	Mr. Donkin..daily, 10	Dr. Debus..M. W. F., 10 to 1	Mr. Bloxam and Demonstrators..M. W. Th., 10.15
Comparative Anatomy	Dr. N. Moore (Winter).. Tu. Th., 11.15	Mr. W. A. Forbes (Sum.).. M. F., 9	Dr. Brailey (Sum.)..M. F., 4	Dr. Brailey (Sum.)....Tu. Th., 2.15	Mr. F. J. Bell (Win.)..M. F., 4
Practical Physiology & Histology	Dr. Harris..Practical Phys.	Mr. Wolfenden, lect. (Win.) Tu. Th., 9; (Sum.) Tu. S., 11; Th., 10; Lab. (Win.) M. W. F., 10	Mr. Bennett..M. W. F., 11; Tu., 2	Mr. Golding-Bird (Win.).. M. S., 10; W., 1	Dr. G. F. Yeo and Demonstrators (Sum.)..Tu. F. S., 10.15
Pathology and Morbid Anatomy	Dr. Legg (lect.)..M. F., 3.30; (demons.), Medical, 12; Surgical, 2.30	Dr. Green (Sum.)..M. Th., 3; W., 4; Mr. Morgan, Surgical, Th., 1	Dr. Whipham (Winter)..F., 3 30; Dr. Owen (demons.), W., 12	Dr. Fagge (lect.) (Sum.).. S.9; and Dr. Goodhart (dem.) ..2.20; Mr. Jacobson (dem.)	Dr. Duffin (Sum.)..W. Th. F., 3
Psychological Medicine	Dr. Claye Shaw (Sum.).. Th., 12.30	Dr. L. F. Winslow (Sum.) ..W., 11	Dr. Blandford	Dr. Savage (Sum.)....Tu., 11; F., 10.30	Dr. Sheppard (Summer)
Public Health	Dr. Thorne Thorne, M., 10	Mr. Heaton and Mr. Eassie (Sum.)	With Medicine	Dr. F. Taylor (Sum.).. Th., 1.15	Dr. Kelly (Win.)..F., 3
Practical & Operative Surgery	Mr. Butlin and Mr. Walsham..M. W. F., 3.30	Mr. Bloxam (Sum.)..M. Tu. Th. 9; Mr. Cantlie, twice weekly	Mr. Bennett (Pract.) and Mr. Dent (Oper.) (Sum.).. M. W. F., 3	Mr. Clement Lucas..Pract. Surg. in Win.; Oper. Surg. in Sum.	—
Ophthalmic Medicine & Surgery	Mr. Power..Tu. W., 12.45; Mr. Vernon (dem.), M., 2	—	Mr. R. B. Carter and Mr. Frost (Win.)..W., 4	Mr. Higgens..Th., 3	Mr. McHardy (clin. lect.) (Win.)..alt. M., 3
Dental Surgery	Mr. Coleman....S., 10.30 (Oct. Nov. Dec.)	Mr. Fairbank..Sum.	Mr. Winterbottom (Sum.).. Tu., 10	Mr. Moon (Summer)	Mr. Cartwright (clin.) (Win.) ..alt. Tu., 10.30
Aural Surgery	—	Mr. Cantlie.... demon. in Summer	Mr. Dalby (Sum.)..W., 2	—	Dr. U. Pritchard..W., 9, Oct.-Dec.
Diseases of Skin	—	Dr. Sangster..F., 4, Sum.	Dr. Cavafy (Sum.)..Th., 1	—	—
Vaccination	—	Mr. R. W. Dunn	—	—	Mr. R. W. Dunn

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1881-82.

For further particulars regarding each Hospital and Medical School, see pp. 442 and 448 et seq.

London Hospital.	St. Mary's Hospital.	Middlesex Hospital.	St. Thomas's Hospital.	University College and Hospital.	Westminster Hospital.
Dr. A. Clark..M. Th., 2 Dr. Down..Tu. F., 2 Dr. H. Jackson..M. Th., 2 Dr. Sutton..M. Th., 2 Dr. Fenwick..Tu. F., 2 Dr. S. Mackenzie..Tu. F., 2; (o.-p.) W. S., 1.30 [1.30 Dr. Sansom, W. 2, (o.p.) M. Th. Dr. Turner..W. S., 1; (o.-p.) Tu. F., 1.30 Dr. G. Smith..Tu. F., 2; (o.-p.) W. S., 1.30 Dr. Warner..M., 1.30; Th., 10.30; (o.-p.) Tu. F., 1.30 Dr. Ralfe..M. Th. S., 1.30 Dr. Palfrey..M. Th., 1.30 Dr. Herman..W. S., 1.30	Dr. H. Jones..M. Th., 1.30 Dr. Steveking..Tu. F., 1.30 Dr. Broadbent..W. S., 1.30 Dr. Cheadle..Tu. F., 1 } alt. days Dr. Shepherd..M. Th., 1 } Dr. Lees..W. S., 1 } alt. days — Dr. Meadows..Tu. F., 9.30 Dr. Wiltshire..Tu. F., 1.30	Dr. Cayley .... M. W. F., 1.30 Dr. Coupland..Tu. Th. S., 1.30 Dr. D. Powell..M. W. F., 1.30 Dr. Finlay..M. Th., 9 Dr. Fowler..Tu., 3.30; F., 9 Dr. Biss..W., 9; S., 3.30 Dr. H. Davis..Tu. F., 1.30 Dr. Edis..W. S., 1.30	Dr. Bristowe..Tu. F., 2 Dr. Stone..M. Th., 2 Dr. Ord..M. Th., 2 Dr. J. Hurley..Tu. F., 2 Dr. Payne..Tu. F., 12.30 Dr. Sharkey..W. S., 12.30 Dr. Gervis....M. Th., 2 Dr. Cory..W., 1.30; S., 12.30	Dr. Wilson Fox } alt. days Dr. Ringer } alt. days Dr. C. Bastian } alt. days Dr. F. T. Roberts } alt. days Dr. Gowers Dr. Poore Dr. T. Barlow Dr. Graily Hewitt Dr. J. Williams	Dr. Fincham..M. Th., 1.30 Dr. Sturges..W. S., 1.30 Dr. Allchin..Tu. F., 1.30 Dr. Donkin..W. S., 1.30 Dr. Hall..M. Th., 1.30 Dr. A. H. Bennett, Tu. F. 1.30 Dr. Potter..Tu. F., 2 Dr. Grigg..Tu. F., 1.30
Dr. S. Mackenzie..Th., 9 Mr. Hutchinson..M. Th., 2 Mr. Couper..W. S., 1.30 Mr. Rivington..Tu. F., 2 Mr. Adams..M. Th., 2; S. 1.30 Mr. Tay..(o.-p.) M. Th., 1.30 Mr. McCarthy (o.p.) Tu. F., 1.30 Mr. Reeves..Tu. S., 1.30 Mr. Treves..M. Th., 1.30	Dr. Cheadle..W. S. 1.30; Th. 3 Mr. Walton..W. S., 1.30 Mr. J. R. Lane..Tu. F., 1.30 Mr. Norton..M. Th., 1.30 Mr. Owen..Tu. F., 1 } alt. days Mr. Page..M. Th., 1 } Mr. Pye..W. S., 1 } alt. days Mr. Pepper }	Dr. R. Liveing..F., 4 Mr. Hulke..M. Th., 1.30 Mr. Lawson..M. Th., 1.30 Mr. Morris..Tu. F., 1.30 Cancer..Th., 1.30 Mr. A. Clark..M. Th., 1 Mr. Lyell..Tu. F., 1	Dr. Payne..Th., 12.30 Mr. S. Jones..Tu. F., 2 Mr. Croft..M. Th., 2 Sir W. Mac Cormac..M. Th., 2 Mr. Mason..Tu. F., 2 Mr. Wagstaffe Mr. MacKellar, M. Th., 12.30 Mr. Clutton..Tu. F., 12.30 Mr. Anderson..W. S., 12.30	Dr. Crocker..Tu. 1.30; S. 1.30 Mr. Marshall } 1 and 2 daily. Mr. Berkeley Hill } Mr. C. Heath } Mr. Marcus Beck Mr. A. E. Barker Mr. R. J. Godlee	Mr. Bond..Th., 1 Mr. Cowell..M. Th., 1.30 Mr. Davy..Tu. F., 1.30 Mr. Macnamara..W., 1.30; S., 1 Mr. T. Cooke..M. Th., 1.30 Mr. Bond..Tu. F., 1.30 Mr. A. P. Gould..W. S., 1.30
Mr. Adams, and Mr. W. Tay..W. S., 9 Mr. A. G. Brown..S., 9.30 Mr. Barrett..Tu., 9 The Physicians	Mr. A. Critchett..Tu. F., Tu F. 1.30; o.-p., M. Th. 1.30 Mr. Field..W. S., 2 Mr. H. Hayward..W. S., 9.30 The Physicians	Mr. Lang..(o.-p.) W. S., 9; (in p.) 10 Mr. Hensman..Tu., 9 Mr. Turner..daily, 9 The Physicians..F., 3	Mr. Nettleship..M. Th., 2; (o.-p.) daily, exc. S., 1.30 Mr. Clutton, M., 12.30 [F. 10 Mr. Elliott & Mr. Ranger, Tu. The Physicians..weekly	Mr. Streatfeild and Mr. Tweedy..M. W. F., 2 Mr. Barker..S., 1.30 Mr. Ibbetson..W., 10.30 Dr. W. Fox (Holme prof.). Dr. Ringer, Dr. Bastian, Dr. Roberts, Dr. Gowers, and Dr. Barlow	Mr. Cowell..M. Th., 2.30 Mr. Keene..Tu. F., 9 Mr. Walker..W. S., 9.15 Dr. Fincham..Th. (Sum.) Dr. Sturges..W. (aft. Xmas) Dr. Allchin..F. (bef. Xmas)
The Surgeons	The Surgeons	The Surgeons..Tu., 3	The Surgeons..weekly; Mr. Croft, special course, W., 9	Mr. Marshall, Mr. Hill, Mr. Heath (Holme prof.), Mr. Beck, Mr. Barker	Mr. Cowell..Th. (aft. Xmas) Mr. Davy..F. (Sum.) Mr. Macnamara, W. (aft. Xmas
Dr. Palfrey (Win.). 2nd F. in mon.; (Sum.) alt. Tu., 2.30 Wednesday, Thursday, and Saturday, 2	Dr. A. Meadows Wednesday..1.30; Eye, M. Th., 1.30	Dr. Hall Davis..Tu., 10 Wednesday, 1	Dr. Gervis Wednesday and Saturday, 1.30; Eye, Friday, 2	Dr. G. Hewitt.. fortnightly Wednesday, 3	Dr. Potter..F. (Sum.) Tuesday and Saturday, 2
Mr. McCarthy..M. Th. S., 9	Mr. Pye..M. W. S., 12	Mr. Lowne..M. W. F., 9	Dr. J. Harley and Dr. Sharkey..Tu. W. F., 4	Dr. Sanderson and Mr. Schäfer..daily, exc. S., 10	Dr. Allchin..M. W. F., 4
Mr. Rivington..M., 3; Tu. W. F., 9.10	Mr. Owen..M. Tu. Th. F., 9	Mr. Hensman..M. Th., 4.30; Tu. F., 4	Dr. Reid and Mr. Anderson..daily, exc. Sat., 9.30	Mr. Thane..daily, exc. S., 12	Mr. Gould..Tu. W. Th. F. S., 9, and Sum., Tu. Th., 3
Mr. Treves & Demonstrators..10 to 5, excepting Sat. aft.	Daily, 9 to 5, exc. S., 9 to 1	Mr. Hensman, Mr. Sutton, and Mr. Crago..daily, 9 to 4	Dr. Reid, Mr. Anderson, Dr. Taylor, Mr. Haslam..daily, 10	Mr. Godlee, Mr. Silcock, and Mr. Pollard	Mr. Bond..M., 9.30 to 1; other days, 10 to 1
Dr. Tidy..M. W. F., 10.30	Dr. Wright..M. Th., 1; W. S., 9	Mr. Foster..M. Th., 3.30; W. F., 3	Dr. Bernays..Tu. Th. F., 10.30	Dr. Williamson..daily, exc. S., 11; (exerc.) Tu. W. Th. F. 9	Dr. Dupré..W. Th. F., 3
Dr. S. Mackenzie..M. W. F., 4	Dr. Broadbent and Dr. Cheadle..Tu. F., 4; W., 3	Dr. Cayley..Tu. Th. S., 9	Dr. Bristowe and Dr. Ord to Dec. 31, M. Th. S., 9; after Jan. 1, M. Th. F., 4	Dr. Ringer..Tu. W. Th. F., 2	Dr. Fincham & Dr. Sturges M. W. Th., 3
Mr. J. E. Adams..Tu. Th., 4; S., 10	Mr. J. R. Lane and Mr. Norton..M. W. Th., 4	Mr. Morris..M. W. Th., 3.30	Mr. Jones & Mr. Mac Cormac to Dec. 31, M. Th. F., 4; after Jan. 1, M. Th. F., 9	Mr. Marshall..Tu. W. F., 4	Mr. Cowell and Mr. Macnamara..Tu. Th., 4; F., 3
Dr. Prosser James..Tu. Th. F., 3	Dr. Lees..Tu. W. F. S., 12	Dr. Thorowgood..M. W. F., 4	Dr. Stone..M. W. F., 9	Dr. F. T. Roberts..M., 9; Tu. W. Th. F., 10	Dr. Murrell..M. W. F., 9
Dr. F. Warner..M. W. F., 12	Rev. J. M. Crombie..M. W. F., 11	Dr. Biss..M. W. F., 10	Mr. A. W. Bennett..Tu. W. S., 10	Mr. Oliver..daily, exc. S., 10	Mr. Worsley-Benison..Tu. W. F. S., 10
Dr. Palfrey..daily, exc. S., 9 A.M.	Dr. Meadows and Dr. Wiltshire..Tu. W. Th. F., 9	Dr. Hall Davis..Tu. Th. S., 9	Dr. Gervis..M. Tu. Th. F., 4	Dr. Graily Hewitt and Dr. J. Williams..Tu. W. F. S., 9	Dr. Potter..Tu. Th. S., 9; F., 4
Mr. Rodgers and Dr. Tidy daily, exc. S.	Dr. Randall..M. Tu. Th., 10	Dr. Finlay..M. W. F., 9	Dr. Payne and Dr. Cory Tu. Th. S., 9	Dr. Poore..Tu. W. Th. F., 10	Dr. Dupre and Mr. Bond..Tu. Th. F., 3
Dr. Tidy..M. W. F., 9	Dr. Wright..W. F. S., 9	Mr. Foster..M. W. F., 3	Dr. Bernays..M. Th. F., 1	Dr. Williamson (jun.) Tu. W. Th. F., 11; (sen.) M. S., 10	Dr. Dupré..M. W. F., 11
Dr. E. B. Aveling..Tu. Th., 9	Mr. St. G. Mivart (Sum.)..W. Th., 10	Mr. Hensman (Sum.)..Tu. Th., 4	Mr. Stewart (Sum.)....M. Th., 12	Mr. Lankester (Win. and Sum.) M Tu. W. Th. F., 1	Dr. L. Ogilvie..Jan. to July
Mr. McCarthy (Win.)..M. Th. S., 9; (Sum.) Tu. Th., 11	Mr. Pepper (Win.)..Tu. W. F., 10	Mr. Lowne (Sum.)..M. W. Th., 9	Dr. T. C. Charles (Sum.)..Tu. W. F., 12.30	Dr. Sanderson and Mr. Schäfer (Sum.)..daily, ex. S., 1.30; Hist., Tu. W. Th., 12	——— (Win.)..Tu. W. F., 1.30; Hist. (Sum.) Tu., W. F., 1.30
Dr. Sutton (Sum.)..Th., 12; S., 10 (alternate) Mr. McCarthy (demonstrations) daily, 9 to 10	Dr. Shepherd..Tu. F., 12, Dr. Henderson..1.30	Dr. Coupland (Win.)..M. Th., 4.30; S., 10	Dr. Payne and ——..S., 11.30	Dr. Bastian (Sum.)..M. 10; Th. F., 4; Mr. Barker (Surg.) Jan. Feb. March, M. Th., 4	Dr. Allchin..Tu. W. Th., 4, the Latter Part (dem.), 2
———	With Forensic Medicine	Mr. H. Case (Sum.)..Th., 12	Dr. H. Rayner (Sum.)..F., 12		Dr. Sutherland (May)..Tu. Th. F., 3
With Forensic Medicine	With Forensic Medicine	Dr. Finlay (Sum.)	Dr. A. Carpenter (Sum.) W., 4	Dr. Corfield (Sum.)..Tu. Th., 4	With Forensic Medicine
Mr. Reeves and Mr. J. E. Adams (Sum.)	Mr. Page..M. Th., 9	Mr. A. Clark (Win.)..M., 3.30; W., 3; Oper. Surg., Mr. Morris, April	Mr. Mason and Mr. MacKellar (Win.)....S., 9; (Sum.) Tu. F., 4	Mr. Hill (Oct. Nov. Dec.) M. Th., 4, Mr. Pe... (Win. and Sum.)	Mr. Davy..F., 12.30
Mr. Couper (Sum.)	Mr. G. A. Critchett (Sum.)..M., 2	Mr. Lang (clin.) (Sum.)..W., 3	Mr. Nettleship (Sum.), Tu. 9	Mr. Tweedy (Sum.), M. W., 4; (...) Mr. Streatfeild & Mr. Tweedy	Mr. Cowell (Sum.)..M., 3
Mr. Barrett (Sum.)	Mr. H. Hayward (Sum.)	Mr. Turner..W., 9.30	———	Mr. Ibbetson (Jan. Mar.) M. Th., 4	Mr. J. Wh... (Oct. Nov., D... W., 4
Mr. A. G. Brown (Sum.)	Mr. Field (Sum.)..F., 3	———	———	———	Mr. Keene..Jan., Tu., 10
——— [sident Accoucheur Assist. Obstet. Phys. & Re-	Dr. Cheadle and Mr. M. Morris (Sum.)..Th., 3 Mr. Sumner	——— [Sumner Dr. W. Pearse and Mr.	——— Dr. Cory..W., 11.30	Dr. Crocker .. (clin. lect. alt. weeks) Mr. W. Pearse and Mr. Sumner	Mr. Bond .. (Feb., Mar.) Th., 2 Mr. W. Pearse

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p", perpetual or unlimited attendance.)

	St. Bartholomew's	Charing Cross	St. George's.	Guy's.	King's College.	London.	St. Mary's	Middlesex.
Composition Fee required by Examining Board	£61 1s.; or 1st win. £32 1st sum. £31 6s. 2nd win. £31 6s.	1st win (with matric. £2 2s.) £28 4s. 1st sum. £15 15s. 2nd win. £21 2nd sum £15 15s. 3rd win. £10 10s.	1st year, £45 2nd year, £45 Each subsequent year, £15 (See note)	£131 5s.; or 1st win. and 1st sum. each £66; or 1st and 2nd or 2nd year, each £66 3rd yr. £67 10s	£125; or On entr. £63 2nd win. £60 or month. £7 2nd win. £50 3rd win. £21	£141 15s.; or 1st year £147 2nd yr. £41 3rd yr. £41 15s. (See note)	£105 15s.; or if joint instalment £111 7	£105; or 1st year, £40 2nd year, £35 3rd year, £30 4th year, £5
Hospital Practice	*Medical.* 3 mos. £14 14s. 6 mos. £25 15s. 12 mos. £42 12s. 6d. Unlimited £31 5s. 6d. *Surgical.* 3 mos. £13 2s. 6d. 6 mos. £21 15s. 12 mos. £37 5s. Unlim. £26 5s. 6d.	Total, full period, £31 10s. *Med. or Surg.* 3 mos. £6 6s. 6 mos. £10 10s. 12 mos. £15 15s. Full period, £21 *Med. and Surg.* 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Full p. £31 10s.	*Med. or Surg.* 1 year, £10 10s. 2 years, £21 Perp. £31 10s.	*Med. or Surg.* 3 mos. £13 15s. 6 mos. £18 18s. 1 year, £24 5s. Perp. £31 10s. *Med. and Surg.* 3 mos. £13 15s. 6 mos. £24 5s. 1 year, £31 10s. Perp. £47 5s.	*Med. or Surg.* 3 mos. £13 15s. 1 win. £9 9s. 1 year, £12 12s. Perp. £21 10s. *Med. and Surg.* 1 sum. £13 5s. 1 win. £14 14s. 1 year, £21 15s. Perp. £42	Perp. £21 10s. *Medical.* 6 mos. £10 10s. 12 mos. £15 15s. Perp. £26 5s. *Surgical.* 6 mos. £10 10s. 12 mos. £15 15s. 18 mos. £21 Perp. £26 5s.	Full p. £42 14s. 6d. *Medical.* 3 mos. £14 14s. 6 mos. £21 5s. 12 mos. £31 10s. Perp. £42 10s. *Surgical.* 3 mos. £7 17s. 6d 6 mos. £11 11s. 12 mos. £20 5s. Perp. £30 17s.	*Med. or Surg.* Perp. £15 15s. 1 year, £8 8s. 6 mos. £5 5s. *Med. and Surg.* Perp. £26 5s.; or 1st and 2nd yrs. each £12 12s., 3rd and each add. year, £5 5s. 1 year, £12 12s. 6 mos. £7 7s.
Fees for Students of Dental Surgery	£61; or 1st win. £31 10s. 1st sum. £31 10s	1st Oct. £22 2nd Oct. £20	£55; or 1st year, £30 2nd year, £25	£60; or 1st year, £42 2nd yr. £24 3s.	*Hospital.* 1 year, £10 10s. 2 years, £15 15s.	£49 Dent. pr. gen., £10	£35 12s. 6d. —	£42; or 1st win. £30 2nd win. £15
Anatomy	*s.* £9 9s. *p.* £13 2s. 6d.	1st year, £4 4s. 2nd year, £2 2s.	*s.* £7 7s. *p.* £26 10s. 6d.	*s.* £7 7s. —	*s.* £6 6s. *p.* £11 11s.	*s.* £5 5s. 2 yrs. £8 8s.	*s.* £7 17s. 6d. —	*s.* £8 8s. *p.* £12 12s.
Demonstrations and Dissections	*s.* £7 7s. — —	1st year, £3 3s. 2nd year, £2 2s. — —	*s.* £3 3s. — —	*s.* £7 7s. — —	*s.* £6 6s. — —	*s.* £5 5s. 2 yrs £8 8s. — —	*s.* £4 4s. — —	*s.* £6 6s. *p.* £8 8s. — —
Physiology	*s.* £9 9s. *p.* £13 2s. 6d.	1st year, £4 4s. 2nd year, £2 2s.	*s.* £7 7s. *p.* £26 10s. 6d.	*s.* £7 7s. —	*s.* £6 6s. *p.* £11 11s.	*s.* £4 4s. 2 yrs. £6 6s.	*s.* £4 4s. —	*s.* £6 6s. *p.* £8 8s.
Practical Physiology and Histology	(P.P.) *s.* £7 7s.; (H.) *s.* £2 12s. 6d.	*s.* £2 2s. —	(H.) *s.* £3 3s.	*s.* £7 7s. —	*s.* £6 6s. *p.* £8 8s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £4 4s. —	*s.* £4 4s. —
Comparative Anatomy	*s.* £2 12s. 6d. *p.* £4 4s.	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £3 3s. —	*s.* £4 4s. *p.* £6 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £2 12s. 6d. —	*s.* £2 2s. —
Botany	*s.* £4 4s. *p.* £5 5s.	*s.* £3 3s. —	*s.* £3 13s. 6d. *p.* £4 14s. 6d.	*s.* £8 8s. —	*s.* £4 4s. *p.* £6 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £4 4s. —	*s.* £4 4s. *p.* £5 5s.
Chemistry	*s.* £9 16s. 6d. *p.* £9 9s.	*s.* £5 5s. —	*s.* £6 6s. *p.* £7 17s. 6d.	*s.* £7 7s. —	*s.* £5 5s. *p.* £11 11s.	*s.* £7 7s. 2 yrs. £10 10s.	*s.* £6 16s. 6d. —	*s.* £6 6s. *p.* £8 8s.
Practical Chemistry	*s.* £3 3s.	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £7 7s. —	*s.* £6 6s. *p.* £8 8s.	*s.* to stud. £2 2s. to others. £5 5s.	*s.* £4 4s. —	*s.* £4 4s. —
Materia Medica	*s.* £6 16s. 6d. *p.* £7 17s. 6d.	*s.* £3 3s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. *p.* £8 8s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £7 5s. —	*s.* £4 4s. *p.* £5 5s.
Practical Pharmacy	— —	— —	*s.* £3 3s. —	*s.* £3 3s. —	— —	*s.* £4 4s. —	3 mos. £3 3s.; 6 mos. £6 6s.	£5 5s. —
Pathology and Morbid Anatomy	*s.* £2 12s. 6d. *p.* £4 4s.	*s.* £3 3s. (See note)	*s.* £3 3s. —	P. £3 3s. M.A. £7 7s.	*s.* £3 3s. *p.* £4 4s.	*s.* £3 3s. 2 yrs. £6 6s.	*s.* £4 4s. —	*s.* £4 4s. *p.* £5 5s.
Medicine	*s.* £6 16s. 6d. *p.* £9 9s.	1st c. £4 4s. 2nd c. £2 2s.	*s.* £7 7s. *p.* £26 16s. 6d.	*s.* £7 7s. —	*s.* £6 6s. *p.* £11 11s.	*s.* £5 5s. 2 yrs. £6 6s.	*s.* £5 5s. —	*s.* £6 6s. *p.* £8 8s.
Surgery	*s.* £6 16s. 6d. *p.* £9 9s.	1st c. £4 4s. 2nd c. £2 2s.	*s.* £7 7s. *p.* £26 16s. 6d.	*s.* £7 7s. —	*s.* £8 8s. *p.* £11 11s.	*s.* £5 5s. 2 yrs. £6 6s.	*s.* £5 5s. —	*s.* £6 6s. *p.* £8 8s.
Practical Surgery	*s.* £6 16s. 6d. *p.* £9 9s.	— —	*s.* £4 4s. —	*s.* £4 4s. —	*s.* £3 3s. *p.* £5 5s.	— —	*s.* £4 4s. —	*s.* £6 6s. —
Operative Surgery	*s.* £5 5s.	£2 2s.	*s.* £2 2s.	*s.* £7 7s. —	— —	£6 6s.	£4 4s.	*s.* £5 5s.
Ophthalmic Surgery	*s.* £2 12s. 6d. *p.* £4 4s.	— —	inc. in Surg. —	— —	— —	*s.* £2 2s. 2 yrs. £3 3s.	*s.* £2 12s. 6d. —	— —
Dental Surgery	*s.* £2 12s. 6d. *p.* £4 4s.	— —	— —	— —	— —	*s.* £2 2s. —	*s.* £2 12s. 6d. —	Occas. Stud., £5 5s.
Midwifery	*s.* £6 16s. 6d. *p.* £7 17s. 6d.	*s.* £3 3s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £7 7s. —	*s.* £5 5s. *p.* £6 6s.	*s.* £4 4s. 2 yrs. £6 6s.	*s.* £5 5s. —	*s.* £4 4s. *p.* £5 5s.
Forensic Medicine	*s.* £4 4s. *p.* £5 5s.	*s.* £3 3s. —	*s.* £4 14s. 6d. *p.* £5 15s. 6d.	*s.* £5 5s. —	*s.* £5 5s. *p.* £6 6s.	*s.* £3 3s. 2 yrs. £4 4s.	*s.* £4 4s. —	*s.* £4 4s. *p.* £5 5s.
Psychology	*s.* £2 12s. 6d. *p.* £4 4s.	*s.* £1 1s. — —	— —	*s.* £3 3s. — —	— —	— —	— —	*s.* £2 2s. —
Public Health or Hygiene	—	*s.* £1 1s.	—	*s.* £3 3s.	*s.* £1 1s.	—	—	*s.* £3 3s.
Instruction in Vaccination	—	Not stated	—	—	Small fee	—	£1 1s.	£1 1s.
Library	—	£1 1s.	Each yr. 10s. 6d.	£1 1s.	£1 1s.	£1 1s.	£1 1s.	£1 1s.

ADDITIONAL NOTES.

St. Bartholomew's Hospital.—Extra in patient dresserships: 3 months, £10 10s.; 6 months, £16 16s.

Charing Cross Hospital.—Hospital Practice after third year, £5 5s. for each winter, and £3 3s. for each summer. Matriculated Students pay £3 3s. for Comparative Anatomy.—The Lectures on Psychology and on Normal Histology and Operative Surgery are free to matriculated students.—Morbid Histology: matriculated, £1 1s.; non-matriculated, £2 2s.—Operative Surgery: private class, whole body, £8 8s.; half body, £5 5s. Students dissecting in the summer pay an extra fee of £1 1s. The Matriculation Fee is £2 2s.

St. George's Hospital.—Perpetual pupils pay £125 at entrance; or 1st and 2nd years, each £45; 3rd year, £40. Gentlemen who have completed a year of professional study at an English University are allowed a reduction of £40 from the perpetual pupil's fee. A reduced fee is also paid by students who have attended lectures in other schools. The payments for courses required by the examining boards do not confer the privileges of perpetual pupils. Practical Medicine, *s.* £4 4s.; Physiological Chemistry, *s.* £3 3s. Extra payment is required for Practical Pharmacy; Practical Chemistry; Subjects for Dissection (£3 3s.); Operative Surgery; Library; and Comparative Anatomy. The fee for Surgery includes one course of Ophthalmic Surgery; and the fee for Medical Jurisprudence includes one course of Psychology.

Guy's Hospital.—Morbid Histology and Natural Philosophy, each £5 5s.—Extra fees: Practical Chemistry, £1 1os.; Operative Surgery, £2 2s. (both included in fee in table). The library fee (£1 1s.) is returned when the student leaves the hospital.

King's College.—The Composition Fee includes perpetual attendance on Anatomy, Physiology, Chemistry, Medicine, Clinical Medicine, Surgery, Clinical Surgery (one Professor), Obstetric Medicine, Botany, Forensic Medicine, Materia Medica, Comparative Anatomy, Pathological Anatomy, and Hospital Practice; and one course each of Practical Surgery, Practical Chemistry, and Practical Physiology.—Clinical Surgery (win.), one professor, *s.* £6 6s.; *p.* £8 8s.; both professors, *s.* £8 8s.; *p.* £11 11s.; (sum.) one professor, *s.* £4 4s.; *p.* £5 5s.; both, *s.* £5 5s.; *p.* £6 6s.—Anatomy and Practical Anatomy, together, *s.* £9 9s.; *p.* £12 12s. Tutor, £3 3s. Students of Practical Physiology pay £1 1s. for use of apparatus, etc. Practical Biology and Experimental Physics, 3 terms, each £8 8s.; second year, each £3 3s.; Analytical and Experimental Chemistry (exclusive of materials) 1 month, £4 4s.; 3 months, £10 10s.; 6 months, £18 18s. Medical Tutor, one year, £3 3s.

London Hospital.—The General Fee for Lectures and Hospital Practice covers four years, and includes two years' Practical Anatomy. For students entering at or before beginning of second winter, £73 10s.; or two instalments of £47 5s. and £31 10s. This fee covers three years from the date of entry. Students in Arts of Universities who have attended Lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, may become Pupils of the Hospital, eligible for all Hospital Appointments, on payment of £52 10s. Students who have attended elsewhere lectures in Botany, Zoology, Chemistry, and Practical Chemistry, have the fees for these (£18 18s.) remitted if they have passed, or pass within eighteen months of their entry as full students, the Preliminary Scientific Examination of the University of

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p", perpetual or unlimited attendance.

St. Thomas's.	University College.	Westminster.	Queen's Coll., Birmingham.	Bristol.	Leeds.	Liverpool.	Owens Coll. Manchester.	Newcastle.	Sheffield.
£125; or On entr. £70 2nd win. £60; or 1st year, £50 2nd year, £50 3rd year, £30	£141 5s.; or 1st year, £70, 2nd yr. £21 3rd yr. £21	£126; or 1st win., £52 10s. 2nd win. £42 or 1 st. each of £21 each	Lect. £63; or 1st yr. £31 10s. 2nd yr. £21 10s.	Lect. £63; or 1st sess. £42 2nd sess. £21	Lect. £50 8s.; or 1st yr. £26 5s. 2nd yr. £26 5s.	Lectures, £ 1st yr. £ 2nd yr. £	1st yr. £ 2nd yr. £	Lectures, £ or 3 students, or £	Lectures, £45
Med. and Surg. 3 mos. £15 6 mos. £30 9 mos. £45 12 mos. £60 Perp. £50	*Med. and Surg.* Perp. £40 18s. 1 year, £27 15s. 2 mos. £19 10s.	*Med. or Surg.* 3 mos. £10 10s. 6 mos. £21 0s. 1 mos. £31 10s. *Med. and Surg.* 3 mos. £10 10s. 6 mos. £14 14 Each subseqnt. 6 mos. £7 7s. 3 mos. £5 5s.	*General and Queen's Hospts* 3 years, £42, or in 3 equal sums. 1 year, £21 6 mos. £14	*Royal Infirm. Med. or Surg.* 6 mos. £7 7s. 1 year, £12 12s. Perp. £21 *Med. and Surg.* 1 year, £21 Perp. £31 18s. *Gen. Hosp. Med. or Surg.* 6 mos. £6 1 year, £10 Perp. £20	*Infirmary. Med. or Surg.* 1 win. £7 7s. 1 sum. £6 6s. 12 mos. £12 12s. 18 mos. £18 18s. 3 years, £1 Perp. £26 5s.	*Royal Infirm. Perp.* £ 3 3s. or in two equal instalments. *Medical.* 3 mos. £ 4 4s. 6 mos. £5 5s. 12 mos. £8 8s. *Surgical.* 3 mos. £4 4s. 6 mos. £6 6s. 12 mos. £8 8s.	*Royal Infirm.* Full per. £ 3 3s. *Medical.* 3 mos. £ 4 4s. 6 mos. £ 5 5s. 12 mos. £12 12s. Full per. £18 18s. *Surgical.* 3 mos. £4 4s. 6 mos. £6 6s. 12 mos. £11 11s. Full per. £31 10s.	*Infirmary.* 3 mos. £3 3s. 6 mos. £4 4s. 12 mos. £8 8s. Perp. £26 5s.; or 1st year, £10 10s.; 2nd yr. £7 7s.; or 1 year, £14 14s., 2nd year, £12 12s.	*Gen. Infirm.* Perp. £ 3 3s. 1st yr. £ 2nd yr. £ 3rd yr. £ Win., £6 6s. 3 mos. £ 6 mos. £
£55; or 1st year, £50 2nd year, £10	—	£50; or 1st year £42 10s. 2nd year, £20	To be arranged	—	—	—	—	—	—
s. £7 7s. p. £10 10s. 3 mos. £4 4s. 6 mos. £6 6s. Perp. £10 10s.	s. £ 3s. p. £10 10s. Subsq. c. £2 2s. 3 mos. £3 3s. Lab. add. yr £11 11s.	1 c. £ 3s. Subsq. c. £2 2s. 3 mos. £3 3s.	s. £6 6s.	s. £5 5s.	s. £6 6s.	2 cs. each £ 3s. 3rd c. £2 12s. 6d. Sum. £2 2s.	s. £ 3s. 3 mos. £2 2s.	£3 3s.	1st c. £4 4s. 2nd c. £ 3s.
s. £7 7s. p. £10 10s. s. £9 9s. —	(See below.)	1 c. £ 3s. Subsq. c. £2 2s. Each div. £3 3s.	s. £6 6s.	s. £5 5s.	c. £6 6s.	1st c. £3 3s.; 2nd, £2 2s.; 3rd, £1 1s.	s. £ 12s. 6d.	£4 4s.	£ 3s.
s. £4 4s. p. £5 5s. s. £4 4s. p. £5 5s. s. £7 7s. p. £10 10s. s. £7 7s.	Sec. c. £2 2s. (See note below)	1 c. £3 3s. Subsq. c. £2 2s.	s. £5 5s.	s. £4 4s.	s. £2 2s.	1st c. £3 3s.; 2nd, £2 2s.; 3rd, £1 1s.	s. £ 12s. 6d.	£4 4s.	£ 3s.
s. £4 4s. p. £5 5s. s. £7 7s. p. £10 10s. s. £7 7s.	c. £3 12s. 6d. p. £5 5s. Subsq. c. £2 2s.	1 c. £4 4s. Subsq. c. £2 2s.	s. £4 4s.	s. £4 4s.	1st c. £4 4s.; 2 & 3, £2 2s.	1st c. £4 4s.; 2 & 3, £2 2s.	(See note.)	£5 5s.	£4 4s.
s. £4 4s. p. £5 5s. 3 mos. £5 5s. s. £4 4s. p. £5 5s. s. £7 7s. p. £11 11s. s. £7 7s. p. £10 10s. s. £6 6s.	Sec. c. £3 3s. s. £6 6s. p. £7 7s. 3 mos. £2 2s. 6 mos. £3 3s. s. £6 6s. p. £7 7s. s. £9 9s. p. £11 11s. Subsq. c. £2 2s. s. £6 6s. Subsq. c. £2 2s. s. £6 6s.	1 c. £4 4s. Subsq. c. £2 2s. 1 c. £4 4s. 3 mos. £2 2s. 6 mos. £3 3s. 1 c. £4 4s. 1 c. £4 4s. Subsq. c. £2 2s.	s. £4 4s. s. £4 4s. s. £6 6s.	s. £3 3s. s. £3 3s. s. £4 4s. s. £5 5s.	s. £4 4s. s. £3 3s. s. £4 4s. s. £5 5s.	s. £4 4s. 1st c. £4 4s.; 2 & 3, ea. £1 11s.6d. 1st & 2nd cs. £5 5s.; 3d, £2 12s. 6d. 1st & 2nd cs., each £5 5s.; 3d, £1 11s.	s. £4 4s. (See note.) s. £4 4s. s. £5 5s. s. £4 4s.	£4 4s. £4 4s.
s. £2 2s. p. £3 3s. s. £2 2s. p. £3 3s. s. £6 6s. p. £7 7s. s. £4 4s. p. £5 5s. s. £4 4s. p. £5 5s. s. £2 2s. p. £3 3s. s. £2 2s. £1 1s.	s. £2 2s. — s. £2 2s.	s. £1 1s. s. £ 3s.	— s. £3 3s.	Each £3 3s.; both togeth. £6 6s. s. £4 4s. s. £4 4s.	s. £2 2s. s. £1 1s. — — — — — s. £4 4s. s. £4 4s.	1st c. £3 3s.; 2 & 3, each £2 2s. s. £2 2s. s. £1 1s. — — — 1st c. £3 3s.; 2 & 3, each £2 2s. Mich. s. £2 2s. 1st c. £5 5s.; 2 & 3, each £4 4s. 1st c. £4 4s.; 2 & 3, ea. £2 2s.	s. £4 4s. s. £4 4s. — — — — — s. £4 4s. s. £4 4s. s. £4 4s.

before competing for the office of Assistant House-Surgeon. A Senior Assistant Demonstrator is appointed at a salary of £20. The pupils of the hospital are placed under the superintendence of the physicians and surgeons in rotation, and have charge of cases as Clerks and Dressers.

Exhibitions and Prizes.—The William Brown Exhibitions: 1. £100 *per annum* for two years, open to perpetual pupils of the hospital under the age of 25, who have become entitled to be registered under the Medical Act within two years previously; examinations in July; subjects, Medicine, Midwifery, and Surgery, including Ophthalmic Surgery. 2. £40 *per annum* for three years to perpetual pupils of the third and fourth winter sessions. Brackenbury Prizes in Medicine and in Surgery, each, interest of £1,000 three per cent. consols, open to all pupils who have not completed the fourth year; examinations in May. Sir Charles Clarke's Prize, interest of £200 annually, for good conduct; awarded at end of summer session. The Thompson Silver Medal, and the Treasurer's Prize, at close of winter session, for proficiency in the clinical examination of three Medical and three Surgical cases (including one case of Obstetric Medicine and one of Ophthalmic Surgery). Sir Benjamin Brodie's Clinical Prize in Surgery, for the best report (with notes) of not more than twelve surgical cases in the hospital during the preceding twelve months. (The Clinical Prizes are open to fourth year's students. Reports must be sent in on or before May 1st.) The Henry Charles Johnson Memorial Prize, for Practical Anatomy. General Proficiency Prizes, £10 10s., for students of each year: first year, Anatomy, Practical Physiology, Botany, and Physiological Chemistry; second year: Anatomy, Physiology, Chemistry, and Materia Medica; third year, Medicine, Surgery, Pathology, and Midwifery.

The Medical Society meets once a week at the hospital during the winter session.

Further Information may be obtained from Dr. Wadham, the Dean of the School; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

GUY'S HOSPITAL.—The hospital contains 695 beds. There are 50 beds for ophthalmic and 26 for obstetric cases. Children are received into the female wards.

Museums, etc.—The Museums of Human Anatomy, Comparative Anatomy (above 2,000 specimens), Pathological Anatomy (above 5,000 specimens), and Materia Medica are open to the students. The Library is open to the students daily from 9.30 A.M. to 5.30 P.M., except on Saturdays, when it is closed at 4 P.M.

Special Courses.—The Dissecting-room is open at stated periods during the summer; and students who desire to dissect in September have facilities for doing so. Students are allowed to visit Bethlem Hospital on fixed days in the summer; and gentlemen can enter as extern students for three months by arrangement with Dr. Savage. A course of Lectures on Experimental Physics is given by Mr. Reinold at 11 on Mondays and Wednesdays during the winter session.—Mr. Clement Lucas gives a course of demonstrations of Practical Surgery (including minor surgery and Surgical Pathology) in the winter; and in summer a course of Operative Surgery, at 4 P.M. on Mondays, Wednesdays, and Fridays.

Appointments.—All appointments are given according to the respective merits of the candidates. The numbers appointed annually are as follows: 6 House-Physicians, for six months; 6 House-Surgeons, six months; 12 Obstetric Residents, two months; 24 Surgeons' Dressers, six months; 18 Clinical Assistants, three months; 18 Dressers in the Eye Wards, four months; 24 *Post Mortem* Clerks, two months; 24 Obstetric Out-Patient Clerks, six weeks; 32 Assistant Physicians' Clerks, three months'; 12 Dental Surgeons' Dressers, two months; 12 Aural Surgeons' Dressers, two months; 64 Medical Clinical Clerks, three months; 72 or more Assistant-Surgeons' Dressers, and a similar numbers of Dressers in the Surgery, three months; 12 Obstetric Ward Clerks, three months; 80 Surgical Clinical Clerks, three months; 32 Assistant-Surgeons' Clerks, three months; 60 Extern Obstetric Attendants, one month; also Clerks in the Room for applying Electricity. A special honorary certificate is given to every gentleman who has diligently performed the duties of not less than three of the various offices; and special certificates are given to those who have attended one hundred cases of midwifery.

Scholarships and Prizes.—Two Entrance Scholarships, each 125 guineas, to be competed for on Sept. 26th, 27th, and 28th: one in Arts,* and one in Science.† Candidates must be under twenty-five years of age, and must not compete for both Scholarships. Notice must be given before September 22nd. The successful candidates must enter into the Hospital in the October immediately following. *First Year:* At the end of summer session, two prizes of £50 and £25; subjects, Anatomy of Bones, Ligaments, and Muscles, Physiology, Materia Medica, Chemistry (including Practical Chemistry), and Botany or Comparative Anatomy. *Second Year:* At end of summer

Embryology (Lectures), £2 2s.; Practical, £1 3s.; Advanced Practical Physiology, £3 3s.; Laboratory fees (winter), first month, £2 2s.; each succeeding month, £1 1s.; additional for Instruction. *Zoology and Comparative Anatomy:* General Course, 5s. £1 6s.; p. £3 3s.; advanced Practical Course (in summer), £3 3s. Shorter Practical Courses: winter and summer, each £4 4s., and 5s. for Specimens; Longer Practical Course, winter, £7 7s.; winter and summer, £12 12s.; animals charged for separately. Advanced Practical Course (summer) £4 4s. Separate Laboratory Work (winter and summer) per month, two days a-week, £2 2s.; three days, £3 3s.; every day, £4 4s. Elementary Biology, £7 7s., and 5s. for Specimens.—*Chemistry*, Half Course, £4 4s.; Organic Course alone, £2 2s.; Exercise Class, £2 2s.—*Anatomy:* Lectures and Practical Anatomy, Course, £11 11s.; Perpetual Lectures and three years' Practical Anatomy, £16 16s.—*Botany:* Practical Classes, Senior, £4 4s. (with charge for materials); Junior, £2 2s.—*Hygiene and Public Health;* Laboratory Instruction (exclusive of materials), three months, £10 10s.; one month, £4 4s. Special Practical Course, £12 12s.; in each case exclusive of materials.

WESTMINSTER HOSPITAL.—The payments include all extras except parts for dissection.—A fee of £4 4s. is charged for every session after the fourth winter, in addition to special fees.—Students who have completed a year of study elsewhere pay £72 on entrance, or two instalments of £37 16s. each, or three payments of £30, £30, and £20. Students who have completed their Anatomical and Physiological Studies, can enter to hospital practice and lectures on practical subjects by paying £60 on entrance, or two instalments of £31 10s each. Graduates of Medicine of Colonial and Foreign Universities are admitted to Hospital Practice and Lectures on payment of £12 12s. These payments do not include Lectures on Experimetal Physics or Comparative Anatomy, nor the special course of Operative Surgery. Experimental Physics, one course, £3 3s.; each subsequent course, £2 2s. Anatomy and Elementary Anatomy in summer, each course £2 2s. Diseases of Skin, £1 1s. Aural Surgery, £1 1s. Obstetric, Ophthalmic, Aural, Skin, or Dental Clinical Departments, 3 months, £3 3s.; 6 months, £5 5s. Special Clinical Departments, and Lectures on Psychological Medicine, Ophthalmic, Aural, and Dental Surgery, Diseases of Skin, and Comparative Anatomy, are free to general students, unless a special certificate is required.

QUEEN'S COLLEGE, BIRMINGHAM.—Ophthalmic Medicine and Surgery, Dental Surgery, and Comparative Anatomy are not included in the composition fee. Each student also deposits £2 as "caution money", which is returned when he has passed his final examination, with such deduction as may be ordered by the warden.

BRISTOL MEDICAL SCHOOL.—Students of Anatomy or Physiology pay a Medical Tutor Fee of £2 2s. *per annum;* this (for 2 years) is included in the Composition Fee. Students not belonging to the Anatomical Class may dissect on paying £3 3s. each session, besides Tutor's fee.—*Royal Infirmary:* Entrance fee, £2 2s.; and £1 1s. *per annum* to Library; Clinical Clerk, 6 months, £5 5s.; 1 year, £8 8s.; Dresser, each, 6 months, £5 5s.; Obstetric Clerk, each 3 months, £3 3s. *General Hospital:* Extra fee for clerk or dresser, £5 5s. for six months. Obstetric Clerk, £3 3s. for three months. Library, £1 1s. *per annum.* Resident pupils, £100 for the first year; £60 for each subsequent year; or five years, with apprenticeship, £260.

LEEDS SCHOOL OF MEDICINE.—An Entrance Fee of £1 1s. is paid by all students. This and the fees for Vaccination and Comparative Anatomy and for Hospital Practice are not included in the composition fee. The composition fee does not include a second course of Practical Chemistry.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—The fees for Hospital Practice may be subject to revision after September 1881. The Composition Fee includes Library and Ophthalmology. The aggregate fee of £96 12s. for Lectures and Hospital Practice is exclusive of Vaccination (£1 1s.), Dissections (£3 3s.), Practical Anatomy in summer (£2 2s.); and Practical Pharmacy (£3 3s.). Demonstrations in Morbid Histology, £1 1s. Diseases of Children, 1st course, £2 2s.; 2nd and 3rd, each £1 1s.

OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.—The Composition Fee admits to four years of study. It does not include Practical Anatomy, after two sessions, 3 months, £2 2s.; 6 months, £3 3s.; Operative Surgery (special course), £4 4s.; Practical Zoology and Comparative Anatomy, two days per week, £7 7s.; one day, £4 4s.; Botany (Practical Course), £1 11s. 6d.; Embryology, £5 5s.; Demonstration class in Anatomy, £2 2s.; to members of Practical Anatomy, £1 1s.; Tutorial class in Anatomy and Physiology, £2 2s.; Tutorial Classes in Chemistry, Zoology, and Botany, each 10s. 6d.; Deposit Fee (Dissection), £2 5s.; Practical Chemistry, for chemicals, £1 1s.—Surgical Pathology, £4 4s.; *Practical Physiology and Histology*, extended course (October to end of July), six days per week, £17 17s.; four days, £13 13s.; three days, £11 11s.; two days, £7 7s.; one day, £4 4s. Students entering at or after Christmas pay two-thirds of the fees, if they enter for not less than two days a week. For shorter periods the fees, entitling the student to work every class in the week, are, six months, £15 15s.; three months, £9 9s.; one month, £4 4s. *Chemistry*, Preliminary Scientific, £4 14s. 6d.; junior and senior lectures, each £3 10s.; both £5 5s.; Organic Chemistry, lectures, £3 10s.; Laboratory classes according to length of course and number of days. *Zoological Laboratory*, fees as for Practical Physiology.—Diseases of Children, £2 2s. Morbid Histology (summer), £2 2s.—Registered medical practitioners wishing to qualify as officers of health can attend the hygiene course free. Practical Anatomy in summer, £2 2s.

NEWCASTLE-ON-TYNE COLLEGE OF MEDICINE.—Chemical Apparatus, £1 1s. (to be returned at end of session); Use of Bones, 5s.; Use of Microscope, 10s. 6d. The perpetual fee does not include Chemistry and Practical Physiology beyond one course.

SHEFFIELD SCHOOL OF MEDICINE.—Tutor's Fee, £2 2s.

* The subjects are—Virgil, *Æneid*, Book IV; Cicero, *Oration against Cataline; Greek:* Homer, *Iliad*, Book VI; Herodotus, Book III; *German:* Schiller, *Don Carlos;* Helmholtz, *Goethe. French:* La Fontaine, *Fables;* Laboulaye, *Abdallah.* Questions on these works and on Grammar. Translation into French and German. Euclid, the first four Books; Algebra to Simple Equations; Arithmetic. Candidates may choose Greek or German, but will not be allowed marks in more than one of these subjects.

† The subjects are—Inorganic Chemistry; Zoology; Botany; Physics, including general properties of solid, liquid, and gaseous bodies; Acoustics, Heat, Magnetism, Electricity, and Optics.

session, Prizes of £25 and £10; subjects, Anatomy and Physiology (including Practical Physiology). At end of winter session, the Michael Harris Prize of £10 for Human Anatomy (including Minute Anatomy); the Sands Cox Scholarship (every third year, next in 1883), value £15, tenable for three years; subjects, Physiology (including Physiological Physics), Histology, and Physiological Chemistry. *Third Year:* At end of summer session, two prizes of £25 and £10; subjects, Medical Anatomy and Methods of Diagnosis, Surgical Anatomy and Diagnosis, Operative and Minor Surgery, Midwifery, and Therapeutics. *Fourth Year:* At end of summer session, two prizes of £25 and £10, in Medicine, Surgery, Diseases of Women, and Medical Jurisprudence. *Fourth and Fifth Years:* Treasurer's Gold Medals in Medicine and Surgery. Gurney Hoare Prize of £25, for best reports of three Medical and three Surgical cases, with commentaries; Beaney Prize of 30 guineas in Pathology. Honorary certificates are given to those candidates who pass creditable examinations.

The Registrars and the Demonstrators of Anatomy and Chemistry assist the pupils in their studies. Classes for the preparation of candidates for the Examinations of the University of London are held.

The Pupils' Physical Society meets on alternate Saturdays, at 7.30 P.M. Two prizes of £10 and £5 will be awarded for the best papers read during the session. Two prizes, value £5 each, will be given for the best essays on selected subjects. A prize of £5 is also given to the member who has most distinguished himself in the debates.

Several of the Lecturers have vacancies for Resident Private Pupils.

Information may be obtained from the Dean, Dr. F. Taylor, at the hospital.

KING'S COLLEGE AND HOSPITAL.—*The Hospital* contains 170 beds in use.

The Museums of Anatomy, Materia Medica, Natural History, etc., are open daily from 10 till 4. *The Medical Library* is open daily.

Special Courses.—Special clinical instruction is given on Tuesday, Thursday, and Friday, by the Assistant-Physicians. Instruction is given in the Diseases of Women and Children; and in Throat-Diseases (with Laryngoscopic Demonstrations), by Dr. Baxter, every Tuesday at 2. Demonstrations and Practical Instruction in Morbid Anatomy are given in the *Post Mortem* Theatre. Special Instruction is given in Medical Chemistry and the Microscope by the Physicians.

Appointments.—Resident Medical Officers, Clinical Clerks, and Dressers are chosen by examination from matriculated students,* who are pupils at the hospital.

Scholarships and Prizes.—Three Warneford Scholarships, for the encouragement of previous education,† each £25 *per annum*, two for three years, and one for two years; and one Warneford Scholarship of £25 *per annum* at the close of the winter session, for two years, for third year resident medical students. Medical Scholarships given yearly to matriculated students—one of £40 for two years, open to students of the third and fourth year; one of £30 for one year, to students of the second and third year; three of £20 for one year, to students of the first year. Daniell Scholarship, open to students who have worked in the laboratory six months, £20 *per annum* for two years. Two Sambrooke Registrarships, of the annual value of £50 each, open to matriculated students who have filled any of the higher appointments at the hospital. Two Sambrooke Exhibitions, one £60 and one £40, for Proficiency in English, Mathematics, any two languages other than English, Elementary Physics, Inorganic Chemistry, Botany, and Zoology; open to all matriculated students at the commencement of their course of study. Two Science Exhibitions, given by the Clothworkers' Company, one of £50 and one of £25 *per annum*, each tenable two years, for proficiency in any four of the following subjects: Mathematics, Mechanics, Physics, Chemistry, Botany, Geology, Mineralogy, and Zoology; open to all candidates under 19 at time of sending in their names (September 30th). Inglis Scholarships: two annually, £50 each, for proficiency in Modern History and English Literature. Leathes' Prizes: Interest of £300 applied in purchase of a Bible and Prayer-Book, as annual prizes to two matriculated medical students. Warneford Prizes: £40 in medals and books, to two matriculated medical students. Class Prizes: Books of the value of £3, and certificates of honour, are awarded annually for proficiency in each of the several subjects taught in the classes. Two Medical Clinical Prizes, one of £3 for the winter session, and the other of £2 for the summer session; and Two Surgical Clinical Prizes of £3 each for the winter session. Todd Medical Clinical Prize: Bronze Medal and Books, value £4 4s. Jelf Medal, to the candidate at the senior scholarship examination who is second in order of merit. Tanner Prize, value £10, for proficiency in Diseases of Women and Children, and in Obstetrics. Carter Prize: Gold Medal and Books, value £15, for proficiency in Botany. The Plumptre, Dasent, Carter, Stephen, Trench, and McCaul Prizes, are open to students of the medical department.

The Medical Tutor assists, by instruction and examination, all students in the subjects of the first winter and summer sessions, as well as those preparing for the Preliminary Scientific Examination of the University of London. Classes are held for the latter examination.

Associates of King's College.—At the end of each winter session, the professors recommend to the Council the names of medical students to be elected associates.

Residence.—Rooms are provided within the College for a limited number of matriculated students under the supervision of the Censor. The cost of the academical year varies from £50 to 60.

The Medical Society meets on Thursdays, at 8.30 P.M.

The Dean of the Medical Department, or the Sub-Dean, attends daily, Saturday excepted, at King's College, from 11 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressed to the Dean during the vacation will receive early attention.

LONDON HOSPITAL.—*The Hospital* contains about 800 beds, approximately thus allotted: Accidents and surgical cases, 334; medical cases, 300; diseases of women, 26; children under seven years of age, 68; ophthalmic cases, 12; out-door wards, 60.

Museums, etc.—The Anatomical and Pathological Museum, the Materia Medica Museum, and the Library are open daily.

Special Courses.—Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice of Mr. Millar, at the Bethnal House Asylum, every Wednesday from 10 to 12. Dr. Morell Mackenzie gives a course of lectures on Diseases of the Throat, at 4 A.M. on Wednesdays in February and March.—Mr. H. A. Reeves gives a course of Practical Surgery (bandaging, etc.) in the winter session; and Mr. J. E. Adams a course of Operative Surgery in the summer session.

Appointments.—Five House-Physicians, five House-Surgeons, and a Resident Accoucheur, are appointed every six months, renewable for two further periods of three months each. The house-physicians and resident accoucheur must possess a medical or surgical degree or diploma, and the house-surgeons a surgical diploma. Clinical Clerks, Surgical Dressers, and Clinical Obstetric Clerks are appointed for three months. They must have passed the first College of Surgeons or an equivalent examination. Every student must act as Clinical Clerk for six weeks in the medical out-patient department, after passing the first College of Surgeons examination. Maternity Pupils must have passed the primary examination of the College of Surgeons, or an equivalent examination. Two reside in the hospital every week. Each student must attend at leas twenty cases of Midwifery; those who have attended one hundred are entitled to a special certificate. Four Dressers reside and board in the hospital every week. Every student must act as Dresser in the Surgical out-patient department for at least three months after the end of the first winter session. Three Clinical Assistants are appointed every three months for the Medical out-patients, and are eligible for re-election. Each receives a salary at the rate of £80 *per annum*. An unpaid Clinical Assistant is appointed in the Ophthalmic department. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. Every student must act as Five months Clerk for three months. A Dental Assistant, Prosector of Anatomy, and Dressers in the Ophthalmic and Aural departments are also appointed. Full pupils, and those who, having commenced elsewhere, pay the

---

* Matriculated students are those who receive their entire medical education at King's College, and those who, after having received a portion of their medical education at other Schools, come to King's College to complete their studies. They have the privilege of holding the various hospital posts, and of becoming candidates for the Scholarships, for the Sambrooke Registrarships, and for the Clinical prizes. Occasional Students, who enter no particular classes, on payment of the prescribed fees, have the privilege of competing for Class Prizes and Certificates.

† Candidates for these three Scholarships must be matriculated students of the Medical Department, and perpetual pupils of the Hospital. Their first Winter Session must commence in October. The examinations will be in the following subjects: Divinity: The Book of Exodus and Numbers; the Gospel according to St. Luke; the Greek Testament. English Language and Literature: Shakespeare, *Julius Cæsar*, Hallam's Constitutional History of England, from the Accession of Henry VII. to the Death of Elizabeth. Latin: Livy, Book V.; Horace, Odes, Book I. Mathematics: Arithmetic, the Three Rules, with Vulgar and Decimal Fractions; Algebra, as far as and including Quadratic Equations; Euclid, Books I., II., and the first part of Book III. Physics: Heat, Light, Electricity, Magnetism, Sound. Chemistry: Mill's Elementary Chemistry, Part I. Natural Philosophy: Deschanel's Natural Philosophy, the Introduction, Part I., Part II., Part III. Botany: Bentley's Manual of Botany, the Introduction, together with chapters on the General Principles of Classification, and Diagnosis of Ranunculaceæ, Rosaceæ, Compositæ, Labiatæ, Cruciferæ, and Liliaceæ. Subjects 1, 2, 3, 4, are compulsory; candidates may also select one subject out of 5, 6, 7, and one subject either out of 5, 6, 7, or out of 8, 9, 10. The examination will begin on September 30th, at 10 A.M.

general fee to the hospital and college, at or before the beginning of the second winter, are eligible for appointments. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Nine scholarships will be offered for competition. 1 and 2. Two Entrance scholarships, value £60 and £40; examination on September 21st, 22nd, and 23rd; subjects: Physics, Botany, Zoology, and Inorganic Chemistry. Successful candidates must forthwith become pupils of the hospital and school. 3 and 4. Two Buxton scholarships, value £30 and £20; examination on September 26th, 27th, and 28th.* 5. A Scholarship at the end of the winter session, value £20, to a first year's student; subjects: Human Anatomy and Physiology. 6. A Scholarship, value £25, to a first or second year's student, at the end of the winter session; subjects: Anatomy, Physiology, and Chemistry. 7, 8, 9. Hospital Scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics. The Duckworth Nelson Prize, value £10, awarded biennially; open to all students who have not completed their education; subjects: Practical Medicine and Surgery. Prizes of the aggregate value of £60 to the most meritorious of the Dressers in the out-patient rooms. Special certificates to those gentlemen who have faithfully performed their duties in the hospital, and to those who have distinguished themselves at the examinations.

Special attention is paid to the preparation of students for the examinations of the Colleges of Physicians and Surgeons, the Apothecaries' Hall, and the University of London.

The Medical Society meets for the reading and discussion of papers at 7.30 P.M. on alternate Wednesdays during the winter session.

Information may be obtained from the Warden, Mr. Munro Scott, at the College.

ST. MARY'S HOSPITAL.—*The Hospital* contains 190 beds; 88 medical and 102 surgical. Two wards are appropriated to Diseases of Children and one to those of Women; there are also beds for ophthalmic cases.

The Reading Room and Library are open daily. The *Museum* is open daily to students. It contains about 3,000 specimens of healthy and morbid anatomy. There are also a Materia Medica Department and a collection of specimens illustrative of Comparative Anatomy. A Histological Room is open daily.

Clinical Demonstrations on Diseases of the Skin and of the Throat are given.—The students are carefully trained to the use of the Microscope. Mr. Page gives a course of Operative and Practical Surgery on Mondays and Thursdays at 9 A.M. during the winter.

Appointments.—Three Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the hospital. A Resident Registrar is appointed annually, and may be re-elected. All students must act as clinical clerks and dressers for six months after passing the Primary Examinations. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients for four months each. A Demonstrator of Anatomy is appointed at a salary of £70, and a junior demonstrator at £50 a year. They are capable of re-election. Two Prosectors are appointed annually; each receives a certificate and £5.

Scholarships and Prizes.—Two Scholarships in Natural Science, tenable for three years; one of £75 the first year, £50 the second year, and £25 the third year; subjects, Inorganic Chemistry and Experimental Physics, with either Botany and Vegetable Physiology, or Zoology; and another, value £65 the first year, £40 the second year, and £20 the third year for special excellence in either of the above-named subjects. There will be a practical examination in each subject. The examinations will take place on October 3rd, and following days. Every candidate must have matriculated at an university, or pledge himself to do so within twelve months; or must have passed an examination qualifying him to register as a medical student. The successful candidates must enter as perpetual pupils of the hospital, and proceed to a degree in Medicine or in Surgery. Scholarship in Anatomy, value £20, tenable for one year, to students who have completed the second or third winter session; subjects, Anatomy, Physiology, and Histology. Scholarship in Pathological Anatomy: value £40, tenable or one year, open to students who have completed the third winter session. The holder of this scholarship will be styled Assistant-Curator, and will assist the Pathologist. *First Year:* Winter Session: Prize of £4 4s. in Anatomy and Histology; one of £2 2s. in Chemistry. Summer Session: Prizes, value £2 2s. each, in Comparative Anatomy, Materia Medica, Botany, and Inorganic Practical Chemistry. *Second Year:* Winter: Prize of £4 4s. for Anatomy and General Physiology. Summer: Prizes, value £2 2s. each, for Midwifery and Medical Jurisprudence. *Third Year:* Winter: Prizes of £3 3s. each, for Medicine and Surgery, and of £2 2s. each for Pathology and Operative Surgery. *Third and Fourth Years:* At end of the winter session, Prizes of £3 3s. each to the Clinical Clerk, and to the In-patients' Dresser, who kept the best records of cases, and have discharged their duties in the most satisfactory manner, for the usual term, during the previous twelve months. Rolleston Prize in Biology: Book or Books of the value of about £5; open to students of not less than one year's standing; subject, the Principles of Construction of Animals and Plants.

The Medical Tutor assists the students in preparing for their final examination, testing their knowledge by the preparations in the museum, specimens from the dead-house, and other means at his disposal.

The Medical Society meets on alternate Wednesday evenings, during the winter session, at 8 P.M.

Further information may be obtained from Dr. Shepherd, Dean of the School.

MIDDLESEX HOSPITAL.—*The Hospital* contains upwards of 300 beds, of which 185 are devoted to surgical, and 120 to medical, cases. There are 33 beds for cases of cancer; also wards for cases of uterine disease and of syphilis, and beds for cases of diseases of the eye.

The Museum is open to students daily from 9 to 5. It contains above 5,000 specimens.—*The Library and Reading Room* are open to all general students.

Special subjects.—Mr. Morris sees out-patient cancer cases at 1.30 on Thursdays. Practical Instruction in Mental Diseases is given at the Leavesden Asylum. Classes for Practical Surgery are held in the winter and summer sessions. Mr. Morris will commence a course of Practical Instruction in Operative Surgery in April. Each student will personally perform all the operations.

Appointments, etc.—Two House-Surgeons are appointed for six months, after competitive examination, in April and October. The Senior House-Surgeon must have a legal surgical qualification. The Junior House-Surgeon is eligible for appointment as Senior House-Surgeon if he have performed his duties satisfactorily. Each House-Surgeon pays £21 on appointment if he have been a surgical pupil of the hospital; if not, £31 10s. Three Resident Physicians'-Assistants are appointed from time to time for six months, after competitive examination. They must have a legal medical qualification, or hold a Broderip Scholarship. Each pays £10 10s. on appointment; and, if he have been a medical pupil of the hospital for a limited time, a further sum sufficient to make him a perpetual student of the medical practice; if he have been neither a general nor an occasional pupil of the hospital, he pays £21. Non-resident Physicians'-Assistants are appointed in the out-patient department. A Resident Obstetric Physicians'-Assistant (qualified to practice) is appointed for six months. He pays £10 10s. Clinical Clerks and Dressers are appointed for six months. An Obstetric Physician's Clerk and Ophthalmic Dresser are appointed. The appointments are so arranged that every student may take both a clerkship and a dressership. Each student must be an out-patient clerk or an out-patient dresser, before being eligible to an in-patient clerkship or dressership.

Scholarships and Prizes.—Two Entrance Scholarships, value £25 and £20, tenable for two years,* open to all gentlemen commencing their medical studies at the hospital in October, 1881. Successful candidates must become general pupils of the school. Science Scholarship, value £50, open to all students who have not completed a year of study at a metropolitan school of medicine, or more than a year at an university or provincial school. The successful candidate must become a general student of the school. The subjects of examination are: Inorganic Chemistry, Botany, and Vegetable Physiology, Zoology, and Experi-

* The subjects are:—1. English, including Writing from Dictation; English Grammar, and the Composition of a short Essay. 2. Arithmetic. No Candidate will be passed who does not show a competent knowledge of the first four rules, simple and compound, of Vulgar Fractions, and of Decimals. 3. Algebra to Simple Equations inclusive. 4. The first four Books of Euclid. 5. Translation of a passage from the Second Book of Cæsar's *Commentarii De Bello Gallico*, and one of the following subjects at the discretion of the Candidate: 1. The first Book of the *Anabasis* of Xenophon. 2. X. B. Saintine's *Picciola*. 3. Schiller's *Wilhelm Tell*. (Besides Translation into English, the candidate will be required to answer Questions on the Grammar of each subject, whether Compulsory or Optional.) 4. Mechanics, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

* The Examination will take place on October 1st and following days. The following are the subjects for Examination. *Latin:* Passages for translation into English, short passages for translation from English into Latin, and questions in Grammar. *Greek:* Easy passages for translation into English; questions in Grammar. *French or German:* Passages for translation into English, short passages for translation from English into French or German, and questions in Grammar. *Mathematics:* Arithmetic, Algebra up to and including Quadratic Equations, and Euclid, Books I, II, III. *Natural Philosophy. Chemistry.—Botany.—Zoology:* Huxley's *Classification of the Animal Kingdom*; Rudiments of Animal Physiology. Candidates will be examined in any three, and not more, of the above subjects which they may select; but only one Modern Language, and two out of the last three subjects, are permitted.

mental Physics, as in the Preliminary Scientific Examination of the University of London; examination on September 30th and following days. Exhibition, value £10 10s., at end of first winter session; subjects: Osteology, Elementary Anatomy, and Physiology. The John Murray Scholarship and Gold Medal are awarded every third year. Two Broderip Scholarships, value £30 and £20, tenable for two years, to students who have completed the third or fourth year, for reports or comments on selected medical and surgical cases. The Governors' Prize, value £21, to the student who, at the end of the third winter session, not obtaining a Broderip Scholarship, shall have been most diligent in the wards, and shall pass the best examination in Clinical Medicine and Surgery, and Practical Pathology. A Clinical Prize of £10 10s., to the candidate who stands third in the competition for the Broderip Scholarship. Prizes and Certificates of Honour are given in each class.

The Tutor assists all general students of the hospital, especially those who are preparing for primary examination before the licensing boards. Special classes are held for the Preliminary Scientific Examination of the University of London.

The Students' Medical Society meets in the Board Room of the Hospital once a fortnight during the winter session. A prize is given to the reader of the best paper during the session, and also to the student who has exhibited the best pathological specimens.

Information may be obtained from Mr. Andrew Clark, the Dean; from Dr. Cayley, Treasurer of the College; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

ST. THOMAS'S HOSPITAL.—*The Hospital* contains 572 beds, of which about 180 are appropriated to ordinary medical, and 230 to ordinary surgical, cases. There are also special wards for diseases of women, diseases of the eye, venereal affections, children under six years of age, and (in a separate block) infectious diseases.

Museum, etc.—Students have access to the Library and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, of Botany, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology and Practical Chemistry.

Special Subjects.—A course of Lectures on Physics and Natural Philosophy is given by Dr. Stone at 12 A.M. on Saturdays in the winter. Physiological Demonstrations are given at 1 on Mondays, Wednesdays, and Fridays in the winter session; and Demonstrations of Pathological Anatomy at 2 P.M. daily. Dr. Cory sees children's cases at 12.30 on Saturdays. Out-patients with diseases of the throat are treated at 12.30 on Tuesdays. Mr. Mason and Mr. McKellar give instruction in Practical and Manipulative Surgery.

Appointments.—Two House-Physicians and two Assistant House-Physicians, two House-Surgeons, an Assistant House-Surgeon, and a Resident Accoucheur, are selected from gentlemen who have obtained their professional diplomas; they hold office for three or six months. An Ophthalmic Clinical Assistant is appointed for six months, with a salary at the rate of £50 *per annum*. Clinical Clerks and Dressers are selected each year, to the number of at least one hundred for in-patients, and eighty to one hundred for out-patients. Obstetric Clerks are from time to time appointed; also Assistants in the Physiological Laboratory in the Dissecting-room, Prosectors, and Assistants to the Demonstrator of Pathological Anatomy. All students have the opportunity of being engaged in the performance of practical duties in connection with the Medical, Surgical, Obstetrical, Ophthalmic, and Pathological Departments of the Hospital. The House-Physicians, House-Surgeons, the Resident Accoucheur, and Dressers and Clinical Clerks, are provided with rooms and commons. Two Hospital Registrars are appointed at an annual salary of £100.

Scholarships and Prizes.—Two Open Scholarships in Natural Science, value £100 and £60, open to students who have passed a Preliminary Examination in Arts; subjects, Physics, Chemistry, and either Botany or Zoology; examinations on October 5th, 6th, and 7th. Successful candidates must become students of the hospital. The William Tite Scholarship, £30, to the student highest on the first-class list at the examination at the end of the first winter session. The Musgrove Scholarship, value £42 *per annum* for two years, biennially to the student highest in the first-class list at the end of the second winter session. A College Scholarship of same value, alternately with the Musgrove Scholarship. College Prizes each winter for first and second years' students, of £20 and £10 each winter; and for third year's students, of £20, £15, and £10; and £15 and £10 each of three summers. The Cheselden Medal, annually, to a fourth year's student, for Surgery and Surgical Anatomy. The Mead Medal, annually, to a fourth year's student, after practical examination in Medicine, Pathology, and Hygiene. The Treasurer's Gold Medal, annually, to a fourth year's student, for general proficiency and good conduct. The Grainger Testimonial Prize, value £20, biennially to students of from three to six years' standing, for a Physiological Essay. The Solly Medal, with a Prize in money, every two years, for Reports of Surgical Cases, to a third, fourth, fifth, or sixth year's student.

University of London.—Classes in the subjects required for the Matriculation Examination are held in October and March, for the Preliminary Scientific Examination from October to July, and for the first M.B. Examination are held from January to July.

The Medical and Physical Society meets on alternate Thursdays at 7.30 P.M. Three prizes, with certificates, are annually awarded to the authors of the best papers written by second, third, and fourth year's students respectively.

Further information may be obtained from Dr. Gillespie, the Medical Secretary, at the Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.—The Hospital contains over 200 beds available for clinical instruction and study. In addition to the Physicians' and Surgeons' Wards, there are special Wards for Diseases of Women, for Children's diseases, for Ophthalmic affections, and for Skin disorders. In connection with the Skin department, there is a complete system of medicated baths.

Libraries, Museums, etc.—The General and Medical Libraries, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, and the Parkes Museum of Hygiene, are open daily. There are also a Chemical, a Physiological, a Zoological, and a Hygienic Laboratory, where instruction is given under the superintendence of the Professors.

Clinical Instruction.—Dr. Wilson Fox, Holme Professor of Clinical Medicine, delivers Clinical Lectures every Tuesday and Thursday at 2, and trains the pupils in the practical study of disease. Lectures are also given by Dr. Ringer, Dr. Bastian, and Dr. Roberts. Dr. Gowers, Assistant Professor of Clinical Medicine, gives instruction and demonstration on Physical Examination, on the Diagnosis of the Diseases of the Heart and Blood-vessels, and on the Modes of Investigation of Diseases of the Nervous System; and Dr. Barlow, Assistant Teacher of Clinical Medicine, instructs in the Examination of the Lungs and of the Urine. Lectures are given every Monday at 2 by Mr. Christopher Heath, the Holme Professor of Clinical Surgery; once a fortnight or oftener by Mr. Marshall and Mr. Berkeley Hill. Mr. Erichsen and Sir Henry Thompson, Emeritus Professors of Clinical Surgery, will deliver short courses during the session. The Holme Professor will hold a Clinical Examination every Friday at 3. Mr. Marcus Beck and Mr. Barker, the Assistant-Professors of Clinical Surgery, will hold examinations, and instruct students in the observation and examination of patients. Dr. Poore attends on Thursdays at 1.30 to see patients with throat-diseases, and to give instruction in the use of the Laryngoscope. A class for the study of Practical Gynæcology meets twice a week under the direction of Dr. John Williams. Mr. Clover gives instruction in the use of anæsthetics. A course of Practical Surgery is given during the winter. It consists of three divisions: 1. The use of Surgical Apparatus, etc., by Mr. Berkeley Hill, Dr. Silcock, and Mr. Boyd, on Mondays and Thursdays, at 4; 2. Operative Surgery, by Mr. Beck, during the latter part of the session; 3. Demonstrations of Surgical Preparations, by Mr. Barker, in January, February, and March. Mr. Beck also gives in the summer a course of Operative Surgery intended for candidates for the public services, for the surgical degrees of the University of London, and the Fellowship of the Royal College of Surgeons.

Offices.—Eight House-Physicians, six House-Surgeons, four Obstetric Assistants, Physicians' Clerks, Surgeons' Dressers, Surgical Ward Clerks, and Ophthalmic Surgeons' Assistants, are selected from among the pupils. The House-Physicians, the Obstetric Assistants, and the House-Surgeons, reside in the hospital, paying for their board.

Scholarships, etc.—Three Entrance Exhibitions, value £100, £60, and £40 *per annum*, to gentlemen who are about to commence their first winter's attendance: Subjects, Chemistry, Physics, Botany, and Zoology. The examination will take place on September 28th and 29th. Notice of intention to compete must be given on or before September 24th. The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery. The Sharpey Physiological Scholarship, annual value about £105. The Filliter Exhibition of £30, annually in July, for proficiency in Pathological Anatomy. Dr. Fellowes' Clinical Medals, one Gold and one Silver, were [illegible] Honour, at the end of each winter and each summer session. The Liston Gold Medal, with Certificates of Honour, at the end of the winter session, for reports and observations on the surgical cases in the hospital. The Alexander Black Gold Medal, for [illegible] logy and Surgery. The Cluff Memorial Prize, every second year, to

the most proficient in Anatomy, Physiology, and Chemistry: next award in 1883. An Atchison Scholarship, value about £55, tenable for two years, annually after the winter session, for general proficiency. Morris Bursary of £25 a year, in 1882. Gold and Silver Medals or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes. Prizes to the value of £10 in the class of Hygiene.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

The Medical Society meets fortnightly to discuss subjects connected with the study of medicine, and for the exhibition of microscopical specimens.

Residence of Students.—Several gentlemen connected with the College receive students to reside with them; and, in the office of the College, there is kept a register of persons who receive boarders.

Information respecting the College may be obtained from the Dean, Dr. F. T. Roberts; the Vice-Dean, Mr. Thane; or the Secretary, Mr. Talfourd Ely.

WESTMINSTER HOSPITAL.—*The Hospital* contains upwards of 200 beds. There are separate departments for Diseases of the Eye, Ear, Skin, Teeth, and Throat, for Diseases of Women, and for Orthopædic Practice.

Museums, etc.—The Anatomical Museum is constantly open to the students. A cabinet containing a valuable collection of microscopical preparations, chiefly histological, has been presented to the Museum. There are also a Pathological Museum and a Materia Medica Museum. The Library is open daily from 9 to 5.

Special Subjects.—In addition to the practice of the Hospital, pupils who enter for the whole period of medical education may attend, without further fee, the practice of the Royal Westminster Ophthalmic Hospital and of the National Hospital for Paralysis. Instruction in the physical examination of the Chest is given by Dr. Donkin, and in the use of the Laryngoscope by Dr. De Havilland Hall. Mr. R. Davy gives demonstrations in Orthopædic subjects. A course of Practical Surgery is given by Mr. Davy in three divisions: 1. October to December, Surgical Anatomy and Diagnosis and use of Apparatus; 2. Examination of Pathological Specimens, the Use of the Ophthalmoscope, Laryngoscope, etc.; 3. May to July, Surgical Instruments; Operations on the Dead Subject. In the summer, a second meeting of the class will be held weekly for instruction in minor surgery.

Appointments.—A Curator of the Museum and Pathologist is appointed annually, with a salary of £52 10s.; and a Medical and a Surgical Registrar, each with a salary of £40. Two House-Physicians, a House-Surgeon, and a Resident Obstetric Assistant are appointed for six months, after examination, and are provided with rooms and commons. The Senior House-Physician, who is also Chloroformist, receives in addition an honorarium of £21. An Assistant House-Surgeon is appointed from among the senior students; he is provided with commons at the hospital table. Clinical Assistants to the Physicians and Surgeons, and to the officers in charge of special departments, are appointed from students of the fourth year. Every Student must perform the duties of out-patient Dresser for three months during the first year; and afterwards hold the office of in-patient Dresser and Clinical Clerk for periods of three months each.

Scholarships and Prizes.—The Fence and Houldsworth Entrance Scholarship, each £40 a year for two years; and two Entrance Scholarships, value £20, tenable for two years.*—Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men. A Prize of £2 2s. by Mr. A. P. Gould, to the first years' student who is most regular and diligent in the Dissecting-Room. Scholarship in Anatomy, Histology, and Physiology, value £21, to student of second year (to be styled Assistant Demonstrator). At end of fourth winter, Prizes of £5 each (books or instruments), in Clinical Medicine and Clinical Surgery. Frederic Bird Medal and Prize, value £15, to students who have completed their fourth winter; subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology. Chadwick Prize for General Proficiency, £21 (books or instruments), to the most meritorious student or students of any year not exceeding the fifth. In most of the Classes, Special Prizes are given by the Lecturers; and Certificates of Honour are awarded in each Class.

Two *Tutors* assist and guide the students in their work, and hold Senior and Junior Classes. Each student must attend at least three hours' tutorial instruction each week. Classes are held for the Preliminary Scientific Examination of the University of London.

Communications respecting the Medical School should be addressed to Dr. Allchin, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, or from the Secretary at the Hospital.

SCHOOL OF ANATOMY, PHYSIOLOGY, AND SURGERY.—The School meets the requirements of two distinct classes of students: *i.e.*, 1. Advanced students and qualified practitioners, who may wish either to extend their knowledge of the foregoing subjects, or to recall to mind what they once knew and have since forgotten; 2. Beginners entering upon their medical duties by a short term of apprenticeship with a general practitioner. For the former, rapid advanced classes, complete in three months, but still thoroughly practical, are provided; and for the latter, more elementary classes of six months' duration, also thoroughly practical.

The Operations of Surgery are all performed on the dead body by the students.

The dissecting-room is open daily from 10 A.M. to 6 P.M. The Demonstrators attend four hours daily.

Fees.—Anatomy and Physiology: For Primary Membership Examination of Royal College of Surgeons, three months, £4 4s.; six months, £5 5s. For Primary Fellowship Examination (with Comparative Anatomy), six months, £5 5s. Surgery: For Second Membership Examination of Royal College of Surgeons, three months, £5 5s.; six months, £8 8s.; for Second Fellowship Examination, six months, £8 8s.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The following courses of lectures are delivered at this School: Anatomy and Practical Anatomy, by Mr. Ottley and Mr. Leahy; Physiology, by Mr. Schäfer; Chemistry, by Mr. Heaton; Botany, by Dr. P. H. Stokoe; Materia Medica, by Dr. T. J. Maclagan; Practice of Medicine, by Mrs. Garrett-Anderson, M.D., and Dr. H. Donkin; Midwifery, by Dr. Ford Anderson; Diseases of Women, by Dr. Louisa Atkins; Forensic Medicine, by Dr. Dupré and Mr. T. Bond; Surgery, by Mr. Norton; Ophthalmic Surgery, by Mr. Critchett and Mr. James Adams; Pathology, by Dr. W. A. Sturge; Hygiene, by Dr. Sophia Jex-Blake and Dr. Edith Pechey; Mental Pathology, by Dr. Sankey; Comparative Anatomy or Zoology and Biology, by Dr. Murie; Experimental Physics, by Mr. Neison; Clinical Medicine (Royal Free Hospital), by Dr. Cockle and Dr. Sturge; Clinical Surgery (Royal Free Hospital), by Mr. Gant and Mr. Rose.

The Winter Session will commence on October 3rd. Intending students are requested to apply to the Dean for a form of application for admission to the School. No student will be admitted to the study Medicine who has not completed her eighteenth year.

Fees.—The fee for the ordinary curriculum of non-clinical Lectures is £80 in one sum, or in instalments, £40 for the first year, £30 for the second, and £15 for the third. The courses of Lectures included in this fee are two each of Anatomy, Practical Anatomy, Physiology, and Practice of Medicine; and one each of Botany, Chemistry, Practical Chemistry, Practical Physiology, Materia Medica, Surgery, Pathology, Midwifery, Diseases of Women, and Forensic Medicine. Lectures on Botany, Hygiene, Mental Pathology, Ophthalmic Surgery, and Zoology will be given whenever a sufficient number of students to form a class present themselves. Any student having paid either of the compounding fees is, on a further payment of £6 6s., entitled to attend additional courses of the classes mentioned above. Materials for the practical classes are charged extra when additional courses are taken. The fee for separate courses is £8 8s. for each subject in winter, and £5 5s. in summer, and £2 2s. for each subsequent course; for each course of lectures on Mental Pathology, Ophthalmic Surgery, and Hygiene, £2 2s. The fee for hospital instruction, including Clinical Lectures, is £20 for the first year, and £15 for each subsequent year. No student is admitted to the Hospital for less than one year.

Examinations are held in each Class; and attendance upon these is required from all students. A record of the attendance of all students is kept. Every student is required to attend not less than two-thirds of the lectures.

* The next Examination will be held at the Hospital on September 30th and October 1st. The following are the subjects. Latin—*Livy*, Book II. The paper will contain passages for translation, questions in Grammar, and easy English sentences for translation into Latin. French and German—The papers will contain passages for translation into English, and questions in Grammar. Mathematics: Arithmetic—including Vulgar and Decimal Fractions, and extraction of Square Root. Algebra—Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations. Geometry—First Four Books of Euclid, or the subjects thereof. Natural Philosophy and Chemistry—The questions in these will be elementary, and in the latter will be confined to the Non-Metallic Elements. The examination is by written papers. Notice of intention to compete, with a statement of the languages in which the candidate wishes to be examined, and a certificate of moral character, must be sent to the Dean not later than September 26th.

Clinical Clerks, Surgical Dressers, and a Pathological Registrar, are appointed without further fee.

Special Tutorial Classes for Ladies preparing for the first B.Sc. and Preliminary Scientific (M.B.) Examinations, are held from January to July.

Besides the above, students and practitioners are admitted to attend the practice of several of the general and special hospitals and infirmaries; among which are the following. Information may be obtained on application to the secretaries of the respective institutions.

Great Northern Hospital, Caledonian Road.
Seamen's Hospital, Greenwich.
West London Hospital, Hammersmith Road.
City of London Hospital for Diseases of the Chest, Victoria Park.
Hospital for Consumption and Diseases of the Chest, Brompton; fees, three months, £3 3s.; six months, £5 5s.
Hospital for Sick Children, Great Ormond Street.
Belgrave Hospital for Children, Cumberland Street.
Evelina Hospital for Sick Children, Southwark Bridge Road.
Victoria Hospital for Children, Queen's Road, Chelsea.
East London Children's Hospital, Shadwell.
Royal Infirmary for Children and Women, Waterloo Bridge Road.
Samaritan Hospital for Women and Children, Lower Seymour Street.
Chelsea Hospital for Women, King's Road.
Hospital for Women, Soho Square.
British Lying-in Hospital, Endell Street.
Queen Charlotte's Lying-in Hospital, Marylebone Road; fees, six weeks, £10 10s.; three months, £15 15s., exclusive of board and lodging.
City of London Lying-in Hospital, City Road.
London Fever Hospital, Liverpool Road.
Royal London Ophthalmic Hospital, Moorfields; fees, six months, £3 3s.; perpetual, £5 5s.
Royal Westminster Orthopædic Hospital, King William Street.
National Hospital for the Paralysed and Epileptic, Queen Square.
Central London Throat and Ear Hospital; fee, three months, £2 2s.; six months, £3 3s.

NOTES CONCERNING THE PROVINCIAL HOSPITALS AND MEDICAL SCHOOLS.

UNIVERSITY OF OXFORD.—The instruction in Natural Science is carried on at the Museum, where there is practical instruction in Physics, Chemistry, and Anatomy and Physiology. The Professors are: Regius Professor of Medicine—H. W. Acland, M.D., D.C.L., F.R.S.; Geometry—H. J. S. Smith, M.A., F.R.S.; Natural Philosophy—Rev. B. Price, M.A., F.R.S.; Experimental Philosophy—R. B. Clifton, M.A., F.R.S.; Geology—J. Prestwich, F.R.S.; Chemistry—W. Odling, M.B., F.R.S.; Physiology (vacant); Zoology—I. O. Westwood, M.A., F.L.S.; Botany—M. A. Lawson, M.A.; Mineralogy—M. H. N. Story-Maskelyne, M.A., F.R.S.; Lee's Reader in Anatomy—J. B. Thompson, M.A.

Large collections illustrate the several subjects; there is a pathological series, including the collection of Schroeder van der Kolk, in the medical department, and a medical laboratory. The Radcliffe Library (in the University Museum), containing nearly 20,000 scientific volumes, is open to all students daily from ten to four, and on certain evenings during term. There are also lectures and practical instruction in Botany at the Botanic Gardens; and Clinical instruction at the Infirmary.

UNIVERSITY OF CAMBRIDGE.—The following courses of Lectures on Medicine, and subjects connected with it will be delivered during the ensuing academical year.

Michaelmas Term, 1881.—Chemistry and Physics: Electricity and Electro-Magnetism, by Professor Lord Rayleigh, M. W. F., 1; Light, by Mr. Trotter (Trinity), M. W. F., 10; Optics and Light, by Mr. Garnett (St. John's); General Principles of Chemistry, by Professor Liveing, T. Th. S., 12; Physical Chemistry, by Professor Dewar, M. W. F., 11; Elementary Organic Chemistry, by Mr. Main (St. John's), T. Th. S., 10; The Metallic Elements, by Mr. Pattison Muir (Gonville and Caius), M. W. F., 10; Spectroscopic Analysis, by Professor Liveing, T. Th. S., 1.30; Volumetric Analysis, by one of the Demonstrators of Chemistry, Tu. Th. S, 10; Chemical Analysis (University Chemical Laboratory) daily, 10 to 6; ditto (St. John's College Laboratory), daily; ditto (Caius College Laboratory), daily, 10 to 4; ditto (Sidney College Laboratory), daily.—Botany: Elementary, chiefly Morphology, by Mr. Hicks (Sidney) Tu. Th. S., 11; Physiology of Plants, by Mr. Vines (Christ's), M. W. F., 12; Elementary Botany, including Systematic, by Mr. Hillhouse, M. W. F., 11.—Anatomy and Physiology: Zoology and Comparative Anatomy (*Invertebrata*), by Professor Newton, M. W. F., 1; Practical Morphology, Advanced Course (*Ichthyopsida*), by the Demonstrator of Comparative Anatomy, T. Th. S., 10; Practical Morphology, by Mr. Balfour (New Museums), Elementary Course (*Invertebrata*) M. W., 9; Advanced Course (*Invertebrata*), T. Th., 11; Human Anatomy: Demonstrations suited for second year men, by the Demonstrator, M. W. F., 12; Class in Anatomy and Physiology, suited for third year men, by Professor Humphry, M. W., 12; Practical Anatomy in Dissecting Room, daily 9 to 4; Anatomy and Physiology—the Organs of Digestion, by Professor Humphry, T. Th. S., 1; Physiology (New Museums) Elementary, by the Trinity Prælector (Dr. Michael Foster), T. Th. S., 9; Advanced: Physiology of Digestion, Blood, Urine, etc. (Chemical Physiology), by Mr. Lea (Gonville and Caius College), W. F., 11; Histology and Physiology of Muscle, Nerve, and Nervous System, by Mr. Langley, M. S., 11; Advanced Physiology, by Mr. Hill (Downing College), M. W. F., 12.—Medicine: General Therapeutics, by Professor Latham, M. W. F., 9; Pathological Anatomy, by the Linacre Lecturer (Dr. Bradbury), T. Th., 9; Clinical Medicine, by Professor Paget, M. W. F., 10; Clinical Surgery, by Mr. Carver, T. Th., 10.

Lent Term, 1882.—Chemistry and Physics: Light, continued, by Mr. Trotter (Trinity College), M. W. F., 10; Heat, by Mr. Garnett (St. John's); General Course of Chemistry, continued, by Professor Liveing, T. Th. S., 12; Chemistry, General Course begun, by Mr. Main (St. John's), T. Th. S., 11; Non-Metallic Elements, by Mr. Pattison Muir (Gonville and Caius), M. W. F., 10; Organic Chemistry, by Professor Dewar, M. W. F., 12; ditto, by Mr. Walker (Sidney), M. W. F., 12; Chemical Analysis as in previous term.—Botany: Histology and Physiology, by Mr. Hicks, (Sidney), T. Th. S., 11; Elementary, chiefly Morphology, by Mr. Hicks (Sidney), T. Th. S., 12; Anatomy of Plants, with Practical Work, by Mr. Vines (Christ's), M. W. F., 12; Elementary Morphology, by the same, T. Th. S., 12; Vegetable Anatomy and Physiology, by Mr. Hillhouse, M. W. F., 11.—Anatomy and Physiology: Zoology and Comparative Anatomy. *Vertebrata*, by Professor Newton, M. W. F., 1; Practical Morphology, (Advanced Course (*Sauropsida*), by the Demonstrator of Comparative Anatomy, T. Th. S., 10; Practical Morphology, by Mr. Balfour (New Museums): Elementary Class continued (*Vertebrata*), M. W., 9; Advanced Class (*Invertebrata*), T. Th., 11; Human Anatomy: Class in Osteology, by the Demonstrator, M. W. F., 12; Class in Anatomy and Physiology, suited for third year men, by Professor Humphry, M. W., 12; Practical Anatomy, in Dissecting Room, daily, 9 to 4; Anatomy and Physiology; The Nervous System and Organs of Special Sense, by Professor Humphry, T. Th. S., 1; Physiology (New Museums): Elementary, by the Trinity Prælector (Dr. Michael Foster), continued, T. Th. S., 9; Advanced: Physiology of Digestion, Blood, Urine, etc. (Chemical Physiology), continued, by Mr. Lea (Gonville and Caius College), W. F., 11; Histology and Physiology of Muscle, Nerve and Nervous System, continued, by Mr. Langley, M. S., 11; Advanced Physiology, by Mr. Hill (Downing), M. W. F., 12.—Medicine: Principles and Practice of Medicine, by Professor Paget, M. F., 9; Clinical Medicine, by Professor Latham, M. W. F. 10; Clinical Surgery, by Mr. Wherry, T. Th. S., 10.

Easter Term, 1882.—Chemistry and Physics: Electricity and Magnetism, by Professor Lord Rayleigh (Cavendish Laboratory), T. Th. S., 12; Electricity and Magnetism, by Mr. Garnett (St. John's); Sound, by Mr. Trotter, M. T. W. Th. F., 10; Chemistry, Elementary Course, by a Demonstrator of Chemistry, M. W. F., 3; Chemistry, General Course continued, by Mr. Main, T. Th. S., 12; Elementary Organic Chemistry, by Mr. Pattison Muir (Gonville and Caius), M. W. F., 10; Some Special Department of Chemistry, by Professor Liveing, T. S., 12; Chemical Analysis, as in previous terms; Inorganic Chemistry, Catechetical Lectures, by Mr. Walker, M. W. F., 12. Botany: Morphology and Systematic, by Professor Babington, M. T. Th. F., 1; Morphology (chiefly Cryptogamic), with Practical Work, by Mr. Vines (Christ's College), T. Th. S., 12; Histology, by Mr. Saunders (Downing), M. W. F., 12; Systematic Botany, by Mr. Hillhouse, M. W. F., 11; Examination Class in Elementary Botany, by Mr. Hicks (Sidney), T. Th., 11. Anatomy and Physiology: Practical Morphology, Advanced Course (*Mammalia*), by the Demonstrator of Comparative Anatomy, T. Th. S., 10; Embryology of Birds and Mammals, with Practical Work, by Mr. Balfour (New Museums), M. T. W. Th., 9; Human Anatomy, Demonstrations by the Demonstrator, M. W. F., 12; Practical Anatomy, in the Dissecting-Room; Elementary Biology, by the Trinity Prælector (Dr. Michael Foster), (New Museums), M. T. W. Th. F., 9; Physiology, advanced (New Museums), Mr. Langley, course continued, M. Tu., 10; Physiology of Circulation and Respiration, by

Dr. Gaskell, W. Th., 10; Advanced Physiology, by Mr. Hill (Downing), M. W. F., 12.—Medicine: Principles and Practice of Medicine, by Professor Paget, M. W. F., 9; Pharmacy and Pharmaceutical Chemistry, by Professor Latham, T. Th. S., 9; Clinical Medicine, by Dr. Bradbury, M. W. F., 10; Clinical Surgery, by Dr. Humphry, T. Th. S., 10.

Long Vacation (July and August), 1882.—Practical Physics, in the Cavendish Laboratory; Practical Chemistry, in the University Laboratory; Organic Chemistry, by Mr. H. T. H. Fenton; Practical Anatomy; Human Osteology; Practical Histology; Clinical Instruction at the Hospital.

Medical students requiring certificates of attendance on lectures on Chemistry will be expected to attend one of the following: Either the General Course of the Professor of Chemistry, or the two courses of the Jacksonian Professor, in Michaelmas and Lent terms; or Mr. Main's course, or Mr. Pattison Muir's courses, in the Lent and Easter terms; or the course of the Demonstrator of Chemistry in Easter term, together with Mr. Main's course on Organic Chemistry in Michaelmas term. Manipulations have to be practised besides, which may be done in any term. The Chemical Laboratory of the University is open daily for the use of the students. A Demonstrator attends daily to give instruction. —The Dissecting-rooms and Museums of Anatomy are open daily during the vacations as well as in the terms. Opportunities for Clinical Instruction in Mental Diseases are afforded at the County Asylum, Fulbourn, by Dr. Bacon. Notice will be given of the days and hours. Forms for registration, abstracts of regulations, schedules, and other papers, may be obtained from the attendant at the Anatomical Schools, Pembroke Street.

BIRMINGHAM.—QUEEN'S COLLEGE.—Clinical Lectures and Lectures in special departments are given in the General Hospital and the Queen's Hospital, which have a total of upwards of 400 beds. Practical instruction is given in the use of the microscope, laryngoscope, and ophthalmoscope, and surgical appliances, also in case-taking and bandaging, with minor surgery and prescribing. Students must attend each hospital alternately for six months, as directed by the Clinical Board.

Appointments.—General Hospital: Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable for six months. *Queen's Hospital:* Resident Obstetric Assistant, tenable for six months; Resident Dresser, tenable for three months.

Prizes.—The Sands Cox Prize, value £20 annually, to students who have completed their curriculum, after examination in Medicine, Surgery, and Midwifery. Two Ingleby Scholarships, after examination in Obstetric Medicine and Surgery and the Diseases of Women and Children; open to students who have completed the second year. One or more Sydenham Scholarships, £31 10s. each, awarded annually; limited to orphan sons (not exceeding 23 years of age) of legally qualified medical men. One or more Queen's Scholarships, value £31 10s. each, awarded annually after examination;* limited to sons (not more than 20 years of age) of legally qualified medical practitioners. The Sydenham and Queen's Scholarships are open to students entering at the College and are each tenable for three years. Preference in each case is given to sons of former pupils of the College. Applications must be made on or before September 15th in each year. Medals and Certificates of Honour, annually, in each class after examination. Two Senior Medical and two Senior Surgical Clinical Prizes (third and fourth years), value in each department £5 5s.; two Junior Medical and two Junior Surgical Prizes (first and second year), value £3 3s.; Midwifery Prize (third and fourth years), £4 4s.

The Medical Tutor holds classes for junior students.

Further particulars may be obtained by application to the Rev. the Warden, at the College, or 54, Islington Row, Edgbaston; to Dr. Carter, 51, Newhall Street; to Dr. Malins, 8, Old Square; or to Dr. Hinds, 10, Easy Row, Birmingham.

BRISTOL MEDICAL SCHOOL, AFFILIATED TO UNIVERSITY COLLEGE, BRISTOL.—Clinical instruction is given at the Royal Infirmary and the General Hospital. The Royal Infirmary contains 264 beds: it has a large children's ward, wards for eye cases and other special purposes, and two wards apart from the main building for cases requiring isolation. The General Hospital contains 154 beds: it has a children's ward, and private and isolated wards. The Infirmary and the Hospital each contain a Library and a Museum. Demonstrations and instruction in Diseases of the Eye and the Use of the Ophthalmoscope are given at the Royal Infirmary by Mr. A. W. Prichard on Thursdays at 11, and Mr. Cross on Saturdays at 10.30; and in Diseases of the Throat and Ear, including the use of the laryngoscope, etc., on Tuesdays at 11, by Mr. Harsant; instruction in the Diseases of Women is given at the Royal Infirmary by Mr. Greig Smith on Wednesdays at 11, and at the General Hospital by Dr. Lawrence on Mondays and Thursdays at 2. A course of Operative Surgery and Surgical Pathology is given by Mr. Keall on Tuesdays, Fridays, and Saturdays, at 9 A.M. during the summer; each student performs operations on the dead body. On the same days and hours, Mr. A. W. Prichard gives instruction in Practical Surgery, including surgical diagrams, the use of apparatus, etc. Mr. D. Davies gives a course of lectures on Hygiene in the Medical School.

Appointments. Royal Infirmary: Students are appointed to Dresserships after the first year of study. Resident Dressers are appointed in weekly rotation. Clinical Clerks are appointed in the third and fourth years of study. A Pathological Clerk is appointed every four months. Obstetric Clerks are appointed from students who have attended lectures on Midwifery and entered to the Surgical practice. *General Hospital:* Clinical Clerks, Dressers, and Obstetric Clerks are appointed. The Dressers reside in the hospital in rotation, free of expense.—Resident pupils are received at the hospital.

Prizes.—Prizes and Certificates of Honour are awarded after examination in the subjects of each year. In awarding the prizes for Practical and Operative Surgery, the marks obtained in the two courses are added together. Certificates alone are given for Practical Chemistry, Practical Surgery and Operative Surgery (separately), Comparative Anatomy, and Hygiene.—*Royal Infirmary:* Suple's Medical Prize, and Suple's Surgical Prize, each a gold medal value £5 5s. and about £7 7s. in money, awarded after examinations in Medicine and in Surgery respectively. Clarke's Prize (interest of £500) to the most successful student of the third year in the Medical School, if he have attended the Royal Infirmary. Tibbits Memorial Prize (interest of £315) annually, for proficiency in Practical Surgery. Crosby Leonard Prize (interest of £300) to third year's surgical students, for best written report of ten surgical cases (excluding those taken for the Suple Prize). A prize of £3 3s. to the Pathological Clerk, if he have performed his duties satisfactorily.—*General Hospital:* Martyn Memorial Scholarship, £20, at beginning of winter session, after examination in subjects of general education. Clarke Surgical Scholarship, £15, annually. Sanders Scholarship (interest of £500); and Lady Haberfield Prize (interest of £1,000) annually; each after examination in Medicine, Surgery, and Diseases of Women. The Martyn Memorial Scholarship and the Lady Haberfield Prize, when not awarded, are available for the remuneration of a Museum Curator, appointed from among the students after competitive examination.

The Medical Tutor assists students in their practical Anatomical and Physiological studies.

Further particulars respecting the Infirmary may be known on application to Mr. F. R. Cross; respecting the Hospital, on application to Dr. Harrison. Information regarding the Medical School will be afforded by the Honorary Secretary, Dr. E. Markham Skerrit.

LEEDS SCHOOL OF MEDICINE.—There are Anatomical, Pathological, Chemical, Botanical, and Materia Medica Museums. The Library is open to students. The Museum of the Literary and Philosophical Society is open to students at a nominal charge.

Mr. McGill lectures on Anatomy at 2 P.M.; and Mr. Horsfall on Physiology, in January, February, and March, on Mondays, Wednesdays, and Fridays, at 3 P.M. The lectures in Chemistry and Botany are given at the Yorkshire College, and those in Comparative Anatomy at the Philosophical Hall.

Clinical Instruction, etc.—The General Infirmary has 300 beds. Clinical Lectures are delivered by the Physicians and Surgeons, and classes meet in the wards for practical instruction. Courses of Practical Physiology are held. The Systematic and the Practical courses of Surgery are delivered in alternate winter sessions. Demonstrations of Eye and Ear Diseases, and instruction in the use of the Ophthalmoscope, are given. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures is given by Dr. Major during the summer; the systematic lectures being given at the school, and the clinical at the Asylum, in alternate weeks. Students can also attend the practice of the Leeds Public Dispensary and the Fever Hospital. There are several resident appointments at these institutions.

Hospital Appointments.—Every student must hold the offices of Clinical Clerk and Dresser. A House-Physician and a House-Surgeon are elected from time to time. There are also four Resident Assistants

* The subjects of examination are: Latin: Virgil, *Georgics*, IV. Greek: Xenophon's *Anacasis*, Book I. French: Lamartine's *Nelson*. German: Schiller's *Wilhelm Tell*. Mathematics, Arithmetic, Algebra to the end of Progressions, and First two Books of Euclid; Chemistry of the Metalloids; Human Osteology.

GUIDE TO HOSPITALS AND MEDICAL SCHOOLS IN THE PROVINCES: 1880-81.

For further particulars regarding each Hospital and Medical School, see pp. 453-4 and 456.

LECTURES, ETC.	BIRMINGHAM (QUEEN'S COLLEGE).	BRISTOL UNIVERSITY COLLEGE: MEDICAL SCHOOL.	LEEDS SCHOOL OF MEDICINE.	LIVERPOOL UNIVERSITY COLLEGE: MEDICAL FACULTY.	OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.	SHEFFIELD SCHOOL OF MEDICINE.	UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE.
WINTER SESSION.							
ANATOMY & PHYSIOLOGY.	Mr. Bartleet and Dr. Carter . Tu. Th. F., 12.15	Dr. R. S. Smith...M. W. F., 10	Mr. Wright & Mr. Horsfall . M. W. Th., 12; Mr. Horsfall, after Xmas, M. W. F., 3	Dr. Caton .. Tu. Th. S., 9.15	Dr. A. Gamgee .... daily, exc. S., 11.30	Dr. Dyson & Mr. James ..M. W., 12.30	Dr. Drummond and Mr. Williamson..M.Tu.Th. F., 3
ANATOMY, DESCRIPTIVE & SURGICAL.	Mr. Thomas..M. Tu. Th. F., 12.15	Mr. F. R. Cross ..Tu. Th. S., 9; F., 11	Mr. Nunneley, Mr. Robinson, & Mr. McGill. daily, 10 (Mr. McGill at 2)	Mr. W. M. Banks.... M. Tu. W. Th. F., 11	Dr. M. Watson.... daily, exc. S., 1	Mr. E. Skinner and Mr. Snell..M. W. F., 9; Tu. Th., 5 (before Xmas.)	Mr. Russell and Mr. Mears..M.W.F.S., 9.15
DEMONSTRATIONS & DISSECTIONS.	Mr. B. May and Mr. Fales . daily	Mr. Harsant	Mr. Robson, Dr. Hellier, and Dr. Hartley..daily from 9	Mr. Greves..daily, 9 to 5; exc. S., 9 to 2	Mr. Fraser and .. daily, 9.30 to 4.30; S., 9.30 to 12	Mr. R. J. Pye-Smith and Dr. Davison . M. Tu. W. Th., 5 P.M.	Mr. Mears
CHEMISTRY	Dr. A. B. Hill . M. Tu. W. Th. F., 12	Mr. Chandler . M. W. F., 9 A.M.	Dr. Thorpe..M. Tu. W. Th., 1	Dr. J. C. Brown..M. Tu. Th. F., 3	Dr. Roscoe & Mr. Schorlemmer . daily, 9.30	Mr. Allen..M. W. F., 11.30	Mr. Freire-Marreco .. M. W. F., 12.5
MEDICINE	Dr. Hodges . Tu. W. F.,	Dr. Spencer & Dr. Shorrett . M. W. F., 2	Drs. Ackroyd and Feldwick . M. Tu. W., 1	Dr. Waters..Tu. Th. S., 9.15	Dr. Morgan . M., 4; Tu. Th., 3	Drs. De Bartolomé, Banham, & Thomas . M. W. F.,	Dr. Philipson..M. W. F., 5
SURGERY	Mr. Pemberton and Mr. Jordan . Tu. W. F., 4	Mr. Dobson..Tu. Th. S., 9	Mr. Jessop & Mr. Atkinson..M. Th. S., 9	Mr. Rushton Parker..M. W. Th., 3	Mr. Lund..M. W. F., 3	Mr. Favell and Mr. A. Jackson..M. W. F., 8 A.M.	Dr. Heath & Dr. Armson M. W. F., 6
HOSPITAL PRACTICE . .	General Hospital (a). Queen's Hospital (b).	ROYAL INFIRMARY (c). GENERAL HOSPITAL (d).	LEEDS GENERAL INFIRMARY (g).	LIVERPOOL ROYAL INFIRMARY (f).	MANCHESTER ROYAL INFIRMARY (g).	SHEFFIELD INFIRMARY (h), SHEFFIELD HOSPITAL (i)	NEWCASTLE INFIRMARY (k).
CLINICAL MEDICINE . . .	Physicians of Hospitals (a) (b); daily	Royal Infirmary..S., 12 General Hospital..three days weekly	Physicians of Infirmary.. Tu. F., 1	Physicians, Royal Infirmary..weekly	Dr. Roberts (Wm.)..Tu. F., 9.30; and clin. lec. every W. at 9	Physicians of Infirmary and Hospital...Tu., 6 P.M.	Physicians of Infirmary . M. F., 12
CLINICAL SURGERY . . .	Surgeons of Hospitals (a) (b), 9 and 12 A.M., daily	Royal Infirmary..F., 12 General Hospital..W., 12	Surgeons of Infirmary.. Tu. F., 1	Surgeons, Royal Infirmary..weekly	Surgeons Royal Infirmary..M., 3	Surgeons of Infirmary and Hospital....Th., 6 P.M.	Surgeons of Infirmary .. Th., 10
SUMMER SESSION.							
MATERIA MEDICA . .	Dr. Sanders . Tu. W. Th., 2	Dr. Shaw..Tu. Th. S., 9	Dr. Churton..M. W. Th., 9	Dr. Carter .. Tu. Th. F., S., 9 A.M.	Dr. Leech (a) Tu. W. Th., 1; (c) M. Tu. W. Th., 12	Dr. Young .. M. W. F., 8 A.M.	Mr. McBean..M. W., 4; F., S., Dr. Barron, M. W., 3
MEDICINE, ETC.	Mr. Clayton, Dr. Bennett . M. Tu. F., 1	Dr. Swayne & Dr. Aust Lawrence . daily, exc. S., 1 P.M.	Mr. Price and Dr. J. Braithwaite.... M. Tu. Th. F., 4	Dr. Wallace (Wm.).. M. W. F., 9.15	Dr. Thorburn....M. Tu. Th. F., 1; clin., W. S., 10	Dr. Hime.... M. W. F., 8 P.M.	Dr. Gibson & Dr. Nesham ..daily, 9 A.M.
BOTANY	Dr. W. Hill . M. W. F.	Mr. Langton..Tu. Th. S., 2 A.M.	Mr. Miall..M. W. Th., 2	Dr. Shearer .. M. W. F.,	Mr. W. C. Williamson .. M. Tu. W. Th. F., 2.30	Mr. Birks .... Tu. Th., 8 A.M.	Dr. J. Murphy Tu. Th. F., 4
FORENSIC MEDICINE . . .	Mr. Wilkins . M. F., 12; Dr. .	Dr. Lucas and Dr. Harrison . M. Th. S., 11	Mr. Scattergood . M. Tu. Th. F., 5	Dr. E. Whittle..M. W. F., 3	Dr. Cullingworth..Tu. W. Th. F., 2	Mr. Harrison and Mr. Bell . Tu. Th., 5	Dr. F. Page..Tu. Th. F., 3
PRACTICAL CHEMISTRY . .	Dr. A. B. Hill . M. Tu. W. F.	Mr. Chandler . M. Th. S., 10	Dr. Thorpe..T. Th., 10 to 12	Dr. J. C. Brown.. M. Tu. Th. F., 10	Dr. Roscoe..M. W., 10	Mr. Allen..M. W. F., 11	Mr. Freire-Marreco daily, 10 to 1 and 2 to 5
COMPARATIVE ANATOMY . .	Dr. Hopley . F., 2	Mr. Sheldon . Tu. W. F., 1	Mr. Miall..M. Th., 4	Dr. Dickinson .... twice weekly	Dr. A. M. Marshall . M. W. F., 12		
PRACTICAL PHYSIOLOGY .	Dr. Nason, Mr. A. M. Pye . Tu. F., 12	Mr. Audley . M. W. F., 9 A.M.	Mr. Walker..M. W. F. S., 10	Mr. Paul (Wm.) W., 2; F., 9.15	Dr. A. Gamgee (Sum.) daily, except Sat.	..W. Th., 3	Dr. Oliver.. Tu. W. Th., 2.30
PATHOLOGY	Dr. Russell . W., 2	Dr. Symes Thompson, Dr. Jarrett . M. W. F., 2	Mr. Robson..Tu. F., 2	Dr. Davidson (Wm.). Fu., 3; Mr. Paul (Sum.)	Dr. Drysdale (Wm.) M., 2; Fr. Th., 4	House Surgeon at Infirmary (Sum.)	Dr. Gibb (Sum.)..M. W. F., 9 A.M.
PRACTICAL PHARMACY . .	Mr. Hodgkinson and Mr. Lee . Tu. F., 2	Mr. Audley . M. W. F., 9 A.M.	Mr. Jessop and Mr. Atkinson	Mr. Parker (Wm.) . M. Th. 4; opt. consultation.	Mr. Leech (Wm.) Fr. Th., 1	House-Surg. (Wm.), Mr. Favell (Sum.)	Dr. L. Armstrong (Sum.)
OBSTETRICS			Mr. Nunneley and Mr. Oglesby	Mr. T. S. Walker . W., 4	Dr. Lattle (Sum.) W. F., 4; clin., M. Fr., 10	Mr. Snell (Sum.) W., 10	
VACCINATION			Mr. Holmes	Mr. Roger Parker	Mr. E. Guest	Mr. Skinner	

(a) Physicians: Dr. Saundby, Dr. Bennett, Dr. Wade, Dr. Lees, Dr. Pemberton. *Assistant Physicians:* Dr. Saundby, Dr. Bennett, Dr. Wade, Dr. Lees, Dr. Pemberton. *Surgeons:* Mr. Bickerton, Mr. H. Hollis, Mr. R. Jody. *Assistant Surgeons:* Mr. Arthur, Mr. Bickerton, Mr. H. Hollis, Mr. R. Jody. *Ophthalmic Surgeon:* Mr. E. Marson. *Assistant Ophthalmic Surgeon:* Mr. Arthur. *Aurist:* Mr. Hinton. *Assistant Aurist:* Mr. Marson. *Dentist:* Mr. Hinton. *Assistant Dentist:* Mr. Marson. *Physician Accoucheur:* Dr. Hopley. *Assistant Physician Accoucheur:* Dr. Russell. *Surgeon Accoucheur:* Mr. Hinton. *Assistant Surgeon Accoucheur:* Mr. Marson. *Anæsthetist:* Dr. Hopley. *Assistant Anæsthetist:* Dr. Russell. *Curator:* Mr. Hinton. *Assistant Curator:* Mr. Marson. *Librarian:* Dr. Hopley. *Assistant Librarian:* Dr. Russell. *Registrar:* Mr. Hinton. *Assistant Registrar:* Mr. Marson. *Clinical Assistants:* Mr. Bickerton, Mr. H. Hollis, Mr. R. Jody. *Assistant Clinical Assistants:* Mr. Arthur, Mr. Bickerton, Mr. H. Hollis, Mr. R. Jody. *Demonstrator of Anatomy:* Mr. Arthur. *Assistant Demonstrator of Anatomy:* Mr. Marson. *Demonstrator of Physiology:* Mr. Arthur. *Assistant Demonstrator of Physiology:* Mr. Marson. *Demonstrator of Pathology:* Mr. Arthur. *Assistant Demonstrator of Pathology:* Mr. Marson. *Demonstrator of Chemistry:* Mr. Arthur. *Assistant Demonstrator of Chemistry:* Mr. Marson. *Demonstrator of Botany:* Mr. Arthur. *Assistant Demonstrator of Botany:* Mr. Marson. *Demonstrator of Comparative Anatomy:* Mr. Arthur. *Assistant Demonstrator of Comparative Anatomy:* Mr. Marson. *Demonstrator of Practical Pharmacy:* Mr. Arthur. *Assistant Demonstrator of Practical Pharmacy:* Mr. Marson. *Demonstrator of Forensic Medicine:* Mr. Arthur. *Assistant Demonstrator of Forensic Medicine:* Mr. Marson. *Demonstrator of Practical Physiology:* Mr. Arthur. *Assistant Demonstrator of Practical Physiology:* Mr. Marson. *Demonstrator of Practical Chemistry:* Mr. Arthur. *Assistant Demonstrator of Practical Chemistry:* Mr. Marson. *Demonstrator of Practical Medicine:* Mr. Arthur. *Assistant Demonstrator of Practical Medicine:* Mr. Marson. *Demonstrator of Practical Surgery:* Mr. Arthur. *Assistant Demonstrator of Practical Surgery:* Mr. Marson. *Demonstrator of Practical Obstetrics:* Mr. Arthur. *Assistant Demonstrator of Practical Obstetrics:* Mr. Marson. *Demonstrator of Practical Botany:* Mr. Arthur. *Assistant Demonstrator of Practical Botany:* Mr. Marson. *Demonstrator of Practical Pathology:* Mr. Arthur. *Assistant Demonstrator of Practical Pathology:* Mr. Marson. *Demonstrator of Practical Comparative Anatomy:* Mr. Arthur. *Assistant Demonstrator of Practical Comparative Anatomy:* Mr. Marson. *Demonstrator of Practical Materia Medica:* Mr. Arthur. *Assistant Demonstrator of Practical Materia Medica

in the Infirmary; two are selected from the senior students every six months, and hold office for one year.

Prizes.—The Hardwick Clinical Prize, value £10, is given annually for the best reports of medical cases, and the Surgeons' Clinical Prizes of £8, £5, and £3, for the best reports of surgical cases, during the winter session. These prizes are open to students who have completed the first year. The Thorp Scholarship in Forensic Medicine (£10) at the close of each summer session. At the close of each session, Silver and Bronze Medals, Books, and Certificates of Honour, are awarded according to merit.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE: MEDICAL FACULTY OF UNIVERSITY COLLEGE, LIVERPOOL.—There are a Museum containing specimens of Morbid and Comparative Anatomy, a collection of Wax Models, and a collection of Materia Medica, a Library, and a Reading Room.

Instruction.—Clinical lectures are given weekly at the Royal Infirmary, which contains nearly 300 beds; the Lock Hospital adjoining contains 60 beds. Dr. Glynn gives practical instruction in Clinical Medicine and the Methods of Physical Diagnosis at 11.15 on Tuesdays during the winter. Besides a winter course of Practical Surgery, a course of Operative Surgery is given in the summer for candidates for the Fellowship of the Royal College of Surgeons, and the degree of Bachelor of Surgery of the University of London. Dr. Gee lectures on Diseases of Children. Students of Midwifery attend the practice of the Ladies' Charity and Lying-in Hospital on payment of a fee of £2 2s. The dissecting-room will be open during the summer. In May, a series of twelve lectures on the Cranial Nerves, and afterwards a course of twenty-four demonstrations on Surgical Anatomy will be given. There will also be a tutorial class of osteology and an examining class in the summer.

Dental Surgery.—In the School of Dental Surgery connected with the School of Medicine, Mr. Snape lectures on Dental Surgery; Mr. R. E. Stewart on Dental Mechanics; Mr. F. T. Paul on Dental Anatomy and Physiology; and Mr. Phillips on Dental Metallurgy. Practical instruction in Dentistry is given at the Dental Hospital in Mount Pleasant.

Appointments.—Royal Infirmary: Two House-Physicians and three House-Surgeons are appointed for six months after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Clinical Clerks for each Physician, three or more Dressers for each Surgeon, and two Clerks to the Thornton Wards for Diseases of Women, are appointed for three months in October, January, and May. *Post Mortem* Clerks are appointed for six weeks. All students must perform this duty before the Schedule for the final examination is signed.

Exhibitions and Prizes.—Roger Lyon Jones Scholarships: two (£21 for two years) to applicants who shall have taken the highest position in the Honours Division at a Matriculation Examination of the University of London in the same year, or (failing such candidate) at the Preliminary Scientific M.B. Examination, on condition that they become composition ticket holders of the School and attend the classes in a satisfactory manner. Another of the Scholarships (£21 *per annum* for two years) to a student who has completed two years in July after examination in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry, on condition of his remaining a pupil of the School. Gold Medal for Anatomy and Physiology, presented by Mr. Torr, M.P., for second years' students; and one, also for Anatomy and Physiology, presented by Dr. J. Bligh, for students of the first year. Medals and Certificates of Honour for groups of subjects in each year, viz., third or fourth year, Surgery, Medicine, Pathology, and Midwifery; second year, Advanced Anatomy and Physiology; first year, Elementary Anatomy and Physiology, and Chemistry. Two prizes, and certificates, for Midwifery, by the lecturer on that subject. Two prizes for the best sets of Microscopical Preparations made in the Physiological Laboratory during the winter.

The *Debating Society* meets eight or ten times during the winter session on Saturday evenings, for the reading and discussion of papers. Prizes are given for the best papers, and for the best collection of clinical reports.

Communications should be addressed to the Registrar, Dr. Caton.

OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.—Museums of Human and Comparative Anatomy and of Materia Medica, and Psychological and Chemical Laboratories, are connected with the College.

In the College, the following courses (in addition to those mentioned in the table) are given in the summer: Diseases of Children, by Dr. H. Ashby; Mental Diseases, by Mr. G. W. Mould; Morbid Histology, by Dr. Dreschfeld; Hygiene, by Dr. A. Ransome; and Embryology (lectures and laboratory work), by Dr. A. M. Marshall. Mr. Thomas Jones gives a course of Practical and Operative Surgery in the winter, and a special course of Operative Surgery in the summer. Mr. A. Young gives a course of Surgical Pathology in the winter.

The [illegible] Infirmary, the Monsall Fever Hospital (130 beds), and the Barnes Convalescent Home (124 beds) and the Royal Lunatic Asylum at Cheadle, which accommodates 150 patients, are open for purposes of instruction.

Clinical Instruction is given by the Physicians and Surgeons of the Infirmary. A special course of Clinical Medicine is given by Dr. W. Roberts on Tuesdays and Fridays during the Winter Session, at 9.30 A.M. Medical Demonstrations are given by Dr. Dreschfeld and Dr. Ross, and Surgical Demonstrations by Mr. Hardie and Mr. Southam twice weekly in the summer. Dr. Simpson gives instructions in the use of the Laryngoscope; Dr. Leech in Skin-Diseases; Dr. Dreschfeld in Electro-Therapeutics; Mr. Southam in Aural Surgery; Mr. Hardie in Orthopædic Surgery; and Dr. Little in Ophthalmic Surgery. Clinical Classes are held in the Fever Hospital from time to time.

Appointments.—The following appointments are made: Non-resident, a Registrar, a Pathological Registrar, and two Assistant Medical Officers, annually, at £100 *per annum;* Resident Medical Officer, two years, £250 *per annum;* ditto, at Cheadle, one year, £150 *per annum:* ditto, at Monsall, one year, £200 *per annum;* Resident Surgical Officer, one year, £150 *per annum;* eight House-Surgeons (qualified) and four House-Physicians, a Resident Assistant at Monsall, and one at Cheadle, each for six months. Two or more Clinical Clerks are attached to each Physician and Assistant-Physician, and two or more Dressers to each Surgeon and Assistant-Surgeon. Two Clerks are also appointed to the Pathological Registrar, and to each of the Assistant Medical Officers. These appointments are made for three months. Accident-room Dressers are appointed monthly, for two months.

Prizes.—Class Prizes.—A prize of the value of £5 5s. is offered on the results of the Final Class Examinations in each of the following subjects; Anatomy (first and second years), Physiology (first and second years); Pathology and Morbid Anatomy, Surgery, and Midwifery and Diseases of Women and Children; and one of the value of £3 3s. in each of the following: Botany, Practical Chemistry, Materia Medica and Therapeutics, Medical Jurisprudence, Hygiene, Practical Surgery, Ophthalmology, and Practical Physiology. [Students absent from these examinations are not entitled to a certificate of attendance on the class.] Turner Scholarship of £25, to students who have completed a full course. Platt Physiological Scholarship, value £50, tenable for two years, to students who have attended Physiology in the College Laboratory during one session, for best original investigation and the result of a written examination. The successful candidate must attend for one year of his tenure the class of Practical Physiology in the Laboratory of the College, and in the other year the same or some other approved Physiological Laboratory. Examinations on October 10th and 11th. Two Platt Exhibitions, £15 each, for first and second years' students in Physiology. Dumville Surgical Prize, value £20 (in books or instruments), at end of winter session, to students of two years who have attended four courses, including one at least in Surgery. Subjects of Examination (on March 30th and 31st, 1882): Principles and Practice of Surgery; and, at option of Examiners, examination of cases and operations on dead subject, with reports of cases. Dauntesey Medical Scholarship, value about £100, tenable for one year. Candidates must not have attended lectures in a medical school. Subjects of Examination: General and Comparative Anatomy, with Dissections and Description of Preparations illustrating Typical Forms of Animals; Outlines of Physiological Botany; Chemistry; and either Mathematics or Latin. The successful candidate must enter to the full course of medical studies at the College. Examination will commence on October 3rd. A Gilchrist Scholarship of £50 *per annum*, tenable for three years in the College, to the candidate standing highest in the Matriculation Examination of the University of London in June, if in the Honours Division; or two of £25 each to the first two candidates in the First Division. The successful candidate must prepare for graduation in the University of London. Grammar School Scholarship, value £17, tenable for three years, open to scholars of the Manchester Grammar School. The successful candidate must enter to one of the departments of Owens College. Medical and Surgical Clinical Prizes (books or instruments to the value of £6 6s. in each department) are given for reports of cases at the Infirmary.

Tutorial Classes in Medicine and Surgery are formed two months before each examination at the College of Surgeons.

Prospectuses may be obtained from the Registrar, Mr. J. H. Nicholson.

SHEFFIELD SCHOOL OF MEDICINE.—The General Infirmary contains 180 beds, including two ophthalmic wards. The Public Hospital and Dispensary contains 110 beds. Students are also admitted to the practice of the Jessop Hospital for Diseases of Women.

Besides the lectures mentioned at page 455, a course of Public Medicine is given by Dr. Drew.

The Library of the Medical School is open to students under certain regulations.

Prizes and certificates of honour are given at the end of each session.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—The Laboratories, Libraries, and Museums of Anatomy, Pathology, and Materia Medica, are open daily.

Appointments.—An Assistant-Curator of the Museum is annually appointed from among the senior students, and receives £12 as an honorarium. Assistant Demonstrators of Anatomy, Assistant Physiologists, Pathological Assistants, and Assistants to the Dental Surgeon are also elected. Four times in the year two Resident Medical Assistants, two Resident Surgical Assistants, three Non-resident Clinical Clerks, and sixteen Non-resident Dressers (eight for the In-patients, and eight for the Out-patient Department), are appointed for three months. The Medical and Surgical Assistants are provided with apartments and board in the Infirmary, on payment of £5 5s. for three months.

The Infirmary contains 230 beds. There are special wards for diseases of the eye, for lock cases, male and female, and for children. Pathological Demonstrations are given as opportunity offers. Practical Midwifery can be studied at the Newcastle Lying-in Hospital. Opportunities for practical study are also afforded by the Dispensary, Fever Hospital, Eye Infirmary, Children's Hospital, and Coxlodge and Dunston Lunatic Asylums. Lectures are given on Psychological Medicine at the Coxlodge Lunatic Asylum, by Mr. R. H. B. Wickham, Medical Superintendent. Mr. H. E. Armstrong gives a course of lectures on Public Health.

Scholarships, etc.—An University of Durham Scholarship, value £25 a year, for four years, for proficiency in Arts, awarded annually at beginning of winter session to perpetual students in their first year only.* The Dickinson Memorial Scholarship, value £15 annually, for Medicine, Surgery, Midwifery, and Pathology; open to perpetual students who have passed the primary examination of a licensing body. The Tulloch Scholarship, interest of £400 annually, for Anatomy, Physiology, and Chemistry. The Charlton Memorial Scholarship, interest of £700 annually, for Medicine. The Gibb Scholarship, interest of £500 annually, for Pathology. At the end of each session, a Silver Medal and Certificates of Honour are awarded in each of the regular classes.

Further information may be obtained from the Registrar, Dr. Luke Armstrong, Newcastle-on-Tyne.

The following hospitals are also recognised by the Royal College of Surgeons for the purpose of professional education: Bath United Hospital; Bedford General Infirmary; Berkshire Royal Hospital, Reading; Bradford Infirmary; Addenbrooke's Hospital, Cambridge; Derbyshire General Infirmary; Devon and Exeter Hospital; Gloucester General Infirmary; Hants County Hospital; Hull Infirmary; Kent and Canterbury Hospital; Leicester Infirmary; Norfolk and Norwich Hospital; Northampton General Infirmary; Nottingham General Hospital; Radcliffe Infirmary, Oxford; Salisbury General Infirmary; Salop Infirmary; Staffordshire General Infirmary; North Staffordshire Infirmary; Wolverhampton and Staffordshire General Hospital; Sussex County Hospital; Worcester Infirmary.

NOTES ON THE MEDICAL SCHOOLS AND HOSPITALS IN SCOTLAND.

UNIVERSITY OF ABERDEEN.—Practical Toxicology, Dr. F. Ogston, jun. (sum.). Fee to each class, £3 3s., except Anatomical Demonstrations, £2 2s.; Practical Midwifery, with Gynæcology and Diseases of Children, and Practical Pharmacy, each £2 2s.; Practical Ophthalmology and Practical Toxicology, each £1 1s. Matriculation fee, both sessions, £1; summer session alone, 10s.

ROYAL INFIRMARY, ABERDEEN. Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s. The General Dispensary and the Lying-in and Vaccine Institution are open daily; the Eye Institution is open three days in the week. Clinical instruction is given in the Royal Lunatic Asylum for three months in the year.

UNIVERSITY OF EDINBURGH.—Minimum expenses for Class and Examination Fees for M.B. and C.M., £107 18s.; Sessional Fee for Materia Medica, Chemistry, Surgery, Institutes of Medicine, Midwifery, Clinical Surgery (winter), Clinical Medicine (winter), Anatomy, Practice of Physic, General Pathology, Botany, Natural History, Medical Jurisprudence, each £4 4s.; Practical Anatomy, Practical Physiology, Practical Chemistry, Practical Pathology, Clinical Medicine (summer), Clinical Surgery (summer), Obstetric and Gynæcological Operations, Operative Surgery, Mental Diseases, Practical Materia Medica and Pharmacy, £3 3s.; Anatomical Demonstrations, Organic Chemistry (advanced), Practical Natural History, Vegetable Histology, each £2 2s.; Vaccination, £1 1s. The fee for a second course of any lectures is £3 3s.; any subsequent course is free. For a perpetual ticket at the beginning of the first course, the fee is £6 6s. Every student, before entering with any professor, must produce a matriculation-ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer session pay a fee of 10s.—The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturday, till 1 P.M.

The following means are afforded for practical instruction, in addition to those mentioned in the table at page 458, in summer: Morbid Anatomy and Practical Pathology, by Mr. D. J. Hamilton, under the superintendence of Dr. Greenfield; Tutorial Class of Clinical Medicine, in the Royal Infirmary, by the Clinical Tutor, Dr. Murdoch Brown, under the superintendence of the Clinical Professor; Tutorial Class of Clinical Surgery, by the Clinical Tutor, Mr. Cotterill, under the superintendence of the Clinical Professor; Obstetric Operations, by Dr. Simpson and Dr. D. B. Hart; Chemistry (advanced class), by Dr. Crum Brown; Practical Instruction in Mental Diseases at Morningside Asylum, by Dr. Clouston, on Mondays, Wednesdays, and Fridays, at 3. The Anatomical Museum, under the superintendence of Mr. Turner; Chemical Laboratories, under Dr. Crum Brown and Assistants; Physiological Laboratory, under Dr. Rutherford and Assistants; Physical Laboratory, under Mr. Tait; Natural History Museum, under the superintendence of Sir C. W. Thomson; Medical Jurisprudence Laboratory, under the superintendence of Dr. Maclagan; Mineralogical and Geological Laboratory and Museum, under the superintendence of Mr. Geikie; Royal Botanic Garden, Herbarium, and Museum, under the superintendence of Dr. Dickson; Materia Medica Museum and Laboratory, under the superintendence of Dr. Fraser, are open to students.

Fellowships, etc.—Falconer Memorial Fellowship, for the encouragement of the study of Palæontology and Geology, value £100, tenable for two years, open to Graduates in Science or Medicine of the University of not more than three years' standing. Syme Surgical Fellowship, value about £100, tenable for two years, open to Bachelors of Medicine of not more than three years' standing, who shall present the best Thesis on a Surgical subject, giving evidence of original research or practical talent. Theses for competition must be given in before April 30th, 1882. Leckie-Mastier Fellowship, annual proceeds of £2,000, tenable three years, open to Bachelors of Medicine of not more than three years' standing; next award in November 1882. Sibbald Scholarship, £40, tenable for four years; subjects: Chemistry, Botany, and Natural History; next competition in October 1883. Hope Prize Scholarship, about £30. Thomson Scholarship, value £40, in October 1881; subjects: Botany, Zoology, and Elementary Mechanics. Six Vans Dunlop Scholarships, each about £100, tenable for three years; one to commencing students, one each to students of first and second years, and three at end of third winter. Coldstream Memorial Medical Missionary Scholarship, proceeds of at least £400, for four years. Buchanan Scholarship, annual proceeds of £1,000, yearly, for proficiency in Midwifery and Gynæcology. Abercromby Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Two Sibbald Bursaries, value £30 each. Eight Thomson Bursaries, value £25 each, tenable four years, in March and October, at Preliminary Examination in the subjects of General Education. Four Grierson Bursaries, each £20 *per annum*; in the absence of certain preferential candidates, open to competition: one to the student who shall pass the best examination in the subjects of Preliminary Education; one open to student commencing the second winter session, after examination in Chemistry, Botany, and Natural History; one to student commencing the third winter session, after examination in Anatomy and Physiology; one to student commencing the fourth winter session, after examination in Materia Medica and Pathology. Tyndall Bruce Bursary, £25, to

*The subjects of examination, which will commence on October 12th, will be Greek: The Gospel of St. Luke; Latin: Grammar, Cæsar, De Bello Gallico, Book IV; Virgil's Æneid, Book IV; Euclid, Books I and II; English History (Henry VII to Elizabeth, inclusive).

TABLE OF THE MEDICAL OFFICERS, PROFESSORS, AND LECTURERS IN MEDICAL SCHOOLS OF SCOTLAND.

For further particulars regarding each Hospital and Medical School, see pp. 457 and 459-60. The letters (W.) and (S.) in this Table denote respectively Winter and Summer Courses.

Lectures, etc.	Aberdeen University.	Edinburgh University.	School of Medicine, Edinburgh.	Glasgow University.	Glasgow, Anderson's College.	Glasgow Royal Infirmary School.
Anatomy (Lectures).	Dr. Struthers, 11 (W.)	Mr. Turner, 1 (W.)	Mr. Symington & Mr. Cathcart, 1 (W.)	Dr. Cleland, 2 and 11 (W.); 11 (S.)	Dr. A. M. Buchanan, 11 (W.)	Mr. H. E. Clark, 10 (W.); M. W. Th., 12 (S.)
Anatomy: Demonstrations.	Dr. Struthers, 9 (W. and S.)	Mr. Turner, 4 (W.); 11 (S.)	Mr. Symington & Mr. Cathcart, 11 (W.); 11 (S.)	Dr. Cleland, 11 (W.)	Dr. A. M. Buchanan, 4 (W.); (S.)	Mr. Clark, 12 (W.)
Dissections	2 to 4 (W. and S.)	Daily (W. and S.)	2 to 4 (W. and S.)	2 to 4 (W.); 2 to 4 (S.)	9 to 5 (W.); 9 to 5 P.M. (S.)	10 to 2 (W.); 2 to 5 P.M. (S.)
Physiology	Dr. Stirling, 2 (W.)	Dr. Rutherford, 11 (W.)	Dr. James and Mr. J. Hunter, 11 (W.)	Dr. McKendrick, 11 (W.)	Dr. Barlow, 5 (W.)	Dr. W. J. Fleming, 3 (W.)
Practical Physiology	Dr. Stirling, 2 (S.)	Dr. Rutherford (W. and S.)	Dr. James and Mr. J. Hunter (S.)	Dr. McKendrick, 11 (W.); Dr. Muirhead, 2 (S.)	Dr. Barlow, 5 (W.)	Dr. W. J. Fleming, Tu. Wed. Th., 1 (S.)
Chemistry	Mr. Brazier, 9 (W.)	Dr. Crum Brown, 10 (W.), 1 (S.)	Dr. S. Macadam, Mr. King, Mr. I. Macadam, Dr. Drinkwater, Mr. J. Y. Buchanan, 1 (W.)	Mr. Ferguson, 10 (W.)	Mr. Dittmar, 10 (W.)	Dr. J. Clark, 4 (W.)
Practical Chemistry	Mr. Brazier, 10 (S.)	Dr. Crum Brown, (W.); 10 (S.)	Dr. S. Macadam, etc. (as above), 9 to 5 (W. and S.)	Mr. Ferguson, Tu. W. Th., 9 (S.)	Mr. Dittmar, Tu. W. Th., 11 (S.)	Dr. J. Clark, M. Tu. Wed., 3 (S.)
Materia Medica	Dr. Davidson, 4 (W.)	Dr. Fraser, 2 (W.)	Dr. Moinet and Dr. Craig, 2 (W.); 9 (S.)	Dr. Charteris, 12 (W.)	Dr. Morton, 4 (W.)	Dr. Dougall, 4 (W.)
Pharmacy	Dr. Davidson (S.)	Dr. Fraser, 10 (W. and S.)	Dr. Craig, (W.); 1 (S.)	Dr. Charteris 12 (S.)	——	——
Botany	Dr. Trail, (W., S.)	Dr. Dickson, 8 (S.)	——	Dr. I. B. Balfour, 8 A.M. (S.)	Mr. A. S. Wilson, 3 (S.)	——
Zoology & Comparative Anatomy.	Dr. J. C. Ewart, 2(W.); 11 (S.)	Sir C. W. Thompson, 2 (S.)	Dr. A. Wilson, 3(W.); 2 (S.)	Dr. Young (W.)	——	——
Medicine	Dr. Smith-Shand, 3(W.)	Dr. Grainger Stewart, 9 (W.)	Drs. C. Wyllie, Affleck, and B. Bramwell, 9 (W.)	Dr. Gairdner, 11 (W., Tu. Th., 1 (S.)	Dr. Gemmell, 5 (W.)	Dr. J. W. Anderson, 5 (W.)
Surgery	Dr. Pirrie, 10 (W.)	Mr. Spence, 10 (W.)	Dr. P. H. Watson, Mr. Chiene, Mr. J. Duncan, and Dr. A. G. Miller, 10 (W.)	Dr. Macleod, 1 (W.)	Dr. Dunlop, 3 (W.)	Dr. Macewen, 1 (W.)
Practical & Operative Surgery.	——	Mr. Spence, M. Tu. Th. F., 4 (S.)	Mr. J. Bell (W.); Dr. Watson, etc. (as above) 4 (S.)	Dr. Macleod, M. Wed. Fr., 1	Dr. Dunlop, Mon. W. Fr., 11 (S.)	Dr. Macewen, 1 (S.)
Ophthalmic Surgery.	Dr. A. D. Davidson (S.)	——	Dr. J. Robertson, 4 (S.)	Dr. T. Reid, Tu. Th., 2 (S.)	Dr. Wolfe, Sat., 1(W.); Wed., 12 (S.)	Mr. H. E. Clark, Tu. Fr., 12 (S.)
Midwifery & Diseases of Women, etc.	Dr. Stephenson, 4 (W.); Practical, 11 (S.)	Dr. Simpson, 11 (W.); Practical, Tu. F., 10 (S.)	Dr. A. Macdonald, Dr. C. Bell, 11 (W.); Drs. Keiller, Underhill, Croom, & Bell, 10 (S.)	Dr. Leishman, 4 (W.)	Dr. A. Wallace, 3 (S.)	Dr. Stirton, 3 (S.)
Pathology	Dr. Ogston (W.)	Dr. Greenfield, 9 (W.); 11 (S.)	Dr. Waller, 9 (W.); 3 (S.); Dr. Buist, 9 (W. and S.)	—— 9 (W.)	——	Dr. Foulis, 10 (S.)
Medical Jurisprudence.	Dr. Ogston, 3 (W.), (with Medical Logic).	Dr. Maclagan, 11 (S.)	Dr. Littlejohn, 2 (W.); 11 (S.)	Dr. P. A. Simpson, 11 (S.)	Dr. A. Lindsay, 4 (S.)	Dr. Glaister, 11 (S.)
Hospital	Royal Infirmary (*a*), daily, noon	Royal Infirmary (*b*)	Royal Infirmary (*b*).	Western Infirm. (*c*); Royal Infirmary (*d*)	Royal Infirmary (*d*).	Royal Infirmary (*d*), 9.
Clinical Medicine	Dr. Smith-Shand, Dr. Beveridge, & Dr. A. Fraser.	Drs. Maclagan, Stewart, Fraser, and Simpson (Dis. of Women), Tu. F., 12	Drs. Balfour, Muirhead, Brakenridge, & A. Macdonald (Obst.) Tu. F., 12 (W. and S.)	Dr. McCall Anderson, 9; and Physicians of Infirmaries.	Physicians of Royal Infirmary.	Physicians of Royal Infirmary.
Clinical Surgery.	Dr. Pirrie, Dr. A. Ogston, and Dr. Will.	Mr. Annandale, M. Th. 12 (W. and S.)	Mr. J. Bell, M. Th., 12 (W. and S.)	Dr. G. Buchanan, 9; & Surgeons of Infirmaries	Surgeons of Royal Infirmary.	Surgeons of Royal Infirmary.

a. Aberdeen Royal Infirmary.—*Physicians:* Dr. J. W. F. Smith-Shand, Dr. Beveridge, Dr. A. Fraser. *Surgeons:* Dr. Pirrie, Dr. A. Ogston, Dr. Will, Dr. Garden. *Ophthalmic Surgeon:* Dr. Davidson. *Dental Surgeon:* Mr. Williamson.

b. Edinburgh Royal Infirmary. *Consulting Physicians:* Dr. D. R. Haldane and Dr. A. Keiller. *Physicians:* Dr. Maclagan, Dr. A. R. Simpson, Dr. T. Grainger Stewart, Dr. T. R. Fraser (the preceding are Professors of Clinical Medicine), Dr. G. W. Balfour, Dr. C. Muirhead, Dr. Brakenridge, and Dr. A. Macdonald (lecturers on Clinical Medicine). *Assistant-Physicians:* Dr. J. Wyllie, Dr. Affleck, Dr. A. Smart. *Consulting-Surgeons:* Dr. J. Dunsmure and Dr. J. D. Gillespie. *Surgeons:* Mr. J. Spence, Mr. Annandale (Professor of Clinical Surgery), Dr. J. Bell, Dr. Duncan, and Mr. Chiene. *Extra Acting Surgeon:* Dr. P. H. Watson. *Ophthalmic Surgeons:* Mr. Walker and Dr. D. A. Robertson. *Surgeon for Ovarian Diseases:* Dr. T. Keith. *Assistant-Surgeons:* Dr. A. G. Miller, Dr. P. H. Maclaren, and Dr. J. Bishop. *Dental Surgeon:* Dr. J. Smith. *Pathologist:* Mr. D. J. Hamilton.

c. Glasgow Western Infirmary.—*Physicians:* Dr. Gairdner, Dr. McCall Anderson, Dr. Finlayson. *Physician for Diseases of Women:* Dr. Leishman. *Surgeons:* Dr. Macleod, Dr. G. Buchanan, Dr. A. Patterson. *Dispensary Physicians:* Dr. Tennent, Dr. Coats, and Dr. McVail. *Extra Dispensary Physician:* Dr. S. Gemmell. *Out-door Physician Accoucheurs:* Dr. R. Kirk, Dr. W. L. Reid, Dr. M. Cameron. *Dispensary Surgeons:* Dr. J. G. Lyon, Dr. Knox, and Dr. Christie. *Dispensary Surgeon for Diseases of the Ear:* Dr. Barr. *Extra Dispensary Surgeon:* Mr. J. C. Renton. *Pathologist:* Dr. Coats.

d. Glasgow Royal Infirmary.—*Physicians:* Dr. Maclaren, Dr. Scott Orr, Dr. Wood Smith, Dr. Perry, and Dr. Charteris. *Physician for Diseases of Women:* Dr. Stirton. *Surgeons:* Dr. Morton, Dr. E. Watson, Dr. Macewen, Dr. Dunlop, and Dr. Clark. *Aural Surgeon:* Dr. J. Macfie. *Dental Surgeon:* Dr. J. C. Woodburn. *Dispensary Physicians:* Dr. Mather, Dr. Lawrie. *Extra Dispensary Physicians:* Dr. J. W. Anderson, Dr. Weir, Dr. Dougall. *Dispensary Surgeons:* Dr. Lothian, Dr. Foulis. *Extra Dispensary Surgeons:* Mr. Whitson, Mr. Fleming, Dr. Barlow.

students at end of third winter session; subjects of examination: Materia Medica and Pathology. Two Dr. John Aitken Carlyle's Medical Bursaries, £25 each, for one year, for proficiency in ordinary class-examinations: one to a first year's student, in Anatomy and Chemistry; one to a second year's student, in Anatomy and Physiology. Two Mackenzie Bursaries, proceeds of £1,000, annually to students in junior and senior classes of Practical Anatomy, for industry and skill. Competitors for the Bursaries must have studied the subjects of examination at the University of Edinburgh. Gold medals are given on graduation to Doctors of Medicine whose theses are deemed worthy. Ettles Medical Prize, value about £40, to the most distinguished Graduate in Medicine of the year. Beaney Prize, value about £40, to the candidate for degrees of M.B. and C.M., who shall obtain most marks in Anatomy, Surgery, and Clinical Surgery. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Neil Arnott Prize, about £40, to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. The successful candidate must continue a medical student of this University during the winter session. Ellis Prize: accumulated proceeds of about £500, every three years, for an Essay or Treatise in some subject of Animal or Vegetable Physiology. Goodsir Memorial Prize, £60, awarded triennially. Wightman Prize, to student of class of Clinical Medicine for best report and commentary on cases treated in the wards. Cameron Prize, income of £2,000, yearly, to the members of the medical profession who shall have made the most valuable addition to Practical Therapeutics during the preceding year.

EDINBURGH ROYAL INFIRMARY.—Fees: three months, £2 2s.; six months, £4 4s.; one, £6 6s.; perpetual, £12. Separate payments, amounting to £12 12s., entitle to a perpetual ticket. Clinical Medicine and Clinical Surgery, £4 4s. for the course in winter, and £3 3s. in summer. Four Resident Physicians and Four Resident Surgeons are appointed; they live in the house for six months free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are appointed. Each surgeon appoints from four to nine Dressers for six months. Assistants in the Pathological Department are appointed by the Pathologist. Instruction is given in special departments.

SCHOOL OF MEDICINE, EDINBURGH.—The following courses of instruction are given in addition to those mentioned at p. 458: Tutorial Classes of Physical Diagnosis and of Practical Surgery at the Royal Infirmary; Diseases of the Ear, Dr. Kirk Duncanson, Mondays, Thursdays, and Saturdays, with clinical instruction at 4 (win.) and 11 (sum.); and Dr. P. McBride, Mondays and Thursdays, 11 (sum.); Vaccination, six weeks' courses in winter and summer, Dr. Husband; Diseases of Children, Dr. J. Andrew and Dr. J. Carmichael; clinical instruction through year at the Children's Hospital, lectures in summer on Mondays and Thursdays by Dr. Andrew at 10, and by Dr. Carmichael at 3; Practical Medicine and Diagnosis, Dr. Byrom Bramwell, daily, 9 (sum.); Medical Anatomy and Physical Diagnosis, Dr. G. A. Gibson, 9 (sum.); Practical Midwifery, with clinical instruction, in February, March, and April, Dr. A. Macdonald, at 5; Practical Gynæcology, with clinical instruction, Dr. Halliday Croom, at 5 (winter); Practical Midwifery, with clinical instruction, Dr. C. Bell, throughout year, and Dr. Keiller (summer); Diseases of the Skin, Dr. A. Jamieson, Tuesday, Thursday, and Friday, 3 (summer); Insanity, with practical instruction, Dr. Batty Tuke, Monday and Thursday, at 2 (summer). Dr. Littlejohn lectures on Public Health in conjunction with Medical Jurisprudence.

Fees.—For a first course of lectures, £3 5s.; for a second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s. Practical Anatomy (six months), £3 3s.; Anatomical Demonstrations, £2 2s.; perpetual, £4 4s.; Practical Anatomy with Demonstrations, £4 4s.; Practical Chemistry, £3 3s.; Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months; Practical Materia Medica (including Practical Pharmacy), Diseases of the Ear, Diseases of Children, and Diseases of the Skin, each £2 2s.; Vaccination, £1 1s. Summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Demonstrations, Operative Surgery, and Medical Anatomy and Physical Diagnosis, each £2 2s.; Insanity, £1 1s. The minimum cost of education in this school for the double qualification of the Royal Colleges of Physicians and Surgeons of Edinburgh, including the examination fee, is £95, payable by yearly instalments; for the single diploma of either Physician or Surgeon, including the examination fee, £85.

Practical instruction in various subjects may also be obtained on payment of moderate fees at the Sick Children's Hospital, Royal Public Dispensary and New Town Dispensary, Royal Maternity Hospital, and the Edinburgh Eye Infirmary.

UNIVERSITY OF GLASGOW.—Fees, each course, £3 3s., except Operative Surgery, £2 2s., and Lectures on the Eye, £1 1s. In the courses for which £3 3s. is charged (except Chemistry and Practical Chemistry, and Practical Anatomy), the fee for a second session is £2 2s.; for a third session, £1 1s.

The Chemical Laboratory is open from 10 A.M. to 4 P.M. (fee £10 10s. in winter and £5 5s. in summer); and the Physiological Laboratory from 9 A.M. to 4 P.M., winter and summer; the Zoological Laboratory from 12 noon to 4 P.M. in summer (fee £2 2s.). Demonstrations in the Botanical Garden are given at 6.30 P.M. in summer.

GLASGOW ROYAL INFIRMARY.—The number of beds is 532; 214 for medical and 318 for surgical cases. There are wards for the treatment of Diseases of Women and of Venereal Diseases in Males; Diseases of the Ear and Throat are specially treated at the out-door department. Courses of Clinical Medicine and Surgery are given by the Physicians and Surgeons, and *post mortem* examinations are conducted by the Pathologist.

Appointments.—Five Physicians' and five Surgeons' Assistants are boarded and lodged in the hospital at the rate of £35 *per annum*. These appointments can be held for twelve months, and are open to students who have passed all their examinations except the last, or to gentlemen who have a qualification in Medicine or Surgery. Clinical clerks and dressers are selected from the students without additional fee.

Fees for Hospital Practice and Clinical Lectures: first year, £10 10s.; second year, £10 10s.; afterwards free: for six months, £6 6s.; three months, £4 4s. To perpetual students of other hospitals where the perpetual fee is equal to that at the Infirmary, £2 2s. for six months, £3 3s. for one year. Dispensary practice alone, six months, £1 1s.; one year, £2 2s. For Vaccination certificate, £1 1s.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—In addition to the subjects mentioned in the table at page 458, lectures are given in the summer on Aural Surgery, by Dr. Johnston Macfie at 4 on Thursdays, and on Mental Diseases by Dr. A. Robertson. The City Parochial Asylum under his charge is free to students of this school.

Fees.—For each course, first session, £2 2s.; second session and perpetual, £1 1s. Students who have attended a first course elsewhere can enter on the second course on payment of £1 1s. Anatomy: first winter session, £4 4s.; summer session, £1 11s. 6d.; second winter session, £4 4s.; afterwards, for Lectures and Practical Anatomy, £1 1s. per session. Lectures on Diseases of the Ear, £1 1s.; with Clinique to those who are not students of the hospital, £2 2s. Clinique on Dental Surgery free to students of the hospital; to others, £5 one year; perpetual £10. Lectures on Dental Surgery, £2 2s. Lectures on Diseases of the Eye, £1 1s.

GLASGOW WESTERN INFIRMARY.—Fees, first year, £10 10s., giving privilege of admission and three courses of Clinical Instruction. A second year's payment of £10 10s. in addition, or the payment of fees to the amount of £21, confers a life privilege of admission to the Infirmary and clinical instruction. Hospital attendance and clinical instruction for six months, £7 7s.; three months, £4 4s.

There is an out-door Obstetrical Department in connection with the Infirmary; fee, £1 1s.

GLASGOW EYE INFIRMARY.—Fee, six months, £2 2s.; to students who are attending, or have attended, the Lectures on the Eye in the University, £1 1s.

Instruction may also be obtained at the Glasgow Lying-in Hospital; and at the Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, is open to students on payment of a small fee.

GLASGOW.—ANDERSON'S COLLEGE.—The following courses are given in addition to those at p. 458: In winter, Senior Anatomy, Dr. Buchanan, 4 P.M.; in summer, Osteology, Dr. Buchanan, as may be arranged; Public Health, Dr. Christie, 1 P.M.; Aural Surgery, Dr. Barr, Thursday, 3 P.M.; Practical Medical Chemistry, Mr. Dittmar, Tuesday, Wednesday, and Thursday, 4 P.M. Dental Anatomy (in summer), Mr. D. Taylor, Wednesday and Friday, 8 A.M.; Dental Surgery (in summer), Mr. J. R. Brownlie, Tuesday and Thursday, 8 A.M.; Mechanical Dentistry (in winter), Mr. Woodburn, Thursday, 8 P.M. The Chemical Laboratory is open daily from 10 to 5. Students of the

College are admitted to the practice of the Ophthalmic Institution on payment of a matriculation fee of 5s.

Fees.—Each course of lectures (except Anatomy), first session, £2 2s.; second session, £1 1s.; afterwards free. Anatomy (including Dissecting-room), first session, £4 4s.; second session, £4 4s.; third session and perpetual, £1 1s.; summer (including Practical Anatomy), £1 1s.; Osteology, £1 1s.; Dental Courses, each £2 2s. Fee for two years' curriculum at Dental Hospital, £10 10s. Students who have attended classes at other schools will be admitted to such classes as they may have attended elsewhere at reduced fees. Fees for all the Lectures and Hospital Practice required of candidates for the diplomas of Physician and Surgeon, £48.

Scholarships, etc.—A Medical Scholarship of £10 for students entering on their second winter; subjects, Anatomy (bones, joints, muscles, alimentary canal, and heart); Chemistry (general principles; non-metallic elements; cyanides, cyanates, urea, etc.: carbo-hydrates; alcohols, aldehides, and acids of the fatty series). Prizes of £5 in classes of junior Anatomy, Physiology, and Chemistry.

A Dispensary is connected with Anderson's College. Students have the privilege of visiting and treating patients at their own homes, being assisted by a specially appointed qualified practitioner.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE ARMY, NAVAL, AND INDIAN MEDICAL SERVICES.

ARMY MEDICAL DEPARTMENT.

A NEW Schedule is in course of preparation, regulating the conditions of entrance to, and service in, the Army Medical Department. It will be published in this journal when completed.

NAVAL MEDICAL SERVICE.

1. EVERY Candidate for admission into the Medical Department of the Royal Navy must be not under 21 nor over 28 years of age on the day that he presents himself for examination. He must produce a certificate from the District Registrar of the date of his birth; or, in default, a declaration made before a magistrate, from one of his parents or other near relative, stating the date of birth. He must also produce a certificate of moral character, signed by a clergyman or a magistrate, to whom he has been for some years personally known, or by the President or Senior Professor of the College at which he was educated. 2. He must be registered, under the Medical Act in force at the time of his appointment, as possessing two diplomas or licences recognised by the General Council, one to practice Medicine and the other Surgery in Great Britain and Ireland. The Certificates of registration, character, and age, must accompany this Schedule, which is to be filled up and returned as soon as possible, addressed "On Her Majesty's Service.—The Secretary of the Admiralty, Whitehall, London, S.W.—Director-General, Medical Department." 3. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, or any other imperfection or disability that can interfere with the most efficient discharge of the duties of a Medical Officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's Test-Types. He must also declare his readiness to engage for general service at home or abroad as required. 4. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics and the diseases of women and children; Chemistry and Pharmacy, and a practical knowledge of Drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of Surgical Apparatus, and the examination of Medical and Surgical patients at the bedside.) The eligibility of each Candidate will be determined by the result of the examinations in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica, also in French and German; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by Candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of Natural Science and Modern Languages. 5. Every Candidate, immediately after passing this examination, will receive a Commission as a Surgeon in the Royal Navy, and will undergo a course of practical instruction in Naval Hygiene, etc., at Haslar Hospital.

INDIAN MEDICAL SERVICE.

1. ALL natural-born subjects of Her Majesty between twenty-two and twenty-eight years of age at the date of the examination, and of sound bodily health, may be candidates. They may be married or unmarried. They must possess a Diploma in Surgery, or a licence to practise it, as well as a Degree in Medicine, or a licence to practise it in Great Britain or Ireland. 2. The candidate must subscribe and send in to the Military Secretary, India Office, Westminster, so as to reach that address at least a fortnight before the date fixed for the examination, a declaration, stating his readiness to engage for the service and to proceed to duty immediately on being gazetted; also that he labours under no mental nor constitutional disease, nor any imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer. A schedule of the degrees or licences possessed by the candidate, with the sources and dates thereof, must be appended. 3. This declaration must be accompanied by the following documents: *a.* Proof of age, either by extract from the register of the parish in which the candidate was born, or, where such extract is unattainable, by his own declaration (pursuant to the Act 5 and 6 Will. 4, c. 62), form of which can be obtained at the India Office. A certificate of baptism which does not afford proof of age will be useless; *b.* A certificate of moral character from a magistrate or a minister of the religious denomination to which the candidate belongs, who has personally known him for at least the two years preceding the date of his application; *c.* A certificate of registration, in accordance with the Medical Act of 1858, of the degrees, diplomas, and licences possessed by the candidate. 4. The physical fitness of candidates will be determined previous to examination by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia would not be considered a disqualification, provided it did not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes existed. Every candidate must also be free from organic disease of other organs, and from constitutional weakness, or other disability likely to unfit him for military service in India. 5. On producing the foregoing qualifications, the candidate will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows: *a.* Anatomy and Physiology, 1000 marks; *b.* Surgery, 1000; *c.* Medicine, including Therapeutics, the Diseases of Women and Children, 1000; *d.* Chemistry and Pharmacy, and a Practical Knowledge of Drugs, 100. The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. 6. The eligibility of each candidate for the Indian Medical Service will be determined by the result of the examinations in these subjects only. 7. Candidates who desire it will be examined in French, German, and Hindustani, Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to Materia Medica. [Candidates desiring to be examined in any of these subjects must state the same in the declaration.] 8. The number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences. 9. The maximum number of marks allotted to the voluntary subjects will be as follows: French, German, and Hindustani (150 each), 450 marks; Natural Science, 300. 10. The subjects for this part of the examination will be taken from the following books: *Animal Kingdom*, by W. S. Dallas, F.L.S.; *Outlines of the Structure and Functions of the Animal Kingdom*, by Rymer Jones; or *Cours Elémentaire d'Histoire Naturelle*, par Milne Edwards; Lindley's *School Botany*, Lindley's *Medical and Economic Botany*, Henfrey's *Elementary Course of Botany; Elements of Natural Philosophy*, by Golding Bird and C. Brooks; *Physical Geography*, by Mrs. Somerville. 11. The Examiners in London will prepare a list in order of merit, with the marks affixed in the different subjects, to be transmitted to the Director-General and communicated to the Professors of the Army Medical School. If any candidate is found to be deficient in any particular subject, this shall be stated, in order that he may receive special instruction on the point at Netley. 12. After passing his preliminary examination, candidates will be required to attend one entire course of Practical Instruction at the Army Medical School, before being admitted to examination for a commission, on—1. Hygiene; 2. Clinical and Military Medicine; 3. Clinical and Military Surgery; 4. Pathology of Diseases and Injuries incident to Military Service. These courses are to be of not less than four months' duration; but candidates who have already gone through

a course at Netley as candidates for the Army or Navy Medical Service may, if thought desirable, be exempted from attending the School a second time. 13. During the period of his residence at the Army Medical School, each candidate will receive an allowance of eight shillings *per diem*, with quarters, or, when quarters are not provided, with the usual lodging and fuel and light allowances of subalterns, to cover all costs of maintenance; and he will be required to provide himself with uniform (viz., the regulation undress uniform of a surgeon of the British service, but without the sword). 14. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact. 15. At the conclusion of the course, candidates will be required to pass an examination on the subjects taught in the School. The examination will be conducted by the Professors of the School. The Director-General, or any medical officer deputed by him, may be present and take part in the examination. If the candidate give satisfactory evidence of being qualified for the practical duties of an Army Medical Officer, he will be eligible for a commission as surgeon. 16. The position of the candidates on the list of surgeons will be determined by the combined results of the preliminary and of the final examinations; and, so far as the requirements of the service will permit, they will have the choice of Presidency in India, according to their position in that list. The examinations for admission to the Indian Medical Service will usually take place twice a year—viz., in February and in August.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

DR. WARD COUSINS'S NEW ELASTIC CORD TOURNIQUET.

THIS is a powerful and very efficient tourniquet of the simplest construction. It consists of three parts: 1. An endless elastic cord; 2. A metal clamp, by which the cord can be instantly tightened and loosened; 3. A ring fitted with a crossbar for the purpose of connecting the cord in any position with an elastic pad. It can be very rapidly



adjusted on a limb so as to completely control the circulation, and it is adapted for all surgical operations in which such an instrument is essential. The ease with which it can be applied is indicated by the fact that it admits of self-application to any limb with one hand. Arnold and Sons are the sole manufacturers.

LOW DEATH-RATE IN NEW ZEALAND.—The death-rate per 1,000 of population in the various New Zealand boroughs during the year 1880 is stated by the Registrar-General to have been as follows:—Chief cities: Wellington, 18·39; Christchurch, 17.81; Dunedin, 14.35; Auckland, 13.84. Suburbs: Sydenham, 16.03; Caversham, 13.74. Smaller towns: Nelson, 20.13; Thames, 7.22; Napier, 11.13; Wanganui, 21.38; Lyttelton, 1 .06; Timaru, 10.81; Oamaru, 11.57; Hokitika, 16.12; Invercargill, c.10.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 10TH, 1881.

THE STUDENT OF TO-DAY: THE PRACTITIONER OF TO-MORROW.

THE annual recurrence of the Students' number reminds us all of the perpetual rejuvenescence of our art, and of the valiant crowd of workers who press in to fill up the vacancies in our ranks. Veteran after veteran falls, some with a shout of mourning and a hymn of praise marking their departure and recording their feats, others lost in oblivion, or surrounded only by the few to whom their virtues were known and their labours loved. But the hurrying ranks of young recruits press ever forward; and in the vacancies they see promotion, in the losses opportunity, and in the funeral orations themes for emulation, and the stuff of which ambition's dreams are woven.

This ardour, this courage, these young aspirations and indomitable energies, are the pledge of our future progress. How shall they be directed, and in what quarter shall they make their onslaught with the best chance of victory? We bid them advance whither science beckons: to turn a deaf ear to the easy and plausible blandishments of the "old fogey" school, who fondly dwell on the simple charms of "practical" studies in apprenticeship, and rule of thumb; who talk glibly of the "experience" of years, of the "skilled finger", the "educated touch"; of the "rule of thumb"; of the "rough and ready" practices of our fathers; of the "changes of type"; of the good "old-fashioned blue pill and lancet"; who eye ophthalmoscopes askance; who "frankly confess" that they look upon the sphygmograph as a scientific toy; whose urinary cabinet is confined to a bottle of nitric acid, a spirit lamp, and a specific gravity bulb; who ask what is the use of the laryngoscope to the general practitioner; to whom the globule-counter and the hæmochromometer are as cabalistic enchantments; who feel doubtful about temperature-charts; shirk calculations; and limit their electrical enterprise to turning the wheel of a mechanical "American machine" for paralysed patients. These are the signs by which the bad adviser may be known by the young student; and, once recognised, he should be avoided.

It is very well to have opinions; but, after all, it is wise to remember the platonic dictum, that opinions are only midway between knowledge and ignorance. What our medical students of the future will need are mere facts, and facts are only worth having when they have been tested with accuracy. The immediate future of medicine lies in the application to the study and practice of medicine of instruments of precision, and the introduction of methods of precision. What we want to further progress are no longer guesses in the dark; individual appreciations of long [illegible] merely personally—estimated complex phenomena: we want physicists, chemists, physiologists, mathematicians, and zoologists, who will study healthy and diseased function in man, as it may be studied by persons accustomed to exact methods, precise manipulations, and vigorous reasoning.

The pioneers of modern medicine are the Pasteurs, Listers, Donders, Helmholtz, Ranviers, Charcots, Virchows, etc. In our own country, we would bid students take such men as Burdon Sanderson, Michael Foster, Lower, Ray Lankester, Wilks, Pavy, Lauder Brunton, Ferrier, Gerald Yeo, Turner, Fraser, McKendrick, Gairdner, William Roberts,

Coats, for their exemplars—these and others of their generation, whom they will find in every hospital—men who have not been content to stand upon the old ways, or to forego the modern aids which physical and chemical science so plentifully bring to our aid. Gross anatomy, bedside work, dispensary practice—the student will find abundant opportunities and incentives to these; but he will need some discernment, much perseverance, and some culture of his own, to find in many apparently well-equipped schools any sufficient instruction or facilities of practice in the use of the new means of examining pulse, respiration, blood, blood-pressure, secretions, and temperatures of the body, which must be to the coming practitioner as essential in daily practice as are the test-tube, the stethoscope, and the clinical thermometer to the every-day practitioner of this date. We would earnestly warn the student not to be deterred by the ridicule of the ignorant and prejudiced (and he will find many who, on these subjects, are technically uninformed and highly prejudiced, among the most honoured seniors and widely reputed juniors in the schools); nor by difficulties, or labour, or absence of "the immediate practical result", which it is the last extremity of ignorance and folly to suggest as the test of biological research. Let no student think himself fit to practise till he has passed at least one year in thoroughly mastering the *technique* of the practical physiological laboratory, and of the use of all the technical instruments of precision to which we have referred. He may be assured that he will otherwise enter the ranks of practice predestined to a back place, and self-debarred from taking part in that glorious progress of his science of which he will probably in twenty years' time fairly be able to understand the new terminology.

THE STUDENT'S EARLY DAYS.

ONCE more the medical journals, in view of the approaching winter session, publish their "students' numbers", without being able to announce the fulfilment of the wishes of medical reformers. Conjoint boards of examination are still things of the future; the nineteen bodies recognised by the Medical Act still continue to grant their degrees, diplomas, and licences, each of which entitles the holder to have his name put on the *Medical Register;* and the medical schools issue their announcements of the courses of lectures to be delivered in the coming winter and summer sessions, with very little change; but, it must in justice be said, where there is change it is in the direction of affording increased facilities for practical instruction.

As regards the preliminary examination in subjects of general education, which the intending student must undergo before his name can be placed on the *Students' Register*, there are some changes which will require to be remembered. By decree of the General Medical Council, on and after the first day of January 1882, a knowledge of English History and Modern Geography will be required; and a knowledge of the Elements of Statics, Dynamics, and Hydrostatics, will be demanded either at the preliminary examination, or at the first professional examination, or an examination on these subjects may be passed at any intervening period. The Royal College of Surgeons of England discontinues, at the end of the year, the preliminary examinations which have until now been held under its direction by the College of Preceptors; but, beyond this, the Medical Council has not succeeded in inducing any of the licensing bodies, which had not previously done so, to surrender the testing of schoolboy education into the hands of the universities and other national examining bodies. It would be very desirable that the preliminary examinations should cease to be conducted by the Medical corporations. The education of a youth intending to enter on the study of medicine should not differ in any way from that of one about to enter any other profession; provided, of course, that the authority of the Medical Council or some competent body be interposed, to secure that such education shall comprise certain subjects which, either as materials for mental discipline or as useful accessories in medical studies, "*aptiorem medicinæ reddunt*". When the Medical Act was passed, twenty-three years ago, there was indeed a necessity for the establishment of preliminary examinations by the licensing boards; for, with the exception of the Matriculation of the University of London, there was, we believe, no examination at which the general knowledge of youths not intending to enter on a course of University study could be tested; while now we have the local examinations held by the Universities and by the College of Preceptors, all of which are, provided they include certain subjects, recognised by the Medical Council.*

A question of some importance arises in connection with preliminary examinations; viz., whether, and to what extent, it should include certain scientific subjects which form part of the curricula of medical schools, so as to leave more time at the disposal of the student for purely professional study. The Medical Council, indeed, sanctions Botany and Elementary Chemistry as optional subjects at the preliminary examination: but we are disposed to agree with those who would have a preliminary scientific examination superadded to the examination in literature and mathematics, to be passed at a subsequent period; such examination to embrace the same subjects as the preliminary scientific examination of the University of London, but to be of a more simple character, at the same time enabling the candidate to show that his knowledge of them was sufficient for any ordinary application of them in his medical studies. The facilities for scientific study which are being presented by such bodies as the University of Cambridge, Owens College in Manchester, the University Colleges in Liverpool and Bristol, and the Yorkshire College, render such a suggestion more feasible than it could have been some years ago. It is one well worthy of the consideration of medical reformers.

The student having been registered, and having thereby become entitled to commence his professional studies, it is in the highest degree important that the elementary and practical portions of them should be carried on in a methodical and complete manner. Before an attempt is made to raise the superstructure of practical study, there should be provided a good concrete foundation of elementary matters; and no student should attempt, or be allowed to attempt, the serious study of the practical departments until he has given evidence of having laid such a foundation. On this point, the prospectus of the Liverpool School of Medicine contains some excellent remarks, which, we think, deserve publicity.

"A very frequent mistake is to commence the serious study of the practical part of medical education before the scientific part has been got quit of. However possible it may have been to combine the two in former years, when the scientific examinations were extremely lax, it is certainly not possible in the present day, when the primary or scientific examinations are so severe that it takes the whole powers even of an energetic student to prepare himself so as to go up, with confidence of passing, to the College Primary at the end of his second winter. The attractions of surgery and hospital work are so much greater than those of Anatomy and Physiology, that the student is constantly tempted to take out senior classes, or to seek for house-pupilships or dresserships too early. In due time it is found that these have enticed him from his less attractive but legitimate work, and have ended in causing his rejection; while, from his imperfect knowledge, he has not reaped the benefit from them which he might have done at a later period, when his whole energies could have been thrown into them, untrammelled by the fear of a scientific examination constantly hanging over his head."

In contrast with this, may be placed the advice given by the authorities of one of the largest London hospitals to the student of the first winter session.

"The time from 12.30 to 1.30 should be occupied, when the student is not engaged in dissection, in attendance on the *post mortem* examinations and the surgical out-patients. At 1.30 he may, if unoccupied in the dissecting-room, attend in the wards. On Wednesdays and Saturdays he should attend in the operating-theatre, at half-past 1, to watch the various surgical operations performed; and in the same

* In referring to the subject of preliminary examination, it is only right to remind our readers that several of the licensing bodies instituted such examinations long before the passing of the Medical Act of 1858. Such an examination, comprising Latin, Greek, Algebra, and Elementary Natural Philosophy, was established six or eight years previously by the Society of Apothecaries. For many years before that, the Apothecaries' Hall of Ireland had been accustomed to require a preliminary examination in classical and mathematical knowledge; and we believe the same thing had been done by the Royal College of Surgeons in Ireland.

theatre, and in the wards, at half-past 1 on Thursdays, he will attend the surgical consultations."

It certainly seems confirmatory of the opinion of the teachers of the Liverpool School, that its pupils furnish a much smaller percentage of rejections at the preliminary examinations of the Royal College of Surgeons than do those of the London School to which we have referred. If anything in the shape of practical study is to be done in the first winter, it should not be in the elaborate way mentioned above, but rather in the manner advised by another of the chief London schools.

"Opportunities should occasionally be taken" (in the first winter) "for visiting the out-patient departments, and acquiring some familiarity with the more common diseases and injuries, and the application of anatomy and physiology in their recognition."

Provided that the well-known attractions of surgery did not exercise too much power on the mind of the student, such *occasional* visits might be regarded as means of mental relaxation from the scientific studies, and of at the same time acquiring—one might almost say *ludendo magis quàm studendo*—fragments of practical knowledge. But anything beyond this in the shape of serious hospital work during the first year is premature; nor should the student, indeed, apply himself with energy to such work until he has passed his examination in the elementary subjects.

The whole subject of medical education is occupying the minds of medical reformers; and it is too vast for us to say more on it at present. The Committee of Council of the Association and the various Branches have had under consideration a report, originally prepared by the Metropolitan Counties Branch. It is doubtless among the subjects inquired into by the Select Committee of the House of Commons on Medical Reform; and the Medical Council, either in its present, or, it is to be hoped, an improved constitution, will have to take it seriously in hand. In the meantime, the materials must be used as they are; the great point is, to use them judiciously, in their proper places and in right sequence, so as to build up on scientific principles a solid structure of practical knowledge.

THE NEW CURRICULUM OF THE IRISH COLLEGE OF SURGEONS.

We presume that no one conversant with the curriculum hitherto in force for the Letters Testimonial of the Royal College of Surgeons in Ireland will deny that it needed reform. It stood alone in its adhesion to the antiquated notion of enjoining upon the student attendance thrice over on certain courses of lectures; while, at the same time, it was not only possible, but, as we have been informed, the rule, for a student to complete his course, and even to pass his final examination, in a period of two years and nine months. These two facts, independently of all other considerations, were enough to condemn the system utterly.

During the past year, the Council has been engaged in the elaboration of an entirely new scheme. This was submitted for approval to the Fellows at their annual meeting in June last; and, after considerable discussion, was adopted, on a division, by the narrow majority of three votes. Our attention is called to the details of this scheme by a Dublin hospital-surgeon, a Fellow of the College, who, in a letter which he published in last week's JOURNAL, informs us that an influential body of the Fellows, including some of those who voted for the scheme in June last, are now desirous to postpone its operation; and that with this object a petition has been forwarded to the Secretary of State praying that he will withhold his sanction to it.

The new scheme is certainly a bold one in some respects. It embodies two important principles. In the first place, it fixes forty-five months from the date of registration as the minimum period in which a student can complete his curriculum; and, secondly, by introducing a compulsory examination at the close of each session, it aims a serious blow at the procrastination and idleness which now proves so fatal to the best interests of our students. Practical courses in physiology and surgery replace a repetition of a winter course in each subject respectively; and midwifery, not hitherto examined in, now forms part of the final examination. Having said this, however, we fear we have exhausted all that we can say in favour of the scheme. In almost every point it runs counter to the principles laid down in the report of the Education Committee of this Association, as well as the more important recommendations adopted of late years by the General Medical Council. The system of requiring repeated attendance on certain courses of lectures is continued in but a slightly modified form. Although the utmost rigour prevails in enforcing a definite order of study, this only serves to preclude the sequence which the general consensus of opinion in this country regards as right and natural. Instead of chemistry, anatomy, and physiology, forming the basis on which to build the knowledge of the more important practical subjects of surgery, medicine, and midwifery, we find a student actually excluded from the dissecting-room during his first year, and compelled to go there during his third and fourth. The examination at the close of the second year includes surgery and surgical pathology, viz., the pathology of inflammation; yet the first examination in anatomy and physiology, which is allowed to take cognisance of a nervous system, occurs a twelvemonth later. Thus the principle, which at this side of the channel is all but universally admitted, namely, that a student, after having passed a standard examination in anatomy and physiology, should be required to spend two years, unfettered by the compulsory study of these subjects, at clinical work, is utterly ignored. Lastly, we cannot but express our regret at finding no mention of pathological anatomy either in dead-house, school, or examination.

In our opinion, then, the objections urged against the scheme by our correspondent are valid and just. Indeed, many of them are but the expression of views long known to be those of this Association. But whether the Secretary of State ought, under existing circumstances, when such autonomy is allowed the various corporations, to refuse his consent to a constitutionally adoped act, is a serious question. In our opinion, the case before us is a strong piece of additional evidence that the making of curricula ought not to be left to the individual corporations at all; and hence it points to the necessity of a speedy settlement by the State of the questions at present in the hands of the Royal Commission.

CHANGES IN THE MEDICAL SCHOOLS.

Since the publication of our last educational number, the following changes have taken place in the hospitals and medical schools.

St. Bartholomew's Hospital has been deprived, by retirement, of the long-continued and valued services of Mr. Luther Holden, who has been appointed Consulting Surgeon. The vacancy thus created has been filled by the promotion of Mr. Langton to the office of Surgeon; and Mr. Butlin has been appointed Assistant-Surgeon. Mr. Cumberbatch is acting as surgeon in charge of the Aural patients, *vice* Mr. Langton; and Mr. Butlin takes the place of Dr. Brunton in the department of Diseases of the Larynx. Messrs. Bruce-Clarke, Edwards, and Bullar, are demonstrators of Anatomy, *vice* Messrs. Cumberbatch and Walsham; and Mr. Walsham is associated with Mr. Butlin as demonstrator of Practical Surgery.

At the Charing Cross Hospital, Mr. Hird, having retired from the office of Surgeon, has been appointed Consulting Surgeon; and Mr. J. A. Bloxam has been promoted to the office of Surgeon. The vacancies in the office of Assistant-Surgeon caused by this, and by the death of Mr. Amphlett a year ago, have been filled by the appointment of Mr. J. H. Morgan and Mr. Hayward Whitehead. One of the Assistant-Physicians, Dr. Irvine, has died; and two Assistant-Physicians, Dr. Robert Smith and Dr. Colquhoun, have been appointed. Mr. Cantlie, the senior Assistant-Surgeon, has charge of the patients with Ear-Diseases, in the place of Mr. Bloxam. In the Medical School, Dr. Colquhoun lectures on Botany in place of Dr. Haughton, who succeeds Dr. Irvine as lecturer on Forensic Medicine; and Mr. W. A. Forbes lectures on Comparative Anatomy in the room of Mr. J. T. Blake. Mr. R. H. Wolfenden teaches Practical Physiology, *vice* Dr. Colqu-

houn. Practical Instruction in Auscultation is given by Dr. Robert Smith, and in the use of the Laryngoscope by Mr. Morgan, both in place of the late Dr. Irvine; and Mr. Whitehead gives instruction in the use of the Ophthalmoscope *vice* the late Mr. Amphlett.

At St. George's Hospital, an eminent member of the staff, Mr. Pollock, the senior Surgeon, has retired. Mr. Warrington Haward has been consequently promoted to the post of Surgeon; and the vacancy thus caused in the staff of Assistant-Surgeons has been filled by the appointment of Mr. Dent. A new office has been created, that of Assistant Obstetric Physician, to which Dr. Champneys has been appointed; he is also associated with Dr. Barnes in the lectureship on Midwifery. Mr. Frost has been appointed Assistant Ophthalmic Surgeon, and Mr. Dent lecturer on Physiology in place of Dr. Watney and Mr. Stirling; and Dr. I. Owen succeeds Dr. Watney as lecturer on Materia Medica, leaving thereby a vacancy in the lectureship on Botany. Mr. Dent is associated with Mr. Bennett in teaching Practical Surgery, *vice* Mr. Haward.

At Guy's Hospital, the vacancies caused by the retirement of Dr. Habershon and Mr. Cooper Forster, the Senior Physician and Senior Surgeon, have been filled by the promotion of Dr. Hilton Fagge and Mr. Davies-Colley; but no further appointments have been made in the offices of Assistant-Physician and Assistant-Surgeon. Dr. White has been appointed a demonstrator of Anatomy.

At King's College Hospital, Dr. Baxter gives instruction in Throat-diseases in place of Dr. Curnow. There have been no changes in the staff of professors in the Faculty of Medicine, nor in that of medical officers of the hospital.

At the London Hospital, Mr. Treves is principal teacher of Practical Anatomy in the dissecting-room. There is no other change.

At St. Mary's Hospital, the former Assistant-Physicians, Drs. Cheadle, Shepherd, and Lees, and the Assistant-Surgeons, Messrs. Owen, Page, and Pye, now have the title of Physicians and Surgeons respectively, with charge of out-patients. Mr. Pepper has been appointed Assistant-Surgeon. Mr. G. Anderson Critchett succeeds Mr. Haynes Walton as Ophthalmic Surgeon; Mr. Walton retaining office as Senior Surgeon to the Hospital. In the medical school, Dr. Cheadle is associated with Dr. Broadbent in the lectureship on Medicine. Dr. Lees succeeds Dr. Farquharson as lecturer on Materia Medica. Dr. Henderson has been appointed Pathologist.

At the Middlesex Hospital, one of the physicians, Dr. R. King, has retired; and Dr. Douglas Powell has been appointed Physician. The vacancy thus caused in the office of Assistant-Physician has been filled by the appointment of Dr. C. Y. Biss. Mr. Lang has succeeded Mr. Critchett as Ophthalmic Surgeon and lecturer on Ophthalmic Surgery. In the medical school, Mr. Hensman lectures on Anatomy in place of Mr. Henry Morris, who takes the lectureship on Surgery hitherto held jointly by Mr. Hulke and Mr. Lawson. Dr. Biss lectures on Botany in place of Mr. Hensman; and Dr. Finlay succeeds Dr. R. King as lecturer on Forensic Medicine and on Public Health.

At St. Thomas's Hospital, Dr. Greenfield has resigned the office of Assistant-Physician on his appointment to the professorship of Pathology in the University of Edinburgh; but no appointment to the vacancy thus caused has as yet been made. A new lectureship on Clinical Surgery has been created, to which Mr. John Croft has been appointed; and Mr. Mason takes Mr. Croft's place as one of the teachers of Practical Surgery. Dr. Reid and Mr. Anderson lecture on Anatomy in place of Mr. Mason and Mr. Wagstaffe.

At University College, Mr. Wharton Jones has retired from the office of Ophthalmic Surgeon to the Hospital and Professor of Ophthalmic Surgery, and has been succeeded in the former office by Mr. Streatfeild, and in the latter by Mr. John Tweedy, who has been appointed Assistant Ophthalmic Surgeon.

At the Westminster Hospital Medical School, Mr. Macnamara takes the place of Mr. R. Davy as joint-lecturer on Surgery with Mr. Cowell; and Dr. Murrell succeeds Dr. Phillips as lecturer on Materia Medica. Dr. Leslie Ogilvie has been appointed lecturer on Comparative Anatomy in place of Dr. Carter Blake; and a new lectureship on Experimental Physics has been established, to which Dr. George Ogilvie has been appointed.

At Queen's College, Birmingham, Practical Physiology is taught by Dr. R. Norris. Dr. Jolly has retired from the joint-professorship of Anatomy, leaving Mr. Thomas the sole occupant of the chair. The professorship of Ophthalmic Surgery, formerly held by Mr. Solomon, does not appear in this year's prospectus. Mr. Goodall has retired from the office of Surgeon to the General Hospital. At the Queen's Hospital, Mr. Sampson Gamgee has retired from the office of Surgeon, and Mr. Bennett May has been appointed to fill the vacancy thus caused. Mr. Jordan Lloyd has been appointed Casualty Surgeon to the same hospital.

In the Bristol Medical School, Dr. Harrison is appointed with Dr. Eager in the lectureship on Forensic Medicine.

In the Leeds School of Medicine, Mr. McGill is associated with Mr. Nunneley and Mr. Robinson in the lectureship on Anatomy; and Dr. Hellier and Dr. Hartley have been appointed assistant demonstrators of Anatomy. Mr. A. W. Mayo Robson has been appointed lecturer on Pathology; and Dr. Ernest Jacob demonstrator in Physiology and Pathological Histology.

In the Liverpool Royal Infirmary School of Medicine, a course of Practical Pathological Histology will be given by Mr. Paul.

In Owens College, Manchester, Mr. F. A. Southam has been appointed assistant lecturer on Surgery, Mr. Arthur H. Young lecturer on Surgical Pathology, Dr. H. Ashby lecturer on Diseases of Children, and Mr. Thomas Jones teacher of Operative Surgery. Mr. Somers has retired from the chair of Materia Medica, Dr. Leech now being the the sole occupant; and Dr. Dreschfeld teaches Pathology without the co-operation of Dr. H. Simpson. Mr. Southam teaches Aural Surgery at the Infirmary, in place of Mr. Whitehead.

In the University of Durham College of Medicine, Mr. G. E. Williamson has been appointed joint lecturer on Physiology with Dr. Drummond. Dr. G. Y. Heath has retired from the office of Surgeon to the Newcastle-on-Tyne Infirmary, and Dr. F. Page has been promoted to the vacancy thus created. Mr. G. E. Williamson has been appointed Assistant-Surgeon.

The vacancy in the professorship of Pathology in the University of Edinburgh, caused by the death of Dr. Sanders, has been filled by the appointment of Dr. W. S. Greenfield.

In the Extra-Academical School of Medicine in Edinburgh, Dr. Handyside, one of the lecturers on Anatomy, has died; and Mr. Cathcart has been recognised as a lecturer on that subject. Dr. D. J. Hamilton has been added to the staff as a Lecturer on Pathology. Mr. H. A. Husband has ceased to lecture on Forensic Medicine.

In Anderson's College, Glasgow, Dr. Barlow has succeeded Dr. McVail as lecturer on Physiology and teacher of Practical Physiology; and the vacancy in the lectureship on Midwifery, caused by the death of Dr. J. G. Wilson, has been filled by the appointment of Dr. A. Wallace.

In the Glasgow Royal Infirmary School of Medicine, Dr. J. W. Anderson lectures on Medicine in place of Dr. Wood Smith; and Dr. Macewen succeeds Dr. H. Cameron as lecturer on Surgery, being himself succeeded by Dr. Glaister as lecturer on Forensic Medicine. At the Royal Infirmary, Mr. Clark has been appointed a Surgeon in the place of Dr. Cameron; Dr. Foulis has succeeded Mr. Clark as a Dispensary Surgeon; and Dr. Barlow has been appointed an Extra Dispensary Surgeon.

OPENING OF THE MEDICAL SCHOOLS.

THE subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and a statement of the ceremony, if any, which will take place on the occasion.

St. Bartholomew's Hospital—October 3rd; annual dinner of old students.

Charing Cross Hospital—October 3rd, 4 P.M.; address by Mr. Hird.

St. George's Hospital——October 3rd, 4 P.M.; address by Mr. Haward; dinner at Willis's Rooms, Mr. Henry Lee in the chair.

Guy's Hospital—October 3rd; *conversazione* at 8.30 P.M.; distribution of medals and prizes.

King's College—October 3rd, 4 P.M.; address by Sir John Lubbock, Bart., M.P., F.R.S.; distribution of prizes.

London Hospital—October 1st; biennial festival on October 3rd, Dr. Robert Barnes in the chair.

St. Mary's Hospital—October 3rd, 3.30 P.M.; address by Mr. G. P. Field; annual dinner in hospital board-room at 6 for 6.30 P.M., Dr. Broadbent in the chair.

Middlesex Hospital—October 3rd, 3 P.M.; address by Dr. R. Douglas Powell; distribution of prizes; dinner at St. James's Hall at 6.30, Mr. S. W. Sibley in the chair.

St. Thomas's Hospital—October 1st, 3 P.M.; address by Dr. Bernays; annual dinner in Governors' Hall at 6.30.

University College—October 3rd, 8 P.M.; address by Dr. Poore; *conversazione* after address.

Westminster Hospital—October 3rd, 3 P.M.; address by Mr. Bond; distribution of prizes; annual dinner at 7 P.M.

Birmingham (Queen's College)—October 4th; address by Mr. O. Pemberton at 3.30 P.M.; presentation of prizes.

Bristol Medical School—October 3rd.

Leeds School of Medicine—October 4th, 4 P.M.; address by Mr. W. N. Price; distribution of prizes; annual dinner at 6 P.M.

Liverpool Royal Infirmary School of Medicine—October 3rd, 3 P.M., the Earl of Derby in the chair; address by Dr. Oliver Lodge; distribution of prizes.

Owens College (Manchester Royal) School of Medicine—October 1st.

Sheffield School of Medicine—October 1st, 5 P.M.; address by Mr. E. Skinner.

University of Durham College of Medicine, Newcastle-on-Tyne—October 3rd, 2 P.M.; presentation of scholarship and prizes by Sir Charles Trevelyan, Bart.; address by Dr. James Murphy.

Aberdeen University—October 26th.

Edinburgh University—October 25th.

Edinburgh School of Medicine—October 24th, 11 A.M.; address by Dr. A. G. Miller.

Glasgow University—October 26th; address by Dr. Charteris.

Glasgow, Anderson's College—October 25th, 2 P.M.; address by Dr. Gemmell.

Glasgow, Royal Infirmary School of Medicine—October 28th.

DURING the past eight weeks of the current quarter, the metropolitan death-rate averaged 22.9 per 1,000, against 17.6 and 21.4 in the corresponding periods of 1879 and 1880.

THE Queen has been graciously pleased to approve of the honour of Knighthood being conferred upon Dr. G. C. M. Birdwood, C.S.I., of the India Office, late Bombay Medical Staff, Conservator of the Indian Museum.

A NEW Eye, Ear, and Throat Hospital will be opened at Shrewsbury, on the 21st instant, by the Countess of Bradford, accompanied by the Earl of Bradford and Earl Powis. The building has cost £12,500.

THE fatal cases of diarrhœa in London, which had steadily declined in the four preceding weeks from 495 to 141, further fell last week, under the influence of unseasonably low temperature, to 117, and were no fewer than 140 below the average.

DESPITE the great heat of some days in July, the summer of 1881, like all its recent predecessors, will, we read, rank among the cold ones. The temperature of every month, July not excepted, has been below the average, and that of August as much as three degrees below it. According to the daily meteorological returns, the highest shade temperature in the month just closed was 84° on the 5th, the lowest on the following night (44°), giving an extreme range of 40°. The average mean temperature of the month was 60.5°.

DURING the past year, an unusual number of retirements has taken place among the senior members of the staff in the hospitals. The London hospitals lose four Senior Surgeons—Mr. Holden of St. Bartholomew's, Mr. Hird of Charing Cross, Mr. Pollock of St. George's, and Mr. Cooper Forster of Guy's; and one Senior Physician—Dr. Habershon of Guy's Hospital. Messrs. Holden, Hird, and Pollock have been appointed Consulting Surgeons to their respective hospitals.

THE Consulting Staff of the London hospitals is now constituted as follows:—St. Bartholomew's Hospital: Sir G. Burrows, Dr. Farre, Dr. Harris, and Dr. Martin, Physicians; and Sir James Paget and Mr. Holden, Surgeons. Charing Cross: Sir J. Fayrer, Physician; and Mr. Canton and Mr. Hird, Surgeons. St. George's: Dr. Wilson, Dr. Pitman, and Dr. Ogle, Physicians; and Mr. Cæsar Hawkins, Mr. P. Hewett, Mr. H. Lee, and Mr. Pollock, Surgeons. Guy's: Sir W. Gull and Dr. Owen Rees, Physicians; Mr. Cock and Mr. Birkett, Surgeons; and Dr. Oldham, Obstetric Physician. King's College: Sir T. Watson, Dr. Budd, Dr. A. Farre, Dr. Guy, Dr. Priestley, and Dr. Garrod, Physicians. London: Dr. Herbert Davies and Dr. Ramskill, Physicians; and Mr. Curling, Surgeon. St. Mary's: Sir J. Alderson and Dr. King Chambers, Physicians; and Mr. S. Lane, Mr. Spencer Smith, and Mr. White Cooper, Surgeons. Middlesex: Dr. A. P. Stewart, Dr. Goodfellow, Dr. H. Thompson, and Dr. Greenhow, Physicians; and Mr. Shaw and Mr. Nunn, Surgeons. St. Thomas's: Dr. Barker, Sir J. Risdon Bennett, and Dr. Peacock, Physicians; Mr. Le Gros Clark and Mr. Simon, Surgeons; and Mr. Liebreich, Ophthalmic Surgeon. University College: Dr. Walshe, Sir W. Jenner, and Dr. Russell Reynolds, Physicians; and Mr. Quain, Mr. Erichsen, and Sir H. Thompson, Surgeons. Westminster: Dr. Radcliffe, Physician; and Mr. Holt and Mr. Holthouse, Surgeons.

THE PARKES MUSEUM.

THIS museum is closed until the end of September. In October, it will again be opened free to the public on Tuesdays, Thursdays, and Saturdays; and, during the winter, lectures on sanitary science will be given in the museum. The lectures will be illustrated with the sanitary appliances deposited in the museum, which now include many new contributions sent from the recent Medical and Sanitary Exhibition at South Kensington. We believe it is intended to distribute the awards to the exhibitors at the exhibition, at the second public annual meeting of the subscribers to the museum in October or November.

EXPERIMENTAL PHYSIOLOGY.

AT the meeting of the Bristol Association, Dr. Burdon Sanderson delivered an able address in the department of Anatomy and Physiology, selecting as his subject the discoveries of the past half-century relating to animal motion. The address, as a whole, was a vindication of the practice of vivisection. No one, he averred, acquainted with the development of the branch of practical medicine relating to the diseases of the central nervous system, would hesitate in attributing the rapid progress which had been made in the diagnosis and treatment of these diseases to the study of nervous pathology, and the knowledge gained by experiments on animals. The address was read before a crowded audience, and amongst those present were Professors Owen, Huxley, Acland, and Allen Thomson. The references to results obtained by experiments on living animals were received by those present with approval.

NEW INFIRMARY AT BOLTON.

THE Earl of Bradford opened, this week, an Art Exhibition in aid of the new infirmary, which has been erected at a cost of £20,000. Amongst those who took part in the proceedings were Mr. J. K. Cross and Mr. J. P. Thomasson, members for the borough, and Mr. Agnew and Mr. Leake, the members for South-east Lancashire. The move-

ment for the erection of the infirmary originated with a donation of £5,000 from the late Dr. Charlwick, for many years a medical practitioner in the town. This was supplemented by a gift of £5,000 from the present mayor of the borough, Alderman James Musgrave. The Art Exhibition includes some very excellent works, among them being Miss Thomson's "Balaclava".

THE LATE J. ROSE-INNES, M.B., C.M.

MEDICAL men, in all situations and circumstances of life, are ever wont to do their duty nobly and bravely. The loss of the steamship *Teuton* off Cape Danger, on the East Coast of Africa, has brought grief to many a home; but every one seems to have done his duty, and no one more nobly than the surgeon of the ship, Mr. J. Rose-Innes, M.B., C.M., who, with the aid of the supercargo, marshalled the passengers on the deck and maintained order during the awe-inspiring moments before the ill-fated ship foundered. Mr. Rose-Innes stood manfully to his post until he went down with his ship. Such deeds of heroism deserve to be recorded. Mr. Rose-Innes was a graduate of Aberdeen, where he obtained his degrees in medicine and surgery about two years ago. He went to the Cape with another vessel belonging to the same company as the *Teuton*, where he joined the ill-fated ship. Mr. Rose-Innes was well known in Aberdeen for his engaging and social disposition.

SANITARY PROTECTION.

A SANITARY Protection Association for Portsmouth, which is intended to undertake the supervision of the drainage arrangements of private houses, so as to ensure their proper sanitary condition, has been started at a meeting held, under the chairmanship of the ex-Mayor, Mr. Alderman Cudlipp. The Association proposes, as a supplementary object, to enable its members to procure practical advice on moderate terms, so as to obtain the best means of remedying defects in houses of the poorer classes.

NON-MEDICAL CORONERS.

AN inquiry was opened at Taunton a few days ago under the following circumstances. Quartermaster-Sergeant Arbery, of the Somersetshire Militia, died there on the 23rd April, after only a few hours' illness. The medical gentleman who saw him was unable to certify as to the cause of death. At the inquest a verdict of "Died by the visitation of God" was returned, but subsequently a *post mortem* examination of the body was made, when a quantity of arsenic, more than sufficient to cause death, was found in deceased's stomach, though whether taken voluntarily or administered by some one is at yet unknown. The matter was placed in the hands of the police, and at the beginning of July the Court of Queen's Bench, on the application of the Attorney-General, quashed the inquisition, and issued a *mandamus* commanding the coroner of the district to have the body disinterred and to hold another inquiry. Accordingly, another inquest has been opened at Taunton. The body, which had been exhumed, was viewed at the cemetery, and, after identification, the inquiry was adjourned to the 9th inst. The circumstances are highly suggestive of the present defective mode of conducting coroners' inquiries, which is—except where the coroner is medical—chiefly characteristic of the plentiful lack of technical knowledge on the part of coroner and jury, and the reckless guessing at causes or easy avoidance of duty by some such formula as that profanely adopted in this instance.

THE LATE DR. BILLING.

A VENERABLE figure of great note has passed away from London circles, and a name—*clarum et venerabile*—has been this week added to the roll of the illustrious dead. The author of the *First Principles of Medicine* died in London on September 2nd, at the age of 90. The deceased physician, who was a native of Ireland, was born in 1791, and was educated at Trinity College, Dublin, and at Oxford, graduating at the first-named University. After studying for the medical profession, he was admitted a member of the Royal College of Physicians of London, and elected a Fellow in 1818, after which he held the offices of Censor and member of Council. From 1822 to 1845, he was physician to the London Hospital, and from 1817 to 1836 was a teacher in the Medical School there. While engaged at the London Hospital, he instituted the series of clinical lectures which have since become an established feature of the medical school at that institution. In 1836, upon the establishment of the University of London, he was invited to become a Fellow, and appointed a member of the senate and examiner for degrees in medicine, an office which he filled for many years. Dr. Billing was a man of great learning, a philosopher of great acuteness, and an artist of much accomplishment, as well as a practical physician of high and just repute. His *First Principles of Medicine* illumined the dawn of the new era of scientific medicine in which we are living; and although he has for many years retired from practice, and his books are past date, they may still be read with satisfaction as marking distinct epochs in progress, to which the author contributed in no small degree. Dr. Billing's artistic tastes led him to study ancient and modern gem cutting, an art which he did much to encourage by liberal patronage, while he collected some of the choicest specimens, and added to its standard literature.

GASTROSTOMY.

ON Tuesday last an audience, large for the vacation season, assembled at the London Hospital to witness the performance of œsophagotomy by Mr. Reeves. At a consultation immediately before the operation, it was decided to perform gastrostomy instead. This was accordingly done in the usual situation, the stomach being left temporarily unopened. The patient, who was a much emaciated woman, aged 33, the subject of malignant disease of the larynx and œsophagus, survived the operation about thirty-two hours.

THE PRESIDENT OF THE UNITED STATES.

THE improvement which we noticed in the condition of the President, in our last week's issue, has been maintained during the week which has since passed; and, though the gain in strength has not been very marked, the manner in which the patient has borne the removal from Washington to New Jersey, which was successfully accomplished on the 6th instant, has sufficiently shown that the gain, so far as it went, was a real and substantial one. It is to be remembered, too, that the improvement effected was obtained under very unfavourable circumstances of temperature and climate. All the accounts agree in stating that the heat of late at Washington, and the oppressiveness of the atmosphere, have been excessive, and altogether beyond what has been usually experienced there in the month of September. Notwithstanding these adverse influences, the appetite for food has increased, the parotid swelling has in a great measure disappeared, and the gland has shown a disposition to heal. The discharge from the lumbar wound has been healthy, and is lessening in quantity. There has been nothing in the general condition of the circulation, respiration, or temperature, to give rise to any uneasiness; although the pulse has continued accelerated, it has not been more so in amount than the weak state of the patient, and the effects of the almost tropical heat, sufficiently explain. On the whole, then, while, on the one hand, no fresh unfavourable indication has appeared, the general tendency of the conditions previously existing has been favourable, and gradually progressive toward recovery. We think the surgeons in attendance have acted very wisely in removing the President from Washington to Longbranch. There was evidently an intense desire in the President's mind to get away from the city and all the depressing associations of the long and weary ordeal to which he has been painfully subjected in his official mansion; and, at the same time, a conviction that, if he could have the advantage of a more northern climate, he would be greatly benefited by the change. The accomplishment of his wishes cannot but act as a favourable stimulus on the patient's constitutional powers. The unusually high temperature at Washington must have had a retarding effect on reparative progress; and, beyond this, it is well known that, in the autumnal season, the extensive flats of the Potomac waters and Chesapeake bay

give rise to a malarial condition of atmosphere, the influence of which extends to the city. Longbranch, to which the President has been removed, is about two hundred and forty miles nearly north of Washington, on the New Jersey coast; and he will there find, not only a cooler and more invigorating climate, but he will have the advantage of the direct influence of the air from the North Atlantic ocean. Although it is not possible to foretell what relapses may still occur, and although, under any circumstances, the period of convalescence must be a long and tedious one, there is now far more reason for anticipating the President's recovery, under the conditions in which he is at present placed, than there has been for many weeks past at Washington.

TYPHOID FEVER AT MULLER'S ASYLUM.

MÜLLER'S Orphan Asylum at Bristol seems to be unfortunate in its experience of typhoid fever. Six years ago, there occurred amongst its inmates an outbreak of that disease, which, according to the report of Mr. Davies, the medical officer of health, attacked five hundred children, and killed twelve. Another outbreak has just occurred, though happily of smaller dimensions. At the meeting of the Bristol Sanitary Committee last week, Mr. Davies reported sixty cases of the disease as existing in the asylum, the outbreak being confined to one of the houses in which the little girls were locked. Some of the cases are stated to be very serious. The water-supply is from wells within the asylum grounds, and is now undergoing analysis. The circumstances of the outbreak are such as to offer every facility for thorough investigation, and it will be interesting to learn what has been the cause of this renewed outbreak.

SIR JOHN KIRK, M.D.

DR. JOHN KIRK, Her Majesty's Political Agent and Consul-General at Zanzibar, whom the Queen has been pleased to nominate an ordinary member of the second class or Knight Commander of the Order of St. Michael and St. George, was born at Arbirlot, Forfarshire, in 1833, and received his degree of M.D. in 1854 from the University of Edinburgh. After serving on the Civil Medical Staff as assistant-physician to the British Hospital at Renkioi, Dardanelles, during the Crimean War, he was subsequently naturalist and medical officer, second in command of the late Dr. Livingstone's second exploring expedition to the Zambesi River in 1858. He was so engaged for six years, when his health gave way and he came home to England, but subsequently returned to Africa in the consular service as acting surgeon to the political agency at Zanzibar. He was soon afterwards promoted to be Vice-Consul there, and afterwards assistant political agent, and ultimately political agent. He accompanied the Sultan of Zanzibar in that capacity to England in June, 1875. Dr. Kirk is well known in this country as the friend and confidant of Dr. Livingstone, and as having been instrumental in inducing the Sultan of Zanzibar to enter into a treaty for the suppression of the slave trade in his dominions. He has also, by his own exertions and the material aid he has afforded to other explorers, materially aided the progress of geographical discovery in Africa. He was appointed Consul also in the Comoro Islands in September, 1875, and was promoted to be Agent and Consul-General at Zanzibar in January, 1880.

THE NOTTINGHAM PORK-POISONING CASES.

THE final report by Dr. Klein on the microscopical examination and experimental investigation of the various substances submitted to him in connection with the cases of pork-poisoning at Nottingham (see vol. I, 1881, p. 361), has only just been issued by the Local Government Board, as an appendix to Dr. Ballard's description of the outbreak. The main facts have already appeared in these columns, and they need not, therefore, be now reproduced. Dr. Ballard has gone, with characteristic minuteness, into every detail of the history of the pork from its purchase to its mastication; but he has not succeeded in discovering the cause of the outbreak. He seems to attach his suspicions chiefly to the gravy served out with the pork, which, it seems, was compounded mainly from jelly obtained by boiling down pork-bones, pigs' feet, ends of knuckles of pork, and some similar scraps. This jelly was stored in the cellar of the eating-house, amidst somewhat frowsy surroundings, and it might have had the opportunity of accidental infection, whilst, unlike the pork, some of it thus accidentally infected might not have been exposed to the destructive operations of a sufficiently long boiling. But then again, Dr. Klein could find nothing unusual or morbific in the various articles of rubbish from the cellar where the jelly was kept, nor about a sample of the paper with which the portions of pork dispensed were habitually covered. In the tissues of the one fatal case that occurred, Dr. Klein found, however, evidences beyond question of the action of some specific poison. Bacilli (similar to those discovered in the Welbeck inquiry) were found in varying numbers in the blood, pericardial fluid, juice expressed from the lung, in the air-vesicles and in the blood-vessels of the lung, in the tissues of the stomach and ileum, in the spleen within and around its large vessels, and in and around the vessels of the kidney, and in the connective tissue between the tubuli of the renal cortex. The capillary vessels of the glomeruli of many of the Malpighian corpuscles of the kidney were impervious, being degenerated into hyaline or fibrous bands, the nuclei of the glomeruli being increased ("glomerulo-nephritis"). Some of the tubuli contorti contained extravasated blood, others of them hyaline casts. There was hæmorrhagic infarction of the lung-tissue, and bacilli were found with or without spores amongst the blood, filling the air-vesicles and in the blood-vessels. Inflammation of Peyer's glands of the small intestine and a few bacilli in the submucous tissue; and in the liver slight interstitial hepatitis. Guinea-pigs and mice inoculated with the blood, pericardial exudation, and lung-juice, became diseased. Six, out of ten animals inoculated, died spontaneously, and four were killed. In all ten, pneumonia, in two accompanied by pulmonary hæmorrhage, was found after death, and in eight of the ten was peritonitis, in four pleuritis also, and in two, in addition to pneumonia, there was enlargement of the liver and spleen. In two guinea-pigs inoculated with the blood, a tumour containing purulent matter developed at the seat of inoculation. Similar results followed the inoculation of material obtained by cultivation of the blood and lung-juice in the incubator. Bacilli were found in the blood and exudations of some of the above inoculated animals, as well as in the purulent matter of the tumours found in two of them as above described at the seat of inoculation. It must be confessed that the result of these inquiries still leaves the question in an unsatisfactory position, and it is evident that future and further experience and investigation must be awaited before all the facts collected as to this series of cases can be satisfactorily interpreted.

SCOTLAND.

OVER 90 cases of fever were reported in Dundee during the last month. It was most prevalent in the lower lying parts of the eastern district of the town. Of 94 cases noted last week, 72 were of scarlet fever, and 22 of typhus.

SUBSEQUENT to his visit to the Royal Infirmary, Edinburgh, the Duke of Cambridge caused one of his aides-de-camps to write to the managers, expressing the pleasure and satisfaction he had experienced from his visit; and at the same time intimating the pleasure it afforded him to send £20 towards the maintenance of the hospital.

EXTENSIVE POISONING IN INVERNESS-SHIRE.

LAST week, a serious case of poisoning occurred at a farm near Inverness, in which the persons were seized by the symptoms of irritant poisoning, and of which one of them died. The account given is, that four rabbits were given to the mistress of the farm by the shooting tenant. Two of those rabbits were consumed one day by the servants without any untoward result. Next day the remaining two rabbits were used for making soup; this soup was partaken of by three persons, who all became sick shortly afterwards. Five male and two

female servants, who had not partaken of the soup but eaten of the rabbits themselves, were seized by violent vomiting and severe abdominal pains. After medical aid had been procured, nine of the sufferers recovered; but the case of the cook proved intractable, and she died in great agony. Drs. MacNee and Macdonald, of Inverness, made a *post mortem* examination of the body of the cook, and, it is stated, found evidence of poisoning. More precise information will, however, require further time. At present it seems likely that some poisonous material had been by mistake introduced into the soup.

THE TEMPERATURE IN SCOTLAND DURING AUGUST.

SINCE the end of May, very little summer weather, either as regards temperature or fair weather, has been experienced over the greater part of Scotland. Some observations by Dr. Alexander Brown of the temperature at Arbroath during August are of interest, as recording accurately what prevailed there. In the shade there the thermometer ranged from 73° on the 4th to 39° on the 29th, and the mean temperature of the month was 54.8°. Thus it was the coldest month of August since 1845, when the mean monthly temperature was 54.6°. The mean temperature of August from 1843 to 1881, inclusive, was 57.6°.

OPHTHALMOLOGY: MIDDLEMORE FUND PRIZE ESSAY.

THE interest on the fund of £500 given in trust to the British Medical Association by Mr. Richard Middlemore of Birmingham, to found a prize for the best essay on Ophthalmology, having accumulated for three years, the Committee of Council now offer, in accordance with the terms of the trust deed, a prize of £50 for the best essay on the Scientific and Practical Value of Improvements in Ophthalmological Medicine and Surgery made or published during the past three years. The successful essay will be the property of the Association. Essays must be in English or accompanied by an English translation, and forwarded under cover, with a sealed envelope bearing the motto of the essay, and containing the name and address of the author, addressed to the General Secretary of the British Medical Association, 161A, Strand, London, and must be in his hands on or before May 31st, 1882.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 12th day of October, next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 6th, 1881.

BRANCH MEETINGS TO BE HELD.

NORTH WALES BRANCH.—The thirty-second annual meeting of this Branch will be held at the Pwll-y-crochon Hotel, Colwyn Bay (near Conway), on Thursday, September 22nd, under the presidency of Dr. Samuel Griffith of Portmadoc. Dr. Wm. Roberts of Manchester has promised to read a paper on Micro-organisms in the Urine; and Mr. Lawson Tait one on The Diagnosis and Treatment of Chronic Inflammation of the Ovary. Members of the Branch desirous of reading papers at this meeting are requested to communicate their titles to the Honorary Secretary.—J. LLOYD ROBERTS, Honorary Secretary.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will take place at Leighton Buzzard, on Tuesday, September 27th; H. Rogers, Esq., President. Further particulars will be shortly announced. Gentlemen desirous of reading papers are requested to send the titles forthwith to the Honorary Secretary of the Branch, GEO. F. KIRBY SMITH, Northampton.—August 31st, 1881.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held at the Medical Institution, Liverpool, on Wednesday, September 21st, at 5 P.M., to consider the subject of Consultations with Homœopaths.

An ordinary meeting of the same Branch will be held at Bolton, on Thursday, October 13th. Members desirous of reading communications, etc., are requested to send an intimation to the Honorary Secretary immediately.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—September 3rd, 1881.

EAST ANGLIAN BRANCH.—The autumnal meeting of this Branch will be held at the Swan Inn, Southwold, on Friday, September 30th, at 2 P.M.; Charles Palmer, Esq., Senior Surgeon Great Yarmouth Hospital, President. It is requested that members desirous of reading papers or exhibiting specimens will give immediate notice to one of the Honorary Secretaries.—W. A. ELLISTON, M.D., Ipswich; M. BEVERLEY, M.D., Norwich Honorary Secretaries

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The first meeting of the above district for the present season will be held on Friday, the 30th instant, at the Station Hotel, Hayward's Heath; Dr. Byass of Cuckfield in the chair. The meeting will be at 3 P.M. Dinner at 5.30 P.M. Communications are invited; and it is requested that notice thereof may be sent at once to the Secretary.—T. JENNER VERRALL, Honorary Secretary, 20, Bedford Place, Brighton.—September 5th, 1881.

EAST YORK AND NORTH LINCOLN BRANCH.—The autumn Meeting of this Branch will be held at Beverley on Thursday, September 22nd, at 4.15 P.M. Gentlemen who desire to make any communication, or to propose any resolution, are requested to inform the Secretary not later than the 14th inst. The time allotted to each communication is limited to fifteen minutes.—E. P. HARDEY, Hon. Sec.—Sept. 5th, 1881.

CORRESPONDENCE.

COMPULSORY PERIODS OF STUDY.

SIR,—I am pleased to see that Mr. Savory has not allowed to pass unchallenged Mr. Hutchinson's remark, "that the practice of liberal rejection of candidates imperfectly qualified really amounts to the same thing, and attains the same end, with much justice to the diligent and able," as the extension of the compulsory period of study. So "liberal," indeed, have the rejections been of late, that it is by no means rare to hear it remarked that to be rejected at the College is no disgrace. Should such a feeling extend, the discredit of rejection will no longer act as a stimulus to the candidate to do his best to pass, and the rewards of good work must be distributed with even hand to the rejected and unrejected. With rejections at 40 and 50 per cent., it is clear, if the time for preparation be sufficient, there must be some imperfection either in the conduct of the examination or in the preparation of the candidates. After long experience of the examinations, both for the primary and final, at the College of Surgeons, I am inclined to exonerate the examiners. I can speak with even greater certainty as to the care and increased attention paid by teachers to students now as compared with the assistance given in former years. But, with increasing subjects required for examination, there has been no corresponding increase in the time allowed for acquiring them; and the consequence is seen in the augmented list of rejections.

If my memory serves me correctly, Mr. Savory advocated an extension of the period of study on a former occasion, and Mr. Heath followed with a suggestion that the best way of extending it would be to require of the student two full years of hospital work between the passing of the primary and his presenting himself at the final. This appears to me, now, to be the reform which is required. It would not check the brilliant student, but would extend the time for the less gifted or idle, and ensure for them a better acquaintance with that which is most requisite for the practice of their profession.—I am, sir, your obedient servant,

R. CLEMENT LUCAS, B.S.

Finsbury Square, Sept. 6th, 1881.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 1st, 1881.

Altman, Asher Lyons, Kingston, Jamaica.
Baker, William Braine, Banbury, Oxon.
Rabbeth, Samuel, Putney, S.W.
Thaine, Philip Thornton, 15, Montague Street, W.C.

The following gentlemen also on the same day passed their Primary Professional Examination.

Aslanian, Bedros, London Hospital.
Gaudy, Rastonji D., Grant Medical College.
Jones, John Hughes, St. Bartholomew's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BATH GENERAL OR MINERAL WATER HOSPITAL—Resident Medical Officer. Salary, £100 per annum, board and apartments. Applications by September 15th.

BETHLEM HOSPITAL—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C., by October 1st.

BURY ST. EDMUND'S FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Assistant Medical Officer. Salary, £100 per annum. Applications to the Secretary by 14th September.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Dispenser. Salary, £80, with board and lodging. Testimonials, on or before 24th instant, to the Honorary Secretary.

CHILDREN'S HOSPITAL, 49, Great Ormond Street, W.C.—Clinical Assistant. Applications to Dr. Lee.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester—Senior Resident Medical Officer. Salary, £100, with board and lodging. Applications to Chairman Medical Staff, on or before September 22nd.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY, Cardiff—Dispenser. Salary, £50. Applications to the Secretary by September 13th.

LEICESTER PROVIDENT DISPENSARY—Medical Officer. Applications to the Chairman of the Board by September 13th.

LISBURN UNION—Medical Officer for Knocknadona Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 21st instant.

LIVERPOOL NORTHERN HOSPITAL—Assistant House-Surgeon. Salary, £70 per annum. Applications to the Chairman of the Committee by Sept. 12th.

NATIONAL DENTAL HOSPITAL AND COLLEGE, 149, Great Portland Street, W.—Dental Surgeon and Lecturer on Dental Surgery and Pathology. Applications by 15th September.

NEWTON ABBOT UNION—Medical Officer and Public Vaccinator. Salary, £85 per annum. Applications by September 13th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Surgeon. Applications to the Secretary by 26th September.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth—Assistant Medical Officer. Salary, £100 per annum, board and furnished apartments. Applications by September 13th.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 23rd September.

ROYAL ISLE OF WIGHT INFIRMARY—House-Surgeon and Secretary. Salary, £50 per annum. Applications to the Secretary by September 13th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington—Two Demonstrators of Anatomy. Salary, £70 and £50 per annum respectively. Applications to the Dean by September 13th.

WESTON-SUPER-MARE HOSPITAL AND DISPENSARY—House-Surgeon. Salary, £70. Applications to Secretary by September 13th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—Matron and Superintendent of Nurses. Salary, £100 per annum. Applications to the Chairman of the Weekly Board by September 19th.

WONFORD HOUSE HOSPITAL FOR THE INSANE, Exeter—Assistant Medical Officer. Salary, £100 per annum. Applications before September 14th, to Dr. Philipps, Medical Superintendent.

MEDICAL APPOINTMENTS.

DAVIDSON, C., F.R.C.S.Ed., L.K.Q.C.P., appointed Certifying Factory Surgeon for the Central Metropolitan District, *vice* E. Head, M.D., resigned.

DAVIES, Hugh Walter, M.R.C.S.Eng., L.R.C.P., appointed Visiting Surgeon to the Memorial Hospital, Jarrow-on-Tyne.

FRASER, F., M.B., C.M., L.R.C.P. & S.Ed., appointed Medical Officer to the Fifth District of the Sevenoaks Union.

PHILLIPS, John, B.A., M.B., M.R.C.S., appointed House-Physician to the Evelina Hospital for Sick Children, *vice* W. Hale White, M.D., resigned.

THURSFIELD, T. W., M.D., M.R.C.P., appointed Consulting Physician to the Leamington Provident Dispensary.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

HARRIS.—September 1st, at 1, Kenyon Terrace, Birkenhead, the wife of Alfred C. E. Harris, M.B., F.R.C.S.E., of a son.

MARRIAGE.

DAVIES—MORRIS.—On September 6th, at St. Cuthbert's, Hebburn-on-Tyne, by the Rev. Wm. Hedley, Vicar, assisted by the Rev. J. Bee, Vicar of Christ Church, Jarrow, Hugh Walter Davies, M.R.C.S.Eng., L.R.C.P.E., etc., son of Hugh Davies, Esq., M.R.C.S.E., L.S.A., of London, to Mary Jane, only daughter of David Morris, Esq., Pelaw Main, Newcastle-on-Tyne.

DEATH.

GRIFFITH, Richard Clewin, M.R.C.S., at 29, Gower Street, aged 78, on September 5th.

THE post of Lady Superintendent at the Consumption Hospital, Brompton, will be vacant during the coming autumn, owing to the resignation of Miss Cameron.

GUY'S HOSPITAL.—The following appointments for the next six months have been made:—House Physicians: G. J. Wilson, M.R.C.S., L.S.A.; E. A. Starling, M.R.C.S., L.R.C.P. (Lond.); W. H. C. Newnham, B.A., M.R.C.S. House Surgeons: W. T. Crewe, F.R.C.S.Eng., L.R.C.P.Lond., L.S.A.; W. W. Prynn, M.R.C.S., L.S.A.; H. G. Ashwell, M.R.C.S.

ASSAULT ON A LUNATIC.—The magistrates of Salisbury had before them, at the Guildhall, this week, Jane Case, a warder of the Fisherton Lunatic Asylum, who was summoned for assaulting Mary Turner, a patient at that institution. Mr. Whatman prosecuted for the Lunacy Commissioners.—The evidence showed that on the morning of August 27th, about half-past five, Mrs. Turner, a very violent patient, woke the warder by throwing at her some gravel, which she had concealed for the purpose. Jane Case, the warder, immediately rose from her bed and struck the patient with a strap. The case was reported to the medical superintendent, Dr. Corbin Finch, who immediately discharged the warder, and reported the affair to the Lunacy Commissioners. Mr. Whatman spoke of the necessity of preserving the strictest discipline in these large institutions; and defendant, who had rendered herself liable to a penalty of £20, and who pleaded that she did not know she ought to forbear striking a patient, was fined £1, and severely cautioned.

VOLUNTEER SURGEONS-MAJOR.—The following surgeons of Volunteer corps have been gazetted as honorary surgeons-major:—Dennis Adams, 1st Huntingdonshire Light Horse; Thomas Wright, 1st Nottinghamshire Rifle Volunteers; W. H. Folker, 2nd Staffordshire R.V.; John M. Ling, 1st Suffolk R.V.; John W. Harper, 6th Suffolk R.V.; Charles Hitchcock, M.D., 2nd Wiltshire R.V.; also G. Y. Heath, M.D., Northumberland Yeomanry Cavalry. Surgeon W. J. Marshall, M.D., 1st Renfrewshire R.V., has been granted the honorary rank of surgeon-major on resigning his commission.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts, which may be accepted as trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate averaged 32.8 per 1,000; it was equal to 25.1 in Calcutta, 33.2 in Bombay, and 40.0 in Madras. Cholera caused 9 deaths in Calcutta and 8 in Bombay, and small-pox 14 in Madras. Fever fatality showed the usual excess in each of the three Indian cities. The usual return from Alexandria does not appear to have come to hand. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 30.4 per 1,000 of their aggregate population, against but 17.4, the average rate in twenty of the largest English towns last week. The rate in St. Petersburg was equal to 42.8, but showed a considerable decline upon that which prevailed in previous weeks; no fewer than 138 deaths were referred to diarrhœal diseases, 38 to typhus and typhoid fevers, and 15 to diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 19.5, the highest rate being 22.9 in Stockholm; diarrhœal diseases caused 8 deaths in Copenhagen, and diphtheria 3 in Stockholm. The Paris death-rate was equal to 26.5 (against 16.2 in London), and the deaths included 72 from enteric fever, 19 from small-pox, and 44 from diphtheria and croup. The deaths in Brussels gave a rate of 23.6, and included 35 from diarrhœal diseases. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 22.1, although it was equal to 30.9 in the Hague, where 3 fatal cases of scarlet fever were recorded. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged no less than 32.7 per 1,000; it ranged from 24.0 and 24.7 in Vienna and Hamburg, to 40.3 and 43.0 in Buda-Pesth and Breslau. Diarrhœal diseases caused especial fatality in Berlin, Breslau, and Buda-Pesth; 11 fatal cases of small-pox occurred in Vienna, and in Buda-Pesth 8 deaths were referred both to small-pox and typhus. The death-rate was equal to 46.0 in Naples and 22.8 in Turin. Measles caused no fewer than 81 deaths in Naples, while the deaths in Turin included 5 from typhoid fever and 7 from diphtheria. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 32.1; it was equal to 27.0 in Philadelphia, 29.1 in Brooklyn, 32.5 in Baltimore, and 36.6 in New York. Diarrhœal diseases showed especial fatality in New York and Brooklyn, and small-pox caused 12 deaths in Philadelphia.

AMERICAN OPHTHALMOLOGICAL SOCIETY.—At the last annual meeting, held in Newport, Rhode Island, July 27th and 28th, 1881, the following gentlemen were elected officers for the ensuing year. *President:* Dr. H. D. Noyes of New York; *Vice-President:* Dr. William F. Norris of Philadelphia; *Secretary and Treasurer:* Dr. Richard H. Derby of New York; *Corresponding Secretary:* Dr. J. S. Prout of Brooklyn; *Committee on Publication:* Drs. E. G. Loring, D. B. St. John Roosa, and Richard H. Derby.

EALING.—With a death-rate of only 12.2 per 1,000, Ealing may fairly claim to be at least as healthy as any London suburb. This satisfactorily low rate was due chiefly to a decrease in the deaths from zymotics. Last year there were 29 deaths from this class, against 61 in 1878. The decrease in the number of deaths from diarrhœa, Mr. Patten attributes to the low temperature which prevailed during the summer months. Many minor defects were remedied during the year, and additional flushing contrivances were fixed to the sewers. Mr. Patten, whilst congratulating his authority upon the lowness of the death-rate, regrets the absence of any hospital accommodation, and speaks strongly of the necessity for the compulsory notification of infectious disease.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A DISPENSARY VADE-MECUM.

SIR,—I want a "Vade-Mecum for the Dispensary". Is there anything of this description published? I have an idea I once noticed in your advertisement sheet "A Chart for the Dispensary", containing the preparation of concentrated solutions of all the salts in more general use; of mixtures in concentrated form, and dried [illegible] at the head of aperients, alterative [illegible], etc., and a selection of prescriptions [illegible] was mentioned [illegible] Can any one tell me where such a thing is to be obtained?—I am, etc.,

A MEDICAL DISPENSER.

SUBSCRIPTIONS TO THE LATE DR. [illegible].

THE following subscriptions have been received:

	£	s.	d.
Messrs. Shipton and Wilson, Grantham ..			
J. W. Jones, Esq., M.R.C.S., L.D.S., Grantham ..	2		
W. H. Parsons, Esq., M.D., Grantham ..	1	1	
H. B. Bailey, Esq., M.R.C.S., Grantham ..	1	1	
Octavius [illegible], Esq., M.R.C.S. ..	1	1	
Lionel Lowe, Esq., L.R.C.P., L.R.C.S. ..	1	1	
T. Laidlaw Purves, Esq., M.D. ..	1	1	
Sir George Burrows, Bart., M.D., F.R.S. ..	1	1	0
Andrew Clark, Esq., M.D., F.R.C.P. ..			
W. H. Walker, Esq., M.D., L.R.C.P. ..			
C. T. Williams, Esq., M.R.C.S. ..			
Francis Vacher, Esq., L.R.C.P.S. ..			

Additional subscriptions will be gladly received and duly acknowledged by Mr. J. Fox, [illegible], High Street, Grantham.

NITRO-GLYCERINE.

Full particulars as to the best method of [illegible] this drug will be found in Dr. Murrell's pamphlet *On Nitro-Glycerine as a Remedy for Angina Pectoris*. Further information under the head of "Recent Studies in Therapeutics", will be found in the BRITISH MEDICAL JOURNAL for March 19th and 26th, 1881.

SIR,—Will any one be kind enough to inform me in the BRITISH MEDICAL JOURNAL as to the course necessary for obtaining an appointment [illegible] at a seaport [illegible]? Yours very truly,

M. D.

Edinburgh, September 6th, 1881.

LACTIC ACID IN PHTHISIS.

SIR,—I have just read the report of a discussion in the Medico-Chirurgical Society of Edinburgh on a paper by Dr. Carrick of St. Petersburg on Koumiss in Phthisis and other Wasting Diseases; and I should like to know whether lactic acid is present in koumiss, and, if so, in what proportion? I ask this question because I have been struck by the observation that, in some cases where there was a strong hereditary predisposition to phthisis, acute rheumatism had supervened early in life, and by middle age phthisis had not yet appeared. Besides, I understand that in Madras, for example, there is a large proportion of rheumatic [illegible] a comparatively smaller proportion of phthisis. May there not, then, exist some degree of antagonism between these diseases? and is there not in the latter a deficiency of the lactic acid poison of the former?

On the 5th of June last, I administered ten minims of lactic acid thrice a day to a patient who had a vomica in the apex of the right lung, and the left apex had a deposit of tubercle. On the 11th, the patient expressed herself as feeling better, but she complained of rheumatic pains in her joints for about two hours after each dose, and this in the absence of being informed as to any effect to be produced. Another patient to whom I gave the acid stated that it relieved her cough more than anything else she had. Both thought the acid very agreeable as a thirst-quencher.

I should, then, be glad of some light upon the point whether koumiss in phthisis, as in diabetes, benefits in part, at least, by its containing lactic acid.—I am, etc.,

A. D. MACDONALD, M.B., C.M.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Crichton Browne, London; Mr. G. F. Dowdeswell, Gloucester; Dr. P. M. Deas, Macclesfield; Dr. Saundby, Birmingham; M.B.; Mr. H. W. Davies, Scarborough; Mr. E. Firth, Debenham; Our Edinburgh Correspondent; Mr. Ll. Roberts, Denbigh; Lymph; Dr. T. W. Thursfield, Leamington; Mr. Eaton, Grantham; Mr. J. Phillips, London: Mr. Thomas Cooke, London; Mr. Barker, Pickering; Dr. C. Mercier, London; Mr. T. J. Verrall, Brighton; Dr. C. Dukes, Rugby; Thunderstruck; Dr. P. J. Hayes, Dublin; Mr. W. H. C. Newnham, London; Mr. Lawson Tait, Birmingham; A Member; Mr. H. Dobbin, London; Mr. M. H. Judge, London; Mr. Glover, Dorrington; Mr. G. Eastes, London; Mr. C. Stephens, Jedburgh; Dr. R. Neale, London; Dr. R. C. Lucas, London; Our Aberdeen Correspondent; Mr. A. C. E. Harris, Birkenhead; Dr. Wallace, Parsonstown; Our Dublin Correspondent; Dr. P. M. Braidwood, Liverpool; Mr. R. M. Mann, Manchester; Mr. Millard, Dunbow; Our Glasgow Correspondent; Mr. F. Fraser, Leigh; Dr. Laffan, Cashel; Mr. O. Lowsley, Reading; M. O. H.; L.R.C.S.I.; Mr. L. Thane, Abergavenny; Dr. Elliston, Ipswich; M.R.C.S.; Dr. S. C. Griffith, London; Dr. C. Godson, London; Mr. J. Going, Cambridge; A Shareholder; A. R. W.; Mr. P. M. Chapman, London; Dr. Chrystal, Edinburgh; A Country Practitioner; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,, ...	20 ,,
,, 26 ,, ,, ...	25 ,,
,, 52 ,, ,, ...	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post Office High Holborn. Small amount may be sent in postage stamps.

REMARKS
ON
DILATATION OF THE STOMACH.

By W. F. WADE, F.R.C.P.,
Physician to the General Hospital, Birmingham.

Cases of dilatation of the stomach may be usefully divided into

Class I. Acute dilatation.

Class II. Cases depending on pyloric obstruction from coarse mechanical causes—such as thickening, or growths of, or within, the stomach or pylorus, or from the pressure of external tumours.

Class III. Intrinsic chronic dilatation.

I. As regards the first class, it is very necessary to draw a distinction between dilatation and distension. By the latter, I understand a condition in which the stomach, if emptied, returns to a normal size; by dilatation, a condition in which the stomach, even if emptied, does not do so. This distinction has not invariably been observed by writers. Thus, I find a case of Dr. Hughes Bennett's, which is headed as a "singular mode of death from enormous distension of the stomach", which was supposed to have been caused by drinking a quantity of aërated lemonade. Dr. Fagge quotes this case in an interesting paper on "Acute Dilatation of the Stomach"; and adds two of his own, in each of which the stomach, on being emptied of its contents, contracted to a normal size. Other cases, occurring in the course of some acute disease, have been reported; and those cases, I think, are generally to be classified under the head of distension rather than of dilatation. Gross, of Nancy, drew off ten pints of liquid from the stomach of a woman suffering from peritonitis after herniotomy.

Three interesting cases, recorded by Fürstner, might be more appropriately described as recurrent distension rather than as dilatation, and may therefore be referred to here. The first one was a female aged 21, who had received a blow on the epigastrium at the age of seventeen; intense pain immediately followed. Some time afterwards, she had convulsive attacks, with loss of consciousness; after which the gastric region swelled. There was no relief from frequent vomiting; but, after four days, the gastric symptoms subsided. These two groups of symptoms continued to alternate, or to be more or less intermixed. Fürstner found the abdomen distended and painful; the lower border of the stomach was visible four-fifths of an inch above the navel; the hystero-epilepsy continued. No benefit was produced by ice, subcutaneous injection of morphia, or washing out. A moderately strong induced current was used: one moist electrode held on the left hypochondrium, the other over the stomach, and drawn with considerable pressure from the cardia to the pylorus. The result was constant; after a short time the swelling diminished, the pain ceased, and percussion showed that the stomach returned to normal limits. It did not re-expand for some hours or days afterwards, and was always reducible by the current.

That there is a difference between the distension and the dilatation of a hollow viscus hardly admits of dispute, though no doubt the former may produce the latter, and it may not be easy to draw the line in every case. These points, and the question of acute dilatation, may be usefully discussed.

II. The second class of cases comprises those in which there is some condition which is obviously competent, in a mechanical manner, to prevent the ingesta from leaving the stomach; for example: malignant disease situated in or about the pylorus, or duodenum, or cicatrices of healed ulcers in the neighbourhood of the pylorus, or stricture of this orifice, or tumours external to but pressing on it. A few cases are recorded where the stomach would appear to have become dilated from adhesions contracted by it to other viscera, or by being dragged down by enormous herniæ; these, I do not propose to further consider. When any unusual obstacle is opposed to the exit of ingesta, the first result probably is increased effort on the part of the stomach to overcome the resistance; and in some cases compensatory hypertrophy, in others atrophy. Early and frequent vomiting, no doubt, in some cases helps to prevent overdistension and dilatation of the stomach, as may also careful limitation, either instinctive or artificial, of the quantity of the ingesta. In other cases, the obstruction is sufficient to ensure the gradual enlargement of the stomach; and we find *post mortem* evidence of the struggles which the stomach has made, in the shape of hypertrophy of its muscular coat—a similar change sometimes affecting the mucous, and (more rarely) even the serous, coats. All these tissues may have become fattily or otherwise degenerated.

In most cases, in this as well as in the next class, there is no doubt another factor at work in creating the disproportion between the cubic contents of the stomach and the facility of their passage into the duodenum. This factor is the multiplication of such organisms as torulæ and sarcinæ. We cannot, of course, nowadays imagine that these bodies originate in the stomach. We can only believe that their germs are common; that we have all of us, over and over again, had them in our stomachs; but that, fortunately for us, we do not furnish a nidus suitable for their growth and multiplication. One chief reason why they do not infest us all is, that we do not give them time to do so. Hence an important inference: viz., that any stomach, in the contents of which we find them, has allowed those contents to remain in it for a very undue length of time. We shall seldom be wrong if we draw a further inference: viz., that such a stomach is dilated. It is an interesting question, how far dilatation of the stomach is the result of these growths, and of the formation of gases due to them and to decomposition of the food.

It is also an interesting question, how far, and by what means, we can discriminate between this and the next class during life. This is especially important as regards prognosis.

III. The third class comprises cases in which we do not find, after death, any physical or mechanical cause to explain the non-escape of food from the stomach; and yet this is enlarged, and its walls are either hypertrophied or atrophied; or partly the former generally towards the pylorus, and partly the latter generally towards the cardia. Singularly enough, cases are even recorded in which the pyloric orifice has been found after death to be unduly patulous. This fact remains a paradox, of which I have no explanation to suggest. Many cases of intrinsic dilatation have a remarkably long clinical history, extending over ten, twenty, or even thirty years. The early history is one of gastric catarrh with vomiting, recurring at intervals of perhaps six, twelve, or twenty-four months—the attacks gradually becoming more frequent, and the symptoms at last constant, when dilatation has been recognised. The question here naturally arises: Were the early attacks temporary dilatation; or perhaps, more accurately, distension of the stomach gradually lapsing into permanent dilatation? or, has the great dilatation existed for many years, perhaps *ab initio*, but with intervals in which the stomach was quiescent, and with paroxysms in which it was irritable? We know, from observation, that such alternations are quite possible in a largely and permanently dilated stomach; but I conjecture that future investigation is likely to find that the former explanation is the true one. I have seen these cases, and so have others, and recorded them; but we have seen them late, and I am not aware of any case which has been clinically studied throughout. The answer to this question will probably come from general practitioners, who have opportunities of watching a man from his cradle to his grave. Knowledge on this point would probably be of much assistance to us in answering another question, viz.: How or why does gastric catarrh produce dilatation of the stomach? An answer suggests itself: by producing atrophy of the coats. But the incorrectness of this reply is at once shown by the fact, that some, or some parts, of the coats may be hypertrophied. Does the tenacious mucus afford a suitable nidus for the development of sarcinæ? This is possible; but it is not in all cases that we find these organisms—at all events, in any notable quantity. Does the tenacious mucus in any way plug up the pyloric orifice? It is somewhat difficult to conceive this, but it is possible. Does the coating of mucus interfere with excitement by the chyme of the sensibility of the nervous apparatus, which is concerned in relaxing the pyloric orifice, and allowing the chyme to pass? There is yet another way in which it is conceivable that the pylorus may be caused to offer an undue obstacle to the exit of food. This is by a prolonged tonic contraction of its sphincter, consequent upon undue irritation by acidity of the contents of the stomach. I will briefly mention such a case.

The late Mr. Samuel Wood, of Shrewsbury, sent up to me his coachman, who had been for some time incapacitated by severe gastric symptoms. He had been ill about six months, with constant pain and discomfort in the stomach; with occasional exacerbation, and vomiting every two or three days, bringing up a large quantity of intensely sour fluid. His stomach was decidedly dilated. I took him into hospital, and the same evening he vomited. The next morning I put him on milk-diet (which he had tried before his admission), and ordered him full doses of carbonate of soda, with two or three minims of laudanum. He never vomited again, gradually recovered his health and strength, and the stomach returned to its normal size. The treatment of this case was based on the view that, if there were no organic obstruction to the pylorus, the constriction of this orifice was due to spasm caused by acidity.

Another case was equally satisfactory.

A gentleman, aged about 26, had suffered from gastric pain and disturbance, with unfrequent vomiting of highly acid character and large in quantity, for nine or ten weeks. A few days before I saw him, a small tumour had been discovered in the abdomen. It was painful, tender, and semi-elastic, about the size of a walnut, but flattened; it was not very far off the situation of the pylorus. His stomach was dilated. I advised carbonate of soda, in quantity and frequency according to the urgency of the gastric pains, and a milk-diet. The case was, of course, of a very suspicious character; but I doubted whether the tumour was really within the abdomen, and so gave a guarded opinion. It turned out to be a parietal abscess, which in due time was opened. He had no return of the vomiting or gastric disturbance, except on one occasion, when he had been incautious in his diet, and neglected the soda. I only saw him two or three times, but heard that he quite recovered. The gastric catarrh seemed to have originated from a hurried walk soon after dinner.

These two were cases in which the stomach was not permanently and irrecoverably dilated, as it was in the next one, where, nevertheless, the symptoms complained of were equally due to acidity, the correction of which certainly enabled the food to pass the pylorus with more facility.

A gentleman, aged 46, had for twenty years been subject, every six or eight months, to attacks of gastric disturbance, resulting in, and being cured by, one vomit. For twelve months, the attacks had been much more frequent, at not more than two weeks' interval. For several months he vomited about every second day; there were great emaciation and debility. Before vomiting, he had "a burning pain at the pit of the stomach, as if", to use his own words, "the stomach was all on fire". The ejecta were described as intensely sour, burning his throat and setting his teeth on edge. He had been for three months, by advice of another physician, on milk-diet, with occasionally a little bread-and-butter. The edge of the stomach was two inches below the umbilicus. I ordered him to take one-third of lime-water with his milk, and half a drachm of carbonate of soda two or three times a day. I saw him again in a fortnight, and he had had no pain or vomiting, except one day on which he walked a good deal, took improper food, and omitted his medicine. His general health and strength were much improved. He had, subsequently, return of gastric trouble, not due to acidity and not relieved by soda, but much relieved by peptonised gruel. The stomach remained nearly, if not quite, of the same size.

In some cases of dilated stomach, we do not find undue acidity; still, I venture to suggest for discussion these two propositions.

1. In some cases dilatation of the stomach is due to spasmodic closure of the pylorus, caused by acidity of the contents of the stomach; and 2. In some cases of dilatation, the neutralisation of the contents of the stomach facilitates their passage through the pylorus, and relieves some of the symptoms.

Diagnosis logically precedes treatment; but, as we have been led to digress into the latter, it is perhaps better to go on with it here.

A good many years ago, a woman was under my care as an out-patient, but did not improve. I took her into the hospital; as she was in the habit of vomiting every third night, and this was the third morning, I gave her an emetic, chiefly with the object of procuring the ejecta, to ascertain whether they contained sarcinæ, which they did. She remained in the hospital a few weeks, went home, returned about twelve months afterwards with plain evidence of a tumour, probably malignant, in the pyloric region, and died; no *post mortem* examination was allowed. The emetic acted well; and from that time to her death she never vomited again.

A patient handed over to me by the late Dr. Evans, on his retirement, was the subject of a tumour in the upper part of the abdomen, and suffered much from sarcinous vomiting, which had not been relieved by treatment. Guided by the preceding case, I gave her an emetic, which cured the vomiting for more than two months; and it was several times relieved in the same way. She then went to some distance from Birmingham, and died.

A gentleman suffering from dilated stomach, who consulted me lately, found great relief from an occasional emetic. In this case, the reason why an emetic gave relief was very simple; it emptied him sooner than nature would have done.

In many of these cases, the gradual filling up and distension of the stomach produces inconvenience, discomfort, and even pain for many hours before vomiting occurs; an emetic merely anticipates nature's own method of relief. Even in such cases, the more complete emptying of the stomach only defers the recurrence of repletion.

But in the first two cases above mentioned, one emetic did a great deal more. In the first, vomiting never returned; in the second, it did not return for many weeks, and this on several occasions. This is the more remarkable, in that both were cases in which it is as certain as it could be without a *post mortem* examination, that there was a mechanical occlusion of the pylorus. In both cases, sarcinæ were present in great profusion. It is conceivable that the emetic, which in all the cases was composed of ten grains each of ipecacuanha powder and sulphate of zinc, dislodged all the sarcinæ, and perhaps a thick mucus in which sarcinous germs were embedded; and that in one case the patient escaped further impregnation, whilst the other was not so fortunate. This is a point on which further suggestions would be most interesting. To destroy sarcinæ or torulæ, various drugs have been employed, and in some cases with undoubted success. Amongst these, sulphite and hyposulphite of soda, sulphurous acid, and salicylate of soda are the best: the last drug is perhaps the most certain; but sometimes one succeeds where another fails.

Canstatt, in 1856, recommended the regular emptying of the stomach by means of the pump when the patient had lost the power of vomiting. In 1869, Kussmaul extended the use of the pump to all cases as a remedial, and, where such a result was possible, a curative, measure; and the stomach was not only emptied, but washed out with water either pure or medicated with carbonic acid, carbonate of soda, etc. In mineral water places, the local water is used. It is an objection to the pump that the thin and flaccid wall may be sucked in and torn; this has happened, though not very frequently. To obviate this danger, a simple flexible tube has been used as a syphon; the objection to this plan is, that the orifice is liable to be occluded by solid pieces of food. Catarrh of the stomach, even when the dilatation is slight, or its existence doubtful, is certainly, in many cases, remarkably benefited by this method; whilst the stomach, by being emptied, has the best chance of restoring itself to its normal size by contraction of its walls. Some persons, however, will not submit to this treatment. In some, the results are not beneficial. My late colleague Mr. Goodall and I had a case, some years ago, in which we gave it an extended trial without advantage. It was a case in which the stomach showed no disposition to regain its normal calibre, and the patient seemed to be most comfortable when his stomach was half full. I am sure that in some such cases cure is hopeless, and alleviation may be procured by some of the other expedients which I have mentioned, and which are less repugnant to some persons than is the passing of a tube. Nevertheless, after admitting exceptions, the rule still remains, that the plan of emptying and washing the stomach through the tube is one which is not only based upon sound theoretical considerations, but is also one which produces results favourable even beyond anticipation. Alleviation is procured for incurable cases; but after an interval, to be determined by a recurrence of the more urgent symptoms, the process requires to be repeated. I believe that Dr. J. O. Affleck was the first to record cases thus treated in this country.

As in all gastric derangements, the question of diet is one of importance. In view of the desirability of permitting the stomach to regain its normal calibre, a solid diet naturally suggests itself. In one case, certainly, a considerable restriction in the fluid ingesta much alleviated the symptoms. But we have to regard not only the size of the stomach, but the state of its mucous membrane, often, even usually, and perhaps almost always, in, or verging on, a catarrhal condition. When such catarrh is at all acute—and these stomachs are all liable to intensification of the catarrhal condition—a bland fluid or pultaceous diet is indicated. In one such case, I found the greatest benefit from peptonised milk-gruel. Not only were the gastric symptoms relieved, but the bowels, which had been very costive, became regular, indicating a more free exit of the ingesta from the stomach. It has been advised to use liquid food in small quantities frequently repeated. In some cases of great gastric irritation, this may be desirable; but, unless the exit of food be thereby facilitated, the stomach will become full just the same. Upon all these points there is, I beg to suggest, room for useful discussion, in which it would perhaps be well to discriminate between cases which admit of cure and those which admit of relief only.

It remains now to advert to the diagnosis of this condition. I have no hesitation in claiming the first importance for the character of the vomiting; not only because it is in itself one of the most characteristic symptoms, but more especially because it at once suggests to us the nature of the disease, and the necessity of making due physical examination of the abdomen.

The vomiting is unfrequent; the interval is in any given case fairly constant, but may in one case be twenty-four hours, in another two or three or four days. It is preceded not so much by nausea, as by a feeling of painful distension or oppression, or uneasiness, and is followed by speedy, often immediate and great, relief.

The quantity vomited is large, and it is brought up often at one effort, or else by two or perhaps three efforts, but all occurring within

a short period, say a quarter or half an hour, or thereabouts. The ejecta are commonly yeasty in appearance, inodorous, or sour smelling if very acid; it is curious that they may be inodorous even when much offensive gas is expelled by eructation.

It is right to observe that in some instances, probably from an exacerbation of the catarrh, vomiting may be frequent; but, even in such cases, a previous history of vomiting, such as I have described, may be obtained.

Physical examination reveals the existence of a large splashing cavity, the lower border often at or below the umbilicus. The lower portion is probably dull and fluctuating on percussion, the upper tympanitic from gas; the dull part probably projecting and rounded, the upper probably flatter or quite flat. The extent of dulness or tympany will naturally vary, as we examine the patient before or soon after vomiting. The weight of its contents drags the stomach downwards and away from the epigastrium, which is therefore flattened. The heart-sounds acquired a metallic resonant character, from proximity of the tympanitic stomach, in four cases recorded by Riess.

Emaciation, the facies abdominalis, thirst, anorexia, etc., are in proportion to the duration of the disease, the amount of gastric catarrh, and the atrophy of the gastric coats. The amount of fluid which may be poured into the stomach through a tube is not only evidence of the existence of dilatation, but a measure of its extent. In some instances, the existence of the disease may be actually demonstrated by the pressure of the stomach-tube against the wall of the abdomen. Physical examination has even detected dilatation when no symptoms existed to suggest its presence.

Although the diagnosis is not difficult or precarious when considerable dilatation exists, it is much more doubtful when the stomach is only slightly enlarged. Light thrown upon this question would be most valuable, especially in regard to the early diagnosis of those cases where it is likely that the stomach may have been for years gradually acquiring a large size, and which might have been kept within moderate limits by suitable treatment in their early stages.

The limitation of time prescribed by the laws of our Association compels me to be brief, and may, I hope, serve to excuse the inadequacy of my *résumé* of some of the leading features of this most interesting disorder.

FORTY-NINTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in RYDE, Aug. 9th, 10th, 11th, and 12th, 1881.

PROCEEDINGS OF SECTIONS.

SECTION A.—MEDICINE.

Wednesday, August 10th, 1881.

THE Section was opened with an address by the President, E. LONG FOX, M.D., which was published at page 349 of the JOURNAL for August 27th.

DISCUSSION ON DILATATION OF THE STOMACH.

Dr. WADE (Birmingham) opened the discussion by reading a paper, which is published at page 471.

Dr. KEALY (Gosport) called attention to a case of dilatation of the stomach from pyloric disease, which had been under his observation since November 1876. The patient had for some time been under observation and varied treatment, when suddenly it occurred to him that it was a case of dilatation of the stomach; and, after various examinations, he came to the conclusion that the patient was really suffering from pyloric disease. The condition of that case was controlled by two grains of morphia night and morning, irrespective of diet. The patient was now living, and able to be about. If the opiate were omitted, the symptoms returned.—Mr. PORRITT said that at one time, when he was resident in the Leeds Infirmary, there was a case of chorea in the hospital. The patient was a girl sixteen years old, and was given chloroform; and, upon *post mortem* examination, they found that the stomach filled the entire abdomen, and was almost empty and flaccid. He was much struck with the fact when Dr. Wade mentioned that dilatation of the stomach had come on during epilepsy, and by his calling the condition there distension, and not dilatation. In this case of chorea, was it distension or dilatation that had occurred? He had detected the condition in several cases of epilepsy, and he thought that there was here a similar state. Dr. Wade had deprecated to some extent the use of the tube. They always used the tube in Leeds, and there was at first some difficulty experienced in getting the patients to use it. But some of those had suffered so long that they were very grateful for the relief it gave them; and some patients had, after a time, learned to be able to conduct the washing themselves. Dr. Wade mentioned the difficulties of diagnosis; but it had been taught in the Leeds Hospital that, by putting the stethoscope on the abdomen and percussing, they could hear a very different pitch of resonance from that on the area covered by the stomach.—Dr. SHINGLETON SMITH (Clifton) wished to offer a few remarks on the cause of dilatation. Dr. Wade had asked whether it could be due to spasm of the pylorus, or to a condition of catarrh of the coats of the stomach. Dr. Wade had made a cursory allusion to the great amount of the secretion; and did not that fact point to a clue to the pathology of that condition? The stomach secreted while very little or no absorption went on in it. In the state of catarrh, the secretion was constantly forming and accumulating. Some one—whose name he forgot—had found that strychnia was not absorbed in the stomach of a horse when the pylorus was tied. He had been very much struck by the total failure of drugs to relieve pains in this condition, except large quantities of opium and morphia. He had no doubt that others would have had the same experience. But it appeared to him that the want of absorption in the stomach, certainly in chronic catarrh, was very decided; and that it had something to do with this accumulation in the stomach, and with the failure of drugs. If that were the case, was there any effective treatment? He had had no experience of the use of the tube, owing to the disagreeableness of it to the patient, and his consequently wishing to avoid it, if possible; but the tube was indicated from the physiological point of view, and there certainly should be far more experience of it than they had as yet.—Dr. HAYDEN (Dublin) feared very much that the use of the tube had not been sufficiently favoured by practitioners. He remembered, a good many years ago, a patient from an extreme part of Ireland coming to the hospital in Dublin, and placing himself under his care. He was greatly emaciated, and to all appearances the subject of mortal pyloric disease. It was impossible, owing to the state of distension of the stomach, to discover whether such was really the case or not. He had at once placed the man under treatment with the tube, and washed out the stomach with a strong solution of hyposulphite of soda. The man expressed himself as having experienced relief at once. He very soon gained flesh; his vomiting ceased; and in two months he left hospital, having gained several pounds in weight, and to all appearances perfectly well. He believed that that was one of the cases in which the use of food in excess had been indulged in, for the man had an enormous appetite. He believed that catarrh of the stomach was often the first of the morbid processes in dilatation, and arrested absorption; and that this involved the absence of the normal secretion of the stomach—the gastric juice. He believed that the use of alkalies was of advantage, especially in these cases. No doubt the want of sufficient absorption of the contents of the stomach was a feature of them, due not only to atrophy, and consequently distension of the walls, but also probably to venous obstruction in the neighbourhood; and the first step in the curative process was to relieve the organ of its contents, and to allow its coats to regain their muscular tone and movement. In regard to the diagnosis of pyloric tumours, he knew no better mode than to make two or three repeated examinations. In some cases, the diagnosis had been very easy; but the next day the tumour might escape observation, and perhaps for a week they could not find it again. It was conceivable that, in the interval, a physician coming new to such a case might make a wrong diagnosis. As he had been using the tube for a very long time, he would urge on all to make a freer and more general use of the instrument in connection with dilatation.—Dr. SILVER (London) said that there were cases in which the tube undoubtedly did good; but there were other cases in which, if it did no harm, it would do no good whatever. There were cases—and these were by no means the worst—where the contents of the stomach had been retained for days, and then there was one fit of vomiting, with relief. Undoubtedly, in these cases, if the food had been taken in a fluid form, and had undergone no great degree of change, it would come away easily enough with the tube; but if the food had been solid, it would not be so removed. Another case in which the tube would be of no use was that in which the food had been digested for a considerable time, and a little fluid food had passed through into the duodenum, and where the residual thick coating of the stomach could not be got rid of without great efforts at vomiting. The use of the tube was, no doubt, however, of the deepest value. In regard to the use of large doses of carbonate of soda, Dr. Wade did not allude to the principle on which he recommended it. The carbonate fulfilled a double object. One object was, in his (Dr. Silver's) view, somewhat dangerous. First of all, it would counteract free acidity, which was not universal; but it would set free

carbonic acid, which, with the weakened walls of the stomach, would essentially aid in the process of distension, and lead to more or less permanent dilatation. Again, it had been said there was no absorption in this condition. Absorption was impossible where the walls were covered with thick mucus. Another point raised was in regard to the action of the pylorus. It was a well-known physiological fact, that the glandular structures yielding the secretion were most abundant towards the pylorus, and were specially affected in the way which had been pointed out by Dr. Hayden by the alkalies, which promoted a free flow of the gastric juice; but still he regarded the emission of the mucus as an important element in these cases. He had seen cases of cancerous disease of the pylorus, which was a ring valve, and not a true valve, where it was absolutely impossible that it could become closed, and where it could not have prevented the contents of the stomach from passing into the bowel; and yet in such a case as that he had found marked dilatation. There were indications of disease extending to that part of the stomach which contained a large proportion of muscular fibres, and which was undoubtedly concerned in the closure of the pyloric orifice; and he had no doubt that that part of the stomach was likely to be most irritated, and to have the natural contraction increased. Dr. Wade had mentioned that in these cases he had been able to get his patients to take milk. Unfortunately, in too many of these cases the milk became coagulated, and generally formed a single solid mass, in such a position that it could be removed only by violent vomiting.—Dr. THOMSON (Bournemouth) said that Dr. Silver had altogether overlooked the question of washing out the stomach, which, to his (Dr. Thomson's) mind, was the most important part of the use of the tube.—Dr. SILVER had not overlooked that, although he had not mentioned it.—Dr. THOMSON said that his experience was, that more comfort had been got by evacuating the stomach and washing it out, than by the use of emetics. Since in all these cases a considerable degree of gastric catarrh existed, the mucus was much more likely to be removed by washing out the organ with simple water or with medicated water, than by the use of emetics.—Dr. WITHERS MOORE (Brighton) agreed that diagnosis was practically impossible without a large experience. He also agreed as to the use of emetics where tenacious mucus was present, as in the gastric catarrh of drunkards, and that nothing would relieve that condition so quickly or so pleasantly as an emetic. It required some mechanical force to clean that mucus from the surface of the stomach. No doubt absorption was resisted by the pressure of this mucus, and there was no gastric juice poured out, so that digestion did not go on, but the food remained in the stomach as a permanent irritant there, and fermented in the stomach so as to aid in the consequent dilatation. Having described a case bearing on the discussion, he concluded by strongly recommending the use of the syphon-tube as being less hazardous than the stomach-pump.—Dr. WADE, in replying, said he thought that, as a rule, it was not likely that a sufficient amount of opium could be given to relieve the pain in these cases. In regard to the interesting case mentioned by Dr. Porritt, he should certainly call it a case of dilatation, because the stomach, although exceedingly large, was empty and perfectly flaccid. He thought that, when the organ was enlarged and empty, it must be held to be dilated. If it were large and full, it might be dilated, but it might be merely distended. He certainly had not intended—and he did not quite plead guilty to having disparaged the use of the tube and the washing out of the stomach. He agreed with Dr. Thomson that the washing out was the important part of the process. But he had not dwelt more upon the use of the tube, because it was now a fashionable remedy, and it required no support from anybody. And, after admitting all exceptions, it was an useful remedy, and conducive to the welfare of the patient. But, when a remedy was popular, it seemed to him that there was no necessity to support its adoption, and that what was really required then was, to point out any exceptions there might be to its utility, in order that a patient who adopted the fashionable remedy and found it fail, might not consider that our powers were entirely exhausted. It was perfectly true, also, that some patients learned to use the tube themselves, and were quite satisfied; but there were some patients who would not submit to it. One of his patients refused to submit to it because he had heard of it from another; and the curious thing was, that the last patient had been remarkably benefited by the use of the tube. With regard to the diagnosis, he had not always said that it was difficult. On the contrary, that, in certain well-marked cases, the diagnosis was certain, but in certain other cases it was difficult. Dr. Smith referred to the enormous secretion of the mucous membrane as leading to the dilatation. But that did not do away with the fact that, without any secretion at all, distention of the stomach occurred. And the real question was, why, in these cases, the contents of the stomach, whether these were from secretion of the stomach itself, or food poured into it, did not get out. In regard to the acid contents, his belief was, that the alkalies should be used to neutralise them, not where the acidity depended upon the gastric secretion, but upon the decomposition of the food in the stomach; and, in two or three cases, the use of the alkalies, whether the case was of the one or the other kind, had a very important result. Dr. Silver had said that the fact that carbonic acid was set free by the use of the alkalies might be injurious by still further distending the stomach. In the first place, carbonic acid had been strongly recommended on account of its soothing influence upon the mucous membrane; and, when formed, it escaped from the stomach.

Codeia in the Treatment of Diabetes. By R. SHINGLETON SMITH, M.D. (Clifton).—Dr. Smith said that opium had been empirically used in the treatment of diabetes from the time of Aetius. In recent times, the action of the drug had been investigated by Pavy and others, with the result of showing the practice to be the result of well-established experience; and observers had endeavoured to ascertain to which of the alkaloids of opium the beneficial result was due. Codeia was first recommended by Pavy, on the ground that it could be given in large doses without producing drowsiness. Of late it had been much used, as recommended by Dr. Saundby, in the cough of phthisis, where it gave great relief, and had an appreciable soporific effect. But it was in diabetes that codeia had been of greatest service. As regards the dose, small doses were recommended by some authors, but Dr. Brunton stated that it might be given in doses of a quarter to half a grain three times a day at first, the medicine being increased gradually until sugar disappeared from the urine, or increasing drowsiness demanded its discontinuance. Dr. Pavy had given a series of cases in *Guy's Hospital Reports* showing the beneficial effects of opium, morphia, and codeia in removing sugar from the urine; the advantage of codeia being that it did not produce the same narcotic effect as opium and morphia. Opium was given in doses up to nine grains, morphia up to three grains, and codeia up to ten grains three times a day. Dr. Cavafy had given fifteen grains thrice daily, with good result. Dr. Smith considered that alkalies and all other treatment, even dieting, were inferior to codeia as remedies for diabetes; and, that, in this disease, it might be considered almost a specific, and should be the first remedy tried, and should be given in fairly large doses, until some physiological effect was produced. Codeia had been said to produce convulsions; but the literature of the subject did not support this, and he had never seen any such effect. He related three cases, which all exhibited marked improvement while taking codeia, which improvement ceased when the codeia was withheld, and was renewed on its repetition. Morphia had a good effect in two of the cases, but the improvement was much less marked than with codeia.

Dr. SILVER said that Dr. Smith did not seem to point out that, at Carlsbad, the patient was strictly controlled by the physicians, who told the people with whom the patient happened to be what he was to have, and he could get nothing else. That made a very great difference in regard to the treatment. It had also been pointed out that a very large proportion of the patients who went to Carlsbad were fat Jews, who had one form of diabetes, and that ordinarily six weeks' treatment was sufficient to set them up for six months, they meantime enjoying themselves as they pleased. He agreed with Dr. Smith with regard to the use of codeia for diabetes; but he could not say, with Dr. Pavy, that codeia superseded the use of restricted diet. He had tried restricted diet alone, opium alone, and codeia alone, and he never got with any of them more than a temporary cure, except perhaps in the case of one man suffering from very slight diabetes. He gave him codeia in moderate doses, and left the diet alone; and in this case, so far as he knew, it had sufficed. The great difficulty was not, in the first instance, that the quantity of urine passed, and of the sugar produced, might be speedily reduced; but he had seen the urine brought down to a specific gravity as low as 1012, and yet there were traces of sugar, which could not be got rid of either by restricted diet or by codeia. Opium was not a desirable drug to use, as its use was constantly followed by headaches; and the bowels, which in diabetes always tended to be constipated, became more so; and the temperature did not rise to at least the normal limit; and the appetite also was not improved by the use of opium. The watery extract of opium was far to be preferred to the opium itself. In one case, he had given fifteen grains of the extract every four hours, and there was no particular sleepiness produced, although the man rested quietly; and it excited a copious perspiration. In most cases, he had found little or no trouble from the use of codeia; but, on the other hand, he had found sickness with as little as a grain in a day, and sometimes nausea, and sometimes headache, so that it had again and again to be discontinued for a time. This was just one of those cases where every symptom of amendment was gained. Undoubtedly, codeia was valuable in respect

of the increase of temperature. Both opium and codeia, he believed, must remain in use until at least something better was discovered; but, remembering that the normal tendency of diabetics is to die of some form of lung-disease like phthisis, due care must be exercised to protect them from cold and chills, and above all from irregularities in diet.—Dr. LUSH said he had known a patient entirely cured by restricted diet.—Dr. SAUNDBY (Birmingham) had used codeia in six or eight cases, with fairly satisfactory results in some, and with unsatisfactory results in others. But, as diabetes required drinks, he wished to recommend a lemonade which seemed to him very rational and simple. He mixed equal quantities of lactic acid and glycerine with tincture of orange, and he added this in the proportion of an ounce to a pint of water.—The PRESIDENT asked in what way codeia acted. He had had a certain number of cases in the last few years of somewhat elderly people, who had had some kind of nerve-lesion, and diabetes was apparently the consequence of it; and, in these cases, codeia in very limited doses seemed to have acted in a very remarkable way. He thought that perhaps the codeia acted in some special way on the medulla oblongata.—Dr. SMITH, in replying, said he agreed with Dr. Silver, that neither codeia nor opium was sufficient in very advanced cases. The simpler cases that were readily cured were the slight cases of glycosuria; but, in the advanced cases of diabetes mellitus, properly so called, neither opium nor codeia alone was sufficient without very careful dieting, although Dr. Pavy found—in apparently slight cases, however—that dieting was not necessary. He also agreed with Dr. Silver in regard to the advantages of codeia over some preparations of opium, inasmuch as it did not give constipation. He had not found that codeia diminished perspiration at all, but that the skin was generally moist, and that was one beneficial result of it; and the appetite was not generally affected, nor had he found it produce headache. He had once or twice seen indications of it disagreeing in that way, in elderly cases of glycosuria rather than diabetes. He thought, however, that it was not of so much advantage in these cases as in really advanced cases of true diabetes mellitus in younger persons. In regard to the action of codeia, the fact that it produced an effect upon diabetes rather bore out the idea that the medulla oblongata was the seat of the original mischief. It might be that it acted by diminishing the vaso-motor paralysis of the affected part.

The Section thereafter adjourned.

Thursday, August 11th.

Rectal Alimentation. By W. JOSEPH TYSON, M.D., F.R.C.S.Eng. (Folkestone).—The object of this paper was to draw attention to the advantages of rectal alimentation, especially since the introduction of artificial digestives. The points dwelt upon were: 1. The suitability of the rectum, anatomically and physiologically, as a place for the introduction of food; 2. The theories of absorption; 3. The various modes of administering nutrient enemata; 4. The cases in which this form of feeding is essential, and those in which it may be tried as a mode of treatment; 5. The composition of nutrient enemata, past and present, including (*a*) ordinary beef-tea and milk-enemata; (*b*) the above peptonised, either with pepsine or pancreatin; (*c*) nutrient suppositories; (*d*) blood-enemata.

Mr. DE BERDT HOVELL (London) said that twenty-two years since he recovered by nutrient enemata a person suffering from diphtheria, who had taken nothing for fifteen days; and he knew of cases of diphtheria that had been lost from the want, in his opinion, of that useful remedy. Stricture of the œsophagus was another disease in which it might be most beneficially used. He agreed that it should be adopted as a means of treatment in other diseases. It had often occurred to him that, in typhoid fever, injections into the rectum might be used beneficially, if used with care, on the hydrostatic principle, and not by the syringe. If the bowel were simply washed out, it might not only be the means of nourishing the patient, but also of improving the process of cure. In regard to the intervals for administering the enemata, he thought two or three hours much too frequent, at any rate for any length of time together. In many cases, the bowel was too irritable to retain the nutrient injection, and great care should be taken that it was not given so frequently as to produce or increase irritation. Three or four times a day were, he thought, sufficient.—Dr. PARSEY (Warwick) referred to the use of nutrient enemata in the treatment of the insane. His [illegible] had been confirmed by a case of a patient who was under his care many years ago. The patient was a strong, powerful female, suffering from acute mania, of which the main feature was [illegible], and she by was to do all in her power to aid the result. She refused all nourishment, and the difficulties of administering it by the stomach were so great that he determined to resort to nutrient enemata. That treatment was so successful that, although for nearly five weeks she took nothing but a little water by the mouth, he sustained her in a very tolerable state of health. After her recovery, she told him that she had allowed the enemata to be given under the impression that they were ordinary enemata, and would produce action of the bowels, and so aid her in her purpose of dying; but that she had always felt herself revived and stronger for two or three hours after them. That had led him, during a practice extending now over many years, to adopt this treatment in such cases of insanity as required it. Of course it was only in certain cases that the treatment could be adopted. He had found all these results from enemata of concentrated beef-tea and a little brandy, and, of late years, Liebig's extract of meat.

DISCUSSION ON ACUTE SPINAL PARALYSIS.

Dr. GOWERS (London), in opening the discussion on this subject, remarked that he could best fulfil the task entrusted to him by pointing out those points on which the comparison of the experience of many observers is most likely to add to our knowledge. One of these was the question of the influence of hereditary tendency to nervous affections, which, although small, is sometimes effective. The remarkable frequency of the affection in young children was altogether unexplained, and was remarkable, since other acute inflammations of the nerve-tissues (as distinguished from the meninges) were not common in them. In regard to its occurrence at other ages, an instance in which it came on in an old man aged 70 was mentioned. The influence of dentition was less certain than that of cold in causing the disease; but even the latter had probably been exaggerated. Sinkler's statements as to the relation to season were mentioned, and a comparison of facts regarding the point on a large scale was suggested. Among the symptoms, the equivocal character of the onset, simulating an acute specific disease in the child, acute rheumatism in the adult, deserved discussion; and, in connection with it, the question of the relation of the affection to other acute diseases. This relation had certainly been exaggerated, owing to errors in diagnosis; and the only disease to which a relation seemed well established was typhoid fever. Of this two instances were mentioned. Early electrical examination (*i.e.*, at the end of a week) was urged as of great importance both as regards diagnosis and treatment, and, properly effected with faradisation only, involved no risk. An illustrative case was mentioned. The importance of the scientific study of these cases, as regards the representation of movements in the cord, was illustrated by the different pathological association of the two parts of the pectoralis major. The occasional but rare occurrence of spinal degeneration in adults who had suffered from infantile paralysis is a point on which further facts are needed. Two cases were mentioned. In treatment, several questions were raised as deserving discussion. Early treatment should be directed to the character of the lesion, rather than to the tissue in which it occurs. Of later treatment, the value of time and method of electrical applications were especially discussed.

The PRESIDENT asked Dr. Gowers as to the retardation of the growth of bone in these cases, in which it was very often a very prominent symptom; why that phenomenon persisted when the disease was otherwise tolerably cured, or at any rate where the muscular condition seemed to be very much recovered from? Though it was mentioned in the text-books, it was by no means altogether admitted that this condition was entirely a condition of acute local myelitis. It was not easy at all times to distinguish the disease under discussion from progressive muscular atrophy, because it was not everybody in remote country places, with the patient confined to bed, who could use electrical means for diagnosis. He hoped Dr. Gowers would state exactly what he considered the primary lesion of progressive muscular atrophy, and put in a short precise form the special means of diagnosis. In reference to the period in which the disease took place, his own impression was in favour of the view of the American observers, that the disease, even in this country, specially began in the warmer months; and the question came to be whether that did not depend upon the ordinary reasons that many of these diseases of the spinal cord were connected with warm months, viz., that children, while perspiring, lay in damp places, and caught cold and chills. Dr. Gowers had said that, in his experience, typhoid fever seemed to be the main disease with which the acute disease was connected, but he (the President) should be inclined to add measles to the list. He had seen one or two cases in which this acute disease seemed [illegible] of causation—of measles. It was certainly against the experience of [illegible]

(Brighton) had had a few cases under his care, and the symptoms of onset were very obscure. There was intense pain in the back and lumbar region, with the urine perfectly clear, while the condition had been called by some medical men a lithiasis. There was no paralysis in the morning, but at night it might be complete. In the case of a young man seventeen years of age, who called on him one morning between 7 and 8 o'clock, he found that, since the preceding evening, the paralysis had become complete, affecting both the limbs and the arms to a certain extent. The cases generally recovered. The first burst of the disease was generally the worst part of it, and the patients began gradually to recover. The young man referred to had recovered, but he was since able to use one limb in only a partial way. This case also simulated very closely rheumatic disease. As to the pathology of the condition, he asked whether it was first in the nerves or in the vessels. Did the change arise in the vessels themselves, or in the vaso-motor nerves which governed the size of the vessels? As to the influence of electricity in bringing about a compensatory action of the muscles, a case he had had under his care was very remarkable, in which there was a cervical enlargement, and with it also a lumbar enlargement, but in which the paralysis of the lower limbs passed away entirely in a few weeks, while the arms remained paralysed, some of the muscles wasting permanently; yet the man could do anything almost in the course of two months with his arm, because the serratus magnus was uninjured; and, by constant practice, although it was very jerking at first, he was enabled to exercise very fine movements. A great diagnostic feature was the absence of affection of the bladder and of the rectum, and also of bed-sores. In one case of an adult, the bladder was affected, but shortly recovered.—Dr. SHINGLETON SMITH (Clifton) said that most of the cases he had seen had been cases of the results of the disease, rather than of the disease itself, in the early stage; and he took it that that was the experience of most general practitioners. It seemed to him that the treatment must be radically different in the early stage from what it was in later stages. The question was whether, in the early stage, what they took to be a state of plethora of the spinal cord should be treated by drugs of various kinds, as belladonna, ergot, etc.; and whether, in the later stages, the condition would not require an opposite treatment, as stimulation by electricity, etc.; whether, in the first stage, the battery should not be avoided. He was not quite sure whether Dr. Gowers had referred to the constant rather than to the induced current, in maintaining the nutrition of the muscles. As to the administration of ergot in the early stage, he presumed that most had satisfactory results of this in other spinal conditions, particularly in locomotor ataxy.—Mr. DAWSON (Malvern) said that the most interesting portion of the paper was the part of it which related to the causation of the condition of the disease. Dr. Gowers had instanced more than one cause which was generally considered to be the attributable one—that of cold and that of teething; and he had mentioned also that it was very often a secondary result of other complaints. He was afraid, as general practitioners, they must all confess that they did not recognise the disease when they were called upon to treat it. Very often they found the victim of the disease with various manifestations of it fully developed before they recognised its nature; and he was afraid it was only a confession of ignorance to attribute it to cold, or teething, or anything of that nature. But he could corroborate Dr. Gowers's statement that it was a secondary result of one or other forms of fever. He had lately attended a household with enteric fever, and one child out of the five affected developed in the course of the complaint a spinal paralysis. As a resident in Malvern, he could speak from experience of the effect produced by skilled rubbing in the later features of the paralysis even more than by any form of electricity. He asked Dr. Gowers which mode of electricity he used, whether faradisation or the induced current.—Dr. GOWERS, in replying, said that he had not himself met with any case in which there seemed to be complete recovery of the muscles, and retardation of the growth of bone. However, it might be that, in such cases, the muscles had really been wasted to some extent, but had undergone a compensatory hypertrophy in consequence of the demand made upon the unwasted part; and that this might bring the limb up to the normal size. At any rate, that was the only explanation he had to offer respecting this very interesting and curious phenomenon. In regard to the primary lesion in progressive muscular atrophy, there were two opinions held on that point: first, that it was a disease of the spinal cord; and second, that it was a disease of the muscles. He thought there could be no doubt that both opinions were right, and that there were two forms of muscular atrophy. He had examined seven cases of the disease, and, in six there was a most characteristic disease of the spinal cord, in the anterior cornua, in the same seat as this other condition, but of a different nature, being a slow degeneration instead of an acute inflammation. But, in the seventh case, the cord was perfectly healthy, although the appearance of the patient was almost the same as in the other cases, and although the patient died from the effects of the disease. But the diseases showed clinical differences; the one was of very much longer duration, began earlier, and affected the legs to a much greater extent than the arms; and, having in view the striking differences in these cases from an ordinary case of muscular atrophy, he suggested at the bedside that it was one of these rare cases, which he had not before seen, and in which apparently the muscles and not the spinal cord were affected; and so it turned out. In regard to the diagnosis, the difficulty was not between the well-marked cases of acute spinal paralysis and of progressive muscular atrophy gradually coming on, although the ultimate aspect of the patient might be nearly the same in the two diseases. But the difficulty was that there was, as in every department of disease, no sharp line of demarcation; and there were cases of subacute and subchronic myelitis between which they could not say where the line was to be drawn. But electricity in these cases helped, because, in progressive muscular atrophy, as a rule, the power of the muscles to respond to the induced current was only lost in proportion to their wasting, whereas in these acute or subacute cases there was a greater loss of faradaic irritability than corresponded to the wasting of the muscles. That was for the reason that the process of degeneration in the cord and nerves was more acute, and faradaic electricity caused the muscles to contract only by stimulating the nerves. Hence this form of electricity was of high value in diagnosis, because, if it was found that the muscle did not contract at all to faradisation, it followed that the nerve-fibres in the muscle must be degenerated, and that the muscle would waste, although there might be no difference between that muscle and the others to the eye. Then, in regard to the treatment of disease, of course they must use the current to which the muscle would respond. The muscular fibres of themselves had no power of response to faradisation, or any power which they had was lost in this disease; but they still responded to the constant current, and that therefore must be used in order to excite the muscular contraction and stimulate the muscular nutrition. The observation made in regard to the connection of the disease with measles was very interesting and important. He had met with cases in which it was stated that that was so. But he could quite agree that measles was a disease in which this condition was likely to occur; and, in regard to the nature of the process in its early stage, it might be a thrombosis in the minute vessels of the grey matter of the spinal cord, and spread thence as an inflammation; but that was a mere speculation. The suddenness of the paralysis was very remarkable, but still it was paralleled in some cases of myelitis in adults. The observation that the condition simulated lithiasis in other cases was very interesting. The treatment in the early stages should be rather that for acute inflammation than for the disease of the spinal cord; and the most important things to be done were to avoid congestion, and to get muscular contraction either by cold or heat, according to the circumstances, and the administration of aperients and diuretics, and also such drugs as were believed to act upon the vessels. Of the efficacy of these means it was very difficult to get clear evidence, owing to the tendency of the disease to improve. He saw no harm in belladonna. The administration of ergot was free from danger, although he was not satisfied himself of the distinct good which it was said to do. The form of galvanism to be employed was the constant current, the faradic current being employed only for diagnosis.

Treatment of Insanity. By J. GROVES, M.B. (Carisbrooke).—Having referred to the history of the treatment of the insane and the improvements made therein during the present century, Dr. Groves said that mental disease was a functional or organic disease of nervous tissue. The condition of a man's mind at any time was the condition of his brain; every mental act was accompanied by nervous waste, which was repaired during repose by the supply of blood. That which has its foundation in a definite physical cause must have its cure in a definite physical change; and the treatment of insanity, in the vast majority of cases, might be reduced to procuring rest and proper nutrition of the nerve-cell. The pathology of insanity was so obscure, the causes so doubtful, and the diagnosis so difficult, that, without sufficient reason, it was too frequently decided there is some serious brain-lesion present, particularly if the symptoms were violent, and, in consequence, no serious effort at treatment is made, even in recent cases, and the chance of recovery was too often lost. And yet, probably, the majority of cases were, in the beginning at least, most susceptible of cure, cases of what was called functional disease, and in which no change would be found in the brain, or only hyperæmia. There was always the possibility of a special instability of structure, in which the vaso-motor ganglia shared; or disorder of some distant organ might cause very local cerebral circulatory disturbance, or feeble nutrition,

consequent upon parental taint, as scrofula, might have lit up the insanity. But, in the majority of cases, there was a definite history of some special cause of exhaustion, which, co-operating with instability and infirmity of nerve-element, inherited or acquired, produced insanity. There were usually anæmia with or without evidences of blood-stasis, and sleeplessness. The cells of the mind-centres were exhausted, and repair could not take place without rest, and until the condition of the circulation was remedied, and the quality of the blood improved. Rest might be secured by moral or by medical treatment. Moral treatment aimed at breaking through the self-absorption and exaggerated egotism almost always present, by diverting the attention, and thus giving rest to the centres. The choice of various sedatives and hypnotics to tranquillise or procure sleep would be decided by individual experience; but they were, at best, necessary evils, to be rarely used, and only after other means had failed. But the phenomena exhibited in many cases of insanity pointed to abnormal and irregular vaso-motor action, owing, possibly, to impulses from the deranged higher centres, or to insanity of the vaso-motor centres themselves from inherent instability, or from defective nutrition, due to impoverished blood, or to blood contaminated by the waste products of the system. The remedy must be found in the blood itself. How best to minister to the nutrition of the blood and to improve its qualities might be a matter of individual opinion. Good food might not be sufficient, for it might not be properly assimilated; and, perhaps, cod-liver oil and iron, alone or with arsenic, in small doses and long continued, offered the best prospect of success. The various organs, especially the bowels, should be kept active. Milk might enter largely into the diet in many cases, and abundant out-of-door exercise was essential in most. It was of paramount importance that appropriate treatment of mental diseases be applied early, and that it be pursued with perseverance and patience. For the most part, the treatment of insanity in its earlier stages, when it was most likely to be successful, fell to the lot of the general practitioner, who, notwithstanding the very evident neuroses of different members of the patient's family, often came too hastily to the conclusion that he had to deal with an incurable disease. It was of the highest importance, therefore, he should be practically acquainted with unsoundness of mind in its various forms; and to this end the subject should be a compulsory one, not only for a degree in medicine, but for an ordinary licence. While numerous cases of insanity were ruined medically by being sent to an asylum, there were very many persons suffering from mental disease who, if not wealthy, must be treated in an asylum, private or public. The majority of private asylums in this country were admirably conducted, but they were private commercial undertakings; and, as such, they would always be under suspicion. An objection to private asylums, which, applied in still greater measure to public asylums, was that curable were mixed up with incurable cases. Public asylums were, also, far too large; and in very few of them could hygienic arrangements be satisfactory or proper scientific observation and treatment possible. In the case of educated and respectable people who were absolutely poor, the surroundings of a pauper asylum were calculated to change a temporary attack into one of permanent insanity. Another neglected class was that of the criminal lunatic. The theory of the guardianship of the Crown would not be a complete reality until State hospitals were established for the scientific investigation and treatment of all persons suffering from curable unsoundness of mind who could not be taken care of by their friends. These hospitals should be of three classes: the first class self-supporting, the second class partially so, and the third class for pauper lunatics. Those who signed the certificates should determine if a poor person should be admitted to the second or third class of hospital; and, if to the former, the guardians should maintain him in the second class as in the pauper hospital. Careful clinical notes—to be examined by the Commissioners and visiting justices—should be taken of every case, and the treatment indicated. Honoraria should be given to the medical officer, in addition to his salary, for every case which recovered. When a case was decided incurable, it should be transferred, with the sanction of the Commissioners, to a private or public asylum; and the present asylums would become hospitals for incurables. In London, the various hospitals should combine to establish one or more hospitals for the insane, who would be visited by a staff of physicians as in ordinary general hospitals. A certificate of three months' clinical attendance at such a hospital should be required from all candidates for a licence to practise.

[illegible]

Dr. LAUDER BRUNTON (London), in opening a discussion on jaundice, said he should take up one or two points especially, which, he thought, were calculated to advance their knowledge of the disease; but, in addition to these, he must also go over some things that were already well known to them, in order to render their advance afterwards more certain. Now, the points upon which he wished especially to insist were three. The first was the question, whether there were any hæmatogenous jaundice or not, or whether it was entirely hepatogeneous? The second point was as to the portal function of the liver, that was to say, the power of the liver to regulate the flow of blood through it, and thus to alter the flow of blood through all, or nearly all, the abdominal viscera? The third point was as to the use of one or two remedies in the treatment of jaundice, and their *modus operandi*. They were pretty well agreed that the cause of jaundice was a pigment circulating in the blood—the bile-pigment or bilirubin. But the question arose: where was it formed? Was it always formed in the liver, or was it sometimes formed in the blood? If it were always formed in the liver, then every case of jaundice was hepatogenous. But, if it were sometimes formed in the blood and tissues generally, and not in the liver, then they might have exceptional cases of hæmatogenous jaundice. They would take up, first of all, the case of hepatogenous jaundice, upon which men were fairly well agreed; and, in order to render its causes more readily understood, he had made a series of diagrams, to which he called attention. Jaundice here arose from absorption of bile into the blood, and this absorption might have two causes. It arose from a difference of pressure between the blood in the vessels and the bile in the bile-capillaries; and this difference might be due either to increased pressure in the bile-capillaries, or to diminished pressure in the blood-capillaries. Whenever they altered the normal relation of the pressure between the bile and the blood, either by increasing the pressure of the bile or diminishing that of the blood, they must get the bile passing into the blood. The two sets of capillaries were very close to one another, being separated merely by these limiting cells, and thus the passage from the one to the other was very easy. When the mucous membrane of the duodenum became swollen by catarrh, the opening of the gall-duct was liable to be closed up. He had represented the mode of entrance of the gall-duct into the duodenum. The opening was a valvular one—not opening directly and straight through the wall of the duodenum, but in a valvular manner, so that anything affecting the mucous membrane affected it more readily. There would be catarrh affecting simply the mouth of the duct, or it might extend up the gall-ducts to a more or less distance. Next, there was a representation of the gall-duct occluded by a polypus—a very rare form. Then, the duct occluded by gall-stones—not an uncommon form. These gall-stones might give rise to various symptoms, according to their size. Some might be very large, so that it was impossible they could pass through the duct. Others, again, might be of a smaller size, so that they could pass through with difficulty. And others might be so small that they pass through with considerable ease. Now, according to the size of the stones, they would have the symptoms more or less severe. Another diagram represented the gall-duct occluded by means of a worm, and this also was rare. But this other case was not so very uncommon—viz., where the jaundice occurred from the pressure of fæces upon the intestines. And, next, there was its occurrence from morbid growths in the liver; and here, again, from morbid growths in other organs. Also, they had obliteration of the gall-duct by old cicatrices, and the want of development and patency of the duct in the new-born child. Then, the second cause of jaundice depending upon the liver was the lessened pressure of blood in its vessels. This increased the pressure of bile in the gall-duct, and, first of all perhaps, in the lower part of the duct, but then extending backwards into the bile-capillaries, and into the very small gall-ducts into which these entered. He showed a representation of an hepatic lobule, with its hepatic vein and artery and central vein; and also the sublobular vein, the bile-capillaries, and the bile-ducts as well. When the pressure of the bile in the gall-ducts increased, the blood-vessels were in close relation to the ducts; absorption might take place with very considerable rapidity, and with much greater rapidity, in fact, than many men had any idea of. Heidenheim found that, if a cannula were placed in the gall-bladder of a guinea-pig, and he tied the gall-duct, when he allowed the bile to flow freely out, it was secreted with considerable rapidity. But, if he increased the pressure to a very slight extent, he arrested the flow, and the moment would come when the secreted and the reabsorbed bile would entirely balance one another; and that point was only equal to about eight inches of water—a very low pressure; and, if he increased the pressure beyond that point, he found that, almost as fast as he poured the water into the tube, it was reabsorbed, and the result of that was still more [illegible] time the guinea-pig became perfectly blue all over, all the functions of life going on otherwise regularly. He should have liked to show it, but [illegible]

That was the case of lessened blood-pressure. It would readily be seen that, by lessening the supply of blood through these vessels, the bile which was under its normal pressure would tend to go back into the blood-vessels, and reabsorption would occur, just as it did by increasing the pressure of the bile in the capillaries. This was probably the cause of the jaundice which took place from mental emotions, as, for example, from fear or from excitement. That, however, was a difficult point. Where did this lessening take place? Was it in the portal vein, or in the capillaries, or in the hepatic vein? That brought him to point the argument of the portal function of the liver; the liver had a power of regulating the flow of blood, not merely through itself, but through the rest of the abdominal viscera, as the stomach and intestines. An immense amount of blood flowed to the intestines. The vaso-motor centre of the fourth ventricle regulated this; and, if this were destroyed, as much blood could pass into an animal as it had before raising the pressure up to the normal—so that the amount of blood which the intestines held was really equal to the whole blood in the body, if the tension of the vessels were destroyed; so that the amount of blood that passed through the intestines was of very great importance, not merely as to the intestines themselves, but for the nutrition of the whole body, and of great importance also for the nutrition of the brain. Some time ago, he was engaged in making a number of experiments upon the glycogenic functions of the liver. It had been found that, in the hepatic vein, there was not any large quantity of sugar; and it had occurred to him that this lack of sugar there might be due to the fact that, although the blood washed out the sugar from the liver, and removed a large quantity in the course of a day, yet the quantity removed in a few seconds would be very small, because the blood rushed through the liver with a velocity almost incredible to one who had not seen it. He had taken the liver of an animal newly killed, and fixed one cannula into the portal and another into the hepatic vein; and then he connected with this a bottle containing blood, and he raised the pressure of the blood by raising the bottle on blocks. He then allowed the blood to flow from the bottle through the liver, passing in at the portal and out at the hepatic vein. As soon as he did that, the blood gushed through the liver with great rapidity, almost as if he had taken out the cork and allowed it to flow from the bottle. But, in a short time, the flow became less and less, until finally sometimes he could hardly get the blood to pass at all. That showed, he thought, that the liver had a power of regulating to a great extent the amount of blood that passed through it. In all other organs, also, there was the same power, as, for example, excised muscle, which regulated the blood-flow to a great extent according to its needs. If muscle were tetanised, and blood put in in the same way as he had described, the tetanised muscle would take up more blood than a muscle which was allowed to remain at rest. But the difference between the liver and these other organs was this: that whereas the other organs regulated the supply of blood through themselves in accordance with their needs, the liver had the power of regulating, not only the flow through itself, but also the flow through the other abdominal viscera; and this was a point of great importance. This power of the liver was forced on his attention in a very unpleasant way. Some years ago, he had ague, but was not troubled with it till a few months ago; and one of the symptoms was this: that, just at the time the shivering should come on, he had intense pain in the rectum, with hæmorrhoidal swellings. This was evidently due to the effect of the ague-poison, because it came on almost at the exact time with the attack; and it seemed to him to point to the fact, that there was some obstruction to the flow of blood through the hæmorrhoidal veins. He found that if he took five or ten grains of quinine, he could at once lessen the swelling and cut short the pain; and that also, if he applied a warm bottle over the hepatic region, he thereby relieved pain. That seemed to him to point to this: that the resistance to the blood-flow was not lower down in the intestines, but in the liver. He had also found, when he was simply suffering from discomfort in the abdominal viscera, that simply rubbing over the liver gently at once relieved the condition, but that rubbing any other parts of the body did not. This was a point of importance, not merely in jaundice, but in all disturbances of the hepatic circulation, that they were a disturbance of the liver, a deranged or interrupted flow of blood, and that from these there were secondary disturbances of the functions of the stomach and intestine. It had been objected to the old term "biliousness" that the symptoms were those of the stomach. But there would be disturbances of the stomach secondarily from interference with the blood-flow through the liver; and therefore they were symptoms of the stomach itself, and also derangement of the functions of the intestines. The next question was that of hæmatogenous jaundice. Was the biliary pigment always formed in the liver, or was it sometimes formed in the blood? The reasons assigned for the latter conclusion were, that there were cases of liver-disease in which no obstruction to the flow of bile from the liver was noticed; that, for example, there might be a case of jaundice in which the lower part of the bile-duct was not coloured by bile, and the gall-bladder was quite empty. But, even in these cases, the catarrh in jaundice might extend a variable length, and indeed almost as far as the centre of a lobule; and in this case there were changes occurring from absorption close to the lobules, whereas the ducts further down were quite free from colouring matter, and the gall-duct itself was quite empty. Jaundice from the bite of snakes came on with great rapidity; so great, it was said, that there was no time allowed for those changes in the liver. But it would be found, on examination, that in the most of these cases, jaundice did not occur for a certain length of time, and there must have been time afforded for the disorganised blood to pass through the liver and produce absorption and jaundice. It was also stated that the injection of hæmoglobin, of the blood-colouring matter in the blood in a state of solution, would cause bile-pigments in the urine. He had repeated these experiments, and he did not find that result. Other men said they had obtained it; but it was quite possible that in their experiments the blood would have had time to pass through the liver, and that the bilirubin was formed there and not in the tissues generally. But that point was of less practical importance than that of the glycogenic function of the liver. Next, as to the *modus operandi* of one or two drugs in cases of liver disorders, and especially of jaundice. The first of these he would mention was Carlsbad water. In jaundice, it was very valuable; and sometimes it was the very best plan a man could adopt if he found his jaundice patients not getting well under home treatment to send them to Carlsbad. Many of them did improve there. If they gave the water at home, they did not always get the same result; and he thought that one of the reasons was this—that the patients were apt not to use the water in the same way as they did at Carlsbad. Here, as the water was not pleasant, they were apt to drink it in one or two deep draughts; whereas at Carlsbad they strolled round and round the gardens, listening to the music, and sipping the water every now and again. And that was of importance in the treatment. The liver was very much under the control of the nervous system, which had a very great power of causing liver-disorder, as in the case of jaundice from fright or sorrow, and in the frequency with which the glycogenic function of the liver was altered by sorrow, and the frequency of diabetes being traced back to the loss of a relative. And the part of the nervous system that seemed particularly to affect the functions of the liver was the vagus nerve. Irritation of the central end of the vagus induced glycosuria in an animal. It was probable that this vagus nerve had power of altering the functions of the liver for good as well as for harm. In case of sorrow, they found that the vagus nerve was very much affected, and it was the exceeding irritation of it that seemed to disturb the functions of the liver. It had also an effect upon the heart; and the way in which they came to connect it with the liver was this. A gentleman had a small exostosis on the small end of one of his cervical vertebræ, and he could compress the nerve there and stop the heart. At the same time, he got the feeling in the chest common in cases of sorrow, and one of its common symptoms was a sigh, which was in all probability due to an affection of the vagus. The effect of the nerve upon the heart could be removed by simple swallowing. If they put their fingers upon the pulse of some person and counted its rate for ten seconds, and then made the person swallow constantly while they still counted the pulse, they would find it rise to a very great extent—the swallowing seeming to have removed the effect of the vagus upon the heart for the time being. He thought it was highly probable that swallowing might also remove the effect of the vagus upon the liver, and thus have a beneficial action upon the functions of the liver, and allow, to a certain extent, of the removal of the jaundice. It had been found that when small quantities of water were injected in the liver, the secretion from the liver was increased, and also that the pressure under which the bile was secreted was increased. Hence, in all probability, the process of sipping the water in these small quantities, and frequently repeated, had a great deal to do with the remedy. In duodenal catarrh, he had got good results from bismuth, perhaps with some magnesia in it. Bismuth had got the power of lessening catarrhal inflammation in many mucous surfaces, as in the stomach and the nasal mucous membrane. But when the catarrh was high up the gall-duct, they could not expect it to have much effect. What was wanted in that case was something which would be absorbed into the blood, and thus act upon the ducts. Such a remedy was ipecacuanha. Professor Rossbach had observed a catarrhal condition in the trachea in the cat, in which it was found to be exceedingly constant; and if he injected ipecacuanha into the veins of the animal, it became at once very much increased, and very much less tenacious. That was exactly what was wanted here, something which would enter the blood and act upon the secretion of mucus in the bile-ducts, and thus allow the bile to push its way into the duodenum.

Dr. SAUNDBY (Birmingham) said that Dr. Brunton had, so far as he followed him, treated jaundice as it occurred from the reabsorption of bile into the blood; and he had only regarded jaundice as occurring from this bile circulating in the blood. But, normally and physiologically, the greater part of the bile was absorbed into the blood; and an explanation was necessary to be given why, in ordinary physiological circumstances, jaundice did not occur. In physiological circumstances, the greater part of the bile-colouring matter was destroyed in the blood, and excreted by the kidney; and, in certain pathological circumstances, it was conceivable that it was not destroyed in the blood, but was excreted unchanged by the kidney, and, circulating in the blood, gave rise to jaundice. He called attention to the work of Dr. McMunn of Wolverhampton, who had studied the changes in the blood and bile-colouring matter; and in the papers given to the Royal Society he thought Dr. McMunn had established that the process was one of oxidation; that the blood-colouring matter was converted into the bile-colouring matter by oxidation—the bilirubin thus being converted into urobilin; and that, when this did not take place, they got what was called hæmatogenous jaundice. There was a very good example of that occurring in acute pneumonia, and no doubt after chloroform. —Dr. WATERMAN (Indianapolis, U.S.A.) instanced a case of jaundice from obstruction by a calculus. Whenever he administered a teaspoonful of pure magnesia, he got bile very evidently in the stools; but from that period the stools were absolutely free from bile, as tested chemically. And in the latter part of the case he could produce fair traces of bile in the fæcal matter in that way; but three days would elapse, though there was a daily motion, without bile, except when he administered the magnesia. In that case, the urine was loaded with bile, and there was absorption of it taking place by the alimentary canal after it was secreted and discharged by the liver itself.—Dr. KEALY (Gosport) asked whether Dr. Brunton could give any deductions from his investigations, in order that practitioners might distinguish what really were the causes of jaundice. The difficulty he found was to determine what really was the cause in an individual case. He had a lady under his observation in whom he believed it was from the continued use of alcohol, from which she had cirrhosis of the liver, with enlargement. But in other cases he could not determine the cause, and therefore he merely prescribed in a sort of haphazard way.—Dr. SHINGLETON SMITH (Clifton) said the question of diagnosis was a very large one; but the commonest cause of jaundice, he should imagine, was gall-stone; and those cases were the most difficult and the most trying to treat. Until recently it had been thought that nothing could be done to get rid of the stone—only relieve the pain; but, if ipecacuanha would increase the tension in the gall-bladder, and enable the stone to be removed, that was a fact of importance in treatment. Salicylate and benzoate of soda were said to have that action; but he had no definite facts to offer in regard to them, and it was very difficult to come to any conclusion in regard to their action. A statement had been made in some of the medical journals, that olive-oil in large dose would get rid of gall-stones, and that the patient would be perfectly cured. He had tried the plan, and found that the small bodies discharged were merely a mass of oleaginous matter, with here and there crystals of cholesterine perhaps, but not biliary calculi.—Dr. DAWSON (Malvern) said that, as a very young man, he was attending a case of labour complicated with puerperal hæmorrhage, and he was very much disturbed, and watched it throughout the whole night. In the morning, when he went home, he found he was as yellow as a guinea, there being otherwise nothing the matter with him. That would illustrate the statement how the absorption of bile into the blood might be introduced by the influence of mental causes.—Dr. WATERMAN asked if use had been made of atropa purpurea as he had used it, in the form of euonymin or euonymin-extract.—The CHAIRMAN (Dr. Withers Moore) said, in regard to Dr. Brunton's attack of ague, it had occurred to him that the affection of the vessels in the neighbourhood of the rectum indicated that there was a great determination of blood to the liver, and that the stoppage of the rectal vessels would be a question of time. But Dr. Brunton seemed to indicate that it began immediately the attack began. Another point was as to the diagnosis of acute yellow atrophy and jaundice occurring there. They all knew that jaundice was not generally looked upon as an immediately fatal disease, and that there was plenty of time, before death at all loomed in the future, for the physiologist to apply his remedies; but that did not apply to acute yellow atrophy; and it would be a very great boon if they could at all predicate of a particular case that it was the one or the other, so as to give the patient due intimation to compose his affairs, if necessary. Dr. Brunton might be able to tell them whether the fact that leucin and tyrocin were present in the urine was of any real diagnostic value in this regard.—Dr LAUDER BRUNTON, in replying, said he would first answer the question of the President as to the time when the pain in the rectum came on in the ague attack. It seemed to come on almost immediately, sometimes preceding the shivering a little, showing apparently that the vascular changes occurred in the internal viscera before it took place at all in the skin. That seemed to him to bear a very close relationship to the congestion of the liver found in the cases of men who had been out in India. In regard to the diagnosis of diseases of the liver generally, it would take a long time to go into that. The question of acute yellow atrophy was no doubt a very difficult one, and he could not say he had any confidence in being able to diagnose it with perfect accuracy. The points on which most stress was to be laid were, of course, the history of the case —enlargement first, followed by rapid diminution in size of the organ, and also the occurrence of leucin and tyrosin in the urine. He was not sure that these were absolutely certain points, but they were of the most diagnostic value that they possessed, and they certainly pointed to tissue-change occurring in a rapid way. Then, in regard to Dr. Kealy's question of diagnosis, he believed the two commonest causes of jaundice were catarrh, either of the duodenum alone, or of that and the gall-ducts, and gall-stones; and they distinguished between these two by the pain in the passage of the stone in the one case, and in the other by the symptoms of duodenal or gastric catarrh and slight gastric disturbance preceding the jaundice. In cases of that sort, they had the attack coming on pretty quickly, and also in jaundice from worms; but that would be an exceedingly difficult thing to diagnose; and, in other attacks, more slowly, and very probably associated with the occurrence of tumours in the hepatic region and other parts of the abdomen. Dr. Saundby had asked why jaundice was not more commonly found. That was a point on which he had no time to enter in the paper. The liver had two functions. It did not merely form bile, it re-excreted bile which had already been formed. After being formed in the liver, the bile was poured out, particularly through the duct into the duodenum, was re-absorbed through the duodenum and upper part of the small intestine, returned to the liver, and again re-excreted. So that bile-formation was a double function; and in this way many poisons might remain in the portal circulation without getting into the general circulation. It was when they got into the general circulation that they did the mischief. The bile might thus be formed in considerable quantities without ever getting into the general circulation. But if it were formed in too great quantity, as after a series of heavy dinners, for example, and luxurious living, the liver was no longer able to secrete all the bile, and it was carried to the other parts of the body with the symptoms which they called biliousness. Then, in regard to the question of hæmoglobin being oxidised into bilirubin, the question he had wished to bring out was, not the actual question of the formation of the bile colouring matter from the hæmoglobin, as they were all agreed on that, but of where it was formed, whether in the tissues generally or only in the liver; and the evidence seemed rather to point to its being oxidised in the liver only, and not in the tissues generally; that the hæmoglobin was not oxidised into the bile colouring matter in the muscles or other organs, but only in the liver, and thence was carried to the other parts of the body, causing jaundice. Dr. Smith had asked what doses of ipecacuanha were used. He had himself had no experience of the use of ipecacuanha in jaundice. In fact, it was only a month or two since he learned of it, and he had had no cases directly under his treatment since. Dr. Ewart had mentioned that a quarter of a grain to a grain was used in India. It depended upon the nausea. Lately, also, Dr. Hook of Bombay recommended it in very large doses in the same ways as Dr. Ewart. He gave a minim of a grain of morphia beforehand, and then thirty grains of ipecacuanha half an hour afterwards as a bolus; and he had found cases of jaundice improve very satisfactorily in a very short time, and one case in twenty-four hours, that had resisted other treatment. The other plan of treatment, as Dr. Ewart had mentioned, was that of continued small doses. Then, in regard to the action of euonymin, he had not tried it in jaundice, but in other cases of intermittent liver-disorder in consequence of malaria in men who had been out in India, say, three grains of euonymin, made up into a pill, every second or third night, followed by a little Carlsbad water in the morning. Usually he told his patients to take a large draught of the water in the morning after the pill, and on the other mornings [illegible] they had finished dressing—the water to be previously heated to the warmth of warm tea, so that they could comfortably sip it. This combination of euonymin [illegible] indeed in these cases of biliary disorder depending upon chronic malarious poison.

A New Stethoscope.—Dr. WARD COUSINS, Southsea, exhibited a new combination of four stethoscopes in one. There was not, he believed,

any convertible stethoscope except this one, which could be made double or single as required, and also be used for application to the teeth or the forehead, so as to intensify the sounds conducted to the ear. He claimed for his that it was compact, convenient, and portable, and combined all the advantages which they wished to secure in the use of the stethoscope in all its forms.

Is Antipyretic Treatment Justifiable? By JOHN HADDON, M.A., M.D. (Eccles, Manchester).—In this paper, Dr. Haddon said that, in health, the normal temperature of the body is maintained when exposed to either extreme heat or cold. In disease, the equilibrium is lost; and, as a rule, the temperature is raised when pyrexia is said to exist. In Germany, the pyrexia is believed to be the cause of the changes which cause death in fevers. On this theory, the antipyretic treatment has been adopted, which consists in placing the patient in a cold bath, to reduce his temperature by the direct abstraction of heat. He believed such treatment not to be justifiable, for the following reasons: 1. The theory is incorrect. *a.* This is proved by the fact that many cases are on record in which the temperature was much higher continuously than the advocates of this theory believe to be certainly fatal, and still all the bodily functions were healthy, and recovery followed. *b.* We find that a temperature which in one disease is regarded as almost certainly fatal, is by no means of such serious import in another. *c.* In the same disease, one frequently sees the identical symptoms as severe in conjunction with a low temperature as with a high one. 2. It is dangerous. To be assured of this, it is necessary only to read the reports of those who have tried the treatment, which affirm that collapse and failure of the heart's action are produced. The treatment of fevers by drugs, such as quinine, cannot properly be called antipyretic, but would be more correctly termed febrifuge, seeing that their action is more obscure, and certainly more general, than that of a cold bath. Cold affusion, as practised by Dr. Currie, appears to effect "the solution of fever" by the shock it gives to the system. It is more easily used than the bath, and no danger attends it; and, though it does not reduce the temperature so much as the cold bath, it seems more worthy of our attention; and it is probable that any good that results from a cold bath is caused by the shock during the act of immersion.

Dr. SKERRITT (Clifton) said it would be rather unfortunate if physicians were to discard the cold bath without being fully convinced that it did harm. The effect of the cold bath was not that which might be produced by the sudden application of small quantities of water; but in cases of high temperature threatening death, it was required to extract by the cold water a very considerable amount of the heat of the body. The fact that stimulants were frequently needed in cases where the cold water bath was used, was no evidence against the bath, as they were given on account of the condition in which the patient was at the time. Some time ago, he had a very satisfactory case, where he used the cold bath in rheumatic fever, and where the temperature, when the patient was put into the bath, was 109.5° Fahr.; and, in forty minutes, it was reduced to 98° Fahr.; and a very satisfactory recovery followed, apart from other treatment. The temperature often rose after the patient had been put into the bath; and that seemed to be, to a certain extent, evidence that it was not the shock, but only the prolonged immersion that produced the good effect.—Dr. SHINGLETON SMITH (Clifton) said that Dr. Haddon had not shown that the treatment he challenged was unjustifiable or harmful. It was, on the contrary, of the greatest possible benefit. There were two classes of cases, those to which Dr. Haddon had alluded, and others where the question of the treatment of pyrexia might be optional. He should be disposed to treat the cases of typhoid fever in the way in which the German authors recommended. He had had considerable experience in this, and had thought that the results were particularly good. It was not a question merely of statistics; the general impression was that this practice was decidedly beneficial. He thought Dr. Haddon's paper was founded entirely on the idea that theory was at the bottom of the practice. He ignored the fact that, where the temperature had been high for many hours, the heart's action was weak, and the muscle in a state of degeneration from tissue-waste; the degeneration of tissue could be prevented by keeping down the temperature. On exceptional and anomalous cases, where the temperature was described as being as high as 125° or 130° Fahr.—much over what was believed to be inconsistent with life—nothing could be founded. A temperature of 100° Fahr. had been shown to be inconsistent with life in certain cases, and these cases of high temperature should be combated without loss of time.—Dr. EDWARD HAUGHTON (London) had practised antipyretic treatment; and it seemed to be going back a century almost to ask the question whether they were to combat pyrexia with cold. Unquestionably, unless when contraindicated, mild applications of cold to the surface of the body were useful in almost every form of pyrexia, and he had always found them beneficial. In surgery, it was a common treatment of inflammatory pyrexia; and why should not that which was true in surgery be true, also, in medicine? The wet sheet pack had been invented by a patient, and had ever since been in operation by those who had sense enough to use it.—Dr. COUPLAND (London) said that one of the greatest gains in late years in the treatment of fever had been the cold bath system. In the Middlesex Hospital, the treatment had been carried out very largely and systematically. There had not been there any deaths from typhoid fever which could be attributed to the effects of the fever *per se*—meaning thereby the effects of pyrexia, which previously formed a large element in the mortality from typhoid fever. And he knew cases of typhoid which he was sure would, without this treatment, have succumbed. At the same time, he was inclined to think that the first shock did some good, though the body must be kept for some time at the lowest temperature. The method he had followed was, in every case of typhoid fever coming under treatment sufficiently early, to direct that, when the temperature reached 103° Fahr., the patient should be put in a bath of 70° Fahr. for ten minutes; and, if the case were a severe one, the baths had to be repeated many times in twenty-four hours, except in the case of hæmorrhage, etc. Of course, it was not in every case this could be done.—Dr. SAUNDBY (Birmingham) said that whether antipyretic treatment was justifiable was scarcely a question for discussion. But the question of the application of treatment, according to Liebermeister, was very much debated, and one to which a negative answer was being given. It was discussed very fully by the Glasgow Pathological Society about eighteen months ago; and there was a very able introductory address given by Professor Gairdner, to which, he thought, no adequate answer had been given. The statistics given in Dr. Pavy's Croonian Lectures of cases treated systematically on Liebermeister's method were only, perhaps, one per cent. better than the general average of the hospital cases, and certainly very much worse than the average of Dr. Gairdner in the town hospitals in Glasgow; and until more striking figures than those were got, the profession generally was not inclined to plunge a patient into a cold bath every time the temperature rose to 102° Fahr. But whenever the temperature kept up persistently, without the remissions expected in typhoid fever, it was the practice in most hospitals to apply the treatment.—The CHAIRMAN said that his experience of the treatment in the hospital had been good. But general practitioners could not have the assistance which was had in hospital treatment; and it was impossible in private practice to put the patient with safety, two or three times a day, into a cold bath. He would direct attention to the quinine treatment, given, on Liebermeister's plan, in quantities varying from twenty to thirty grains every twenty-four hours. That kept the temperature down for forty-eight hours. He might add to that the cold effusion, which was without danger. But if they had the temperature which was met with in rheumatic fever—say 108° or 109° Fahr.—unless there were decided symptoms of failure of the heart's action, they should use the cold bath. But he would recommend the quinine treatment very strongly.—Dr. HADDON, in replying, reaffirmed that the antipyretic treatment arose entirely from theory. The treatment by the cold douche had arisen from the experience of the patient, who was Dr. Wright of Birmingham: but this other treatment by the cold water bath arose entirely from the theory that it was heat which caused what the author called necrobiosis. He denied that that was proved. The case he had quoted of a high temperature not being fatal was not isolated; it was a thing which was constantly met with. There was no doubt that physicians were pyrexia-hunters too much at the present day; and, if they diminished their treatment of pyrexia, it would be very much the better for their patients. Any treatment recommended must be applicable in the patient's house. He thought that the poison of typhoid fever in some cases attacked the lungs primarily, and that the pyrexia had very little to do with it. It must not be forgotten that there were other cases in which there was pyrexia for months, and this necrobiosis did not come on.

Subcutaneous Emphysema from Spontaneous Rupture of Lung. By E. MARKHAM SKERRITT, M.D., B.A. (Clifton).—Dr. Markham Skerritt read a paper on a case in which subcutaneous emphysema occurred secondarily to interlobular emphysema of the lungs. The patient, a boy eleven years old, was admitted into the Bristol General Hospital on May 18th. On this day, he had come home from school with a headache, and had cried with the pain. Soon after, dyspnœa came on, and increased so rapidly that he was soon gasping for breath, and almost black in the face. On admission, the boy was apparently moribund, and nearly insensible; the surface was cold and dusky, the face of a blackish-purple colour. Respiration was slow, spasmodic, and gasping, the chest-walls and diaphragm seeming almost fixed. Loud whistling rhonchi were heard over the whole chest. Subcutaneous emphysema ex-

isted extensively over the left side of the trunk, and to a less degree over the right. The boy was put into a steam-tent, and stimulants were applied, and the dyspnœa rapidly lessened. In two days the lungs were clear; in six, the subcutaneous emphysema had disappeared, and the patient went out apparently in perfect health. In this case, rupture of some portion of lung-tissue led to escape of air into the interlobular and peribronchial tissue (interlobular emphysema); the air thence passed through the substance of the lung to the root of the organ, and afterwards found its way both down the root of the other lung into its tissue, and also through the mediastinum to the surface of the body. Great obstruction to the entry and exit of air was thus caused, as much of the air in the lungs was outside the air-passages; hence the fixation of the chest-walls, the intense dyspnœa, and the dry *râles* in the lungs from pressure upon the bronchial tubes. The author remarked that subcutaneous emphysema from rupture of lung-tissue was a very rare accident, and almost limited to early childhood. The causes of interlobular emphysema might be placed under two heads. 1. Violent strain upon healthy lungs; as in the cough of croup and whooping-cough, and the efforts of parturition or defæcation. 2. Normal or abnormal strain upon diseased lung-tissue, as in the course of phthisis, acute tuberculosis, pneumonia. In the present instance, there was no evident sufficient cause for its occurrence, no sign of lung-disease, and no history of any accident or violent exertion; and hence it might be called a case of spontaneous rupture of lung-tissue, due, presumably, to the presence of some point structurally weak, though not actually diseased. Interlobular emphysema might induce very grave symptoms, as in this instance, where the boy appeared moribund from asphyxia; and sudden death had been known to follow its occurrence during apparent health.

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF SURGERY.

Discussion on Recent Advances in the Methods of Extracting Stone from the Bladder.

Sir Henry Thompson commenced the discussion by referring to the consideration of certain modifications associated with the operation of lithotomy, chiefly in the mode of dealing with the stone itself: such as proposals to crush the stone through a perineal opening previously made; certain other modes of dealing with calculus, in which crushing and cutting were combined, together with the circumstances which might render such combinations desirable. He then proceeded to speak of modifications in lithotrity, such as crushing of the entire stone, even when not small, at a single sitting, with or without some distension of the urethra. He pointed out the importance of limiting the use of large instruments, whether for crushing or for evacuating *débris*, to calculi of large size, risk to the patient being greatly augmented by the employment of instruments which unduly distended the urethra; hence the extreme importance of diagnosing the size and nature of any calculus before deciding on the operation. The author's recent experience in relation to the operation of "lithotrity at a single sitting," amounted to more than ninety cases. The chief elements of "recent advance attained in the methods of extracting stone from the bladder" were comprised under the following heads. 1. The exercise of careful diagnosis in every case, with the view of selecting the operation best adapted for it, for the purpose of adopting that which shall inflict the least injury or even disturbance on the organs involved. 2. The advantage of emptying the bladder, by crushing the stone when practicable at a single sitting, even although the manipulation of instruments entails more time and disturbance than has hitherto been deemed desirable, provided only that the instruments employed shall never be larger than circumstances demand. 3. The combination of an urethral opening in the perinæum with a crushing operation in the bladder, an available means of evacuating both *débris* and urine, in certain exceptional conditions—a proceeding which may be considered in two different classes of cases—*(a)* in those which are essentially cases of lithotrity; and *(b)* in those which are primarily cases of lithotomy.—Dr. Bigelow (Boston), after referring to the rules which regulated the operation of lithotrity before 1878, pointed out the essential features of the new method of evacuation at one sitting. It was most important, he said, to prevent the return of a fragment once evacuated, and he demonstrated to the Section the valvular contrivance by which he now achieved this. He also pointed out various other details in his instruments, and in his mode of using them. After referring to the cases for which the operation was unsuitable, and to the accidents which might occur, he concluded by giving the statistical results of this method of operating.—M. Th. Anger (Paris) described some new instruments for performing suprapubic lithotomy, by means of the "thermo-cautery", and made some observations on the cases suited for the operation. He said that, in cases where lithotomy was indicated, the perineal incision should be preferred, except when the prostate was much hypertrophied, and firmly wedged into the true pelvis. In these circumstances, the suprapubic operation was indicated. By the employment of the instruments described, the operation was rendered easy, methodical, and bloodless. The wound made by the cautery was dry, and rendered the patient less liable to urinary infiltration.—Mr. Walter Coulson (London) thought that Dr. Bigelow's method of performing lithotrity deserved a very high place among the most important improvements in modern surgery. The limits of the operation for large calculi had yet to be determined. He thought that there were some defects in the construction of the lithotrite; in his own hands, it had twice given way during the attempt to crush a large calculus, causing much inconvenience, and increasing the risk to the patient. He had sometimes found difficulty in the reintroduction of the evacuator owing to the accumulation of sand in the prostatic portion of the urethra; this he had been able to overcome, however, by throwing a little water into the urethra at that point. He had heard of two cases in which the evacuator could not be introduced, and in both cases death had resulted. If the bladder was perfectly emptied after the operation, the patient was saved much suffering.—M. Reliquet (Paris) described a lithotrite which he had had in use for the last ten years. It was powerful enough to deal with large stones, and was, he believed, less likely to be clogged than were other models. It was designed for use with a hammer; he believed that the succession of small shocks thus given to the stone resulted in a more satisfactory fragmentation than could be obtained in the instruments in which the force was applied by a screw. In 1877, he had in one case, before performing lithotomy, broken the stone with this lithotrite; and had thus anticipated one of the proposals made by Sir Henry Thompson in his paper.—Mr. Clover (London) thought that the catheter ought to be made as short as possible. Fragments that would be caught in his (Mr. Clover's) instrument would have to be drawn two inches further before they reached the trap in Dr. Bigelow's. He objected also to the valve, which might obstruct the passage of a large fragment just as it was about to be caught. He had at first used a small trap and an India-rubber valve, but had observed that, by increasing the size of the trap, the valve might be dispensed with. He thought it would be better to have the inner end of the catheter truncated. The greatest improvement in the instrument was the addition of a small funnel and stopcock for adding water to the aspirator or withdrawing it, as was necessary.—Mr. Pridgin Teale (Leeds) said that Dr. Bigelow had, in his opinion, made a distinct advance in the treatment of stone in the bladder. He feared, however, that there was some danger that the brilliant results reported might tempt some surgeons who were not brilliant lithotritists to abandon lithotomy, for an operation which was not without dangers, which can only be overcome by extreme skill and practice. The advantage of lithotomy was, he believed, the better chance it afforded for the cure of the cystitis attendant upon, or in some cases perhaps causing, the vesical calculus. The fatality after lithotomy had been lessened in late years by two factors; firstly, by the improved sanitary condition of hospitals, and secondly, by the more gradual extraction of the stone, the surgeon taking pride, not in the rapidity, but in the carefulness, of his manipulations.—Mr. Spence (Edinburgh) said that his experience was chiefly limited to lithotomy, as but few cases came to the hospital in Edinburgh until the stone had reached a size too great to be dealt with by lithotrity; in children, moreover, the results of lithotomy were so satisfactory, that he would never think of performing lithotrity in them. In lateral lithotomy, he had for some years made use of the rectangular staff of Dr. Andrew Buchanan, except in the case of old men with enlarged prostate; for these cases he still preferred Liston's curved staff; it was easier to introduce, and the surgeon could be more certain that the point was in the bladder. When unfavourable results followed lithotomy, it was commonly in cases where the prostate was not only enlarged, but much condensed. Here dilatation with the finger made no progress; it was necessary to use the knife again to get room for the forceps, and, in withdrawing the stone, the dense prostate was forcibly wedged against the ramus of the pubes. Such cases might at first go on favourably, even for some weeks, but ultimately symptoms supervened which did not directly affect the wound, and hence such cases were spoken of as dying of intercurrent disease, but they died as truly from the operation as if they had died on the operating table. Such cases, if they could be diagnosed, would no doubt be best dealt with by the suprapubic opera-

tion. He could not, however, see the advantage of the thermo-cautery, the use of which had been recommended by M. Anger. The condition of the wound in cases in which he had used this instrument in tracheotomy, had not been such as to lead him to try it in lithotomy. In the cases of stone with enlarged prostate, the bladder was pushed up into the abdominal region, and was more accessible for incision and after treatment. On the whole, he thought that the high operation in such exceptional cases had every prospect of success.—Mr. LUND (Manchester) had seen, before 1878, many cases in which small calculi were crushed, and the fragments removed by Clover's bottle; perhaps not all, but if any remained they were passed naturally, and no second sitting was necessary. He pointed out that, in Clover's bottle, the end of the evacuator projected so far into the glass reservoir, that it was not possible for a fragment once caught to return.—Mr. BERKELEY HILL (London) said that Dr. Bigelow had taught surgeons that the bladder could bear without injury manipulations of sufficient length to allow the removal of a large calculus at one sitting. He was, however, of opinion that, for many patients, Civiali's gentler operation was more suited. Such patients were middle-aged men, in whom the deeper portion of the urethra was extremely sensitive, and in whom dangerous complications were more apt to follow prolonged instrumentation than the gradual removal of the stone by the successive comminution of each large fragment at separate sittings.—Dr. PIRRIE (Aberdeen) made some remarks on Cheselden's and Liston's lateral operations of lithotomy, and their results.—Mr. BUCKSTONE BROWNE (London) said there was not so wide a difference between the lithotrity immediately before and after 1878. From 1874, at least when he first joined Sir Henry Thompson, the administration of ether and the use of Clover's bottle, by which the bladder could be evacuated, had always been resorted to; these were important variations from Civiale's method. Sir Henry Thompson had long taught, moreover, that if, after crushing, cystitis occurred, it was best to crush again and evacuate the bladder. Dr. Bigelow had done great service by formulating the theory, of which this fact was an illustration.

DISCUSSION ON THE MODIFICATIONS OF SYPHILIS IN THE TUBERCULOUS, GOUTY, AND OTHER CONSTITUTIONS.

The discussion was introduced in a paper by M. VERNEUIL (Paris). He commenced by observing that syphilis might coexist with any other constitutional taint. There was often simple coexistence of the two conditions; but not unfrequently one had an important influence on the other. The author's observations had been principally directed to hybrids between syphilis and scrofula, and syphilis and cancer. *Scrofula* usually preceded syphilis, and exerted an influence upon it; but occasionally syphilis in a youth or young adult brought out struma which had been latent from infancy. Scrofula attracted syphilis to the organs it most commonly itself affected—skin, glands, periosteum, etc.; and was apt to set up suppuration in these, a result not common in simple syphilis. Scrofula modified secondary and tertiary syphilitic ulcerations, so as to make the diagnosis often difficult. It did not aggravate syphilis, but perhaps rendered its local manifestations more permanent; while, as a rule, it removed the element of pain. *Tuberculosis*, on the other hand, if it did not actually favour the occurrence of severe and intractable syphilitic lesions, certainly made some tertiary manifestations persist indefinitely. Stricture of the rectum, for example, was commonly complicated with pulmonary tuberculosis. In treating such conditions, it was well to combine antiscrofulous with antisyphilitic remedies; but, on the whole, the indications were similar in the two diseases. When *cancer* was combined with syphilis, the cancer, which was the later to develop, was modified by the syphilis. These cases were rare, and there were hardly any which proved the existence of the opposite condition. The author had seen cancer attack a testicle in which a gumma had been cured two years previously; it was, no doubt, a *locus minoris resistentiæ*. The diagnosis of such hybrid cases was difficult. Enlargement of the lymphatic glands favoured the idea of the existence of a new growth. The almost complete indolence frequently noticed, and the comparative benignity of these cases, were due to the syphilis; but the constant advance, the infection of the system, and the fatal termination, depended on the new growth, the latter always asserting itself at last. In doubtful cases, antisyphilitic remedies should always be tried. They sometimes produced remarkable improvement. This temporary arrest of the growth might well cause surprise, when it was remembered how useless, if not actually harmful, was the administration of mercury and iodide of potassium in ordinary cases of epithelioma or cancer.

Mr. JONATHAN HUTCHINSON (London) also delivered an introductory address. That syphilis varied very much in different persons was, he observed, generally admitted; the question seemed to be whether these variations were dependent upon concurrent disease. The differences in the primary sore were very great. Sometimes it never indurated at all, but ulcerated and discharged freely; while in other cases it had little or no tendency to ulcerate. These differences depended probably on some peculiarities in the patient's health; but he would prefer to say they were due to an idiosyncrasy, than to say that they were modified by the existence of the gouty, or the tuberculous, or the scrofulous diathesis. He felt himself unable to foretell, from the antecedent history of a patient, the course the sore would take. Syphilis and other exanthemata were, he believed, severe or mild, not according to the existence of scrofula or tuberculosis, but according to some constitutional peculiarity in the patient, which caused him to take these diseases badly. All that he had said of the sore applied also to the secondary rash. He did not think that gout at all modified syphilis, except in so far as any febrile disturbance was, in the gouty, liable to be attended by severe pains in the joints. He thought that when children who were scrofulous—to make use of an old-fashioned classification—suffered from congenital syphilis, it was modified. The strumous diathesis was associated with low cell-organisation, and with a feeble vascular supply. When inherited syphilis occurred in such a patient, it was liable to be modified. For instance, there was what was called syphilitic lupus, not really lupus at all, which extended very rapidly, far more rapidly than lupus, but was curable with certainty and rapidity. In cases where extensive osteal outgrowths occurred in congenital syphilis, he doubted not that the strumous tendency might show itself in suppuration and ulceration. Syphilis was a very variable disease—more variable, perhaps, than most people were inclined to admit.

Dr. BENNETT (Dublin) was chiefly acquainted with the question in so far as related to the bones. He doubted whether the appearances produced in the bones by syphilis were modified by any disease except rickets. He drew attention to the fact that, so far as he knew or had read, syphilis did not affect the joints; the bone might be affected down to the very margin of the synovial membranes, but the disease stopped short of the joint-surface. Gouty, or chronic rheumatic, or strumous arthritis could easily be recognised by its pathological products; but he did not believe that it had ever been modified by syphilis. Clinically, no doubt syphilis might affect the joints—might, in the second stage, cause transient effusions; but this left no trace.—Dr. C. R. DRYSDALE (London) had not been able to trace the relation between phthisis and syphilis which some had supposed. He was inclined to think, however, that tuberculous patients—tuberculous women especially—suffered from syphilis severely. The only connection between scrofula and syphilis was to be found, he thought, in the tertiary stage, and was manifested in certain ulcerations of the skin. On the whole, he was in accord with Mr. Hutchinson, and thought with him that it was not possible to foresee the course that any particular case would take. Syphilis was sometimes severe in persons with a good constitution, and extremely benign in delicate individuals.

The Different Opinions on the Varieties of Chancre. By C. R. DRYSDALE, M.D. (London).—The author said that a wide difference of opinion existed on the question of the primary lesions of syphilis. In France, and on the Continent, the dualistic theory was maintained; viz., that the chancre of syphilis was quite distinct from the soft sore. The former was always, the latter never, followed by the secondary symptoms of syphilis, unless the two sores coexisted on the same patient. Having shortly described the distinctive features of the two sores, both as to appearance and course, the author said that he was wholly convinced of the truth of the dualistic view. But there was in England a strong school which did not hold this view; and its leader, Mr. Hutchinson, had said some years ago that "dualism was dead". Statistics collected at the Hôpital du Midi in Paris were opposed to Mr. Hutchinson's position, which was this, that soft sore was due to an inoculation with pus modified by the presence in the person from whom it was derived. But the speaker believed that the soft chancre was a distinct disease; that it bore the same relation to syphilis as measles did to scarlet fever, or a grain of wheat to a grain of oats.

Mr. JONATHAN HUTCHINSON said that everybody believed in the clinical differences between the hard and soft sore, and could, as a rule, make a prognosis from the aspect of the sore; but he doubted whether it was always possible to recognise with certainty the soft sore from the hard sore, though with characteristic sores there was no difficulty. He believed that the soft sore was a sort of appendage to syphilis—an epiphenomenon. The soft sore was due to the inoculation of inflammatory secretions only, but modified, in some way which he could not explain, by the coincident presence of the syphilis in the individual who yielded the pus. It was a sort of abortive inoculation. Soft chancre bore the same relation to true syphilis that imperfect vaccination, which often caused much irritation and even ulceration, bore to perfect vaccination. But he agreed that the soft sore was only

a transitory affection, while the hard infected the system; so that the difference between him and Dr. Drysdale was, so far as practice went, not great.

Excision of Chancre. By L. JULIEN, M.D. (Paris).—Dr. Louis Julien presented a paper in which he related some experiments he had made in the excision of chancres for the prevention of systemic infection. His conclusions were as follows. 1. The excision causes no local trouble; the wound, perhaps, heals a little slowly. 2. Under certain circumstances, excision suppresses all subsequent manifestations. 3. In cases where it failed to do this, its operation was still advantageous; the subsequent disease being milder and more slowly developed.

Chronic Prostatic Disease treated by the Constant Use of a Silver Tube per Perinæum. By E. LUND, F.R.C.S. (Manchester).—Mr. Lund related the details of a case of chronic prostatic disease with persistent obstruction, in which a silver tube, introduced *per perinæum* into the bladder, was worn constantly for eleven months with great comfort, and was the only means by which the urine was voided.

India-Rubber Bandages.—Dr. MARTIN (Boston) spoke on the application of the India-rubber bandages which bear his name to the treatment of synovitis with effusion. He said that he obtained excellent results by aspirating the knee-joint and immediately applying the bandage. The patients were not kept in bed, but encouraged to take regular exercise from the first. In the treatment of ulcers or of eczema with his bandages, he deprecated the use of ointments or any other dressings beneath the bandage.

PATHOLOGY AND TREATMENT OF GENU VALGUM.

A discussion on this subject was opened with the reading of the following papers.

Remarks on the Pathology and Treatment of Genu Valgum. By WILLIAM MACEWEN, M.D. (Glasgow).—The deformity was stated to be most frequently, and principally, due to an internal curvature of the lower third of the femur, occurring in 120 out of 166 limbs, which were carefully examined. Along with this internal curvature of the lower third of the femur, there was generally associated an increase in the length of the internal condyle, although this played a secondary part in the formation of the deformity. The tibia was affected in about a third of the cases of genu valgum, and in the majority of these only secondarily to the curvature at the lower end of the femur. In the first four or five years of life, genu valgum ought to be treated medically, by the provision of proper hygiene, and attention to the limbs. The surgeon could not, however, draw a hard and fast line at any age as to the time for operation. It was much better to consider the whole circumstances and surroundings of the case, and so to decide, always providing that the operation should not be performed during *ramollissement*, whatever the age of the patient might be. He had operated on few cases of genu valgum under eight years of age, while the average age of those operated on had been fifteen years. Up to April 28th, Dr. Macewen had operated on 522 limbs affected with genu valgum. Three patients died *after* the operation; one from diphtheria, one from cerebral meningitis, and one from pneumonia contracted prior to the operation; but there had been no death from the osteotomy. Of the wounds leading to these osteotomies, six suppurated, the rest healing by organisation of the blood-clots. Otherwise, the results had been highly satisfactory, the patients having been benefited not only by enhanced personal appearance, but by greater utility and power of limb. They invariably had become able to walk more easily, better, and further after the operation than before it, and in many instances they were able to engage in occupations from which they were previously debarred.

On the Pathology and Treatment of Genu Valgum. By BERNARD E. BRODHURST, F.R.C.S. (London).—The author regarded genu valgum as a constitutional rather than as a local defect; accompanied for the most part by a relaxed condition of the ligamentous system in general, and preceded by flat-foot. The ligaments, especially on the inner side of the ankle, and those in the sole of the foot, having yielded, the arch of the foot became flattened, and the foot itself everted; the inner malleolus projected inwards and is lowered, and the shaft of the tibia was inclined outwards. Secondly, the long axis of the femur became inclined inwards, the inner condyle protruded, and the internal lateral ligament yielded to the superincumbent weight; and the weight of the body, being no longer borne in a vertical line and transmitted through the long axis of the femur and the tibia to the arch of the foot, was thrown to the inner side of the knee and of the foot. The femur being thus inclined inwards and the tibia outwards, the condyles of the femur necessarily assumed an oblique position from without inwards. In the normal condition, there was usually some difference in the length of the condyles. In a rickety bone, the inner might be one inch longer than the outer condyle; the inner condyle was nipple-shaped, and the outer was undeveloped, or almost absent; so that the superincumbent weight could never have been borne on the foot, but it was probably borne on the knee. The length of the inner condyle varied from one-tenth of an inch to half an inch, according to the healthy development of the bone. In its commencement, genu valgum was only apparent in the erect position, and it ceased in the horizontal position, as was observed in scoliosis and in flat-foot in an early stage of development. After some time, knock-knee became permanent. Even now, however, splints firmly supporting the knee, together with the horizontal position, removed this deformity. As deformity increased, the biceps femoris became tense, and the ilio-tibial band and the external lateral ligament were rendered rigid. Various operations had been proposed to restore the straight line of the limb, such as forcible straightening, osteotomy, and tenotomy. Tenotomy, or that operation known as Guérin's, was sufficient, without either force or osteotomy, to remove the most severe forms of genu valgum.

On Genu Valgum, its Varieties and Treatment. By W. J. LITTLE, M.D. (London).—Dr. Little described genu valgum as an alteration in form and relation of parts of the knee-joint apt to accompany several, indeed most, disordered states of the knee, in which all the active and passive organs of locomotion were concerned. Even a sound knee might be affected with genu valgum through overuse. Genu valgum might exist at birth; or might originate in fast-growing infants from the want of mother's milk, independent of rachitis; from rachitis; from infantile paralysis and spasm; during the treatment of congenital club-foot; during weakness subsequent to measles, pertussis, and scarlet fever; also during the fast-growing period of approaching puberty, without rachitis. A genu-valgoid condition might accompany tumor albus, the rheumatic knee, and might follow accidental injury. Enlargement of the internal condyle and contraction of the biceps tendon were amongst the consequences, and not the causes. Most of the asserted causes of genu valgum were inadmissible. The most important secondary obstacle to recovery was diminished development of the external condyle and of the corresponding external articulating surface of the tibia, caused by the weight of the body being unduly thrown upon those parts. When the young infant's genu valgum was gently straightened by the hand of the surgeon, he felt with the tip of the finger a gap between the external condyle and subjacent parts of the tibia. This gap was also seen on placing the bones of an anatomical specimen of genu valgum in their proper relation, and was filled up by nature when the genu valgum was cured without surgical operation, provided the knee was maintained in a state of extension and adduction, the patient using the limb throughout, except in the severest cases. Confinement to bed or couch, and forcible straightening during anæsthesia, were not necessary, even in adolescents, except in the most neglected and aggravated cases. If force were necessary, osteotomy was the preferable form, especially Macewen's method. Rachitic curvatures of the thigh and leg, inducing a genu-valgoid state, after the age of seven or eight, might require, when severe, multiple osteotomy. The surgeon, however, must remember that considerable curvature of the thigh and leg was not incompatible with comfortable use. Contraction of the knee-joint in the flexed position, whether arising from acute or from chronic synovitis, traumatic or strumous, or from rheumatism, or from paralysis, or spasm, when complicated with genu valgum, required, simultaneously with attention to the morbid contraction, the same surgical attention for removal of the abduction of the leg as simple uncomplicated genu valgum did.

Mr. A. E. BARKER (London) remarked that Dr. Macewen and Dr. Little seemed to be quite in accord as to the main pathology of genu valgum. He thought also, with them, that, though many cases of genu valgum required no operation, osteotomy was sometimes desirable. Instrumental treatment might suffice for the stage of softening; but, where the bones had again become firm, osteotomy was called for. He thought the only question to be decided was, whether the operation was dangerous; if not, then it seemed desirable to resort to it in place of the tedious and expensive treatment by splints.—Mr. CLEMENT LUCAS (London) said that all the text-books agreed that genu valgum was due to relaxation of ligaments; but it was almost always the result of rickets. The affection of the bone was but one symptom of this disease: the bending of the ribs was the earliest symptom, because they were constantly in motion. It was quite an accident, in the original direction of the force, whether the limb bent in or out. Even when the bones had been altered in shape, and the internal condyle lengthened, the cases might still be treated by splints, if the bones remained soft; later, osteotomy was required. Forcible straightening of the joint, or section of the external lateral ligament, might [illegible] in slight [illegible]. He had performed osteotomy for genu valgum eighteen [illegible] without a bad result; he preferred the operation on the internal condyle—Ogston's operation; not that he denied the efficacy of Dr. Macewen's

operation. He had seen it successful in the hands of his colleagues; but, for the cases with which he had met, Ogston's operation appeared most useful. He commenced movements about three weeks after the operation.—Mr. NOBLE SMITH (London) said that thanks were due to Dr. Macewen for introducing a safer mode of performing osteotomy than those which had before been employed; but he also thought that osteotomy had been carried of late too far. Many cases (adults) could not be cured by other means; but, in children under ten, the operation could not be justifiable. The few cases of osteotomy seen by the speaker had been cases in which the operation had failed, or, perhaps, in which the patient had relapsed. Osteotomy was not without danger; and, if cases could be cured, as undoubtedly they could be, by means of instruments, ought we not to give every patient the chance of being treated, although tediously, yet with perfect safety, and with a certainty of success? He had watched the progress of over one hundred cases treated by instruments, all of which had done well, and not one had been laid up for a single day for treatment, but their usual avocations had been carried on. These cases had not been left to the care of the instrument-maker (as had been suggested); and the speaker considered that, if the surgeon were not capable of effecting the entire manipulation of the instruments he employed, he had no right to undertake the treatment of such cases.—Dr. MACEWEN was glad to find that Dr. Little's opinion agreed so nearly with his own on flat-foot. He did not agree with Mr. Brodhurst, that it was necessary to interfere with the flat-foot. When the genu valgum was cured, the flat-foot was also recovered from. He believed that genu valgum was generally due to rickets; and that it was owing to the bones being soft that the deformity was brought about, and not to any action of the muscles, which in rickets were ill-developed. Genu valgum was an affection of the femur; rarely (in 10 per cent.), it was due to the tibia. A curve in the lower third of the femur was the most frequent cause; sometimes the inner condyle was elongated. As to the division of the tibia for this condition, he found that it did not allow much straightening. As to the results, he had only had three deaths in 1,149 osteotomies; and he did not think that any one of these was due to the operation. Suppuration had occurred in eight or nine cases; but in only one of these was the discharge at all copious. Where the operation was properly performed, he did not think that the deformity returned, and the bones did continue to grow. He thought it important not to meddle with the joint. He asked Mr. Brodhurst if the division of ligaments were sufficient to explain how it was that Langenbeck, Mikulicz, and others, had abandoned the operation? He had seen cases treated by splints, in which no benefit at all was derived, and often a loose joint resulted from this method.—Mr. BRODHURST had shown a cast of a case in which, after osteotomy had been performed for genu valgum, by an experienced surgeon, the deformity returned. He thought that the operation was unnecessary in children. Cases of death, soon after this operation, had occurred: Mr. Barker had published one, and there were others. Flat-foot, he believed, was the cause of genu valgum, though no doubt the condition did occur in rickety children. M. Bonnet had divided the external lateral ligament, and had been much pleased with the operation, and so was his successor, until, in an evil day, he took to forcible straightening.

A DAGGER IN THE CRANIUM, PRODUCING A CEREBRAL WOUND WITHOUT SYMPTOMS.—The following remarkable case is reported in the *Journal de Médecine et de Chirurgie*. On April 8th, a man was quarrelling with his wife; and, after having been cruelly abused by her, he decided on killing himself. Taking a little dagger about ten centimètres long, he placed it vertically on the top of his head, and with a hammer drove it in up to the hilt. He retained all his intelligence and the use of his senses, with the power of motion. Being very much embarrassed with the position of the dagger, he called in a surgeon, who tried to remove it from the skull; but all his efforts were useless. M. Dubrisay was called in, and the two surgeons together were not more fortunate. They raised him from the ground by the hilt of the dagger; but the weapon was so solidly fixed in the walls of the cranium, that it did not move. They then took the patient into a workshop in the neighbourhood, where he was placed between supports, having between them strong iron forceps, put in motion by mechanical force. Seated on the ground, and firmly held down, the blade of the dagger was seized and drawn out without concussion, and removed, lifting the patient a little, who fell on the ground. However, he immediately rose, began to walk, and took M. Dubrisay to his carriage, saying, "I thank you". The blade of the instrument was slightly bent towards the point. It could be perceived that it had struck against a hard body, which was the occipital fossa. As the supervention of meningitis was feared, he was taken to the Hospital of St. Louis, and placed under the care of M. Péan. He left at the end of a week, without inflammatory or paralytic symptoms having shown themselves.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 17TH, 1881.

THE PRELIMINARY SCIENTIFIC EXAMINATION FOR M.B. AT THE UNIVERSITY OF LONDON.

IN spite of the recent agitation and discussions with regard to the nature and amount of the tests imposed by the University of London upon those seeking its degrees in medicine, the number of candidates who present themselves for the earlier examinations does not diminish. Within the last few weeks, more than two hundred candidates have been examined in physics, chemistry, zoology, and botany, these subjects forming the matter of the preliminary scientific examination, which precedes the first and second medical examinations, and is intended (though unfortunately our hospital schools do not recognise the fact) to precede any connection on the part of a candidate with a hospital or technical school.

Of the total number of candidates, about 45 per cent. were rejected by the examiners. This is undoubtedly a large number, and points to the fact that the candidates had not been properly taught before presenting themselves. As the regulations at present stand, it is necessary for a candidate to pass in each of the four subjects; excellence in one or even three subjects will not save him from rejection on account of failure in another. And, moreover, though he may have satisfied the examiners in three subjects, yet, if he fail in one, he has to bring up all four subjects the next year, and submit again to the ordeal of rigid testing. Not unfrequently, he fails in one of the subjects in which he had previously passed—so difficult is it to many men of good general abilities to keep four subjects simultaneously up to examination-standard, as an acrobat may keep four balls simultaneously in the air. There is no possibility of doubting that most, if not all, the opposition which has recently been expressed in reference to the thorough scientific equipment required by the University of its medical graduates, would vanish if the University did not insist upon this mental gymnastic feat of carrying four subjects brimmed up to examination-mark simultaneously. Many good men are sure to "slop over" in one subject; and in this they should be allowed to present themselves another year, whilst credited with their previous successful performance in the other three. That this arrangement would make a vast difference in the attitude of London medical teachers to the University, is obvious enough when we look at the statistics of an examination like that just concluded; and when we remember that nothing tends so much to fill both candidate and teacher with despair and even exasperation, as the total rejection and year's delay of a good man for failure in one subject.

Let us look at the statistics. There were rejections to the amount of 45 per cent., but only 5 per cent. of the candidates were rejected in all four subjects; only 9 per cent. were rejected in three subjects; only 12 per cent. were rejected in two subjects; whilst 19 per cent. were rejected in a single subject. The percentage of 19 rejected in a single subject was thus constituted: 9 in botany, 7 in physics, 3 in zoology, and none in chemistry. The percentage of 12 rejected in two subjects was thus constituted: 6 in physics and botany, 2 in physics and zoology, 3 in botany and zoology, 1 in physics and chemistry. The percentage of 9 rejected in three subjects was thus

constituted: 7½ in physics, botany, and zoology; 1 in physics, botany, and chemistry; ½ in physics, zoology, and chemistry.

Looking merely to the question of the total number of failures and successes in the four different subjects, we find that, whilst there were 45 per cent. of the candidates plucked, 30 per cent. of all the candidates failed in botany, and 30 per cent. also failed in physics; 22 per cent. failed in zoology; whilst only 8 per cent. failed in chemistry.

The conclusion from these latter statistics is, that chemistry is well taught to our incipient medical students; that they are beginning to master the programme of the University in zoology; and that the new schedule as to the practical study of that subject is at length being properly followed out by teachers. The improvement in zoology is very marked, and proves that the schedule is not an unduly elaborate one, but well within the reach of the average student and the average teacher.

On the other hand, the failures in botany and physics are very large, and point to a grave fault somewhere. We have, no doubt, after a careful consideration of the papers set, that, in the case of botany, the fault is entirely with the teachers. Nothing could be plainer or simpler than the paper set by the botanical examiners; it also was rigidly set upon the lines prescribed by the university schedule. Our botanical lecturers, in their summer courses, must teach their pupils something more than the marks by which to distinguish the buttercup from the daisy, if they expect to put them through this examination. At the same time, nothing is demanded of the candidates but the most elementary knowledge of botanical physiology and morphology. It is this which they are not taught as they should be.

The failures in physics are due both to the too vague and too extensive character of the University schedule, and to the nature of the questions set. In every university in the country, complaints are being poured forth, and a prayer is raised—"From these mathematicians, good Lord deliver us". By elementary physics we do not understand "sums"; and "sums" are the only delight of the mathematician who is put on to conduct an examination in experimental physics. The University should greatly reduce the programme in physics of the preliminary scientific examination, and introduce a practical examination in this as in the other subjects. Require the candidate to show a practical knowledge in experiment of the thermometer, the specific gravity bottle and float, the pressure-gauge, the galvanometer, and other electrical apparatus—but do not teaze him with questions leading up to exercises in multiplication and addition.

It has sometimes been suggested that the biological subjects might be grouped together in one examination, and that the physico-chemical should form another. There is no doubt that some students have a greater aptitude for one group than the other; but, at this stage of their career, success or failure is determined, not by such aptitudes, but by the existence of good teaching and a reasonable schedule. We find from the statistics that, whilst 55 per cent. of the total candidates passed the recent examination, 64 per cent. passed in both zoology and botany, whilst 70 per cent. passed in both physics and chemistry; 23 per cent. failed in one physico-chemical subject, but knew the other; 22 per cent. failed in one biological subject, but knew the other; 7½ per cent. failed in both physico-chemical subjects, and 15 per cent. failed in both biological subjects.

The fact that not one candidate failed in chemistry alone, and that only 8 per cent. of the whole number failed in chemistry, is a distinct encouragement to the University and to teachers to persevere in holding up a thorough standard of attainment. It is because chemistry has been thoroughly methodised, and well taught for many years, and in secondary schools as well as in colleges and universities, that the candidates so uniformly attain the standard required of them. When the other subjects are as well and as generally taught, the percentage of rejections will fall to as low a figure in reference to them also.

THE OUTBREAK OF SCARLATINA FROM INFECTED MILK AT HALIFAX.

In view of the widely different opinions that have been current at Halifax as to the causation of the serious epidemic of scarlatina that recently prevailed there, it was felt on all hands to be eminently satisfactory that the Local Government Board had decided to make an independent inquiry of their own into the outbreak, and had deputed one of their most skilful and reliable inspectors, Dr. Ballard, for the duty. Dr. Ballard's report on the epidemic has now been published, and deserves careful perusal as a model of what such reports should be. It is valuable, moreover, as giving the actual facts on a question that has excited much local interest, and has given rise to not a little angry discussion. It is to be regretted that the occurrence of five deaths from scarlatina in the town during December was not made the occasion for any attempt at discovering the extent of prevalence of the disease; but it would seem that the circumstance was not regarded as having anything special in it to command attention. Even when the epidemic rapidly developed in the first week of the new year, the statutory means of arresting the epidemic were but very imperfectly employed; and the measures specially calculated to arrest the spread of scarlatina, viz., isolation of the sick, and disinfection of infected houses, rooms, and things, were scarcely at all adopted.

Under these circumstances, it is hardly surprising that between November 1st, 1880, and February 17th, 1881, at least 510 known cases of scarlatina and scarlatinal sore-throat were medically attended in 281 separate families. The entire number of cases that occurred and families invaded between these dates would probably have been very much larger, perhaps twice as large, had all the medical men furnished lists of their cases, and had it been possible to include all the cases attended by irregular practitioners, or unattended during illness. Of the 281 families invaded, 106 were families of the gentry and the upper class of tradesmen, the remaining 175 being families of small shopkeepers, artisans, etc., so that the epidemic affected all classes and ranks of life. One death from the disease occurred in November, 5 in December, 52 in January, and 28 up to February 25th.

The tables which Dr. Ballard gives of the attacks and deaths show a very marked incidence of the epidemic upon two adjoining wards, but it did not altogether spare other more distant parts of the borough. Although cases of scarlatina had been under medical observation in November and December, a remarkable extension of the disease—apparently indicating the appearance of some special influence—took place in the last week of 1880 and the first week of 1881, chiefly in these wards. Dr. Ballard devotes much attention to the suggestion that the epidemic extension of scarlatina in the wards specially attacked was due rather to faults of administration as regards improper and imperfect arrangements of sewerage and drainage; but he finds no indications of such relation. He thinks that the medical officer of health wrote, perhaps, too emphatically, when he stated that the distribution of milk by a certain milk-carrier "was, beyond all question, the cause of the outbreak"; and he says that Dr. Ainley would have been more correct if he had stated that this circumstance was an important element in the localisation and spread of an epidemic which had previously commenced, and which was spreading before the milk-carrier's family appears to have been invaded. The history of this milk-supply, and the filthy home-circumstances of the man who delivered it, have already been detailed in these columns (see vol. i, 1881, p. 255). Remembering the lessons furnished by former experience of the readiness with which milk receives and conveys the contagion of scarlatina, it would, indeed, have been marvellous if the customers to whom this man delivered milk in his rounds, dipping it in small retail quantities out of the can, had escaped infection.

Of a total of 135 households supplied by the dairyman, 53 were invaded, 72 escaped infection, and in 10 the facts as to invasion were not ascertained. Of the 53 households invaded, 35 had scarlatinal cases, and 18 cases of sore-throat; and in one house in which the regular scarlatinal eruption was recognised, sore-throats

occurred in other members of the family in 9 instances. Of the 72 families known not to have been invaded, 51, or 70 per cent., were more or less unlikely to receive invasion, either because there were no children, or because the family had been invaded on a former occasion; and of 14 other families, the children in them were more or less protected in at least three instances.

Thus it is clear that, of those households which were on the milkman's list of customers, an overwhelming proportion of those unquestionably susceptible to invasion were invaded by the disease in one form or other. All but one out of 51 households whose date of invasion was known, manifested the disease on or after December 15th, and all but 11 out of 51 on or after December 29th. The large majority of household invasions—viz., 39 out of 51—occurred during the eleven days between December 29th and January 8th: that is, from about two days from the time when scarlatina was recognised in the milkman's family, to the third day after, which was the last day on which the man was permitted to milk the cows, or to carry out milk to the customers. Further evidence as to the connection between the outbreak and the milk was furnished by a house-to-house inspection of thirteen streets, which were selected on account of some families in them being supplied with milk from this source, while others were supplied from other sources. In these thirteen streets were 272 families altogether, of which 82 were customers of the implicated dairy, and 188 customers of other dairies. Of the 82 families supplied by the former, 45 were found to have been invaded; while of the 188 supplied by other milkmen, only 14 were invaded. Moreover, of the 45 families supplied by the implicated dairy, all had been invaded before January 9th; whereas, of the 14 families supplied by other milkmen, only three had been invaded prior to that date. In each of four of the thirteen streets, the particular dairyman had only one customer, while the customers of other dairymen numbered 64. Each of the four families supplied by the former were invaded—all before January 9th; whilst of the 64 other families, only two were invaded, and these invasions were as late as January 24th and 30th.

It is evident, therefore, that the spread of scarlatinal disease in Halifax was, during the last days of December and the first week in January, partly dependent on the distribution of milk by this milkman to his master's customers; and that the epidemic was, to say the least, distinctly promoted by this means. The milker and carrier had, on December 31st, fully developed scarlatina in his family; and his household arrangements were such as could not fail to attach contagious material to his person and clothing. A large proportion of the families to which he distributed milk were invaded with the disease at and immediately after this time, up to three days subsequent to his ceasing to act as milk-carrier. With one exception, no family amongst the customers of this dairy was attacked after the third day after such cessation: that is, after a reasonable period from his last distribution of milk had been allowed for the incubation of the disease. Lastly, in streets supplied by this man, and also by other milkmen, the families of the former's customers had been attacked in vastly larger proportion than those who obtained their milk from other milkmen, and also at an earlier date.

This epidemic is unfortunately so much on a par with others on which we have recently commented, that to point the moral which it teaches must be wholly superfluous. That the milk-trade should be permitted to remain under its present mock and phantom supervision is little short of a national discredit, which we hope may be wiped off before the next session of Parliament has come to an end.

At the annual meeting of the Salisbury Infirmary, two munificent bequests were reported—£12,649 from the residuary estate of Sir G. Bowles, and £6,324 for the Herbert Home, from the same source.

The name of Mr. Walsham was accidentally omitted from the list of Assistant-Surgeons to the St. Bartholomew's Hospital, at page 444 of last week's JOURNAL.

The recent elections of members of the Chamber of Deputies in Paris resulted in the return of forty-nine members of the medical profession, and three *pharmaciens*.

Contributions to the Hospital Saturday Fund showed some days ago at present a total of £1,200. The collecting sheets have yielded about £1,600. Some boxes, however, and many collecting sheets had yet to be included.

With the sanction and co-operation of the Vestry of St. Mary, Newington, the National Health Society have commenced the placing of seats along the New Kent Road, under trees already growing there.

The report that the Professorship of Pathology in the University of Vienna had been offered to Professor Cohnheim, is stated to be without foundation.

It is suggested that members of the British Medical Association, in filling up the circulars for Churchill's *Medical Directory*, should state the fact of their membership.

The medical officer for Bristol has reported to the local sanitary authority that the typhoid fever outbreak amongst the inmates of Muller's Orphanage has not spread beyond the sixty children first attacked who had been isolated. No deaths have occurred.

The fourteenth annual meeting of the Canada Medical Association was held at Halifax on August 3rd and 4th, under the presidency of Dr. Canniff of Toronto. It was decided to hold the next meeting at Toronto on the first Wednesday in September 1882, and Dr. Fenwick of Montreal was chosen president.

In 1880, there were 5,237 deaths from tubercular disease, chiefly pulmonary phthisis, in Vienna. The greatest monthly number of deaths (555) occurred in May; the smallest (294) in September. The deaths from lung-disease appear to have constituted about 40 per cent. of the total mortality. The percentages of deaths from tubercle were, among males, 55.2; among females, 44.8.

A pleasing example of kindly feeling has recently been shown by the Lambeth guardians. At the meeting of the board last week, Dr. Lloyd, the medical superintendent of the infirmary, asked (by a letter to the chairman) to be excused from attendance that day, in consequence of the death of his wife. The board decided to allow him a fortnight's leave of absence, paying his expenses; and also to forward him a letter of condolence expressing their regret at the loss sustained by him.

A serious prevalence of diphtheria is reported in the neighbourhood of the Euston Road. The attention of Mr. Shirley Murphy, the medical officer of health of the district, seems to have been first directed to the outbreak by a communication from the authorities at University College Hospital, stating that a great number of persons affected with the disease had applied there, and pointing out that such persons could not be received into the hospital. During the past month, six deaths from the disease have occurred in St. Pancras parish, these representing about thirty cases.

SMALL-POX HOSPITALS.

The case of the Fulham Small-pox Hospital has been decided by Justices Cave and Kay. It was sought by the inhabitants to restrain the managers of the hospital from keeping it open, on the ground that disease was thereby spread in the neighbourhood. The case had been allowed to stand over, in the hope that the parties might be able to come to some arrangement, but they failed to do so, and their lordships have now granted temporarily an injunction restraining the authorities from bringing to the hospital any patient beyond the radius of a mile.

DELIRIUM AND CRIME.

A PATIENT was admitted into University College Hospital on Tuesday last, whose case has some interesting medico-legal bearings. He was a man who, a few hours earlier, had brutally murdered his two young children, and had then committed a savage assault upon himself with, it was supposed, a hammer. Inquiry elicited that he had been, up to the time of the crime, remarkable for the tenderness and care which he devoted to his children; and that no motive for the crime could be suggested. It was found, on admission, that his pulse was rapid; his temperature raised to 102°; his tongue brown and dry. The right foot, and the lower half of the leg on the same side, were affected with well-marked erysipelas. Soon after admission, he improved for a time, so far as to be able to answer questions rationally; but he recollected nothing of the events of the morning. On Wednesday afternoon, however, the temperature again rose; he became very delirious, and refused food. Pending the result of the legal investigation which will be held, it does not become us to do more than express satisfaction that so much light has been thrown on the condition of the patient's nervous system at the time of the crime by the skilled medical examination to which he was promptly submitted; for, as has been so often insisted on in these columns, the graver and more obscure the alleged crime, the greater the need for a thorough and early investigation into the mental and physical condition of the criminal by competent medical experts.

SMALL-POX AND ANTIVACCINATORS.

THE wickedness of encouraging the antivaccination agitation could not, it is opportunely pointed out by the *Globe*, be more strikingly proved than by an account it printed of the origin of an outbreak of small-pox in Rotherhithe. "A leading antivaccinator", Escott by name, who had had none of his children vaccinated, has lost his wife and two children by small-pox, and four others have had the disease. Escott borrowed a suit of mourning from a friend named Angus to attend his wife's funeral, and returned the clothes without disinfection, with the result that the lender caught small-pox, and died. Since then, nearly every house in the neighbourhood has been attacked, and sixteen patients have been removed to hospital.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

AT the last annual meeting, the following officers were elected for the year ensuing: *President:* Dr. J. W. Tripe. *Vice-Presidents:* Dr. J. S. Bristowe, Dr. T. Stevenson, Dr. Thursfield, Dr. Dixon. *Treasurer:* Mr. S. R. Lovett. *Honorary Secretaries:* Dr. J. N. Vinen, Mr. S. F. Murphy. *Council:* Dr. G. Buchanan, Dr. Dudfield, Dr. Bate, Dr. Brett, Dr. Baylis, Dr. Corfield, Dr. C. Kelly, Dr. J. Stevenson, Dr. D. Thomas, Mr. F. M. Corner, Mr. Jacob, Mr. G. Turner.

THE GENERAL HOSPITAL, BIRMINGHAM.

RECENTLY, several important additions have been made to the buildings of the General Hospital, Birmingham, the oldest and largest medical charity in that borough. A new and much-needed home for nurses has been erected, two new burn-wards, a mortuary, and pathologist's and jury-rooms, have been built; while several desirable improvements have been made in the out-patient department, and in the recreation-ground at the rear of the hospital. These changes have cost about £13,500, towards which the sum of £2,000 was given by the trustees of the late Dr. Ingleby. The need for increased accommodation for nurses has long existed, and now the want has been satisfactorily supplied by a detached well-built structure, suitably fitted up and furnished, which will henceforth be known as the Ingleby Home for Nurses. The "home" contains two large day-rooms, and forty-nine bedrooms, entered from galleries which run round a central hall, besides bath-rooms, store-rooms, and lavatories. Each nurse will have a small room to herself, and special accommodation has been allotted to lady probationers. The burn-wards, one for males and one for females, contain twenty-eight beds. The new mortuary takes the place of the old one, which had two disadvantages; one being that it was too small, and the other that it was too near to the main buildings. It contains rooms for the pathologist's, and jury-rooms; a wash-house for infected linen in the basement, and a separate exit at the rear for bodies removed for burial. The alterations in the out-patient department include new private rooms for examination by physicians and surgeons, and improvements in regard to entrance and exit of patients. The large airing-ground for in-patients at the back of the hospital has been enlarged and suitably laid out. These alterations and additions occupy the whole of the space at the disposal of the governors of the hospital, and will prevent any further enlargement of the institution upon its present site. In the event of a further extension of the charity becoming necessary, it will probably take the form of a subsidiary hospital for chronic cases in some suburban district.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND'S report upon the quality of the waters supplied to the metropolis by the various water companies, during August, states that the quality of the Thames water, delivered by the five companies drawing their supply from that source, was, as it had been during the three preceding months, considerably above the average; and each sample of water had been efficiently filtered before delivery. The quality of the Lea water supplied by the New River and East London Companies was also above the average.

OUTBREAK OF SMALL-POX IN SOUTH DEVON.

AT the meeting of the Kingsbridge Board of Guardians, on September 10th, Mr. Pearce, the medical officer of health, reported a fatal case of small-pox in the village of Loddiswell. It appeared that a child named Perkins, born in Manchester about two years ago, was taken thence to London soon after its birth without being vaccinated, as the parents objected to the operation being performed. About three weeks ago the mother came to Loddiswell from London, bringing with her the child, which then had no appearance of the disease. The child was taken ill two or three days after its arrival, and died. It was a very severe case of small-pox, and the mother took the disease, but in a modified form, as she had been vaccinated. The medical officer and private practitioners report several cases in the Union, some of them being of a severe character.

HOLIDAYS IN THE COUNTRY.

FOUR years ago, a plan was devised to enable Whitechapel children to spend their holidays in the country. This year, five hundred children have during three weeks found their playground in lanes and fields, instead of in streets and alleys. Hosts have welcomed them to cottage homes, and entertained them with country pleasures. Ailing and pale children are now returning strong and brown with health. The whole cost has been only £300. Information may be obtained from the Rev. S. A. Barnett, St. Jude's, Whitechapel, who will also receive subscriptions, which are needed to carry on the work.

SMOKE ABATEMENT.

WE understand that Dr. Siemens, F.R.S., has offered a prize of one hundred guineas to be awarded to the best open grate or other domestic fireplace, exhibited at the forthcoming exhibition at South Kensington, in respect to economy and efficiency in consumption of smoke. At the recent monthly meeting of the Manchester City Council, Mr. Batty stated that the Nuisance Committee did all that reasonable men could do to prevent the pollution of the atmosphere of the city by smoke from mills and workshops. The discussion of what reasonable men can do appears, however, to be unreasonably restricted; for a report was read from Mr. Wilson, the head gardener at Queen's Park, which showed that out of 578 trees planted in various parts of the city in March 1880 and March 1881, 203 were dead. Mr. Wilson was of opinion that, until the atmosphere could be relieved of the noxious gases now existing, tree-planting in Manchester would be very unsatisfactory, if not a failure. It may be hoped that Manchester will do something to help the success of the competitions to be opened at

South Kensington for improved apparatus for consumption of smoke. There is ground to believe that at this exhibition there will be found more than one apparatus which goes a long way towards a much more efficient abatement of smoke than is at present thought reasonable.

VETERINARY SURGEONS.

UNDER an Act recently passed a correct register of veterinary surgeons is to be kept and provision made as to their profession. The object, as stated in the preamble, is to enable persons requiring the aid of a veterinary surgeon to distinguish between qualified and unqualified practitioners.

SOCIAL SCIENCE ASSOCIATION.

THE programme of the forthcoming meeting of the Social Science Congress in Dublin has been published. On Monday evening, October 3rd, Lord O'Hagan, as president, will deliver the inaugural address in the small concert hall in the Exhibition Palace. Next day the Right Hon. Dr. Ball, as President of the Department for Jurisprudence and Amendment of the Law, will open the proceedings of his section with an address. Presidential addresses of the other departments will be delivered at ten o'clock on each successive morning, viz.: On "Education," by Sir Patrick J. Keenan, K.C.M.G., C.B.; on "Health", by Dr. C. Cameron, M.P.; on "Economy and Trade", by Mr. G. Smith; and on "Art", by Lord Powerscourt. The meetings of the sections will take place simultaneously each day in the New Buildings, Trinity College. On Saturday, October 8th, the final meeting of the council will be held in the room over the entrance gate, and the place of meeting for next year fixed. During the week garden parties and conversaziones will be given by some of the leading citizens and learned societies. On Tuesday evening, October 4th, the Statistical and Social Inquiry Society of Ireland will hold a *conversazione* in the Royal College of Surgeons, and on the following evening the Lord Mayor will give a similar entertainment in the Mansion House. On Friday evening the Royal Dublin Society will receive the members of Congress.

CYPRUS.

THE sanitary condition of Larnaca is stated to have considerably improved. That of Nicosia appears, however, to be unsatisfactory. All the medical men have been laid up, and the chief sanitary officer, Dr. Barry, has had a narrow escape. For two or three days, medical men had to be despatched from other towns. It is reported, however, that a decided change for the better has taken place since the beginning of the month, owing to the change of wind to the north-east.

THE PRESIDENT OF THE UNITED STATES.

THE general improvement in the state of General Garfield which we recorded last week has continued, with some relatively unimportant interruptions, during the week which has since elapsed. The advance made in constitutional strength is manifested both by the favourable aspect of the wounds, and by an amelioration of appetite and power of digestion, as well as by an increased feeling of confidence and cheerfulness on the part of the distinguished patient himself. The opening resulting from the passage of the bullet in the loin is gradually filling up, and the process of granulation in the parotid gland, since the sloughs have come away, has gone on so favourably, that the complete closure and cicatrisation of the sore is expected to take place shortly. A feeling of uneasiness is reported to have been experienced in consequence of some flattening of the lower part of the right side of the chest, and also, it is stated, on account of some congestion of the base of the right lung, having been discovered. A gunshot wound, which more or less implicates the chest, and is accompanied with fracture of a rib, is almost invariably, under the most favourable circumstances, followed by pleuritic thickening and a certain amount of local flattening of the chest-wall, and we consider it only what might be anticipated in such a wound as the one to which President Garfield has been subjected. Nor are we inclined to attribute any serious importance to the reported lung-congestion, as the favourable state of the respiration and temperature precludes the idea of any grave pulmonic mischief being in active progress. Altogether, the telegraphic reports which have been forwarded to this country of the President's symptoms, may be regarded as indicating a continued advance toward convalescence, and their general tendency has been to show that this advance has been of a more decided character since the President's removal from Washington to Longbranch.

A MEDICAL HERO.

IT has been suggested that a memorial brass should be placed in the hospital church of St. Bartholomew-the-Less to Arthur Jermyn Landon, a student of that hospital, who fell in the discharge of his duty at Majuba Hill, in the Transvaal, on Sunday, February 27th, of this year. The circumstances of Mr. Landon's death are given in the proposed inscription, which runs as follows. "His former medical contemporaries at St. Bartholomew's Hospital have set up this tablet to keep in memory the bright example of Arthur Jermyn Landon, who, while continuing to dress the wounded amid a shower of balls in the action on Majuba Hill, was in turn mortally wounded by a bullet; and, calling out to his assistants, 'I am dying; do what you can for the wounded', only desired for himself that his friends might be told that 'he fell doing his duty'. His habitual life was expressed in the simple grandeur of his death." Names and subscriptions, which need not exceed half a guinea, may be sent to any of the following: C. E. Harrison, M.B., Surgeon Grenadier Guards, Guards' Club, 70, Pall Mall, S.W.; Joseph Mills, The College, St. Bartholomew's Hospital, E.C.; Norman Moore, M.D., The College, St. Bartholomew's Hospital, E.C.; W. E. Steavenson, M.B., the Hospital for Sick Children, Great Ormond Street, W.C.

CHOLERA.

INTELLIGENCE is forwarded from Alexandria (through Reuter's agency) that cholera has broken out at Aden, and that thirty cases out of thirty-seven have proved fatal.—The *National Zeitung*, referring to the recent outbreak of cholera in Asia, urges the appointment of an international sanitary commission.—We hear that the Spanish Government has taken very stringent measures to prevent the propagation of cholera. The mail-boats which run between Spain and the Philippine Islands have been forbidden to touch at Aden either on the outward or homeward voyage, and they are also ordered to perform quarantine at Port Mahon.—It is reported that cholera caused 21 deaths in Bombay last week, 241 in the Kandeish district, 172 in the Sholapur district, 169 in the Ahmednagar district, 22 in Poona and the Haveli taluka, 46 in Baroda, 74 in Surat, 10 in Ahmedabad, 4 in Kalyan and Bassein, and 3 in Ankleswar. Cholera is also very severe in Lahore. There has not, however, been any more recent confirmation of the statement that the epidemic is really Asiatic cholera; on the contrary, it is alleged that the sudden mortality is entirely confined to Mussulmen, and is due to Ramadan, the Mahomedan month of fasting just over. During this month, the men work all day without food, and eat a heavy meal at night. They have suffered very severely from climatic conditions, a great number of deaths having occurred from what is pronounced to be sporadic cholera; the symptoms preceding death being those of vomiting and severe diarrhœa. Since the close of Ramadan, there has been a sudden decrease of mortality.

THE WOUNDED IN THE TRANSVAAL.

A CORRESPONDENT writes to us: The hospitals at Newcastle have latterly been well evacuated of such cases as cannot yet be fit to resume field service. A number of men have been invalided for change to England, principally consisting of those young soldiers in regiments from home who would never become effective soldiers, and also of the older men of the Indian regiments suffering from chronic complaints incidental to a prolonged period of service in the field in India. These latter should never have been passed from India as fit for service in the field out here. Although the percentage of sick to strength at Newcastle to-day is three, still most of the cases are transient and slight.

No case of enteric fever has occurred for more than three months; but, of course, the season just coming to a close is the healthy one. Later on, enteric fever is pretty certain to re-appear, especially in a stationary camp; however, it is hoped that the force will then be much less than at present. It is stated that three thousand men of all arms are to be kept at Newcastle for another year; and there is some truth in the report, because a hospital of huts for one hundred and fifty patients is to be at once erected. A site has been selected—not a very sanitary one, however—on the north bank of the river Incandu, close to Newcastle, and the plan has been submitted for approval. It is hoped that the huts will be built, not in oblong, as at present recommended by local administrative medical sages, but in echelon, as laid down by Professor Parkes. The huts will be constructed of unburnt bricks, and will be thatched, at a general cost of £4000. Building is most expensive in this colony, from the scarcity of labour, from want of time, and from there being no artisans available. Nearly all the houses in Newcastle are made of corrugated iron lined with wood; a bad and most unsuitable kind for the climate, which consists of hot days and cold nights. There are only a very few wounded now remaining at the base-hospital here; and it is expected that when the field force camp is again shifted, the move will be towards Newcastle, and all sick will then be sent to the base instead of the field hospital, which will be broken up. No scurvy has appeared lately. The sanitary officer, Surgeon-Major Giraud, is very watchful and energetic in his duties, which he has preserved intact and separate; and, in respect to these sanitary duties, there has been no mixing up, constant changing, or confusion in its administration and operation, a result mainly attributable to Dr. Giraud himself.

GERMAN SANITARY CONGRESS.

THE German Sanitary Congress was opened in Vienna on Tuesday last. The post of president was taken by Duke Theodore of Bavaria, Doctor of Medicine, and brother of the Empress Elizabeth, who delivered an inaugural address. A Vienna telegram of the 14th states that, besides a considerable number of German and Austrian sanitarians, two Russian professors—Moskievits, from Warsaw, and Eigmann, from St. Petersburg—are present, together with two lady doctors from Russia. The chief subjects of the papers and discussions are epidemic diseases, disinfection, the management of and attendance at funerals, water, school hygiene, and public soup-kitchens.

WIND-BORNE SMALL-POX.

IN a recent report, Dr. Airy gives a curious history of a remarkable house-epidemic of small-pox that occurred last spring at Bournebridge, Essex. The family in which the outbreak occurred lived in a small four-roomed cottage, standing bare, without fence or garden, about eighty yards from the nearest dwelling, and one hundred yards from the public road, in a flat swampy meadow at the bottom of a little valley. The place was untidily kept, and its surroundings were very unwholesome. The inmates of the house were eleven in number, all of whom, except the four youngest, were attacked by small-pox, and the father died. The four youngest children, who had all been well, or fairly well, vaccinated, escaped the disease altogether; and those who caught it suffered more or less severely according as their vaccination-marks were less or more satisfactory and recent. The first person attacked was the second son, aged 19, who was taken ill on February 9th. About February 15th, his brother, aged 15, was taken ill, the serious nature of the disease not having thus far been recognised. On February 17th, the father was attacked, and, his illness proving severe, the Poor-law medical officer was called in. There was then no eruption to be seen. On the 21st, one of the neighbours was called in as nurse. The man died early on February 23rd; but, while he lay ill, the eldest son had a slight attack. The mother was taken ill on February 20th, three days before her husband's death. Subsequently, two younger children, aged 13 and 11, had mild attacks, whilst the neighbour called in as nurse was also taken ill, and died of the disease on March 14th. She would not submit to be revaccinated, saying that she had no fear of small-pox. Dr. Airy has devoted much attention and time to discovering where the first person attacked (viz., the second son) could have contracted the disease. If small-pox could be contracted from a person in whom the disease is still in the incubation stage, it might be taken for certain that the next son and the father caught the infection from the first case; but, if this cannot be admitted, it must be assumed that they all owed their infection to some common cause, operative over a space of at least nine days. It would seem that for the actual cause of the outbreak we must look for some unnoticed contact with some person or article not known to be infected, or else to some wholly unsuspected channel of infection. From this house-epidemic, another sprang, about two hundred yards away. There can be little doubt that this was somehow derived from the older infection-colony near at hand; but no person was known to have passed between the two cottages, and the housewife of that last attacked had not been along the road which passes nearest to the other cottage, except a week before she was taken ill. She was very timid of infection, and had done her best to keep out of the way of it. There is, however, the suggestion that it may have been due to the carriage of small-pox germs by the wind; for, on March 14th, the clothes at the first cottage were burnt, and complaint was made of the offensive smell of the burning clothes. The woman referred to was taken ill on the 27th, after an interval which corresponds pretty clearly to the incubation period of small-pox.

A WANT IN INDIAN ARMY ORGANISATION.

A CORRESPONDENT writes to us:—Perched on the top of the Kojak Pass, and dependent for peace or war on the caprice of a semi-civilised Afghan, we read with envy of bearer-companies marching past Her Majesty at Windsor, fully equipped, trained, and fit for service anywhere; turn with disgust to look at the wretched "kahars" or coolies served out to us, as bearers, by the Commissariat Department, like so many pounds of straw or packages of preserved meat; and fervently hope that the wounded in our next engagement may be few indeed. At one time, there was a large number of palki or dooley bearers existing in India, constantly employed, and so in training; and in all our wars, even in the last Afghan campaign, those acting with troops have, as a rule, done their duty, and deserved well of all. But the race, caste, or trade, is fast dying out. Good roads and railways now render possible quicker and more comfortable means of travel. A palki dâk is almost unheard of; and a palki or dooley, with its bearers, will soon be as much a thing of the past in India as a sedan chair and chairmen at home. Only with troops are they still required for carriage of the sick and wounded. Consequently there is an urgent necessity for a properly organised army hospital corps with bearers in India. In the scheme already proposed, by some strange oversight, all mention of dooley or stretcher-bearers has been omitted. A more comprehensive plan is required, as nothing can be more ridiculous than the idea of applying—at the outbreak of hostilities or the formation of a field-hospital—to the Commissariat Department for compounders, dressers, ward-servants, dooley-bearers, etc., in the same way as we ask for blankets and medical comforts. These servants should be in the hands of the Medical Department, trained and fit for duty. A year ago, when the panic after Maiwand was at its height, and the march to Kandahar was contemplated, the staff-surgeons of large towns were called on to examine for service all the idlers and beggars whom the police could collect by offers of high pay. Those who passed as fit became indiscriminately bullock-drivers, ward-boys, camel-men, dooley-bearers, muleteers, etc., as they were served out by the Commissariat Department. Hence the despair of many a medical officer on active service, and our envy of the trained bearer-companies of Aldershot and Windsor. The Indian Government is most liberal in furnishing supplies; effective means of using them are sadly wanting. But we hope for better things before long, as the outcome of the medical reports on the late campaign; and look forward to the time when a consolidated Army Medical Department, or "Royal Medical Staff Corps", will be allowed to command its own men, and manage

its own affairs. Till then, we must decline to be saddled with responsibility for any mishaps which may take place. The health of the troops is excellent, and it is to be hoped the 1st Manchester Regiment (late 63rd) and Mountain Battery, with our native Cavalry and Infantry, will be equal to any sudden emergency; and that our makeshift army hospital corps may not fail us if required.

SANITARY ADMINISTRATION IN INDIA.

WITHOUT a particle of sympathy for the motive which actuated one of the small band of irreconcilable Irish members in his recent attack upon our Indian administration, it is impossible to shut one's eyes to one or two serious blots in the system of sanitary organisation to which he referred. Indeed, it may be hoped that real good may result from the public attention which Mr. O'Donnell's violent attack has directed to the terrible rates of mortality which prevail both in the Indian gaols and tea-gardens. After full allowance for exaggeration in the statement of Mr. O'Donnell's case, and even freely accepting the official defences made respectively by Dr. Lethbridge, Inspector-General of Gaols in Bengal, and of Mr. Ernest Tye, Secretary of the Indian Tea Districts Association, the sanitary condition of the Indian gaols and tea-plantations thus disclosed is simply startling. Dr. Lethbridge states that the average annual rate of mortality in the Bengal gaols during the 16 years ending 1877 was 58.7 per 1,000; and that, in the two following years, it rose, partly owing to an unusually large mortality from cholera, to 69 and 95 per 1,000 respectively. In order probably to show that Bengal gaols are no worse, in this respect, than those in other parts of India, Dr. Lethbridge states that the mean death-rate during the two years 1878-9 in the gaols of the different Indian provinces ranged from 40 and 79 per 1,000 in the North-West Provinces and Assam, to 91 in Madras, 94 in the Central Provinces, 106 in the Punjab, and 117 in Bombay. Comment on these terrible figures is unnecessary further than to point out, first, that death-rates in European prisons are almost invariably lower than among the general population at similar ages; and, secondly, that the average annual death-rate among the English population, aged 20 years and upwards, does not exceed 25 per 1,000. With regard to the mortality on tea-plantations, we can scarcely recognise the clause in the Emigration Law, quoted by Mr. Tye, which provides for closing "any tea-garden to imported labour if the rate of mortality in any year exceeds 70 per 1,000", as conclusive evidence that the greatest care is taken of the labourer. Lord Hartington is reported to have said that the average death-rate in the Assam district during 1879 was so high as 56.8 per 1,000; and Mr. Tye states that, among the labourers (more than 10,000) employed by the Assam Tea Company, the death-rate last year was equal to 45.4 per 1,000. Such high death-rates among native labourers employed in a healthy occupation in a rural district is conclusive of grave sanitary neglect, and loudly calls for investigation and reform. Surely the growth of Indian tea is not inseparable from such a waste of human life; and we have yet to be convinced that such high rates are generally prevalent among the rural population of India.

THE ROYAL ALBERT HOSPITAL.

A SPECIAL general meeting of the governors and subscribers of the Royal Albert Hospital, Devonport, was held on Monday last, Mr. E. St. Aubyn presiding, to consider certain alterations in the rules for the medical staff, which had been considered by the management committee. The main feature of the alteration was that, whereas they hitherto had three senior and three junior surgeons, each senior having a junior attached to him, it was now proposed to carry out a suggestion that had been made for some time, that the senior staff should carry on the indoor work of the hospital, and that the work of the Provident Dispensary should be carried out by a larger number of the members of the medical profession. The alteration as proposed would be of great advantage, not only to the junior members of the profession in the locality, but to the poor people. The various alterations in accordance with this object were agreed to.

INDIAN MEDICAL SERVICE.

THE Indian Government has, it is reported, now sent home its scheme of reorganisation of the Medical Department on the principle of unification of the British and Indian Services. It is proposed that the latter should be permitted to die out, no new appointments being made; and that the medical officers appointed since 1865 should be amalgamated with the British establishment, which will supply Indian wants, and whence candidates for civil employment will be selected; the whole to be under Directors-General for India. It is expected that some reduction in expenses will thus be attained. Brigade-surgeons and surgeon-majors who entered the service before 1860 are to cease civil employment at the age of fifty-five.

SCOTLAND.

SMALL-POX IN MONTROSE AND ARBROATH.

THE convener of the house committee of the Montrose Infirmary stated, at the recent monthly meeting of the Asylum and Infirmary Board, that three cases of small-pox had been admitted to the hospital—two youths and an adult: the young patients are comparatively mild cases, but the man's case is somewhat severe; the boys had been vaccinated, but the adult had not. At Arbroath, the epidemic of small-pox is almost at an end; two cases only remain in the hospital, and they are convalescent. Since the outbreak of the disease, two deaths only have been caused by it—namely, the seaman whose case ushered in the outbreak, and a young man belonging to the town.

CHILD ACCIDENTALLY POISONED BY MORPHIA.

ON August 29th, the infant child of one of the residents at Newton Mearns met its death from the nurse having accidentally administered to it a dose of morphia in mistake for some other medicine which had been prescribed. It was afterwards discovered that the phial containing the morphia had been placed on the mantelpiece near the medicine-bottle, and the nurse had by mistake taken up the wrong phial. Medical aid was quickly summoned, but proved of no avail. Instances such as the above are the direct result of a want of ordinary care on the part of the public, in leaving about promiscuously, and mixed with ordinary medicines, poisonous substances.

VACCINATION IN SCOTLAND.

FROM the sixteenth annual report recently issued by Dr. William Roberton, we must conclude that the objections entertained in England to vaccination have not extended to Scotland, for the report of the vaccination of children born in Scotland in the year 1879 tells us that only one individual refused to have his children vaccinated. This is a very strong proof of the unanimity that prevails among the people as to the benefits to be derived from vaccination. Small-pox does not appear to have made much havoc since 1874. In that year, there were 1,246 deaths, while last year there were only ten.

ALTERATIONS IN MARISCHAL COLLEGE, ABERDEEN.

THE recess is usually a busy period in Marischal College, Aberdeen, in the way of effecting improvements in class-rooms and laboratories to secure more efficient teaching appliances. This vacation has been busily employed by the Professor of Anatomy in arranging and superintending the new dissecting room, which will be ready before the beginning of the winter session. Taken as a whole, the anatomical department of this University may now be regarded as one of the most perfect and compact anatomical schools in the kingdom. The physiological department is being greatly improved; the lecture-room is being fitted up with benches for the exposition of specimens, apparatus, etc., which have been lectured upon, so that students may have ample opportunity for private study. The physiological laboratory has also been fitted up with many improvements, so that students may have opportunities for making drawings of their microscopic preparations,

for doing other microscopic work, and for the study of such physiological experiments as can conveniently be done by students. The zoological laboratory is being altered in order to adapt it more efficiently for practical work.

INVITATION OF BRITISH ASSOCIATION TO ABERDEEN.

THE University, the Town Council, and other public bodies of Aberdeen, and the county of Aberdeen, sent representatives to the York meeting of the British Association to invite the Association to hold its annual meeting in Aberdeen in 1883 or 1884.

THE GLASGOW CITY FEVER HOSPITAL.

SOME time ago, when fever was very prevalent in Glasgow, and the want of hospital accommodation was felt, several wooden erections were put up in connection with the City Fever Hospital at Belvidere. It has now been thought advisable to render this extra ward accommodation permanent, and accordingly the temporary wooden erections are being superseded by substantial brick buildings. A short time will see some of the new wards completed and ready for occupation, and, as they are being constructed on the most improved principles, and with all the more modern sanitary appliances, they will no doubt prove a valuable and useful acquisition to the city hospital accommodation, which is, however, still somewhat inadequate in the north-west quarter of the city.

A HOSPITAL SATURDAY FOR GLASGOW.

THE advisability of having a Hospital Saturday in Glasgow, after the pattern of the one in London, has been mooted in the columns of one of the leading Glasgow papers. Now that the matter has been brought forward, it is to be hoped that it will not be allowed to drop, but will be taken up by those whose support and influence would ensure its being successful. A town of the size of Glasgow, with such a large working population, ought in this way to be able to raise a considerable sum of money in aid of the local charities.

TRIALS FOR MURDER IN ABERDEEN.

TWO cases of trial for murder lately took place in the Aberdeen Circuit Court. One case was that of a man named Mill, a crofter at Durris, in Aberdeenshire, who was alleged to have kicked his wife in the abdomen, whereby inflammation of the bowels was set up, of which she died. There were external marks on the skin of the belly; but the medical men who were examined (Drs. McHardy and Edmond) were unable to say whether they were produced before or after death. The gut showed marked symptoms of inflammation; but, although the medical men gave it as their opinion that death resulted from violence, they were not prepared to say that the symptoms could not have arisen idiopathically. The judge pointed out that the question was one of the balance of probabilities; as a medical man for the defence alleged that the symptoms were quite consistent with the theory that the inflammation had arisen without direct violence. The jury returned a verdict of "Not proven". The other case was that of a man named Dinnie, who had shot a woman named Stott, near Fettercairn, in May last. The shooting of the woman was admitted, but a plea of insanity was lodged. It was proved that the prisoner suffered from delusions that there was a conspiracy against him, whose exact object he did not know, but with which he supposed the deceased to be conversant; and he shot her because she would not divulge the nature of this conspiracy to him. He also thought that people were trying to poison him by putting something into his bread. The jury found the prisoner was insane at the time he committed the act, and he was ordered to be kept in prison during Her Majesty's pleasure.

THE SALARY OF THE GLASGOW HEALTH-OFFICER.

NO one who has read the excellent reports of Dr. Russell, the Medical Officer of Health for Glasgow, could have been other than disappointed at the resolution recently arrived at by a majority of a meeting of the Glasgow Town Council, not to increase the salary of the medical officer of health, which increase had been recommended by a special committee. The matter, however, is not yet finally disposed of, as, at a meeting of the Police Department of the Glasgow Town Council held on Monday, a member gave notice, "That, in consideration that only a half of the Council were present at last meeting, when the vote was taken on the decision of the special committee on salaries, on Dr. Russell's, etc., an honorarium of £100 be given to Dr. Russell." The decision and the motion both include other salaries; but we have only mentioned Dr. Russell's.

DR. H. A. HUSBAND AND THE EXTRA-ACADEMICAL SCHOOL OF EDINBURGH.

IT was stated in last week's JOURNAL that Dr. H. Aubrey Husband had ceased to lecture on Forensic Medicine in the Edinburgh Extra-Academical School. This statement is, we are informed by Dr. Husband, incorrect. He still holds the lecturer's licence granted by the Royal College of Surgeons of Edinburgh; and his lectures are recognised by the Universities of Edinburgh, Glasgow, and Aberdeen. Dr. Husband lectures on Public Health, as well as on Medical Jurisprudence; and his lectures are delivered both in the winter and in the summer sessions.

HEALTH OF GLASGOW.

THE report of the Medical Officer of Health for Glasgow states that, during the fortnight ending September 3rd, there were 401 deaths registered, representing a death-rate of 20½ per 1,000 living. The report also draws attention to the fact that, compared with last year, the climatic conditions of the fortnight are very different; the mean temperature this year being fully 10° lower, and there being no rainfall last year, against 1.78 inches this. As regards the deaths, there are 27 fewer this year than last; but this is only the balance left from the greatly less fatality of zymotic diseases, after deduction of a considerable increase in the number of deaths from pulmonary diseases. This year continues, therefore, to be remarkable for the immunity from infectious diseases; but the premature low temperature is depriving the city somewhat of the advantage of this immunity by the increased deaths from pulmonary affections. Just as in last winter, there are indications of an epidemic of scarlet fever; and since the month of January there have not been so many deaths from scarlet fever. It is, says the report, one of the most striking illustrations of the seasonal peculiarities of infectious disease, that scarlet fever epidemics set out in September and culminate in October.

THE GIBSON MEMORIAL HOSPITAL, ST. ANDREW'S.

IT has been resolved to proceed at once with the erection of the Gibson Memorial Hospital at St. Andrew's, from the plans of Messrs. Hall and Hendry. In the trust disposition and settlement of the founder of the institution—the late Mr. Gibson of Duloch—it was stipulated that the building and furnishings should not exceed £4,000 in cost. The estimates received by the managers show that the building can be erected for £3,200, which will leave a sum of £800 to be expended in furnishing the hospital suitably.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending August 27th, it appears that the death-rate in the eight principal towns during the week was 17.4 per thousand of estimated population. This rate is 1.0 below that of the corresponding week of last year, and 0.4 below that of the previous week of the present year. The lowest mortality was recorded in Leith—viz., 8.4 per thousand; and the highest in Paisley—viz., 26.1 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.2 per thousand, or 0.5 below the rate for the last week. Acute diseases of the chest caused 52 deaths, or 24 less than the numbered registered the previous week. The mean temperature was 52.4, being 1.0 below that of the week immediately preceding, and 6.8 below that of the corresponding week of last year. From the returns for the week ending September 3rd, it appears that the death-rate in the eight principal towns during the week was 18.9 per 1,000 of estimated population. This

rate is 0.4 below that of the corresponding week of last year, but 1.5 above that of the previous week of the present year. The lowest mortality was recorded in Leith—viz., 12.7 per 1,000; and the highest in Paisley—viz., 23.3 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per 1,000, or 0.2 above the rate for last week. Acute diseases of the chest caused 70 deaths, or 18 more than the number registered last week. The mean temperature was 51.3°, being 1.1° below that of the week immediately preceding, and 10.8° below that of the corresponding week of last year.

PUBLIC HEALTH OF EDINBURGH AND LEITH.

THERE was a most noticeable diminution in the death-rate of Leith during the month ending on September 3rd; the death-rate was 17 per 1000, and the number of deaths 88, as contrasted with 125 in the corresponding month last year. It is to be observed also, as almost unique, that there was only one death registered in North Leith during the fortnight ending on August 27th. The outbreak of typhus noticed in the JOURNAL some time ago has ceased; but there are some cases of scarlet fever. In Edinburgh, the health-officer's report for July and August shows that the mortality in July was as low as 15.07 per 1000, and in August 17 per 1000. The average death-rate for July during five years was 18.09; while for August it was 16.43. Of 34 deaths from zymotic diseases which occurred, 10 were in the New Town, 22 in the Old Town, and 2 in the southern suburbs.

IRELAND.

AT a recent adjourned meeting of the Standing Committee of the Meath Hospital, it was resolved: "That the Medical Board of the Hospital be at liberty to nominate a gentleman to take charge of diseases of women at the dispensary."

SCARLATINA appears to be very prevalent at present in Limerick, very probably due to a great extent to its unsanitary condition, which the registrar of No. 1 District, in a recent report, states could not be worse.

DR. MORIARTY has been elected visiting physician to the Cork Fever Hospital, in place of the late Dr. Budds. We understand that he served for many years as an officer of the Army Medical Department.

ROYAL UNIVERSITY OF IRELAND.

SEVERAL meetings of the standing committee of this University have recently been held. The committee have agreed to recommend to the Senate that the Matriculation Examination shall be held this year on Tuesday, December 6th, and following days, and that candidates shall be required to send in their names to the secretaries on or before October 15th. They do not suggest any alteration in the books or subjects of examination prescribed already in the scheme.

QUEEN'S COLLEGE, CORK.

THE report for the session 1880-81 has been issued; and from it we learn that the total number on the books of the College for the past session was 327, against 300 in 1879-80, of whom 271 were matriculated, and 29 non-matriculated, students. The President deplores the want of good grammar-schools in the locality, and regards the Intermediate Education Act as having done more injury than real good. He states that the disorganisation of the schools produced by the spread of the examination-epidemic was perceptible at the last entrance examinations, as the 121 who sought in matriculation only a door to the medical profession seemed worse than usual; and the 16 rejected were very ignorant, and must have been neglected at school. Considerable additions have been made to the library during the year, and the erection of a new building commensurate with the present and future wants of the College cannot be longer postponed; while it is suggested that the room now occupied as a library could be used as an archæological, ethnological, and art museum. The botanic garden affords ample means for teaching, and a special medical garden has been laid out this year, in which the plants are arranged according to their pharmacological qualities. As regards practical chemistry, the classes have outgrown the laboratory, the accommodation at present being limited for about thirty students, while seventy students last session entered for this class. The rapid development of the medical sciences has made it very difficult for a single professor to deal with such extensive departments as anatomy, and physiology, medicine and surgery, and assistants are urgently required had the College the necessary funds. The College Council have now established two lectureships in two departments, namely, sanitary science and psychological medicine, but have been unable to provide any endowment for them. It is, however, proposed to amalgamate the lectureship in sanitary science with the already existing one of medical jurisprudence.

THE QUEEN'S UNIVERSITY.

THE Duke of Leinster, Chancellor of the Queen's University in Ireland, in his report to the Lord-Lieutenant on the condition and progress of the University, which has been issued as a Parliametary paper, states that from June, 1880, until January, 1881, the number of candidates presenting themselves at the General Examinations of the University, as well as examinations for degrees in Medicine, and first examinations in Arts and Engineering, was 748, the candidates who underwent more than one distinct University examination within the year being enumerated separately.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE following resolution has recently been passed by the Council of this College:—"That no certificate in clinical ophthalmology be recognised in future by this College, unless it be granted by an institution which permanently devotes eight beds in a special ward or wards to patients suffering from diseases of the eye, for the instruction of students, and which has an extern department for eye cases, distinct from any other dispensary, open for the teaching of students at least twice a week. Instruction in the use of the ophthalmoscope to be essential."

STIMULANTS IN THE BELFAST WORKHOUSE.

AT a meeting of the Belfast Board of Guardians, held last week, the subject of the stimulants used in the infirmary was under consideration. A discussion took place in reference to classing stimulants as medicine, in order that the Government might defray a portion of the expense if placed under this head. Dr. Bryce Smith said that he had 250 patients under his charge, and only 13 of them received whiskey; the healthy paupers and inmates of the house did not get any whiskey; while Dr. McConnell showed that of 680 under his care only 27 got any stimulants, and the most of these were cases of consumption. Ultimately, the following resolution was adopted: "That, as it appears from the statements made before us this day by the visiting medical officers, that all whiskey and wine given to patients under their treatment are presented in the same manner as medicine, we are strongly of opinion that the cost of all such stimulants should be included in the medical expenses on the return for Parliamentary grant of medical and educational expenditure, and that the Local Government Board be requested to approve of the adoption of this course in future."

PRESENTMENTS FOR CHARITABLE INSTITUTIONS, CORK.

AT a meeting of the Cork Corporation last week, a vote for £2,700, being a half-yearly presentment in aid of the funds of the Cork District Lunatic Asylum, was passed. A deputation waited on the corporation from the Cork Fever Hospital, and applied for a sum of £800, as compared with £600 granted during the previous half-year. They stated that if the necessary funds were not forthcoming, the trustees would be empowered to refuse admission to the hospital for any greater number of patients than they had funds to pay for; so that should such an unfortunate result occur, the corporation might expect to hear of typhus fever being more prevalent than at present. A poll being taken, a proposal to grant £800 was carried. The North and South Infirmaries also obtained a grant each of £350.

PUBLIC HEALTH OR STATE MEDICINE.

SUBJOINED are the regulations of the Examining Bodies which grant degrees or certificates in Public Health or State Medicine.

UNIVERSITY OF CAMBRIDGE.—Any person whose name is on the *Medical Register* of the United Kingdom may present himself for examination, provided he be in his twenty-fourth year at least when he presents himself for the first part of the examination, and have attained twenty-four years of age before he presents himself for the second part.

Part I comprises Physics and Chemistry; the Principles of Chemistry, and methods of analysis, with especial reference to analyses of air and water; application of the microscope; the laws of heat, and the principles of pneumatics, hydrostatics, and hydraulics, with especial reference to ventilation, water-supply, drainage; construction of dwellings, disposal of sewage and refuse, and sanitary engineering in general.

Part II will comprise laws of the realm relating to public health; sanitary statistics; origin, propagation, pathology, and prevention of epidemic and infectious diseases; effects of overcrowding, vitiated air, impure water, and bad or insufficient food; unhealthy occupations and the diseases to which they give rise; water-supply and drainage in reference to health; nuisances injurious to health; distribution of diseases within the United Kingdom, and effects of soil, season, and climate.

The examination in both parts will be oral and practical as well as in writing. Candidates may present themselves for either part separately, or for both together.

Every candidate must pay a fee of £4 4s. before admission to *each part* of the examination.

Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate testifying to his competent knowledge of what is required for the duties of a Medical Officer of Health.

The next examination will begin on October 4th. Candidates (whose names must be on the *Medical Register* of the United Kingdom) should send their names to Professor Liveing, Cambridge, before September 28th.

The following suggestions have been drawn up as some guide to candidates preparing for the examination: *Part* 1. Candidates will be expected to understand the application of the general laws of Chemistry to such cases as occur in the practice of an Officer of Health, but will not be expected to show an acquaintance with those details of Chemistry which have no direct bearing on sanitary questions. No importance will be attached to the use of any particular chemical notation. It is not expected that Officers of Health will in general be able to act as public analysts, but that they will know the methods of analysis, and be able to interpret correctly the results of professional analysts. The kinds of applications of the several sciences of which the candidates are expected to show a competent knowledge will be best understood by a perusal of Parkes's *Manual of Practical Hygiene*. In the actual analysis of water and air, candidates will not be expected to make complete quantitative analyses, but to know how to apply ordinary chemical methods for the detection and discrimination of mineral and organic substances in the samples. *Part* 2. Candidates will be expected to show an acquaintance with the sanitary laws in force in England; but if any candidate has information respecting alternative laws in force in the metropolis or in Scotland or in Ireland, opportunity will be given him, alternatively, of showing his acquaintance with such laws. The rest of Part 2, besides the subjects expressly mentioned, is to be understood as including those of Vaccination, Disinfectants, the management of outbreaks of Infectious Diseases, with the construction of Hospitals, temporary or permanent; Endemic Diseases; Birth-rates and Death-rates; the qualities and suitableness of various Waters used for domestic purposes; the inspection of factories, mines, workshops, and common lodging-houses.

UNIVERSITY OF LONDON.—A special examination is held once in every year in subjects relating to Public Health, and commences on the second Monday in December. No candidate is admitted to this examination unless he have passed the second examination for the degree of Bachelor of Medicine in this university at least one year previously, nor unless he have given notice of his intention to the registrar at least two calendar months before the commencement of the examination. The fee for the examination is £5, which must be previously paid to the registrar. If, after payment of his fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, the fee is not returned to him; but he may enter for any *one* subsequent examination without the payment of any additional fee, provided that he give notice to the registrar at least one calendar month before the commencement of the examination. Candidates are examined in the following subjects: 1. *Chemistry and Microscopy*, as regards the examination of air, water, and food; 2. *Meteorology*, as regards general knowledge of meteorological conditions, and the reading and correction of instruments; 3. *Geology*, as regards general knowledge of rocks, their conformation and chemical composition, and their relation to underground water, and to drainage and sources of water-supply; 4. *Physics and Sanitary Apparatus;* the laws of heat, mechanics, pneumatics, hydrostatics, and hydraulics, in relation to the construction of dwellings, and to warming, ventilation, drainage, and water-supply, and to apparatus for these and other sanitary uses; the reading of plans, sections, scales, etc., in regard of sanitary constructions and appliances; 5. *Vital Statistics*, as regards the methods employed for determining the health of a community; birth-rate; death-rate; disease-rate; life-tables; duration and expectancy of life; present amount of mortality at the various ages, and its causes, in different classes and communities; practical statistics of armies, navies, civil professions, asylums, hospitals, dispensaries, lying-in establishments, prisons, in-door and out-door paupers, friendly societies, sick-clubs, medical and surgical practice, towns; 6. *Hygiene*, including the causation and prevention of disease. Reference shall be had to such matters as the following: parentage; temperament; morbid diatheses; congenital diseases and malformations; effects of close interbreeding; special liabilities at particular periods of life; physical regimen of different ages; earth and climate, and changes of season; dampness of soil; malaria; conditions of healthy nourishment; conditions of healthy lodgment; conditions of healthy activity; hygiene of particular establishments and particular classes of population; disease as distributed in England; particular diseases, as regards their intimate nature, causation, and preventability; processes of contagion in different diseases; incubation; particular dangers of infection, etc.; disinfectants, and establishments for disinfection; quarantine; hospitals for infectious disease; conveyance of the sick; vaccination; prostitution; diseases of domestic animals in relation to the health of man; rabies; diseases of the vegetable kingdom, and failures of vegetable crops, in relation to the health of man; famine-diseases; poisons in manufacture, and commercial and domestic use; 7. *Sanitary Law*, as regards the Public Health Act, 1875; the Vaccination Acts; the Rivers Pollution Prevention Act; the Sale of Food and Drugs Act; the Artisans' and Labourers' Dwellings Improvement Act, 1875; the Acts regulating the Medical Profession and the Practice of Pharmacy; the Acts relating to Factories and Workplaces, and to the Detention and Care of Lunatics. The examination is written and practical, and extends over four days. Candidates are not approved by the examiners unless they have shown a competent knowledge in all the principal subjects. In the week following the examination, the examiners publish the names of the candidates who have passed, arranged in alphabetical order. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives a gold medal of the value of £5. A certificate under the seal of the University, and signed by the Chancellor, is delivered at the public presentation for degrees to each candidate who has passed.

UNIVERSITY OF DURHAM.—Certificates of proficiency in Sanitary Science are granted under the following regulations.

Candidates must give at least twenty-eight days' notice to the Registrar, and send the fee and the necessary certificates.

A. *Certificate of Proficiency in Sanitary Science.*—1. The candidate must be a registered medical practitioner. 2. He must have attended one course of Lectures on Public Health at the University of Durham College of Medicine, Newcastle-on-Tyne, during one winter session. 3. He must pass an examination in the following subjects: *a. Physics*—Laws of light, heat, hydrodynamics, and pneumatics; [illegible]. As applied to the detection of noxious gases and atmospheric impurities, analysis of air and water; *c. Sanitary Legislation*—Knowledge of the Acts of Parliament in force for the preservation and protection of health; *d. Vital Statistics*—Rates of births, deaths, and marriages; the methods of calculation, classification, and tabulation of returns of sickness and mortality; data and conclusions deducible therefrom; *e. Meteorology, Climatology, and Geographical Distribution of Disease in the United Kingdom; f. Sanitary Medicine*, more especially in relation to epidemic, endemic, epizootic, and communicable diseases; diseases attributable to heat, cold, or damp, insufficiency or impurity of air, food, or drink; habitation, occupation, over-exertion, intemperance, heredity; preventive measures, vaccination, isolation, disinfection; the regulation of noxious and offensive manufactures and trades; the removal of nuisances; *g. Practical Hygiene*, in reference to site, materials, construction, lighting, ventilation, warmth, dryness, water-supply, and refuse-disposal of dwellings, schools, hospitals, and other buildings of public and private resort; action with respect to nuisances and outbreaks of disease; other duties of a medical officer of health.—The examination

is by written papers, practical, and *viva voce*. In the practical examination, the candidate is required: 1. To report upon the condition of some actual locality; 2. To analyse liquids and gases; 3. To explain the construction and the uses of instruments employed in meteorology; 4. To make microscopic examinations. The fee is £5 5s. The next examinations will commence on October 10th, 1881, and April 24th, 1882.

B. *Certificate of Proficiency in Sanitary Science for Medical Officers of Health.*—The candidate must have obtained a registrable qualification before January 1st, 1878, and must have acted as a medical officer of health, for five years. He must not be under thirty years of age. He must pass the same examination as particularised under the heading A., and must write an esssay upon some practical sanitary subject, and be examined upon the essay and upon other sanitary questions. The fee is £10 10s.

University of Edinburgh.—This University gives the degrees of Bachelor and Doctor of Science in Public Health, under the following conditions.

Bachelor of Science.—1. The candidate must be a graduate in Medicine of a British University, or of such Colonial, Indian, or Foreign University as may be specially recognised by the University Court. 2. He must be matriculated for the year in which he appears for examination. 3. If the candidate have not passed an *annus medicus* in the University of Edinburgh, he must, before presenting himself for examination, have attended in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations. 4. There are two examinations for the degree of Bachelor of Science in the department of Public Health. A candidate who has passed the first examination may proceed to the second at the next period fixed for this, or at any subsequent examination. 5. The candidate must produce evidence that, either during his medical studies or subsequently, he has attended a course of lectures in which instruction was given on Public Health; and that he has studied Analytical Chemistry practically for three months with a recognised teacher. 6. The examinations are written, oral, and practical, and are conducted by University examiners selected by the University Court. 7. The subjects of the examination for the degree of Bachelor of Science in the department of Public Health are as follows.

First Examination.—1. *Chemistry*—Analysis of air, detection of gaseous emanations and other impurities in the atmosphere; analysis of waters for domestic use, and determination of the nature and amount of their mineral and organic constituents; detection, chemical and microscopical, of adulteration in articles of food and drink, and in drugs; practical examination, including at least two analytical researches. 2. *Physics*—Hydraulics and hydrostatics, in reference to water-supply, drainage, and sewerage; pneumatics, in relation to warming and ventilation; meteorology, and methods of making meteorological observations; mensuration, in reference to the plans and sections of public and private buildings, mines, waterworks, and sewers. The candidate must make figured sketches for models, and have a knowledge of mechanical drawing. 3. *Sanitary Law*—Knowledge of the leading Sanitary Acts of Parliament. 4. *Vital Statistics*—Knowledge of statistical methods and data in reference to population, births, marriages, and deaths. An oral examination, and an examination in practical chemistry in the laboratory, will take place a few days after the written examination.

Second Examination.—1. *Medicine*—Origin, nature, and propagation of epidemic and contagious diseases; prevention of contagion and infection; endemic diseases, and the geographical distribution of disease; insalubrious trades; overcrowding; epizootics, including pathological changes. 2. *Practical Sanitation*—Duties of a health-officer in reference to water-supply; insalubrious dwellings and public buildings; removal and disposal of sewage and other refuse and impurities; cemeteries, nuisances from manufactories, etc.; bad or insufficient supplies of food; outbreaks of zymotic diseases; quarantine; disinfectants and deodorisers; construction of permanent and temporary hospitals.

The first examinations will take place on April 3rd, 4th, and 5th, 1882; the second on April 6th. Candidates must give notice and pay the fee on or before March 1st.

Doctor of Science.—A Bachelor of Science in the Department of Public Health may, after the lapse of one year, proceed to the degree of Doctor in the same department, on producing evidence that he has been engaged in practical sanitation since he received the degree of Bachelor of Science, and on producing a thesis on some subject embraced in the department of Public Health. Every such thesis must be certified by the candidate to have been composed by himself, and must be approved of by the Examiners. The candidate for the degree of D.Sc. must lodge his thesis with the Dean of the Medical Faculty on or before January 31st in the year in which he proposes to graduate. No thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The fees for the degrees in Science in the Department of Public Health are: for each examination for B.Sc. in Public Health, £5 5s.; for the degree of D.Sc. in Public Health, £5 5s. The degrees in Science are conferred at the graduation ceremonial in April. The following are recommended as books to be studied in preparation for the above examination:—Parkes, E., *Practical Hygiene;* Wilson, George, *Handbook of Hygiene;* Smith, Edw., *Manual for Public Officers of Health,* and *Handbook for Inspectors of Nuisances;* Michael, Corfield, and Wanklyn, *Manual of Public Health,* edited by E. Hart; Eassie, *Healthy Houses;* Latham, Baldwin, *Sanitary Engineering;* Law, Henry, *Rudiments of Civil Engineering;* Monro, George, *The Public Health (Scotland) Act;* Buchan, Alex., *Introductory Text-Book of Meteorology.*

University of Glasgow.—A special examination will be held once in every year in subjects relating to Public Health, and will commence on the second Tuesday in April. This examination will consist of two divisions; and candidates may enter to one or both of these, provided that no candidate shall be admitted to examination in the second division who has not already passed the first. All candidates must be registered medical practitioners. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which special instruction was given on Public Health; and that they have attended a course of Analytical Chemistry specially bearing upon the subjects of examination, given by recognised teachers. Candidates who have not passed an *annus medicus* in the University of Glasgow must, before presenting themselves for examination, have attended as matriculated students in this University at least two courses of instruction, scientific or professional, bearing on the subjects of the examinations. The examinations are written, oral, and practical.

The fee for each division of this examination is £4 4s. The candidate must give notice to the Assistant-Clerk of Senate, and pay the required fee, at least one calendar month previous to the examination. If, after payment of the fee, a candidate withdraw his name, or fail to present himself at the examination, or fail to pass it, the fee is not returned to him; but he may enter for any *one* subsequent examination without the payment of an additional fee.

The examination embraces the following subjects:—*1st Division.*—*Physics*—Pneumatics, hydrostatics, hydraulics. *Chemistry*—Analysis of air, water, and food. *Meteorology*—Climate, topographical and seasonal: its influence in relation to health and disease. *Geographical Distribution of Diseases. 2nd Division—State Medicine*—Duties of health-officer; ventilation; food and its adulterations; water and water-supply; sewage and drainage; construction of hospitals, public buildings, and dwellings; overcrowding; manufactories; insalubrious trades; cemeteries; nuisances; quarantine; disinfectants and deodorisers; outbreaks of zymotic diseases. *Sanitary Law*—Knowledge of leading Sanitary Acts of Parliament. *Vital Statistics.*

The following are recommended as books for study:—E. Parkes, *Practical Hygiene;* George Wilson, *Handbook of Hygiene;* A. H. Hassall, *Food and its Adulterations;* Lardner and Loewy, *Hydrostatics and Pneumatics.*

A course of lectures on Public Health is delivered in the University during the winter session.

Royal College of Physicians of Edinburgh.—The Royal College of Physicians of Edinburgh grants a certificate of qualification in Public Health under the following regulations.

Candidates must be already on the *Medical Register*, and possess a qualification in Medicine. They are not required to attend any special course of instruction; but their attention is directed particularly to courses of lectures on State Medicine, and to the practice of Analytical Chemistry. There are two examinations, which are written, oral, and practical. Rejected candidates are not admitted for re-examination till after the expiry of six months.

Examinations.—The first examination embraces—*a. Physics:* especially pneumatics, hydrostatics, hydraulics, and engineering in relation to sanitary operations, including a knowledge of architectural and other plans, sections, etc.; *b. Chemistry:* especially analysis of air, water, food, including the biology of putrefaction and allied processes; *c. Meteorology:* including climate, topographical and seasonal influences in relation to health and disease.

The second examination embraces—*a. Epidemiology and Endemiology:* including the corresponding departments in the diseases of ani-

mals and plants—contagious diseases—diseases of periods of life, professions, trades, seasons, and climates; *b. Practical Hygiene:* duties of a health-officer; food; water-supply; sewerage and drainage; construction of hospitals, public buildings, dwellings; manufactories; cemeteries; nuisances; *c. Sanitary Law and Vital Statistics.*

Meetings for both examinations are held annually in April and October. The first examination is held on the second Tuesday of the month; the second examination on the immediately succeeding Thursday. Each occupies two days. Candidates may enter for both examinations in the same week, or for one only. The examinations must be passed in their order, first and second. Candidates must appear for the second examination not later than twelve months after having passed the first. A candidate remitted at his second examination may come up again after a further period of six months; but, if he then fail to pass, he must undergo the first as well as the second examination before obtaining the certificate.

The fees must be paid at least a week before the day of examination. The fee for the first examination is £3 3s.; for the second examination, £3 3s.; and for receiving the certificate, £4 4s. Candidates forfeit the fee for the examination which they have been unsuccessful in passing. If a candidate who has presented himself for both examinations fail to pass the first, he is not allowed to present himself for the second, and his fee for the second is returned to him.

DENTAL SURGERY.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND grants a diploma in Dental Surgery under the following regulations.

Candidates must produce Certificates: 1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of professional knowledge. 3. Of having attended not less than one of each of the following Courses of Lectures: Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica. 4. Of having attended a Second Winter Course of Lectures on Anatomy, or a course of not less than twenty Lectures on the Anatomy of the Head and Neck. 5. Of having performed Dissection during not less than nine months. 6. Of having completed a Course of Chemical Manipulation. 7. Of having attended, at a Hospital or Hospitals in the United Kingdom, Surgery and Clinical Lectures on Surgery during two Winter Sessions. 8. Of having attended two Courses of Lectures upon each of the following subjects: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one Course on Metallurgy. 9. Of having been engaged, during not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent practitioner. 10. Of having attended at a Dental Hospital, or in the dental department of a General Hospital, the Practice of Dental Surgery during two years. The courses of instruction and hospital practice must be by lecturers or in institutions recognised by the College.

All candidates who commence their Professional Education on or after July 22nd, 1878, must, in addition to the certificates enumerated above, produce a certificate of having, prior to such commencement, passed the Preliminary Examination in General Knowledge for the Diploma of Member of the College, or an equivalent examination.

Candidates who were in Practice as Dentists, or who had commenced their Education as Dentists prior to September, 1859, and who are unable to produce the certificates required by the foregoing regulations, must furnish the Board of Examiners with a Certificate of Moral and Professional character, signed by two Members of the College, together with answers to certain inquiries. In the case of candidates practising in, or educated in, Scotland or Ireland, the certificate of moral and professional character may be signed by two licentiates of the Royal College of Surgeons of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow, or of the Royal College of Surgeons in Ireland.

The Examination is partly written and partly oral. The written examination comprises General Anatomy and Physiology, and General Pathology and Surgery, with especial reference to Dental Practice. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, have to answer only those questions set by the Section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination are examined only by that Section. A rejected candidate is not admitted to re-examination within six months, unless the Board otherwise determine. Examinations are held in January and June. The fee for the Diploma is £10 10s., over and above any stamp duty.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The Examinations are written and oral, and consist of two separate sittings. Candidates must apply to the Secretary of the College on or before the Saturday preceding the ordinary examination, and must produce all the required certificates. Examinations for the Dental Diploma will be held as follows: first examinations, October 18th, 1881; January 24th, March 28th, April 18th, July 18th, 1882; and the second after the conclusion of the first examination.

Candidates who commenced their professional education on or before August 1st, 1878, must produce evidence of having attained the age of twenty-one years, and of having passed the Preliminary Examination in General Education required for the ordinary Licence in Surgery, or an equivalent examination. They must also produce certificates of having been engaged during four years in the acquirement of professional knowledge, and of having been during that period, or at some time previous to their examination, engaged for not less than three years in the acquirement of a practical knowledge of Mechanical Dentistry with a registered dental practitioner.

The following Lectures and other courses of instruction must have been attended at a recognised medical school or schools: Anatomy, one winter course; Dissection and Demonstration, nine months; or Dissection, nine months, and Anatomy of Head and Neck, one course of twenty lectures; Physiology, one course of not less than fifty lectures; Chemistry, Surgery, Medicine, each one winter course; Materia Medica, and Practical Chemistry and Metallurgy, each one course of three months; Clinical Instruction in Surgery at a recognised Hospital, one course of six months, or two courses of three months; also the following special courses by recognised teachers: Dental Anatomy and Physiology, Dental Surgery and Pathology, Dental Mechanics, one course of each; two years' attendance at a Dental Hospital, or the dental department of a General Hospital.

Licentiates of the College, or registered medical practitioners, must produce certificates of attendance on the special subjects only, and are examined in these only.

Anatomy, Chemistry (with Metallurgy), and Physiology, will form the subjects of the first Examination; Surgery, Medicine, Materia Medica, and Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, those of the second.

The fee is £10 10s. Each candidate, for the first Examination, must pay to the Secretary of the College £4 4s. not later than 9 A.M. of the Saturday preceding the Examinations; and if the candidate be unsuccessful £2 2s. are returned to him. Each candidate for the second Examination must pay £6 6s. not later than 9 A.M. of the Tuesday preceding the Examination; and if he be unsuccessful £3 3s. will be returned to him. No unsuccessful candidate will be remitted for less than three months.

Examination sine Curriculo.—Candidates who were in practice before the first day of August 1878, or those not in practice but who had commenced their apprenticeship as Dentists before the first day of August 1875, and who are unable to furnish the Board of Examiners with the certificates of lectures and hospital attendance required by the foregoing regulations, must produce: 1. A certificate of moral and professional character, signed by two registered medical practitioners, together with the full name, age, and address of the candidate. 2. The date of commencing practice or apprenticeship as a Dentist, and whether, if in practice, such practice has been carried on in conjunction with any other business, and if so, with what business. 3. Whether he has any degree or diploma in Medicine or Surgery, and if so, from what College or University, or other body, and at what time it was obtained. 4. The particulars of professional education. The President's Council shall determine whether the candidate is entitled to be admitted to Examination; and such Examination shall, with the exception of the Preliminary Examination, and the exemption in favour of registered medical practitioners, as before explained, be passed on the same subjects and in the same manner as is required for other candidates, and will confer the same privileges.

Every candidate, before being admitted as a Licentiate, must subscribe a declaration engaging not to advertise or pursue any other unprofessional mode of attracting practice.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—The regulation as to certificates, curriculum, number of examinations, fees and examinations *sine curricolo*, are in effect similar to those of the Royal College of Surgeons of Edinburgh. A special course of Metallurgy is required, unless included in Practical Chemistry.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The Dental Board of Examiners consists of three Fellows of the College, three Registered Dentists, and the President, Vice-President, or other Member of the Council of the College (summoned in rotation).

Examinations are held at such times as the Council may direct.

Every candidate must lodge with the Registrar of the College, at least a fortnight previous to Examination, the following certificates: 1. Of having attained the age of twenty-one years; 2. Of having been engaged during four years in the acquirement of professional knowledge; 3. From two Fellows or Licentiates of any College of Surgeons in the United Kingdom, and from two Dentists of repute, testifying that the candidate is of good character; 4. Of having passed the Examination in Preliminary Education of one of the Examining Bodies recognised by the General Medical Council; 5. Of having lodged in the Bank of Ireland, to the credit of the College, the fee of £10 10s., half of which shall be returned to any candidate, if rejected; and no candidate can present himself for re-examination for six months; 6. Of having attended in a recognised school one course each of lectures on Anatomy and Physiology, Surgery, Chemistry, Practical Chemistry and Metallurgy, and Materia Medica; and two courses each of Dissections with Demonstrations, and Dental Surgery, including Dental Mechanics; 7. Of having attended General Hospital Practice for two winter sessions, and the dental department of a General Hospital, or a Special Dental Hospital, for a further period of nine months; 8. Of having been engaged during, at least, three years in acquiring a practical knowledge of Dentistry, under the instruction of a Registered Licentiate in Dentistry.

The Examinations are partly written and partly oral; preparations, microscopes, and other appliances being used. Licentiates in Surgery, or Fellows of any College in the United Kingdom, and Graduates in Surgery of any University recognised by this College, are examined only in subjects special to Dentistry.

Every successful candidate, previously to receiving the Licence, shall declare that he will not advertise, or pursue any other unbecoming mode of attracting business, so long as he holds the Licence in Dentistry of the College.

The following provision is made for instruction in Dental Surgery.

National Dental Hospital and College.—*Consulting Physicians:* Dr. B. W. Richardson and Dr. W. H. Broadbent. *Consulting Surgeons:* Mr. Erichsen, Mr. Spencer Wells, and Mr. Christopher Heath. *Consulting Dental Surgeon:* Mr. J. Merryweather. *Dental Surgeons:* Mr. F. H. Weiss, Mr. Oakley Coles, Mr. G. J. Williams, Mr. A. F. Canton, Mr. H. T. K. Kempton, Mr. H. Rose. *Assistant Dental Surgeons:* Mr. W. G. Weiss, Mr. G. Hammond, Mr. G. A. Williams, Mr. A. Smith, Mr. T. Gaddes, Mr. W. R. Humby. *Lecturers:* Dental Anatomy and Physiology: Mr. T. Gaddes; Dental Surgery: Mr. Oakley Coles; Dental Mechanics: Mr. H. Rose; Dental Metallurgy: Mr. A. Tribe; Operative Dental Surgery: Dr. W. F. Thompson; Elements of Histology: Mr. T. Gaddes; Demonstrator of Dental Mechanics: Mr. Humby; Art and Literature: Rev. H. R. Belcher, M.A.

Clinical Demonstrations are given from time to time.

Dresserships in the extraction-room are held for three months by six senior and six junior students of the hospital.

Prizes.—Five Prizes in Medals are open for competition at the end of each course of lectures required. Certificates of Honour are given in each class. The Rymer Medal for General Proficiency, value £5, with books or instruments, is awarded annually to the most meritorious student.

Fees.—General fee for Special Lectures required by the curriculum of the Royal College of Surgeons of England, £12 12s. For the Two Years' Hospital Practice required, £12 12s. Total fee for the Special Lectures and Hospital Practice required, £25 4s.

Information respecting the Hospital Practice and the College may be obtained from the Dean, Mr. Gaddes, at the hospital, Great Portland Street.

Dental Hospital of London Medical School.—Lectures are given at this School, in the winter, on Mechanical Dentistry, by Dr. Walker; in the summer, on Dental Surgery and Pathology, by Mr. A. Coleman; on Dental Anatomy and Physiology (Human and Comparative), by Mr. C. S. Tomes. The lectures on Metallurgy are suspended until October 1882.

The staff of the Dental Hospital of London consists of *Consulting Physician:* Sir Thomas Watson, Bart., M.D. *Consulting Surgeon:* Mr. Christopher Heath. *Consulting Dental Surgeons:* Mr. S. Cartwright; Mr. John Tomes. *Dental Surgeons:* Mr. Fox; Dr. Medwin; Mr. Gregson; Mr. Coleman; Mr. Moon; Mr. A. Hill. *Assistant Dental Surgeons:* Mr. F. Canton; Mr. A. S. Underwood; Mr. D. Hepburn; Mr. R. Woodhouse; Mr. Storer Bennett; Mr. S. J. Hutchinson.

The Saunders Scholarship of £20 *per annum*, and Prizes, are open for competition.

Fee for two years' hospital practice or lectures, each £15 15s. Fees for lectures and practice, £31 10s. Additional fees for a General Hospital for the two years to fulfil the requirements of the curriculum vary from £40 to £50.

Further particulars may be obtained on application to the Dean, Mr. T. F. K. Underwood, at his residence, 11, Bedford Square, W.C.; or at the Hospital.

Queen's College, Birmingham.—The teaching of Dentistry is undertaken by the Queen's College, acting in association with the Birmingham Dental Hospital and the Birmingham Clinical Board, so that students may fully qualify themselves for the dental diploma of the Royal College of Surgeons. The Dental Hospital is centrally situated, near the College, and is open daily (Sundays excepted).

Lectures on the special subjects are delivered as follows. Dental Anatomy and Physiology, by Mr. F. R. Batchelor, Thursday, 5 P.M.; Dental Surgery and Pathology, Mr. T. Howkins, Friday, 5 P.M.; Dental Mechanics, Mr. C. Sims, Wednesday, 6 P.M., in summer; Dental Metallurgy, Dr. A. B. Hill, Monday, Tuesday, Thursday, and Friday, 1 P.M., in January, February, and March.

The Birmingham Dental Hospital is open daily at 9 A.M. The staff is constituted as follows: *Consulting Physician*—Dr. James Sawyer; *Consulting Surgeon*—Mr. James F. West; *Consulting Dentists*—Mr. T. R. English and Mr. Adams Parker; *Dental Surgeons*—Mr. C. Sims, Mr. H. B. Neale, Mr. F. R. Batchelor, and Mr. F. E. Huxley.

Clinical Demonstrations are given from time to time by the staff on cases of particular interest; also upon the preparing and filling of cavities, and other operations upon the teeth and contiguous structures.

Dresserships in the Extraction-room are held for three months by senior and junior students of the Hospital.

Liverpool Royal Infirmary School of Medicine.—The lecturers in the School of Dental Surgery in connection with this institution are as follows: Dental Surgery, Mr. J. Snape; Dental Mechanics, Mr. R. E. Stewart; Dental Anatomy and Physiology, Mr. F. T. Paul; and Dental Metallurgy, Mr. E. J. M. Phillips. Lectures are given once or twice weekly, by arrangement. The fee for each course is £3 3s.; for a second course, £2 2s.

The curriculum in Dental Surgery includes Lectures and Demonstrations on all the subjects required for the Licence in Dental Surgery of the Royal Colleges of Surgeons of London, Edinburgh, and Dublin.

Practical instruction in Dentistry is given at the Dental Hospital in Mount Pleasant.

[Information respecting the arrangements for teaching dentistry in the other medical schools was given in last week's Journal.]

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

School of Physic in Ireland.—This school is formed by an amalgamation of the medical schools of Trinity College and of the King and Queen's College of Physicians; the King's Professors of Institutes of Medicine, Practice of Medicine, Materia Medica, and Midwifery, and the Professor of Medical Jurisprudence, being appointed by the latter. The staff is as follows: Regius Professor of Physic, Dr. J. T. Banks; Regius Professor of Surgery, Dr. W. Colles; University Professor of Anatomy and Surgery, Dr. Macalister; University Professor of Chemistry, Dr. J. E. Reynolds; University Professor of Botany, Dr. E. P. Wright; Professor of Surgery in Trinity College, Dr. E. H. Bennett; University Anatomist, Dr. T. Little; Professor of Comparative Anatomy, Dr. A. Macalister; Erasmus Smith's Professor of Natural Philosophy, Rev. John Leslie, M.A.; University Lecturer in Operative Surgery, Dr. R. G. Butcher; King's Professor of Institutes of Medicine, Dr. J. M. Purser; King's Professor of Practice of Medicine, Dr. W. Moore; King's Professor of Materia Medica and Pharmacy (vacant); King's Professor of Midwifery, Sir E. B. Sinclair; Professor of Medical Jurisprudence, Dr. R. Travers.

The Winter Session commences on October 1st by the opening of the Dissecting Room. Lectures commence a month later. The Winter Courses consist of fifty-six Lectures each. Attendance on at least forty-two Lectures in each Course is required. The Summer Session commences April 1st. The Courses in the summer (except those of Materia Medica and Medical Jurisprudence) consist of Laboratory Instruction and Practical Demonstrations.

The Dissecting Room is open from sunrise to sunset, under the superintendence of Professor Macalister; by whom, and by the University Anatomist and four Demonstrators, instruction is given daily. The new Laboratory of Practical Histology and Physiology is under the direction of Professor Purser. Students can enter for the study of Pathological Histology at any time; and a complete course of in-

struction in Animal Histology is given in the summer. The Chemical Laboratories are open daily, under the supervision of Professor Reynolds. Professor Bennett gives a complete course of Demonstrations in Operative Surgery during the summer session. Practical Botany is taught in the Botanic Garden and the Herbarium by Professor Wright.

The Museums of Anatomy and Zoology, of Pathology, of Materia Medica, and of Midwifery; and of Botany, are open to the students of the School of Physic.

Scholarships, Prizes, etc.—Two Medical Scholarships, value of each £40, are awarded annually. A Medical Travelling Prize and a Surgical Travelling Prize, value of each £100, are also awarded. The Professor of Chemistry gives Prizes amounting to £10; and the Professor of Botany Prizes amounting to £5.

Fees.—For Anatomy, Medicine, Practice of Medicine, Materia Medica, Midwifery, Medical Jurisprudence, Institutes of Medicine, Obstetric Medicine and Surgery (at Sir P. Dun's Hospital), Ophthalmic Surgery (at St. Mark's Hospital), each £3 3s.; Demonstrations and Dissections, each year, £8 8s.; Surgery, £2 2s.; Chemistry, £1 11s 6d.; Practical Chemistry, £2 12s. 6d. Students dissecting during the fourth year pay £2 2s.

SCHOOL OF SURGERY: ROYAL COLLEGE OF SURGEONS IN IRELAND.—The session will commence on Monday, October 25th. The Dissecting Room will open on October 1st. Lectures will be given as follows. *Winter Session:* Anatomy and Physiology, Dr. Mapother, M. W. F. S., 3; Descriptive Anatomy, Dr. Bevan and Mr. Thornley Stoker, daily, except Saturday, 12; Surgery, Mr. J. Stannus Hughes and Mr. Stokes, Tu. Th. S., 1; Practice of Medicine, Dr. James Little, M. W. F., 1; Chemistry, Dr. Cameron, T. Th. S., 2; Midwifery and Gynæcology, Dr. Roe, T. Th. S., 3. Lectures on Comparative Anatomy will be delivered by Dr. Mapother. Practical Instruction in Operative Surgery will be given as part of the surgical course. The Professor of Chemistry receives operating pupils into the chemical laboratory. The dissecting-rooms open from October 1st, and are available from 8 A.M. to 10 P.M. during the session. The dissections are under the direction of the professors of anatomy, assisted by five demonstrators.—*Summer Session*, commencing April 1st, 1882: Materia Medica, Mr. Macnamara; Medical Jurisprudence, Dr. Davy; Botany, Dr. Minchin; Practical Chemistry, Dr. Cameron; Midwifery and Gynæcology, Dr. Roe; Hygiene, Dr. Cameron; Ophthalmic and Aural Surgery, Mr. Swanzy.

The fee for each course of lectures is £3 3s., excepting Descriptive Anatomy, which is £8 8s.; Practical Chemistry, which is £5 5s.; and Ophthalmic and Aural Surgery and Hygiene, which are free. Composition fee for all lectures and dissections for the Diploma in Surgery, £56 17s. 6d.

ADELAIDE MEDICAL AND SURGICAL HOSPITALS.—Consulting Physician, Dr. J. F. Duncan; Consulting Obstetric Surgeon, Dr. Lombe Atthill. Physicians, Dr. Henry H. Head, Dr. James Little. Physician and Pathologist, Dr. Walter G. Smith. Surgeons, Dr. John K. Barton, Mr. B. Wills Richardson, Dr. Kendal Franks. Obstetric Surgeon, Dr. R. D. Purefoy. Ophthalmic and Aural Surgeon, Mr. H. R. Swanzy. Dental Surgeon, Dr. R. T. Stack.

Fee for nine months' hospital attendance, £12 12s.; six months, £8 8s.; summer three months, £5 5s.

There are wards for infants and children, and there is a large detached fever hospital. Special hours are devoted to Clinical Instruction in the Diseases peculiar to Women, and in the Diseases of the Eye, Ear, Throat, and Skin; and students are individually instructed in the use of the Stethoscope, Ophthalmoscope, and Microscope, in its application to Clinical Medicine. Three resident pupils are selected half-yearly. At the termination of the session, prizes in Clinical Medicine and Surgery, in Obstetric Medicine, and in Ophthalmic Surgery, will be awarded. In addition, the Hudson's Scholarship (£30 and a gold medal), and a Prize of £10 with a silver medal, will be awarded for proficiency in the subjects for which the clinical prizes are given.

Further particulars may be obtained from Mr. Richardson, 22, Ely Place; or any of the other members of the medical staff.

CARMICHAEL COLLEGE OF MEDICINE.—The Dissecting Rooms will be open on October 1st. Lectures will commence on November 2nd. The following are the Courses.—*Winter Session:* Medicine, Dr. J. W. Moore, M., W., and F., 12; Surgery, Dr. J. K. Barton and Dr. A. H. Corley, T., Th., and S., 12; Systemic Anatomy, Dr. F. Heuston, three times weekly; Anatomy, Dr. L. Stoney, senior, Tu., Th., 1; junior, M., W., F., 1; Physiology, Dr. R. J. Harvey, senior, M., W., F., 2; junior, Tu., Th., 2; Midwifery, Dr. W. B. Jennings and Dr. A. V. Macan, M., W., and F., 3; Chemistry, Dr. C. R. C. Tichborne, T., Th., and S., 3; Ophthalmic Surgery, Dr. C. E. Fitzgerald, W., 1.—*Summer Session*, 1882: Botany, Dr. McNab, M., W., F., 11; Pathology, Dr. S. Woodhouse, T., Th., S., 11; Materia Medica, Dr. Duffey, M., W., F., 12; Practical Chemistry, Dr. Tichborne, T., Th., S., 1.30; Forensic Medicine, Mr. Auchinleck, M., W., and F., 1; Practical Histology, Dr. Harvey, M., T., Th., F., 4; Practical Surgery, Dr. Barton and Dr. Corley. There are ten Anatomical Demonstrators, who superintend the dissections. The Physiological Department comprises a Histology Room, a room for Physiological Chemistry, and one for Physiological apparatus. The Museum comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of Materia Medica.—Fees, for each course of lectures, £3 3s.; for each course of Practical Instruction, £5 5s. A second practical course can be attended for £2 2s., if no certificate be required. The fee for Ophthalmic Surgery is £2 2s., if a certificate be required. Perpetual Pupils, paying £58 17s. 6d. in two instalments, can attend all the lectures required by the Royal College of Surgeons of Ireland, or by the University of Dublin. Systemic Anatomy is free, if no certificate be required. The Carmichael and Mayne Scholarships, each £15 in value, and class and special Prizes to the value of £67, are awarded annually. For information, apply to Dr. Woodhouse, at the College; or 10, Lower Fitzwilliam Street.

CATHOLIC UNIVERSITY SCHOOL OF MEDICINE.—*Winter Session:* The dissecting-rooms will be opened on October 1st. The lectures will commence on Monday, November 3rd. Anatomy and Physiology (Human and Comparative), Dr. T. Hayden and Dr. Nixon, M., Tu., W., Th., and F., 12; Anatomical Demonstrations, Dr. Hayden and Dr. Nixon, same days, 1; Chemistry, Dr. J. Campbell, M., W., and F., 2; Surgery, Mr. P. J. Hayes, M., W., and F., 3; Medicine, Dr. R. D. Lyons, T., Th., and S., 3; Midwifery, Dr. J. A. Byrne, T., Th., and S., 2; Demonstrations in Dissecting-rooms, Mr. J. M. Redmond, Mr. M. J. Kehoe, Mr. McDonnell, Mr. McCullagh, Mr. McArdle, and Mr. Chance. *Summer Session*, 1882: Practical Chemistry, Dr. John Campbell, M., T., W., and F., 12 to 4 P.M.; Materia Medica and Therapeutics, Dr. F. J. B. Quinlan, M., T., W., and Th., 1; Medical Jurisprudence, Dr. S. M. Macswiney, M., T., W., and Th., 12; Botany, Dr. G. Sigerson, Th., 2; F., S., 1; Pathology and Pathological Anatomy, Dr. R. D. Lyons; Natural Philosophy, the Rev. Gerald Molloy, D.D., T., Th., 1; S., 2.

The school is within a few minutes' walk of the principal hospitals of the city. It includes an extensive and complete chemical laboratory, and well-supplied students' library.

Fees.—The fee for each course is £3 3s., except Dissections and Practical Chemistry, for each of which the fee is £5 5s.; and Pathology, Ophthalmology, and Natural Philosophy, which are free. A reduction of one-sixth is made to perpetual pupils paying the entire of their fees in advance, or in two instalments at the commencement of the first and of the second years of study. The cost of all lectures and classes required for the diploma of the Royal College of Surgeons in Ireland is £68 5s., or to perpetual pupils, £56 17s. 6d.; for the Royal College of Surgeons in England, £50 8s.; of Edinburgh, £47 5s.

Prizes.—At the termination of the winter and of the summer sessions respectively, public examinations will be held in each class; and, besides prizes, a gold medal will be awarded in the following combined subjects, viz., Practice of Medicine, Surgery, and Midwifery. At the end of the summer session, the University Exhibition, value £20, will be awarded for Practical Chemistry, Materia Medica, and Medical Jurisprudence combined.

Further particulars may be learned from the Registrar, Professor Campbell, 161, Rathgar Road; or at the School of Medicine, Cecilia Street.

COOMBE LYING-IN HOSPITAL.—Consulting-Physician, Dr. Gordon; Master, Dr. G. H. Kidd; Deputy-Master, Dr. Poole. The hospital contains sixty-five beds, in two divisions, one devoted to Midwifery, and the other to Diseases of Women. Students can enter for six months at any period of the year. Clinical Instruction is given daily, and Lectures are delivered on the more important cases. Two paid Pupil Midwifery Assistants and one Clinical Clerk are selected half-yearly from among the pupils. Certificates of attendance are accepted by the Examining Boards; and the diploma of the hospital is recognised by the Irish Local Government Board as a qualification in Midwifery. *Fees:* extern pupils, £8 8s.; intern pupils, £18 18s. Particulars may be learned on application to the Registrar at the Hospital.

JERVIS STREET HOSPITAL, DUBLIN.—Physicians, Dr. M. Macswiney, Dr. W. Martin. Surgeons, Dr. J. S. Hughes, Mr. J. K.

Forrest, Mr. A. Meldon, Mr. J. E. Kelly, Dr. W. Stoker, Dr. J. J. Cranny, Dr. R. MacDonnell.

This hospital, which is at present being rebuilt, is central in situation. An extensive dispensary is attached.

Clinical instruction is given by the Physician and Surgeon on duty on alternate mornings, between 9 and 11. Two clinical lectures are delivered each week, and pathological specimens are exhibited. Surgical instruments and appliances of all kinds are made the subject of special instruction.

Surgical operations are performed on Saturdays at 10 A.M., except in cases of emergency.

Resident Pupils and Dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two Interns are appointed each half-year, and are provided with apartments, etc., free of expense. Special certificates are given to the Resident Pupils and Dressers who have performed their respective duties to the satisfaction of the Physicians and Surgeons.

LEDWICH SCHOOL OF ANATOMY AND SURGERY.—The lectures will be delivered by the following teachers. Anatomy, Surgical and Descriptive: Mr. T. P. Mason, Mr. A. R. Glanville, Mr. M. A. Ward, Mr. C. H. Robinson, Mr. F. A. Nixon, and Mr. E. Ledwich. Anatomy, Physiology, and Pathology: Dr. T. P. Mason, Mr. M. A. Ward, and Mr. T. Mason, five days weekly, at 12 o'clock. Surgery: Mr. J. E. Kelly. Medicine: Dr. Arthur W. Foot. Midwifery: Dr. S. R. Mason. Chemistry and Natural Philosophy: Dr. E. Lapper. Practical Chemistry: Dr. Lapper. Ophthalmic and Aural Surgery: Mr. A. H. Benson. Institutes of Medicine: Mr. E. Ledwich. Materia Medica: Dr. R. D. Purefoy. Forensic Medicine and Hygiene: Dr. Robert Travers. Anatomical Demonstrations daily. A course of operations to be performed by the students, under the superintendence of the lecturer (subjects, etc., included), £5 5s.

The dissecting-rooms will open on October 1st. During the summer session, there will be lectures on Midwifery, Chemistry, Materia Medica, Botany, and Forensic Medicine.

There are endowments in favour of students, subject to the conditions prescribed by the founder, in the following departments: two in Anatomy and Physiology, two in Minute Anatomy, two in Practical Anatomy, and one in Surgery. The usual prizes in the other departments will be awarded at the termination of the session.

MATER MISERICORDIÆ HOSPITAL.—Physicians, Dr. J. Hughes, Dr. T. Hayden, Dr. C. J. Nixon. Assistant-Physician, Dr. J. M. Redmond. Consulting Surgeon, Mr. F. R. Cruise. Surgeons, Mr. P. J. Hayes, Mr. C. P. Coppinger, Mr. M. J. Kilgariff. Assistant-Surgeon, Mr. H. Kennedy. Obstetric Physician, Dr. T. M. Madden.

This hospital contains 250 beds, including 50 beds for fever and other contagious diseases.

Two clinical prizes (the "Leonard Prizes") of £15 each, one medical and one surgical, will be given at the end of the winter session.

Fee for nine months, £12 12s.; six winter months, £8 8s.; three summer months, £5 5s.

Further particulars may be learned by application to Dr. Nixon, 32, Upper Merrion Street, or to any of the other medical officers.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—Physicians, Dr. A. W. Foot, Dr. J. W. Moore. Surgeons, Mr. G. H. Porter, Mr. J. H. Wharton, Mr. P. C. Smyly, Mr. R. Macnamara, Mr. L. H. Ormsby, Mr. W. J. Hepburn.

The hospital contains 120 beds for the reception of medical and surgical cases. An extensive dispensary, lending library, and physical laboratory, are attached. An additional ward has been erected for the reception of children.

The winter session will commence on October 1st, and the clinical lectures on the first Monday in November. Four clinical lectures will be delivered weekly, and instructions in Medicine and Surgery will be given on alternate days. The Physicians and Surgeons on duty visit the hospital at 9 A.M.

Prizes will be given at the termination of the winter course to the best answerers in their respective classes. The office of Resident Pupil is open to pupils as well as apprentices.

Further information may be obtained on application to W. J. Hepburn, Esq., 53, York Street, Dublin; or at the Hospital.

MERCER'S HOSPITAL.—Physicians, Dr. T. P. Mason and Dr. G. F. Duffey. Surgeons, Mr. E. S. O'Grady, Mr. A. Nixon, and Mr. M. A. Ward.

Fees for the winter and summer session (nine months) £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s.

Further information can be obtained from any of the medical officers of the Hospital, or from Dr. James Shaw, Secretary to the medical staff.

QUEEN'S COLLEGE, BELFAST.—The following courses are delivered. Anatomy and Physiology, Dr. P. Redfern, M., T., W., Th., F., 2; Practical Anatomy, Dr. Anderson, daily, except Sat., 12; Medicine, Dr. James Cuming, M., T., W., Th., 4; Surgery, Dr. A. Gordon, M., T., W., Th., 1; Materia Medica, Dr. J. Seaton Reid, M., T., W., Th., 4; Midwifery, Dr. R. F. Dill, M., T., W., Th., 3 (summer); Chemistry, Dr. Letts, M., T., W., Th., F., 3; Medical Jurisprudence, Dr. J. F. Hodges, M., T., W., Th., 2 (summer); Natural Philosophy, Dr. J. Everett, M., W., F., 11; Zoology, Dr. R. O. Cunningham, M., T., W., F., 1; Botany, Dr. Cunningham, M., T., W., Th., F., 11 (summer).

Fees.—Medical Jurisprudence, Chemistry, Materia Medica, Medicine, Surgery, Midwifery, and Botany, each £2; reattendance on same course, half fee; Practical Chemistry and Practical Anatomy, each course, £3; Anatomy and Physiology, first course, £3; each subsequent course, £2. Eight Junior Scholarships, of the value of £24 each, are awarded annually, after examination, to students of the Faculty of Medicine; two being awarded for each of the four years of study. Clinical instruction is given at the Belfast Royal Hospital.

QUEEN'S COLLEGE, CORK.—The following courses of lectures are given. Anatomy and Physiology, Dr. J. J. Charles, daily, 1; Practical Anatomy, daily, 12; Medicine, Dr. D. C. O'Connor, M., W., S., 12; Surgery, Dr. S. O'Sullivan, Tu., Th., S., 4; Materia Medica, Dr. M. O'Keefe, T., Th., 3; S., 12; Midwifery, Dr. H. Macnaughton Jones, M., W., F., 4; Medical Jurisprudence and Public Health, Dr. O'Keefe and Mr. M. S. O'Shaughnessy, M., W., S., 3; Natural Philosophy, Mr. J. England, Tu., Th., 2; Chemistry and Practical Chemistry, Dr. M. Simpson, M., W., F.; Zoology and Botany, Mr. A. L. Adams, M., W., F., 3; Logic, Mr. G. S. Read; Modern Languages, Mr. O. O'Ryan.

The building in which the Medical School is located is provided with a large, well-lighted, and well-ventilated dissecting-room, with Physiological and Toxicological Laboratories, Materia Medica, Anatomical and Pathological Museums, as well as a room for surgical and obstetrical instruments and appliances. There are well-appointed Physical and Chemical Laboratories, and a large Natural History Museum in the adjoining building; and part of the College ground is laid out as a Botanic Garden. The College Library is open daily to students of the school.

Fees.—For Practical Anatomy and Practical Chemistry, £3 each course; for Anatomy and Physiology, £3 for first course, and £2 for subsequent course. Other Medical Classes, £2 for first course, and £1 for second course. Eight scholarships (value £25 each), as well as several exhibitions and class prizes, are awarded every year to the most deserving students.

Clinical instruction is given at the North and South Infirmaries and Lying-in Hospitals; students can also attend the Mercy Hospital, the Maternity, the Children's Hospital, and the Ophthalmic and Aural Hospital. Fee for Clinical Lectures and attendance at either the North or South Infirmary, £8 8s. for twelve months; £5 5s. for six months; at the Lying-in Hospital and the Maternity, each £3 3s. The attendance at the Ophthalmic and Aural Hospital is free to students of the College.

A course of Clinical Lectures will be delivered on Tuesdays, Thursdays, and Saturdays during the first three months of each winter session in the Cork District Lunatic Asylum, by Dr. Eames, Resident Medical Superintendent. The fee is £3 3s.

QUEEN'S COLLEGE, GALWAY.—*Professors:* Anatomy and Physiology, Dr. J. P. Pye, M., T., W., Th., F., 3; Anatomy, Dr. Pye, same days, 1; Medicine, Dr. J. L. Lynham, T., Th., S., 2; Surgery, Dr. J. V. Browne, M., W., F., 11; Materia Medica, Dr. N. W. Colahan, T., Th., S., 2; Medical Jurisprudence, Dr. R. J. Kinkead, M., W., F., 12; Midwifery and Gynæcology, Dr. R. J. Kinkead, M., W., F., 2; Chemistry, Dr. T. H. Rowney, M., W., F., 12; Practical Chemistry, Dr. T. H. Rowney, M., W., F., 2; Botany and Zoology, Dr. A. G. Melville, T., Th., S., 11; Experimental Physics, Mr. Larmer, Tu., Th., 12; Modern Languages, Dr. C. Geisler. The College Library is open daily to students; also the Museums of Human and Comparative Anatomy, of Physiological Instruments, of Pathology, of Materia Medica, of Natural History, of Chemistry, and of Natural Philosophy; and the Montgomery Obstetric Collection.

Prizes.—Attached are eight scholarships of the value of £25 each; four exhibitions of the value of £12 each; two exhibitions of the value

of £16 each; and sessional prizes in each of the subjects of the curriculum are awarded annually. All scholarships and exhibitions of the second, third, and fourth years may be competed for by students who have attained the requisite standing in any Medical School recognised by the Senate of the Queen's University, and have passed the Matriculation Examination in the College.

Clinical Lectures are delivered on Tuesdays and Fridays, and practical teaching at the bedside on other days of the week, at the Galway County Infirmary and the Galway Town Hospital.

Fees.—Matriculation, first year, 10s.; each subsequent year, 5s.; Anatomy and Physiology, first course, £3; each subsequent course, £2; Practical Anatomy and Practical Chemistry, each course, £3; other courses, £2 each; second courses of Materia Medica, Surgery, Medicine, and Midwifery, each £1. Clinical Instruction, six months, £4 4s.; Resident Clerkship, six months, £15 15s.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—Physicians: Dr. J. T. Banks, Dr. B. G. M'Dowel, Dr. S. Gordon, Dr. R. D. Lyons; Assistant-Physician and Pathologist: Dr. Reuben J. Harvey; Consulting Obstetric Surgeon: Dr. G. H. Kidd; Surgeons: Dr. William Stokes, Dr. William Thomson, Dr. W. Thornley Stoker, Dr. Anthony H. Corley; Ophthalmic Surgeon: Dr. Charles E. Fitzgerald.

These hospitals contain 312 beds; 110 for surgical cases, 82 for medical cases, and 120 for fever and other epidemic diseases.

There will be a distinct Course of Lectures and Clinical Instruction in Fevers. Operations are performed on Monday and Wednesday mornings, except in cases of emergency. A Course of Practical Instruction in Ophthalmic Surgery will be given; fee, £3 3s. Practical Pharmacy is taught under the superintendence of the apothecary of the hospitals. A Resident Surgeon is appointed every alternate year, receives a salary, and holds office for two years. Eight Resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, fuel, etc. These appointments are open not only to advanced students, but also to those who are qualified in Medicine or Surgery. The dressers are selected from among the best qualified of the pupils, without the payment of any additional fee.

The Richmond Lunatic Asylum, containing over 1,000 patients, adjoins these hospitals, affording every facility for the study of mental diseases. The hospitals are visited at 9 o'clock by the physicians and surgeons on alternate days. Two Clinical Lectures are delivered in each week, in addition to the usual bedside instruction.

Fees: For the winter and summer session, £12 12s.; for the six winter months, £8 8s.; for the three summer months, £5 5s. Resident Clinical Clerks, £21 for the winter session; £15 15s. for the summer term, including certificate of attendance.

ROTUNDA HOSPITALS.—Master, Dr. Lombe Atthill; Assistant Physicians, Dr. A. Horne, and Dr. R. Henry; Pathologist, Dr. G. F. Duffey.

This Institution consists of two distinct Hospitals, namely, the Lying-in Hospital, for labour cases, and the Auxiliary Hospital, for patients suffering from uterine and ovarian disease. There are also a large extern maternity in connection with the Hospital, and a Dispensary for Diseases of Women. An Obstetrical Museum, containing upwards of 500 preparations, is attached to the Hospital.

Clinical Instruction in Midwifery and the Diseases of Women is given daily; and Lectures are delivered regularly during the Session.

The Diploma from this Hospital is granted to pupils after a six months' attendance, and on their passing an examination. It is recognised by the Local Government Board in Ireland, as a qualification in Midwifery.

Accommodation is provided for a limited number of Intern Pupils.

Fees.—Intern Pupils: six months, £21; three months, £12 12s.; two months, £9 9s.; one month, £6 6s. Extern Pupils: six months, £10 10s.; three months, £7 7s.

SIR PATRICK DUN'S HOSPITAL.—Consulting-Surgeon, Dr. W. Colles; Clinical Physicians, Dr. J. M. Purser, Dr. W. Moore, Dr. ———*; Midwifery Physician, Sir E. B. Sinclair; Clinical Surgeons, Dr. A. Macalister, Dr. E. H. Bennett, Dr. T. E. Little; University Lecturer in Operative Surgery, Dr. R. G. Butcher.

The physician on duty visits the wards, with his class, at 9 A.M. on Mondays, Wednesdays, and Fridays; and the surgeon on duty, with his class, at 9 A.M. on Tuesdays, Thursdays and Saturdays. The Hospital Dispensary is open from 9 to 4 daily.

The Hon. [illegible] has been appointed to the office of Consulting Physician to the Adelaide Hospital, which has been created, in addition to Dr. Neild's death, which has occurred, is appointed.

The payment of £12 12s. to the hospital entitles the student to hospital attendance and clinical teaching during the winter and summer sessions, and to Dr. Butcher's lectures. For the winter session alone, the fee is £8 8s.; for the summer alone, £5 5s. Bachelors of Medicine and Masters in Surgery of Trinity College are entitled to attend as perpetual free pupils. For twelve months' instruction in Practical Midwifery, students of Trinity College, £3 3s.; other students £6 6s. Silver Clinical medals in Medicine and in Surgery are awarded to the students who shall pass the best examinations on the Medical and Surgical cases treated in the hospital during the year.

DR. STEEVENS'S HOSPITAL.—Consulting Physicians: Dr. H. Freke and Dr. T. W. Grimshaw. Consulting Surgeons: Mr. S. G. Wilmot and Mr. G. H. Porter. Physicians: Dr. H. C. Tweedy; Dr. R. A. Hayes. Surgeons: Mr. W. Colles; Dr. E. Hamilton; Dr. R. McDonnell. Surgeon-Dentist: Mr. J. A. Baker. Obstetric Physician: Dr. A. Duke.

The Medical School formerly attached to the Hospital having been discontinued, the Medical Officers have determined to devote all their energies to the advancement of Clinical Instruction. The Hospital contains 250 beds. There are a Ward entirely devoted to Syphilitic Disease, and a detached building for Fever cases; also an extensive Out-patient Department, with separate Clinics for Diseases of the Skin, Throat, Teeth, and those peculiar to Women.

Arrangements have been made that each Pupil shall be assigned one or more beds, for the care of which he will be responsible; and he will be expected to keep accurate notes of the cases. At the end of each Hospital year, Gold Medals will be awarded for general attention and proficiency in Clinical work and Case-taking.

Clinical Lectures are given by the Physicians and Surgeons. Surgical Operations are performed on Saturdays, at 10 A.M., except in cases of emergency.

The Museum is open daily to the Pupils of the Hospital. There is also a Lending Library.

Fees.—Hospital Practice: Nine Months, £12 12s.; Six Months, £8 8s.; Three Months, £5 5s. Dressership: Winter, Six Months, £21; Summer ditto, £15 15s.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 12th day of October, next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 6th, 1881.

BRANCH MEETINGS TO BE HELD.

NORTH WALES BRANCH.—The thirty-second annual meeting of this Branch will be held at the Pwllycrochan Hotel, Colwyn Bay, on Thursday, September 15th, at 2 P.M., for the purpose of [illegible] Dr. Wm. Roberts of Manchester has promised to read a paper. Mr. Lawrence Tait, one on The Diagnosis and Treatment of [illegible] Ovary; Dr. Bezly Thorne, on Acromegaly; Dr. [illegible], and Mr. Edmund Owen, on [illegible]. Mr. and Mrs. Shaw Mackenzie request the pleasure of the members' company at luncheon and tea of any ladies who may accompany members to the meeting. The Hall grounds and lawn games will be open to their visitors, and [illegible] arrangements may be arranged for them. J. LLOYD ROBERTS, Hon. Sec.

LANCASHIRE AND CHESHIRE BRANCH.—A special meeting of this Branch will be held at the Medical Institution, Liverpool, on Wednesday, September 21st, at 5 P.M., to consider the subject of Consultations with Homœopathists.

[illegible] Thursday, October 13th, at [illegible] Members desiring to have papers read at the meeting are requested to send their names to the Honorary Secretary, [illegible], Honorary Secretary, [illegible].

NORTH DEVON BRANCH.—[illegible] papers are requested to communicate at once with one of the Honorary Secretaries, T. W. BARRETT, M.B., Barnstaple; DANIEL DARKE, M.B., North Molton, Honorary Secretaries.

[illegible] will read a paper. Dinner at the Town Hall at 6 P.M. Members intending to dine are requested to send their names to the Honorary Secretary not later than [illegible] hours. J. P. HARVEY, Hon. Sec.

SOUTH-EASTERN BRANCH: EAST SUSSEX DIVISION.—The first meeting of the above Branch for the present session will be held at the Station Hotel, Hayward's Heath, on Thursday, September 29th, at 3 o'clock. The meeting will be [illegible]. Members are requested to make their arrangements accordingly, and to intimate their intention of being present at the meeting to the Secretary. [illegible], Honorary Secretary, Hurstpierpoint, Sussex.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at the Grand Hotel, Leamington, on Tuesday, September 27th, at 2 o'clock; the President, H. C. Rogers, Esq., in the chair. Dr. Lawford kindly invites the members to luncheon at his house, at a quarter past [illegible]. Amongst others, the following communications will be read. Dr. Bryan: Notes on New Medicines. Dr. Buzzard: Illustrations of Diseases of the Spinal Cord. Dr. Lawford: Notes of a Gunshot-wound in which the Bullet passed through the Ethmoid Bone, struck the Occipital Bone, and then passed into the Oesophagus. [illegible] will read a communication. Dr. Bleeding will read a paper. C. Heath, Esq.: A few Remarks on the Treatment of some Common but Obstinate Affections. J. A. Hedges, Esq.: Case of Contracted Knee-joint treated successfully by Subcutaneous Tenotomy. G. F. Keys, M.B., Honorary Secretary, Northampton.

EAST ANGLIAN BRANCH.—The autumnal meeting of this Branch will be held at the Swan Inn, Southwold, on Friday, September 30th, at 2 P.M.; Charles Palmer, Esq., Senior Surgeon Great Yarmouth Hospital, President. It is requested that members desirous of reading papers or exhibiting specimens will give notice [illegible] to the Honorary Secretaries. W. A. Brereton, M.D., Ipswich; M. Beverley, M.D., Norwich, Honorary Secretaries

CORRESPONDENCE.

CONSULTATIONS WITH HOMŒOPATHS.

SIR,—Mr. Hutchinson, in his address delivered to the British Medical Association at Ryde, has given his views touching consultations with homœopaths. He tells us that it is our duty to meet in consultation every man whose name is on the *Medical Register*, including, of course, every practitioner of homœopathy. And in his sketch of homœopathy, he tells what sort of *confrères* homœopathic practitioners were: "No wonder that some of our ranks should have thought they saw their interests in adopting the new method, and equally little that most of those who observed their conduct *held the motives of the man who put 'Homœopath' on his door to be low and self-seeking. In nineteen cases out of twenty, probably the verdict was right*". (The italics are put by me.) Now, I would ask Mr. Hutchinson his reasons for asking the profession to meet in consultation men "whose motives were, in nineteen out of twenty cases, low and self-seeking". His remark, it is true, is written in the past tense; but he makes no distinction between the past and the present, as he manifestly should have done, if he meant his stigma to attach only to those of a past generation. Any way, his views clearly enforce the propriety of such consultations in the past equally as they do now. And as to "motives", it is certain that the adoption of the "new method" may serve men's interests now, as well as, or even better, than they did in the past. Again, Mr. Hutchinson says: "To Boycott a quack on principle is one thing, to attend to the interest of the quack's patient may be another. Hence the duties of surgeons in this matter, and especially of those engaged in consultation practice, have always been very difficult." Mr. Hutchinson's manner of putting this may be somewhat obscure; but it seems to me that there can be only one person here to whom he applies the term quack.

The inevitable conclusion which follows from these statements, unless I have wholly misread Mr. Hutchinson (which I hope I have) is this: That it is the duty of the profession to meet in consultation quacks and men whose motives "in nineteen out of twenty cases, are probably low and self-seeking", provided only their names be on the *Register*. I wish to say, that I do not endorse this verdict. In a country which boasts, above all, of freedom of opinion, it would be disgraceful indeed if homœopathy were not allowed to have its full swing. I certainly think that those men act unfairly who call themselves homœopaths, and yet practise like all the rest of the world. But I fully agree with Dr. Bristowe that there are homœopaths as high-minded and as honourable as the best of the profession. All that we demand, and have a right to demand, is that they shall not force their professional intercourse upon us. If they would only leave us alone, and quietly pursue their avocations in their own way, I am satisfied that the profession would never interfere with them. It would simply *guarda e passa*.

Equally hard is it to understand how Dr. Bristowe could have persuaded himself to tell us that it is the duty of the profession to meet in consultation men who "practise", as he calls it, "such a palpable imposture as homœopathy". Does he really maintain that a medical man can assist in such consultations without aiding and abetting in the spread of "the imposture"?

Both Dr. Bristowe and Mr. Hutchinson ignore all reference to what seems to me to be the very pith of the matter—the morality of homœopathic consultations. They ask the profession to meet homœopaths, that is to meet: 1. The pure homœopath, whose theory and practice Dr. Bristowe eloquently denounces as an outrage on medical science; and 2. The *soi-disant* homœopath, who, it appears, practises his profession as ordinary medical men do, and but labels himself homœopath, whereby he gets all that advantage which, as Mr. Hutchinson says, is derived from writing homœopath on his door. Now to meet a pure homœopath—a man whose theory and practice of medicine is set down by Dr. Bristowe as an outrage on our medical science—is surely to deceive the patient, to degrade ourselves, or to insult the homœopath. Then, to meet a *soi-disant* homœopath—to consult with a man who pretends to the public that he possesses some special hocus-pocus method of cure, some powers which we others have not, and yet practises medicine as ordinary doctors do—seems to me simply entering into a partnership with, or encouraging, those who, whether they mean it or not, are in our eyes humbugging the public.

Mr. Hutchinson's saving clause in favour of the surgeon, that he, at all events, cannot go wrong in meeting homœopaths, can surely bear no arguing. Do surgical patients never require medical treatment? Syphilitic diseases fall mainly to the surgeon; do they require no medical treatment? Of course, *semper et ubique*, surgeons tie bleeding arteries and relieve strangulated hernias; but what have such operations to do with homœopathic consultations? If (as Mr. Hutchinson says) the public had really suffered through our exclusiveness in this matter, we should surely have heard something of it during the past twenty years.

Dr. Bristowe's eloquence has carried him away into what—he must pardon me for saying—seem to me errors in arguing, and consequent injustice to the profession. "It would be deplorable", says he, "if those of us who look on spiritualism as one of the greatest follies of the times in which we live, were to scout the distinguished chemists and the great writers who devoutly believe in it; or were to", etc. The inference is that we, who scout homœopathy, do act thus deplorably. The error here is patent. Dr. Bristowe confuses the abstract with the concrete. We do not scout the man, we scout the thing he practises. We act towards the homœopath as such, exactly as Dr. Bristowe would act towards the spiritualist as such. Dr. Bristowe would scout a consultation on spiritualistic business with a practitioner of spiritualism, exactly as we would scout a medical consultation with a practitioner of homœopathy. Does Dr. Bristowe really mean to assert that we, who refuse to meet a homœopathic practitioner in consultation, would refuse to do him just homage as a great chemist, as an astronomer, or as a man of science in any department? Here he assuredly does us injustice. Let him produce, if he can, a homœopath distinguished as a man of science, and show that he has been scouted because he practised homœopathy; and then his argument would have some base to stand upon. Is Mr. Crookes scouted because he patronises spiritualism? It is not our fault if homœopaths are not distinguished as men of science, and do not figure among our F.R.S.'s. Again, the wanderings of Dr. Bristowe's pleadings are shown, when he refers to matters "incapable of scientific proof", to support his thesis—to religion, politics, and such like. Now, if his reasonings here have any point, they come to this: that he blames the Catholic who refuses to go to church with the heretic, or the Conservative who refuses to sit down at a Radical festival. The truth is, his illustrations, as I see them, tell exactly the opposite to that which he adduces them to prove. He would not, I suppose, blame me if I were to refuse to confer on spiritualism with a spiritualist, even though he were an Astronomer Royal or a Sir Humphry Davy. Why, then, should he blame me if I refuse to confer professionally with a homœopath, who, as Dr. Bristowe has shown, believes in doctrines equally outrageous to science? It is not the man, or the man of science, whom I repudiate, but that false doctrine—homœopathy—which he holds, or pretends to hold, *and which bears immediately upon the business in hand*, the treatment of the patient.

It is well, I think, that Dr. Bristowe and Mr. Hutchinson have published their views on consultations with homœopaths. When men so high in the profession, and so skilled as writers, have spoken, we may be sure that everything has been said, that can be, to support their opinions. Yet I cannot but believe that many of their readers will conclude, as I have done, that the arguments, on the whole, tell dead against homœopathic consultations. Whether our *confrères* acted well in expressing their sentiments on such a topic in the Addresses in Medicine and Surgery of the British Medical Association may be a matter of doubt.* I do not think they did; and chiefly for this reason, that,

* It is right to say that Mr. Hutchinson did not deliver his remarks on homœopathy to the [illegible] his manuscript, but passed them over, having learnt that Dr. Bristowe had attacked the same subject.

as they were the appointed orators of the Association, many persons, in and out of the profession, may not unreasonably infer that their opinions are in some sense sanctioned by the Association. They seem to me to have inopportunely and needlessly introduced the red flag of quasi-polemics into what should have been calm and scientific discourses. When this subject was last brought before the Association, about twenty years ago, it was so on a special motion, and in full assembly where every member could have his say. It is to be regretted that the matter was not again brought forward in a similar way; for then, at all events, it could have been duly discussed, and we should have had the satisfaction of learning the opinion of the Association, whether or no it is ready, at this day, to revoke the unanimous veto which, twenty years ago, it put upon homœopathic consultations.—

Yours obediently, W. O. MARKHAM.

London, September 10th, 1881.

OBITUARY.

FREDERICK SYMONDS, M.A., F.R.C.S.

WE regret to have to announce the death of Mr. Frederick Symonds of Oxford, which took place on the 11th instant, after a long and painful illness. Mr. Symonds, who was the son of Mr. John Symonds, a well-known practitioner at Oxford, was born in 1813, and was educated at Christ's Hospital and at University College, London. He commenced practice at Oxford in 1833, and was elected to the university coronership in 1869. In the following year, the university conferred upon him the honorary degree of M.A., when he became a member of Magdalen College. He was surgeon to the Radcliffe Infirmary, Oxford, for more than twenty-five years, retiring from the office in 1878, when he was elected honorary surgeon. He was also for several years surgeon to the University Volunteer Rifle Corps, but resigned a few years since. In recognition of the valuable assistance rendered by him to the sufferers from the Shipton railway accident in 1877, most of whom were brought to the Radcliffe Infirmary, he was presented with a handsome piece of plate by the Great Western Railway directors. He was a fellow of the Royal College of Surgeons, and a member of the Geographical, Microscopical, and other scientific societies. Mr. Symonds was highly esteemed, both in his private and professional capacity; and his many popular qualities endeared him to a large circle of friends, by whom he will be much missed. He had a high reputation as a surgical operator; and his practice in the university and county especially was a very extensive one until ill-health compelled his retirement from it some time ago. He leaves a widow and several children.

ROBERT SMITH, M.D.

WE have to record the death, at the early age of thirty-two, of one of the most accomplished and amiable assistant-physicians of this metropolis. We allude to the death of Robert Smith, M.A., M.D., which took place at Laurencekirk, Kincardineshire, on September 9th, from acute phthisis. Dr. Smith was an example of that patient and persevering industry of which the northern universities afford so many examples amongst their graduates. He may be said really to have made himself; for, during his undergraduateship, he had to work hard to obtain the funds necessary to carry him through his college career. He was a graduate in arts of the University of Aberdeen, where he also took the degrees of M.B. and C.M., with highest academical honours; and soon afterwards he was promoted to the degree of M.D. He acted as assistant to Professors Brazier and Struthers; and, after leaving Aberdeen, he joined the staff of Charing Cross Hospital, where his marked ability for imparting instruction, and his amiability of disposition, justly gave him a degree of popularity, both with student and colleague, such as few men of his age attain. He was ever ready to lend a helping hand in every good work; ready to oblige a colleague or friend by doing duty for him—painstaking to a degree in imparting knowledge to the tyro in medicine; and he never tired in insisting upon a good preliminary education as an absolutely necessary qualification for the intending student of medicine. Dr. Smith acted for two years as Examiner in Chemistry and Physiology in his Alma Mater, where he was deservedly one of the most popular examiners, [illegible] conscientious examiner. He always insisted that students should have a knowledge of the great principles of the sciences in which he examined; and no one "crammed or crammed" had any chance of passing unscathed through the well selected series of questions which he put to the candidates. He was a [illegible] of an examiner; and his kindly smile and encouraging words of comfort will be greatly missed. Dr. Smith was an accomplished physician of the best type; well grounded in chemistry, anatomy, and physiology, he had laid a foundation for future eminence, and had just begun to reap the reward of his steady devotion to duty and the fruits of his high mental attainments when he was cut off. Of his amiability and gentleness, of his courtesy, and kindness, and considerateness, we cannot speak too highly. Charing Cross Hospital has to mourn the loss of one of her most useful and accomplished, and one of her most prominent, assistant-physicians.

DAVID LOW, M.B., C.M.

Dr. Low died at Skene, Aberdeenshire, on the 19th ultimo, at the early age of 32. Dr. Low was a native of Skene, and was educated at the Grammar School and University of Aberdeen, where he graduated in 1872 as M.B., C.M., with highest academical honours. Immediately afterwards he was chosen house-surgeon to the Perth District Asylum, at Murthly, which appointment he filled with great efficiency for nine months. He then went to Cairo in Egypt as assistant to Dr. Grant-Bey with whom he remained till he entered the service of His Highness the Khedive, and became attached to all the expeditions sent out by the Egyptian Government to obtain information respecting the slave traffic. He served on board Egyptian cruisers employed against the slavers on the Red Sea, and was forthwith nominated Assistant-Judge in the Slave Court at Massowa, in Abyssinia. When this service was completed, Dr. Low was appointed, under Gordon Pacha, Inspector-General of Hospitals in the Soudan, where he organised classes for training the natives as medical helpers—an organisation of the highest possible importance in these unhealthy regions. On account, however, of prolonged service in the Soudan, his health broke down, and he was reluctantly obliged to resign his appointment, and come home to recruit his strength. After a stay of six months, he returned to Egypt last October, and soon after was appointed Medical Inspector to the Sanitary Board in Alexandria, but his health again giving way, he was compelled to come home, where, after lingering for three months, he quietly passed away. Besides being a great traveller, Dr. Low was an accomplished Arabic scholar. His amiability of character, cheerful and kindly disposition, which endeared him so much to his class-fellows when a student at the University, made him greatly beloved and esteemed by all who came into contact with him in his official and private life abroad.

RICHARD CLEWIN GRIFFITH, M.R.C.S.E., L.S.A.

ON the 5th instant, Mr. Richard Clewin Griffith died at his residence, 20, Gower Street, where he lived fifty-three years. He had attained the great age of ninety years (less three days). He passed his examinations in 1812 and 1813, and was among the first batch of general practitioners. He took his father's practice, which had been established twenty years in Tottenham Court Road, then a country suburb of London. After a few years, he removed to Gower Street, where he carried on one of the largest general practices in the neighbourhood. Like many other able men of his time, he bravely and successfully did his work. He was Mr. Cline's last dresser at St. Thomas's Hospital, and was the father of the Apothecaries' Society, of which Company he was the Master twenty-six years ago. For several years the late Mr. Charles Brooke of the Westminster Hospital was his partner; and when they dissolved partnership, about 1845, Mr. Griffith began to resign the practice of medicine, having realised a good competence. It is both interesting and instructive to meditate on the past of men who were a link between the past (Act of 1815) and the present, and who were a credit to our profession at a critical epoch of our history.

DONATIONS AND BEQUESTS.—The Lady Harriet M. Scott Bentinck has given £1,500 to the Great Northern Hospital.—The Very Rev. Arthur Penrhyn Stanley, D.D., Dean of Westminster, has bequeathed £500 to the Nurses' Home, Westminster.—Colonel William H. Digweed of Ecchenswell has bequeathed £400 to the Hants County Hospital, on condition that they admit at all times two invalid poor persons from the parish of Ecchenswell, to be nominated by the guardians of the poor.—Mr. David McIntosh of Havering Park, Romford, has bequeathed £200 to the London Hospital, and £100 each to the City of London Hospital for Diseases of the Chest, the National Hospital for the Paralysed and Epileptic, and the Eastern Counties Asylum for Imbeciles and Idiots.—Mr. Stephen Cooper of Leytonstone has bequeathed (after the death of his wife) £100 each to the London Hospital and the City of London Hospital for Diseases of the Chest. Mr. [illegible], [illegible] of the Royal Society of Musicians, has given [illegible] the funds of the Aberdeen Royal Infirmary has been made by the late Mr. Robert Nicol, merchant, Manchester.

MILITARY AND NAVAL MEDICAL SERVICES.

DEPUTY SURGEON-GENERAL J. L. HOLLOWAY, C.B., has been granted six months' leave of absence from South Africa, for the recovery of his health; and sails for England in the *Anglian* on August 16th. Deputy Surgeon-General James Sinclair, M.D., has in consequence taken over the duties of Principal Medical Officer. The advanced base-hospital at Newcastle, in charge of Brigade-Surgeon Watts, contains now only sixty patients, but is equipped for two hundred. The divisional field-hospital at Bennett's Drift, with the troops in charge of Surgeon-Major Stafford, consists of three hundred beds, and is very efficient. One hundred and fifty invalids will leave Durban for England in about fourteen days. On account of the scarcity of grass for the cattle on the road, no more convoys of sick can be sent down to Maritzburg from Newcastle for another month. A force of 5,000 men will probably remain at Newcastle during the winter; and a new hospital is being built there, under the superintendence of Brigade-Surgeon Sinclair, to receive the sick of the force. Sir E. Wood leaves Natal for Zululand on August 22nd, with a large cavalry escort. Two medical officers and a small field-hospital will accompany them. Sir Hercules Robinson leaves Maritzburg to-morrow (August 16th), to return to Cape Town. The health of the troops in South Africa is good; strength 12,482, out of which there are 4 officers and 572 men sick, and 31 men with wounds. This is equal to 4.86 per cent. The troops which arrived from India expect to leave in October.

ARMY MEDICAL SERVICE.—The following is the list of candidates who were successful for appointments as Surgeons in Her Majesty's British Medical Service at the competitive examination in London on August 15th, 1881.

	Marks.		Marks.
1. N. M. Reid	[illegible]	14. J. W. Jerome	[illegible]
2. W. H. P. Lewis	[illegible]	15. W. W. Pike	[illegible]
3. W. Dick	[illegible]	16. M. E. Fitzgerald	[illegible]
4. F. J. Jencken	[illegible]	17. L. H. Traefitt	[illegible]
5. H. O. Stuart	2125	18. J. M. Irwin	[illegible]
6. F. H. Treherne	[illegible]	19. P. J. Nealon	[illegible]
7. S. F. Loughead	[illegible]	20. E. O. Wight	1240
8. J. C. Haslett	2075	21. W. O. Morris	[illegible]
9. H. J. Barratt	[illegible]	22. F. H. M. Burton	1810
10. H. E. R. James	2025	23. J. Heath	[illegible]
11. H. O. Trevor	[illegible]	24. C. E. Nicholl	[illegible]
12. A. F. Russell	1985	25. J. D. T. Reckitt	1805
13. R. J. Fayle	1971		

INDIAN MEDICAL SERVICE.—The following is a list of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination held at Burlington House on August 15th, 1881, and following days. Twenty-nine candidates competed for ten appointments; twenty-seven were reported qualified.

	Marks.		Marks.
1. L. T. Young	2702	6. John Smyth	[illegible]
2. J. B. Gibbons	[illegible]	7. R. B. Roe	[illegible]
3. D. St. J. Grant	2410	8. H. Greaty	[illegible]
4. G. J. Shaad	[illegible]	9. J. Kernan	[illegible]
5. D. J. Crawford	2235	10. E. P. Youngerman	[illegible]

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

LUNACY CERTIFICATES.

SIR,—I am sent for to examine a prisoner at the police station as to the state of his mind. From my examination, I come to the conclusion that the man is insane, and I tell the superintendent that I am ready to sign the necessary certificate. I hear nothing more of the case; and next morning, on inquiry, I find that the relieving officer has been called in to remove the man to an asylum, and that he, knowing I had already seen the case, sends to the parish surgeon, who signs the certificate. Is this the right course for the relieving officer to take? and to what fee am I entitled from the police; that for an ordinary visit to the station, viz., 3s. 6d., or that for certifying as to the state of the prisoner's mind, viz., one guinea?

I should also be glad to know the rights of the following case. I am attending the wife of a labouring man. I consider her to be insane, and advise her removal to an asylum. Her husband cannot afford to pay for her maintenance there, and applies to the relieving officer, telling him that I have been attending the case, and am ready to sign the certificate. When the case is brought before the magistrate, should the relieving officer send for me or for the parish surgeon?—I am, yours truly, A MEMBER.

*** We have, on several occasions, pointed out that the selection of the medical gentleman called to the assistance of a magistrate or the justices rests with these officials. As, however, the fee paid on these occasions is a charge on the rates, the justices or the magistrate ordinarily leave with the board of guardians of the union in which the lunatic is the power of appointing the medical gentleman who is called on to certify. Although our correspondent may feel aggrieved by our reply, he should bear in mind that the salary of a district or workhouse medical officer is ordinarily based on the assumption that it will be supplemented by what are called extra fees, to which he may be legitimately entitled. With such additions, the condition of most Poor-law medical officers would be sad indeed. The mileage which our correspondent charges for, and the fee to which our correspondent is entitled for his attendance at the police-station, that will be governed by the hour at which he was called, viz., by day, or by night.

ATTENDANCE ON FAMILIES OF PAUPERS AND ON CASES OF LABOUR.

SIR,—I believe you will be doing a service to district medical officers in general, and those who have recently become so in particular, by inserting in your valuable JOURNAL the following extract from a letter from the Local Government Board to the guardians of the Debenham Union in reply. I am directed to state that the Board consider that, when a medical officer is attending the family of a pauper in compliance with the order of a relieving officer, no special or further order is requisite for his attendance at the confinement of a female member of the family."—I am, sir, your obedient servant, EUSTACE FIRTH.

Debenham, Suffolk, September 7th, 1881.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 8th, 1881.

Faraker, John Joseph, Cheshunt, N.
Johnson, Samuel Ebenezer, Birmingham.
McCutcheon, James, Bradford.
Thomson, St. Clair, King's College Hospital.
Williams, Walter Treliving, Walthamstow.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BATH GENERAL HOSPITAL—Resident Medical Officer. Salary, £100 per annum. Applications to the Registrar by September 22nd.

BETHLEM HOSPITAL—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C., by October 1st.

BIRMINGHAM CHILDREN'S HOSPITAL—Assistant Resident Medical Officer. Salary, £40 per annum. Applications by September 20th.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Dispenser. Salary, £80, with board and lodging. Testimonials, on or before 24th instant, to the Honorary Secretary.

ESSEX AND COLCHESTER HOSPITAL—Physician. Applications by October 5th.

GENERAL HOSPITAL FOR SICK CHILDREN, Pendlebury, Manchester—Senior Resident Medical Officer. Salary, £100, with board and lodging. Applications to Chairman Medical Staff, on or before September 22nd.

GLASGOW ROYAL INFIRMARY—Lady Superintendent. Salary, £50 per annum. Applications to Superintendent by September 21st.

LISBURN UNION—Medical Officer for Knocknadona Dispensary District. Salary, £100 per annum, with £15 yearly as Medical Officer of Health, registration, and vaccination fees. Election on the 21st instant.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Surgeon. Applications to the Secretary by 26th September.

OUGHTERARD UNION—Medical Officer for Lettermore Dispensary District. Salary, £100 per annum, £10 for boat-hire, with £12 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 27th instant.

OWENS COLLEGE, Manchester.—Demonstrator of Anatomy. Salary, £125 per annum. Applications, addressed to the Senate, by the 23rd September.

QUEEN'S HOSPITAL, Birmingham—Second Casualty Surgeon. Applications by October 5th.

WEST BROMWICH HOSPITAL—House-Surgeon. Salary, £80 per annum. Applications to W. Bache, Esq., by September 26th.

WEST LONDON HOSPITAL, Hammersmith—Assistant Dispenser. Salary, £70 per annum. Applications by September 19th.

WHITECHAPEL UNION—Assistant Medical Dispenser. Salary, £60 per annum. Candidates must be L.A.C. Applications by September 24th.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL—Matron and Superintendent of Nurses. Salary, £100 per annum. Applications to the Chairman of the Weekly Board by September 19th.

MEDICAL APPOINTMENTS.

BENDALL, Howard, M.B., appointed House-Surgeon to the Queen's Hospital, Birmingham.

DOYLE, Anthony, L.R.C.S., appointed Resident Surgeon to the Memorial Hospital, Jarrow-on-Tyne, *vice* H. W. Davies, M.R.C.S., resigned.

DUTTON, Thomas, M.B., L.R.C.P., appointed Admiralty Surgeon and Agent to the Chichester Harbour Division of H.M. Coastguard and Wounded Seamen, *vice* N. E. Cresswell, M.D., M.R.C.S., resigned.

POWELL, G. B., L.R.C.P., appointed Medical Officer to the Nottingham Union.

PRYNN, W. W., M.R.C.S., appointed House-Surgeon to Guy's Hospital.

RIDGE, J. James, M.D., appointed Medical Officer of Health to the Enfield Local Board.

RHYS, Joshua, M.R.C.S.Eng., appointed Assistant-Surgeon to the City Provident Dispensary, Aldersgate Street.

SAVILL, T. D., M.R.C.S., appointed House-Physician to St. Thomas's Hospital.

TIDSWELL, H. H., M.R.C.S., L.R.C.P., appointed House-Physician to the General Infirmary, Northampton, *vice* Arthur H. Jones, M.D., resigned.

WILLIAMSON, R. L., M.D., appointed Medical Officer to the Parish of Dalry, *vice* A. McK. Millman, M.D., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

STARTIN.—On the 12th instant, at The Higham, Surbiton Hill, the wife of James Startin, Surgeon, of Sackville Street, Piccadilly, of a daughter.

MARRIAGE.

JONES—BOYD.—On the 8th instant, at the Congregational Church, Cheadle Hulme, Cheshire, by the Rev. D. N. Jordan, B.A., Thomas Jones, Surgeon, Manchester, to Annie Maria, only daughter of Alexander Boyd, Beechfield, Cheadle Hulme.

THE will of Mr. Thomas Heckstall Smith of Rowlands, St. Mary Cray, F.R.C.S.Eng., has been proved; the personalty over £62,000.

MR. EDWIN DAY, M.R.C.S.Eng., has obtained a superannuation allowance of £60 *per annum*, on resigning as medical officer, No. 5 District of the Barton-Regis Union, Gloucestershire, after forty-five years' service.

A SOCIETY for the promotion of cremation has been formed in Padua. The first meeting was held on August 31st, under the presidency of Dr. Giovanni Berselli, and was numerously attended. It was decided to name the institution the "Ferdinando Coletti Cremation Society of Padua".

IT is announced that, in October, Messrs. Smith, Elder, and Co. will publish a new work for use in the dissecting-room by Mr. Reeves of the London Hospital. Its title is, *Human Morphology: a Treatise on Practical and Applied Anatomy*. It will be abundantly illustrated, and will contain chapters on anatomical technics, on the history of anatomy, and a glossarial index.

IRISH PAUPERS AND STIMULANTS.—From a return of alcoholic stimulants used in the several workhouses in Ireland during 1880 just published, we learn that in the province of Ulster, 25,030 sick persons were treated; 2,498 received alcoholic stimulants valued at £1,014 14s. 9½d. In Munster, of 49,616 cases, 15,749 received stimulants valued at £3,750 19s. 9d. In Leinster, of 35,066 cases, 25,954 received stimulants, valued £5,380 16s. 5½d. In Connaught, of 10,486 cases, 2,950 received stimulants, valued at £1,698 17s. 7d. Thus, of 120,198 sick persons treated during the year, 48,151 received alcoholic stimulants; the cost of the stimulants being £11,845 8s. 7d.

HOUSE-DRAINAGE.—Some time ago, the executive committee of the Citizens' Association, of Chicago, appointed a sub-committee to consider the subject of house-drainage. After considerable investigation the committee embodied its ideas in a report, of which the following is a brief summary of the recommendations made. 1. Concrete the ground under the entire building. 2. Ventilate the main sewers by a perforated cover on every man-hole. 3. Every house should have a cast-iron soil-pipe, not less than four inches in diameter, running from sewer to roof, without a trap, accessible for inspection throughout its entire length. 4. Every sink, wash-basin, bath-tub and water-closet (except the "trapless" closets) should be trapped. 5. Every trap should be ventilated from its highest point into a pipe running out above the roof, and disconnected from the soil-pipe. 6. Joints in iron pipes should be leaded and caulked to rust joints. Joints between the iron and lead pipes should be made with tinned iron or brass ferrules, soldered. 7. Catch-basins should be built outside of the house wherever possible, and ventilated by a special pipe. 8. Water-closets should connect with the outer air by a window or light shaft, and to have a ventilating flue. 9. Avoid pan closets, and use hopper or improved closets. 10. On the upper floor each water-closet should be flushed from a separate tank through a pipe not less than 1¼ inches in diameter.

THE PROGNOSIS IN SECRETION OF INTESTINAL HÆMORRHAGE IN TYPHOID FEVER.—Dr. Hartzell, of Philadelphia, in an article contributed to the *American Journal of the Medical Sciences* for April, 1881, concludes that while hæmorrhage from the bowels may seem to ameliorate the condition of the patient, this is not the rule, as Trousseau and other eminent authorities have taught; but, on the contrary, the symptom is to be looked upon as decidedly unfavourable, raising the mortality from 18 to 40 per cent. He finds that peritonitis is also much more likely to occur in cases where hæmorrhage has appeared.

PUBLIC HEALTH.—The annual rate of mortality during the week ending Saturday, September 3rd, in twenty of the largest English towns, averaged 17.4 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Brighton 13, Portsmouth 13, Norwich 13, Birmingham 14, Bradford 14, Oldham 15, Plymouth 15, London 16, Leeds 17, Newcastle-on-Tyne 17, Wolverhampton 17, Salford 18, Bristol 18, Manchester 19, Nottingham 19, Sheffield 20, Liverpool 22, Sunderland 22, Hull 24, and Leicester 25. Scarlet fever showed the largest proportional fatality in Hull, Leicester, Nottingham, and Sunderland; the deaths from this disease in Hull, which had been 23 and 29 in the two preceding weeks, declined to 16 last week. The 19 deaths from diphtheria in the twenty towns included 8 in London, 3 in Portsmouth, 3 in Birmingham, and 3 in Manchester. Fever, principally enteric, showed the highest death-rate in Nottingham, Newcastle-upon-Tyne, and Salford. Diarrhœa fatality showed a further general decline, and was considerably below the average for the season; this fatality was proportionally greatest in Sheffield. Small-pox caused 24 more deaths in London and its outer ring of suburban districts, and not one in any of the nineteen large provincial towns. In London, 2,358 births and 1,190 deaths were registered. The deaths were so many as 290 below the average. The annual death-rate from all causes, which had steadily declined in the five preceding weeks from 27.2 to 18.3, further fell last week to 16.2, a lower rate than has prevailed in any week of the past ten years. The 1,190 deaths included 22 from small-pox, 35 from measles, 40 from scarlet fever, 8 from diphtheria, 18 from whooping-cough, one from cerebro-spinal fever, 13 from enteric fever, 57 from diarrhœa, 4 from dysentery, and one from simple cholera; thus, 199 deaths were referred to these diseases, being 186 below the average. The fatal cases of diarrhœa, which had steadily declined in the five preceding weeks from 495 to 117, further fell under the influence of the continued low and unseasonable temperature to 57, which were no fewer than 158 below the average. The deaths referred to diseases of the respiratory organs, which had been 153 and 141 in the two preceding weeks, further declined to 115 last week, and were 36 below the average; 64 were attributed to bronchitis and 34 to pneumonia. Different forms of violence caused 55 deaths; 51 were the result of negligence or accident, among which were 27 from fractures and contusions, 5 from burns and scalds, 7 from drowning, 2 from poison, and 4 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 54.5°, and 5.8° below the average. The direction of the wind was variable, and the horizontal movement of the air averaged 14.1 miles per hour, which was 3.7 above the average. Rain fell on three days of the week, to the aggregate amount of 0.36 of an inch. The duration of registered bright sunshine in the week was equal to 16 per cent. of its possible duration. The recorded amount of ozone showed an excess on Monday and Tuesday, but was below the average during the remainder of the week.—The annual rate of mortality last week, being the thirty-sixth week of the year, in twenty of the largest English towns, averaged 18.1 per 1,000. The rates of mortality in the several towns were as follow: Bradford 12, Brighton 12, Norwich 13, Birmingham 14, Bristol 16, Leeds 16, London 16, Plymouth 17, Sheffield 17, Oldham 17, Portsmouth 19, Salford 20, Newcastle-on-Tyne 20, Leicester 22, Sunderland 22, Nottingham 22, Manchester 23, Liverpool 24, Wolverhampton 24, and Hull 26. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, and Leicester; 20 more fatal cases of this disease were recorded in Hull, making no fewer than 149 that have been registered during the past ten weeks. The 16 deaths from diphtheria in the twenty towns included 14 in London and 2 in Portsmouth. Fever, principally enteric, showed the highest death-rate in Bristol and Hull; 4 deaths were referred to "fever" in Newcastle-on-Tyne, of which 3 were fatal cases of typhus in the Fever Hospital, including that of a hospital nurse. Diarrhœa fatality showed a further general decline in the twenty towns, and was considerably below the average for the season. Small-pox caused 29 more deaths in London, but not one in any of the nineteen large provincial towns. In London, 2,513 births and 1,229 deaths were registered. The deaths were so many as 190 below the average. The annual death-rate was equal to 16.7. During the first ten weeks of the current quarter, the death-rate in the metropolis averaged 21.6 per 1,000, against 18.0 and 21.9 in the corresponding periods of 1879 and 1880. The 1,220 deaths included 27 from small-pox, 27 from measles, 48 from scarlet fever, 14 from diphtheria, 29 from whooping-cough, 2 from typhus fever, 10 from enteric fever, 2 from ill-defined forms of continued fever, 30 from diarrhœa, 2 from dysentery, and one from simple cholera; thus, 201 deaths were referred to these diseases, being 128 below the average. The fatal cases of diarrhœa, which had steadily declined in the six preceding weeks from 495 to 57, further fell last week to 30, and were more than 135 below the average. The deaths from small-pox were 27, and more than double

the average. The deaths referred to diseases of the respiratory organs, which had been 141 and 115 in the two preceding weeks, rose again to 131 last week, but were 15 below the average; 74 were attributed to bronchitis and 31 to pneumonia. Different forms of violence caused 51 deaths; 44 were the result of negligence or accident, among which were 17 from fractures and contusions, 6 from burns and scalds, 6 from drowning, and 9 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 55.4°, and 3.6° below the average. The mean degree of humidity of the air was 88, complete saturation being represented by 100. The direction of the wind was variable, and the horizontal movement of the air averaged 7.8 miles per hour, which was 3.4 below the average. Rain fell on six days of the week, to the aggregate amount of 0.49 of an inch. The duration of registered bright sunshine in the week was equal to 17 per cent. of its possible duration. The recorded amount of ozone showed a considerable excess on Tuesday, but was below the average throughout the rest of the week.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following facts, derived from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the death-rate averaged 33.6; it was equal to 23.3 in Calcutta, 37.8 in Bombay, and 38.8 in Madras. Cholera caused 21 deaths in Bombay and 7 in Calcutta, and small-pox 34 in Madras. The returns from each of these cities showed the usual excessive proportion of deaths from "fevers". The rate in Alexandria during the last ten days of August was equal to 47.7, the deaths including 14 fatal cases of whooping-cough. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 28.0 per 1,000 of their aggregate population, whereas the average rate in twenty of the largest English towns last week did not exceed 18.1. The rate in St. Petersburg was equal to 44.3, 57 deaths being referred to typhus and typhoid fevers, and 11 to diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the average death-rate was only 16.6, the highest rate in the three towns being 19.2 in Stockholm; the 62 deaths in the latter city included 3 from typhoid fever, and 5 from diphtheria. The Paris death-rate was equal to 24.5, against but 16.7 in London; the deaths included 41 from typhoid fever, 36 from diphtheria and croup, and 11 from small-pox. The deaths in Brussels were equal to a rate of 24.8, and included 5 from typhus and typhoid fever. In the three principal Dutch cities —Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 19.9, the highest rate being 22.0 in the Hague; typhus and typhoid fevers caused 4 deaths in Amsterdam, and scarlet fever 3 in the Hague. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged no less than 28.9 per 1,000; it ranged from 22,6 and 23.6 in Vienna and Hamburg, to 32.7 and 37.1 in Breslau and Buda-Pesth. Small-pox caused 10 deaths in Vienna and 7 in Buda-Pesth, and 179 deaths were referred to diarrhœal diseases in Berlin. The death-rate was equal to 40.7 in Naples, and to 24.7 in Turin; 62 more fatal cases of measles were recorded in Naples, and typhoid fever caused 5 deaths in Turin. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 27.5; it was equal to 24.0 in Philadelphia, 25.7 in Brooklyn, 29.4 in New York, and 30.8 in Baltimore. Diphtheria showed fatal prevalence in New York and Brooklyn, and typhoid fever in Philadelphia, while the death-rate from diarrhœal diseases was excessive in each of the four American cities.

ST. THOMAS'S HOSPITAL.—The following appointments have recently been made. *House-Physicians:* T. D. Savill, M.R.C.S., L.S.A.; C. F. Coxwell, B.A., M.B.Cantab., M.R.C.S. *Assistant House-Physicians:* A. B. Carpenter, B.A.Oxon., M.R.C.S., L.R.C.P.; H. N. Holberton, M.R.C.S., L.R.C.P. *House-Surgeons:* T. D. Acland, M.B.Oxon., M.R.C.S., L.R.C.P.; F. Marlow, M.R.C.S., L.S.A. *Assistant House-Surgeon:* A. E. Wells, M.R.C.S. *Resident Accoucheur:* H. P. Butler, M.R.C.S., L.R.C.P.

WHITECHAPEL.—The recent census-returns show that the population of this district is less by 5,297 than it was in 1871, when the population amounted to 76,573. During the first quarter of the present year, there were 694 births and 638 deaths, but, of the latter, 126 were deaths of non-residents, which occurred in the London hospitals. The deaths from small-pox (including 9 in the hospitals) amounted to 14; measles was fatal in 33 cases, scarlet fever in 5, diphtheria in 2, and "fever" in 8. The annual death-rate (exclusive of hospital deaths) was 23.9 per 1,000. Mr. Liddle enlarges upon the subject of the compulsory notification of infectious diseases in the metropolis, and makes some useful suggestions. He reports, also, a long list of minor improvements effected during the quarter.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin. M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club, 8 P.M. Ordinary meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

VERY great discontent is expressed, and, as we think, with just reason, as to some of the awards in the recent International Medical and Sanitary Exhibition; and it will probably be found desirable to revise a few of the decisions. The task of judging was undertaken gratuitously by persons of eminence, and hence it is difficult to criticise or revise their proceedings; nevertheless, it cannot but be felt that in some of the awards, and especially in those in which we are interested—the pharmaceutical and dietetic class—no principle is apparent; and it is clear that, on the one hand, some of the most remarkable and valuable preparations have failed to win the approval of the judges. In this respect, their decisions are palpably contrary to common sense and to the verdict of the profession, and of anyone who will take the trouble to inquire. The absence of awards to Wyeth Brothers, and McKesson and Robbins, may be taken as examples in which it is quite apparent that, for some reason or other, justice has not been done. There can be no question that these firms exhibited products of the highest pharmaceutical merit, and, in many instances, of interesting novelty. The pills of McKesson and Robbins are quite of the highest class of merit in respect to the method, in respect to the materials, and in respect to results; and so the same may be said of the compressed lozenges of Wyeth Brothers, and especially, also, of their compressed tablets for hypodermic use, which are both a novelty, and ingenious and effective. It remains for the members of the jury to explain why they passed over these products, and why they gave high awards to certain trumpery secret preparations. It is not possible that this matter should pass without some sort of explanation; and it would be wise that an explanation should be forthcoming before further steps are taken. In regular order, the reports of all class jurors ought to be brought up for revision and approved by the whole body. We are not certain whether this has been done; in any case, there must be a power of revision; and, in this particular class, these are by no means the whole of the complaints, though they are amongst the most palpable. Many of the jurors in this class did their duty with extreme carefulness; and it is, therefore, the more astonishing that such singular results should have been arrived at.

THE SUCCESS OF OOPHORECTOMY.

SIR,—As I did not reach Ryde in time for the discussion on this subject, I was not aware till Saturday last that Dr. Malins had made use of the following words: "I have met with others (cases of oöphorectomy), published as successful, where the original disturbances were all in active force." As the chances are infinitely great that these cases must have been operated on by either Dr. Savage or myself, I at once wrote to Dr. Malins the following letter.

"7, Great Charles Street, September 3rd, 1881.

"Dear Sir,—I note, in to-day's JOURNAL, that you allude to some cases of oöphorectomy as having been recorded as successful, but which you have found not to have been relieved by the operation. As I have lost sight of several of my cases, it is possible that they may be amongst those you allude to. As I am particularly anxious to keep accurate and complete records of my cases, I should be very much obliged if you would let me know if any of my cases are amongst those you speak of; and, if so, would you kindly give me a clue to them?—Yours truly, LAWSON TAIT."

To this note, Dr. Malins replied as follows.

"8, Old Square, September 4th, 1881.

"Dear sir,—Let me acknowledge the receipt of your letter, and say that I cannot undertake to report to you any cases of oöphorectomy I may meet with which have not been relieved by the operation.—Yours truly, EDWARD MALINS."

This reply I regarded as eminently unsatisfactory, for I had not asked Dr. Malins to report cases. I therefore wrote again.

"September 6th, 1881.

"Dear Sir,—Will you kindly let me know whether, amongst those cases of oöphorectomy which you have met with, where the operation has failed to relieve the patients, yet which have been published as successful, there were any cases which had been operated upon by me? Yours truly, LAWSON TAIT."

The reply came in seven days. "September 12th, 1881.

"Dear sir,—In reply to your letter, I have no reason at present to add to the former one I wrote to you.—Yours truly, EDWARD MALINS."

In the paper I have already quoted, Dr. Malins says: "It is a matter of greater moment to be assured of the permanent cure of the patient, and to endeavour to judge fairly and impartially how far it is likely to be promoted by such a proceeding." I need not say how strongly I feel this; but the present correspondence shows how little assistance Dr. Malins is really prepared to give in such an inquiry. As the matter stands, I wish to point out that, if Dr. Malins' statement is based upon facts, we are entitled to know all about them; if not, we should never have been troubled with them.—I am, etc., LAWSON TAIT.

Birmingham, September 12th, 1881.

MR. J. T. MUGFORD (New Quay).—The Medical Council recognises the second-class certificates of the College of Preceptors, provided that the candidate has passed in the first or the second division, and has taken Algebra, Euclid, Latin, and a modern language.

REVACCINATION.

SIR,—There appears to be great difference of opinion amongst practitioners as to whether the failure of an attempt to revaccinate is or is not proof of the efficacy of previous vaccination. This is a question that ought to be settled, for I know that many doctors encourage patients to think themselves secure even if they do not "take", and often do not even inspect the result. To assert that one failure proves insusceptibility is, in my opinion, a dangerous delusion; for I find by experience that, if the first attempt fail, a second one almost invariably succeeds if done with recent lymph; of course, providing that a reasonable period have elapsed since previous vaccination.

A case in point came recently under my notice, where a child, having been exposed to the contagion of small-pox, was revaccinated (?), but failed; the mother was assured that it was useless to repeat the operation; but, in a few days, the little one sickened, and was removed to the hospital. It would be one of the advantages of compulsory revaccination that the surgeon would be obliged to examine each case, and certify its success, or to repeat it some definite number of times before certifying insusceptibility. I am, sir, LYMPH.

THE CASE OF PRESIDENT GARFIELD.

SIR,—The cause of the incessant vomiting in General Garfield's case is supposed in America to be some old affection of the stomach—dyspepsia. It appears to have been treated very properly on this diagnosis, by giving the stomach as little work to do as possible, and supporting the strength by nourishing enemata; but the result has only had temporary success; as soon as solid food is given, vomiting returns. The soundness of this treatment depends on the accuracy of the diagnosis. I do not allude to the advantage derived from it as a palliative to the symptom of vomiting; that would equally apply to another very probable cause, which is not uncommon in India in the affection called colon, of which I have had some experience. In this, the vomiting is caused by inflammation or ulceration of the ilio-cæcal valve, or the presence of a ball of indurated fæces in the cæcum. The treatment in this case is very similar to what has been employed in General Garfield's case, so far as diet is concerned, but the removal of the bullet is the leading indication of treatment, and that does not lie in the stomach, though the most prominent symptoms are shown there. The food, especially solid food, in passing down the intestines comes to the irritated or inflamed portion of the small intestine, and the intestinal action is reversed, and the food thrown back into the stomach, and vomited. There is no question, in this case, that the bullet is in the cavity of the peritoneum, apparently somewhere near the lower part of the ilium. In whatever place it may be, it must cause irritation in the surrounding structures. This irritation surrounding a bullet in the body is not uncommon case is often of little consequence; and after many months subsides; but in other instances it remains a permanent, but intermitting, source of inconvenience till the bullet be removed. But the case is different if the irritation cause the antiperistaltic action of the bowels and stop the nutrition which is supplied by the food taken into the stomach.

In the present instance, the prospect of the irritation caused by the presence of the bullet continuing till the reserve supply stored in the system has been consumed, would indicate the necessity of removing it, or attempting to do so; as, at the worst, if unsuccessful, it would only accelerate the fatal result by a few days; whilst, if successful, it would save a valuable life.—Yours truly,

JOHN MURRAY, Inspector-General of Hospitals, H.M.I.A.

17, Westbourne Square, September 6th, 1881.

SPASM OF THE BLADDER.

SIR,—I should feel obliged to any of your readers who would suggest a remedy to check frequent spasms, referable to the neck of the bladder, to which I am subject. I am a medical man in an out-of-the-way place for professional advice, aged 50, and I believe sound. I have always had excellent health. Whilst suffering from internal piles, about five years ago, I first noticed that I was obliged to empty the bladder frequently. Naturally, I attributed it to the irritation of the piles. About eighteen months ago, I was operated upon; the piles were removed, but I am worse instead of better. Every two hours, sometimes less frequent, spasm comes on, and it requires all my efforts to retain my urine. In about twenty seconds or so, the spasm relaxes, and I am all right; then, probably in a quarter of an hour, another spasm comes on, and then the intervals between the spasms become less, until I am compelled to empty the bladder of quantities varying between three and six ounces—seldom more than six ounces. The urine is perfectly clear, of a light straw colour, generally very acid, of specific gravity 1010. I do not remember my urine to have ever been otherwise than clear; never any deposit. The quantity passed in twenty-four hours is between fifty and sixty ounces. Time (night or day), position (standing or lying down), walking, make no difference. The bladder is generally emptied through spasmodic compulsion nine or ten times in twenty-four hours. There is as great a sense of relief when three ounces are passed, as if the bladder were emptied after enormous distension. I have lived for the past six months in a temperature never less than 83°; and my skin acts very freely. The agony I suffered in England in the cold weather, and the horror with which I regarded a railway journey, are not to be described. I tried bicarbonate of potass and tincture of hyoscamus until the urine lost its acidity, but without any benefit. I took a few doses of belladonna, but it roughened my mouth and upset my digestion. I have no reason to suspect stricture. The urine flows in a full stream, and is expelled at once with considerable force. I do not know how a stricture could arise, as I have never had a complaint likely to originate a stricture. I have been married twenty-seven years, and am temperate in all things, eating, drinking, etc.; spare and active; but a martyr to these spasms, and to the frequent micturition which they cause.

I shall be most grateful for any advice my professional brethren may give me.—Yours, etc., A MEMBER.

India, August, 1881.

THE STUDENT OF TO-DAY, THE PRACTITIONER OF TO-MORROW.

SIR,—In your spirited onslaught on the "old fogey" school of medicine, and in your recommendation to the young student of an exclusive devotion to a technical education, you appear to me to have omitted one point in the training of our youth which an elder school of "old fogeys", at all events, did not neglect, and without which the rising generation of students will possess their accurate knowledge of facts in vain. There is a preliminary discipline to be learnt mainly by the classic, whose business it is to direct the elimination of the embryo doctor. It is to teach your pupil the only method of separating truth from error, of correcting false inferences and the interpretations of experience; of expelling the ephemeral speculations of pseudo-science, and of dealing fairly with the complex phenomena of physical life, you must take care to give him a mastery over the instruments of precision. The system pursued at present by the examining boards does not aim at securing this end. You speak eloquently of the "instruments of precision" which we shall have to drill your recruits in the way to use them. The real work of the physiological laboratory presupposes a sufficient acquaintance, not only with the higher branches of mathematics, but also with the manipulative operations in the arts of turning, which are subsidiary to the ordinary laboratory-work. How best to effect this object can grasp such accomplishments; so that, if you want to test the progress in the student, you must adopt Mr. Savory's well-considered hints, and extend the period of study, as well as the time at which the examination in these subjects shall take place.

Let me add one word on the last sentence of your article, which I think most opportune and excellent. If the "self-debarred" practitioner will only "in twenty years' time fairly be able to understand the new terminology", it may be a consolation to him, as well as to the old-fogey, who is passing away, to feel, before twenty years are over, the very word "[illegible]" will probably be exploded. Such a typical expression of the [illegible] Johnson, and could not have been coined in the seventeenth century.—I am, yours faithfully, HENRY DAYMAN.

Mottrook, Southampton, September 12th, 1881.

Consultation with Homœopaths.

SIR,—Now that some of the leaders of the profession have come forward and pronounced in favour of meeting homœopaths in consultation, it would be advantageous if any who have held such consultations would publish their experience. To many, these meetings would appear to be valueless to the patient, and therefore not to be countenanced, and I believe most of us would refuse on that ground alone.

In conclusion, let me ask especially whether any purpose can be served, unless it be the gratification of a whim of the patient. The diagnosis and general treatment may possibly be agreed upon; but, if medicine be required, how is that to be settled? It is not to be expected that homœopaths will always follow Dr. Kind's example, and submit to the dictation of the (so-called) allopath.—I am, sir,

QUERY.

SIR,—It should be the pride of the leaders of our profession, to think as much of the interests of the humblest country practitioner in an obscure village, as of those of the most successful consultant in the metropolis. This Dr. Bristowe and Mr. Hutchinson appear to have quite forgotten in their advice respecting consultations with homœopaths. They both agree in saying, "If the man be registered, meet him in consultation, no matter how widely divergent your views and his may be, how wild and unscientific his practice is". This is all well and good for the great physician or surgeon who is called in as consultant. He knows that his dictum will be followed; that the patient will insist on his plans being carried out. But, according to the Hutchinson-Bristowe theory of action, the general practitioner is as much bound to allow a homœopathic physician to be called in as consultant as he would be to meet Dr. Bristowe himself in a case (for is not the homœopath registered? and are we not called upon to meet all registered practitioners?). Here the homœopath's idea of treatment must have weight; and I can imagine no more humiliating and discreditable position for a medical man to be in, than to have to stand by and sanction, by his silence at least, the administration of belladonna in the millionth dilution in a case of severe scarlatina, or to see the billionth part of a grain of ipecacuanha given to check the vomiting produced by an irritable state of the stomach.

I suppose that, if a sect of medical men arise who practise witchcraft and incantation for the cure of their patients, we shall be called upon to meet them in consultation, if their names are found upon the *Medical Register*. But, thank God! there are men like Sir William Jenner still alive, who deem scientific orthodoxy and personal honour to be of more value than either the applause of patients or the friendship of qualified quacks. To these, we, the humble members of the profession, safely leave our defence.—I am, etc., A COUNTRY PRACTITIONER.

SIR,—Most controversies arise from want of definition of the matters in dispute. The present discussion on consultation with homœopaths appears to be no exception to this rule, as very different combinations have been included under this title. It is evidently one thing if I seek the advice of a homœopath for my patient, quite a different thing if he seeks mine. Again, it makes a wide difference whether a homœopath seeks the assistance of a practitioner of his own standing in the profession, in which case the two meet on equal terms to discuss the best treatment, or whether he calls in a consultant who henceforth takes the responsibility of the case, and to whom the attendant medical man stands in the same relation as the captain of a vessel does to the pilot, when the latter has come on board. Now it is this last case only that is under discussion at present; and, in reference to it, I believe the following theses can be sustained.

1. The consultant is alone responsible for the plan of treatment adopted.
2. The usual medical attendant is responsible for that treatment being carried out, and it is his concern alone to decide whether he can conscientiously do so.
3. The consultant is not concerned in the opinions, practice, or character of a registered practitioner in attendance on any case, as long as he faithfully carries out the treatment ordered.
4. The crisis of a dangerous illness is an exceedingly unsuitable time to raise the question of a patient dismissing his usual medical attendant.—Yours, etc.,

Parsonstown, September 5th, 1881. A. W. WALLACE, M.D.

A Case of Hydrophobia supporting Sir Thomas Watson's Theory.

SIR,—The following authentic facts may be of suffieient interest to merit notice. A gentleman in India was severely bitten by a favourite dog in the hand, the scar remaining for many years painless, and no unpleasant symptoms followed the bite. One day, whilst riding a restless horse, the reins tore open the scar; in a few days, he died hydrophobic, and in frightful agonies. The case was related to me by a lady who was with the patient at the commencement of his illness, as being very singular; Sir Thomas Watson's theory, that the virus might long lie latent, enclosed in some of the tissues, until circumstances caused it to be absorbed, being unknown to her.—I am, etc., RICHARD NEALE, M.D.Lond.

60, Boundary Road, N.W.

MR. W. H. BULL (Stony Stratford).—Duly received.

Questions regarding Coroner's Law.

SIR,—I shall feel much obliged to you or any member of the profession who will kindly enlighten me on the following points. Is it a fact that the law does not allow more than one medical witness in the case of a person "Found drowned", except by the special written request of the jury? Where the coroner thinks it likely that some inquiry into the person's previous history and probable mental condition will be a matter of necessity, is or is it not his duty to represent the fact to the jury, and so obtain their special written request in a case where the evidence can only be got at by calling in a second medical witness? Has the coroner any right whatever to call this second medical witness on his own responsibility, and without being requested by the jury, to take his evidence, and then refuse to allow him the usual fee of one guinea? Is it true that, under such circumstances, the law allows only a single fee? and is the coroner justified in expecting that the medical witnesses are to be contented that he should divide this single fee between them, and feel satisfied with 10s. 6d. each? This has been the course recently adopted here by one of our legal Suffolk coroners. It seems to me very much like an innovation that ought to be strenuously resisted.—I am, sir, yours faithfully, JOHN WILTON SHERIDAN.

Stowmarket, September 2nd, 1881.

Unprofessional Advertising.

MR. B. ROBINSON, who announces that he is about to leave the Chesterfield Medical Aid Association, and to practise in the town and neighbourhood, does himself a great injustice by the way in which he advertises in the local newspapers. Such advertisements lower the profession in the eyes of the public; and Mr. B. Robinson will find that in injuring his profession he has injured himself. It would be well if he could adopt some other means of letting the working classes know that he is anxious to lay himself out for club practice.

Mr. Jeston's Army Service.

SIR,—A there is a little error in the report of my speech when I returned thanks for the army (see *Journal*, August 20th, page 363), may I request you to correct it? I joined the Duke of Wellington's army shortly after the battle of Salamanca, and was with my regiment, the 36th Foot, at Vittoria, Pyrenees, Nivelle, Orthes, and Toulouse—not at Waterloo or Corunna.—I am, your obedient servant,

T. W. JESTON.

Lightning-Stroke.

SIR,—Just after the storm which visited many parts of the Isle of Wight a few days ago, I was asked to see a man lying under a tree about three miles from here. I found him lying on his back in the road, close to a hedge, just beneath a lofty elm tree. The body was quite cold and flaccid, the hands crossed on the body. The face was livid, the eyes open and injected, the pupils dilated. On the right forehead, just below the hair, was a transverse wound about two inches long, not extending to the bone. The wound resembled one made on such a part by a blunt instrument. Very little blood had flowed. The right side of the whiskers and beard were much burnt. The right side of the neck was also burnt, the cuticle separating in patches with the charred shirt (a linen one). From the right sterno-clavicular articulation a charred line two inches broad passed obliquely across the chest to a point in the left medio-lateral line midway between the xiphi and anterior spine of the ilium. There was here a circular space, of the size of a crown-piece, much charred, the shirt (also charred) adhering. Immediately below it were two smaller charred spots. There was no mark on the thigh, but just below the calf of the left leg there was a small spot slightly charred. The back of the left boot (a strong new one) was burst open. The metal watch-chain, passing to the left waistcoat pocket, was broken into many pieces, blackened, and smelling like an exploded percussion-cap. The watch (silver) was found at the side between the cloth and lining of the waistcoat, having been driven through the lining of the pocket. Its ring was fused. The deceased's hat, a stiff felt, lay on the ground; in its front was a large irregular shaped rent, the edges showing signs of fire. The tree was only slightly damaged. A wren sitting just above the man was killed, the feathers on its head being stripped off.—I am, etc., HUTTON CASTLE, M.B.Lond..

Newport, Isle of Wight.

Medical Etiquette.

DUBITANS. In the absence of all the attendant circumstances of the case alluded to in "Dubitans'" brief statement (such as, for instance, the cause of the services of A.'s locum tenens being dispensed with after the first attendance, and the practitioner B. sent for, and also the degree of intimacy existing between A. and B.), a satisfactory decision cannot well be arrived at. Assuming, however, that A. and B. are on terms of personal intimacy, leading to mutual assistance and reciprocal obligation, B., in our opinion, would do well not to make any charge to A.'s patient for his services, but consider himself to have acted simply as one of the locum tenentes of the absentee A.

In regard to the division of the accouchement fee, we would refer our correspondent to the principle enunciated in Rule 12, p. 3[illegible], of the *Code of Medical Ethics* published by Messrs. Churchill.

X. Y. Z.—Huxley's *Lessons in Elementary Physiology*; St. George Mivart's *Elementary Lessons in Anatomy*. Both are published by Macmillan and Co.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. R. M. Simon, Manchester; Mr. W. H. Bull, Stony Stratford; Dr. Markham, London; Our Aberdeen Correspondent; Mr. T. L. Walford, Reading; Mr. G. Eastes, London; Mr. J. Casey, London; X. Y. Z.: Dr. Fairlie Clarke, Southborough; Mr. E. D. O'Neill, Dublin; Dr. Sawyer, Birmingham; Dr. Newth, Hayward's Heath; G. E. B.; Dr. Haycraft, Birmingham; A. C.; Mr. Lawson Tait, Birmingham; Mr. H. C. Hopkins, Bath; Mr. F. W. Fletcher, London; Dr. S. C. Griffith, London; J. C. R., Dayton, Ohio; Dr. H. A. Husband, Edinburgh; Mr. W. P. Hourigan, Freshford; Our Glasgow Correspondent; Dr. H. E. Armstrong, Newcastle; Mr. J. Calahan, Belfast; Messrs. Evans and Wormull, London; Mr. T. Whitehead Reid, Canterbury; Mr. Thomas Dutton, Sidlesham; Dr. T. W. Barron, Durham; Mr. D. M. Fraser, Deptford; Mr. W. Perkins, London; Mr. J. Ferguson, West Ferry-on-Tay; Mr. W. J. Kynaston, Barnes; Mr. W. A. Caskie, Largs; Dr. C. R. Drysdale, London; Mr. H. Bracey, Birmingham; Mr. John Bland, London; etc.

BOOKS, ETC., RECEIVED.

What to do in Cases of Poisoning. By W. Murrell, M.D., M.R.C.P. London: H. K. Lewis, Gower Street. 1881.

Diseases of the Nervous System. By W. A. Hammond, M.D. London: H. K. Lewis, Gower Street. 1881.

Deaf-Mutism. By Dr. A. Hartmann. London: Baillière, Tindall, and Cox. 1881.

Manual of the Principles and Practice of Operative Surgery. By S. Smith, A.M., M.D. London: Sampson Low and Co. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

NOTES
ON THE
ORIGIN AND DIFFUSION OF ENTERIC FEVER AND OF DIPHTHERIA.*

By WILLIAM STRANGE, M.D.,
President-Elect of the British Medical Association; Senior Physician to the Worcester Infirmary.

Of all hindrances to the establishment of a scientific basis for medical practice, the greatest, I take leave to say, is the too prevalent custom of carrying deductions from a limited number of facts up to an extreme degree of accuracy. So captivating is the result of this process, that one is immediately led to believe that the question at issue is solved; and the reader, unless he be more than usually on his guard, is very apt to believe the question solved for him also. And in no department of the wide field of medicine is this error so often committed as in that of etiology, which treats of the origin and diffusion of diseases.

Now enteric fever has long been the battlefield for opposite parties to tilt at each other; and the cause is not far to seek. It is no other than the use of the *deductive* in place of the *inductive* method of reasoning, which is so frequently adopted when a question of causation comes under discussion. Each combatant has observed a limited number of facts, and verified them as facts. The conclusions deduced from them become his theory—his eidolon. And a nice well-rounded theory looks so well, that few of us are able to withstand its blandishments. Facts which oppose this theory are either boldly denied, or, if that may not be, they are so manipulated by the mind that, instead of opposing, they come to support the favourite dogma. Big names, we know, carry weight; whilst more modest and less aspiring, yet equally trustworthy observers, are apt to keep their observations for their own use, and so error is perpetuated.

The time will not allow of my quoting authorities, or citing times and instances, either of observation or publication, in regard of the matters now under discussion. I am familiar with most of the authorities on enteric fever, from the first distinct proof of its specific distinction from typhus fever made by our valued associate Dr. A. P. Stewart, forty years ago, down to the present day. I will merely recall to your recollection the names of Bretonneau, Gendron de Leure, William Budd, Corfield, and others, as advocating one theory of the causation of enteric fever; and Louis, Andral, Murchison, Alfred Carpenter, and others, who have chiefly supported the other. To avoid circumlocution, let me define these two theories at the outset.

To take the later and more aggressive theory first: it states categorically that enteric fever is a specific febrile disease of the order of the exanthemata, just as much so as are small-pox and measles, with which two species it is supposed to have many analogies. Like them, it is originated and propagated by specific disease-germs which pass out of the intestine of one sufferer into the system of another person by the ordinary channels used by other diseases; viz., by the atmosphere, by imbibition by means of polluted water or food, or perhaps by immediate contact of the healthy with the sick. The late Dr. W. Budd of Bristol is taken to be pre-eminently the apostle of this theory in this country, from the great care and minuteness with which he investigated his facts, the clearness with which he stated them, and the seeming cogency of the deductions which he drew from them.

The other theory, called by Murchison and his followers the pythogenic theory, although it does not deny the existence of disease-germs, which certainly are sometimes cast off by the intestinal canal of the sufferer to reproduce themselves in the intestines of others, teaches that enteric fever originates in some unknown *materies morbi* (microzymes, or fungi, or chemical product), which is generated in sewage, in putrefying human excrement, or in other animal matters, at uncertain times, and under conditions not yet accurately defined; and that this *materies morbi* may be conveyed in the atmosphere, in water or food, or by fomites, or, possibly, very occasionally, by direct contact of the healthy with the sick.

A third or intermediate theory, held by some, makes it necessary for the specific germs of theory No. 1 to be developed or rendered virulent by admixture with sewage or other foul or decaying organic matters in which they grow, or at least undergo some change by which they become more active and capable of diffusing the poison to an extraordinary extent.

Now, in starting a discussion upon the origin of enteric fever, I do not think it necessary that I should pin my faith to the correctness of either theory, or to try to persuade you that such and such a view is the correct one. Rather, as it seems to me, I ought to lay before you the salient points of correspondence or of antagonism of facts to either theory, and, by eliciting the opinions of many observers upon these facts, corroborated by their own experience, to induce some one to gather up the scattered threads of the argument, and by *inductive*, and not by *deductive* reasoning, to construct from them an unassailable theory.

Let us examine, first, the first-named theory. And here let me say that I have carefully re-read every line of Dr. Budd's classical work; and I do not hesitate to say it of one whose memory I hold in affectionate admiration, that anything more misleading than the deductions in that book, truly drawn as they are from the facts before him, is scarcely anywhere to be found in the whole range of medical literature. Dr. Budd, as you are aware, collected a mass of facts, all going more or less to prove that, in the remarkable outbreaks of enteric fever inquired into by him, he was able to trace the introduction of the disease to the affected locality by some person who was either at the time suffering from the disease, or who had lately been in contact with some person so suffering; or, at all events, had lately arrived from an infected locality. The celebrated case of North Tawton is a typical instance of this. On the arrival of the presumedly infected person, the disease spreads in the house, to the adjoining houses, then to others in the district, and then to a distance; but always, when at a distance from the original focus, a carrier of the infection was traced. This was so at Chaffcombe, and at the convent near Bristol. Observe, however, what Dr. Budd does not omit to point out, that all these places, at the time of the outbreak, were the abode of sanitary abominations quite sufficient, according to the pythogenic theory, to breed the fever of themselves, or, as we say, *de novo*. Thus, at St. Arno's Court, where there was undoubted evidence of a person introduced from an infected district, Dr. Budd relates that the main drain of the building had long been blocked up; and that, at the very time of the fever, a perfect cesspool of sewage was found under the very building! But, then, these abominations (says Dr. Budd) had existed for months—yea, for years—in the same condition, yet no fever makes its appearance until the germs had been introduced by an infected person. If any suggestions are made that, after all, these insanitary conditions might of themselves have given origin to the disease, under some unknown influence, the suggestions are put aside, with pity for those who make them, as "too preposterous and absurd". Now, the deductions from these cases, as I have said, are so well drawn, and were so convincing to the minds of the author and of those who were associated with him in the inquiry, that it appears as though nothing could be said against them. So far as they go, they are unassailable. But, mark what a fatal error runs all through the book! No mention at all is made of the hundreds of cases recorded by other observers, in which the most careful inquiry failed to discover any probable—aye, even possible—introducer of the contagion. You are, in fact, led to suppose that what Dr. Budd has seen himself is all that *can* be seen of the disease. He found no outbreak unless, to already filthy conditions of dwellings, etc., the specific poison was introduced *ab extra*. Yet, you know that Dr. Murchison and others have related how the introduction of enteric cases into fever hospitals scarcely ever conveyed the infection to the nurses and attendants; and all hospital physicians can tell how seldom it spreads to the neighbouring patients when introduced to our general hospitals, notwithstanding some laxity in dealing with the discharges. This depends on one condition only: namely, that the sanitary arrangements of such hospitals are good, and that proper means are adopted to keep them good whilst such cases remain in the hospital. This important proviso will come into prominence presently.

What, then, is the summary of Dr. Budd's own cases and of those of similar observers, and the deductions to be drawn from them? Only this. For a long period—sometimes, it would appear, even for years—very insanitary conditions of dwelling-houses, of their surroundings, filthy privies and piggeries, foul drinking-water, etc., may exist in a given locality, especially in country districts, without giving rise to an outbreak of enteric fever. We can all verify this proposition. But when, to these conditions, the propagating germ, brought from a distance, is added, then the yeast is set to work, and the germs multiply in a medium suited to their growth: namely, in the intestinal canal of those attacked by the disease. The germs are cast out thence upon the earth, into the privy, into the drain, the water-course, or elsewhere.

* Read in opening a discussion in the Section of Public Medicine at the Annual Meeting of the British Medical Association at Ryde, August [illegible].

The people of the house to which the introducer has arrived are the first to be attacked, then others at a greater distance, both up and down the district. Note, however, that in every case where these disease germs have been carried by persons going from an infected locality into an uninfected one, the same insanitary conditions have existed in the latter as in the former neighbourhood. The hot-bed was already prepared, so to speak, awaiting only the spawn to bring forth an abundant crop. The deduction as to the necessity of the previous introduction of the special disease germ, from the facts narrated, you will see is perfect.

But now, with respect to those other cases, quite as numerous and quite as carefully observed, in which, the same filthy conditions existing, no trace of the introduction of disease germs, *ab extra*, can be found on the most careful inquiry; and in which the discharges from the intestines of the sick have *not* spread the disease. Surely, in investigating the origin and diffusion of such a disease as enteric fever, all the observed facts must be taken into the account, and have their proper value assigned to them? And if known facts are not sufficient to enable us to construct a workable theory of the causation of the disease, we must wait for more facts and look out for more light.

Now let us look at the second theory, the so-called pythogenic origin of enteric fever and also of diphtheria. After lying in peaceful repose for years, the stench from its filthy drains and cesspits only offending the noses of the passers-by, some village is suddenly wakened up by a tithe of its inhabitants being attacked by enteric fever or diphtheria. What has happened? Has some person been discovered who has brought the germs on his person or clothing from an infected district? And have these germs got into the waters and drains, where they immediately gave birth to a swarm of infant germs, which speedily diffused themselves all over the infected area? This is what ought to have happened if Dr. Budd's theory be true—true at all times and in all places.

Now, I have seen a great deal of the origin of enteric fever in my time, and have met with a great number of intelligent country practitioners, and I believe there is scarcely one of the latter who has not said, or who is not ready to say, that in his experience, after most careful inquiry, in the great majority of cases, no introduction of the poison, *ab extra*, can be made out. I might mention scores of cases from my own note-book, but similar instances must be present to the minds of you all.

Now, it may be asked, why introduce the question of the origin of diphtheria to complicate that of enteric fever? Because of the proved, and, I believe, sufficiently acknowledged, double origin of diphtheria. Here is Sir W. Jenner's statement as to the etiology of this disease, published in 1861. 1. "That diphtheria is contagious"—admitted. 2. "That the infecting element does not require for its development any of the ordinarily considered anti-hygienic conditions"—granted also, if we say not always required. 3. "That it is very doubtful, even, if any of the anti-hygienic conditions favour its development, or give to it a more untoward course when it occurs." This proposition is more than doubtful, and is entirely opposed to the experience of those who have seen much of the disease amongst the poor, especially in country districts, where it can be observed with greater accuracy than in large towns. For valuable facts, and arguments based upon them, in reference to this point, see a paper by Mr. Fosbroke in the *Sanitary Record* for March last.

It cannot be, and I think is not, denied, that cases of diphtheria may have a double origin: first, from filth and foul or damp air, which engender sporadic cases, and these may sometimes so act as to give rise to an epidemic of the disorder. Secondly, from direct contagion, more especially when the disease prevails epidemically. The *de novo* origin of diphtheria, then, is not disputed. The contagious origin is not disputed, and it does not require anti-hygienic conditions for the contagion to act.

Now, the characteristic features of enteric fever and diphtheria have much in common. In each case we have to deal with a poison in the blood, introduced *ab extra*, multiplied in the bodies of the sick, and cast out thence from the surface especially affected; viz., the intestinal canal in the one case, or the mucous membrane, of the throat and pharynx, in the other. The poison, whatever be its nature, produces in each case its specific symptoms, and the contagion, when conveyed to another subject, always produces the same disease. The two poisons, therefore, are specifically distinct, although arising apparently in the same media, and entering the body by the same channels. Filth of some kind, chiefly, if not entirely, of animal origin, seems to be the initial medium whence the poison is derived, and it is not in our power to say which of these two very distinct diseases will be produced by contact with the same filthy medium.

Now, can anyone at this point answer this question: Why, admitting diphtheria to have this double origin, enteric fever may not have it also? Are there not other diseases of analogous nature which exhibit an origin in two sets of conditions? Erysipelas breaks out in hospitals and in private houses also, without any introduction *ab extra*. From attacking cases under the care of the surgeon, it makes its way to the adjoining beds under the care of the physician. If you doubt the fact of contagion here, and assign the outbreak to anti-hygienic conditions affecting all alike, we will follow the patient to the private house into which he carries the disease, although the place may be in possession of the most perfect wholesomeness. It appears to me that the philosophical physician ought to endeavour to reconcile all these conflicting observations by availing himself of all analogies by which one disease can throw light upon another, and not by forcing them all into one category, willy nilly, for the sake of backing up some foregone conclusion, or of building up some specious theory. He will also see if he cannot lay his hand upon some *third* factor, some *tertium quid*, by the aid of which the discrepancies of evidence may haply be adjusted; or, if he cannot, try to discover some hitherto unsuspected analogies by which the conflict may be ended, and the diverse facts made to lie down together in peaceful agreement.

Returning once more, only for a moment, to the first theory, that of specific germs necessary to generate and reproduce enteric fever. The difficulty of accounting on this theory for the isolated cases which arise apparently *de novo* is immense, if not insurmountable. It is proverbially difficult to prove a negative; and, no doubt, it may be conceded to Dr. Budd and his followers that the introduction of these poison germs to sewage, to foul air, even to the earth, may give rise to a most rapid and extended multiplication of them, and to their diffusion by various means over a considerable area. But if every case which arises, whether in the remote farmhouse or rural cottage or in the dense rows of the crowded city, is to be accounted for only on this theory, these germs must be almost universally diffused through earth, air, and water—must be, in fact, ubiquitous.

Now what do we actually find to be the case? This. Where no fever cases has been before, whenever the house-drain is choked up, when the cesspit is more than usually filthy and stinking, when the water-closet is out of order; when sewage, even from a simple drain in the country village, enters a well and pollutes the drinking water, *there and then* enteric fever occurs in cases too numerous to be ignored. If all these cases are caused by some sanitary fault simply giving exit to the specific germs of the disease, supposed to have been imprisoned there from some long ago previous case, how universally diffused they must be! Again, we find that, whenever sewage matters laden with the excreta of human beings do gain entrance into a well, those who partake of the water are almost certainly immediately attacked. On the other hand, I have never been able to trace with certainty a single case of this disease to the drinking of our river-water, which, although filtered through gravel and sand, could scarcely escape conveying some of these minute specific disease-germs, if they were so universally diffused as, to accord with the one theory, they must necessarily be. These germs ought to find their way into the river, which is the main sewer of the district, in countless millions, were Dr. Budd's theory absolutely the only correct one; for they would enter it from every sewer and drain along its whole course. Are these things so? I trust and believe not.

Another objection to this theory: If you confine the emanations, say from a badly ventilated water-closet, or the effluvia from a foul drain, you will probably very soon originate enteric fever or diphtheria. But let in plenty of air, cut off the closet by a cross-current, and the house is safe. Now, if the *materies morbi* were of the nature of living organisms, would they be likely to be so easily killed or rendered harmless by a little fresh air? But if, on the other hand, the *materies morbi* be of pythogenic origin, that is, probably, a chemical product generated by some process of putrefaction, then we can well understand its destruction by chemical action, or its oxydation in pure air; and can explain how it happened that the specific germs in Dr. Budd's cases only operated when the sanitary conditions surrounding the patient were such as to promote these putrefactive changes.

Not to weary you by any further discussion of antagonistic theories, let me briefly point out the direction in which I think we should work in order to add to our stock of real knowledge bearing upon the etiology of these two diseases.

1. I would suggest that all available facts as to the origin, spread, and true nature of enteric fever and diphtheria, should be marshalled side by side, without prejudice or favour to any theory.

2. I would collate the facts derivable from the history of cognate diseases, such as cholera, yellow fever, erysipelas, and place them alongside the above; and also collate the phenomena of certain diseases of animals—chicken cholera, for example, with those observed as above.

3. Compare the conditions under which the diseases in these two last heads prevail with those observed of enteric fever and diphtheria.

4. Inferences may now be drawn which will be available as landmarks, or provisional propositions, with which to go to work in the construction of a theory of the origin of these two diseases.

Allow me, in conclusion, to state what I look upon as correlated facts already known in the inquiry.

I think it is proved that enteric fever, however it may have commenced, is sometimes propagated from person to person by close propinquity, or actual contact, with the intestinal discharges. I had a clear case of this in my own house. And a *materies morbi*, which may or may not be composed of living specific germs, is sometimes conveyed from the sick to the healthy *at a distance*, where it takes effect in producing exactly the same symptoms as in the initial case. But, in this event, in the great majority of cases at least, the sanitary surroundings of those who receive the disease are very faulty. This was the case with the epidemics of cholera, and it is still the case with the spread of diphtheria and erysipelas. These diseases seldom spread in a wholesome house or district.

It is also proved, as far as a negative proposition can be proved, that a *materies morbi* of unknown nature, be it fungoid, or be it chemical in composition, is often bred in drains, sewers, privies, or on damp or foul surfaces, or in earth or water saturated with sewage matters; and that this *materies* gives origin to enteric fever and to diphtheria without the action of any specific germ derived from the body of a previous patient. Unless we accept this proposition as founded in fact, the origin of thousands of cases of these two diseases is involved in impenetrable mystery. And if this proposition be accepted, then we must conclude that some specific or quasi-specific organism (or germ, if you please), or else a mere chemical product, is formed in such matters, *de novo*.

These substances, organisms, or chemical products, whatever they be, undoubtedly become capable of self-multiplication and intensification in the glands of the intestine on the one hand, and on the mucous membrane of the throat and pharynx on the other. They also now become capable of conveying their respective diseases by direct contact, as in the first-named proposition; and, to many minds, this is the usual order of events in the origin and diffusion of both enteric fever and diphtheria.

Finally, there are analogies observable between these two diseases and erysipelas and some well-known forms of septicæmia. Recent experiments, including those of Pasteur, Burdon-Sanderson, George Harley, and especially of Gravitz, go to show the remarkable fact that certain deleterious organisms—fungi, etc.—may be so cultivated, by repeated inoculation into living tissues, that, from comparative harmlessness, they pass on to a condition of true infectiveness, their virulence increasing with each fresh inoculation. Gravitz even believes, and in this he is supported by other German observers, that inoculation with germs of "low culture", or with a very minute quantity of the *materies*, will confer immunity from future attacks. Does not this lead up to the presumption, to say the least, that the poisons of typhoid and diphtheria, whatever may be their real essence, in passing through the bodies of patients, acquire increased virulence, and so give rise to those phenomena of direct contagion in some instances, which Dr. Budd and his followers so strenuously contend for in all?

Here, then, we come in sight of that *tertium quid*, that something *ab extra*, to which I have already alluded as apparently necessary to harmonise and reconcile the various conflicting phenomena of these diseases. And it will be in pushing investigations in this direction to their utmost attainable limits that I shall look for any real extension of our knowledge of them. Could the funds of our Association be better employed than in aiding skilled investigators to pursue these inquiries in a field which seems to promise the greatest results from scientific cultivation?

HALSTEAD RURAL DISTRICT.—The first division of this district, held by Mr. Hinds, comprises 17,480 acres, with a population in 1871 of 5,137 persons. The birth-rate for 1880, based upon this population, was 24.13, and the death-rate 16.35 per 1,000. Of the total number of 84 deaths, zymotic diseases were responsible for 13. Scarlet fever and diphtheria were somewhat prevalent; and Mr. Hinds records the extraordinary number of 10 cases of diphtheria (1 fatal) in a single family, the cause of the epidemic being somewhat unsatisfactorily ascribed to "a defective sink in the back kitchen". Fourteen cases (1 fatal) of typhoid fever were traced to an impure water-supply, the outbreak terminating only on the closing of the well from which the water was obtained. The sanitary condition of the district seems on the whole to be fairly satisfactory, but the water-supply is defective in many places. It is satisfactory to note that provision for the isolation of infectious cases is likely to be made.

THE PREVENTION OF ENTERIC FEVER.*

By ALEXANDER G. DAVEY, M.D.,
Fellow of the Sanitary Institute of Great Britain, Ryde.

I HAVE chosen the prevention of enteric fever as the subject of my short address, in the hope that we may impress upon ourselves at least one of the means of preventing this disease.

We must all have been struck with the fact that isolated cases of enteric fever are to be found north, south, east, and west. Why is this? My answer is, that the public have not grasped, and will not grasp, the fact, that private sanitary engineering is at fault, in contradistinction to public sanitation. In other words, people take houses, and seem perfectly indifferent as to sanitary condition, but nevertheless appear never to fail in giving vent to their feelings by expressing their horror and disgust of the smells emanating from the public sewers.

For the past six years, it has been my endeavour, when seeing a case of enteric fever, to make out whether the case could not have been prevented; and, in the majority of cases, I contend that it could, being caused either from faulty water arrangements, or defective drainage system. I find that where water-pipes are wrongly connected, there, as a rule, drainage is even still worse. It is common to find people living in houses where the water-pipes or the drainage are as wrongly constructed as in the two plans I now bring forward.

One plan shows a cistern situated over the slop-sink in a small housemaid's closet (with hot-water cistern attached to it), being 4 ft. 6 in. long, 3 ft. 6 in. wide, 4 ft. deep (a large one). It was the only supply to the house, with no history of its having ever been known to have been cleaned out. This cistern supplied immediately underneath it the housemaid's sink. The sink emptied itself into the upper part of the D-trap, belonging to the servants' water-closet. This D-trap also received the waste from the untrapped pipe from the butler's pantry; and the copper pan of the servants' water-closet being useless, there is no kind of ventilation to the soil-pipes; and the water-closets were of the foul pan order. There was no disconnection at the butler's sink, the housemaid's sink, or scullery sink; neither was there any main disconnection or ventilation between the cesspool and the ends of the drain. And yet, gentlemen, this was the residence of one who considered himself no ordinary sanitarian. I ask you, would you be surprised to hear that enteric fever broke out in this house? and is it not clear what could have prevented it?

The next plan shows the water-system in order; but, with regard to the drainage, there were four inlets into the main sewer untrapped, with the simple exception of the D-trap at each water-closet; the servants' water-closet being of the foulest pan order. Also the wash-basin in the library had no trap, and was in direct connection with the stable-drain. I have said that the inlets into the main sewer were only trapped by a D-trap. Now, what is a D-trap? Sir William Jenner calls it a double D-trap, for it will deal out disease and death; and yet how often do we see these used? Why is it? Because workmen have never been taught better; and, what is even worse, D-traps were to be seen in numbers at the International Medical and Sanitary Exhibition. In this state of drainage-system, is it difficult to understand what could have prevented enteric fever in this house?

And here I must say, it matters not what system of sanitation is carried out, unless skilled workmen be employed, I venture to assert, from experience, the last state will be worse than the first, and enteric fever will not be prevented.

If you wish to see a perfect system of sanitation, go to the Royal Isle of Wight Infirmary, where Banner's system is carried out (similar to Guy's Hospital). Again, if you would see "perfect ventilation", go to the Milligan Convalescent Home, on the same grounds as the Infirmary. By "perfect ventilation", I mean an inlet of fresh air, together with an outlet for foul air.

I contend that enteric fever can be prevented in the majority of cases by private systematic periodical sanitation, in contradistinction to public sanitation; because, as we are told, public health authorities have no duties until a nuisance is known or suspected. I say, systematic and periodical private sanitation, because there are no pipes or traps that will for any length of time continue in proper working order; hence, there must be regular periodical inspection. Then, and not till then, in my opinion, will enteric fever be, to a large extent, prevented.

The question to be considered by the Section is this: Is it, or is it not, the opinion of this meeting that the spread of enteric fever can be prevented by special attention to private systematic and periodical sanitation, in contradistinction to public sanitation?

* Read in the Section of [illegible] at the meeting of the Sanitary Institute at Portsmouth, September, 1881, under the presidency of Dr. Buchanan, F.R.S. [illegible] Enteric Fever.

FORTY-NINTH ANNUAL MEETING
OF THE

BRITISH MEDICAL ASSOCIATION.

Held in RYDE, August 9th, 10th, 11th, and 12th, 1881.

PROCEEDINGS OF SECTIONS.

SECTION D.—PUBLIC MEDICINE.

Wednesday, August 10th.

DISCUSSION ON THE ETIOLOGY OF ENTERIC FEVER AND DIPHTHERIA.

THE discussion was opened by Dr. STRANGE (Worcester). His remarks are published at page 507.

The Prevention of Enteric Fever. By A. G. DAVEY, M.D., (Ryde). Dr. Davey's paper is published at page 509.

The PRESIDENT (Dr. RANSOME) remarked that, after the revelations recently made by M. Pasteur and others as to the changeableness of a poisonous liquid into healthy matter, and back into a virulent poison, those would be bold indeed who would deny the possibility of the existence of a virulent poison in innocent fluids. Considering the existing sterility of the typhoid fever poison; the extreme attenuation that it would permit, while it would yet convey disease; its longevity, for it had been proved it would last for many months; and, finally, considering its active increase in certain fluids, of which undoubtedly sewage was one of the most efficient—it was evident the pathologist had an exceedingly difficult task before him.—Dr. DRYSDALE (London) thought everyone would agree that typhoid fever was generated *de novo*. Some medical men believed small-pox was also generated *de novo*. The general idea was, that nobody had seen a case in which small-pox was generated *de novo;* and, as to syphilis, he never saw anyone with that disease unless it could be traced to someone else. Some diseases were contagious, and some were not contagious at all; but typhoid fever was both contagious and was generated *de novo;* and some of the kinds were intensely contagious. He did not, however, agree with Dr. Strange, that there was no germ. There was a germ, just as clearly as in small-pox, though perhaps not of the same kind. In Paris, almost every third or fourth bed in the hospitals contained a case of typhoid fever. In the streets of that city, there were, here and there, most offensive smells from the sewers and neglected parts of the city. That fact, he thought, was sufficient to prove that typhoid fever in Paris was continually generated *de novo*. The paper by Dr. Davey, on the prevention of enteric fever, was exceedingly important. The question was treated at the Social Science Congress at Edinburgh last year. On that occasion, Professor Jenkin set forth a scheme for the formation of a company for the purpose of sending round to private houses a competent sanitary engineer, who would thoroughly inspect the places with the view to the adoption of remedial measures where any defect was found in the sanitary arrangements. That the company proposed to do for the fee of one guinea. Sir Robert Christison said that, before his house was thus inspected, the pan of the water-closet was continually foul, and liable to be eaten away; but, after the inspection, and putting to rights of all the drains by order of the engineer of the company, the pan of the closet remained clear for three years. He had no doubt that private inspection and examination of the house would be the most effective measure. He was happy to hear of a proposal to form a company of this character in England.—Dr. ALFRED CARPENTER (Croydon) agreed with Dr. Strange in his opinion that there was a dual requirement for the prevention of enteric fever, but he differed from him when he said there could be a production *de novo*. There was not only a necessity for conditions that would produce typhoid fever, but there must always be the germ—or whatever it might be called—by which typhoid might be continued in its growth. There were continually conditions going on in which, if what was called the production of typhoid *de novo* were a necessity, it would be constantly rising in those places; and yet he knew himself of instances where families had gone on drinking their own sewage, so to speak, year after year, without the production of anything further than a general low state of health. But the moment the germ of typhoid fever had been introduced, the whole household had been struck down, and the results had been disastrous. The most striking instance that ever came under his observation in that way was a case which occurred at Caterham Waterworks, where a man with typhoid fever upon him was at work at the bottom of the well, and, not being able to go up to relieve himself, did so at the bottom of the well. By accident, the water of the well was distributed to the inhabitants of the district and instantly there was an outbreak of typhoid fever among them. There was generally a distribution of the germs of the disease, and then there was a production of it. Some years ago, in the Isle of Mull, there was a shanty inhabited by two or three families, among whom small-pox appeared. Those who were not carried off by the disease, fled and left that house untenanted. For three whole years, he was informed, not a soul entered that shanty; and, in course of time, the property fell into the hands of a new owner. He saw the old cottage in ruins, and gave instructions to his workmen to have it levelled to the ground for the purpose of erecting instead some cottages on a better plan. Within a fortnight, nine of those workmen were ill with small-pox. They had evidently stirred up some excrement or other remnants of the disease, and the disease had spread, but in a way which led, for some time, to the idea that a case of the generation of small-pox *de novo* had been discovered. As to Dr. Davey's paper, he could speak with some degree of experience, because, about ten years ago, the subject of imperfect sanitary arrangements in dwelling-houses was one which he followed closely in his own neighbourhood. He had brought the subject before the notice of the local authority, and pressed upon them the necessity of taking measures for the prevention of such bad plumbing as was going on in the houses of a neighbourhood where typhoid fever was propagated; and the result was, to bring upon him the antagonism and the enmity of the whole plumbing and building trades of the district, who burned him in effigy on the 5th of November. He had been enabled in his own district, he believed, to trace the origin of those cases of sporadic diseases which had occurred, and which had the appearance of having originated *de novo*. One was a case of infectious disease at Blackheath. In September, an outbreak of scarlet fever occurred in a school of 250. An outcry was immediately raised in the district, and the authorities were compelled to close the school. The epidemic appeared amongst the infants mainly and the girls. It was hoped that the moment the school was closed the epidemic would cease, but it continued to spread for seven weeks; but, although there were, in some instances, three families in one house, the children of two of which had been to the school, the epidemic only spread among the children who had been to the school, leaving the other children in the same house untouched. The estate on which the school stood was inhabited by poor people. Every connection with the sewer was outside the houses, and every sanitary arrangement was carried out as it ought to be. But such was not the case with the school. It was situated at the highest point of the sewer, and not a single ventilator was provided for that sewer within a mile and a half of the school downwards until it joined a large sewer in the Walworth Road. The sink, and the water-closets, and the washing arrangements in that school had been channels through which all the foul air of the district had found its way to within the school. The children had been exposed to that for months, and had been breathing the foul air. Hence the children who had thus been exposed to that air caught the fever, and none of those children who had not been exposed to it caught the contagion, though they had been playing with the infected children, and living in the same house with them. That, he took it, was because the children who escaped had not been previously prepared for the reception of the germ which was spread and distributed after the children had been shut out of school. If the sanitary arrangements of every house and place could be got into a perfect state, it was very clear that the germs of disease would be perfectly harmless, and persons in a healthy condition might with safety even go among those suffering from infectious diseases. It was a very serious fact, that the workmen of this country were, in almost all cases, quite ignorant of the right principle of work so far as sanitary matters were concerned. There was now in London a Sanitary Institute, which was managed by a body of men who were undoubted authorities in sanitary matters; and he was in the habit of urging upon all authorities that it was right, when carrying out sanitary works, to take care that their inspectors and surveyors knew the business they undertook to do, that proof being demonstrated by the possession of a certificate from the Sanitary Institute. In his own neighbourhood, where he procured the passing of a by-law for soil-pipes to be ventilated, the local authorities winked at a nominal obedience, and allowed the pipes to be stuck in the earth, not one of those ventilating pipes being in any way connected with the soil-pipe. Until there were men as inspectors and surveyors knowing the requirements of the law of sanitary reform, these things would not be properly attended to.—Dr. GEORGE WILSON (Leamington) said he gathered from what he had heard, that Dr. Strange was a supporter, to some extent, of the pythogenic origin of diphtheria. It appeared to him it depended very much whether a man's lot was cast in a country district or an urban district how his views of the origin of the disease were shaped. If a man prac-

tised in the town, he considered there were always channels of infection, such as water-mains or sewers, and he did not put himself to the trouble of searching out any previously existing case. He took it for granted there were always germs. If he practised in a country district, he very soon came across cases which the most careful inquiry failed to trace to any previous case. Before he had any experience in country districts, he was a firm believer in the germ theory; but, as he had to inquire into cases of both enteric fever and diphtheria, he came to the conclusion that the great majority of those sporadic cases did not depend upon any previous case. When he had investigated the cases under his notice, he had found that either the well was polluted with excremental filth, or there were filthy emanations from some privy or drain. It seemed to him that, as sanitary improvement went on, cases of typhoid fever would be less frequent. In two places of his own district Rugby and Warwick—there had not been last year a single death recorded from typhoid fever.—Dr. T. W. GRIMSHAW (Dublin) said it was quite clear that there were not only two, but three, elements to be considered in this matter. The soil upon which the disease had to grow must be in a fit condition. With regard to the pythogenic origin of enteric fever, he was inclined to think it did arise *de novo*. Contagion certainly has arisen under many conditions where circumstances pointed to such an origin. In his own house, for about thirty years, the water of the well had been used and it was found to be infected with sewage, and yet no case of enteric fever had been reported there. That would go far to contradict the view he had adopted; but there might be some other link in the chain which would lead to the discovery. There was another point as to small-pox occurring *de novo*. In the county of Longford, a man had the small-pox. There was no small-pox in Ireland at the time, so far as was known, and for some time it was difficult to ascertain how he got it. On the matter being investigated, it was found that a man caught the small-pox in Brooklyn, America, and came to Liverpool, where he went to one of the hospitals. There was no small-pox in Liverpool at the time; but this man was brought into contact with five other people, one of whom went to Longford. He entered the place before it was known he had small-pox, and it was reported as an outbreak of which it was impossible to discover the origin. There was an outbreak of measles off the south coast of Ireland some time ago. For weeks its origin could not be found; but finally it was traced to some old clothes that were sent from Dublin. As to the idea of establishing sanitary companies, for the purpose of employing engineers for the private inspection of dwelling-houses, he was very much against such a system. It seemed almost impossible to have the house properly examined by a competent sanitary engineer for so low a fee as a guinea. The sanitary inspection of dwelling-houses should come through the public sanitary authority; who should, when the houses were being built, have every drain and pipe thoroughly inspected, and insist upon every necessary sanitary improvement being indicated on the plan, and that, before the house was inhabited, everything specified on the plan really existed.—Dr. HADDON (Eccles), could not believe that anything in the way of infection could arise *de novo*. Still, if M. Pasteur could convert a highly poisonous or dangerous liquid into a harmless one, and if it were possible to convert a simple and innocent fluid into a most dangerous one, then he saw no difficulty in reconciling the two theories of the origin of typhoid fever. He did not think the disease came in the atmosphere; it must be conveyed by contact, or by drinking contaminated fluids, or something of the kind. Then there must be a susceptible stage. In the case mentioned by Dr. Carpenter, the children who did not take the scarlet fever might not have been susceptible; and, even if they had been in the school, they might have withstood it. He had seen cases of scarlet fever in a family, where, though daily in the room where the disease was, none of the rest of the family caught it. Susceptibility was a most important and very difficult matter.—Dr. CARPENTER explained, with regard to the outbreak of scarlet fever to which he had referred, that, out of the whole seventy-five cases which occurred in that epidemic, not a single child who did not go to the school had the infection.—Dr. FITZ PATRICK (Stoneycroft, Liverpool) said that the regulation of sanitary matters ought not to be left to the individual. It ought to be done by the Legislature. They might live next door to a house in which was a case of infection, and, although the surveyor said, "there is going to be death in that house", they must not interfere. In his district, there was a population of 9,000 thirty years ago. It was a very large rural parish, with an acreage of 55,000, but without a single sewer. They made a movement about twenty-one years ago to drain the district. At the last census, there was a population of 33,000. The sewers had been in operation, and the people who had come to live in the district in such large numbers, did not die so fast as they might have done, though faster than they ought to do. There were many things, however, which ought to be altered. There were in the district houses where the sink-pipe went direct into the main sewer, but which the surveyor told them he could not interfere with. When such houses were inhabited, typhoid fever broke out, and then death was the result. He did not quite go with Dr. Carpenter in his deductions from the case he mentioned, for the question of sensibility at one time and non-sensibility at others was a very curious thing. He had had cases of scarlet fever in his own house, but he isolated the patients as much as possible, and at the same time took care that none of them were removed so as to put others in danger. The question which was being debated was a national one. The Association represented the medical profession of Great Britain. It was important, therefore, that they should look at the subject carefully. He hoped the Section would bring before the Parliamentary Committee of the Association the necessity of demanding that the whole of the sanitary arrangements of every house should be strictly in accordance with sanitary law. The absence of fever among the masses of the people of Ireland was easily accounted for; they were too cautious to drink water—they drank whiskey.—Mr. CHARLES J. SMITH (Brighton) said they were perhaps too accustomed, in looking for a cause of things, to look into the far distance, and not to take a common-sense view of those causes which might be in operation. He thought, with the exception of some of the outbreaks of typhoid fever, a very large number of cases of abortive typhoid were constantly occurring; and he thought that it was from those cases that outbreaks of typhoid which could not be accounted for often originated. With regard to diphtheria, he thought there were very few in that room who had had an opportunity of seeing much of the disease. His own experience of diphtheria, during a practice of twenty-five years, was limited to five cases, but beyond that he had seen, perhaps, five hundred cases which had been called diphtheria.—Dr. ARMISTEAD (Cambridge) remarked that very little had been said of diphtheria, and that fact, he thought, confirmed the conclusion at which he had arrived, that there were but few real cases of the disease. He had had a number of cases of diphtheria in a rural district, and the conclusion at which the medical men arrived was, that the unsanitary condition of the place had very little to do with it; that it occurred quite as much in the best houses as in the bad houses; and that, if anything had to do with the origin of it, it was, that the water-supply was derived almost entirely from ponds. That might explain why diphtheria spread more in rural districts than in urban districts. It was possible that the origin might sometimes be traced to animals; and there had been instances where the appearances indicated that it had occurred from sheep suffering from a similar disease. He did not believe in the *de novo* origin. He was constantly coming across cases of typhoid fever for which no cause could be found. It was nearly always connected with pond-water; otherwise, there was generally an outspread throughout the whole village. He had a case in which a servant-girl came into a house six months after a person had been suffering with typhoid, and caught the disease; and it was proved that typhoid lasted in that house altogether about three years.—Mr. VACHER (Birkenhead) remarked that several of the speakers had intimated that there were three conditions necessary to produce typhoid fever: first, the poison or germ; secondly, the carrier—water or moist air; and, thirdly, the susceptible state, or the food for the contagion to live upon when in the body. There was yet another condition, namely, the food for the contagion to live upon outside the person.—Dr. STRANGE, in replying, said a great fog hung about the subject, because expressions were used which went beyond the facts. The word germ was, in his opinion, misleading. By a germ was meant that specific instrument which conveyed, whether animal or vegetable, the disease from one person to another. That a material did convey it from one to another he quite believed. He had a case in his own house, which he carefully watched. His son came home with typhoid fever. He was tended by his mother, who was in perfect health; and she occasionally took the pan of offensive discharges from her son, and poured them into the night-chair, although he cautioned her not to do so. The result was, she got the fever, and very nearly died. If anyone wanted to be convinced of the contagion of the disease from one body to another, there they had it. But what was meant by the *de novo* origin? It seemed to him that it was necessary the substance should be generated in some way before there could be enteric fever. Dr. Murchison believed that; and he also believed that, after the time that the disease had passed so many persons, then they had the contagion. He (the speaker) still adhered to this: that, if there must be in all cases some product from a previous patient of a specific nature before typhoid fever could be generated, then he held that those germs must be ubiquitous. In his own [illegible] worst cases of typhoid he had ever known. [illegible] grown-up daughters of a well-to-do farmer, who had [illegible] built his house in a very healthy place. The closet [illegible] was

so constructed that the servants and the family had one common privy; but the side fitted up for the family was completely shut in, no chance being given for any emanations from the soil-pit to make their escape; while the section used by the servants was ventilated and open. The four women were attacked with the worst forms of diphtheria, accompanied with paralysis of the heart, and died quickly. None of the servants were attacked. Whence did the germs of the disease come to infect those women? and why was it that those only who used the side of the privy which was shut up and the atmosphere confined were attacked, and the others, who used the same privy, but in an open atmosphere, escaped, if the germs came themselves and produced themselves? If that were so, then it was a very remarkable fact.—A few remarks from Dr. DAVEY concluded the debate.

Thursday, August 11th, 1881.

President's Address.—The President (Dr. ARTHUR RANSOME) delivered an address, which was published at page 352 of the JOURNAL for August 27th.

DISCUSSION ON ANIMAL VACCINATION.

Mr. ERNEST HART (London), opened the discussion by reading a paper, which will shortly be published.

Dr. HENRY A. MARTIN (Boston, U.S.A.), said that, during thirty-eight years, he had paid especial attention to the subject of vaccination. Twenty-three years ago, it was absolutely impossible to obtain efficient virus in America. That fact was presented to him in a very striking manner. An outbreak of small-pox occurred in his neighbourhood, and an attempt was made to vaccinate the unvaccinated children of the city and district. He exhausted every means of supply in Boston, and vaccinated fifty children without any apparent effect. He then procured a supply from New York, and, out of the second supply, he succeeded in producing one imperfect lymph-vesicle; but that came to nothing, and seemed to have no effect. Under those circumstances, after trying a number of places in America, he sent to Europe; and at length he induced the National Vaccination Institution of Great Britain to forward a supply of lymph. After trying that, he came to the conclusion that it was the best which could be obtained, and for thirteen years he propagated it with continually increasing satisfaction. It was, without exception, the very best humanised virus that he had ever had any knowledge of, and it always proved itself as such to his mind; and he was under a great obligation to that society, for they sent him many gratuitous supplies. Twenty-three years ago, he asked some of the leading men of the profession, in several cities of the United States, if it would be regarded as unprofessional if he were to do his utmost to procure a sample of the best virus for children, and propagate it; and it was agreed that, not only would it be perfectly professional, but he would be doing the greatest possible service if he succeeded. He set about the work, and for many years afterwards became known all over the United States as an authority on vaccination. When animal vaccination was introduced in Paris, in 1866, he had at first no confidence in it; but, at the same time, he thought that he had no authority to speak on a subject into which he had not inquired. He intended to go to Paris, but, finding he could not go himself, his brother-in-law went instead, in May, 1870, and had an interview with Dr. Constantine Paul, physician to the Senate, and Professor Depaul, chairman to the Public Committee on Vaccination. In the meantime, he (the speaker) had a farm ready, with about fifty young bovine animals, similar to those on Dr. Depaul's farm; and his brother-in-law obtained from Dr. Depaul a quantity of lymph, and returned to America in September of the same year, his investigations having been cut short by the siege. The animals on his farm at Boston, like those belonging to the French Academy of Medicine, were of the Beaugency stock; and in the first fortnight he vaccinated sixteen with the lymph brought from Paris, and obtained from them a large amount of very good virus. With that, he vaccinated about twenty children, and observed the effect carefully from the second day to the fall of the crust. So effective were the operations, and the virtue of the virus was so prophylactic, that the opinion he then formed—and from which he had never since deviated—was, that, in the virus then obtained, they had restored the vaccination of Jenner. The Beaugency virus was discovered in 1866. The National Government of France had offered a reward for the discovery of any case of cow-pox; and a true case was discovered at Beaugency, and transmitted to a heifer, and kept up by the Academy of Medicine. The virus his brother-in-law procured from the Academy was that of the 268th, 269th, and 270th heifer; and, on his farm in America, it had since passed through a large number of animals. After his experiment on the twenty children, he turned his attention to the propagation of a virus slightly humanised; and, for two-and-a-half years, he supplied animal virus of one human remove from the cow, and the virus of long humanisation supplied by the National Vaccination Institution of England, but they differed greatly. He did not give up the humanised virus until he had tested both of them thoroughly. At the end of the two-and-a-half years, in one week he had three cases of erysipelas in those who had been vaccinated with the human virus. Then he abandoned it, and he had never made a vaccination since except with matter from the heifer. The virus of the National Institution of Great Britain produced a disease which was a perfect sequence in its several forms of vaccination, as described by all good authors; but the course of the disease was much more rapid than that which was described in the old writers; and it would be proved, on looking into the matter, that, in the course of three or four years after the discovery by Jenner, the descriptions of the disease and its symptoms differed from those given by him. In the experiments he made with the National Institution virus, he found that on the eighth day, and sometimes on the seventh, the area would begin to appear; on the fourteenth day the crust was invariably dry, and would fall off from a mere touch. From the virus taken direct from the heifer, the area never began to appear until, as described by Jenner, the end of the ninth or beginning of the tenth day, and on the twenty-first day it was not only difficult, but generally impossible, to detach the crust—the crust usually remaining on the arm till the thirtieth day. Mr. Simon had made a statement to the effect, that there was no difference between the heifer virus and that of the National Institution; but he had come to that conclusion hastily, having simply examined it on the ninth or tenth day. In France, the matter had occupied the attention of the profession for many years. In 1835, a gentleman came across a case in the neighbourhood of Paris, where an old milk-woman was found to have a pustule on her hand. When discovered, it was too late to take virus from it, but he did manage to take a slight fluid from under the pustule. He inoculated eight children with it. On four, the operation failed entirely; on the other four, minute vesicles were produced, and from these he took matter and vaccinated eight more children, the effect being marvellous. He (Dr. Martin) had become a very absolute and entire advocate of animal vaccination by the natural and perfectly logical process of deductive reason. While he propagated humanised virus, he was repeatedly annoyed by receiving complaints of erysipelas from physicians to whom he issued it; and it was observed in New York that, in every 500 cases of vaccination, there was one of erysipelas. But, after they had made 4,500 vaccinations from the animal virus, no case of erysipelas had been witnessed; and although the amount of virus which since had been issued from his establishment—or rather, his son's—amounted to probably nearly two millions, he had never had an authentic case of erysipelas. He had had only two reported in that time: one was from virus of fourth remove from the cow, and the other was from virus a seventh remove, and in that case the medical man accidentally knocked the crust off at a too early date. When he began, he anticipated great difficulties. There were, moreover, questions of practical importance connected with this matter. One was the possibility of making animal virus the sole supply for the vaccination of whole cities and towns. He was called upon at times, at the very shortest notice, to vaccinate whole cities; and, when he left America, he had just completed the vaccination of the city of New Haven. The custom now was to send to him, or his son, whenever small-pox broke out, with orders at once to vaccinate the whole population of the city, town, or neighbourhood. And it was done immediately; the result being that the epidemic would be completely stopped in a week. When he left America, his son was issuing at the rate of 1,500 points a-day, and had been doing so for months. The question of the supplying of whole cities with virus, at a week's or few days' notice, was one of great importance, and should be investigated with the fullest consideration.

The Pros and Cons of Vaccination. By GEORGE HARLEY, M.D., F.R.S. (London).—Dr. HARLEY summed up his views as follows. 1. No germ-disease can be induced unless the person it attacks is susceptible to it, in consequence of his having in his system, at the time of his receiving the infection, contagion, or inoculation, pabulum suited for the germ's requirements. 2. The reason why two distinctly different kinds of germ-disease—such as vaccinia and variola—act reciprocally, as prophylactics to each other, is in consequence of both subsisting on the same kinds of food. 3. The course and effects of vaccinia in the human body are not identical with variola, though the germs of both live on the same kind of food. 4. The principle of vaccination is strictly and soundly scientific; from the fact that it is based on the philosophic maxim that it is always best to accept the lesser of the two evils, and voluntarily submit to be the victim of a mild and non-fatal form of disease, such as vaccinia, rather than run the risk of accidentally acquiring an in all cases loathsome, and frequently fatal, form of disease—small-pox. 5. In all cases, vaccination miti-

gates, though it does not always prevent—any more than inoculation—an attack of small-pox. And when an attack of small-pox occurs after vaccination, the reasons for its occurrence are precisely the same as those for a second attack of small-pox supervening upon a first; namely, the regeneration in the person's system of the pabulum suited for the germ's food. 6. The risks of becoming unintentionally contaminated with some dire and deadly form of disease at the time of vaccination, if proper care be taken in the selection of healthy lymph, are so trivial as to be totally unworthy of being, for a moment, placed in the balance against the benefits which accrue to humanity from vaccination.

The PRESIDENT remarked that the medical profession had reasons for coming to the conclusion that, during the last thirteen years, their impressions as to the value of humanised lymph had undergone considerable change.—Dr. DRYSDALE (London), remarked that, in 1875, there was a Congress in Brussels; and, on that occasion, he had investigated the subject of vaccination. At that time he became thoroughly convinced that animal vaccine was a considerable improvement on the ordinary lymph. There was no one, he thought, who had had anything like the experience of Dr. Martin; and he believed that Dr. Martin was prepared to assure them that animal vaccine was perfectly protective. He was informed that he had repeatedly endeavoured, but without success, to find a case of any person getting small-pox after he had been vaccinated by the bovine virus. Some years ago, he received from Dr. Martin a number of points of vaccine; and, having tried them successfully since 1875, he had used animal vaccine, and had received it from every part of the Continent. Until lately the medical profession in London knew nothing about it; but in 1875 a friend of his tried to carry on this practice in London, but failed, and in that great city there had been no success in this direction until Dr. Renner appeared in London. That gentleman had been most successful. He hoped that attention would be given to the fact indicated by Dr. Ransome, that the ordinary lymph was not now perfectly protective; while, on the other hand, Dr. Martin was doubtless prepared to assure them that the lymph he propagated was perfectly protective. —Dr. MARTIN said he referred to animal matter; that was protective.—Dr. DRYSDALE urged that they should seriously contemplate the giving up of the humanised lymph. He moved: "That this meeting expresses a hope that the Local Government Board will proceed without delay to organise a supply of calf-lymph to the public vaccinators from the Vaccine Department, as promised last session to Dr. Cameron, M.P.; and to request Dr. Cameron to assist us in this matter."—Dr. MARTIN said that very peculiar phenomena had been reported in connection with vaccination during the last twenty years. It had never before been said, he believed, that vaccination was a perfect preventive of small-pox. That vaccination was not preventive of small-pox had been repeatedly asserted, not by antivaccinators only, but by men of the profession, who felt that they could not honestly say it was preventive. He (Dr. Martin) had in his hand a report of the health-officer of San Francisco, in which the late Dr. Isaac Rowell thus reported on an epidemic of small-pox in that city in 1868 and 1869: "Another marked peculiarity of this epidemic was the want of prophylaxy afforded by vaccination." Again he added: "If this late small-pox ordeal has taught us anything except the uncertainty of life and remedies, it is this—that during an epidemic of small-pox is not the proper time to practise universal vaccination." Dr. Rowell further added "that those vaccinated or revaccinated since the commencement of the epidemic were apparently thereby rendered more susceptible to the disease". In a report for 1877 by Dr. J. L. Meares, the health-officer for the city of San Francisco, the writer proceeded: "We have just passed through an epidemic of equal malignancy and of almost equal fatality, and yet how different is the experience of your present health-officer from that of the late Dr. Rowell in regard to the prophylaxy of vaccination! I wish to place on record the emphatic declaration that, of the many thousands successfully vaccinated by this department, and by practitioners generally of this city, with bovine virus (Beaugency stock), not one has been attacked with small-pox, notwithstanding these vaccinations have been performed during the prevalence of an epidemic of a most malignant and fatal character." All that business which was going on to make cow-pox out of small-pox was one of the most absurd delusions which ever hampered professional men. He knew they could inoculate a cow, and charge their lancet seven or eight days afterwards, and produce an eruptive disease; and he knew that, if they took their lymph while it was still fluid, they would produce a disease that it would require an expert to distinguish from vaccination itself. If they inserted small-pox matter in a puncture, they would produce a something that would be wonderfully like it. Mr. Ceely said he never succeeded but twice, and the animals were vaccinated; and he (Dr. Martin) knew that, in the children inoculated with that virus from Mr. Ceely, there was a general eruption, more or less, outside the point where the virus was introduced. About fifty years ago, a man of the same name as himself produced something of the sort, and enthusiastically sent it all over the country, thinking he had made the grandest discovery. But, wherever it was sent, the small-pox broke out, and the man ultimately became insane. He was very earnest when he said that they ought not to send about such stuff as vaccine matter. He was sure it had done a great deal of harm, and he was more than suspicious that it was one of the reasons that there were so many complaints against vaccination. He thought the proper way was for the Government to take this matter up; and if they would not take his virus, let them find an original case of cow-pox, and follow it up by finding more, and then let them take those as a source of supply.—In reply to a question by the PRESIDENT, Dr. Martin said he had three classes of virus. In the first place, he relied on the Beaugency virus. It was first transmitted to heifers. It had been carried to 270 heifers when he got it; and, up to the time he left America, he and his son had carried it to 892. He carried on a course of experiments on the parts of the animal where it would be possible to get the greatest amount of lymph. He generally vaccinated the animal inside the perinæum of the udder, where it was tender, was more productive of lymph, and not so likely to be disturbed by the animal lying down or rubbing against any substance.—The PRESIDENT, on the part of the meeting, thanked Dr. Martin for the information he had afforded.—Dr. RENNER (London) seconded the resolution moved by Dr. Drysdale.—Dr. CARPENTER (Croydon) proposed, as an addition to the resolution, "That a copy be forwarded to the President of the Association, with a request that he would lay it before the general meeting, and to make it also an instruction to the Parliamentary Bills Committee of the Association to continue to press the subject on the attention of the Government". He thought that the matter would go to the Government with more authority if it went from the general meeting of the Association. This was a question which required the attention of the Government, who should be pressed to take more interest in this subject than they generally did. Unless the public called for it, and called for it through the medical men themselves, he feared that it would be a long time before those arrangements which were said to be in progress for a better supply of lymph would be allowed to take effect. As to the lymph now used being of an inferior character, he would instance an epidemic of small-pox among a class of children he vaccinated. Many years ago, when he was a pupil, he vaccinated a number of children, and also some adults. There was an epidemic of small-pox in the place, and amongst the adults were some persons who had been vaccinated before. There was a very great demand for lymph; but he found among the adults a very fine arm, with an abundance of lymph. From that arm he took lymph, and with it vaccinated a considerable number of children. Two years afterwards, he saw amongst those children a modified form of small-pox. They were not protected by the vaccination he had performed with the lymph he had taken from the adult, and he could not understand it at the time. He had since, he considered, seen the reason. The operation might be performed all right; but he believed, from the evidence which had since come under his notice, that the use of vaccine taken from adults produced a hybrid kind of lymph which was not protective. It was very important that no vaccine should ever be taken from other than a baby, where it was taken from arm to arm. In supporting the resolution, he was not impugning the idea of arm-to-arm vaccination, because he thought one should not supersede the other. But the Government should be moved with the view of bringing into use a supply of lymph which would have the effect of removing from the minds of the public the idea that the vaccination of their children from human beings rendered those children liable to the contraction of any disease which was supposed to be in the families of those persons from whom the lymph was procured.—Dr. E. HAUGHTON (Upper Norwood) quoted some sentences from a work by Dr. Martin, in which he (Dr. Martin) admitted many "unfortunate results" as having followed the use of "bovine lymph", besides the cases already reported in the BRITISH MEDICAL JOURNAL. He [illegible] a gentleman distinguished in literature, showing the unhappy results of using "spontaneous cow-pox" with members of his own family. He thought that it was hardly possible to go before the legislature to recommend any of the different viruses now used until there was agreement as to which [illegible] Dr. Martin characterise the variolous lymph of Ceely (recommended by Mr. Hodgson) as "an abomination"; whilst, what was more decisive [illegible] for the last three decades, with the view of showing that the most

recent decade was more than double the first in the death-rate from small-pox. With regard to the Beaugency and other "lymphs" of a non-variolous character, they were quite different from that recommended by Jenner, who only believed in that obtained by inoculating cows with the matter from pustules on the heels of horses affected with a disease which he erroneously called "grease". A pupil of his was still alive, and had recently written to the journals proclaiming this fact. It was impossible to reject, without further evidence, the conclusions of the Royal Commissioners of France, Italy, and Belgium, declaring against "variolous lymph", as liable to propagate small-pox; and, until greater agreement prevailed amongst the profession, they were hardly in a position yet to send any memorial to the Local Government Board asking them to make a law on the subject.—Dr. JOHN HADDON (Manchester) thought the resolution required considerable discussion. If our present lymph were useless, then the sooner they could go back to what Jenner had the better. We should take away from antivaccinators such arguments as they use against humanised virus on the supposition that it conveys diseases from one human body to another, by supplying lymph to which they admit they have no objection. He would go so far as to apply to Government to supply calf-lymph for the vaccination of the children of antivaccinators. There were, however, diseases in cattle of which very little was known. In 1871, there was an epidemic of small-pox in the district where he was practising, and his experience proved to him that the lymph then used was perfectly good. The disease occurred in twenty-four families in his district, among the poorer classes generally—ten in a family in some houses—and in streets crowded and close together. The method he took was to vaccinate the whole of the family as soon as a case occurred, and instantly to disinfect the house by means of chloride of lime, sulphuric acid, and other disinfectants. It seemed to him, however, that vaccination was the great protective agent. Out of the twenty-four houses, he had only a single instance in which a second case occurred; and that was the case of a father, who came home drunk one night, and would sleep where the child with the small-pox was lying.—Dr. GRIMSHAW (Dublin), referring to the great increase in the mortality from small-pox in the decade from 1871 to 1880, said that there was a great agitation got up then and just before that period by the antivaccination societies.—Mr. NUNN (Bournemouth) remarked that antivaccinators would be very joyful if such a resolution as that before the meeting were passed. They would take it as clearly saying that the medical profession were beginning to doubt the efficacy of humanised vaccine.

Dr. HADDON proposed, as an amendment, "That Government be asked to supply public vaccinators with calf-lymph to vaccinate those who object to humanised lymph".

This was seconded by Mr. NUNN.

After some further observations, the suggestions and amendments were withdrawn in favour of a resolution which was unanimously agreed to, as follows: "That this Section, while having full confidence in the present supply of lymph, yet expresses a hope that the Local Government Board will proceed, without delay, to organise a supply of calf-lymph to public vaccinators from the Vaccine Department, as promised last session to Dr. Cameron, M.P.; and to request Dr. Cameron to assist us in this matter."

[Dr. RANSOME having retired, Dr. WILSON presided during the rest of the meeting.]

The Isle of Wight as a Health-Resort. By JOSEPH GROVES, M.A., M.D. (Sandown).—The author said that the conditions which obtained in the Isle of Wight might be described as marine on the coast, and semi-marine in the interior. The most obvious peculiarity of the Isle of Wight was that it was an island, and the resulting general equability of temperature was its most striking possession. Of only secondary importance to its insularity was its remarkable physical configuration, which had given it great beauty of scenery, and had endowed it with considerable diversity of climate within certain limits. The mean temperature of places within a narrow area could not vary greatly, and even 2° or 3° Fahr. could not be said to have a sanative value; the differences consisted in the degree of shelter afforded. The surface of the island was almost universally undulating and hilly; but its most prominent feature was a range of chalk downs, which, traversing it from east to west, forms a bulwark against northerly winds. A second more southerly range afforded additional shelter from the north to the south, and south-east coast. The proximity of the sea and the irregularities of the surface promoted the movement and circulation of the air, and rendered the Isle of Wight a decidedly breezy place. The nature of the soil and the geological characteristics of the island were interesting. The strata of the upper secondary and lower tertiary rocks, which were at the surface, were inclined in obedience to the lines of an anticlimal curve; and this and the irregularities of the surface facilitated the disappearance of water after rain. The soil, for the most part, too, was very porous, a fact admonitory to the medical health-officer in connection with the contamination of well-water and the disposal of sewage. The rainfall, which ranged from 29 inches in some localities, to 33 inches in others, was not excessive. Coming direct from the Atlantic, the air was very pure. It was scarcely possible for any district to have a purer or more abundant water-supply; but, although some of the towns obtained their water from the chalk and greensand reservoirs, the inhabitants did not seem alive universally to the importance of availing themselves of these sources. Preventable disease occurred; but the death-rate—17.72 per 1,000—was low. The idea that the climate of the island was enervating had arisen probably from want of care in selecting suitable places of residence in individual cases. There were very sheltered localities on the southern slopes of the downs in all parts of the island, and also in the Undercliff. But although sheltered on the north and east, the western termination of the Undercliff itself was particularly bracing at Blackgang, which was situated at a considerable elevation above the sea. In the more exposed positions on the coast, and on the highlands in the centre of the Wight, the atmosphere was sufficiently, although mildly, bracing. The humidity of an island was supposed to be objectionable in winter; but it had been proved that, in winter, a marine was drier than an inland climate. On account of its elevation, sea-fogs were less troublesome on the island coasts. Most positions in the Isle of Wight had peculiarities which rendered them suitable in different diseases, in different forms and complications of the same disease, and in constitutions of a different character. The sanative influence of a given health-resort might be regarded as concerning cases of chronic disease and of those who had hereditary predisposition to special diseases; and as concerning convalescents from acute diseases, and cases of bad health which had not yet passed into actual disease, and all those nervous and other cases which were recommended change. Speaking broadly, the climate in any latitude was best in which the longest time could be spent in the open air, and in which the functions of the skin could be kept active during out-of-door exercise without hurrying the circulation. The climate of the Isle of Wight appeared to meet these requirements; and it was adapted, therefore, for cases of scrofulous affection and cardiac disease, for delicate children and young persons, and for those who had hereditary predisposition to struma. Many cases of phthisis and of bronchitic and throat-affections did well there. Many disorders of the digestive organs and of those peculiar to women seemed to ameliorate quickly after arrival, probably as the result of rest and change simply, and of a more natural mode of life. Almost all cases of chronic disease improved here, provided the general health were not sacrificed to the treatment of symptoms. And as to the second class of cases, the convalescent, the overworked, the hypochondriac was ordered change to get him away from his room, his work, and himself, and not that a miracle might be wrought by the inhalation of a specific atmosphere. Such a man as he, moved from place to place in the Isle of Wight, might find in its scenery a constant charm; and in its archæological remains, and its history, in its botany, its natural history, and its geology, a rare field affording never-ending distraction.

The Climate of the Undercliff, Isle of Wight. By J. L. WHITEHEAD, M.D. (Ventnor).—In this paper, Dr. Whitehead brought before the notice of the section a series of meteorological observations made during forty years, from 1840 to 1879 inclusive, and offered remarks on the climate of the Undercliff, based on these observations and on his own experience. The statistics were collected by the late Dr. Martin and his brother Mr. Martin, and had been placed at Dr. Whitehead's disposal. Describing the Undercliff, he said that it had been formed by the subsidence of the land from the upper cliff, the land having fallen into natural terraces facing the sea, and fronting nearly due north. This arrangement, with the insular position, doubtless obtained for the Undercliff a mildness during the winter and coolness during the summer, which it would otherwise not possess, the sun's rays falling, in consequence of the condition of the land, more directly on the surface than they otherwise could during the winter, while the upper cliffs protected from the rays of summer afternoons, and, aided by the sea-breeze, rendered the atmosphere comparatively cool and pleasant during the warmest periods. Sudden transitions and extensive ranges of temperature might be said to be unknown. The mean daily ranges were: winter, 7.10°; spring, 10.6°; summer, 10.24°; autumn, 8.80°. Compared with Newport, near the centre of the island, the climate of Ventnor was rather warmer, much more equable, and considerably drier. The average rainfall of forty years was 28.80 inches; but it had gradually increased from 25.72 inches in the decade 1840 to 1849, to 31.109 inches in 1870-79. The streets and roads soon became dry

after rain; and wet weather was rarely so continuous as altogether to prevent out-door exercise. The water-supply was abundant and good. The prevailing winds were westerly; the Undercliff being protected from north, north-east, north-west, and west winds. There was seldom an absence of sea-breeze, even on calm and sultry days. In conclusion, he characterised as erroneous the idea that, as the Undercliff was comparatively warm in the winter, it must be intensely hot in the summer. Appended to the paper were tables giving the temperature of Ventnor and of other places in the Isle of Wight and elsewhere.

The CHAIRMAN said that most medical men knew some of the many advantages of the Isle of Wight in that respect. In the course of the day, a friend pointed out a young lady who was sent to the Isle of Wight about a year ago, apparently dying from consumption, but who was now rosy, robust, and healthy-looking. Such facts were of more importance than arguments.—Mr. JABEZ HOGG (London) remarked that the geology of the Isle of Wight represented, in epitome, the geology of the whole world. As to the water-supply, he believed that there was in Ryde some of the best water it was possible to obtain from natural sources. One would like to know, however, whether any of the deep springs had been found to be affected by the salt of the sea. Lately, a considerable amount of diarrhœa was experienced in a seaside town which had come under his notice, by drinking water from a very deep well, which at certain periods was found highly impregnated with chlorides. He should have liked to hear something about the supply of food, particularly of fish, which he had been in the habit of prescribing as a diet for several diseases. In sending patients to a seaside town, there was a probability of getting good fresh fish, which could not be procured in London and other inland towns. The subject of the supply of fish ought to be carefully considered by the Public Medicine Section.—Mr. NUNN (Bournemouth) believed the minds of some persons were considerably agitated as to the appointment of a health-officer for the whole of the Isle of Wight; and he thought Dr. Grove's paper would help very much to place the facts relating to the island more completely before the general body of the profession. He asked whether any by-laws with regard to new buildings were enforced in such places as Ryde, Ventnor, Shanklin, and Sandown, which persons in search of health and recreation were generally in the habit of frequenting. Were the speculating builders properly looked after by the local sanitary authorities? If the builders were not properly looked after, persons in a delicate state of health might be subjected to great danger.—The CHAIRMAN said that all towns of the country were obliged to have such by-laws. In Ryde and other towns in the island, by-laws had been adopted and carried out; and he had no doubt the same thing had been done in the smaller towns throughout the island. —Mr. NUNN had observed that the building by-laws were in operation at Ryde; but he had not noticed any system of the ventilation of the sewers.—Dr. JAMES NEALL (Sandown), as medical officer of health for the Sandown district, said that, for the last ten years, the death-rate here at Sandown had been at an average of 13 per 1,000 per year, excluding visitors; and 14 per 1,000, including visitors. The deaths for last quarter were at the annual rate of only five in the thousand. There had been no deaths there from infectious diseases this year or last. The Local Board had by-laws, though as yet they had not adopted the model by-laws issued by the Local Government Board. He had no doubt, however, that they soon would adopt them.—Dr. ARMISTEAD (Cambridge) called attention to a report recently made to the Local Government Board by Dr. Ballard as to the sanitary condition of the Isle of Wight, and intimated that he should like to know what had to be said in reference to that report.—Dr. NEALL replied that, so far as Sandown was concerned, he had only to say that, for the last ten years, there had been no death from enteric fever recorded to have taken place in the town.—Dr. GROVES thought that, if local men were encouraged a little more to talk about the respective districts in which, from time to time, the annual meetings were held, the general ignorance which at present existed among medical men as to the peculiarities of the climate of the several parts of the country, and the hygienic condition of the different places would be removed. Medical men sent patients to the Isle of Wight without taking the slightest interest as to the part of the island to which they came. The patients, from want of knowing better, went to some part of the island not in any way adapted to their particular complaint, and, not realising any benefit, they acquired bad impressions of the place, and reported accordingly. With reference to the water, what he meant when he described the Ryde water as being very good was, that it came from a source which could not be polluted. After careful study and examination, he believed the sources of water in the Isle of Wight were not at all affected by the sea. On the other side, at Portsmouth, the water was very considerably affected. He had tried to avoid in his paper speaking of any particular district. As to the Government by-laws, he was aware that they had already been adopted at Newport, where they had met with considerable opposition, and he believed they had also been adopted in all parts of the Isle of Wight in a modified form; though they were not made compulsory, for the by-laws might be adopted by a district, or the district might go on without adopting them. As to ventilation of the sewers, that already existed in the several towns of the Isle of Wight, though, as in Liverpool and other large districts, the system was not yet complete.

Friday, August 12th.

Dr. GEORGE WILSON (Cheltenham) one of the Vice-Presidents, occupied the chair, in the absence of the President, Dr. Ransome.

On a Peculiar Form of Disease arising from Milk-Contamination. By R. BEVERIDGE, M.B. (Aberdeen).—On April 4th, an outbreak of a peculiar form of disease occurred at Aberdeen, which, from special circumstances, seemed to be connected with the supply of milk from a particular dairy, on which account the sanitary local authority intervened, and the supply of milk from that dairy was stopped. From inquiries made, it appeared that, out of 112 families supplied with milk from that dairy, 89, comprising 322 individuals, were attacked; in most cases, the majority of the members of the families being affected. The bulk of the cases of the disease were comprised within little more than a week, from the first to the 8th April, a very few having occurred prior to the first-named day, and a few appearing after the last-named, but no new families having been affected after the last date. Assuming the milk to be the cause, it acted most energetically when used cold and in quantity, and least so when boiled or used in small quantity. The families affected were scattered indiscriminately over the town, and seemed to have nothing in common except the milk. No cases of the same nature occurred in Aberdeen outside the number using this particular milk, and none occurred elsewhere in Scotland. In several of those families who, though using this milk, escaped the disease, peculiar circumstances existed which may have accounted for the immunity they enjoyed. The special symptoms of the disease were a sharp attack of pyrexia occurring quite suddenly, lasting two or three days, and then subsiding, leaving great and often dangerous prostration behind. The attack was generally succeeded, within two or three days, by a second similar one, and in some cases by a succession of attacks, with complete intermissions between them. The local symptoms, never specially urgent, were slight sore-throat, with a feeling of fulness or swelling there, little being seen on looking into the throat, but a swelling of the deep glands existing at the angle of the jaw. The successive attacks were marked by the involvement of successive glands, on the same or on opposite sides. In three cases, the disease proved fatal, all these being elderly persons, and in all the immediate cause of death was the extreme prostration following the attack; death occurring in each case after the lapse of about a week, and several days after all the symptoms had subsided. In one case, a *post mortem* examination was obtained, which revealed no special lesion connected with the disease, or causing death. The dairy-farm referred to was connected with the Old Mill Reformatory, and was situated about two miles from Aberdeen. The byre was well constructed, large, open from end to end, and contained between forty and fifty cows; at one end, at such a height as not to interfere with the cows beside it, was a large water-cistern, composed of concrete, and covered with a loose wooden lid. This cistern contained about three hundred gallons of water, was filled twice in the twenty-four hours, and from it was obtained all the water used in the byre and in the dairy. In that dairy were washed almost all the vessels used for conveying milk to the consumers. All those whose milk-vessels were not washed there escaped. When the place was examined by the sanitary inspector, the position of the cistern was at once objected to, and, immediately on that, the arrangement of the water-supply was altered. Before this was done, however, a specimen of the water in the cistern was obtained, and found on analysis to be highly contaminated with organic matter, although the water before entering the cistern was extremely pure. The following were the conclusions at which the author arrived. 1. The milk obtained from the cows was good, but the milk supplied to the consumers was [illegible] by contamination; 2. The [illegible] milk was the direct cause of the disease; 3. The water used in the dairy was dangerously contaminated; 4. Various circumstances seemed to show that, besides the washing of the milk-vessels with the contaminated water, there had been an intermixture of the water with the milk; 5. The [illegible] to indicate that the disease was produced by a living organic poison introduced into the system by the tonsils and deep lymphatics of the neck. Microscopic examination seemed to show the presence of one particular organism in the water of the cistern, in the milk supplied to consumers, and in the body of

the one case where a post mortem examination was obtained; but the investigations on this point are not sufficiently completed to allow of their being stated in detail. The disease differed from local inflammation in the trifling character of the local lesion, compared with the extreme severity of the constitutional symptoms, in the short duration of the attack, in its periodical recurrence at pretty regular intervals, and in the extreme prostration left behind. From diphtheria it differed in the short duration and periodical recurrence, in the absence of any trace of diphtheritic or false membrane, and in its being absolutely non-contagious.

Mr. NUNN (Bournemouth) said that the absence of diarrhœa in the epidemic was strange if contaminated water had led to the poisonous condition of the milk. The disease seemed to have displayed itself in the glands, the neck, and the mouth. He was medical officer to an important dairy company, and had watched and examined a number of cases of alleged pollution of milk, and he was very much interested in the account given by Dr. Beveridge. He asked at what date Dr. Beveridge examined the cows after the epidemic.—Dr. BEVERIDGE: At the time. The cows were all carefully examined by himself, by two veterinary surgeons, and by the medical men connected with the dairy.—Mr. NUNN asked whether the cowsheds and adjacent premises were cleanly, or whether there had been anything like diphtheria amongst those having to do with the cows. As to the water-supply, did the waste-pipe discharge into an open sewer, or was it in any way connected with any system of drainage? A very interesting case came under his notice, in which a number of children and adults had a sharp attack of diarrhœa in consequence of the cows being constantly fed on green rye.—Dr. ARMISTEAD (Cambridge) observed that it appeared that some cases occurred five days after the milk-supply was stopped. It seemed to him that there was evidence that some mischief had been going on before the outbreak occurred. The next question was, whether any one at the farm was ill, and whether any of those at the farm used the water and not the milk—that was, the water which the cows used.—Mr. VACHER (Birkenhead) thought it was highly probable, from the description, that the disease was that which had been called a "spreading diphtheria". He had a similar case some time ago, traced, on investigation, to the water.—The CHAIRMAN said he had to inquire, about a year ago, into an epidemic affecting about eighty boys in a school. The symptoms appeared to correspond exactly with those described by Dr. Beveridge; but he could not trace the cause to water. It only appeared to him that the cow had been suffering from inflammation after calving. The pustules in the patient were clearly traced to the milk, and it seemed to him that they might have induced a sort of eruption.—Dr. STEWART (London) said that this famous outbreak certainly seemed to be a disease of which there had been no previous experience generally. It would be remembered with the outbreak of enteric fever described by Dr. Michael Taylor, and that described by Dr. Ballard, and the famous one in 1873 which Dr. Murchison traced, and from which the greater part of Dr. Murchison's children suffered. The outbreak described by Dr. Beveridge differed from anything like relapsing fever, because there seemed to be no jaundice, which was frequently to be seen in intermittent fever. Therefore, they were looking with great interest to the completion of Dr. Beveridge's researches and investigations. In all those cases, the thanks of the profession and of the public were due to those gentlemen who devoted so much attention to the investigation of them; but he believed that, during other similar epidemics, there had been a loose mode of collecting evidence, with most incomplete and unsatisfactory results.—Mr. JOSEPH SMITH (Guildford) had a similar outbreak in his district, resembling quinsy, but he certainly did not ascribe it to the milk or the water. Both were good. So far as could be traced, it originated in a dairy, but not in the part where the milk was kept.—Dr. BEVERIDGE had endeavoured to compress the paper as much as possible, and therefore a considerable number of negative points were not, perhaps, put so strongly as they ought to have been. The cows were carefully examined, and, in fact, the whole details were got at as far as possible. As Chairman of the Public Health Committee of Aberdeen, he had especial facilities for following this matter up; and he pushed the investigation throughout the district. In every case, they found the symptoms were those of ordinary sore-throat in children, or the swelling of the glands common with them in the spring time of the year. The general completion of the furnishing and fittings of the dairy was extremely good. The cowshed was open and airy, and the only thing they could find fault with was the position of the water-tank in one part of the cowhouse. The cows were in good health, and there had been no fresh beast brought into the shed for four or five months. The cistern or water-tank was cleaned out from time to time, and was kept clean; but its position at the upper part of the building was such that any contamination afloat in the air in the cowhouse could readily get inside. The water-meter was immediately outside; it was let through the wall into the cistern, and the exit-pipe led through the wall to discharge again; the waste-pipe having no connection whatever with the drain or anything of the kind. As to the incubation of the epidemic, that was a point he did not take up in the paper. On April 1st, a gentleman came to Aberdeen, and he was visiting in a family who were using this milk. The majority of the family were taken ill; and on April 4th the gentleman was also taken ill, after being in the house and using the milk for three days before symptoms appeared. After the cessation of the supply of the milk, there were four persons affected—one after one clear day, five after two clear days, four after three clear days, two after five clear days, and only one afterwards. Those were all in connection with families who had been out of town, and who returned on April 1st. It seemed that the period between taking the milk and the breaking out of the symptoms varied from one to seven days; and, as far as could be calculated, from three to five days was the longest intimation. The affection was not like any other form he had seen, and other medical men of the district were all of the same opinion. When they investigated the farm, they found nothing about it which led them to come to any conclusion other than that the origin of the epidemic was traceable to the water. The same farm was the seat of an outbreak of typhoid fever some years ago, and that was undoubtedly traced to the use of water from a source contaminated by sewage running in at a point a short distance from the farm. He had brought this matter forward with the hope that this inquiry might be prosecuted to the fullest extent.

The Organisation of the Army Medical Department. By G. H. EVATT, M.D., Surgeon-major.—In this paper, Dr. Evatt gave an account of the changes which had taken place in the organisation of the medical department of the army since 1873, believing them to have an important bearing on the position of the profession in civil life. The relations of medical officers to army hospitals was likely to be governed by the most enlightened rules and ideas, and to be the best representation of modern theories as to hospital control and supervision in this country. He contrasted the old regimental organisation and the defective hospital arrangement with the system now existing, pointing out in detail the defects of the former and the advantages of the latter; and pointed out certain reforms which he believed to be still required to increase the efficiency of the department. These were: the union of the Army Medical Department and the army hospital corps; the establishment of garrison messes for the use of staff and departmental officers; the appointment of secretaries to principal medical officers, in order to relieve them of clerical work; promotion from the relative ranks of lieutenant and captain by examinations, the relative work being equalised as much as possible according to age; and special mention in despatches through the principal medical officer, the reports being sent to an Army Corps General and to the Director-General of the Army Medical Department, who should be able to reward his officers. Dr. Evatt concluded by saying that the sympathy and goodwill of the civil profession was a powerful incentive to the army medical officers in their labours, and by expressing gratitude to the British Medical Association for the fellow-feeling shown to them.

Dr. STEWART (London) thought the author of the paper could not be aware of the efforts made by the British Medical Association many years ago in behalf of the medical profession in the army. He had the honour of opening the question in the pages of the JOURNAL in the year 1865; and it was followed up by Dr. Armstrong, now the Director-General of the Navy; others also taking part in the matter. It was decided to refer the matter to the late Sir Thomas Watson; and the result was, that a commission was appointed. Since that, a deputation had waited upon the late Home Secretary some years ago, with a remonstrance in behalf of the members of the medical staff; and they left him with a conviction that they had made some impression. One of the main points on which they insisted from the beginning was, that the army medical officer should be supreme in his own hospital, and that he should be the guardian of the interests of his patients.—The CHAIRMAN could not gather from the paper that Surgeon-Major Evatt did not recognise what the profession had done in behalf of their brethren in the army. Dr. Evatt had given a good idea of the organisation of the medical staff of the army.—Dr. A. H. JACOB (Dublin) said that Surgeon-Major Evatt's pamphlet on unification certainly did more, to his knowledge, on the other side of the water, to convert military men to the system he had advocated, than anything else. It had done more than anything he had yet seen to reconcile military officers to the new system.—Surgeon-Major EVATT said that the medical men of the army were deeply grateful to the British Medical Association for the help they rendered them in their struggle for reform. It was a great comfort to feel, when one was far

away from his native country, and devoting his life for the sake of his fellow-men, that at home there was so great a body as this Association seeking, in turn, his comfort and the benefit of the whole of his brethren. The great object of the profession was that the private soldier in the army, as well as the wealthy citizen in the city, should have the benefit of the best advice.

Are Homes for Convalescents from Scarlatina desirable, and, if so, at what period can the patients be safely removed to them? By A. P. STEWART, M.D. (London).

The Compulsory Notification of Infectious Diseases. By A. G. HARRIS, L.R.C.P.Ed. (Gosport).

Tenement Hospitals. By F. VACHER, F.R.C.S.Ed. (Birkenhead).—Dr. GRIMSHAW (Dublin), commenting on the paper on the notification of infectious diseases, said he was certainly in favour of the principle that compulsory notification was desirable, and that this Association should take up the question and insist, as far as possible, on urging something upon the Legislature. The subject had already been before Parliament so far as England was concerned, and a Bill had been introduced for Ireland and sent to a Select Committee. A national notification was wanted, for local notification was necessary; but it was a matter of the utmost importance, for instance, that a notification at Portsmouth should be available in London, or that in Dublin they should know of the existence of contagious diseases in Liverpool, and that in Liverpool they should know if anything existed in Dublin; and they could only come to that knowledge, by the present system, by learning from the Registrar-General that deaths had occurred from certain diseases. Those records being only available after the persons had been dead fourteen days, it was quite obvious that an epidemic might for days and weeks exist in Liverpool before Dublin had any knowledge of the fact, and in Dublin before Liverpool had any notice of it, though the intercommunication between the two cities might be almost said to be hourly. In any Bill to be introduced to Parliament on this question, there should be provision to some extent for the publication of all of the localities where infection existed. In working out a scheme of the kind, this would not be very easy under present circumstances; but it should be taken notice of by the Parliamentary Committee. The question as to who was to notify cases of infection appeared to be one of the great difficulties. He could not see any reason why the medical man should not notify to the sanitary authority. It had been said that it was an interference with the private and confidential relationship between the medical man and his patient; but the patient was a member of the community at large; and if the safety of the whole of the public depended upon making known the existence in that patient's house of an infection which endangered the public health, the medical man had nothing to do with the question of confidence in regard to that matter. Under the present arrangements, every medical man was bound to certify the cause of death, and that was public property. If a next-door neighbour particularly wished to know of what the patient had died, he could obtain the information from the registrar, or go to Somerset House, and find out whether his neighbour had died from syphilis or delirium tremens. But he never heard of a register being used for such a purpose, and he did not think it likely that the register of infectious disease would ever be used with such an object in view. Then came the question as to whether a man conducting a retail business should have his shop deserted and his business ruined because it was publicly notified that his assistant had scarlatina. It might be very bad for the shopman; but if the lives of his customers were endangered, and the public health destroyed, by keeping the secret, then, he said, let the shopkeeper be sacrificed for the public good. He remembered a case of a boy with measles, who had been allowed to sell toys over the counter of a [illegible] on a great [illegible] of children, the [illegible] clearly on him at the time. Such a case as that ought to have been brought under the notice of the public sanitary authority, and the shop should have been shut, rather than that the boy should have been allowed to serve children with toys. He had heard, too, of a case at Ryde, in which a child suffering from whooping-cough was allowed to be at an hotel, where visitors' and other children were repeatedly being taken in and out; and [illegible] that child ought to have been taken from [illegible] hotel.—Dr. MOORE (Dublin) was strongly of opinion that the establishment of convalescent homes was more imperatively called for. An important matter with regard to those convalescent homes was, when might the patients be safely removed? He was of opinion that, with due precautions, they might be removed long antecedent to that period at which they might be considered perfectly safe. Some years ago, the elder of two little girls was attacked with scarlatina in the house of their father, a physician. Strict quarantine was kept up, the patient was isolated and kept from the rest of the family, and the younger sister escaped. In six weeks, the child was apparently recovered, and was allowed to go into another room, where she met her younger sister, who had remained in the house the whole of the six weeks with impunity. Five days later, the younger one had taken the disease. No one could hesitate in concluding that, if the first case had been removed when she was able to be taken out of bed, the other girl would in all probability have escaped. He would not pass from this subject without expressing his admiration of the heroic efforts Miss Mary Warder was making in establishing one of those institutions for convalescent patients. As to compulsory notification, he strongly endorsed the view of Dr. Grimshaw, and felt sure that if compulsory notification were enforced, there would very shortly afterwards be compulsory registration. There was no reason why that should not be done. Many objections had been raised to compulsory notification, particularly against it being made by the medical man; but there was no single instance, so far as he knew, where compulsory notification existed, in which one of the objections was found to be valid. In Edinburgh, the compulsory notification directly by the physician had worked most harmoniously. The other day he met Dr. Littlejohn in London, and he informed him that in no single instance had any difficulty occurred. In Edinburgh, it was the town council that asked for notification; and in Dublin, it was also the town council. That body consisted of sixty men, all of prominent positions in the town, and most of them heads of families. Would those gentlemen deliberately go before the Parliament with a Bill if they thought the conditions of it would in any way have the alleged effect of violating the relationship which existed between themselves and their family medical attendants? It had been stated that in such cases the medical man would not be sent for; but could they imagine that a person could stand by and see his child or wife die from an infectious disease, and call in no physician, simply because that physician would notify the case? Then, if the father or guardian should fail to send for a physician, it was quite likely the patient would die, and the death must be registered; and if it should be found that the patient had died from an infectious, whilst an ordinary disease was registered, then those who had made the false returns would be punishable with a very severe penalty. He regretted that he had not an opportunity of stating his views against the resolution which was carried at the general meeting against direct notification by the medical man. They had it on the authority of Dr. Cameron, medical officer of Dublin, and of Dr. Littlejohn, medical officer of Edinburgh, and of Dr. Johnson, medical officer of Leicester, that no system of notification would be effectual unless the notification was made by the physician in charge of the patient.—Mr. D. B. BALDING (Royston) remarked that the subject of isolation of infectious diseases was so difficult that it was not likely to be fully met by the legislature for several years. The question was, How to provide for this isolation? In the paper read by Mr. Vacher, a description had been given of such hospitals as might be considered necessary for the treatment of cases of infection. He supposed Mr. Vacher would admit that his suggestions had to some extent as yet been untried, for that he was not, perhaps, very confident even in the efficacy of the plan he had roughly sketched out. There were very great difficulties in providing for towns, and also in rural districts. It was difficult to find out what was the size of the hospitals they were likely to want, and where they should be placed; also, where they were going to place their convalescent homes. The problem could only be solved gradually, and they must begin with small things—perhaps in country districts first—and by establishing and [illegible] small [illegible]. However it was done, they must expect opposition, either in a town or in a village. He thought, however, that they might try the plan—perhaps in large towns, perhaps in rural districts—by beginning in a small way, both as to the hospital requirements and as to the indulgences and fears of the British public. He believed the time was not far distant when the British public would not have the horror they now had for infectious hospitals. He believed that the [illegible] would become by the public seeing that in one case thirty bad cases of small-pox had been brought close to a town, without one bad result. The co-[illegible] certainly; but what were they [illegible] that, if one of the medical [illegible] it would [illegible] and trouble the rest [illegible] such places, they would have the land given for the hospital, possibly [illegible]

when parents were made to feel that their children would be better cared for than at home, and would be attended to by gentlemen in whom they had the greatest confidence, they were pleased to send the children to the hospital. The difficulties in that direction were not, therefore, so great as supposed.—Dr. BEVERIDGE (Aberdeen) had always been surprised at the position taken up by the Parliamentary Bills Committee of this Association, in endeavouring to throw off their shoulders the necessity for giving notification of cases of infection. Three years ago, the Town Council of Aberdeen proposed to the medical men of the place, that they should notify to the Council every case of infectious disease which came under their notice. There were forty medical men in the place, and, with the exception of four, they all consented to do it. In no one case that he had heard of—and he would have been certain to hear of it if it had occurred—had the notification interfered with the confidential relationship existing between the medical men and their patients. Many of the leading men of the neighbourhood were opposed to it at first; and, when he brought the subject forward at the Town Council, some of his colleagues strongly objected to it, and said, if their medical men were to report such cases at their houses, they would get rid of them. They did not do that, however, when it came to the point, and when they saw the advantages resulting from the notifications. The result of the voluntary working of the system at Aberdeen had been most satisfactory, for the number of deaths from zymotic diseases had been reduced by about one-half. So convinced had the public become of the value of the system of notification, that they had no difficulty in obtaining a clause in a recent Act making that notification compulsory. That clause had been in force a week, and he had no doubt it would be productive of much good. In the discussion of these matters, medical men should take the public into their confidence. The public were sensible enough to learn that such things were for their own interest, and it was for the safety of themselves and their families that an efficient protection should be provided by the public authorities being instantly apprised of the existence of an infectious disease, in order that remedial and preventive measures might be promptly adopted. With respect to the establishment of hospitals for infectious diseases in the neighbourhood of towns or in villages, there certainly were very great difficulties; but, if the public could be assured that such hospitals were not the means in any way of spreading such diseases, but the reverse, of getting the diseases from the hospitals, then the misgivings of the public would gradually subside. There was one clause in the Public Health Act for Scotland which he had endeavoured to have enforced, and which brought home to a large proportion of the wealthy proprietors the importance and necessity of looking into the matter. That was a clause which provided that, when a landlord let a house or tenement, if within a certain period it had been occupied by a person ill with any infectious disease, that landlord must, at his own expense, cleanse and disinfect that tenement before he allowed another tenant to go into it. In his district, he had succeeded in having it made an instruction, that the inspector of nuisances should issue a notice to the landlord wherever any such case occurred, and that notice had generally been found to be effectual. As to the notification of infectious diseases, not only did they apply for reports to medical men, but sought information from every available source as to the sanitary condition of the district, paying private practitioners special fees for certificates. The result was, that the Council obtained from all directions immediate notification from any part of the district of any infectious disease which might show itself. They had also a school board, and, in the event of any child being found to be absent from school, the attendance officer immediately proceeded quietly to inquire as to what was the cause; and, if he found out that it was any infectious disease, the fact was immediately notified to the town council. In that way they obtained immediate notification of diseases among children where medical men were not called in, and where they would otherwise pass the notice of the sanitary authority. Thus their zymotic mortality, and the cost, too, of working the Public Health Act, had both been reduced very considerably—Dr. STEWART said that, with the exception of a few remarks by Dr. Moore, who had thoroughly studied the subject, but very little had been said on the important question of the establishment of convalescent homes for cases of scarlatina.

On the motion of Dr. ARMISTEAD, an unanimous vote of thanks was passed to Dr. Ransome for the efficient manner in which he had conducted the business of the Section.

The proceedings then concluded.

THE report of the Veterinary Department of the Privy Council for last year contains the statement that no case of sheep-pox appeared in Great Britain during that period; but that a cargo of sheep was landed at Deptford, amongst which were found three affected with the disease. The whole of the carcases of these animals were of course destroyed.

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF DISEASES OF CHILDREN.

(Concluded from page 474.)

THE TREATMENT OF SPINAL CURVATURE, WITH SPECIAL REFERENCE TO SAYRE'S METHOD.

A discussion on this subject was commenced, and was completed on August 4th. The following papers were read.

Spinal Deformity and Sayre's Method. By A. M. DA CUNHA BELLEM, M.D. (Lisbon).—The author accepted, almost to the full, the principles on which Sayre advocated his especial method of treating spinal deformity. He thought, however, that neither the pelvis nor the shoulder afforded a fixed point for securing immobility of the spine. In hot countries, the bandage must be changed at least once a month. One of its disadvantages was that it interfered with sea-bathing, and also with general cleanliness. The author did not approve of the "jury-mast"; it rendered the patients uncomfortable, even if they did not actually resist its application. Anæsthesia, he thought, ought never to be attempted. Six months, he found, did not always suffice to restore a diseased spine to its natural condition.

The Treatment of Spinal Curvature. By C. H. GOLDING-BIRD, M.B., F.R.C.S. (London).—The author said that, of the four deforming affections of the bones, including the spinal column, only three were found in children, viz., caries, rachitis, and "general curvature". The fourth, osteomalacia, did not concern this question. These diseases being familiar to all, attention was only drawn to their treatment as affecting the spinal column. This fundamental fact must first be admitted, that these affections were the same whether in the spine or other bones; therefore the essential principles of treatment were identical in both cases. Therapeutically, spinal diseases (in children) formed two classes: *a*. Inflammatory (caries, or "Pott's disease"); *b*. Non-inflammatory (rickets and general curvature). Caries (as in the tarsus), being inflammatory, required absolute rest, immobility, relief from pressure, and free drainage of pus when formed. Rachitis and "general curvature" (as in curved tibiæ and some flat feet) required temporary support to the weakened tissues, and improvement of muscular tone. All required suitable medicinal treatment. Sayre's method, as applied to spinal cases, fulfilled all these requirements; the "jacket" was but a part of the whole treatment. The jacket of plaster-of-Paris, closely applied, during extension, either vertical or horizontal, gave the necessary "physiological rest" to an inflamed spine; while, to both this and to the non-inflamed, it gave relief from downward pressure, thus maintaining whatever of straightness was gained by the extension. The jacket effected this by being a solid investing carapace, that would not yield the necessary lateral space, required as a compensatory for a diminished height on ceasing the extension; and not by any pressure upwards or downwards, or from side to side, like the old pieces of "spinal" mechanism, which only gave a very general sort of support. Since obviously the full limit of extension reached could not be maintained by the jacket, it was requisite in "general curvature" (rachitic children were usually too young) daily to practice Sayre's self-suspension from the head, so as to periodically open up the spine to its greatest extent, and exercise the weakened dorsal muscles. Early cases of "general curvature" were thus cured, even without the jacket; and children took very readily to the exercise. Thus, by making the support to the spine an integral part of the patient, the patient could exercise out of doors as before, and that with ease and comfort; the reclining board was no more required. If the jacket were cut up, or were made of such material as felt, it was not nearly so efficient; it ceased also to maintain the chest in the position of full inspiration, calculated to give most play to the thoracic organs. In caries, rest was the principal object, and for this the jacket sufficed; in general curvature and rachitis extension and support were paramount, hence daily exercise was as important as the jacket. In early and moderate cases of general curvature, cure might be confidently expected; that more advanced cases derived little benefit was due to other causes than to the mechanical means being insufficient.

The Treatment of Spinal Curvature. By HENRY P. BAKER, F.R.C.S.Ed. (London)—The author divided the subject into the following parts: (1) The suitableness of this form of treatment under discussion in cases of angular curvature; (2) at what stage in the treatment of the curvature it should be used; (3) its suitableness in cases of lateral curvature; (4) whether the whole method of treatment should be carried out, or

only a part. In the first place, with regard to angular curvature, the author considered that in the acute stage of the disease, extension was attended with danger; and that, in the more advanced cases, when ankylosis had taken place, it had no effect at all on the deformity, and that it should never be practised in these cases. In reference to the use of the plaster jacket for the treatment of angular curvature, he considered that it did not give the required rest to the spine, and that it was liable to constrict injuriously the chests of growing children, and that a state of recumbency was absolutely necessary to prevent the deformity increasing in the first stage of the disease. In a very limited number of cases, when the disease had been arrested and other forms of support could not be obtained, it was undoubtedly of use. In cases of lateral and other curvatures of the spine which are not accompanied by diseased bone, Mr. Baker was of opinion that suspension in the way suggested by Dr. Sayre was a useful addition to other modes of treatment, but that in those cases in which some form of support was absolutely necessary, plaster jackets were very inferior to those made of steel, which could be adjusted at any time by the surgeon attending the patient.

On some of the Abuses of the Jacket-Treatment of Spinal Disease. By WALTER PYE, F.R.C.S.—The author, while acknowledging fully the debt European surgery owes to Dr. Sayre for the able advocacy of his treatment, and granting that it is due to his exertions that in England it has come into such general use, considered that in many cases the jacket was hastily and needlessly applied, and that its employment was often actively harmful. He divided the cases in which the jacket-treatment is abused into two classes: firstly, those due to a wrong selection of cases, such as simple rickety spines; cases of simple lateral curvature, in which the disease is perpetuated by the use of rigid support; certain cases of true spinal caries, for in infants, during the early progress of the disease, the older plan of rest and horizontal position succeeded better than did any attempt to immobilise the spinal column, and was free from the risk of preventing due development of the trunk; but the jacket might be used from the first in older children, with or without confinement to bed; cases in which the lungs or heart are affected, in addition to the affection of the spine; cases in which carious spine is associated with any high degree of paralysis, incontinence of urine, etc. Secondly, those in which the jacket was applied in a wrong method. Many jackets were far too thick and strong. The swing he considered to be, for children, useless, if not harmful; the object of extension being to allow the body to hang as straight as it might, while avoiding all risk of disturbing any adhesions between consolidating vertebræ, and to bring the chest-walls into a condition of extreme inspiration. It was held that these objects were best attained by holding the child by the arms with the feet on the floor, or by the use of an inclined plane. Another error in application arose from neglect of the inspiratory position of chest-walls, insufficient hold of the jacket on the pelvis, and inaccurate fitting to the spinal curve or angle.

Mr. ARTHUR BARKER (London) expressed his acquiesence in the principles of the treatment of spinal caries formulated by Professor Sayre, and he believed his method to be the best yet devised for the purpose, and that failure was due to want of care in carrying out the directions of the designer. He did not think that the corset was suited to very young children, neither did he believe that any improvement in the angular deformity ought to be hoped for by suspension. In conclusion, he observed that the corset was sometimes applied unnecessarily to a spine where consolidation was already complete.—Dr. MARTIN OXLEY (Liverpool) had had a most satisfactory experience of Sayre's method, and applied it to every case of Pott's disease. He believed that, when he first began to use the method, he had overextended his patients, and had possibly done harm in this way; for which Dr. Sayre, who had demonstrated the curve before and after suspension, was to some extent responsible. In applying the jacket, all the prominences ought to be covered with a ring pad; suspension ought not to be carried further than to take the weight off the diseased vertebræ, not to straighten the deformity; the total height of the body was increased, but this was due to the whole body above the disease being supported. He had not met with any case that he could not treat by the jacket. The most important point in the treatment was the long-continued use which a jacket, worn for half a year, afforded; and for this reason he strongly insisted that the jacket should be kept whole, and not slit up; for if it were slit up, it must, when reapplied, be bandaged very firmly to the trunk, and so the functions of respiration might be interfered with. Patients might be kept clean by changing the under-shirt; this might be done by putting on two under-shirts when the jacket was first put on; when the shirt was to be changed, a clean singlet was tied on to the lower edge of the [illegible] next the skin; by drawing the soiled shirt off, the clean one was drawn on.—M. DALLY (Paris) had seen suspension practised twenty years ago in Leipsig, but the most important point in the treatment—the plaster jacket—was Dr. Sayre's. He believed that the extension of the spine was very limited indeed; in fact, he considered it practically impossible. If the extension were sufficient to lift the feet from the ground, which was a mistake, the weight was supported by the muscles of the vertebral column, and not by the spine. He was strongly in favour of Dr. Sayre's method.—MR. E. OWEN (London) had welcomed Sayre's method, because it had enabled him to treat vertebral caries on the same principles as guided him in the treatment of caries in other situations, and he found it a most convenient method in out-patient practice. He thought that the method had been injured by the injudicious enthusiasm of some of its supporters; it was said that there were to be no more angular deformities, and a sentence in Dr. Sayre's book seemed to lend support to this view. Mr. Owen had himself given up suspension, for he had always feared that some catastrophe might follow this stretching of ligaments and adhesions. For private practice he preferred absolute rest in bed for months, or years if necessary, until the disease was quiescent; then, and not till then, he advised the use of a firm casing.—Mr. REEVES (London) said that two cases of paraplegia and one of permanent wryneck after the application of Sayre's jacket had come under his notice, and held that the lengthening obtained was only transient.—Mr. J. H. MORGAN (London) remarked that nearly all the previous speakers had referred to the danger that might attach to suspension. He questioned whether suspension was necessary; did it produce that condition of physiological rest which it was the object of the plaster jacket to maintain? The muscles and ligaments of the spine were not, he thought, in that condition when the body was suspended in this way. He believed that the only condition under which all the elements of the spine could be at rest, was when the body was recumbent. If the plaster jacket were put on when the patient was in this posture, the spine was immovably retained in a position of rest, and the weight was removed from it and transferred to the bandage. The plan followed in putting on the bandage in the recumbent posture was that recommended by Dr. Walker, of Peterborough.—Dr. DIVER considered that Sayre's treatment was both better and less costly than the older plans. One great objection to the steel supports was the frequency with which they got out of order. He asked Dr. Sayre to state the ages within which the plan was applicable, and whether there were any cases to which it was inapplicable.—Mr. BERNARD ROTH (Brighton) endorsed the favourable view, taken by most of the speakers, of Dr. Sayre's method in the treatment of caries. He had not been troubled by sore backs. He did not, however, believe that the method was suitable for cases of lateral curvature; in these cases there was, as a rule, no osseous deformity, and the curvature was chiefly due to a flabby condition of the muscles: such cases were best treated by systematically exercising the muscles, and not by suspension or the application of a tight-fitting plaster jacket; the patient should be made to lie prone on the ground, and then, while the pelvis was held, directed to raise the chest from the ground without the assistance of the hands. Sayre's jacket was only of use in lateral curvature where there was extreme osseous deformity; it then gave relief and prevented increase of curvature.—Dr. SAYRE (New York) said that he utterly condemned the use of an anæsthetic during suspension. So strong was his opinion on this point, that it was mainly to bring home to the profession in Europe his views relating thereto that he had come over to the Congress. Whoever chose to put on a plaster corset during suspension under anæsthesia, let him take the responsibility. He read at length a quotation from his work on *Spinal Curvature*, pp. 21 and 22, which contained the following sentences. "Do not attempt the impossible—do not attempt to straighten curved spines, the result of caries, that have become partially or completely consolidated. Do not break up 'adhesions' by too severe extension, but simply extend the patient very slowly, so that the contracted muscles alone will yield, until the patient says he feels comfortable, and never extend the patient beyond that point. If it is a child who cannot talk, watch his countenance, and, as soon as the expression of pain is turned to one of pleasure, then stop, and secure your patient by the plaster bandage." If the patient were under an anæsthetic, it was impossible for him to give the information desired. Dr. Sayre used suspension in applying the jackets to Pott's disease, because he could get at every part of the patient's body best in that manner; because it greatly improved the figure, not by opening up the boss itself, but by correcting compensatory curves and improving the general bearing; and also because, it employed in the [illegible] to harm could possibly [illegible]. It was [illegible] to cry at first, particularly if they had been under instrumental treatment previously; but, so soon as they found [illegible] they could run about in comfort, they [illegible]. Dr. Sayre had frequently seen them fall asleep while the jacket was being applied; and they slept as a rule immediately afterwards, while lying on the

air-bed for the plaster to harden or "set". The "plaster jacket" might be applied in Pott's disease at all ages, except in children too young to walk; in these, the horizontal posture in the "wire cuirass" on an air-bed was the best treatment, because in this cuirass they could be carried in the open air with safety. If the disease were in the cervical or dorsal vertebræ, then the addition of the "head-rest" or "jury-mast" to the jacket was necessary. The jacket should be changed, or a new one applied, as often as necessary, to accommodate the increasing growth of the child. In adults, they might be worn a year or more; in fact, Dr. Sayre had seen a number of such cases, where a single jacket had been worn until complete consolidation had taken place, cleanliness having been preserved by introducing a towel under the jacket and shirt next to the skin, and then drawing it rapidly up and down for the sake of friction, and absorption of perspiration. Dr. Oxley had suggested putting on two skin-fitting shirts before the plaster was applied; and then, when necessary, a new or clean shirt could be taken on to the inner one, and thus drawn up into place underneath the jacket whenever required. In Pott's disease, the jacket should be worn entire, and never cut down to be worn as a corset until after recovery was complete, the average time for cure being from one to two years. The patients in many cases could carry on their ordinary business all the time, instead of being confined to bed, and never suffer any pain so long as the "jacket" gave proper support. Dr. Sayre showed a photograph of a man on whom he had placed a plaster jacket at the Royal Orthopædic Hospital three years since, assisted by Mr. Balkwill. The man had been sent to Mr. Brodhurst by Dr. Macnaughton Jones of Cork. The first picture represented him unable to stand erect, but bearing the weight of his head and shoulders by placing his hands just above the knees; and the angle in the mid-dorsal region was very prominent. Dr. Sayre and Mr. Balkwill suspended the man and applied the jacket, and the next day the patient returned to Ireland, where Dr. Sayre saw him six weeks afterwards, doing duty at the railway station as porter. The next photograph shown was of the man taken at that time in Cork, showing a most marked improvement, as he was perfectly erect, and the prominence much less conspicuous. He wore the jacket applied by Mr. Balkwill and Dr. Sayre nearly four months, when Dr. Macnaughton Jones applied a new one, which he wore nearly a year, when he was cured. Dr. Sayre showed the photograph of him as taken at that time, which had been sent to him by Dr. Jones. The man remained in perfect health, and his figure was remarkably good. Dr. Sayre then exhibited a great number of photographs of cases of Pott's disease before and after successful treatment. He then spoke of "lateral curvature", and said that two such different diseases ought not to have been discussed together. Because a portion of the treatment in each deformity was applicable, with certain modifications, in the treatment of both classes of cases, they ought not to be confounded together. One of the speakers had said that lateral curvature, if much advanced, could not be cured. But, by the application of self-suspension, as recommended by Dr. Benjamin Lee of Philadelphia, the use of the plaster jacket to retain the benefit derived from the suspension, together with general tonics, appropriate gymnastics, shampooing, electricity, etc., many cases of advanced lateral curvature had been cured. Dr. Sayre exhibited a number of photographs to confirm the accuracy of his statement. One of them exhibited a number of bruised spots, the result of pressure from a brace, and was a very bad deformity. The same case, self-suspended, showed a most marked improvement; and the next photograph, of the same patient, taken sixteen months afterwards, was as near a perfect form as was generally seen. This improvement had been attained by self-suspension and the plaster jacket. The jacket was applied while the patient was self-suspended, care having been taken to have the shirt accurately fitted and the mammæ properly protected; and then the patient continued the self-suspension twice a day, or oftener, a few minutes at a time, until the body had so straightened out of the "jacket" that it no longer gave support over the projecting curve. Therefore, as soon as the hand could be placed between the patient and the jacket over the projecting hump, a V-shaped piece of plaster should be cut out over this part down to the shirt, and the plaster peeled off from the shirt. Then the patient should again suspend himself, and a new roller of plaster bandage should be applied over the opening completely around the old jacket, thus closing in the space and retaining the improvement gained. This could be repeated as often as required. When the case had improved as far as it would, then the jacket should be cut in the centre in front and lacers applied, the jacket being used as a corset. In moderate cases, the jacket was not necessary.—Mr. HOLMES (London) summed up the debate. He said that the main conclusions arrived at seemed to be as follows. (1) Nobody seriously contested the priority of Dr. Sayre as the introducer of the method; such traces as there were of similar treatment in the hands of other surgeons were nothing more than the resemblances always found in the ideas of our predecessors to those of our own day. (2) The discussion had dealt almost exclusively with angular curvature, to which it would perhaps have been wiser to have altogether limited it. (3) The debate had not enabled us strictly to define the class of cases for which the treatment was most indicated; but most speakers who recommended it seemed to be agreed, that the earlier it was employed the better; but we were still unable to say whether, and how far, symptoms of decided spinal irritation or inflammation should be taken as contra-indicating it. (4) Only a small minority of the speakers rejected the method; the majority agreed that, in at any rate a large majority of cases, the method offered very great advantages. (5) No form of extension (by suspension or otherwise) was a necessary part of the treatment; the jacket could be applied when the patient was suspended, or erect, or horizontal. (6) There appeared to be no evidence that any actual straightening of the spine had ever been produced. (7) Though Dr. Sayre and most other speakers appeared to prefer the plaster, there seemed no valid reason why other plastic material would not do as well. (8) The possibility of changing the inside shirt without removing the jacket was an important practical point brought out by the discussion. (9) That there were drawbacks, in the shape of ulcers, abscesses, etc., seemed not only possible but inevitable. The extent and nature of these drawbacks should be stated, but they formed no radical objection to the treatment. (10) It seemed probable that the average length of time required for cure would be found much less than in the treatment by rest in bed. (11) Finally, the general opinion seemed to be, that this was a real and great advance in practical surgery.

RUBEOLA, RÖTHELN, OR GERMAN MEASLES.

A discussion took place on this subject. It was introduced by the reading of the following papers.

On the Existence of Two Distinct Forms of Eruptive Fever, usually included under the Head of Measles, and the Relation to them of so-called Rubeola or Rötheln. By W. B. CHEADLE, M.D., F.R.C.P. (London).—That one attack of a contagious exanthem conferred upon the individual who experienced it immunity from any further attack of the same disease, was a rule which had been found to hold good with regard to measles as generally as it did in the case of scarlatina or small-pox. Yet in two recent epidemics, both of them of severe and pronounced type, which occurred in succession in the same district within the year, it was found that the individuals who suffered in the first epidemic obtained no immunity from the second; and, further, that no previous attacks whatever of ordinary measles exercised any protective power against the second epidemic. Of thirty cases of this second epidemic, in which absolutely trustworthy histories could be obtained, twenty-two of the patients had had measles before, and ten of these, under the author's personal observation, within the year. Certain deviations from the common type, such as a shorter period of incubation, severe laryngeal symptoms, and other special features, taken together with the fact that previous attacks of ordinary measles conferred no protection, proved the disease of the second epidemic to be an essentially distinct exanthem. The question then arose whether it was a new and unrecognised form of eruptive fever, or the only other known form of measles, rötheln. The exceptionally severe and even malignant character of the disease at the outset would seem to negative the idea of rötheln, which was always described as a disease of an invariably mild type. But, after weighing all the facts, the conclusion was arrived at that the disease was rötheln, which prevailed not only in the slight form which was acknowledged, but in a severe and malignant form also, hitherto not recognised as rötheln, but erroneously described as an exceptionally severe variety of common measles.

On the Real Position of Rötheln, Rubeola, or German Measles. By W. SQUIRE, M.D. (London).—The author gave a short historical survey of the literature of this disease, and showed that it was known before it received a distinctive name. He said that the disease, in his opinion, had but a superficial resemblance to scarlet fever, but had close relations to measles in several points. But it was self-protective, was as distinct from measles as varicella was from variola, and possessed all the marks of a specific disease. It was contagious; it ran a definite course; and it occurred but once in the same person.

On Rötheln or German Measles. By Dr. KASSOWITZ (Vienna).—In the epidemic of rötheln which had come under the author's observation, he had never noticed the affection passing into true measles. The resemblance to measles was nevertheless sometimes so marked, both as regards the eruption and the associated phenomena, that in any single case the distinction from the milder form of measles, which ran a rapid course, was rendered extremely difficult, and, in such circumstances, could generally only be made by having regard to other cases in the same house and family. If this affection had any special relationship

to any other acute exanthem, it was to measles, not to scarlet fever, that it was allied.

Contribution to the Study of Rotheln. By J. LEWIS SMITH, M.D. (New York).—In this paper, the author drew the conclusion that rötheln was a distinct specific exanthematic fever, mildly contagious. It resembled varicella in general mildness of symptoms, in the absence of dangerous complications or sequelæ, and in the uniformly favourable prognosis; while its symptoms and history showed a resemblance to measles and scarlet fever. Its incubative period varied from seven, or perhaps fewer, to twenty-one days. Rötheln required no treatment.

The Real Position of Rötheln or German Measles. By G. E. SHUTTLEWORTH, M.D. (Lancaster).—In this paper, the conclusion was arrived at that the disease called German measles had a distinct character of its own, and did not afford protection from measles or scarlatina; and that, whilst certain cases had more of the characters of measles, and others more of the characters of scarlatina, yet the points of difference were always well marked.

DR. FERGUS (Marlborough) regretted that the College of Physicians had not retained the word rubeola, the old term for measles; by substituting the term morbilli, they were responsible for some confusion. He felt confident that rubeola or rötheln was a distinct disease; he had seen it follow quickly on scarlet fever. It had been said that albumen was always found at some period in the urine of adolescent boys, but he had made a thousand observations on the boys in a school of which he was in charge, and was confident that albuminuria never occurred in boys except as the product of disease; he thought rötheln did not produce albuminuria or desquamation. A distinct scarlatinal eruption was bright in tint and diffused; the eruption in the rötheln was patchy, less bright, and was found first behind the ears and on the chest.—DR. JOHN GLAISTER (Glasgow) had been led by recent experience to believe that rötheln was a distinct exanthem. The incubation period varied, but was never less than four or five days; the eruption appeared on the third day, and on the face and chest first, spreading over the body, and distributing itself sometimes in crescentic patches mixed with scarlatina-like areas. A high temperature, if it occurred at all, was present in the early stage of the eruption, a decline to normal occurring on the fourth day, when the rash also began to recede. Some of his cases had been complicated with severe catarrhal symptoms. The fact that some of his patients had previously suffered from scarlet fever and measles, and that this new disease generally spread in the house, had served to form for it, in his mind, a distinct place.—DR. OXLEY (Liverpool) felt himself unable in one epidemic to diagnose from the aspect of the rash alone; on the second or third day, as none of the characteristic symptoms of scarlet fever or measles developed, he treated the case as German measles, and in this he had been justified by the result, the epidemic spreading widely but being of a very mild type. Rötheln generally followed an epidemic of measles or of scarlet fever, and usually partook of the character of the epidemic it followed. He thought more evidence was required before we were justified in regarding German measles as a distinct disease.—DR. D'ESPINE (Geneva) had witnessed during the past winter an epidemic of true rötheln at Geneva: this epidemic had been preceded by one of measles, and had been accompanied towards its termination by cases of true scarlet fever. He had no doubt that rötheln was a distinct disease. It was difficult to make a diagnosis in cases of true measles with a scarlatinaform rash.—DR. JACOBI (New York) said that the difficulty in diagnosis must be great in many instances, as the description of cases given by the best authors varied much. The difficulty was greatest with those in large cities, when and where, as a rule, there were complications of allied epidemics. During the prevalence of any infectious disease, everybody was, to a certain extent, under its influence. Thus, during epidemics of diphtheria, scarlatina, erysipelas, cholera, everybody was liable to be taken on slight provocation, or, at all events, to exhibit some of the symptoms. Thus, pharyngitis and cervical adenitis were very common among persons who were considered well. Thus he explained the fact that symptoms not belonging at all to rubeola were mentioned amongst its symptoms. In large institutions, distant from large cities, distant from epidemics of measles and scarlatina, "rubeola" had been observed as a distinct disease, to be *very* contagious, very little febrile; no cases, or very few, being attended with throat-symptoms or adenitis, the eruption resembling measles more than scarlatina, convalescence being absolutely safe and easy, and desquamation, if occurring at all, very trifling and furfuraceous. Dr. S. P. G. Hotchkiss had observed an epidemic of rotheln which occurred in Savannah and Florida during the past winter and spring; it appeared as a disease of very mild type, affecting almost the whole population, even in remote country places where there were no cases of measles or scarlet fever, with which diseases it seemed to have no connection, and from which it was unhesitatingly distinguished by resident physicians of large experience.—DR. WM. STEWART (Barnsley) remarked that previous speakers had founded the differential diagnosis between measles and rötheln on the rash, but he did not think that this was ground sufficient to separate these cases of so-called rötheln from measles. He believed the affections were identical, and thought that all the cases tabulated by Dr. Shuttleworth fell under the head of measles, with the exception of two which he believed, from the occurrence of desquamation, to have been most probably scarlet fever.—DR. WOOD (Woolton, Liverpool) thought the rash in German measles was characteristic; its colour, which was neither the livid hue of measles nor the bright red of scarlatina, its mode of appearance in irregular elevated patches, and its situation about the face and chest, served to make the diagnosis in most cases; the other symptoms were also of assistance.—DR. CHEADLE said that Dr. Smith and Dr. Shuttleworth both confirmed his statement that measles and scarlatina did not protect from rötheln. The latter speaker had seemed to regard the severer cases he had seen as hybrids between scarlatina and measles, but in his (Dr. Cheadle's) severe cases the disease was distinctly rötheln; the infection from a mild case produced a severe case, and *vice versâ*. With regard to the severity of the laryngeal symptoms, he might say that Dr. Tyson of Folkestone had told him that in three cases, during an epidemic in that town, they had been sufficiently severe to call for tracheotomy.—DR. SHUTTLEWORTH did not think that a diagnosis could be made before the second day. In rötheln, the eruption had often a brownish hue, contrasting with the bright red of scarlet fever, and there was no crescentic arrangement as in measles; the temperature in rötheln, if it were raised at all, generally declined after the second day. He deprecated the application of the term "rötheln" to cases of true measles modified by the coincident epidemic prevalence of scarlet fever.—DR. WM. SQUIRE remarked that Willan had described as "non-febrile measles" a disease which did not protect from measles or scarlet fever: this was a fair definition of rötheln. He thought the period of incubation, which was long in rötheln—the shortest known period being five days—would help to diagnose it from scarlet fever, in which the period of incubation was short, never so much as five days. It was not always a trivial disease. He thought that, to avoid confusion, measles should be known as Rubeola, and German measles as Rubella.—The PRESIDENT thought that the evidence brought forward by the speakers almost amounted to a demonstration that rötheln was a distinct disease. In its incubation period it differed markedly from scarlet fever, but approached that of measles, which, however, it usually exceeded. It differed from scarlet fever in the absence of severe throat-symptoms, in the character of the rash (a point, however, not to be appreciated in the first twenty-four hours), and in the facts that it occurred in epidemics which spread widely to affect the majority of the population, and that it was usually a mild disease, not followed by sequelæ. Another point which showed rötheln to be a distinct disease was the frequency with which it occurred in persons who had before suffered from scarlet fever and measles. Sydenham had written on the epidemic constitution of disease; and in this connection, the remarks of Dr. Jacobi on the influence of epidemics in modifying the health of the people, and the course of other maladies, deserved to be borne in mind. Rötheln ought not to be regarded as a refuge for the physician who was hesitating whether to call a case measles or scarlet fever.

DISCUSSION ON DIPHTHERIA.

Dr. WEST (President), in opening the discussion, said that one of the most important questions was whether the albuminuria bore any invariable proportion to the severity of the case. It was common to find it in any malignant fever, and to a slight extent when respiration was interfered with. Was there, with regard to diphtheria, any rule? Did it occur more often in some epidemics? Did it leave any permanent affection of the kidneys? Did it differ in frequency in different epidemics? The paralysis certainly did so differ; sometimes it occurred quite early; when it came on as a sequela it might be due to an extension of inflammation along the nerve; but why was it that it became generalised? As to the nature of the infection, it must be remembered that the presence of bacteria or other organisms in the membrane did not prove that they were the cause of the disease.

[illegible] By A. JACOBI, M.D. (New York).—Dr. Jacobi said that the [illegible] of the contagium was probably chemical. The presence of bacteria in diphtheria did not prove its parasitic character. The entrance of the [illegible] was not [illegible] In some, the origin of the disease was [illegible]. In others, the [illegible] by inhalation was the first step. In some, both modes of infection acted simultaneously. Diphtheria was very contagious. Both the patient and his surroundings [illegible] recovery [illegible] disease [illegible] The contagium

rose upward with the current of warm air in dwellings. It clung mostly to mucous membranes not endowed with many mucipar ous follicles. Mild cases might communicate serious ones, and *vice versâ;* and recent wounds were affected easily and speedily. The disease had been contracted from animals. It attacked children under three months of age, and those over seven or eight mostly, and mainly such as had been affected previously. Local paralysis of the soft palate, and sometimes of the muscles of deglutition and the glottis, often attended the local deposits on these parts, with œdematous swelling of the same. The diphtheritic paralysis, properly so called, was an affection of apparent convalescence. The majority of cases occurred after mild attacks, sometimes after those with but little fever and a slow general course. It did not usually occur in cases complicated with albuminuria and nephritis. There was no symptom during the attack indicating future paralysis. Albuminuria was often found in diphtheria, but was mostly no grave symptom. It appeared to be the result of rapid elimination of the poison. Acute diffuse nephritis appeared at an earlier period than in scarlatina.

Dr. HUBERT AIRY (London) made some observations on the spread of diphtheria, in its relation to the winds. He believed that, by investigating the relation of the prevailing wind for about a fortnight or more before the outbreak of an epidemic of diphtheria, it would be found that there was some evidence to show that the wind might act as the carrying agent. This also would explain the frequency with which diphtheria occurred at high elevations and in isolated dwellings.

On Diphtheritic Paralysis and Albuminuria. By JOHN ABERCROMBIE, M.D. (London).—Dr. Abercrombie said that, from an analysis of sixteen cases, he found that the paralysis generally appeared from two to five weeks from the commencement of the diphtheria. The earliest symptom, in the majority of cases, was return of fluids through the nose, or some other difficulty in swallowing. All the cases he referred to were instances of general paralysis. Irregular action of the heart was found in several cases, as also albuminuria; while paralysis of accommodation was ascertained, or could be inferred, in a considerable number. Paralysis of the muscles of the chest-wall was present in more than half the cases, and was found to be a sign of very grave import. The so-called "patella-tendon reflex" was found to be absent in all the cases in which it was investigated. Anæsthesia of the soft palate was generally found, but no marked loss of cutaneous sensibility. The muscles responded well to the induced current in the few cases where it was tried. In the cases that recovered, the paralytic symptoms generally lasted from five to six weeks; but in one they persisted for fifteen weeks. Of the fatal cases, two died about the ninth day from the onset of paralytic symptoms; but the average duration was about three weeks. He had not found such marked changes in the spinal cord as those described by M. Déjérine; but in some cases changes were observed in the central canal, and multiplication of the corpuscles in the neuroglia; and in others a globular condition of some of the large motor cells in the anterior cornua, with disappearance of their processes. Belladonna was the only drug which seemed to exert any influence over the disease, and its use in large and frequently repeated doses was recommended. As to the albuminuria, he had found it to occur in about one-fourth of the cases. It was difficult to fix the date at which albumen first appeared in the urine, as it was often present when the patients came under observation: but in one very malignant case he found the urine highly albuminous within twenty-four hours of the first symptom. He had never seen albuminuria commence later than the tenth day of the disease. In cases that recovered, it usually lasted only a few days; and he had only once seen it last more than a fortnight. In fatal cases, as a rule, the albuminuria persisted till death; in one patient, however, it disappeared two days before the fatal result. He had never seen it associated, either at the onset or during its course, with anasarca. The urine was generally clear, hardly ever smoky; and he had not observed any case presenting symptoms of uræmia. The changes found after death were those of parenchymatous nephritis. The presence of albumen in the urine was always an unfavourable sign, especially so in those cases where laryngeal symptoms coexisted; but its absence was no proof that the patient would recover.

Dr. THORNE THORNE (London) had prepared a paper in which he contended that diphtheria was not a distinct entity, but a form of non-specific angina.—Dr. W. SQUIRE (London) said that, in reference to the theory advanced by Dr. Airy, he had, in some apparently sporadic cases in isolated situations, been able to trace a personal conveyance of the infection; he thought, further, that the remark of Dr. Jacobi, that infection diminishes rapidly with distance, was well founded, and he agreed also with that speaker's idea, that children were more liable to infection, owing to their proximity to drains, and he would add their intimate relation with nurses and others. He agreed that individual predisposition played an important part in determining an attack, and that contagion was more easily carried by clothes, utensils, etc.—Dr. ASHBY (Manchester) remarked that it was an interesting point in the geographical distribution of the disease, that in Manchester it was very much rarer than in Liverpool. He thought that all the evidence about the spread of zymotic diseases was against the theory that they could be spread by the wind; it rather went to show that dilution tended to diminish the chance of infection.—Dr. BARRON (Southport) did not believe that diphtheria was nearly so common in England now as it used to be. He thought that many cases were improperly called diphtheria, and that croup and diphtheria were distinct diseases. He had not seen a case of true diphtheria for fifteen years, though he had seen cases that simulated it. An ordinary stimulant and supporting line of treatment was what he recommended, with nitrate of silver or chlorate of potash as a wash. He had recently seen a case of acute fibrinous tracheo-bronchitis in the adult which was fatal; a complete cast of the trachea was coughed up.—Dr. LEALE (New York) said that diphtheria was very prevalent in New York, and was often of a most malignant type. He had found albuminuria present in a very large number of the worst cases, generally in large proportion. As to paralysis, he had seen it commence in the vocal chords most frequently. Most of the cases he had seen recovered. In the medicinal treatment, he put most trust in strychnine and iron.—Dr. JACOBI (New York) said that such cases as that one described by Dr. Barron of membranous tracheo-bronchitis, were not very uncommon, though the literature on the subject was small. The main diagnostic symptom, though the soft palate or the muscles of accommodation are affected first, was that the sphincters remained intact, and that the various localities were affected in a very irregular order. He had not found the disease so fatal as Dr. Abercrombie's statistics would seem to show; as a rule, the cases recovered in from five to ten weeks. Electricity, with iron and strychnia, the latter given by preference subcutaneously, were the best remedies.

Tracheotomy in Diphtheria. By GEORGE BUCHANAN, M.D. (Glasgow).—Professor Buchanan considered that tracheotomy was justifiable in diphtheria as well as in croup (if they were not identical diseases), but only in the sthenic or simply suffocative form. The type and stage of the disease demanding tracheotomy was best recognised by observation of the naked chest. The operation should be performed with the utmost deliberation, and the higher up the trachea the better. In the after treatment, all medicine should be abandoned, and reliance placed solely on nourishing food, with copious supply of fresh air, at a proper temperature, the moisture being secured by a porous sponge kept moist and hot, or a little loose gauze placed over the mouth of the tube, which should be kept scrupulously clean and clear.—Dr. LEALE (of New York) thought tracheotomy was only justifiable when the patient was desperately ill. Recovery sometimes occurred even when the disease was most severe. He thought that, by operating, the complexity of the disease was increased.—Dr. RANKE (Munich) had recently published a paper on this subject. He had about one recovery in three cases. He thought that it was proper to operate early, and that it was bad to wait until the child was very ill. If a child showed signs of diphtheria of the fauces, and there followed signs of stenosis, it was proper to operate at once. Nursing was most important, for with the nurse rested much of the after-treatment. He fed the child carefully, and endeavoured to keep up its strength. He always treated his cases in two rooms; he thoroughly ventilated a room, then it was warmed, and the patient's bed was rolled into the clean room. The room first occupied was then ventilated again; and so twice a day the patient had a change into a fresh and thoroughly sweet room.—Mr. GOLDING BIRD advocated early operation. After the opening had been made in the trachea, he insisted upon having it held open for a moment or two to allow free expectoration of blood, or membrane. By examining the back of the trachea, it could be ascertained whether or no the membrane had extended below the wound. If the mucous membrane were healthy, he introduced a tube, but if the membrane had extended lower, or so soon as it did extend, he removed the tube, and merely had the tracheal wound held apart. For this purpose, he used a silver retractor resembling a nasal speculum, but a stitch fixing the trachea to the skin would do as well.—Dr. JACOBI (New York) said that, with his own cases, where he operated early, his percentage of recovery was good, about 20 per cent. But seeing, as he had latterly, a great number of cases where the child was profoundly ill, within an hour or two of death, his percentage, after operation, was not nearly so good; indeed, he had lost fifty cases in succession. Where the lungs were sound, the inspirations were long and peculiar; the breathing was rapid if pneu-

monia were present, but this did not contraindicate tracheotomy, which ought to be performed whenever suffocation was threatened by laryngeal stenosis.—Dr. BUCHANAN, in reply, said he was glad to find so much support from various speakers. In many cases he had used no tube at all, nor any retractor beyond a pair of dressing forceps, kept open by a cork and enveloped by an elastic band.

The Surgical Treatment of Croup and Diphtheria by the introduction of Tubes into the Trachea through the Mouth. By W. MACEWEN, M.D. (Glasgow).—Dr. Macewen related several cases in which he had introduced flexible tubes into the trachea through the mouth, and gave details of one case of membranous croup in which their use had been attended by marked success. He showed a flexible silver tube, and some gum-elastic tubes; the latter he found the more satisfactory.—Dr. ROBERTSON (Glasgow) had seen some of Dr. Macewen's cases, and could confirm the statement that the patients' voices were unaffected, even in the case of the patient in whom the tube was retained for thirty-six hours. He had seen the fourth case, and he found that the breathing took place freely through the tube. The respiratory murmur seemed quite full and free at the base of the lungs, showing that air was freely admitted. There was no difficulty in swallowing.

DISCUSSION ON THE SURGICAL TREATMENT OF EMPYEMA.

The subject was introduced by Dr. C. GERHARDT (Würzburg), who first reviewed the opinions of the earlier writers on the subject. Passing to the practical side of the question, he expressed the belief that a small empyema might be cured spontaneously by absorption; another favourable termination was by expectoration, after a spontaneous opening into the lung; after two or three weeks of purulent expectoration, such cases got well. As to operative interference, he found that a single aspiration sometimes resulted in a complete cure; a method which had been found useful consisted in replacing the pus withdrawn by some indifferent or antiseptic fluid, without the admission of air to the chest. He advocated the free opening of the chest, under antiseptic precautions; and thought that, to wash out the pleura, was not free from danger. Very early childhood gave less favourable, the middle period of childhood more favourable, results than adult age.—Dr. RANKE (Munich) thought that in children an empyema comparatively seldom opened into the bronchi; this, he thought, was the most favourable termination. He made use of incision, with antiseptic precautions, and under this system found that his patients generally remained about six months in hospital. —Dr. JACOBI (New York) had seen three cases of empyema in infants, one containing as much as twelve or thirteen ounces, in which recovery had occurred after a single aspiration.—Mr. F. RICHARDSON CROSS (Bristol) thought that the early removal of pleuritic effusion was necessary to ensure the re-expansion of the lung. He advised an incision in the eight or ninth intercostal space, with antiseptic precautions, if aspiration failed after two trials. He had recently had three very successful cases treated on this method. One of them was a most unfavourable case, in a girl aged eight, but recovery ensued in seven weeks.—Mr. R. W. PARKER (London) said that, as the question of treatment must very much depend on the mechanical condition of the chest, it would be well to divide empyemata into two chief classes, viz.: (1) as found in children; (2) as found in adults. Whatever method of treatment was adopted, no favourable result could be expected unless the conditions regulating chest-movement assisted. The cavity of the empyema could not be emptied unless the lung could re-expand, or the chest-wall fall in. In children, these conditions were present more commonly than in adults: hence the disease in them was less serious. In old people, whose chest-walls were very rigid, empyema was always a serious, often an incurable, disease. He believed that aspiration, two or three times repeated if need be, was the best treatment in childhood, and ought always to be adopted before other measures were tried. No doubt the next best mode of cure was the expectoration of pus through the lung; but it was hardly safe to postpone treatment until this took place spontaneously, and, unfortunately, there were no mechanical means by which it might be brought on. When aspirations had failed, a free incision into the lowest and most dependent part of the chest, with antiseptic precautions, was called for. In adults, he also advocated aspiration; but, if the cavity were large, he also suggested that filtered and carbolised air should be injected into the pleura; this air helped to replace the fluid, lessened the dragging sensation often felt, and prevented reaccumulation.

BEQUESTS AND DONATIONS. Mr. William Newland Rudge, of South Audley Street, has bequeathed £500 to St. Bartholomew's Hospital.—Sir Richard Wallace, M.P., has given £200 to the East Suffolk and Ipswich Hospital.—Mrs. Turner has given £100 to the Charing Cross Hospital.—"R. B." has given £100 to the Royal Free Hospital.

SECTION OF MATERIA MEDICA AND PHARMACOLOGY.

[illegible]

The Toxic Power of Different Varieties of Aconitine. Professor PLUGGE (Groningen) brought forward the results of an inquiry conducted by Professor Henzinga and himself as to the quantitative differences of toxic power between different varieties of aconitia. Their experiments proved that there were great differences in the commercial varieties of aconitine, and they arranged them in the following order of decreasing activity: 1. Petit; 2. Morsin; 3. Holtot; 4. Hopkins and Williams; 5. Merck; 6. Schuchardt; 7. Friedlander. The enormous difference of strength between the first and last members of the series rendered it essential in prescribing aconitine to clearly indicate the kind which it was wished to have dispensed.—M. ARTHUR PETIT (Paris) said that this question should be looked at from two points of view: the scientific and the practical. On the scientific side, it was known that there were two well defined alkaloids: true aconitine, crystallised, obtained from *Aconitum Napellus*, and pseudo-aconitine, obtained from *Aconitum Ferox*. On the practical side, however, it must be remembered that these compounds were not easily prepared, and could only be procured in quantities too small to meet all the exigencies of therapeutics. Hence, for the present, physicians should confine themselves to the use of a tincture carefully prepared from good aconite root, and thus obviate the risks due to the variations of strength in aconitines pointed out by Professor Plugge.—Mr. CARTEIGHE (London) agreed with M. Petit that the differences in the results obtained by Professor Plugge were the consequence of the differences in the composition of the so-called aconitine. Until an uniform and definite chemical compound could be prepared, it would be safer to prescribe for internal use a tincture of aconite root.—The PRESIDENT, Professor FRASER, pointed out that not only had aconitine and pseudo-aconitine different degrees of activity, but that there were differences in the nature of their action. Pseudo-aconitine acted more on the respiratory system; aconitine more on the heart. Hence differences were observed in their effects upon different animals.

DISCUSSION ON THE INTRODUCTION OF A NATIONAL PHARMACOPŒIA.

A discussion on this subject was opened with a paper by Professor EULENBERG (Greifsweld). He said that the utility and importance of an universal pharmacopœia have been generally acknowledged, both by local pharmaceutical and medical associations, and by the International Medical Congresses which met at Brussels in 1875, at Geneva in 1877, at Amsterdam in 1879. It was eminently a duty of such international congresses, and especially of their pharmacological sections, to encourage and promote in every way the efforts made in that direction. These efforts, however, had not yet been followed by proportionate results. The Pharmaceutical Congress of St. Petersburg (1874) made a great step in the right direction, by taking into consideration the draft of an universal pharmacopœia prepared by the Pharmaceutical Society of Paris. But its appeal for the diplomatic intervention of the Russian Government was not successful. Nor had the above-mentioned medical congresses led to any real progress. That of Geneva contented itself with establishing an international committee; and the pharmacological section at Amsterdam with inviting the Pharmaceutical Society of Paris to communicate its draft pharmacopœia and have it printed in the transactions of the congress (which had not yet appeared). The international committee appointed at Geneva was hampered in its action from the first, more especially by two circumstances. First, its composition was very incomplete, several most important countries, such as Germany, Austria, and Russia, not being represented. Secondly, the task assigned to it was far too extensive and ill defined. It included not merely the introduction of an universal pharmacopœia, but even the initiation of an "international uniformity in medicine", as desired by the American Medical Association. It was, therefore, desirable (1) That the committee be augmented by pharmaceutical and medical experts, capable of securing the co-operation of countries not yet represented; (2) That it should also be freed from the second more general part of its commission, and enabled to confine its attention exclusively to the creation of an universal pharmacopœia. The members of that enlarged committee present at the Congress might immediately agree on a plan of organisation for the steps next to be taken, and, time permitting, report on the subject, either to the Congress as a whole, or to its Pharmacological Section. The following points were suggested for the particular consideration of the committee, their settlement forming the necessary basis for an universal pharmacopœia: [illegible] Ought the pharmacopœia to be in Latin, [illegible] (official translations being of course permitted)? In any case, ought not the names of drugs and remedies to be in Latin, [illegible]

synonyms? *(b) Weights and Measures, Temperatures, etc.*—For weights and measures the French decimal system must be exclusively adopted. All temperatures should be recorded on the centigrade scale. *(c) Nomenclature.*—Strict uniformity should be enforced in the botanical, etc., names of drugs, in the nomenclature of chemical compounds (adding molecular formulæ wherever possible), in the Latin terms for Galenical preparations. *(d) Arrangement.*—To be alphabetical or systematic, or a combination of both; as, for instance, in the last French pharmacopœia? *(e) Contents.*—These should be limited to remedies of high importance and in general use. These would form the nucleus of an universal pharmacopœia. Supplements, containing remedies chiefly employed in particular localities, might be appended. *(f)* Uniform regulations as to the degree of purity to be required, and the methods of testing to be employed, for the more important drugs and chemical preparations; finally, a table of maximum doses. A general agreement having been arrived at on the above points, it would be desirable for the members of the committee, and of the whole Congress, to employ all their influence in their respective countries to bring about a revision of their own national pharmacopœias in harmony with the views and tendencies thus adopted. In this way the introduction of an universal pharmacopœia would be greatly facilitated, while, at the same time, immediate advantages would be conferred on the practitioners of all countries, as well as on international medical science.

Professor GILLE (Brussels) announced that the International Pharmaceutical Congress had just appointed a committee, consisting of two pharmacists chosen from every one of the nationalities represented at the Congress, to set about the final operations connected with the framing of an international pharmacopœia, and to report to the next meeting of the Pharmaceutical Congress to be held at Brussels three years hence. He further laid before the Section the reports on the subject which he had been called upon to draw up for the meetings held at Brussels, Geneva, and Amsterdam.—Mr. VON WALDHEIM (Vienna) brought forward the resolutions passed at the fifth International Pharmaceutical Congress in reference to an international pharmacopœia, and stated that a committee, of which he was president, had been formed for carrying out these proposals. A comparison of the pharmacopœias of all European countries would form the basis of the preliminary compilation.—Dr. MÉHU (Paris) suggested that the present Congress should be invited to confirm, on the one hand, all the resolutions adopted by the Medical Congresses of Geneva and Amsterdam, and, on the other, the resolutions adopted by the Pharmaceutical Congresses of Vienna and St. Petersburg, in reference to the construction of an international pharmacopœia; further, that it should invite the Société de Pharmacie de Paris to publish the draft of an international pharmacopœia which was called for by the Vienna Congress, and actually presented to the St. Petersburg Congress in 1874. The Société de Pharmacie should undertake to utilise the marginal annotations added by various members of the St. Petersburg Congress, and to make any additions which it may consider desirable. Moreover, the present Congress should authorise the Société de Pharmacie to collect and summarise whatever suggestions or criticisms might be offered on the draft pharmacopœia, and to present such summary to the next International Medical Congress, with a view to its being utilised for a definite edition of an international pharmacopœia, such as might more adequately meet the requirements of medical art.—Dr. BRUNNENGRÄBER (President of the German Pharmaceutical Society) objected to the French pharmacopœia being made the basis of an international pharmacopœia.—Professor STOKVIS (Amsterdam) remarked that all were agreed that an international pharmacopœia was needed, and he proposed that the manuscript in the possession of the Société de Pharmacie de Paris should be published at once.—Dr. RICHARD GODEFFROY (Vienna) said that Professor Phœbus never attempted to frame an international pharmacopœia. He worked at an universal pharmacopœia, which should contain all the medicaments and combinations enumerated in all the different pharmacopœias of the world. The Société de Pharmacie de Paris presented a manuscript to the fourth International Pharmaceutical Congress, which was sent to several delegates, who returned it to the St. Petersburg Congress with their remarks appended. It was intended that the whole should then have been subjected to the revision of a Committee appointed by the Congress. The Secretary of this Committee had since died. In consequence of a misunderstanding, the work already done was lost; while the manuscript was returned to the Société de Pharmacie de Paris. He could not agree with the proposal made by Professor Stokvis, that it should now be printed.—Dr. MÉHU stated that the manuscript draft of an international pharmacopœia, which was called for by the Pharmaceutical Congress at Vienna, had once more become the exclusive property of the Société de Pharmacie de Paris, by whom alone it was drawn up; and this because the Pharmaceutical Society of St. Petersburg, which had undertaken (at the St. Petersburg Pharmaceutical Congress) to have it speedily printed, did not carry out its engagement in the matter. It was solely out of deference to the Pharmaceutical Congresses that the Société de Pharmacie de Paris did not accept the invitation of the International Medical Congress held at Amsterdam to have its draft pharmacopœia printed.—Mr. SCHACHT (Clifton) urged the Section to accept the conclusions just arrived at by the International Pharmaceutical Congress. They were the final results of a series of deliberations; the most important being that for the present they relinquish the too difficult project of an universal pharmacopœia, and adopt the more limited scheme of equalising the strength of the preparations of the most potent drugs generally employed in medical practice. Such a scheme would meet the principal wants, and might form a firm basis for future good work. It could be commenced at once, and speedily carried into execution.—Dr. PROSSER JAMES (London) pointed out what had been done in Great Britain and Germany in bringing out a single pharmacopœia, and urged that an international pharmacopœia, was only another step in the same direction. He would not restrict the work to a small number of potent remedies, but would enlarge its scope into something like an universal formulary. The first point would be to compile a list of medicines of a tolerably complete, if not exhaustive, character. Dr. James indicated the questions which would have to be determined, and urged that the Section should appoint a Committee to co-operate with the Committee appointed by the International Pharmaceutical Congress. At first, they might prepare a restricted pharmacopœia of the more potent remedies; but, if they saw their way clear, they might further prepare a catalogue of materia medica, and subsequently proceed with preparations and compounds. In this way, important steps would be taken towards ultimately establishing an universal pharmacopœia.—Mr. CARTEIGHE (London) stated that the English Section had intended to present their first resolution to this Section, and request their co-operation; but, as the Pharmaceutical Congress was obliged to close its sittings before the actual business of this Section had commenced, this course became impracticable. On the part, however, of the English portion of the Pharmaceutical Congress (of which he was Secretary), he was sure they would be glad to receive the assistance and co-operation of the members of the International Medical Congress.—M. PETIT (Paris), while admitting the importance of the task decided upon by the Pharmaceutical Congress, did not see any necessity for giving up the idea of a complete international pharmacopœia. There was no difference of opinion as to the best mode of preparing or testing the chemical products, which were the most numerous and most important of the medicaments. In the name of the Société de Pharmacie de Paris (of which he was President), M. Petit affirmed that it was both desirable and possible to frame a complete international pharmacopœia, and that the metric system should be rigorously adhered to in its composition.—Mr. GREENISH (London) thanked Dr. Prosser James for his recognition of the fact that, in the compilation of an international or any other pharmacopœia, the aid of trained pharmacists was not only desirable, but necessary. He distinguished between an universal and an international pharmacopœia. He considered the former impracticable, and it was a question whether it was desirable; but an international pharmacopœia was perfectly feasible, a small pharmacopœia, that should contain active drugs and their preparations, common to all pharmacopœias, and uniform in all of them. Other details could be arranged, as regards language, weight, etc.—Professor BENTLEY (London) spoke of the great importance of an international pharmacopœia; and said he was glad to see so many of the principal pharmacists of this country, as well as several of the most eminent from other countries, whose presence would be cordially appreciated by the members of the Section. He was of opinion that an international pharmacopœia should be confined to potent remedies and their preparations. Each country must also have its own national pharmacopœia, drawn up with special reference to the habits, tastes, etc., of the various peoples. The language of an international pharmacopœia should be Latin. Its preparation could only be carried out in a thoroughly satisfactory manner by the combined labour of medical men and pharmacists; and he advocated the appointment of a Committee by the Section, to co-operate with the International Pharmaceutical Committee. There ought to be further great difficulty in carrying such an important and desirable work as an international pharmacopœia to a satisfactory conclusion in a short period of time.—Dr. RAWDON MACNAMARA (Dublin), remembering the difficulties attending the production of the *British Pharmacopœia*, recognised those in the way of preparing an international pharmacopœia. The first great difficulty was, the non-adoption of the metric system here; and he suggested that Parliament should enforce the adoption of this system. He highly approved of the suggestion that an international pharma-

copœia should be published in Latin.—Mr. ANDREWS was fully in accord with the opinion that the Latin language should be adopted for an international pharmacopœia, but thought it a great loss of time to wait until the metric system was universal. He had much sympathy with those who wished for an universal pharmacopœia, but believed that an international pharmacopœia of potent drugs (*pharmacopœia heroica*) would be preferable, because at once practicable.—After some further discussion, the following resolution was proposed by Dr. PROSSER JAMES, seconded by Dr. CHURTON (Leeds), and carried *nem. con.*: "This Section confirms the resolutions passed at previous International Medical Congresses as to the utility of an universal pharmacopœia, but is of opinion that it is necessary at once to appoint a Committee, consisting of two delegates from every country represented at this Congress, which shall co-operate with a Committee appointed by the International Pharmaceutical Congress to prepare a compilation in which the strength of all potent drugs and their preparations is equalised."—Subsequently, the PRESIDENT submitted the following provisional list of a Committee proposed to be appointed by the Section to co-operate with the International Pharmaceutical Committee: France—Dr. Vulpian, Dr. Dujardin-Beaumetz; United States—Professor H. C. Wood, Professor Austin Flint; Germany—Professor Rossbach, Professor Eulenberg; Holland—Professor Stokvis, Professor Fokker; Austria—Professor Schroff; Switzerland—Dr. Prévost (Geneva); Russia—Dr. Botkin, Dr. Dogiel; Great Britain—Professor Fraser, Dr. Lauder Brunton.—Dr. QUINLAN (Dublin) moved as an amendment: "That at least one representative from the Irish School of Medicine should be added to the Committee." This was seconded by Professor Stokvis; but, on being put to the meeting, was lost, and the original list was adopted.

DISCUSSION ON THE NATURE AND LIMITS OF PHYSIOLOGICAL ANTAGONISM.

This discussion was introduced with a paper by Dr. H. C. WOOD (Philadelphia). He said that the teachings of modern science showed that all functional activity was the result of molecular movements in the living protoplasm. Secretion could be altered, stopped, or increased by an agent put into the body. As the result of change, arrest, or acceleration of these molecular movements, all remedies acting upon a part must either chemically unite with the material of the part, or else, by virtue of its molecular constitution, increase, diminish, or alter the character of the molecular movements: hence, stimulants, depressants, alteratives, among dynamic remedies. That there were substances capable of uniting with living material was proved by Gamgee's researches on amyl nitrite. Recent researches had shown that chemical antagonism, so to speak, might manifest itself between remedies within the body. We might expect to find forces antagonistic in their action on the organism, as everywhere in nature. Most substances which began by quickening molecular action, when present in excess, arrested it (action of ammonia on the heart); but the rule was not universal. That there were antagonistic medicines was proved in the report of Professor Prèvost at the last International Congress. He also pointed out the difference between antidotism and antagonism. A physiological antidote put aside or relieved symptoms that caused death (woorara and strychnia). A physiological antagonist acted in direct opposition to some other substance (chloral and strychnia). Antidotism might or might not be reciprocal; antagonism was always so. Many instances of supposed antagonism had really been instances of antidotism. A medicine might be antidotal to itself, though no one would call it antagonistic (this was illustrated by the action of veratroidia, from *veratrum viride*, upon the heart). An antagonistic treatment of disease was as much within the bounds of possibility as an antagonistic treatment of poisoning. In most cases, however, the action of a natural or "disease" poison was so complex, and so little known, that practitioners were thrown back on antidotal treatment, *i.e.*, the treatment of symptoms, knowing that, if they could only keep the patient alive long enough, he would recover by elimination or destruction of the poison. If the distinction between antagonism and antidotism were borne in mind, the mixed falsity and truth of *similia similibus curantur* was seen. Veratroidia in large doses paralysed, in small ones it stimulated, the pneumogastric. Supposing the pneumogastrics to be depressed, and the heart's action consequently too rapid, veratroidia in minute doses might be useful. Supposing, on the other hand, that the heart had been paralysed by an excessive dose of veratroidia or some similarly stimulant drug, could it be expected that minute doses of veratroidia would restore the action of the heart?

Dr. MURRELL (London) said that the subject of physiological antagonism could not be settled by observations made on man alone. It often happened that a drug arrested symptoms produced by another drug, without the existence of any true antagonism; for example: the tetanus of strychnia might be arrested by paralysing the motor nerves with curare. Experiments on the lower animals were absolutely necessary; and even then there were many sources of fallacy by no means easy to guard against. The great point was to make sure that both drugs acted on one and the same structure. This could only be done by working in substances consisting of protoplasm of only one form, such as cilia, and through still more conclusive information, by working with Roy's apparatus in the ventricle of the frog's heart, and using Ringer's method, with dried blood and saline solution. Dr. Ringer had recently pointed out a complete and mutual antagonism between chloroform and ammonia, and between iodoform and ammonia. Dr. Murrell showed a series of tracings, recently obtained with the same apparatus, illustrating the antagonism between muscarin and atropia; and between jaborandi and atropia. What was the nature of the molecular change on which these phenomena depended, it was difficult to say. The drug might act as a ferment, or, possibly, might enter into actual chemical combination with the elements of the tissues.—Dr. EDWARD BLAKE (London) remarked that drugs did not act on the organism, but the organism on the body. Living organisms probably proceeded in different ways in endeavouring to expel fractional doses and to get rid of larger ones. An obvious corrollary to this, if true, was that the phrases "antidotal" and "antagonistic", though extremely convenient, were not accurate or scientific. Phenomena called "antagonistic" were usually "complimentary".—Dr. DUDGEON (London) observed that the distinction of the action of drugs into antidotal and antagonistic was not very distinct; the one seemed to run into the other. This was the idea of the antagonistic and opposite action of different drugs lately laid down; but it was founded on a misapprehension, for the conditions were not the same. Dr. Dudgeon gave several illustrations of medicines which caused certain symptoms in large doses in the healthy, and cured similar symptoms in small doses in the sick.—Dr. EATON (Cincinnati) said that theories regarding the action of remedies were very unsatisfactory. Little was known about their *modus operandi*. The knowledge of their effect was largely experimental and empirical; and most service could be done by careful observation of the action of remedies in various doses, and under various circumstances—of simple remedies, and not a mixture of them. It was necessary to observe the primary and secondary effects of remedies, and note how totally unlike these were.—Dr. WILBERFORCE SMITH (London) said that Dr. Wood had drawn attention to the antagonistic effects of the same drug in small and large doses. In physiology and pathology, facts of antagonism were numerous, quite apart from the effects of drugs; and they were also found in nature. In all these cases, they were due to "motion sufficiently prolonged, and occurring within a sphere mechanically limited". This led him to venture on the clinical rule in reference to the facts which supported the crude generalisation *similia similibus*, namely, "that they are observed when the morbid state remedied essentially affects functions such as naturally exhibit antagonistic phenomena, such phenomena being usually dependent on motion and recoil". Illustrations were given in support of these statements.—Dr. S. H. CLARKE (London) observed that it would not do to apply general laws of nature to questions of human physiology; or to study medicinal actions on animals, and confidently apply the results to questions of human physiology. The latter contained factors not entering into the physiology of the lower animals. He did not accept a statement made by Dr. Wood, that a drug in a small dose could not be expected to antagonise the action of a similarly acting drug, and mentioned a case in support of his opinion.—Dr. HAYWARD (Liverpool) remarked that all action of drugs on the healthy body was poisonous, and indicated the part of the body the particular drug deranged, and the manner in which it deranged it. This was an indication what particular diseased action the particular drug would rectify. For instance, ipecacuanha acted on the stomach to produce vomiting—this it did as a poison; it was also given to cure vomiting—this was as a medicine.—Dr. CARFRAC (London) doubted whether medicinal action could be explained on the theory of the double action of medicines. Thus, alcohol was said to have, first a stimulant, and secondly a depressing action. He looked upon the second as the result or cessation of the action of the alcohol, and due to exhaustion of nervous action. More good would be done to practical medicine by turning attention to observed facts in regard to the action of medicines. It was now acknowledged that medicines had a specific relation to certain tissues or organs.—Dr. CHURTON (Leeds) said that, if an extremely large dose of alcohol caused coma—not directly, but only by an excessive stimulation of the cells which ultimately brought about their exhaustion and paralysis—some evidence of such stimulation and exhausting activity (*e.g.*, high temperature, muscular action, etc.) should be forthcoming. If a like explanation were to be accepted as the cause of [illegible] chloral, for instance, it would obviously be useless to attempt to revive

the exhausted cells by atropine or strychnia; but it was not, in fact, useless, therefore the explanation was wrong.—Dr. DUJARDIN-BEAUMETZ (Paris) stated that, since the remarkable experiments in England, the doctrine that opium and belladonna were mutually antagonistic had been abandoned in France. In cases of poisoning by morphia, the administration of atropia could only aggravate the symptoms; and, by combining the two alkaloids in hypodermic injection for remedial purposes, an increased, instead of a diminished, effect was produced.

On Pilocarpin. By W. SQUIRE, M.D. (London).—Dr. Squire said that pilocarpin was the alkaloid obtained from the leaves of jaborandi, on which the efficacy of that drug, in producing sweating and salivation, depended. Another alkaloid, of different, and even antagonistic properties, named jaborin by Harnack and Meyer, co-existed with it, and rendered the infusion or tincture of jaborandi less certain, and, perhaps, less safe than of the pure alkaloid. It was possible that pilocarpin itself had not always been obtained quite free from admixture with jaborin. Muriate of pilocarpin, in simple solution, was the best form to use—one grain to fifteen minims of water for hypodermic injection—and one grain to four ounces of water for internal use, were convenient proportions; one-third grain was the largest, one-fifteenth of a grain the smallest dose needed. His plan was to give a full dose at once; others gave small doses every hour with some warm drink or alcoholic stimulant, till perspiration and salivation were freely established. A drachm of the tincture, made with thirty grains of leaf, was equivalent to one-third of a grain of pilocarpin. One-fourth of a grain of the muriate, injected hypodermically, in a few minutes produced suffusion of the face, quickened pulse, some throbbing in the neck, and a general feeling of warmth, followed by free perspiration; this was soon streaming profusely from all parts of the surface, and continued long after the skin had become pale, or even cool; the pulse subsided while the force of the heart's impulse was rather increased; there was a tendency to sleep, and generally a fall of temperature: the perspiration went on for three or four hours; there was an increased flow of saliva, and some increase of pharyngeal, and sometimes of bronchial mucus, that might give rise to trouble during sleep, and require attention; such a quantity of saliva might be swallowed as to excite vomiting. No headache, sickness, or depression had been noticed by Dr. Squire as a direct result of this medicine. All the secretions of the body, except the intestinal, were increased by it; the quantity of urine, hardly lessened during perspiration, was increased afterwards. He had not met with dysuria. Swelling and tenderness of the submaxillary salivary glands had remained for a day or two after profuse ptyalism. The action of the drug was on the peripheral secreting apparatus, and not on the nerve-centres, except so far as the first action on the vaso-motor nerves might dilate the vessels, and allow the agents freer access to the glands. Atropia was directly antagonistic to it in this respect. Aconite dilated the vessels, but weakened the heart, while pilocarpin, having no such effect, might even allow small hæmorrhage to occur. It was not anæsthetic. The perspiration induced by it did not relieve dysmenorrhœa, sciatica, or colic. Pilocarpin did not moderate specific fevers; but given near the time for the separation of the false membranes in diphtheria, it aided the fall of temperature, and favoured sleep. Where there was already a tendency to collapse, of course it could do no good. It was useful in the febrile relapse of scarlatinal nephritis. He had met with no confirmation of the observation that small doses checked perspiration; a similarly homœopathic view, that particular diseases must have particular remedies, had led to the statement that pilocarpin was unsuited to renal disease. The use of it had been chiefly in the different kinds of Bright's disease; it might be unsuited to that particular form where dilated vessels and diminished blood-pressure were associated with a large quantity of albumen; yet, in these cases, it was serviceable to the intercurrent exacerbations and conditions of accidental congestion, not unfrequent in their course, and it was preferable to the hot pack, or vapour bath. In the early stages of interstitial nephritis of gouty origin it was of great benefit; in the chronic course these cases generally followed it was often useful; it might be resorted to in some of the extreme effects of renal dropsy, and the relief obtained was not accompanied by great depression. In the chronic results of parenchymatous nephritis, as after scarlet fever, it had been found useful; and that it need not be withheld in some cases of scarlet fever itself was proved by the remarkable results obtained from it by Guttmann in the treatment of diphtheria.—Mr. GERRARD (London) maintained that Harnack and Meyer's conclusions as to the presence of a second alkaloid in jaborandi were fallacious. He had experimented on residues of pilocarpin, and exhausted them of their alkaloid, which had the chemical and physical properties, and the physiological action of pilocarpin.—Mr. MARTINDALE (London) took exception, as a pharmacist, to the statement that the pharmaceutical preparations of jaborandi were less certain, and perhaps less safe, than the pure alkaloid, on account of their being liable to contain jaborine. The tincture and fluid extract of true jaborandi must be much more certain and definite than salts of pilocarpin obtained from a mixed source of different plants. He believed he was the first to obtain nitrate of pilocarpin in pure white crystals. A quantity of uncrystallisable substance was left in the process, but he failed to recognise that any such a chemically defined substance as jaborine had been obtained from this.—Dr. A. JACOBI (New York) remarked that, with regard to the use of pilocarpin muriate in diphtheria, mild cases of this disease recovered with many kinds of treatment. In septic cases, and in naso-pharyngeal diphtheria, with cervical adenitis, it did no good. In mild cases of croup and laryngeal diphtheria, it appeared to favour the floating and expulsion of membranes. His experience of this drug in kidney-diseases was favourable, but perspiration without introduction of water into the body was dangerous, by inspissation of blood. When the stomach refused to admit water, in the severe vomiting of nephritis, two to four ounces of water ought to be injected into the rectum every hour.—Dr. QUINLAN (Dublin) had much experience of the use of pilocarpin, and first introduced it into Ireland. He agreed generally with Dr. Squire's conclusions, but differed as to its action upon the heart. A careful series of sphygmographic observations convinced him that it lowered the elevation of the systolic line, not to a dangerous extent unless in cases of threatened collapse. He was in the habit of using from half to one grain as a hypodermic injection. It had no injurious action on the kidneys, and gave particular relief in cases of nephritis and Bright's disease, with dropsy. It was useful in suppressed exanthemata, but failed in acute rheumatism.—Dr. MATTHEW HAY (Edinburgh) drew attention to the fact that Heidenhain found that pilocarpin, injected directly into a ligatured loop of the small intestine, stimulated the intestinal glands, and thus caused an increase of the intestinal secretions. Harnack and Meyer had stated that jaborin was readily formed from pilocarpin by merely allowing it to stand for some time exposed to the atmosphere.—Dr. HENRI HUCHARD (Paris) demurred to the statement made by Dr. Squire, who recommended pilocarpin "in some of the enteric forms of renal dropsy", and affirmed "that the relief obtained is not accompanied by great depression". In such cases there was often a state of extreme prostration and cardiac degeneration, which constituted an all but absolute contraindication to the employment of the remedy. Dr. Huchard called special attention to the value of pilocarpin in the different forms of polyuria, particularly in the azoturic variety, and gave illustrative cases, in which a permanent cure had been effected. He had also tried very small doses of pilocarpin in sweating of phthisis. In some cases, it had appeared to diminish the perspiration, but his observations were not numerous enough to enable him to speak positively on this point.

VIVISECTION.

At the commencement of the meeting on August 8th, Professor STOKVIS (Amsterdam) proposed the following resolution.

"The Section resolves that, in their opinion, advancement in the knowledge of the action of medicines, in the present state of science, cannot be obtained without experiments on the lower animals."

He remarked that the members had heard in the previous week the able and highly important address of Professor Virchow on the value of experiments in the medical sciences. Some of them had had, like himself, the pleasure of assisting in the unveiling of Harvey's statue at Folkestone. In the country where Harvey was born—Harvey, who by experimental researches discovered one of the greatest mysteries of the living organism—it was becoming daily more and more difficult, and almost impossible, to make experiments on the lower animals. It would be wasting time to urge the importance of such experiments to the science of pharmacology. Sir James Paget, in his incomparable opening address, compared the medical sciences to a living organism. He ventured to say that, just as the beating of the heart and the circulation of the blood were necessary for the life of the higher living organisms, so experiments on lower animals might be considered as a condition of life for the science of medicaments. He therefore asked approval for his proposition.

Dr. LAUDER BRUNTON (London) seconded the resolution. He observed that, without experiments on the lower animals, no progress could be made in medicine, inasmuch as they were absolutely necessary to enable men to distinguish between the fancies of one or another so-called authority upon which men would otherwise act; and so long as they acted only according to fancies, and not according to facts, they could make no progress, and do little or no good to their patients. For some years, physiologists and pharmacologists and pathologists had been suffering much in this country from the restrictive legislation to which they had been subjected. Had medical men persisted in their opposition to the Act, it would not have been passed; but they

had withdrawn their opposition upon the assurance that it was intended only to prevent abuses, and would not be worked in such a way as really to interfere with the progress of medical science. Not long afterwards, however, he had found that the Act was going to be applied in a very different way from what had been promised when it was passed. Sir Joseph Fayrer and he were desirous of carrying on experiments on the mode of action of cobra-poison; but they had great difficulty in obtaining a licence to continue an inquiry into the subject at their own expense. While the Government at home was thus hindering them from performing this work at their own expense, it had appointed a committee of its own servants in Calcutta to carry out similar experiments at Government expense. The difficulties with which he had met in obtaining permission to carry on experiments seemed to show him that the Act, which had been passed merely for the purpose of preventing abuse, was really to be worked for the prevention of vivisection altogether. Having made up his mind that the investigation of the action of medicine was to be the work of his life, he had resolved, when without family ties, to continue his work either in America or in Germany, if not permitted to carry it on in this country. He had, therefore, inquired of the Home Secretary whether the Government intended to stop such investigations, stating what he had resolved to do in that event. He had been informed that there was no intention to work the Act so as to prevent anyone who had a proper training from carrying out experiments. But now Professor Fraser, to whom they owed, perhaps, more than to any other man living for the advance of the science of pharmacology, was refused a licence to carry on his inquiries. The time had come to make a change. The policy of non-resistance had been carried to the limits of madness; and this seemed to him to be an opportunity such as might never occur again for raising the protest of every man interested in the progress of medical science.

Dr. DUJARDIN-BEAUMETZ (Paris) proposed—

"That the Council of the Section be instructed to transmit this resolution to the President of the International Medical Congress, with a request to submit it to a general meeting of the Congress."

He pointed out that the advancement of therapeutics was impossible without experiments on the lower animals. Chemistry and pharmacology were constantly supplying new active principles. It would be nothing less than criminal to administer these to patients before ascertaining their modes of action by experiments.

Professor ROSSBACH (Würzburg), in seconding this resolution in the name of the pharmacologists and physicians of Germany, laid stress on the great waste of human life that must have occurred in former times, when the action of remedial agents could only be determined by experiments on human beings. He affirmed without hesitation that, if experiments on the lower animals were prohibited, a hundred of our fellow-creatures would suffer and die for every single life that might be saved among the humbler races.

Professor WOOD (Philadelphia), in supporting these resolutions, said that, as an Anglo-Saxon of pure British origin, he felt ashamed that it should be necessary to offer such a motion as that of Professor Stokvis in a city that justly claimed to be the metropolis of the world. Experiments upon the lower animals were to physiology what experiments by the chemist were to chemistry. Without vivisection, there could be no physiology; and the value of the method was scarcely less to the clinician. Even in America it was fully recognised that, except in certain surgical directions, no further progress was to be made in scientific medicine except by the aid of experiments upon the lower animals. The clinical method had been pursued so vigorously, that by itself it was no longer able to serve. Some years since, in the State of Pennsylvania, a very active effort was made to obtain legislative action against vivisection; but the Legislature, after carefully hearing both sides of the question, by a very large majority decided that it was not expedient to interfere with the practice of vivisection. It was hardly conceivable that, when an American Legislature was able to perceive the absolute necessity of what might seem at first sight an evil practice, the English Parliament should be less intelligent. The President of the Society for the Prevention of Cruelty to Animals had himself been convinced of the necessity of experiments upon animals, and had so expressed himself. Whilst engines of war, of machinery, and of commerce vivisected men, surely the physiologist and physician, for the sake of saving human suffering and life, might inflict upon the lower animals a pain infinitely less than that caused by the sportsman for his pleasure.

Dr. QUINLAN (Dublin) said that he need not insist upon the necessity of experiments upon animals; and if there was any department in which they were required, it was in therapeutics. He had been for many years engaged in these investigations; and it was very hard to think that merely placing a frog or a small fish under the microscope, to examine the circulation, without in any way hurting them, was a breach of the law, for which the scientific investigator, after working without any personal profit, was liable to be consigned to the public gaol. He had been accustomed to witness the most extensive experiments upon animals in foreign countries; and he could only say that he had seen more cruelty at a pigeon-match at Hurlingham, or in a drive of game, in one day, than would be inflicted by the whole of the scientific investigators of the empire in a year. He heartily approved of the resolutions.

Dr. FARQUHARSON, M.P. (London) expressed the hope that something might be done to relieve physiology from the disability imposed upon it by the oppressive Antivivisection Act. It would, however, be a serious question to consider, how to neutralise the constant pressure brought to bear on the other side by members of Parliament influenced by the ignorant sentiment of their constituents.

Professor WOOD further remarked, with reference to what Dr. Farquharson had stated, that in America their plan was to discover the family physicians of the various members of the legislative bodies, and to use them in obtaining a private hearing from those individuals composing the Legislature. The same measures were taken with regard to the editors of the daily papers and popular magazines.

Dr. J. H. CLARKE (London), whilst acknowledging the self-denying labours of the vivisectionists, and the heroic sacrifice of their finer feelings, thought that this was not warranted by the results. It seemed to him that the future of therapeutics was very hopeless, if, after so little increase in our therapeutic efficiency had taken place from the innumerable experiments on animals, it was the only direction in which any advancement was to be expected. He proposed the following amendment.

"That, seeing how little the science of therapeutics has been advanced by putting the lower animals to torture, and how little is to be expected from it in the future, the practice of vivisection to this end is quite unjustifiable."

This amendment was not seconded; and, after a few remarks by the President, both the original resolutions were put to the meeting in turn, and carried with but one dissentient.

On the Remedies used to Promote Absorption of Inflammatory and other Morbid Products. By DUJARDIN-BEAUMETZ, M.D. (Paris).—Dr. Dujardin-Beaumetz read a paper on this subject. He said that, rightly to estimate the value of therapeutic interference in the circumstances indicated, the changes that normally occurred without it must first be considered. The living cell was the theatre of a continual integration and disintegration, the materials for which were supplied by the blood and lymph. Under irritation, it only underwent visible alterations, often in the direction of inordinate development. After a time, however, this pathological activity usually came to a stop, and the abnormal elements produced might gradually disappear: first, by the removal of corpuscular elements, still in an early stage of organisation, by the lymphatic circulation; secondly, by fatty or granular degeneration of the newly formed elements, and the subsequent absorption of the detritus thus produced; lastly, by fibroid elements taking the place of the embryonic tissues, and choking its further development. Sometimes, in the case of serous and mucous membranes, sero-fibrinous effusions were poured out, and were reabsorbed by the capillaries, either unchanged or after undergoing fatty-granular metamorphosis. Lastly, the influence of the nervous system in controlling tissue-metabolism must not be left out of account. Therapeutic interference might, to a certain extent, promote the absorption of these morbid and inflammatory products. Medicines designed to favour it had been termed "resolvent". The old pharmacopœia divided them into "solvent", "deobstruent", and "absorbent" remedies: the first, intended to soften the morbid products; the second, to facilitate the circulation through the capillary and lymphatic vessels; the third, to promote the absorption of the products after they had undergone more or less profound changes. This old classification furnished a very real explanation of the phenomena. To hasten absorption, it was necessary to assist the processes which normally occurred in the diseased tissues; to hasten their return to their embryonic phase, or their fatty-granular degeneration, or the development of the fibroid cicatricial tissue which tended to strangle them. The remedial measures for the promotion of these objects were manifold. Some acted mechanically (compression, massage, etc.); others, of a more active kind, by evulsion (blisters, "solvent" ointments and plasters). Other remedial agents acted still more directly on nutrition, through the nervous or the vaso-motor system (the continuous galvanic current, applied to the surface, or by electro-puncture). A destructive action on the morbid products, designed to promote their degeneration and absorption, had been aimed at in other ways (injection of *carica papaya* or *papayin* into malignant tumours; toxic

injections to destroy the fœtus in extrauterine pregnancy, etc.). Again, the liquid products of inflammation might sometimes be removed by surgical means (pus, sero-fibrinous effusions, etc.). There remained to be considered those medicaments, in the strict sense of the term, which had a solvent action on inflammatory and other morbid products. First, however, the influence of the general nutrition of the body on the nutrition of such product deserved notice. Both augmentation and diminution of nutritive interchange exerted such an influence. The former might cause morbid products to be absorbed by stimulating the functions of the economy (*e.g.*, removal of strumous and lymphatic deposits by appropriate hygienic measures—country air, nourishing food, regulated exercises; these measures increasing the activity of the capillary and lymphatic circulation). Abstinence and diseases productive of malnutrition might achieve the same end in another fashion (autophagy of muscular and adipose tissue; similar action on tumours chiefly made up of fat). A like method had been proposed with a view to the removal of inflammatory exudations into serous cavities (peritoneum, pleura). Apart from medicines which acted on certain inflammatory exudations (*e.g.*, diuretics and purgatives in pleuritic and peritoneal effusions), and from such as operated by affecting nutrition (*e.g.*, arsenic), there were only two drugs which exerted a real and selective action on the nutrition of such new formations: iodine (including iodides) and mercury. Clinical experience afforded daily proof of their value; experimental research had not yet explained it. These remedies had a selective power over certain products, and not over others which might appear to be structurally identical with them. Thus, syphilitic gummata, strumous deposits, and tubercles were histologically similar; but mercury only affected the first, iodine the second, while the progress of the third was in no degree influenced by either of the two medicaments. Hemlock and its preparations were formerly in great repute as solvents; notwithstanding the discovery of conia, however, there was still no explanation of this special action of hemlock. It might possibly be due to its influence upon the nervous system. Its true value in this respect deserved further clinical investigation.—Dr. MITCHELL BRUCE (London) referred to the action of absorbent remedies, especially mercury, upon solid growths, such as syphilitic nodes and gummata. He pointed out that such growths frequently disappeared spontaneously. It followed that the therapeutical method of absorbents only assisted or accelerated a natural process. He noticed certain points relating to the action of mercury in syphilis; and concluded therefrom that, when administered for disease, this drug interfered with the general nutrition or metabolism of the body, with the "integration and disintegration of tissues", as expressed by Dr. Dujardin-Beaumetz. As to the precise manner in which mercury affected the nutrition of the cells, Dr. Bruce remarked that it was freely absorbed and secreted; that it was taken up and thrown out of cells; and that it was incorporated with their protoplasm, sometimes so firmly that iodide of potassium was required to hasten its separation. It followed that a substance thus incorporated with a cell, and again thrown out of combination, increased thereby its metabolic activity. Mercury, in thus enlarging cells, hastened their life and death; and, if its action were pushed far enough, it must actually cause their rapid decay or death. It might be by simple "wear-and-tear" that mercury acted upon protoplasm; and thus, with certain other "alteratives", it might belong to the large group of therapeutic measures which affected nutrition, and led to structural changes by stimulating the vital activity of parts. With regard to the question, why increased metabolism generally of the body should cause absorption of new growths in particular, the most satisfactory answer probably was, that new growths were the most recently formed; in their cells nutrition was most active; and, therefore, disturbance of nutrition was most quickly appreciated. Dr. Bruce finally drew special attention to the practical importance of local absorbent measures.

On the Action of Saline Cathartics. By MATTHEW HAY, M.B. (Edinburgh).—Dr. Hay gave an account of experiments which he had performed principally on cats, but also on dogs and rabbits, and, in a few instances, on man. The purgative salt usually employed was sulphate of soda. Dr. Hay gave a complete summary of the conclusions at which he had arrived from these experiments.—Professor WOOD (Philadelphia) observed that the injury done to animals in experiments influenced considerably the action of purgatives. Injecting substances into the blood might prevent purgation, as he had found in his experiments.—Dr. CARFRAE (London) thought Dr. Hay's paper one of great interest and importance, but one point needed to be cleared up—viz.: why the injection of one grain of a purgative salt could produce purgation, when introduced subcutaneously in the abdomen, but did not do so when introduced under the skin of the arm or leg?

On Colchicum Autumnale as an Antipyretic and Antiphlogistic. By —. WATERMAN, M.D. (Indianapolis).—The author believed that a true antipyretic prevented the production of heat, and that this production was at least controlled by the nervous system. Colchicum autumnale possessed a remarkable power, specific in character, over the organic nervous system, apart from its eliminative action, reducing the production of heat, at least temporarily. In suitable cases it was superior to, with wider range and greater power than, any other antipyretic. It was especially useful in all sthenic forms of hyperpyrexia, such as iritis, pneumonia, malarial and other fevers. Dr. Waterman had used colchicum extensively in the form of a wine of the seeds, combined, to avoid disturbance of the alimentary canal, with about equal parts by bulk of camphorated tincture of opium. He gave from one drop every ten minutes to a newborn child to half an ounce every thirty minutes to a vigorous adult in dangerous sthenic hyperpyrexia.—Dr. HAYWARD (Liverpool) thought it would have been well to have had the facts upon which Dr. Waterman's conclusions had been founded. All drugs produced fever, and all medicines were used to cure fever. He had not met with cases of high fever which could be reduced in twelve or twenty-four hours by colchicum, and such doses as were recommended could not be continued for a longer time than this.—Dr. LEECH (Manchester) alluded to the difficulty of deciding whether the reduction of temperature was the effect of the drug, or the natural course of the disease. From his own experience he doubted the effect of colchicum, and hesitated, from some ill-result observed by him, to give the drug in the large doses recommended by Dr. Waterman.—Dr. WILBERFORCE SMITH (London) asked whether Dr. Waterman had ever seen untoward results from the large doses he had given, and if there were any contraindications?—Dr. WATERMAN, in replying, said that he did not use large doses ordinarily, but only in hyperpyrexia. The only contraindication to their use was great weakness.

DISCUSSION ON THE ACTION OF MEDICINES.

On the Action of Medicines upon the Heart and Blood-Vessels. By R. BÖHM, M.D. (Marburg).—In the absence of Professor Böhm, an abstract of his paper was read by the Secretary of the Section. The author said that experimental inquiry into the action of medicaments and poisons on the circulatory system dated from Traube and von Bezold. The material now at disposal might be summarised as follows. Medicaments and poisons might operate: *a*. Chiefly on the heart; *b*. Chiefly on the blood-vessels; *c*. On the circulatory apparatus as a whole. *a*. A drug might influence the heart: 1. Directly; 2. Indirectly, by acting on the central nervous system, and so through the cardiac nerves; 3. Indirectly, through the transmission of sensory stimuli along afferent nerves to the centres of the cardiac nerves (reflex action). The investigation of medicaments and poisons acting primarily on the heart was much facilitated by being able to observe the heart of cold-blooded vertebrates after its separation from other organs. No single fact had hitherto been made out in connection with the isolated heart, whose universal significance has been disproved. The effect of a drug on the separated heart might be due to its action—(*a*) on the cardiac muscle; (*b*) on the intracardiac ganglionic structures; (*c*) on the muscular tissue and the ganglia together. It was often most difficult to decide under which of the above three categories a given effect ought to be classed. Direct action on the heart was shown by increased energy of contraction, the rate of pulsation remaining constant, or being diminished. Increase of dose was often followed by peristalsis, and finally by systolic arrest of the heart. Under this head came the heart-poisons in the stricter sense of the term: glucosides of digitalis, helleborein, nerein (*oleander*), scillain, antiarin, tanghinia venenifera, strophantus hispidus; thevetin, theocresin; the veratrin group, barium salts; physostigmin, camphor, guanidin. These substances appeared to affect the automatic ganglia less than the cardiac muscle. In all likelihood, alterations in the elasticity of the muscle had something to do with the result. "Cardiac peristalsis" was very often observed during the action of a great variety of poisons. It probably depended on troubles in the domain of the automatic ganglia which regulate (not "inhibitory") the heart's activity. Physostigmin, camphor, guanidin, etc., did not give rise to systolic arrest of the heart. Another result of direct action on the cardiac muscle was diminished energy of contraction, enfeeblement of the cardiac muscle; finally, cardiac paralysis and diastolic arrest. Under this head came the salts of copper and zinc, tartar emetic, apomorphia. Action on the intracardiac ganglionic structures might produce excitation of the automatic mechanism, manifested by augmented frequency and energy of contraction. Increase of dose produced a slower rate and diminished energy of pulsation; finally, diastolic arrest without paralysis of the muscle. Under this head came alcohol, ether, chloroform, chloral, anæsthetics generally; cyanogen; perhaps, too, potash-salts and oxalic acid. These actions explained the remedial effect of the so-called analeptics (rousing the depressed heart in syncope, collapse, etc.); on the

other hand, the cardiac paralysis occasionally observed during the insensibility induced by ether, chloroform, and chloral. Or there might be action on the intracardiac inhibitory mechanism. *a.* The inhibitory ganglia were excited, and there was retardation of the heart, or diastolic arrest (muscarin, pilocarpin, nicotin). This effect might be neutralised by such substances as (1) paralyse the inhibitory mechanism (atropia, etc.), or (2) powerfully stimulated the cardiac muscle. *b.* The inhibitory ganglia might be paralysed, and stimulation of the vagus yielded no result. There was occasional acceleration of beats (atropin group, curarine, methylstrychnia, conia, etc.). The excitation of inhibitory ganglia did not occur if the inhibitory centres had been separated by ligature. In other cases, there was apparently an action upon the cardiac muscle and ganglia together. With or without a primary acceleration, there occurred a retardation of the heart, peristalsis, and, finally, diastolic arrest (cardiac paralysis). Under this head came many alkaloids—*e.g.*, aconitia, delphinia; in some degree also nicotin; phosphorus; perhaps, too, the salts of potash and many other substances. This category included all those actions whose intimate nature had not yet been cleared up by experiment. Of effects due to stimulation of the centres from which the cardiac nerves originated, the only one at present known is the retardation of the heart's action, prevented by previous section of the vagi in the neck. This had only been noticed in mammals, during the first period in the action of many narcotics and alkaloids—*e. g.*, hydrocyanic acid, amyl-nitrite, carbonic oxide. Diastolic arrest could hardly be said to occur as a result of such stimulation of the vagus-centre. It was still an open question whether there are medicaments or poisons capable of exciting or paralysing the centres of the accelerator nerves. With some drugs, there might be reflex stimulation, either of the inhibitory (vagus), or of the accelerator (sympathetic) nerves. Reflex stimulation of the vagus occurred during the inhalation of irritating gases and vapours. The irritation of the terminal filaments of the trigeminus caused retardation of the pulse, or even arrest of the heart. These effects were not observed when the gas or vapour was admitted to the lungs through a tracheal wound. They might be noticed during the administration of chloroform, ether, etc., and might serve to explain the cardiac arrest—death from syncope—that sometimes occurred. Similar effects were, perhaps, brought about by irritation of the gastro-intestinal mucous membrane likewise (acid and corrosive drugs). Nothing was known, at present, of any reflex stimulation of accelerator nerves by medicines. Drugs might affect the blood-vessels in the same way as the heart. A direct action upon the vessels was hard to prove, chiefly because they could not be isolated. Strictly speaking, a distinction ought to be made between effects produced on the muscular walls of the vessels and those produced upon their nerves. Hitherto, however, such distinctions had been impracticable; but there was a difficulty in the question whether there existed vaso-dilator as well as vaso-constrictor nerves. Among direct effects upon the vessels, and especially on their muscular walls, were the changes wrought by various kinds of tannin and the metallic astringents in the calibre of the smaller blood-vessels. These might be traced to simple chemical reactions. Effects due to an action on the vaso-motor centres were very common. When such effects were at all intense, they unavoidably involved the heart. It was usually assumed that the effect was central when it ceased to occur after section of the cord in the neck. But even this criterion could no longer be depended on, since vaso-motor centres had been shown to exist in the dorsal and lumbar regions of the spinal cord. The arterial tension could only furnish information concerning limited areas of the arterial system. Direct observation (with the naked eye or the microscope) of particular vascular areas (rabbit's ear, the frog's web, tongue and mesentery, the fundus oculi in mammals), might occasionally furnish information as to the effect of drugs on the vessels; but the method was not worthy of much confidence. A number of medicaments caused a very considerable rise of arterial tension, by stimulating the vaso-motor centres. Under this head came: salts of ammonia, barium, and potassium, strychnia, picrotoxin, cicutoxin, delphinia, caffein, etc. As a rule, the great increase of tension produced by these drugs was associated with a corresponding acceleration of the pulse. To decide whether the rise of pressure was due to increased action of the heart alone, or to this with simultaneous vascular contraction, was often very difficult. Dr Pohl was disposed to take the degree of increased tension as the criterion; this, in the case of the digitalis, was not considerable enough to justify the assumption of its acting on the vessels. Moreover, the increased [illegible] could scarcely be ascribed to narrowing of the blood-vessels. Other medicaments lowered arterial tension by paralysing the vaso-motor centres. When this effect was very suddenly produced, it might be prevented by arrest of the brain. Under this head came most anæsthetics, ether, chloroform, chloral, alcohol, hydrocyanic acid, and many alkaloids [illegible], aconitin. The above effect was frequently preceded by a stage of increased tension, due to stimulation of the vaso-motor centres. The vascular dilatation was most marked in particular areas. Thus, amyl nitrite chiefly affected the vessels of the head; arsenious acid and similar metallic poisons (platinum, gold, etc.) the vessels of the splanchnic system. It was still doubtful whether these effects are central or peripheral. The action of amyl nitrite was very transient. Under the head of reflex actions on the vessels ought probably to be included the action of all rubefacients. The primary irritation of cutaneous sensory nerves was followed, first by reflex contraction, then by dilatation of the vessels in the affected area. Next came the associated phenomena of exudation and vesication. The share taken by the nerves in this process required further experimental investigation. Reflex paralysis of the vaso-motor centres, preceded by temporary over-stimulation, might likewise be brought about by the irritant action of gases and vapours on the branches of the trigeminus supplying the mouth and nose. Effects produced upon the circulatory apparatus as a whole, without its being possible to separate the action on the heart from that upon the vessels, was observed during the operation of many medicaments and poisons, especially those which operated slowly and gradually.

On the Action of Atropin and Muscarin upon the Heart of the Frog. By W. H. GASKELL (Cambridge).—His observations formed part of a series of experiments upon the action of the vagus nerve upon the heart. He described the method of experimentation, and gave the conclusions thus arrived at with respect to the beat of the heart, and the action of the vagus nerve. He then gave an account of his experiments with atropin and muscarin, applying them to different parts of the heart of the frog under different conclusions.

The Physiological Action of Duboisia on the Circulation. By GEORGE A. GIBSON, M.D., F.R.S.E. (Edinburgh).—In doses not exceeding five milligrammes, duboisia caused a marked rise of blood-pressure, without appreciable influence upon the pulse-rate. In doses of one centigramme and upwards, it produced a diminution of blood-pressure and retardation of the pulse. When from five to ten centigrammes were injected, the animal (rabbit) rapidly dies, with the heart in diastole. The action upon the nervous mechanism controlling the circulation was as follows. Action upon the cardiac ganglia was indicated by retardation of the rate of action, with slight rise of pressure on injection of small, and fall on administration of large, doses. There was stimulation of the inhibitory centre, with consequent retardation, when the drug was sent to the cerebrum by the carotid; but this was put an end to when the drug reached the heart. When the trunk of the vagus was divided, stimulation of the lower part by the faradaic current was of no avail. After cutting the vagi, the drug was sent up the peripheral part of the carotid, and in small doses caused a great rise, in larger doses a fall, of pressure. The web of the frog's hind foot showed contraction of arterioles with small, and dilatation with large, doses. Tested in rabbit by the effects on the ear, the drug was found to be entirely destitute of influence upon the sympathetic nerve.—Dr. MURRELL (London), after referring to the different modes of investigating the action of drugs on the heart, said he was surprised that no mention had been made of the action of nitro-glycerine upon the blood-vessels. It was well known that it lowered blood-pressure, and produced marked dicrotism. Its action was similar to, though not identical with, that of nitrite of amyl; it was less rapid, but more persistent. It was on this account that he had employed nitro-glycerine as a remedy for angina pectoris.—Dr. LEECH (Manchester) drew attention to the condition of the muscle, as apart from its contractile power, to which Professor Böhm seemed to have alluded as altered elasticity. Caffein and other drugs caused the heart to distend to a far greater extent than in ordinary diastole; and it seemed probable that a direct physical change was produced in the muscular tissue of the heart. In such cases, contraction went on forcibly, though producing less effect on the blood-flow. He further remarked that drugs possessed a distinct regulating power, which, though possibly connected with their stimulating power over the automatic ganglia, was sometimes the most marked feature, especially as seen in their application in disease. Thus caffein had a definite effect in regulating the heart's action in disease, though not in health, according to his observations. In the practical use of cardiac remedies much more information was required: 1. As to the time at which they acted, for some drugs acted on the same part in different times; 2. As to the dose required in average cases to stimulate or depress the parts of the circulatory apparatus.—Dr. CARTER (Liverpool) asked if the facts detailed by Dr. Gibson were the result of single experiments; as idiosyncracies must be [illegible] in rabbits, as well as man. He also asked if the effects of the initial shock resulting from injection into a vein had been duly eliminated. He drew attention to the effects in modifying the rigid [illegible] in small arteries, and [illegible] blood-pressure, produced by the previous employment of [illegible] and

chloroform, as shown by Dr. Richardson. These two agents had quite opposite effects on the circulatory system.—Professor STOKVIS (Amsterdam) criticised some points in Professor Böhm's paper, and remarked that his statements were not in all respects in agreement with the results obtained by other experimenters.—Dr. HAYWARD (Liverpool) recognised the value of the experiments with drugs to indicate their action on the healthy animal body; but he agreed with other speakers, that their use to produce these physiological effects in patients was not free from risk, as in the employment of digitalis and atropin in heart-disease, especially in cases of idiosyncrasy.

On the Influence of Sulphate of Quinine on Glycosuria. By JULES WORMS, M.D. (Paris).—The form of disease he described was not diabetes, but he considered it due to nervous exhaustion. He had been led to give quinine, in doses of twenty centigrammes, twice a day. He had given it in about thirty cases, continuing it for fifteen or twenty days. This treatment had been invariably followed by marked diminution in the quantity of sugar excreted. Many patients suffering from this disorder spontaneously resume the treatment from time to time, and are conscious of an increase of functional activity while taking the alkaloid; this being coincident with a diminution in the amount of sugar excreted.

On Bromide of Ethyl. By W. SQUIRE, M.D. (London).—Dr. Squire discussed the action of bromide of ethyl as a local anæsthetic, as a general anæsthetic, and as a vaso-motor stimulant or sedative. By rapid evaporation, bromide of ethyl would freeze a limited portion of surface, but it caused insensibility to pain before freezing; and its vapour had the advantage over ether in being much less inflammable, though it is inflammable, as Dr. Squire demonstrated byexperiment. It relieved the pain of neuralgia. Long contact with the skin would cause local irritation and vesication. As a general anæsthetic, bromide of ethyl was safe, and did not depress the heart, as chloroform did, or raise the blood-pressure like ether. No cough or mucous secretion was excited. Its action was rapid, and recovery is very quick. It might be used by inhalation, short of producing unconsciousness, for the purpose of relieving dyspnœa, spasmodic cough, megrim, and neuralgia in various forms. This remedy might be useful in diagnosis, as it affords no relief to the symptoms of intracranial pressure or hyperæmia, or to the referred pains of subacute or chronic visceral disease. Dr. Squire gave some of the results observed from its employment in the treatment of hysteria and epilepsy.—Dr. WOOD (Philadelphia) stated that, from his experiments, it was proved that bromide of ethyl depressed the circulation, but not so powerfully as chloroform. Sudden cardiac depression had also occurred during its administration. The use of this agent as an anæsthetic had been abandoned in the United States.—Dr. RINGER (London) confirmed Professor Wood's statement; but his experiments on frogs had proved to him that chloroform was a much more powerful cardiac depressant.—Dr. SQUIRE, in replying, remarked that what he wished to insist upon was the advantage to be gained in using bromide of ethyl to produce rapid effects for temporary purposes.

On the Utility of Strychnia as an Expectorant. By J. MILNER FOTHERGILL, M.D. (London). — The experiments of Rokitansky had shown that strychnia was a powerful stimulant of the respiratory centres; and Dr. Fothergill had arrived at the same conclusion from his experiments upon rabbits. When the respiratory centre was paralysed by aconite, the injection of strychnia exercised a most potent influence in restoring the circulation. He had used it clinically, with much success, when the respiration was embarrassed, in acute bronchitis with difficult expectoration, in chronic bronchitis and emphysema, and, when the right ventricle was dilated, it added to the efficiency of digitalis.—Dr. CHARTERIS (Glasgow) inquired the dose of strychnia which Dr. Fothergill gave in these cases, and its frequency of administration.—Dr. WOOD (Philadelphia) expressed his opinion that strychnia would be found useful in cases of dilated heart, without embarrassment of the respiration.— Dr. LAUDER BRUNTON (London) had made experiments on the action of strychnia on the heart; and he had come to the conclusion that this agent must be regarded as a powerful cardiac, as well as a respiratory stimulant. A brief account of the experiments was given.—Dr. WILBERFORCE SMITH (London) confirmed, from some years' experience, the clinical value of strychnia or tincture of nux vomica in respiratory embarrassment in cases of bronchitis and other pulmonary troubles, especially where disturbance of digestion coexisted.—Dr. FOTHERGILL, in replying, said that the dose of strychnia which he gave depended on the severity of the case; and, if the case were urgent, he would not hesitate to use large doses. He believed strychnia to be a cardiac tonic, and that it acted in this manner on all muscular structures.

This concluded the business of the Section, and it was closed with a few remarks by the President, and the usual votes of thanks.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, SEPTEMBER 24TH, 1881.

DEATH OF THE PRESIDENT OF THE UNITED STATES.

ALMOST immediately after the brief paragraph on the state of President Garfield, which appeared in our last week's issue, was written, an ominous change was noticed in the tone of the telegraphic despatches from Longbranch. Our remarks last week were based on the information received in England up to Thursday, the 15th instant, on which date, as had also been the case for several previous days, nearly all the symptoms referred to in the official bulletins presented a more or less favourable character; while, in other reports from America, the constitutional state of the distinguished patient, as well as the state of the wounds, were declared to be showing a slow, yet still a gradual, amendment. The evening reports of September 14th stated the President had had an excellent day, had sat up in a reclining chair for an hour and a half without any alteration taking place in either his pulse or temperature, that the general condition continued as favourable as usual, while all fear as to the existence of abscess in the base of the right lung had been dismissed from the minds of his medical attendants. In the bulletins despatched on the 15th, and published in England on the 16th, however, there was a passing allusion to septic accidents complicating the case, though no particular details of the nature of the accidents alluded to were furnished; while an additional hint of impending danger from septic poisoning appeared in the evening telegram sent to the American Ambassador by the Attorney-General, in which there was stated to be an increase in the President's temperature, pulse, and respiration, "but so slight as not necessarily to indicate that the condition of the blood is producing any new complication". The state of the right lung was declared to be causing less annoyance. In the telegrams of the next day, the 16th, the uncertain character of the information regarding the President's state ceased, and the language of the official bulletins, no less than the symptoms which were mentioned in them, left little room for further doubt that the patient was suffering from blood-poisoning.

The subsequent bulletins have without any reserve communicated the unmistakable signs of the progressive advance of this fatal malady. The attacks of rigors followed by profuse perspiration, the occasional delirium, the great and frequent fluctuations in the state of the pulse and temperature, the troublesome cough and expectoration, and the steady decline in bodily strength, reported in the telegrams, until the condition had obviously become one of almost extreme prostration, must have prepared everyone for the fatal termination which took place late in the evening of the 19th instant.

The end, as so often happens in cases of septic poisoning, accompanied with profound exhaustion, occurred with apparent suddenness, and without being looked for at the particular time of its occurrence. In the last official bulletin before the fatal event, issued at 6 P.M. of the 19th, it was stated that, although the gravity of the President's condition was continuing, there had been no aggravation of the symptoms; that, since noon, he had slept most of the time, coughing but little, and with ease; that sufficient nourishment had been taken and retained; while the pulse was recorded at 102, the temperature at 98.4°, and the respiration at 18.

The official bulletin issued after the President's decease mentioned that, after the previous report had been made, the President continued "in much the same condition as during the afternoon, the pulse varying from 102 to 106, with rather increased force and volume. After taking nourishment, he fell into a quiet sleep. About thirty-five minutes before his death, and while he was still asleep, the pulse rose to 120, and was somewhat more feeble. At ten minutes past ten o'clock, the President awoke, and complained of a pain over the region of the heart. He almost immediately became unconscious, and ceased to breathe at 10.35."

Thus, after a struggle prolonged for upwards of eleven weeks, the course of which has been followed with an interest and anxiety in this country only second in intensity to what has been felt in the great country of which he was the chief citizen and upright ruler, President Garfield, notwithstanding the possession of great powers of physical endurance and the advantages of remarkable moral fortitude, has at last succumbed to the effects of the cruel injury so wantonly inflicted on him. He has, like his predecessor President Lincoln, been the victim of a criminally inflicted gunshot wound; but, unlike his predecessor's wound, which was directly fatal, President Garfield's, after the first dangers of penetration of the abdomen and injuries of organs of prime importance were found to have been escaped, was generally regarded, in spite of occasional sources of alarm, as one not unlikely to end in eventual recovery. The occurrence of septic poisoning, the fatal scourge of so many similar injuries involving the deeper tissues of the body, and accompanied with long-continned suppuration, upset all such hopes, and caused death, though in a somewhat indirect manner. For, from newspaper reports, we learn that at the *post mortem* examination it was found that the ball, after fracturing the eleventh rib on the right side, had passed through the spinal column in front of the spinal canal, fracturing the body of the first lumbar vertebra, and driving a number of small fragments of bone into the adjacent soft parts, finally lodging below the pancreas about two inches and a half to the left of the spine and behind the peritoneum, where it had become completely encysted. The immediate cause of death was secondary hæmorrhage from one of the mesenteric arteries, adjoining the track of the ball, the blood rupturing the peritoneum, and nearly a pint escaping into its cavity. An abscess-cavity, six inches long by four wide, was found in the vicinity of the gall-bladder, between the liver and the transverse colon, which were strongly adherent. It did not involve the substance of the liver, and no communication was found between it and the wound. A long suppurating channel extended from the external wound, between the muscles of the loin and the right kidney, almost as far as the right groin. On examination of the organs of the chest, evidences of severe bronchitis were found on both sides, with broncho-pneumonia of the lower portion of the right lung, and also of the left, though to a much less extent. The lungs contained no abscesses, and the heart no clots of blood (*sic*). The liver was enlarged and fatty, but free from abscesses; nor were any found in other organs excepting the left kidney, which contained, near its surface, a small abscess about one-third of an inch in diameter.

This report shows how the necropsy revealed sources and evidences of septic infection, the discovery of which could surprise no one; but the immediate cause of death was not due to the formation of fibrinous clot in the right side of the heart, as was reasonably suspected, judging from the symptoms immediately preceding the President's decease, but to hæmorrhage from a large abdominal artery. This vessel, however, most probably gave way through the failure of repair of some injury to its coats, for it lay "adjoining the track of the ball". The septic complications would prevent the processes by which a damaged artery becomes impervious; and in this case evidently caused softening of the arterial walls, so that the vessel at length gave way. The burrowing of pus in the muscles of the loin had proved a remarkable source of fallacy; for, during the life of the President, the suppurating tract was naturally taken for the track of the ball. This and the immediate cause of death will make the illustrious patient's case as memorable in the annals of our profession as in the archives of general history.

THE DENTAL REGISTER.

THE extremely unsatisfactory condition in which the Medical Council left the question of a purgation of the *Dentists' Register*—alleging, in guarded resolutions, that sufficient evidence had not been adduced to justify erasure—induced the British Dental Association to apply, through their solicitor, to a combination of the highest available legal authorities, in consultation, for an opinion as to the interpretation of Section 6, Subsection (*c*), of the Dentists' Act; that is, as to whether the words "separately or in conjunction with the practice of medicine, surgery, or pharmacy", mean the legal practice of those subjects; and whether persons engaged in businesses other than those mentioned in the Act, in conjunction with the practice of dentistry, have the right to registration. The case submitted to counsel includes copies of the opinions of Sir Farrer Herschell and of Mr. Fitzgerald, and is in all respects carefully drawn; and the opinion given thereon is clearly stated, and to the ordinary reader conclusive. The case and opinion have been submitted to the Medical Council, accompanied by an earnest appeal from the Association, asking for such decisive action as shall lead to a legal settlement of the question.

The position of the Council is this: a certain number of persons obtained registration on a declaration that they had practised dentistry with medicine or with pharmacy, who were not qualified to practise either medicine or pharmacy. Others obtained registration who carried on some business other than medicine, surgery, or pharmacy, with the practice of dentistry. The names of persons so registered, with counsel's opinion (Mr. Fitzgerald's, dated October 1879) to the effect that they were not entitled to remain on the *Register*, were laid before the Council by the Association. The Council had taken Mr. McTaské Bowen's opinion shortly before his elevation to the bench. This highly important opinion, there is good reason to believe, coincides with Mr. Fitzgerald's. The two opinions, the publication of which in the Council's minutes was lost by a small majority, were referred, with the cases, to the Dental Committee.

The report contains no mention of the two opinions, but is accompanied by a third opinion, obtained December 14th, 1880, from Sir Farrer Herschel and a junior counsel, and is to the effect that the words "separately or in conjunction with medicine, surgery, or pharmacy", have no meaning; that the subsection is to be read as meaning simply "*bonâ fide* engaged in the practice of dentistry or dental surgery", without any limiting condition whatever. This view was adopted, not without protest, but almost without discussion, and without any reference being made to the opinion of counsel previously consulted, in guarded resolutions proposed by members of the Dental Committee.

A more recent conjoint opinion (dated July 1881) of Sir John Holker, Mr. R. S. Wright, and Mr. G. A. R. Fitzgerald, has been received and circulated, which supports the one given by Mr. Fitzgerald in 1879, a copy of which we have already published.*

Mr. Fitzgerald, Mr. Justice Bowen, Sir John Holker, and Mr. R. S. Wright give to the words "separately or in conjunction with medicine, surgery, or pharmacy", their grammatical and common-sense meaning. Sir Farrer Herschel and Mr. Muir Mackenzie deny to them any meaning whatever.

Supported by this preponderating weight of high legal opinion, the Council have been asked to proceed to remove from the *Register* the names against the retention of which these great authorities have pronounced; or a single name may be erased, with a view of obtaining an interpretation of the questioned clause by the Court of Queen's Bench; the expenses of which proceeding we are told would not be great. Judging from the [illegible] way the executive have [illegible] the dental funds to be expended on legal expenses, of which it would

be hard to prove the necessity, it was hoped that no objection would be raised on the score of cost to the trial of a test-case.

The general dislike of the Council to prompt and decisive action has been well demonstrated, and they have declined to act; but clearly the question of right to registration of some four hundred persons whose names are in the *Register* cannot be allowed to remain a matter of justifiable dispute.

An inquest was held on Wednesday at Bristol, on a fatal case of puerperal fever. The midwife had attended four other females, who had died of that disease, and the medical officer of health had remonstrated with her; but, despite this caution, she attended the deceased, who died within two days. The inquiry was adjourned.

SCARLET FEVER IN HULL.

As is usual at this season of the year, scarlet fever begins to show a general increase of fatality in our large towns—the thirty large English towns dealt with in the Registrar-General's weekly return. The average weekly number of deaths from this disease was 73 and 59 in the first two quarters of the year, but rose to 109 in the first eleven weeks of the current quarter. This marked increase in scarlet fever fatality has been especially large in Hull, Nottingham, Leicester, and Sunderland; in Hull, indeed, the increase has assumed the proportions of an exceptionally fatal epidemic. The deaths from scarlet fever in Hull, which were 19 and 35 in the first two quarters of this year, numbered no less than 175 in the eleven weeks ending the 17th instant, and averaged 23 in the last five weeks of that period, which is equal to an annual rate of 7.7 per 1,000 of the estimated population. This in great measure accounts for the high death-rate from all causes which has recently prevailed in the city. Hull is one of those towns which periodically suffers from epidemic scarlet fever, but the present epidemic exceeds in fatality any that has occurred there during the past eleven years. This fact does not speak well for the sanitary condition of the town, for, in recent years, the relative fatality of this disease, in recurring epidemic seasons, has undoubtedly declined in most of our large towns. The decline of scarlet fever fatality has not been so marked in recent years as has been that of enteric fever; it has, however, been sufficiently defined to establish its intimate connection with improved sanitary administration, more especially in those towns in which hospital accommodation for scarlet fever patients exists, and has been turned to account. It would be interesting to know what has been done in this respect in Hull during the present fatal epidemic.

DIPHTHERIA IN PORTSMOUTH.

The epidemic of diphtheria in Portsmouth which has prevailed more or less during the past twelve months shows little sign of abatement; indeed, the eight fatal cases recorded last week exceeded the number returned in any previous week. During the three years 1877-8-9, the fatal cases of this disease recorded within the borough were but four, three, and six respectively; and in the first nine months of 1880 they did not exceed seven. In the last three months of last year, however, the present epidemic commenced, and caused 15 deaths; and in the first two quarters of this year the fatal cases were 17 and 45 respectively, while since the end of June 39 further fatal cases have been recorded. Thus, within the last twelve months, no less than 116 deaths, mostly of children aged between three and ten years, have been referred to this disease. Such a fatality from diphtheria is without precedent in Portsmouth. It is worthy of note, however, that Portsmouth has in most years shown an excessive death-rate from "fever" (principally enteric); although its death-rate from all causes has been continuously below the average rate in other large English towns. The deaths referred to "fever" in Portsmouth, which were 11 and 14 in the first two quarters of the year, further rose to 15 in the eleven weeks ending last Saturday. The "fever" death-rate in Portsmouth since the end of June has been more than thrice as high as the average rate from the same cause in the twenty large English towns. This fatal prevalence of diphtheria and of enteric fever in Portsmouth affords conclusive evidence of definite sanitary defects, which call for searching investigation at the hands of the sanitary authority and of the medical officer of health for the borough.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

The Committee have determined upon certain changes in the composition of the staff of the Queen's Hospital, Birmingham. The appointment of a casualty surgeon, fifteen months ago, has worked so well, that it has been decided to double the office; and applications are now invited for a second casualty surgeoncy. Each casualty surgeon will attend in the accident rooms for out-patients upon three mornings a week, and upon one other morning he will take charge of ordinary surgical out-patients. The new officers will also have the right of acting as full surgeons in the wards of the hospital during the temporary absence of their seniors. There are now four surgeons to the hospital in charge of in-patients; it is purposed, in conjunction with the rearrangement of the staff, to reduce this number permanently to three upon the retirement of one of the present officers. On the medical side, some changes are also contemplated. At present, there are four physicians, each taking a share of both in-patient and out-patient work. When a vacancy shall arise amongst them, the number of full physicians will be fixed at three, a fourth physician being then appointed, with special charge of out-patients, but without care of beds, excepting as the *locum tenens* of one of his seniors. These changes are designed to secure a more direct attendance upon out-patients, and especially to provide for a systematic revision of casualty cases; and they are likely to strengthen the teaching power of the staff, and to increase generally the efficiency of the hospital as a charity, and to enhance its repute as a clinical school.

THE BIRMINGHAM AND MIDLAND EYE HOSPITAL.

The reformation of the acknowledged unsanitary condition of the Birmingham Eye Hospital, long ago pointed out in our columns, has for some time engaged the attention of the committee of the charity. On September 16th, a special meeting of the governors of the institution was held for the consideration of the report of the committee upon the reconstruction of the hospital. The committee recommended the addition of two storeys to the present building, together with sundry rearrangements of the interior of the edifice, mainly taking the form of increasing the height of the wards. In the course of a long discussion, in which the unsatisfactory condition of the hospital was freely exposed, it became evident that the meeting was not prepared to adopt the suggestions of the committee. Three out of the four acting surgeons of the institution spoke strongly against the adoption of the report, and strenuously urged the necessity for rebuilding the hospital upon a new site. Upon the chairman's motion for the adoption of the report, an amendment was carried, by twelve votes to three, referring the whole question back to the committee for further investigation. This satisfactory decision has sealed the fate of an unwise scheme for reconstructing the hospital upon its present cramped site, and will probably soon result in the presentation to the governors of plans for rebuilding the institution upon an enlarged basis, and in accordance with modern sanitary requirements.

A NEW HOSPITAL FOR SOUTH-EAST LONDON.

Some months ago an account was given in the *Times* of a meeting, at which it was proposed to erect a hospital as a memorial to the late Canon Miller, the promoter of Hospital Sunday. The committee then appointed have been quietly at work ever since, with the result that at a meeting, held at the Royal Kent Dispensary, Greenwich, on Friday evening, it was finally decided to raise £10,000 and to build a hospital in the rear of the dispensary, with the view of providing accommodation for the large and densely-populated district comprising Greenwich, Deptford, Woolwich, Blackheath, Lee, Lewisham, Charlton, Plumstead, and contiguous parts of South-East London. A memorial in favour of this scheme, signed by fifty-eight local medical men, was read. It was pointed out that a population of nearly one and a half millions

on the Surrey side of the Thames has to rely upon Guy's with 700 beds, and St. Thomas's, with 400 available beds, both of which, though largely endowed, are situated miles away from that portion of the district for the wants of which the new hospital will in future provide. Already upwards of £1,200 has been received in private subscriptions from a few of the residents in the district who recognise the necessity of providing this new hospital. The Canon Miller Memorial Fund Committee have agreed to co-operate with the executive committee of the Royal Kent Dispensary in raising the necessary funds, and it has been arranged that one of the wards shall be called the Miller Memorial Ward as a recognition of the valuable services rendered to the hospitals and dispensaries throughout the country by the late Rev. Canon Miller, D.D., as the promoter of Hospital Sunday, and as a mark of esteem and affection to his memory. It was resolved on Friday to make a vigorous effort to raise the necessary funds, and to erect and open the hospital for the reception of patients on the centenary of the Royal Kent Dispensary in 1883. It was further resolved to try and carry out a plan which has proved very popular in America, by which congregations attending churches and chapels in the neighbourhood and the workmen of the larger firms, will be encouraged to establish and endow a bed or beds in the new hospital. Mr. Wm. Bristowe, solicitor, London Street, Greenwich, has consented to act as the honorary secretary, and it is now expected that this new and much-needed hospital will be ready for occupation in the early part of 1883. It is thought possible that some of those friends of the late Canon Miller who reside in distant parts of the country will send contributions towards the expense of the Miller Memorial Ward.

SCHOOLS AND INFECTIOUS DISEASE.

In referring to an outbreak of scarlatina which occurred in the Mid-Warwickshire Combined Sanitary District last year, Dr. John Wilson makes some very sensible observations on the spread of infectious diseases by means of schools. He says that, although his certificates are promptly complied with, he carefully considers all the circumstances of any special outbreak in any particular locality before certifying the necessity of the closure of the elementary schools, which, as a rule, is disliked by the teachers and parents alike. Indeed, teachers are not unfrequently found extremely reluctant to report the early cases of an outbreak, and even try to conceal them when questioned, because they are afraid the school may be closed, forgetting or not knowing that, if early cases were reported, the disease might be prevented from spreading without having recourse to this step. When the disease is of a mild type, it often happens that no medical attendant is called in, and thus an outbreak may assume serious dimensions as regards numbers before any information is obtained concerning its occurrence. It is in respect to these mild cases of infectious disease which are often not attended by any medical man, that early information on the part of the teachers or the school-attendance officer would be so valuable. It may be objected that neither the teachers nor the school-attendance officer might know the exact nature of the disease, but a little experience would soon enable them to detect suspicious symptoms, and any suspicious cases should be reported forthwith in order that due inquiry might be made, and proper precautions taken. In three of Dr. Wilson's districts, the sanitary inspectors hold the appointment of school-attendance officer, an arrangement which he finds so satisfactory, especially as regards the discovery of these early cases, that he recommends its adoption in every district where the duties of the respective officers render it possible. In districts where such an arrangement cannot well be carried out, or has not been adopted, Dr. Wilson suggests that the school-attendance officer should be instructed to report suspicious cases to the sanitary officials, for it is evident he thinks that the contemplated enactment of compulsory information of cases of infectious disease, especially by the medical attendant, will not cope with the difficulty of detecting these early cases. Poor parents, as a rule, will not send for the doctor unless a child be seriously ill, even although they know very well the nature of the disease from which the child is suffering, and this is a very strong argument for the position held by this Association, that the onus of compulsory information should be made to rest on the householder, who should be held responsible for the neglect of proper precautions, and any proved attempt to conceal the nature of the disease. This question is also discussed at length by Mr. H. E. Armstrong in his report on the public health of Newcastle last year. He reports two outbreaks of measles as having come under notice in connection with large day-schools: one in which upwards of forty scholars were affected, and in consequence of which the school was closed voluntarily by the authorities; and one in which thirty-six scholars have been affected. The closing of the school in the latter case was not attempted, nor was it advised, it being considered more important to keep the healthy at school and apart from the infected, than to allow the opportunity of their freely mingling together, as they would do were the school closed. The amount of air-space allowed for each scholar at one of the schools was very insufficient, and the rooms were, moreover, insufficiently lighted. The closeness of contact of the pupils in the class-rooms undoubtedly helps to account for the spread of disease. Under the Education Act, no allowance is made for deficiency of a pupil's attendance, even when this is due to infectious sickness, unless the cases of sickness have been so numerous as to necessitate the closing of the school. As the principals of all elementary schools are directly interested in keeping up the number of attendances, it is evident that the arrangements are, in effect, such as to offer a premium to the concealment of infectious diseases among the pupils, until an actual epidemic renders such concealment impossible. In the interests of public health, and in justice to the principals of these schools, it is much to be desired that the absence from school of any child suffering from infectious disease, or living in a family where such disease is present, should be insisted on, and, so far as the Government grant is concerned, allowed to count as regular attendance. This matter has already been strongly urged upon the Education Department from a variety of directions, but the department has proved singularly stubborn in dealing with it.

A FOREIGN OPINION ON THE CONGRESS.

A writer in the *Cuckoo* says: Dr. Groz, the delegate of the Hungarian Government to the Medical Congress, writes to the *Hun*, the official journal of Pesth, in enthusiastic terms of all he saw and heard when among us. The police and the cabdrivers are special subjects of the good Doctor's commendation, the former always ready as *ciceroni*, the latter prompt and obliging, and never overcharging. The dinners at the Mansion House, the toastmaster, the loving-cup, seem so deeply to impress our foreign visitors, that, reformer as he is, he would preserve these ancient institutions, if only for foreign effect.

THE BRITISH PHARMACEUTICAL CONFERENCE.

The British Pharmaceutical Conference recently held at York, under the presidency of Mr. Reynolds of Leeds, was well attended. A full programme of good pharmaceutical papers was presented, and discussions followed. On the day following the sessions, an excursion to Ripon and Fountains Abbey wound up the event. Professor Attfield was elected president for the next Conference, which is to be held at Southampton. The following are given by the *Chemist and Druggist* as among the more definite facts attained by this Conference. The acquirement of clearer knowledge concerning the chemistry of ginger, contributed by Mr. Thresh; the certainty of the existence of codeia and narceia in English poppy-heads, by Mr. Groves, who further ascertained, however, that the extraction of codeia from this source would not pay; a new process for estimating iodide of iron in solution, by Messrs. Naylor and Hooper; a quicker process for testing pepsin, by Mr. Benger; a simple copying-ink, by Professor Attfield; proof of the value of the potassium iodide test for nitrates in water, by Mr. Ekin; proof of the inferiority of Jamaica jalap, by Mr. Greenish; proof of the value of the ferric chloride test for salicylic acid in urine; discovery of a new alkaloid in cannabis indica, and disproof of the alleged existence of nicotine therein, by Messrs. Siebold and Bradbury; a simple process for the production of pure hydrocyanic acid, by Mr.

Fletcher; indication of the pharmaceutical value of heavy paraffin oil, by Dr. Symes; an improved process for extracting atropin, and evidence of the superiority of the wild belladonna to the cultivated, and of the leaves to the root, by Mr. Gerrard; the process for crystallising ortho-phosphoric acid, by Mr. Cooper; and evidence of the proportion of gum in liquorice-juice, by Mr. Madsen. The other papers either confirmed previous reports or were in some degree indefinite.

HOUSE-TO-HOUSE VISITATIONS FOR VACCINATION.

THE usefulness of house-to-house visitation for the discovery of unvaccinated persons, recommended by the National Health Society in their recent pamphlet on the subject, has been markedly shown by a statement published under the authority of the Kensington Board of Guardians. In that parish, during the recent epidemic, 358 streets, containing 8,500 inhabited houses, were canvassed. The number of children found therein was 28,939 in 11,136 separate families; 28,366 were reported as successfully vaccinated, and 573 as unvaccinated. Of these, 304 were born elsewhere, but by migration had evaded the officers of their native parishes; 269 born in Kensington would, in the majority of cases, have been dealt with in the usual course, except 27 whose births had not been registered, and others which had been falsely registered. The total numbers of vaccinations and revaccinations recently performed at the public stations during a period of eighteen weeks were 3,283 as against an average of 720 during a similar period, showing that considerable result must have followed these inquiries. Upwards of 11,500 circulars were also delivered in the richer portions of the parish, addressed to the head of the family, and it was from this source that the greater portion of the revaccinations were secured. Gentlemen's servants attended the stations by hundreds, and in numerous other instances householders have had the whole of their households revaccinated by private medical men. Mechanics and the labouring classes are, however, very careless in this matter. It is with great difficulty that they are induced to undergo revaccination; and even when small-pox has broken out in the house they are hardly persuaded to take so simple a precaution to protect themselves. Under such circumstances, the arguments of those who desire to see revaccination, made compulsory become worthy of consideration.

CHOLERA AND FEVER IN INDIA.

ACCORDING to the *Indian Medical Gazette*, the two main features of the death registration of the year in India, are a great decrease of cholera prevalence and a considerable increase of fever mortality. The number of cholera-deaths registered during the year amounted to 39,043, against 136,363 in 1879. The decrease is attributed to the heavy rainfall of the year. The delayed appearance of the disease in Behar is put down to the later arrival of rain in the latter province. A severe outbreak occurred in Chumparun in March, apparently lighted by some pilgrims returning from a religious gathering in Nepal; and the Orissa districts, which are habitually frequented and traversed by pilgrims, presented the usual excess of cholera mortality.

PRECAUTIONS IN THORACENTESIS.

M. RAYNAUD *(Journal de Médecine)* insists on a certain number of precautions which he considers it important to observe in thoracentesis. To avoid severe attacks of cough, which often occur in the course of the operation, and are extremely painful and inconvenient, he recommends the subcutaneous injection of a full dose of morphine before performing puncture. In this way, the cough is almost always prevented, or, at least, very considerably diminished; rigorous cleansing of instruments, and especially of the trocar, with antiseptic solutions, he considers a matter of the utmost importance, and recommends the most minute precautions with the view of avoiding subsequent suppuration. The simplest method is to pass the instruments to be employed through the flame of a spirit-lamp, and subsequently to plunge them in carbolic acid solution. When the operation for empyema and modified injections are employed, in lieu of leaving the patient seated, as is often done, it is preferable to lay him on the opposite side to that on which the operation has been performed; in this manner all the diseased parts are reached by the fluid, while, if the patient remains seated, the lower parts only are reached. Further, it must not be forgotten that the greatest care is necessary in performing these injections; for, in certain cases, rare it is true, but still far too frequent, epileptiform convulsions have followed, ending in rapid death. The washing-out should, as far as possible, be performed by means of a syphon; or, if any other injecting apparatus is used, great care should be taken to prevent the jet produced from attaining too great a force and directly striking the lung.

THE NEW YORK LAW TO PREVENT THE ADULTERATION OF FOOD AND DRUGS.

THE new law of New York State in relation to the adulteration of food and drugs, which makes it a misdemeanour to manufacture or offer for sale any adulterated article of food or drugs, came into force on September 1st; and the *Boston Medical Journal* mentions that the State Board of Health have issued a circular to the public in which they announce that eight competent chemists have been appointed for the analysis of the various kinds of goods, and arrangements been made for the collection of samples. The Board requests all who are interested in promoting health by guarding against adulterated and deleterious articles of food and beverages to inquire concerning illegal traffic in such articles; and that whenever any person is cognisant of a case in which there seems to be evidence of injury from their use, information should be immediately sent to the office of the Board at Albany, when an investigation of the matter will at once be undertaken. The circular further states that the Board desires the fact to be well understood by the public that this law originated as a national measure for the protection of the people, as recommended by the National Board of Health and National Board of Trade; and that, in the State of New York, its administration will be based upon effectual co-operation of the State Board of Health with the people and honest producers and tradesmen, and upon the faithfulness and skill of the Board's carefully selected chemical analysts. The work of analysis is arranged under eleven heads and groupings, and allotted as follows:—*Animal Food.* I. Milk, fresh and condensed. Assigned to Professor Chandler. II. Butter, dairy and artificial; cheese, lard, olive oil, and fruit-essences. Assigned to Professor Caldwell, of Cornell University. III. Canned meats and animal foods; meats, fresh, smoked, salted, canned; extracts and essences of meat and fish; gelatine and isinglass. Assigned to Professor Chester, of Hamilton College.—*Vegetable Food.* IV. Cereals and the products and accessories of flour and bread foods. Assigned to E. G. Love, Ph.D., New York. V. Canned fruits and vegetables, pickles, preserves, spices, etc. Assigned to Professor Lattimore, of Rochester University. VI. Sugars, syrups, molasses, glucose, confectionery, honey, and soda-water syrups. Assigned to Dr. W. H. Pitt, Buffalo. VII. Tea, coffee, cocoa. Assigned to Professor Lattimore. VIII. Wines, beers, spirits, and cordials. Assigned to F. E. Engelhardt, Ph.D., Syracuse.—*Drugs.* IX. Crude vegetable and animal drugs. Assigned to Frederick Hoffmann, Ph.D., New York. X. Pharmaceutical chemicals and their preparations. Assigned to Dr. Hoffmann. XI. Organic preparations employed in medicines; cinchona, opium, etc., and their alkaloids; commercial pills, coated and otherwise; ethers and essences. Assigned to Professor Caldwell.—Thus it will be seen that the New York law to prevent the adulteration of food and drugs, which, thanks in a great measure to the labours of the English Society of Analysts, and especially to the intelligent study of the subject by Mr. Wigner, the Secretary of the Society, is much superior to our own in efficiency, will, by its mode of work, be likely to be rendered yet more efficient. It is one great defect of our Adulteration Act that the mode of putting it into operation is left entirely in the hands of local authorities, and mainly to the public initiative. The local authorities give little encouragement to our public analysts in any continuous or combined effort to investigate, with the aid of public funds and public authority,

the actual state of the facts in respect to the adulteration of food and drugs; and thus the investigations carried out are often of a very imperfect and partial description. No such thorough and systematic investigation as that which is now about to be made in the State of New York has ever, to our knowledge, been carried out in this country; and we shall await the result with great interest.

ART IN A PARISIAN HOSPITAL.

In a recent number of the French *Figaro*, several columns are devoted to a description of the remarkable *Salle de Garde* in the *Charité* Hospital. Twenty years ago, the house-staff, including several gentlemen now known to fame and to the recent International Congress, showed great hospitality in their leisure moments to certain rising votaries of the fine arts. The artists, who formed the majority of the guests, showed their gratitude by decorating the *Salle*. Among these grateful painters is the name of Gustave Doré. On one panel, that well-known artist has painted an allegorical picture of Hippocrates receiving the homage of distinguished authorities of the period, who are depositing trephines, tonsil-guillotines, chain-saws, and other instruments which they had invented or improved, as votive offerings to the father of medicine. Another painting, by Guet, known as the painter of an historical picture in the Versailles Galleries, represents Bouillaud giving a *post mortem* demonstration. Feyen-Perrin, the designer of the famous drop-curtain in the *Théâtre Italien*, and painter of *Les Pêcheurs de Cancale*, contributed a piece of work still very interesting; it is named "Quackery expelled from the Temple of Science". A tribunal of medical men, headed by Velpeau, have pronounced sentence on the notorious Vriès, the "cancer-curer", a coloured man, who made a fortune and then fell into the hands of the law, readier to prosecute such individuals in France than in certain other lands. Fauvel, at that time *interne* to Velpeau, is carrying out the execution of the sentence. Hippolyte Fauvel, brother of the surgeon just mentioned, and author of several well-known pictures, contributed a touching sketch of "The Country Doctor"—"the modern centaur, on horseback night and day to ride to the relief of his fellow-creatures; the man whose life means labour, self-denial, and sacrifice, the three virtues that make heroes and saints, and that personify the finest and the greatest of the liberal professions"; for thus sings the *Figaro*. The finest painting of all is an allegorical representation of Charity, by the late M. Hamon. The *Salle* also includes a number of landscapes, and sixty-two portraits of the consulting, acting, and resident officers of the period. Dr. Decaisne, author of the article, concludes by stating that the present house-staff of the *Charité*, worthy of their predecessors, will open wide the folding doors of the *Salle-de-Garde* to all who desire to visit that improvised gallery of art.

THE INFLUENCE OF WINDS ON THE SPREAD OF DIPHTHERIA.

When Dr. Hubert Airy, at the recent International Medical Congress, raised the question, whether diphtheria was not carried from place to place, sometimes over long distances and in sparsely populated districts, by the agency of the wind, he was met by the *à priori* argument that "germs" were destroyed by the action of an abundant supply of oxygen; and that, therefore, a wind would tend to destroy and not to propagate the poison of diphtheria—the assumption being, of course, made that the *materies morbi* is an organism. We confess that it seemed to us that the theory was one which could not be dealt with on such grounds, and that too little is known of diphtheria itself, and too little of the habits of "germs", to apply general laws, themselves very imperfectly understood, to a special case. We read, in a lay contemporary, that, in the terrible epidemic of diphtheria at present raging in Southern Russia [illegible] which has already produced a mortality of 18,705 in a single province containing a population of two millions—the disease has been noticed to follow the direction of the prevailing winds of the southern portion of Russia in Europe; that is to say, that the epidemic is spreading towards the north and north-west. Such a fact is of very great importance; and lends a striking support to the theory supported by Dr. Airy.

SCOTLAND.

THE RECTORSHIP OF ABERDEEN UNIVERSITY.

With the expiry of Lord Rosebery's term of office in November next, there is the promise of a keen contest for the vacant rectorship. Although nothing definite has been decided at the preliminary meetings which have been held, it seems probable that the Liberals will bring forward Professor Bain, and the Conservatives Lord Cranbrook.

THE FEVER EPIDEMIC AT DUNDEE.

The epidemic of various fevers, previously mentioned in the Journal as being mostly confined to the low-lying district east of the town, has now assumed more formidable proportions, and is threatening to become general over the town. During the last fortnight, many new cases have been reported; and from the 1st till the 16th September, no fewer than 98 have been notified to the sanitary inspectors; this number was made up of 78 cases of scarlet fever, 15 of typhus, and 5 of typhoid.

HOSPITAL ACCOMMODATION AT ROTHESAY.

It is satisfactory to note that steps are being taken at Rothesay to render the present hospital accommodation more available for the general requirements of the town and the island of Bute. The existing hospital contains twenty beds for non-infectious cases, and ten for infectious, but this latter class of cases are very few in number; and, as there are no funds for the maintenance of non-infectious cases, the expense of keeping up the building is so great, that the question of closing it altogether has been under discussion. With the view of obviating such a step, a public meeting has been held to consider the matter, and a committee has meanwhile been appointed to obtain all the necessary information as to the cost of admitting non-infectious cases, and other points. No doubt, when the subject is brought fully before the public, subscriptions will be forthcoming to allow of the hospital being made available for all classes of cases; and in this way a great boon will be conferred on the poorer members of the community.

INTERESTING EXPERIMENTS AT GARTSHERRIE.

When we consider how much the healthiness and amenity of many of our country districts in many parts are interfered with by the noxious fumes from furnaces and other manufacturing works, it is gratifying to find that steps are being taken by a large firm of ironmasters to utilise the gases escaping from the blast furnaces. In the covered furnaces the gas is taken off and used as a fuel for the boilers and the air-heaters; but, after all that can be done in this way has been accomplished, a large quantity of gas, with its valuable chemical contents, is thrown into the air and lost. A process has been patented, and works are now being erected at the Gartsherrie Ironworks, for arresting the gases and tar as they leave the furnaces, and having them treated so as to extract the ammonia and other substances they contain and prepare them for the market. The experiments already made show that this can be done with entire success financially and otherwise, there being a good demand for ammonia for agricultural purposes. It is to be hoped that this method may come into general use, for it would be of great service in preserving the purity of the atmosphere in many of our large towns.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS IN AUGUST.

During August, there were registered in the eight principal Scotch towns the deaths of 2,033 individuals, 1,050 of whom were males and 983 females; allowing for the proportionate increase of population, this number is 284 under the average of the same month during the preceding ten years. The respective death-rates were, for each thousand of the population: Dundee [illegible]; Leith, 15; [illegible], 18; Aberdeen, 19; Greenock, 22; Glasgow, 23; [illegible], [illegible]. The latter town scarcely ever departs from its unenviable position in the scale of mortalities. Of children under two years [illegible]

828 deaths, or 41 per cent. of the total number of deaths, the respective percentage of the mortalities being: Perth, 34; Dundee, 35; Aberdeen and Leith, 40; Edinburgh and Paisley, 41; Glasgow, 42; and Greenock, 43. Zymotic diseases caused 17.3 per cent. of all the deaths; but the prevalence of measles, diarrhœa, and whooping-cough, in Paisley, caused this rate to be considerably exceeded there. No fewer than 104 deaths were attributed to diarrhœa, of which 47 occurred in Glasgow. Only 29 deaths were attributed to fever, and of these 20 were returned as enteric, 8 as typhus, and 1 as simple continued fever. As to the other zymotic diseases, whooping-cough caused 57, scarlet fever 44, measles 34, diphtheria 28, croup 24, metria 5, cholera and dysentery 5, and small-pox only one death. This last is well worthy of notice, as showing the slight effects at present experienced from what was feared might become a troublesome epidemic, and for which the authorities in various of the towns had made suitable preventive arrangements; these were actually carried into effect in Dundee by a public revaccination of all who would submit to it. Cardiac diseases contributed 121 deaths, paralysis and apoplexy 105, premature birth debility 64, and hydrocephalus 53. Phthisis pulmonalis caused 11.7 of the entire mortality, and inflammatory affections of the respiratory organs other than those already referred to caused 15.8 per cent. of all the deaths. Suicidal cases constituted 7 out of 79 deaths attributed to violent causes. Seven persons died over ninety years of age, 6 of them being females, the oldest of whom was a widow aged 99. The births of 3,638 children were registered; 1,867 of these were males, and 1,771 females. As to the meteorological features of the month, it was characterised by a low mean temperature and a too abundant rainfall everywhere. The mean barometric pressure was less by 0.131 inch, and its monthly range more by 0.425 inch; the mean temperature less by 3.2°, and its daily range less by 0.4°; the mean humidity less by 5; the rain-depth greater by 1.15 inch; and the wind-pressure greater by 0.69 lb. than the average of the same month during the preceding twenty-four years. The maximum of rain was at Edinburgh, 6.07 inches; which those of our readers who were at the Scottish Volunteer Review will without difficulty credit; while, curiously enough, the minimum of rainfall was on the same east coast, and at Aberdeen. The lowest mean temperature, 53.8, was at Greenock, and the highest, 55.3, at Dundee. The wind was more prevalently north than is usual.

HEALTH OF EDINBURGH.

THE mortality of Edinburgh still remains low, last week being only 15 per 1000. Of 70 deaths which occurred during the week, 31 were of children under five years of age. There were eleven cases in which the death was due to zymotic diseases; four of these were whooping-cough, of which two occurred in the New Town; while all the other deaths from zymotic diseases were in the Old Town.

HEALTH OF THE PRINCIPAL SCOTCH TOWNS IN 1880.

AN analysis of the Registrar-General's Yearly Report shows that in the eight principal Scotch towns during 1880 the deaths from the zymotic diseases were—from whooping-cough 1,305, or 4.57 per cent. of the total mortality; from diarrhœa, dysentery, and cholera (classified as bowel complaints) 966, or 3.38 per cent.; from fever 597, which consisted of 453 from enteric, 91 from typhus, 51 from simple continued fever, and from prolapsing, 2; from measles 785, or 2.75 per cent.; from croup, 259; from diphtheria, 254; from erysipelas, 107. To syphilis 124 deaths were attributed, and to rheumatism 101. Five deaths were caused by small-pox, and interesting details are given. Thus one case in Dundee was a male unvaccinated infant; the next, a boy of 14, was "believed to have been vaccinated," but no good vaccine mark could be detected; the next two deaths were in Glasgow, of females aged respectively 45 and 15 (one of them a rag-picker), both "believed they had been vaccinated in early youth," but no vaccine mark could be found in either; the last case was that of an unvaccinated seaman, who contracted small-pox in Antwerp, and died from it at Greenock. Cancer caused 614 deaths, or 2.15 per cent., and was registered more frequently as a cause of death in Aberdeen and in Edinburgh than in the other principal towns. To tubercular diseases, 4,775 deaths were attributed, or 16.72 per cent. of the total, phthisis pulmonalis alone causing 3,202 deaths, or 11.21 per cent. of the entire mortality; the others were, hydrocephalus 759, tabes mesenterica 543, scrofula 271. Diseases of the nervous system contributed 10.06 per cent. of the total mortality, and diseases of the circulatory system 5.65 per cent. Diseases of the respiratory organs (other than those already referred to) were rather less fatal than usual, but caused 20.93 per cent. of the entire mortality; the individual causes were, bronchitis 3,940 deaths, pneumonia 1,336, pleurisy 90, asthma 70, laryngitis and lung-diseases of unspecified nature 449. Diseases of the digestive organs caused 1,537 deaths, and of the urinary organs 571. Premature birth contributed 714; spina bifida, and conditions causing cyanosis, caused 99 deaths. Debility and atrophy were the registered causes in 1,016 cases; and, of 882 deaths due to violent causes, 38 were registered as suicidal. According to Dr. Farr's classification, 85 deaths were registered as due to intemperance, of which 24 were due to delirium tremens. As to old age, there is a great disproportion between the two sexes; thus, of 69 persons who were over 90 years of age at their death, 15 only were males, while 54 were females; and one of them, the widow of a hand-loom weaver, was stated to have been 104 years of age.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending September 10th, it appears that the death-rate in the eight principal towns during the week was 18.8 per thousand of estimated population. This rate is 0.6 above that of the corresponding week of last year, but 0.1 below that of the previous week of the present year. The lowest mortality was recorded in Perth—viz., 10.5 per thousand; and the highest in Paisley—viz., 23.3 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.1 per thousand, or 0.3 below the rate for the last week. Acute diseases of the chest caused 89 deaths, or 19 more than the number recorded last week. The mean temperature was 54.1, being 2.8 above that of the week immediately preceding, but 3.0 below that of the corresponding week of last year.

IRELAND.

THE Local Government Board have sanctioned a superannuation allowance of £149 9s. 5d. to Dr. Clarke, late medical officer of the Mountmellick Union.

A PERSON named Strain was fined twenty shillings, with ten shillings costs, at Belfast last week, for having refused to permit a child of his to be vaccinated. He has been fined on several occasions previously for the same offenee.

THE Belfast Board of Guardians having recently asked the Local Government Board to include the cost of stimulants consumed in the workhouse in the grant for medical purposes, have been informed that their request could not be complied with.

DR. SWAN, medical officer of Abbeyleix Workhouse, has resigned, and a notice of motion has been given that he receive his full retiring allowance of £56 18s. 4d. *per annum*. It is proposed that his successor shall compound the necessary medicines, and so obviate the necessity of employing an apothecary. It is probable that Dr. Stoney will be appointed to the vacancy.

BELFAST DISTRICT LUNATIC ASYLUM.

ON the 31st of last December, there were 463 patients in this asylum, the daily average number of inmates amounting to 442; while the total under treatment during 1880 came to 602. Of those admitted, 138 were cases of a first attack, and 30 were relapsed cases. One hundred and three were discharged, of whom 63 had recovered, 36 were im-

proved, and 4 were unimproved or incurable. The mortality amounted to 35 deaths, all from natural causes—viz., from thoracic affections, 13; cerebral and cerebro-spinal, 17; and debility and old age, 5. As regards the social condition of the 463 patients in the asylum on the last day of 1880, 319 were single, 115 married, 24 widowers or widows, and in 5 cases the condition was unascertained.

THE NOTIFICATION OF INFECTIOUS DISEASES.

THE withdrawal of Mr. Dwyer Gray's Bill of last session, providing for the compulsory notification of infectious disease in Ireland, was much to be regretted, if for no other reason than it has delayed, for another year at least, the institution at Dublin of a system which, in the opinion of those qualified to judge, is greatly needed for the effectual checking of the rampant infectious diseases of that neglected city. In his last annual Report to the Corporation, Dr. Cameron, the superintendent medical officer of health, gives prominence to this subject, and observes that the desirability of the prompt notification of the occurrence of contagious diseases to the sanitary authority is generally admitted. If the duty of notification devolved on the heads of families, Dr. Cameron feels assured that the middle and upper classes would not neglect it; indeed, when such cases occur in private dwellings, the owners are anxious to have the assistance of the sanitary authorities for the purpose of having their houses purified, and their bedding, etc., disinfected. But, on the other hand, he thinks that the majority of the tenemented dwellings would give either no, or a tardy, notice to the sanitary authorities; though it is in the cases of such dwellings that a prompt notice would alone be really useful. The local authority have no power to remove even a small-pox patient from a house in which there is proper accommodation for him; but notification, if promptly given, that a case of small-pox or typhus fever exists in a tenemented dwelling, every room of which is the abode of a whole family, is of the greatest possible hygienic importance. The prompt removal of persons suffering from the serious forms of zymotic diseases to hospital is one of the most efficacious measures for arresting their spread. In even the most crowded tenemental dwellings, where four families have a common lobby, it is by no means uncommon to find one or more cases of small-pox or other zymotic disease. When the medical man is called in to see such cases as a dispensary physician, he reports the matter to the sanitary authority; but this procedure is not followed, except occasionally, by private practitioners. Were the latter required by law to report such cases, Dr. Cameron feels sure that they would willingly do so, and thereby enable the sanitary authorities to enforce the removal of the patient to the hospital if his surroundings justified such action. Dr. Cameron found that, in November of 1880, out of a total number of 875 deaths registered within the Dublin registration area, the cause of death was uncertified in 163 instances, and in 157 others there was "no medical attendant". It appears evident, therefore, that the compulsory notification of infectious diseases by the head of the family is necessary, as in many cases there is evidently no medical attendant.

CORK DISPENSARY: ELECTION OF A MEDICAL OFFICER.

LAST week, the Cork Dispensary Committee proceeded to appoint a medical officer to fill the vacancy caused by the death of Dr. Budds. A fortnight ago, Drs. Townsend and Reardon polled an equal number of votes, and the election had to be adjourned; but the latter claimed the appointment, in consequence, as alleged, of one of the votes given for his opponent having been illegal. The Local Government Board were communicated with, and they directed that the matter should be laid before the Committee of Management. At the same time, Dr. Townsend also claimed the post, in consequence of Dr. Reardon having received a vote of a justice of the peace, whose qualification as a voter ceased to exist, inasmuch as the property out of which he voted had been turned into a limited liability company, and consequently he was disqualified from voting. Dr. Reardon entered a protest against a fresh election being held; but, as the Committee had duly advertised the vacancy, it was considered not competent for them to forego it without having the resolution to do so rescinded. Dr. Reardon then withdrew with his supporters; and Dr. Townsend, being unopposed, was declared duly elected, and the proceedings terminated.

BELFAST ROYAL HOSPITAL.

A SPECIAL meeting of the Corporation of the Belfast Royal Hospital was held on the 17th instant, for the purpose of considering the advisability of authorising the Board of Management to apply so much of the invested funds as might be necessary to pay off all outstanding accounts to the end of the financial year, viz., the 31st August. It appears that the expenditure for the year up to the 1st September last amounted to £7,716, of which sum £1,628 arose on the Throne Hospital; an outlay due to the greater number than usual of patients in those institutions. A sum of £450 was required; and, after some discussion, a resolution was adopted that the Board should draw out of the invested capital a sum not exceeding £500 for the required purpose.

HEALTH OF BELFAST.

DURING the month of August, 11 cases of fever and 8 of small-pox were removed to the hospital for contagious disease, and every practicable precaution taken to prevent the spread of these diseases; the several houses whence the patients were removed having been cleaned, fumigated, and limewashed; and the clothes and bedding used by the sick destroyed when required. The total births registered amounted to 613, and the total deaths to 380, showing a natural increase of 233. Phthisis caused 77 deaths, and diseases of the respiratory organs 44, making a total of 121 deaths from diseases of the lungs, and being equal to a death-rate of 6.8 per 1,000. The average death-rate for the five weeks came to 18.43 per 1,000 on a population of 208,000. During the past month, 6 cases of typhus fever were reported, after a lengthened immunity from the disease; and, from the precautions taken, it is hoped that its reappearance may be of very limited duration. Typhoid fever, however, appears never to be absent; and the question arises, whether the several cases of gastric fever which have been recently reported may not have been obscure examples of the same affection. The eight cases of small-pox above alluded to were promptly removed to hospital; and, on the whole, the disease has been kept in check by the measures which have been adopted by the medical officers of health and the officials of the sanitary department.

WITHINGTON.—For this district, Dr. Railton presents, as usual, a really excellent report; dealing with the subjects which properly belong to a sanitary report at sufficient length, and yet avoiding prolixity. The more praise is due to him, since his authority seem somewhat lax in the discharge of their important duties. Numerous improvements of a minor nature have been effected in the sanitary condition of many of the dwelling-houses, whilst an immense advance has been made with regard to the poorer class of property. In this connection, Dr. Railton dwells at length upon the outrageous construction of many of the houses that have come under his notice, and points out how their condition may be ameliorated. For the year 1880, the birth and death rates were 26.4 and 13.7 per 1,000 respectively. The latter rate would be eminently satisfactory were it not for the excessive infantile mortality which occurred. Of the total deaths (205), 90 were of children under five years of age, and half this number were of infants who died within twelve months of birth. An analysis of this mortality shows that 50 per cent. were caused by either zymotic or lung-diseases, whilst the remaining deaths are attributed to "diseases not classified". The most prevalent and fatal zymotics were scarlet fever, diphtheria, and diarrhœa, which together caused 28 deaths. Dr. Railton evidently devoted considerable attention to the prevalence of these diseases; and, whilst he discovered that in almost all the houses inspected monstrous unsanitary conditions existed, he is of opinion that, in some instances, diphtheria-infection was carried by the air. Improper feeding he holds responsible for the deaths from diarrhœa; and exposure to the cold, and improper and insufficient clothing, he thinks must account for the excessive infantile deaths from lung-disease. He suggests, in relation to the prevalence of infectious diseases, that a fever hospital should be [illegible] the Monsall Hospital, and that his authority should possess strong coercive powers in removing infected persons to it.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 12th day of October, next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 6th, 1881.

BRANCH MEETINGS TO BE HELD.

LANCASHIRE AND CHESHIRE BRANCH.—An ordinary meeting of this Branch will be held at the Town Hall, Bolton, on Thursday, October 13th, at 3 P.M. Members desirous of reading communications, etc., are requested to send an intimation to the Honorary Secretary immediately.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—September 3rd, 1881.

EAST ANGLIAN BRANCH.—The autumnal meeting will be held at Southwold, on Friday, September 30th, at 2 P.M.: C. Palmer, Esq., President. Five or six papers have been promised. Mr. J. E. Amyot: A paper. Dr. H. J. Benham: On the Diagnosis and Treatment of Intestinal Obstruction. Mr. Burton: A paper. Dr. W. M. Crowfoot: A specimen of Sarcomatous Tumour of the Thorax. Dr. W. A. Elliston: Brief Notes of a Case of Traumatic Abscess of the Brain. The President will open a discussion on Syphilis. Dejeuner at the Swan Hotel at 4 P.M.; tickets exclusive of wine.—W. A. ELLISTON, M.D., Ipswich; M. BEVERLEY, M.D., Norwich, Honorary Secretaries.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held at Chester-le-Street, on Thursday, October 6th (not Tuesday, the 4th, as previously announced). Members intending to read papers are requested to communicate at once with one of the Honorary Secretaries.—T. W. BARRON, M.B., Durham; DAVID DRUMMOND, M.D., Newcastle-on-Tyne, Honorary Secretaries.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.—The next ordinary meeting will be held at the Mermaid Hotel, Oystermouth, on Thursday, the 29th instant, at 1.30 P.M. Meeting of Council at 1 P.M. Dinner at 4.30 P.M., at the same hotel. Members desirous of reading papers, etc., are requested to communicate the titles to either of the undersigned as early as convenient.—ALFRED SHEEN, M.D.; D. ARTHUR DAVIES, M.B., Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The first meeting of the above district for the present season will be held on Friday, September 30th, at the Station Hotel, Hayward's Heath; Dr. Byass of Cuckfield in the chair. The meeting will be at 3.30 P.M. Dinner at 5.30 P.M. The following papers have been promised. 1. Dr. Robert Lee: Some Remarks on the Treatment of Infantile Paralysis. 2. Dr. Uhthoff: Cases of Cystitis. 3. Dr. Newth: On Insanity in General Practice. 4. Mr. Willoughby Furner: Case of Pseudo-hypertrophic Paralysis in an Adult. Members having other papers to read, or cases to relate, should communicate at once with the Secretary.—T. JENNER VERRALL, Honorary District Secretary, 20, Bedford Place, Brighton.—September 20th, 1881.

SOUTH MIDLAND BRANCH.—The autumnal meeting of the above Branch will be held at the residence of Dr. Edward Lawford, Oriel House, Leighton Buzzard, Beds, on Tuesday, September 27th, at 2 o'clock; the President, H. C. Rogers, Esq., in the chair. Dr. Lawford kindly invites the members to luncheon at his house, at a quarter past one o'clock. Amongst others, the following cases and papers will be read. Dr. Bryan: Notes on New Medicines. Dr. Buzzard: Illustrations of Diseases of the Spinal Cord. Dr. Lawford: Notes of a Gunshot-wound in which the Bullet passed through the Ethmoid Bone, struck the Occipital Bone, and then passed into the Œsophagus. H. C. Rogers, Esq., will read a communication. Dr. Thompson will read a paper. C. J. Evans, Esq.: A few Remarks on the Treatment of some Common but Obstinate Affections. J. A. Hedges, Esq.: Case of Contracted Knee-joint treated successfully by Subcutaneous Tenotomy.—G. F. KIRBY SMITH, Honorary Secretary, Northampton.

SOUTH-WESTERN BRANCH.—The next quarterly meeting of this Branch will be held at the Exeter Hospital on Wednesday, October 5th, at 2 P.M. Members intending to read papers, or show specimens or cases, are requested to give notice to S. REES PHILIPPS, M.D., Honorary Secretary, Wonford House, Exeter.

LANCASHIRE AND CHESHIRE BRANCH.

A SPECIAL meeting of this Branch was held at the Medical Institution, Liverpool, on Wednesday, September 21st; the President, Dr. R. C. BROWN of Preston, in the chair.

The meeting was summoned by circular: "To take into consideration the subject of consultations with homœopathic practitioners, bearing in mind the resolutions passed thereon by the Association in 1858 and 1861, and also the late editorial articles in the JOURNAL, as well as the addresses in Medicine and Surgery delivered at the late meeting at Ryde; and to pass such resolutions as may be deemed desirable in the interests of the profession and the Association."

Nearly eighty members were present.

The resolutions on this subject, passed by the Provincial Medical and Surgical Association in 1851 and 1852, and those passed by the British Medical Association in 1858 and 1861, were read by the Secretary.

Dr. FITZPATRICK of Liverpool moved, and Mr. LUND of Manchester seconded, the following resolutions.

1. "That this meeting repeats and confirms the resolutions passed by the Association at the meetings held at Brighton in 1851, and at Oxford in 1852, and at Canterbury in 1861, in all that relates to the practice of homœopathy and the recognition of its practitioners by the members of the medical body."

2. "That this meeting considers that it is inconsistent with professional honour and honesty for practitioners of medicine or surgery to meet homœopathists in consultation, and repudiates the views expressed by the readers of addresses in medicine and surgery at the late meeting at Ryde."

On the consideration of the first resolution, an amendment was moved by Dr. H. LOWNDES of Liverpool, and seconded by Mr. HAKES of Liverpool:

"That, in the opinion of this meeting, every member of the British Medical Association is entitled to the freest exercise of his own individual judgment in regard to the question of meeting in consultation gentlemen who practise homœopathy."

After a prolonged discussion, in which Drs. Waters and Glazebrook, and Mr. Manifold of Liverpool, Drs. Leech, Borchardt, Samelson, Ross, Cullingworth, Sinclair, and Messrs. Walmsley and Emrys Jones of Manchester, Dr. Colley March of Rochdale, Dr. Godson of Cheadle, and others, took part, the vote was taken, when 23 voted for the amendment and 26 against.

The amendment being lost, the previous question was then moved by Dr. HARRIS of Birkenhead, and seconded by Mr. DACRE FOX of Manchester. Dr. Fitzpatrick then withdrew his resolutions, and the previous question was agreed to *nem. con.*

GLASGOW AND WEST OF SCOTLAND BRANCH.

EXCERPT from minutes of meeting of Council of Glasgow and West of Scotland Branch of British Medical Association, held at Glasgow, September 13th, 1881.

"The Council regrets extremely that this Branch was unrepresented at the fourth general meeting of the Association held at Ryde, on August 12th last, several of their representatives, including the President of the Branch, having been previously recalled. The Medical Reform Committee, whose report was then received, contained no representative from Scotland, and neither the Committee nor the Association can have any accurate knowledge of medical interests there, otherwise the resolution anent the Faculty of Physicians and Surgeons of Glasgow could never have been adopted. This Council desires to call attention to the following facts, which seem to have been wholly ignored.

"1. The Faculty has nothing whatever in common with the two apothecaries' companies with which it is so strangely linked; its laws expressly prohibit its Fellows from dealing in drugs.

"2. The Fellows number nearly two hundred, and include most of the leading members of the profession in Glasgow, and in the principal towns of the west of Scotland.

"3. The representative of the Faculty in the General Medical Council is elected by the votes of the Fellows, and has always been a general practitioner; thus attaining precisely that "direct representation" which the Medical Reform Committee and the Association are so anxious to secure.

"4. The Faculty has, since its incorporation by Royal Charter in 1599, been a centre and rallying point for the profession in the western half of Scotland; it enjoys the fullest confidence of the profession; and its various functions have never been more efficiently discharged nor more highly appreciated than at the present time.

"Possessing the full local knowledge, without which an opinion is worthless, this Council is certain that, whatever tends to lower the status and influence of the Faculty would be most prejudicial to the best interests of the profession in the west of Scotland; this Council shares the strong and general feeling of the profession there, that the resolution anent the faculty was uncalled for and unwarrantable, and it now emphatically disapproves and disavows the said resolution as at once injurious to the profession, and insulting to an ancient and highly valued incorporation."

LONGEVITY IN IRELAND.—During the June quarter, the following deaths were registered at the under-mentioned ages—viz., two at 100 years, one at 101, four at 102, three at 103, two each at 104 and 105, and one at 106, 107, and 110 years respectively.

A SATISFACTORY REPORT.—At the recent meeting of the Denbigh Town Council, the medical officer of health reported that the annual death-rate in August was 12.87, and the birth-rate 27.6, per 1,000.

CORRESPONDENCE.

THE RUGBY OUTBREAK OF SORE-THROAT IN MARCH, 1880.

SIR,—It is with considerable diffidence that I differ with my friend, the able medical officer of health for Warwickshire, Dr. George Wilson; but, as I see an account of the said epidemic in the BRITISH MEDICAL JOURNAL for this month (see p. 415), in which his view is stated that it arose from milk-poisoning, I feel bound to put on record my dissent from this view, which he and I have discussed amicably together on several occasions.

I believe it had nothing to do with milk whatever, but was owing to atmospheric conditions alone. It will be remembered that the weather was severe at the time, and the east wind bitter and searching.

I believe it arose as influenza does, from the season; and the symptoms were analogous to—I may say identical with—influenza, with the exception that, instead of catarrh of the eyes and nose, we had catarrhal sore-throat; all the other symptoms were absolutely identical with our usual epidemic, influenza. The symptoms were: 1. Sudden onset of feeling of cold water being poured down the back, feverishness, aching of limbs, headache, *malaise*; 2. Very painful stiff neck; 3. Enlargement of submaxillary glands; 4. Ordinary catarrhal sore-throat in the majority of the cases, but in some absent throughout; 5. It lasted about forty-eight hours; 6. Was in a *few* cases attended by sequelæ, true quinsy, pleurisy, acute rheumatism, and considerable debility; 7. None were followed by paralysis.

Like influenza, a large proportion of the cases went down together; and, although it proved very infectious, as I shall show, yet I could never trace the period of incubation, but I should say it was, like influenza, extremely short—a few hours only.

This epidemic was coexistent, I am told, in several villages round, and a medical friend, who was staying at Hastings, told me a similar epidemic prevailed there at the same time. Moreover, my predecessor here, Dr. Farquharson, M.P., had a similar, but not so extensive, epidemic of sore-throat during his tenure of office between 1869 and 1871—an account of which he published at the time.

But, it will be asked, Why was it that it attacked three out of eight school boarding-houses, and those three were supplied by one milkman only?

In reply to this question, I must prove, first, that it was very infectious indeed, and it spread with great rapidity. The epidemic occurred towards the close of the term, and several, although believed at the time to be free from infection, went home in an infectious state and infected their friends there. One case was most remarkable in showing its infection. Mr. C., from a non-infected house, took his seat in the railway-carriage to go home, and found there two schoolfellows, from an infected house, who had had the sore-throat. The consequence was, Mr. C. sickened with it at home, and infected all the household there.

Next, I must state that, in all the three houses where we had the large number down, there was a prior case of severe acute tonsillitis, and that so many were infected because we could not isolate the cases sufficiently, on account of their rapid falling, and because, in ordinary years, such catarrhal acute tonsillitis does not and will not spread, as it did this season, owing to atmospheric conditions, and hence such necessary precautions to prevent an epidemic were not resorted to, as they should have been and will be in future.

Further, it will be asked, Why did it keep to the three houses? It did not do so; isolated cases did occur, but later on, and they were strictly separated, and so it did not spread in them.

Also, it did not spread easily to other houses, because the symptoms, commencing acutely with a feeling of cold water down the back and stiff neck, made a boy either stay in house or, if in form, return to his house at once, before he could infect.

Again, it will be asked, How was it so many of the milkman's customers had the sore-throat? Simply because it prevailed all over the town, and, had the town been canvassed, instead of some of the milkman's customers only, I am sure this would have been found, although even then it is possible that the excess might have been found among his customers, as they lived chiefly on the east side of the town.

Even amongst my out-patients at the hospital I saw one or two cases not supplied with milk from this milkman, although I have seen none there before or since. Moreover, one typical case occurred in a family which had their own cow, and there had been no possible source of infection that I could find after the minutest inquiry.

As my own family was supplied with milk from the same milkman, and all had the sore-throat, let us analyse it there, and see what happened. If it arose from milk-poisoning, who would get it first and worst? Why, children who drink the pure milk and plenty of it, and not the servants, who probably never taste any milk except in hot tea or cooked puddings. But what occurred? My cook, who answers the back door, which faces due east, had it first; she gave it to the housemaid; then the under-nurse, who goes in and out the kitchen, got it; then the nurse; and, last of all, the children. Would milk-poisoning behave like that?

Again, at a friend's house, supplied with the same milk, a young lady and a servant both had sore-throat at the same time; the young lady never touched milk, and the servant probably only in tea and puddings.

I must, therefore, still believe, contrary to my friend, that our epidemic was owing to atmospheric conditions alone; for this explanation carries a stronger weight of evidence to my mind than the milk theory.—I am, etc.,

CLEMENT DUKES, M.D.Lond.,
Physician to Rugby School and Rugby Hospital.

THE BRITISH MEDICAL ASSOCIATION AND HOMŒOPATHY.

THE following letters appeared last week in a contemporary.

"Sir,—Being away from London, the medical journals for the last two or three weeks have not reached me. I have been informed, however, by letter, that you have charged the government of the British Medical Association with having inspired the address which I lately gave at Ryde, and that I ought to deny the charge. I request permission, therefore, to state that no member of the Council of the British Medical Association either did know or could have known anything whatever about my address prior to its delivery; that I had at no time had any communication, either direct or indirect, with any one of them as to the subject of my address; and that I am alone responsible for everything I said upon that occasion.—Your obedient servant,

"Swanage, Sept. 3rd, 1881. J. S. BRISTOWE."

"Sir,—At the meeting at Ryde, as is now well known, the address of the President of the Association, that in medicine, and that in surgery, all contained references to the subject of consultations with homœopaths, and all advocated the unpopular opinion that it is not expedient to continue the present practice of exclusion. That this extraordinary coincidence should have led to the belief that there must have been pre-arrangement is not to be wondered at. Will you allow me, however, to state positively that there had been none, and that we each spoke quite independently of the other? It was, in fact, only the other day that I became aware that the President (Dr. Barrow), as well as Dr. Bristowe and myself, had mentioned this unlucky subject. It is surely needless that I should further deny the suggestion that we were prompted by the committee or by any officers of the Association. The responsibility for the opinions expressed of course rests solely with ourselves. For myself, I may assert most confidently that, until my address was delivered, no one but myself knew what subjects it would deal with.—Yours, etc.,

JONATHAN HUTCHINSON.

"Cavendish Square, W., Sept. 6th, 1881."

UNIVERSITY INTELLIGENCE.

THE examinations in sanitary science by the University of Cambridge, open to all whose names are on the *Medical Register* of the United Kingdom, will begin on October 4th. The names of candidates must be sent to Professor Liveing, Cambridge, on or before the 28th instant.

OXFORD.

AN examination will be held at Exeter College on Thursday, October 13th for the purpose of filling up a Natural Science Scholarship, tenable for four years during residence. The examination will be in biology, chemistry, and physics. Candidates will be expected to show proficiency in at least two of these subjects; and the scholar will be required to read for honours in biology in the Natural Science School. The same paper will be set in chemistry and physics as in the examination for the Natural Science Scholarship at Trinity College. Candidates are desired to call on the Rector, between 6 and 7 p.m., on Wednesday, October 12th. They may obtain further information by application to the Rector, or to Mr. W. L. Morgan, the Lecturer in Biology at Exeter College.

OBITUARY.

FREDERICK W. A. SKAE, M.D., F.R.C.S.E.,

COMMISSIONER IN LUNACY FOR THE COLONY OF NEW ZEALAND.

THE sad news of the premature and unlooked-for death of Dr. Skae, at the early age of thirty-nine, will be heard with sincere regret by his many friends in this country.

The New Zealand mail conveys the intelligence that he died on June 25th, after a short illness, at Karori, near Wellington. The immediate cause of death was facial erysipelas; but we fear that there is little room to doubt that he really fell a victim to mental anxiety and worry, arising from circumstances connected with his official position.

Five years ago, Dr. Skae was appointed the first Commissioner in Lunacy for the colony of New Zealand. A perusal of Dr. Skae's first report showed that the result of his inspection had been to reveal, with a few exceptions, a lamentable state of matters, both as regards the condition and management of the asylums and their overcrowded condition. There is every reason to believe, from the reports of debates in the Legislative Assembly, that the necessity for extensive reforms, and also for increased accommodation, was quite recognised by the Government; and it is also apparent that Dr. Skae's services as Commissioner were highly appreciated, and that he himself was much esteemed for the manner in which he was discharging his difficult and delicate duties. Dr. Skae's reports (some of which have been noticed in this JOURNAL) were in many ways models of what such reports should be; concise, clear, decided in noting and criticising real blots and deficiencies, while considerate and thoughtful in acknowledging individual efforts; and written in good nervous English. They showed a clear appreciation of the needed reforms, and the way in which they might best be effected. But the monetary question presented itself; considerable outlay would be required, and the inevitable opposition arose. The result was disheartening delay and obstruction. Dr. Skae succeeded, it is true, in having many improvements in management and administration effected, and some of the more pressing deficiencies in accommodation were also remedied; but progress was very slow, and political and financial considerations seemed to paralyse action on the part of the Government to any but a limited extent. Opposition, being once roused, soon extended to Dr. Skae himself; and he now found himself in the position (almost intolerable to an honourable and sensitive-minded man) of being responsible for a system the abuses and deficiencies of which he was almost powerless to remedy. This unsatisfactory state of matters told upon Dr. Skae, inducing a state of nervous worry, which was much aggravated by a persecution to which he was lately subjected at the hands of a section of the colonial press, in connection with the result of an official inquiry into the management of one of the asylums in the colony. A man of stronger or coarser moral fibre might have fought out and weathered the storm; but the terribly sad truth seems to be that Dr. Skae sank under it; his nervous energy gave way altogether, and he fell an easy victim to the acute disease which attacked him. His friends, however, have the consolation of knowing that for five years he has conscientiously worked to improve the condition of the insane in New Zealand; and that his life has really been sacrificed in consequence of his devotion to the work which he took in hand. Their hope must be that the good work which he has begun may live after him.

Dr. Frederick Skae was the third son of the late Dr. Skae, the distinguished physician to the Morningside Asylum, Edinburgh. He pursued his medical studies in Edinburgh and at the London Hospital; and, after graduating, became one of his father's assistants, a position which he held for four years. In 1867, he was elected medical superintendent of the asylum just erected for Stirlingshire. This new institution was organised and opened under his direction, and most successfully managed by him for nine years, up to the date of his appointment, in 1876, as Commissioner in Lunacy for the colony of New Zealand.

Few people could know Dr. Skae without liking and admiring him; no one could know him intimately without loving him. His nature was singularly upright and open-hearted, and his disposition most amiable and unselfish; while he was modest and diffident of his own powers, almost to a fault. He had much of his father's geniality and sense of humour, but with a tinge of sadness and cynicism added. He had a good deal, also, of his father's originality of mind, and unconscious power of influencing those in contact with him; he was well read in general literature, and he could express his thoughts clearly and forcibly. Although never distinguished for academic successes, the mark which he made among his contemporaries, and the estimation in which he was held, will be apparent at once to those who know the traditions of the Edinburgh Medical School, when it is mentioned that he attained to the much coveted distinction of being elected Senior President of the Royal Medical Society.

Dr. Skae married, in 1866, Henrietta, daughter of the late Mr. Traill, and leaves a widow and nine children to mourn his untimely death.

This notice may fitly close with an extract from a letter received from a gentleman holding an official position in Wellington.

"The immediate cause of his death was erysipelas of the face; but there can be little doubt that the true cause was a broken heart, the result of worry and anxiety caused by the wretched way in which he was howled down by a section of the press, in consequence of the result of an inquiry into the management of the lunatic asylum here; and by the pusillanimous manner in which he was thrown over by Government as the victim of a popular outcry, as unjust as it was cruel. He was buried in the little churchyard here, not far from his own house, and was followed to the grave by a numerous concourse of sympathising friends; for he was both loved and respected by all who knew him."

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, September 15th, 1881.

Taylor, Thomas, Gloucester Street, Regent's Park.

The following gentlemen also on the same day passed their Primary Professional Examination.

Dabbs, Charles John, London Hospital.
Davies, E. Cluneglas, London Hospital.

At the Preliminary Examination in Arts, held at the Hall, on the 16th and 17th of September, one hundred and fifty-two candidates presented themselves, of whom ninety-five were rejected, and the following fifty-seven passed and received certificates of proficiency in general education.

In the First Class in order of merit.

1. Evelyn Oliver Ashe and William Henry Hillyer; 3. Edward William Mulligan; 4. Charles Stancourt Ware.

In the Second Class, in alphabetical order.

H. G. L. Allford, J. E. Appleton, D. E. Ashbee, P. T. B. Beale, L. T. F. Bryett, W. J. Calvert, J. E. A. G. Becker, Wm. Robt. Cargill, I. W. Clegg, E. H. Corder, Guy Cory, Arthur Crapp, H. N. Edwards, C. Ewart, W. G. R. Farquharson, H. J. Fitzgerald, John Fitzgerald, Jas. R. Gaylard, W. H. Gatrell, K. C. Gimson, L. S. Goodby, A. J. Gregory, E. J. Hubbiam, L. Hamel-Smith, W. J. Harris, H. P. Helsham, J. P. Hocken, Frank Hues, T. W. Kelly, C. B. T. Langton, Cyprus Legg, Alfred Lloyd, A. Meyrick-Jones, F. J. Morgan, H. Nelson, S. W. Owen, C. J. Purson, C. S. Peach, J. Petherbridge, J. C. Rausch, J. G. Rusher, G. H. Seagrave, F. M. Sealy, G. Shillcock, J. H. Smyth, W. P. Southby, F. T. Troughton, Tamiz Uddin, Louis Vallée, John Verco, William Wilson, Bernard D. Z. Wright, and Percy Phillips Wright.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BETHLEM HOSPITAL—Two Resident Medical Students. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C., by October 1st.

CHELTENHAM GENERAL HOSPITAL AND DISPENSARY—Dispenser. Salary, £80 per annum. Applications to the Honorary Secretary, Col. Hodson, 25, Priory Street, Cheltenham, by 24th September.

CHRIST'S HOSPITAL—An Assistant Master. Salary, £125 per annum. Applications by October 10th.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Park Place, Manchester—House-Surgeon. Salary, £80 per annum. Applications to Mr. E. W. Marshall, Secretary, 38, Baclon Arcade, Manchester, by October 8th.

DENTAL HOSPITAL, Leicester Square—Dental Surgeon. Applications by October 10th.

ESSEX AND COLCHESTER HOSPITAL—Physician. Applications by October 5th.

HOSPITAL FOR CONSUMPTION, Brompton.—Lady Superintendent. Salary, £100 per annum. Applications by October 5th.

LEEDS SCHOOL OF MEDICINE—Resident Curator. Applications by September 26th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road, E.—Surgeon. Applications to the Secretary by 26th September.

OUGHTERARD UNION—Medical Officer for Lettermore Dispensary District. Salary, £100 per annum, £10 for boat-hire, with £12 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 27th instant.

QUEEN'S HOSPITAL, Birmingham—Second Casualty Surgeon. Applications by October 5th.

ROYAL ALBERT HOSPITAL, Devonport—Four Resident Dispensary Surgeons. Applications by September 24th.

WARRINGTON AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION—Medical Officer. Salary, £200 per annum. Applications, etc., to the Secretary, James Ray, Mersey Glass Works, Warrington.

WEST BROMWICH HOSPITAL—House Surgeon. Salary, £80 per annum. Applications to W. Bolden, Esq., by September 26th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road.—Surgeon. Applications to the Secretary.

WHITECHAPEL UNION—Assistant Medical Dispenser. Salary, £60 per annum. Candidates must be L.A.C. Applications by September 24th.

MEDICAL APPOINTMENTS.

FINEGAN, A. R., L.K.Q.C.P., appointed Assistant Medical Officer for Northumberland County Lunatic Asylum, Morpeth.

HARVEY, Wm., M.R.C.S., appointed Medical Officer and Public Vaccinator to the Newton Abbott Union, *vice* Edward Fawcett, M.B., resigned.

HUMPHREYS, N. C., M.R.C.S., L.S.A., appointed Resident Medical Officer to the Swansea Hospital, *vice* Dr. Pritchard, resigned.

NOAKES, S. S., L.R.C.P., appointed Assistant Medical Officer for Wonford House Hospital for the Insane, Exeter.

POLLARD, George Edward, L.R.C.P.Ed., L.S.A.L., appointed Medical Officer of Health for the Baildon Urban District, Yorkshire, *vice* H. Walker, L.F.P.S.G., resigned.

THURSFIELD, T. W., M.D., M.R.C.P., appointed Honorary Consulting Physician to the Leamington and Midland Counties Home for Incurable Cases.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

FRASER.—September 14th, at Arranmore House, Burnham, Somerset, the wife of Donald A. Fraser, M.R.C.S., L.S.A., of a son.

MARRIAGES.

AITKEN—BOUCH.—On the 21st instant, at St. George's, Hanover Square, by the Hon. and Rev. E. Carr-Glyn, assisted by the Rev. J. Wilson-Pickance, Lauchlan Aitken, M.D., of Rome, to Fanny, eldest daughter of the late Sir Thomas Bouch, C.E.

CORBIN—OZANNE.—On Wednesday, 14th instant, at the parish church of St. Peter Port, by the Rev. George Lee, M.A., rector, the Rev. Amelius Frederick Corbin, B.A., curate of Thornbury, Gloucestershire, and younger son of M. A. B. Corbin, Inspector-General, Militia Medical Department, Guernsey, to Adèle, only daughter of Albert Ozanne, Esq., of Patron, Guernsey.

THE Camberwell guardians have voted a gratuity of 20 guineas to Mr. Simpson, and 15 guineas each to Mr. Pinder, Dr. Blomfield, Dr. Hague, and Mr. Roberts, in consideration of their extra services during the epidemic of small-pox.

PRESENTATIONS.—On Thursday, September 8th, a meeting was held in the Town Hall, Denbigh, for the purpose of presenting to Dr. Evan Pierce a testimonial of the esteem in which he is held by his fellow-townsmen on account of his benevolent services in promoting the welfare of Denbigh. The testimonial was in the form of a portrait of Dr. Pierce painted by Major Charles Mercier. The portrait is life size, and represents Dr. Pierce as mayor, clothed in his robes of office, standing in a natural attitude. In his right hand is a scroll of parchment, while in his left hand he holds the seals of his watch-chain. The portrait is universally acknowledged to be a very striking likeness. The presentation was made, in the name of the subscribers, by the mayor; and Dr. Pierce, in returning thanks, presented the portrait to the borough of Denbigh, to be permanently possessed by the corporation. An illuminated address was presented at the same time. Dr. Pierce has long since been well known for his benevolence in promoting the welfare of Denbigh. A hospital capable of accommodating twelve or fifteen patients was for years provided by him. His services as a town councillor extend over a period of thirty-five or forty years, and for five years from 1866 he was re-elected mayor. As a coroner, Dr. Pierce has had an experience ranging over thirty-five years. The memorable inquest on the victims of the Abergele railway accident was conducted by him. The Denbigh public, some years ago, expressed their appreciation of Dr. Pierce's services to the town by erecting a monument to his memory opposite to Salisbury Place, his residence, at a cost of about £2,000. On September 10th, a testimonial, consisting of his portrait and the sum of £400 in money, was presented to Dr. Richard Budd, in recognition of the valuable services he had rendered to the North Devon Infirmary as physician during a connection with it extending over thirty-five years. The subscribers to the testimonial numbered over 230. The presentation was made by Earl Fortescue. Dr. Budd having replied, and the secretaries to the testimonial fund, Dr. Harper and Dr. Cooke, having been thanked, Mr. William T. Rock presented to his Lordship, in his capacity of president of the infirmary, a replica of Dr. Budd's portrait, to be hung on the walls of the institution. The portrait was by a Devonshire artist, Mr. J. Edgar Williams, and was considered exceedingly satisfactory.—Dr. Hugh B. Brew, who has recently been appointed a medical officer of the Bray (Co. Wicklow) Dispensary, has been presented by his friends in the town and neighbourhood of Wicklow, on leaving his former residence there, with a piece of plate, in token of the esteem in which he was held for his professional skill and personal worth.—On September 7th, at a public meeting held in Birmingham, a testimonial was presented to Mr. S. Berry, on behalf of his old patients and non-professional friends, upon his retirement from practice. The testimonial consisted of a beautifully illuminated and handsomely bound address, a costly silver tea and coffee service by Messrs. Elkington, a portrait of Mr. Berry's only child, Mrs. T. H. Bartleet, and a photograph of her children. The salver, which was included in the service, bore the inscription—"Presented, by his grateful patients, to Samuel Berry, Esq., F.R.C.S., in heartfelt recognition of his eminent skill and great kindness at all times exhibited by him in his professional practice during a period of fifty years. August 1881." After practising in Birmingham for upwards of half a century, during which time he has held many distinguished professional positions, including the presidency of the local Branch of the Association, Mr. Berry retires in good health to a well-earned repose, with the widespread and affectionate regard of his medical brethren.

HEALTH OF FOREIGN CITIES.—The recent health and sanitary condition of various foreign and colonial cities may be inferred from the following facts, derived from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the death-rate averaged 32.2 per 1,000; it was equal to 25.7 in Calcutta, 36.1 in Bombay, and 36.6 in Madras. Cholera caused 22 deaths in Bombay and 7 in Calcutta, and small-pox 27 in Madras. The deaths referred to "fevers" showed the usual excessive proportions in each of these three cities. The rate in Alexandria during the first nine days of September was equal to 46.1; the deaths included 14 fatal cases of whooping-cough and 11 of enteric fever. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 26.2 per 1,000 of their aggregate population, whereas the average rate in twenty large English towns last week did not exceed 17.3. The rate in St. Petersburg was equal to 41.1, 24 deaths being referred to typhus and typhoid fevers, and 13 to diphtheria; the fatality of these diseases, however, showed a considerable decline from the numbers in recent weeks. In three other northern cities—Copenhagen, Stockholm, and Christiania—the average death-rate did not exceed 19.8, the highest rate being 23.8 in Stockholm; diarrhœal diseases caused 9 deaths in Copenhagen, and enteric fever 2 in Stockholm. The Paris death-rate was equal to 24.6, against but 15.7 in London; the deaths included 42 from diphtheria and croup, 45 from enteric fever, and 10 from small-pox. The deaths in Brussels were equal to a rate of 19.9, and included 4 fatal cases of whooping-cough. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 18.7, the highest rate being 20.3 in the Hague, where 4 of the 46 deaths resulted from scarlet fever; three deaths were referred to typhus and enteric fevers in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged no less than 27.3, and ranged from 22.4 and 23.2 in Hamburg and Prague, to 30.8 and 36.6 in Buda-Pesth and Munich. Small-pox caused 9 deaths in Vienna, and typhus 6 in Hamburg; 10 deaths from scarlet fever occurred in Munich and 19 in Buda-Pesth. The death-rate was equal to 29.4 in Rome and 22.7 in Turin; malarial fevers caused 15 deaths in Rome, and enteric fever 9 in Turin. In four of the principal American cities, the death-rate, calculated upon the enumerated population in 1880, averaged 26.5; it was equal to 21.0 in Philadelphia, 24.9 in Brooklyn, 29.2 in New York, and 31.6 in Baltimore. Diphtheria showed fatal prevalence in New York, and the deaths in Philadelphia included 14 fatal cases of enteric fever and 10 of small-pox.

LONGTOWN RURAL DISTRICT.—In a district like this, with a population of 8,268 persons spread over an area of 25,173 acres, a voluminous report can hardly be expected. Systematic inspections seem to have been made by Mr. Walker, and many minor defects, especially of water-supply, remedied. During the year 153 deaths were registered, 21 of which were under 1 year of age, and 68 were above 60 years, 22 of these being registered as dying of old age. Six deaths were reported from zymotic causes, and 7 from diarrhœa. Mr. Walker repeats his complaint as to the absence of spouting to houses; and, after urging the importance of this measure as a precaution against damp and the diseases that follow in its train, hints that, if persuasion is of no avail, compulsion must be tried.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

HOMŒOPATHS AS F.R.S.'s.

SIR,—For the information of Dr. Markham, will you permit me to say that F.R.S.'s are found among homœopaths, e.g., Dr. W. Sharpe, Rugby, who is a F.R.S. and F.G.S. May I venture to advise Dr. Markham to inform himself fully on subjects ere he criticises them.—I am, etc.,

H. HASTINGS, M.D.

Brixton Hill, September 20th, 1881.

A DOCTOR'S [illegible].

SIR,—During the past eight or nine months [illegible] has been suffering from an epidemic [illegible], yet [illegible] fever. [illegible] with pol[illegible] [illegible] [illegible] [

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

WITH THE SCALPEL.

"Ubi sedes vitæ."

(By H. SAVILE CLARKE in *The Lancet*.)

Here's our "subject"—tall and strong,
With vermilion well injected;
Where the blood once coursed along,
Ready now to be dissected.
Some one never claimed, it seems,
Friendless amid London's Babel:
Did he ever in his dreams
See this table?

Here's a hand that once held fast
All things pleasant, to its lifetime;
Now its active days are past,
Or for friendship or for striving.
Nothing colder here could lie,
Yet on some one's palm there lingers
Sense of it warm touch, while I
Strip the fingers.

How the dead eyes strange'ly stare
When I lift the lids above them,
Yet some woman lives I swear
Who could well have learned to love them;
Some one sure their final look
Holds their smiles in recollection,
While I put them by to keep
For dissection.

Then the heart. I take it out,
Handling it with nice precaution;
Once it gladly pulsed and leapt,
Well performed each wondrous function.
Speed [illegible]
In miraculous gyration,
Beat, responsive to one face,
Till cessation.

Where was I me then, was it hid
In each [illegible]
Packed beneath the cranium lid
With such order'd distribution?
Can we touch one spot and say,
Here [illegible] thought and feeling enter'd,
Here [illegible] out the other way—
Life was centred?

No, that puzzle still remains,
Our unsolved supreme attraction;
Here are muscles, nerves, and veins,
Which will [illegible] action.
Though the scalpel's edge be keen,
Cannot reach the [illegible]
Tell us where life [illegible]—
Whence it issues?

We could hold the heart here still,
Stop the [illegible]
Paralyse the [illegible]
Through the [illegible]
Where the [illegible]
We can light up life without it,
Cannot make the dead heart beat
For one minute.

Yet the thought remains with me,
Death is to outward senses,
Still the eyes, so glazed and [illegible]
See what lies beyond our [illegible]
Know the secret of the spheres,
Truth of doom or bliss eternal,
Read the riddle of the years
Life unravel!

Should I leave him, peaceful now
For to-morrow's [illegible] lecture;
Little reeks that placid brow
Of our wayward wild conjecture.
[illegible]
All unwept and [illegible]
As he lies there, we may be,
[illegible]

A THIRD YEAR'S STUDENT.—The regulation applies to all candidates for the diploma of the College, whether they are students of the College or not. Every candidate must pass the examination in midwifery, unless possessing a recognised licence of having been examined in that subject.

G. S. S.—We believe that a list was not published of the instruments exhibited at the International Congress excepting those displayed in the museum and described in its catalogue.

THERAPEUTICS OF NITRO-GLYCERINE.

DR. H. DENSE (Edgbaston) writes that the most convenient form for the administration of nitro-glycerine is a one per cent. solution, of which the dose is two minims (Gr. 1/15th of glonoine), in a little water, every hour, until arterial tension is reduced.

MR. C. W. GLYNGTON (London) says that the best method of administration is in the form of lozenges, prepared by Mr. Martindale at New Cavendish Street. They should be taken when the patient is threatened with an attack of asthma; or, if the attacks occur in the night, at bedtime, or just before the present strikes. As soon as headache is complained of, they should be discontinued for a time.

UNIVERSITY OF EDINBURGH.

IN our notice of the Ninth Quatercentenary, in reference to this University, the following sentence [illegible] Professor [illegible] M.B., C.M. [illegible] Professor [illegible] and Professor [illegible] have been stated to be "by G. S. Woodhead, M.D., under the superintendence of Professor Greenfield", instead of "by Mr. D. I. Hamilton, M.B.".

THE CHARING CROSS HOSPITAL DEFICIT.

IN our last number, page 499, the names of the staff, following those of the Master, Dr. G. H. Kidd, should have included those of the Deputy to the Master, Dr. W. Rose; Assistants to the Master, Dr. W. C. Nevill and Dr. J. S. Pode.

WALKING-STICKS.

T. M. S., whose initials are well known to London surgeons, writes to the *Daily News*:—"Sir, With reference to your interesting article [illegible] which walking-sticks have always played in history, from the days when the Athenian laws insisted on every man being seen in the streets with his staff, it may be interesting to your readers to know that the celebrated gold-headed cane which had been successively carried by the renowned Dr. Radcliffe (the founder of the museum and library at Oxford bearing his name), Dr. Mead, Dr. Askew, Dr. Pitcairn, and Dr. Baillie, was deposited in the library of the Royal College of Physicians by the widow of the last-mentioned physician. It is a Malacca cane with a heavy gold crutch handle, bearing the arms of each of these physicians, of whom the late Dr. William Macmichael, of Christ Church, a Radcliffe Travelling Fellow from 1811 to 1821, wrote biographical notices anonymously in a work called *The Goldheaded Cane*, and on whom the following epitaph was written:

'Here ripe in years, in wisdom mellow,
Reposeth one most learned "Fellow",
Who drew an intellectual feast
From musty tomes in Pall Mall East;
Then wrote a book to prove his knowledge,
And praise the Fellows of the College.'

The walking-stick carried by the great lithotomist Cheselden is preserved in the College of Surgeons, but it is a very plain affair. I am the owner of the Malacca cane long carried by that distinguished patriot Kossuth. The fumigating walking-stick carried by physicians when visiting plague and fever cases is well known, with its pepper-castor head containing essential oils and herbs to counteract the effects of fever."

COMPULSORY PERIODS OF STUDY.

SIR,—When Mr. Hutchinson and Mr. Savory concur in believing the time required for the curriculum by the Royal College of Surgeons too short, one cannot but feel the utmost diffidence in even appearing to disagree. That the time is too short to acquire a thorough knowledge of our noble profession is what all driven, as so many of us are, into the barren wastes of isolated practice feel most keenly. But the real practical question in the schools will always be not how long does it take to become really qualified for the work, but how long does it take to get such and such a qualification? And to this I would very humbly answer that the majority of hard working men would make as good an average as the present at the end of their third summer.

It must be remembered that, as a rule, men work up their surgery exclusively, and regard the medical part of the College of Surgeons examination as quite subsidiary; and I know that great numbers of hitherto-working students, seeing the long interval between the first and second college examinations, cease reading altogether after passing the primary at the end of the second winter. I well remember that some of my fellow-students who passed the first College examination at the same time with me, passed the final examination fifteen months later, without any extraordinary exertions, they having had a year's pupilage previous to joining the schools.

If I may be allowed so far to trespass on your valuable space, I will give an example of what may be done, and what was actually done by a commonplace working man of my acquaintance. Finding, at the end of his third winter, that he had still fifteen months to wait for his diploma, he went to Durham, and "put in" the summer term. In October, he returned to Durham, passed the first M.B. Exam. in January, came back to his [illegible] at Durham in June, and the diploma of the College in July. Again, how commonly do we see men pass the first Fellowship examination at the end of their third winter, the first M.B. London examination at the end of their third summer, and their final College examination after one year's work in the next July.

Students certainly will [illegible] and I trust I must have said enough to prove that, from an industrious student's point of view, the curriculum is already too long for the College of Surgeons examination.—Believe me, sir, yours respectfully, M.R.C.S.

SIR,—In reading Mr. Hutchinson's address in Surgery, and Mr. Savory's comments thereon in the JOURNAL of the 3rd instant, I cannot but think that Mr. Hutchinson's views on the best mode of procuring the best practitioners are more consonant with fact than Mr. Savory's. Mr. Savory says: "What would be the result if rejections were accepted as a matter of course? If rejections entailed no discredit, with most men the last state would be worse than the first." Now, is this so? I think not. It certainly is not so in the examinations for the Indian Civil Service, where a large proportion of candidates are rejected without any discredit to themselves or any detrimental effect to them in their after progress. To be sure, these examinations are competitive, not merely pass ones; but the principle and objects are the same, viz., to procure the best man.

The fallacy of Mr. Savory's [illegible] he puts forward later on in his letter. "Those who are responsible for medical education ought to consider the majority; they have to legislate for the average man." Surely those who are responsible [illegible] to procure quality, not quantity, [illegible] on even the average. It is the [illegible] to [illegible] education.

If there is a profession in the world [illegible] average man, it is ours. The average man [illegible] city clerk, itself; but, [illegible] in the large proportion [illegible] a taking interest, [illegible] a position [illegible] to be legislated for, but the [illegible] I am, sir, yours [illegible] C. H. L., M.P.

MR. W. W. MITCHELL (London) [illegible] Howard Medical Society, [illegible] King's College Hospital, [illegible] W.

Treatment of Curvature of the Bones.

Sir,—I have read with much interest the discussion in your columns and the treatment of curvature of the bones in the British Medical Journal. I have not, however, noticed any mention of a simple plan for removing deformities, in the early stages, of curvature, especially as considered, or what the term should somewhat vaguely mean, that, I think, deserves notice. This plan consists in the [illegible] the bones gradually straight. It is a slow process apparently, though not really [illegible] and [illegible] can be carried to a considerable [illegible] [illegible] [illegible]

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF PATHOLOGY AND MORBID ANATOMY.

THE President, Dr. WILKS, delivered an introductory address, which was published at page 209 of the JOURNAL for August 6th.

On Calcified Epithelioma of the Sebaceous Glands. By ALBERT MALHERBE, M.D. (Nantes).—The author said that tumours were met with in the skin and subcutaneous tissues, presenting the general structure of epithelioma, but containing numerous small calcareous granules due to complete or partial calcification of the epithelial masses. Many of these tumours were formerly described as "osteomata of the skin". A calcified epithelioma was composed of an enveloping membrane of connective tissue, usually somewhat dense, a stroma, and epithelial masses contained in the stroma, and either completely or partially calcified. The stroma might be composed of embryonic, fibrous, or bony tissue. When it was embryonic or fibrous, it contained spaces, varying in size, occupied by giant-cells which were destined to produce calcified epithelial cells. When the stroma ossified, true bone was formed. The ossification seemed to depend on the age of the tumour. The epithelial masses were composed of polyhedral cells, with a granulated protoplasm. The tumours contained 9 per cent. phosphate of lime and 2 per cent. carbonate of lime. They were always subcutaneous, and varied in size from a pin's head to a fist. When hard, false bursæ might form round them, which might inflame and suppurate. The only tumours they resembled were calcified atheromatous cysts. Calcified epithelioma arose in the sebaceous glands. The stroma was formed by budding inwards of the homogeneous tissue of the wall of the cyst. The processes thus formed subdivided, and, as they became older, underwent a transformation first into fibrous tissue, and finally into bone. The epithelial masses were developed first from the most external cells of the epithelial contents of the cyst. In other parts, the calcified cells proceeded from the segmentation of the protoplasm of the giant-cells, new epithelial cells being thus formed. The growth of the tumour was arrested by calcification. These tumours were non-malignant, and never recurred after removal. They were of slow growth, and developed in infancy or youth; more rarely in adult life. They were most common in females.—Dr. DRESCHFELD remarked that calcification was well known to occur both in sarcomata and in carcinomata, especially in cancer of the breast and certain ovarian tumours, as described by Spiegelberg, Herschl, and others, in which the changes were the same as those described by M. Malherbe, except for the ossification.—Mr. BUTLIN would call the tumours described by M. Malherbe papillomata, rather than sarcomata, as they were non-malignant, not tending to invade the tissues beyond the limiting membrane of the sac.

Researches on the Origin of Cancer. By ALBERT MALHERBE, M.D. (Nantes).—Dr. Malherbe showed some microscopic specimens illustrating the origin of cancer of the breast. His view was, that cancer appeared to originate in the glandular acini, at a time when the connective tissue of the gland was perfectly healthy. Cancer, therefore, must have an epithelial origin. He also showed preparations with the object of proving that tumours were to be seen in the mammary gland presenting every possible anatomical form between soft medullary, or encephaloid cancer, and epithelioma, of the squamous type, with epithelial globes and dentate cells. These preparations, he said, tended to prove: 1. That carcinoma was only a variety of epithelioma; 2. That epithelial tumours come always from an epithelium, and connective tissue tumours from a connective tissue, with the possibility of the substitution of one form of connective tissue for another, but not of a connective for an epithelial tissue; 3. That primary heteroplasia only exists in congenital tumours, or, if it is ever met with in other tumours, it is of extreme rarity.

DISCUSSION ON TUBERCLE.

Dr. GRANCHER (Paris) delivered an introductory address.

Dr. WILSON FOX thought that the occasion of this International Congress opportune for entering a plea in favour of some general system of nomenclature. The terms tubercle and phthisis were used in the most varied sense, and broncho-pneumonia and caseous infiltration were employed by the new school with a breadth of application which at one time threatened to extinguish the former terms altogether.

Tubercle: Its Histological Characters, and its Relation to the Inflammatory Process, as shown in "Tuberculosis" of Lymphatic Glands. By FREDERICK TREVES, F.R.C.S. The term was here limited to the appearance known as submiliary, lymphoid, or primitive tubercle, or tubercular follicle. Tubercle, the author said, represented a certain stage or degree of a peculiar form of inflammation. The inflammation that developed tubercle was usually chronic, and induced by slight excitation; its exudations were very cellular, and in places presented certain large nuclear-like bodies (Rindfleisch), that might be regarded as almost special to the process; the products resisted absorption, and lingered in the tissues. Non-vascularity of the part was an early feature. Degenerative changes usually ensued, most commonly caseation. If a certain stage of the process were reached, giant-cells appeared, or the so-called tubercle was met with. Above all, this inflammation required for its development the anatomical element of adenoid, or lymphatic tissue. In the tubercle-producing process in glands, the first changes are those of simple inflammation. The appearance of giant-cells, or of tubercle proper, indicated a certain stage in the process. The stage might never be reached, and glands, if affected with some intensity, might caseate before any giant-cell or tubercle had been seen. Tubercle occurred in the most chronic or least intense form of the inflammatory process. It represented, in one sense, the highest attainable morbid change. Giant-cells were by no means special to tubercle. They were merely lymph-coagula, and indicated the cessation of all lymph current. In regard to histology, Mr. Treves said that the fibrous material of glands, the seat of tardy inflammation, tended to arrange itself in roundish districts. If the fibrous matter in these districts were somewhat open and a giant-cell were introduced, the appearance of tubercle might be seen. The reticulum occupying the spot, presented no constant appearance, but was modelled precisely upon the arrangement of the fibrous matter in the vicinity. Many of the so-called tubercles had the giant-cell at the periphery, others had no giant cells, many are oval, or of the most irregular outline. The giant-cell, he urged, was here also merely a lymph-coagulum, that blotted out a certain amount of the reticulum in which it was deposited. As the mass degenerated, the reticulum often came into view, and could be seen to be continuous with the adjacent tissue by means of the giant-cell processes.

Disseminated Tuberculosis not originating in a Primary Source of Infection within the Body. By C. CREIGHTON, M.D.—The author had examined the organs and parts from a number of tuberculous cases, from nine months to fifty years of age, and concluded that there had been no primary seat or focus of disease in the body, with respect to which the tuberculosis might be regarded as a secondary infection. On the other hand, the tubercles on the serous membranes, in the lymphatic glands, in the lungs, and in the viscera, were to be taken as all co-ordinate with respect to the initial infection, and that infection must be considered to have been a virus introduced into the body from without. The best analogy for tubercles disseminated through the body was the analogy of primary, secondary, and tertiary syphilis, in which the syphilitic formations, in however various parts they might be situated, and at whatever intervals of time they might appear, were all alike due to a virus introduced from without. The author's views were in accordance with those of Klebs (Virchow's *Archiv*, vol. xliv, 1868). They were at variance with the opinion of Schüppel (*Lymphdrüsen-Tuberculose*, 1871), who considered that tuberculosis might originate as a primary new formation in the lymphatic glands, and in the serous and synovial membranes. They were equally at variance with the opinion of Rindfleisch, who, while he admitted a primary, secondary, and tertiary tuberculosis, explained that succession as being a subordinate one on the analogy of tumour-infection, which was contrasted with the analogy of the co-ordinate syphilitic infection, or of any other such infection due to a virus introduced into the body from without.

Professor VIRCHOW (Berlin) criticised the statement of Mr. Treves, that tubercle was not neoplasm, but an inflammatory product. He (Dr. Virchow) did not understand the difference. A neoplasm was a new formation, which had arrived at a certain degree of independency. The formation of new bone on the surface of the old bone was first inflammatory, but, if it grew and formed an exostosis or osteoma, then it was neoplasm. In his opinion, neoplasm was only a conventional term, having no connection with the cause, the origin, or the history of the product. The relations between tubercle and inflammation were manifold. There were forms very common in serous membranes, where the development was at first, and during a long time, simply inflammatory; and it was only after the repetition of certain actions that the development of tubers in the newly-formed tissues was seen. In some cases, there was a series of capillary extravasations into the tissues, and in other cases such processes became enlarged at the end, and the formation of tubercle commenced. In other cases, tubercle was developed without any sign of inflammation; that was to say, if the signification of inflammation in the old traditional sense were

maintained. Mr. Treves had said that giant-cells were lymph-coagula. When he (Professor Virchow) was a student, all such cells were called "mother-cells". At a later period, he introduced this name of "giant-cells", in order to make a distinction between somewhat large multinuclear cells, with two, three, or four nuclei, and the cells having the characteristic and specific form found in a certain number of cases. It was important to distinguish between multinuclear cells and the peculiar giant-cell. In cancer, there would frequently be found large cells with six, eight, or ten nuclei; but the specific contents of the cell were not of the finely granular substance which gave the peculiar appearance to the giant-cell, and it was possible at first sight to distinguish the two forms. This peculiar form of cell—not the old "mother-cell"—was first distinguished by M. Robin in the marrow of bones, and called by him *myéloplaxe*. The English surgeons applied this term to the history of tumours and neoplasms, and recognised it as characterising a form of myeloid growth. This was a very peculiar form of tumour, but it also existed where there was no marrow. Some cases of epulis were composed nearly altogether of those cells, the majority of which proceeded from the surfaces of the maxillary bones. He investigated these peculiar myeloid cells, and had found them in the placenta and in the peritoneum. M. Robin called them *myéloplaxes*, because he believed that they were not cells. They had a membrane, but, to see it, it was necessary to examine very fresh preparations, such as those just removed in surgical operations. This could be done by applying concentrated fluids, first strong, and afterwards diluted; by which means it became possible to remove the cell-membrane from the surface. He did not know that any coagula could be treated by fluids of different concentration in such a manner that a perfect membrane could be removed. The cells were developed by a regular gradation from simple cells, showing that it must be organic formation, and not coagulum. More developed forms were also characterised by a difference in the granular contents, and which sometimes had a brownish hue. The common multinuclear cell had not this peculiar development. He held that giant-cells were a very peculiar form of regular cell-formation; not common to one single process. He had observed giant-cells in ordinary lymphatic glands long before he and others saw them in scrofulous or tuberculous glands. With regard to Dr. Creighton's communication, he believed that in many cases no caseous or other process existed before the tubercles were formed. He had always maintained that primary eruptions of tubercles might exist without any previous tubercular or caseous mass. He had also seen secondary tubercular deposit at the periphery of cancerous tumour; and hence he had become very cautious in concluding, from the observation of secondary tubercles in the periphery of a tumour, that the origin was also tubercular. He originally believed that the majority of caseous masses found in the suprarenal capsules were tubercular, but possibly that many of those originated in scrofulous inflammation; and that only at a later period tubercle appeared. The secondary eruption might be produced by any noxious substance, or, he would say with Dr. Creighton, by any virus; but this need not come from without. It might be produced in the body itself by any morbid process. He thought that by a multitude of processes a substance could be produced that could infect the neighbouring tissue, also the whole body, and produce tubercular eruption. Professor Virchow then referred to the occurrence of bovine tubercle in man, contended for by Dr. Creighton, and handed a copy of the report of the experiments conducted at the Veterinary School in Berlin. It was a matter by no means settled at present. He had never seen the flesh or milk of animals suffering from *perlsucht* cause tubercle in animals fed with it; infection had taken place only by inoculating the tubercular matter itself. He considered that the calcification of the *perlsucht* nodules was a distinguishing characteristic.—M. BÉCHAMP (Lille) directed attention to the part taken by micro-organisms in the formation of pulmonary tubercle. He thought that the molecular granulations break down, destroy the cells, and take up carbonate and phosphate of lime. They appear under the form of small spheres, or often in that of a figure of eight. When placed in a suitable medium, they fructify and give rise to a mycelium and bacteria, this development being accompanied by the disengagement of hydrogen and carbonic acid and the formation of butyric acid.—M. JULES GUÉRIN (Paris) added some remarks.

On Aneurysm of the Larger Cerebral Arteries as a Frequent Cause of Cerebral Hæmorrhage. By JOSEPH COATS, M.D. (Glasgow).—The author stated that cerebral hæmorrhage from rupture of aneurysms of the larger arteries—namely, those in the meninges of the brain, as distinguished from those in the brain-substance (nutrient arteries)—was much more frequent than is generally supposed. He pointed out that, though the aneurysm was on the surface, the blood accumulated chiefly in the brain-substance, and might even be absent from the meninges, and so the source of the hæmorrhage might be overlooked. Almost all cases of cerebral hæmorrhage in persons under fifty were due to this cause.

Illustrations of the Mode of Extension of the Lympho-Sarcoma. By JOSEPH COATS, M.D. (Glasgow).—By a number of examples, it was shown that the lympho-sarcoma, or malignant lymphoma, extended locally by incorporating the surrounding tissue, which it replaced by its own structure. Thus, the anatomy of a part might be roughly reproduced in lymphomatous tissue. A case was cited of lymphoma of the mesentery, in which the tumour extended to the intestine, and incorporated its wall for some distance. A piece of intestine was thus composed of lymphomatous tissue, even the valvulæ conniventes being reproduced in a more bulky form. Cases were also referred to in which mediastinal lymphoma implicated the pericardium and auricle, the walls of the bronchi and trachea, and the superior vena cava and the innominate. The analogy of this mode of extension with the process which occurred in the organisation of a thrombus was suggested. With pieces of dead tissue introduced into the living body, there was first a vascular tissue which took their shape. This was seen in the case of the catgut ligature, and in the experiments of Senftleben, Tillmanns, Baumgarten, etc., in which pieces of liver, lung, etc., were introduced into the abdominal cavity. It seemed as if the actively growing tumour had the power of incorporating living tissue, while dead tissue might be incorporated by the active granulation-cells. Analogy pointed to the inference that the granulations were a distinct tissue, and not merely white blood-corpuscles.

Pathology of Fibroid Degeneration of the Heart. By F. CHARLWOOD TURNER, M.D.—This paper treated of that form of fibroid degeneration of the myocardium, in which the walls of one or more of the cavities of the heart were affected more or less throughout by a widely distributed fibroid change, consisting in a diffused thickening of the perimysium, and associated with atrophic changes in the muscular fibres. This condition was seen in three cases which were reported: 1. A girl aged 10, who died with dilatation of the heart; 2. A man aged 58, with hypertrophy of the heart; 3. A girl aged 14, who died with acute pericarditis. Reference was also made to a case of gout, with granular kidneys, in which similar recent changes were observed in the hypertrophied left ventricle, apparently as the result of obstruction of the coronary arteries.

A New Theory of Monsters. By JULES GUÉRIN, M.D. (Paris).—The author said that the anatomical and etiological study of the deformities occurring in monsters had convinced him that they were the simultaneous effects of a destructive and spasmodic affection of the nervous system.

DISCUSSION ON THE RELATIONS OF MINUTE ORGANISMS TO UNHEALTHY PROCESSES OCCURRING IN WOUNDS.

Professor LISTER, in opening the discussion, said that it was necessary to say a word of caution against the tendency that existed to exaggerate the importance of micro-organisms as the cause of inflammatory and other morbid processes; a tendency for which the success of the antiseptic method of treating wounds was perhaps to a large extent responsible. But, while there could be no question as to the important part played by micro-organisms in the production of inflammatory disturbances, there were other chemical and mechanical conditions which could produce inflammation; and, above all, there was such a thing as inflammation produced through the nervous system, a doctrine which was the foundation of much of our surgical practice. He had seen an inflammation of the urethra give rise to suppression of urine, and terminate fatally; and, at the *post mortem* table, he had found the kidneys presenting the most intense inflammatory congestion, without any appearance of old disease or of extension of the disease by continuity from the urethra. Such inflammation could only be produced through the nervous system by the sympathy which united the parts in question. It was upon this fact, or its converse, that the principle of counterirritation was based. Professor Lister proceeded to speak of the researches of Dr. Koch, and more especially of those of Dr. Ogston of Aberdeen, who had found micrococci invariably in the pus and in the pyogenic membrane of acute abscesses. These micrococci must not be regarded as the essential cause of the inflammation, as the same observer had also recorded that the same organisms were always absent in chronic abscesses, and it was therefore probable that their occurrence in the pus of acute abscesses was rather the consequence of the disturbed state of the nutrition of the parts. Mr. Watson Cheyne had proved that no micro-organisms existed in the healthy tissues; it was, therefore, necessary to believe that their appearance in the neighbourhood of acute abscesses was the result of the lowered vitality of the parts.

Dr. CHARLTON BASTIAN had listened with much interest to Pro-

fessor Lister's address, and especially to that part of it in which he had referred to the occurrence of micro-organisms in the tissues around acute abscesses. He held two views as to the origin of this low form of life: one was heterogenesis, by the combinations of molecules of already organised life into new forms of living beings; the other was what he had called archebiosis. If Professor Lister were right in saying that it had been proved that the healthy living tissues contained no micro-organisms, then those found as described must have been formed *de novo* by a process of heterogenesis. Dr. Bastian related some experiments to show that micro-organisms would appear in healthy brain when its vitality was lowered, although all possibility of their origin from without was excluded.—M. PASTEUR protested strongly against the doctrine of the origin of micro-organisms in the tissues. His own experiments altogether disproved such a view.—Dr. W. ROBERTS (Manchester) thought that Dr. Bastian had taken in too strict a sense the statement that micro-organisms did not exist in the tissues. Bacteria might be injected into the blood, and did not die at once, but might be found in the urine; and possibly such organisms might exist in small numbers, not ordinarily discoverable, but capable of multiplying whenever a suitable condition of the system occurred.—Professor VIRCHOW thought the most important question to be decided was that of the specificity of these micro-organisms. He had observed what was apparently the same organism under very varying conditions, as in the angina of scarlatina, small-pox, etc. When such cases were studied merely in the light of pathological anatomy, everyone agreed that the anatomical process was the same; but with the doctrine of micro-organisms as a cause of disease came the suggestion to search for a specific form in each case. Professor Büchner of Munich believed he had shown that the hay-bacillus acquired virulent properties when cultivated in an albuminous fluid; and Dr. Grawitz of Berlin had observed the same of aspergillus. M. Pasteur had renewed the doctrine of predispositions, which was in some danger of falling into discredit. He had shown that certain media were favourable or unfavourable to the development of certain poisons; and it was upon this principle that Mr. Lister had based his treatment. Micro-organisms acted on the tissues in several ways. They might enter the cells and multiply there, devouring and destroying the cell-substance; or they might multiply between the cells, giving origin to acrid secretions which acted chemically on the tissues; or they might give rise to similar secretions in the hollow viscera, as in the stomach, which might act locally by disturbing the normal functions and causing pain and pathological alterations. The action of some micro-organisms so closely resembled chemical action that, until within the last few years, he would not have attempted to distinguish a diphtheritic inflammation from a slight cauterisation produced by mineral acids or alkalies.

The Relations of Minute Organisms to Specific Disease.—Professor KLEBS (Prague) gave an address on this subject, which was published at page 279 of the JOURNAL for August 13th.

Relations of Minute Organisms to Specific Disease.—By Professor FOKKER (Groningen).—Dr. Fokker stated that, although it must be supposed that the viruses of contagious diseases were reproduced by organisms, it was very unlikely that the organisms which played this part in different diseases were specific. The author expressed his belief that there was only one species of Schizomyceta; and that this, according to the circumstances in which it was developed, might take different forms, and appear as micrococcus, bacillus, spirillum, etc.; while at the same time it was capable of reproducing the different viruses which were the cause of contagious diseases. These micro-organisms formed an integral part of the bodies of animals. It was also probable that they took an active part in the chemical processes of the healthy body, while at the same time they reproduced the viruses engendered in, or introduced into, the body. According to Nägeli, all the functions which the Schizomycetæ exercised were only determined by their adaptation; and, in the majority of cases, it was their function which determined also the form in which they developed. Dr. Fokker concluded that the micro-organism which produced any given specific disease, and which developed by predilection in one of the forms which the Schizomycetæ could take, might produce again the same disease when forced by circumstances to appear in another form; in other words, that the morphological appearance depended, in the Schizomycetæ, on other conditions, and had no influence on their function. Although, in most cases of anthrax (charbon), the body was found to be occupied by bacteridia, sometimes micrococci were seen; and in many cases the organisms which had produced the disease presented an appearance which rendered them almost unrecognisable. These different cases of anthracic infection succeeded one another alternately in experiments in which the virus furnished by an animal which had died of anthrax was inoculated successively on a series of animals of the same species.

Aspects of the Blood-spirillum in Relapsing Fever. By H. VANDYKE CARTER, M.D.—Reference was made solely to the clinical relations of visible blood-changes to specific pyrexia; it being considered that such changes were adequately displayed in specimens of blood taken from the fingers of patients, and examined in fresh or dried states. The points noted were apparent numbers, disposition, movements, and dimensions of the parasitic organism. The observations were arranged under the following heads: *a.* Stages of fever: viz., either (1) incubation period; (2) initiation date; (3) mid-febrile period; (4) acme; (5) defervescence; *b.* Types of fever: according as these are either (1) brief, isolated paroxysms; (2) prolonged attacks of remittent form; or (3) intermittent attacks; *c.* Fatal cases; *d.* Summary and conclusions. The following data pointed to a real connection of a spirillar blood-contamination with the pyrexial attacks of relapsing fever. 1. Infection was always followed by fever; 2. With the advent and progress of fever, the blood-parasites increased; 3. They disappeared with cessation of fever; 4. By contact with the sick, and by inoculation of blood containing the spirillar organisms, or their germs, the pyrexia could be reproduced in old and new subjects. The following data pointed to conditions modifying, at least, the connection above implied: 1. The presence of the blood-parasite during several hours, or for one or two days prior to fever; 2. The sudden onset of pyrexia was not preceded by, or attended with, a proportionate visible augmentation of the spirilla; 3. The absence of fixed relation between variations in form and intensity of fever, and varying numbers of the organisms; 4. The persistence of the spirillum during actual defervescence by lysis. The above remarks applied to the earlier and more pronounced febrile attacks. During other accompanying or subsequent pyrexial phenomena, the usual signs of spirillar infection were wanting, as, for example, during secondary or reactive fever, third, fourth, or later relapses, and all more residual events.

M. PASTEUR (Paris) said that the experiments of Professor Fokker were of great interest and novelty. He felt confident, however, that his results were not correct. In the study of microscopic organisms, not only ingenuity and caution, but an intelligent caution, were required. It was so easy to introduce into the cultivation-fluid, together with the organism intended to be introduced, some other organism; and one individual organism would be sufficient—some other organism which would develop side by side with the organism it was intended to cultivate; and thus the experiment would be vitiated from the very beginning. Professor Virchow had referred to the experiments of Dr. Büchner. That observer believed that he had traced the gradual transformation of one organism into an organism with different properties. He believed that, by modifying the fluid in which they were cultivated, he had been able to convert the bacillus anthracis into the hay-bacillus, and *vice versâ*. Dr. Greenfield had also maintained the possibility of these conversions. But M. Pasteur doubted the validity of all these experiments. He thought that these results were to be explained by an error in manipulation. He believed that, if, in a cultivation experiment with, *e.g.*, the bacillus anthracis, the hay-bacillus was obtained, that then, by some accident, the hay-bacillus had been introduced from without. He believed that, by repeated culture of the bacillus anthracis, its virulence could be diminished; but he did not believe that the repeated culture resulted in the production of a different bacillus. Another speaker had said that he thought he had transformed the micrococcus into a bacillus; but he (M. Pasteur) was convinced that this was an error. A micrococcus might be associated with a bacillus, but he denied that it could be transformed into a bacillus. He would require to see this transformation, but he had never been able to see it; and he, therefore, did not believe in its possibility. Dr. Bastian, for instance, believed that tissues could transform themselves into organism, into bacteria; he had not repeated Bastian's experiments, still he had not any hesitation whatever in saying they were erroneous and misleading. M. Béchamp had thought that he also had seen microzymes making their appearance in the tissues; but M. Béchamp was wrong and Dr. Bastian was wrong. Everybody was wrong who did not believe in the specific nature of germs.—M. BÉCHAMP vindicated his claim to priority in the discovery of the organisms (microzymes) which caused the fermentation of milk. He also defended the accuracy of his experimental methods from the aspersions cast upon them by M. Pasteur. He believed that in milk there were a number of punctiform bodies, which, by a process of development, became converted into spherical bacteria; these elongated, and gradually became converted into a rod-shaped bacterium (bacterium lactis). He related experiments made under his direction: portions of organs, taken from a recently killed animal, were, immediately after death, dropped in a solution of chromic acid, a powerfully aseptic fluid; the tissue became hardened on the outside, but in the interior was a kernel of tissue, which, after a few hours, provided the

temperature was suitable, swarmed with organisms. He asked M. Pasteur to explain these experiments upon his theory. Mr. WALTER CHEYNE, referring to an experiment of Dr. Bastian's, in which bacteria were said to have developed themselves when portions of organisms were dropped into chromic acid, said that he could not accept the experiment as conclusive. He had, in fact, performed other experiments with more thorough precautions, and had got opposite results. He had introduced portions of the various tissues of a healthy animal, immediately after death, into pure vessels containing various cultivating-fluids; but no micro-organisms developed themselves, though these flasks were kept in an incubator for several weeks. Mr. Cheyne's theory was, that, in certain disordered states of the system, micro-organisms were not immediately destroyed in the body as in the healthy state, but could live for some time; and, if an acute inflammation were the cause of this disordered state, the micro-organisms might enter the products of inflammation, and develop there—thus being accidentally present in, and not the cause of, the abscess. He did not wish to say that this was the case in all acute abscesses; for it was clearly shown that there were a number of varieties of organisms, some hurtful and some harmless; and no doubt many abscesses were directly caused by hurtful forms, as, possibly, in osteomyelitis. But what he contended for was, that they were not the cause of all acute abscesses; and that the view, deduced from their constant presence, that acute inflammation could not arise without the presence of micrococci, was an entire mistake.—Professor HUETER (Greifswald) declared his belief that the infection of different diseases was produced by the action of particular organisms developed from a common form.

SECTION V.—SURGERY.

DISCUSSION ON RESECTION OF JOINTS.

On the Comparative Value of Early and Late Excisions in Different Forms of Articular Disease. By M. OLLIER (Lyons).—The author said that the results of resections of joints depended on the method of operating, and on the amount of existing disease. Any method employed might prove useless if the joint were too much disorganised. The possibility of obtaining a new joint, similar to the original one, had been shown by numerous experiments; and the imperfection of some of the results in the human subject was an indirect but conclusive demonstration of the necessity of attending to the known laws of repair of bones and joints. As a general rule, the earlier an excision was performed, the better the result. Age had a great influence on the results. The introduction of the antiseptic treatment made early excision more advisable than formerly. An inquiry was made into the different resections of the larger articulations, including an analysis of a hundred resections of the elbow, performed by the author, and an inquiry as to the cases of excision of the ankle in which the state of the parts rendered it unwise to aim at obtaining a movable joint. The rules applicable to resection for injury were discussed. M. Ollier found that primary resections were apt to be followed by a too extensive deposit of new bone. He demonstrated the advantages of secondary excisions, and the disadvantages of postponing the operation too long, and also the agreement of the results of clinical observation and those of experiment; concluding with an explanation of the failures of resections during some of the late wars, and the necessity of reconsidering the position of the question.

On the Results of the Treatment in Chronic Disease of the Knee-Joint, including an Account of Fifty Resections of the Joint. By Professor KOCHER (Berne).—The following is a summary of the author's conclusions. 1. Amputation of the thigh is indicated in cases where white swelling occurs in patients suffering from tuberculosis of the internal organs, or those whom the disease has rendered very anæmic, or who present a constant high temperature, or are reduced by prolonged suppuration. 2. Resection is the best treatment in all other cases, if contraction of the joint or considerable functional disturbance have occurred. 3. Under these circumstances, resection gives in every way better results than are obtained from conservative treatment. 4. Resection should be only resorted to in exceptional cases in childhood or advanced age. The results are as good or better as regards union of the ends of the bone in adult life than in childhood. 5. The mortality, since the author commenced the practice of resection, has only been 12 per cent.; and now, thanks to the recent improvements and the introduction of antiseptics, the operation has become free from danger. 6. His present endeavour is so to improve the method, that movable, and at the same time firm, joints may be secured.

Professor REDFERN (Belfast) asked why it was that changes induced in cartilage tended to heal, whilst diseased action in bones and synovial membranes so frequently extended and destroyed the joint. The speaker had shown that incisions in articular cartilages in animals healed by the production of fibrous tissue, that such cicatrices were common in the cartilages of the joints of man, and that healing took place after destruction of portions of the articular cartilages of animals by caustics or the cautery. Yet articular cartilages might disappear rapidly in inflamed joints, and the costal cartilages were very rapidly converted into connective tissue at parts which had been injured by setons and ligatures. In healthy animals, he had failed to excite disease in the articular ends of bones or their cartilages by passing wires through the bone close to the cartilage, and keeping them there for months.—Mr. TEALE (Leeds) said that he had hoped to write a paper on a treatment he advocated for the arrest of incipient joint-disease, namely, the subcutaneous incision of the capsule. He considered rest of the first importance, but the subcutaneous drainage of serous fluid, the external drainage of pus, or the trephining of the diseased bony structures, necessary adjuncts.—Mr. CHRISTOPHER HEATH regarded excision as required in incurable cases, and in those in which lardaceous disease was present; but protested a gainst early excision, when general and local treatment were available. He recalled attention to Dr. Redfern's remarks; and pointed out that repair was effected by replacement of the cartilage by fibrous tissue and bone; and that the collections in museums showed how common osseous ankylosis was. Excision in private practice was almost unknown, and was not required, because of the good hygienic surroundings of the patients.—Mr. MACNAMARA had had recently under his care two cases, which showed that acute inflammation of the epiphysis of a long bone is apt to involve, not only the periosteum, but also to cause osteo-myelitis. It was in this way that cases of "acute periostitis" gave rise to "septo-pyæmia". In both of these cases he had removed the whole shaft of the femur, leaving only the epiphyses and the periosteum; in the one case, the bone had been reproduced, with the result that the patient had a useful leg; in the other, no such reproduction had, after six months, occurred. He had transplanted some perfectly fresh and very small pieces of bone and periosteum (from the foot of an amputated limb) into a groove made in this patient's leg, in the situation of the tibia. At the present time, six weeks after the transplantation, a narrow ridge of bone could be felt in the desired situation. He thought that the majority of cases of joint-disease might be cured in their early stages; and agreed with Mr. Teale, that it was wise to relieve the tension of the joint where it contained much fluid, advising the application of a casing of cotton-wool and an elastic bandage immediately after the operation.—Mr CROFT, after referring to the frequent presence of sequestra in joints, and the frequency of tubercular disease, remarked that patients suffering from chronic articular disease, which was presumably tubercular, did get well without operation, but added that recent statistics showed that excision of the hip-joint diminished the average duration of the disease by one year; further, seven out of thirty-three cases of morbus coxæ, cured without excision, presented three and a quarter inches of shortening, which was as much as ordinarily occurred after excision.—Mr. FREDERICK TREVES thought that microscopic research and experiment on inoculation had proved that the process in white swelling, and strumous bone-disease is tubercular. Experience, however, showed that it was incorrect to argue from this that these patients must die of phthisis or other extension of the tubercular disease. This joint-disease might undergo spontaneous cure if placed under favourable circumstances; where these could be attained the expectant line of treatment was indicated.—Mr. HOWARD MARSH pointed out that, to perform early excision was to renounce the attempt to cure incipient disease, and to resort to the easy method of cutting out the affected part. If this was right for the joints, was it not also for the testis, which, like them, might be a source of systemic infection? That these joint-affections were curable was shown by private practice, where excision was almost unknown. Fergusson introduced excision as a substitute for amputation in advanced disease. This was truly conservative. He aimed at saving the limb by removing the joint. But, to remove so important an organ as the knee-joint for incipient disease, was, surely, to turn the dial of progress many degrees backward. Excision, like amputation, must always rank as a mutilation, and, as such, he maintained it should, if possible, be avoided. Real progress lay in the direction of insisting on the importance of early treatment by complete rest. Increased hospital accommodation was required; but this would be provided when the necessity for it was understood; so that in the poor, as now in the well-to-do, excision would in the great majority of cases be avoided.—Mr. BARTON (Dublin) had, within recent years, performed excision of the hip seven times; of this number, only one now survived; this one, however, was a very complete success. He agreed with Mr. Croft that the operation ought to be done relatively early, and before degenerative visceral changes had occurred to render the case hopeless.

Discussion on the Intraperitoneal Treatment of Abdominal Tumours.

This debate was introduced by an address by Mr. Spencer Wells, which was published at page 358 of the JOURNAL for August 27th.

Dr. Watson (Glasgow) thought the shock following on intraperitoneal operations, as well as the vomiting, the anorexia, and the disturbances of the urinary organs, were probably brought about in a reflex manner by the irritation of the sympathetic nerves and ganglia. He thought that the plan of applying artificial heat both during and after the operation, which was systematically carried out by Dr. Noeggerath of New York, was calculated to diminish shock; and, with the same end in view, he deprecated the use of opium, except where absolutely necessary. For the prevention of hæmorrhage, he advocated the use of the temporary Esmarch's bandage and the shoemaker's stitch, as described by Dr. Marcy of Boston.—Dr. A. Dunlop (Springfield, Ohio) said that he had first performed the operation of ovariotomy in 1843, in opposition to the then received opinion of the profession. In his first case, he had carefully cleared the cavity of all blood; this first case died, but from kidney-disease, and not from the immediate effects of the operation; the six succeeding cases all recovered entirely. His eighth case convinced him of the necessity of cleaning the abdominal cavity of all its fluids, and of that he had never since doubted; neither spray nor drainage-tube could take its place. He did not favour the use of the carbolic spray, and did not believe in the theory on which it was founded. As to the operations brought forward by Mr. Lawson Tait, he thought more facts were wanted. He had, in 1869, met with a case in which a severe wound of the abdomen had opened up the stomach and exposed the liver; there was no shock. Dr. Dunlop cleared out the peritoneum, and stitched the edges of the wound in the stomach to the wound in the peritoneum; no inflammatory symptoms ensued, but the extensive adhesions of the stomach to the abdominal walls interfered with the proper transmission of food by the peristaltic action of the stomach, and the patient died thirteen days later, from the exhaustion caused by a sudden attack of diarrhœa.—Dr. Keith (Edinburgh) had for a long time drained by a glass tube placed at the lower end of the incision. He believed that drainage was essential in order to obtain the best results in the very bad cases. In these, when bleeding could not be stopped, or when the patient was too feeble to admit of waiting till oozing should cease, it seemed to him that drainage saved many a case. Sometimes the secretion when the wound was closed was very large; and surely it was better to remove this than to allow fluid to stagnate in the pelvis, and throw the absorption of it on a feeble patient. The drainage helped convalescence enormously. If properly used—the tube not too large, and not kept in too long—no after-inconvenience need be feared. When he began to use the carbolic spray, he had tried to do without drainage, but for long had gone back to it; and for some time he had not found the carbolic spray necessary, and had not used it in his last twenty-seven cases, all of whom had recovered easily. With every possible care, the spray had not, in his hands, prevented the mildest septicæmia, and its effects on the kidney were sometimes disastrous. He had frequently seen kidney-hæmorrhage follow long operations; and he had two deaths in hospital patients occasioned, he believed, by carbolic acid poisoning. Though he had at one time a series of eighty recoveries under the spray, he had reluctantly given it up, believing that, on the whole, it did more harm than good.—Dr. Marion Sims also advocated the use of the drainage-tube. He admitted that it was often followed by ventral hernia.—Mr. Knowsley Thornton (London) agreed with Mr. Wells as to the importance of thoroughly closing the peritoneum, and also as to the use of the pressure-forceps. The disadvantages of drainage were the danger of admission through the tube of infective material, and the danger of removing serum and blood from the peritoneum in an exhausted patient after a severe operation. If the peritoneal contents were aseptic, they were rapidly absorbed, and fed the patient. The tube left a weak place in the wound, through which a ventral hernia was very apt to take place. The slow healing of the tube-opening prolonged convalescence, and exposed the patient to the additional risks of an open wound. Drainage was, in his opinion, to be avoided. Could it be avoided by perfect asepsis? and could perfect asepsis be obtained? He would answer both questions in the affirmative. Drainage was necessary in ordinary wounds treated antiseptically, because the tissues in which they were made did not readily absorb, and such absorbents as were present were injured by the operation; but the peritoneum was one large absorbing sac. In other wounds, nerve-tension came into play. But tension was impossible in the peritoneum; and it was quite capable of taking care of the fluid, if aseptic. He invited attention to the possibility of rendering operations perfectly aseptic when the uterine cavity had to be opened in the removal of large uterine tumours.—Dr. Bantock (London) said that, though various measures had been used in the treatment of fibroid tumours of the uterus, both medical and surgical, there were certain cases which called for surgical treatment by abdominal section. He would content himself with relying on the authoritative exposition of the disadvantages of Listerism, and the value of drainage, given by Dr. Keith. Ovariotomists having cleared up the other steps of the operation, the most important question was the treatment of the pedicle. Mr. Wells claimed, as one of the most recent advances in this operation, the treatment of the pedicle by ligature in a particular way; but the method was of limited application. When the pedicle was small and of little vascularity, the ligature might be relied on; but when thick, fleshy, and very vascular, it was not to be trusted. The reason for this was to be found in the nature of the uterine structure, for there were no ordinary blood-vessels; and, from the peculiar combination of vascular, yellow elastic, and white fibrous tissue, there was so much yielding of these tissues, that in a few hours the stump was found to be bleeding freshly. A few years ago, Mr. Wells published a very interesting case of this kind with a successful result, but only because the pedicle was kept outside. He (Dr. Bantock) had lost all the cases he had treated by the intraperitoneal method, four in number, chiefly from hæmorrhage; while all the cases treated extraperitoneally recovered. The method he employed was by Koeberlé's *serre-nœud*, aided by transversely placed pins to support the pedicle. The value of this method was confirmed by the results of the practice of Professor Hegar of Freiburg, Dr. Wahl of Dorpart, and others. He was convinced that but one of the four cases of recovery in his practice could have been treated by the method advocated by Mr. Wells. His first case, three years ago, was treated in this way; but a small quantity of blood escaped from between the flaps, and the patient died of septicæmia. The conclusions at which he arrived were these. As a rule, pediculated tumours are alone suitable for surgical treatment by abdominal section. When the pedicle is small and of little vascularity, the ligature may be relied on with the greatest confidence. When the uterine body is not involved, and the pedicle is very short and thick, it is not possible to stitch the serous covering of the uterus over the raw surface. That can only be covered by a flap-importation from the pedicle. When the pedicle is thick and fleshy, and of great vascularity, the extraperitoneal method offers the best hopes of success; and this is especially true of those cases in which the greater part of the uterine body is involved.—Professor Czerny, in the discussion, gave details of a case of successful excision of the pylorus; and Mr. Lawson Tait, in a paper on "Recent Advances in Abdominal Surgery", attributed these advances to the great successes of ovariotomists; the brilliant results being due to improved general treatment, the discontinuance of the clamp, and the perfection of the intraperitoneal method of operating. As to Listerian precautions, he found them highly unsatisfactory, the employment of carbolic acid rather impeding recovery. He had operated in one case of impacted gall-stone, five of hydatid tumour of the liver, one of large cyst of liver, six of cysts of the kidney, one of abscess of the spleen, twelve of abscess of pelvis (a form of disease which may be treated, with very good results, by operative interference of the kind under discussion), four of suppuration of the Fallopian tube, and six of tubal pregnancy, one mother dying (the only fatal case out of the entire thirty-six), but the child still lives. In twenty-two cases, he had removed the uterine appendages for the arrest of hæmorrhage due to fibro-myoma, with but two deaths; the cases that recovered were all cured excepting one which proved to be malignant.

Discussion on the Diseased Conditions of the Kidney which admit of Surgical Treatment.

Mr. W. M. Baker, F.R.C.S., opened this discussion by a paper based on three cases. In the first case, Mr. Baker performed nephrectomy on the sacculated kidney of a child aged 7, inserting a drainage-tube through the wound; [illegible] remove the kidney, the child recovering, but with symptoms of disease in the remaining kidney. In a lad aged 16, nephrotomy was performed through the loin for an enormously dilated kidney, which varied in size. An incision was made in the loin, when the tumour was apparent, and thirty ounces of purulent urine evacuated. With drainage through the wound by means of an elastic tracheotomy-tube, very [illegible] with a swelling [illegible] weeks later, a lumbar incision was made, and a large branched calculus removed, with difficulty and much [illegible]

which was sacculated. The patient never rallied, and died three days later.—Mr. A. E. BARKER, in a paper on the same question, laid great stress on early diagnosis, and on the importance of early operation, when the patient's health was less impaired than in advanced cases. For such diagnosis, exploratory operations by lumbar incisions, and the use of the needle for the detection of the condition of the kidney, are valuable.—Messrs. Czerny, Lucas, Barwell, Martin, and Langenbeck joined in the discussion, all relating cases of direct operations on the kidney.

DISCUSSION ON THE CAUSES OF FAILURE IN OBTAINING PRIMARY UNION IN OPERATION-WOUNDS, AND ON THE METHODS BEST CALCULATED TO SECURE IT.

The debate was opened by Mr. SAVORY, who maintained that by placing freshly cut surfaces in their natural state in careful apposition, and by securing them in undisturbed apposition, primary union was most likely to be ensured. Over-anxiety about union of wounds, and consequent manipulations which involved their disturbance and irritation, often brought about more or less failure in attaining the desired object. Rest, scrupulous local and general cleanliness, and protection against septic influences, were the principles on which the treatment of operation-wounds should be conducted; but there were innumerable varieties of pure detail in the dressing of surgical injuries, all valuable in proportion as they ensured the fulfilment of each of the three essential conditions without being at variance with the two others. The clinical detection of septic infection of a wound was an interesting question; and it was important to decide whether high temperature, suppuration, or bad odour, were the best proofs of such a complication. Mr. Savory declared that the tables showing the statistics of blood-poisoning after operation or injury in St. Bartholomew's Hospital for the years 1876-8 (see BRITISH MEDICAL JOURNAL, vol. ii, 1879, p. 212), brought forward by him in his address to the British Medical Association at Cork two years ago, had not been surpassed in good results since then, although success equally great had been obtained through methods infinitely different in detail, although more or less identical in principle.

On the Causes of Failure in obtaining Primary Union in Operation-Wounds, and on the Methods of Treatment best calculated to secure it. By SAMPSON GAMGEE, F.R.S.E.—Gentle manipulation, drainage, dry and infrequent dressing, pressure, and absolute rest, insure the maintenance of accurate apposition of the surfaces and margins of operation-wounds, and prevent the effusion and accumulation of fluids within and near the wound,—such are the conditions for their speedy union without complication. Primary union may be favoured by control of the circulation, effected by position, elastic compression, and immobility. Absorbent gauze and cotton dressings are valuable for surface-drainage, and, being highly elastic, facilitate soothing, uniform, and safe compression. Antiseptics, always useful in the treatment of wounds, are most called for in conditions where effusion or accumulation of rapidly decomposable products cannot be prevented by position, pressure, or drainage, as in the case of psoas abscess and empyema.

The Causes of Failure in obtaining Primary Union in Operation-Wounds. By Professor HUMPHRY, M.D., F.R.S.—These causes were, the delicacy and sensitiveness of the tissues in infantile and early life, which render them liable to inflammation and ulceration upon slight irritation; the deficiency of the nutritive energy requisite for the healing processes in the atonic and aged, observed most especially in the lower limbs when there is disease of the arteries; and, lastly, the presence of foreign substances in the wound, especially blood or bloody fluid, which separates the surfaces, and has a tendency to decomposition. Accurate apposition of cut surfaces, and prevention of the accumulation of bloody fluid, by non-irritant sutures, rest, gentle pressure, and suitable splints, are the best methods of securing primary union. Effusion of blood after the stitching up of the wound must be prevented by carefully securing the vessels. Dr. Humphry rather preferred the ligature to torsion, and considered the actual cautery as an useful adjunct. Sponging the wound promotes oozing at the time, and lessens the risk of further exudation. A drainage-tube should be inserted, and blood should be expressed from the wound as long as it continues to flow through the tube after the wound has been stitched up. Antiseptics are considered most valuable under the same circumstances as mentioned by Mr. Gamgee. Esmarch's band appeared to promote bleeding from cut surfaces soon after its removal, but to lessen the risk of further effusion.

Primary Union. By M. VERNEUIL (Paris).—The attempt to obtain primary union is sometimes essential and necessary, sometimes only a supplement to the operation, and altogether optional. When only optional, the surgeon should ascertain, before aiming at such union, that the patient is not the subject of some morbid state, which would make it more advisable, in his case, to give up or postpone the attempt, thereby avoiding the risk of a failure which is not without danger. Under such circumstances, the surgeon should seek some dressing which, while offering a less rapid cure, secures greater safety to the patient.

Professor ESMARCH employed, for the dressing of wounds, pads soaked in absolute alcohol, fixed to the wound by an iodoform bandage. A pillow of jute and gauze was laid over the dressing, and covered by a wet bandage, which was, lastly, enveloped in an elastic bandage. His statistics were as follows. In 398 major operations, 85 per cent. of the cases cured healed by first intention with one dressing, in 15 per cent. the dressing was renewed. There were 146 excisions of large tumours, 40 excisions of mamma and axillary glands, 14 castrations, with one death from pericarditis and old syphilis, one from apoplexy, one from fatty heart. Of 51 major amputations (thigh 18, leg 27, arm 5, forearm 1), one died from shock and hæmorrhage, and one from delirium tremens. There were 61 resections; 11 exarticulations; 26 operations for necrosis; 13 nerve-stretchings, one for tetanus, which was fatal; 8 hernias; 21 large cold abscesses; 12 large wounds; 49 compound fractures. Thus the mortality was only 6, or just over 1½ per cent.—Professor VOLKMANN did not much believe that the healing of a wound was influenced to any important extent by the constitution of the individual, and he attributed the formation of pus in all cases to septic influences.—Professor LISTER, F.R.S., concluded the discussion. In reference to the observations made by Dr. Keith at a former debate on the intraperitoneal treatment of abdominal tumours, he wished it to be understood that the department of surgery then in question was not the touchstone of his system, as too often supposed. Wounds of the peritoneum heal with great rapidity, and that membrane reabsorbs its own exudations with speed and facility; on the other hand, carbolic acid abnormally increases effusion and checks reabsorption. As recent experiments had shown, serum, clear or bloody, is a very poor soil for the development of germs from contact with air-dust, and blood-clots are still more sterile; indeed, it is very difficult to make them grow or develop at all, unless diluted with water. Solid bits of dirt were the great sources of danger, rather than certain invisible particles that float in the air, and have perhaps been invested with more deleterious functions than they really possess. He had not, up to the present, given up any of the details, which collectively make up what is generally understood as his system, because he had obtained such good results; but he was not sure that he might not, before the next meeting of the Congress, give up the spray, only at the present date he had not contrived any method of simple washing or irrigation that would be an efficient substitute. He paid great attention to the general condition of his patient and to the hygienic conditions of the ward; and, had he neglected such precautions, as it had been alleged was the tendency of Listerism, his avowedly successful results would have demonstrated, all the more, the high efficacy of his local treatment.

SECTION OF DISEASES OF THE SKIN.

THE President, Mr. ERASMUS WILSON, F.R.S., gave an opening address, which was published at page 217 of the BRITISH MEDICAL JOURNAL for August 6th.

On Parasitic Pityriasis Circinata and Marginata and its Fungus, Microsporon Anomæon (Microsporon Dispar). By E. VIDAL, M.D. (Paris).—The paper was arranged under the following heads: 1. Description of microsporon anomæon; 2. Lesions caused by it in the epidermis and at the orifices of the hair-follicles; 3. Clinical characters of pityriasis circinata and marginata; 4. Differential diagnosis from *(a)* pityriasis rosea of Gilbert and Bazin; *(b)* erythrasma of Burchard and Barensfrung; *(c)* tinea circinata; 5. Prognosis and treatment.

On the Etiology of certain Scales in Diseases of the Skin. By Dr. ANGELUCCI (Rome).—The author said that, in the scales covering patches of psoriasis, in those of eczema papulosum, and in the horny septa between the lobules of molluscum contagiosum, spores were found imbedded in zooglœa. The pathological changes in the skin caused by these spores in the above disease were analogous to the progressive necrosis of tissues described by Koch. In cultivation-liquids, these spores developed and became bacteria. Dr. Angelucci's observations led him to believe that, although clinically distinct, the above diseases were caused by the same parasite.—Professor OSCAR SIMON (Breslau) had found the same bacteria in a great variety of skin-diseases, and he stated that Klebs had shown them in variola. They were present also in healthy skin. The diagnosis of bacteria was difficult, as all epithelial cells which were exposed to the air, and which were cut off from nutrition, became degenerated and granular. In molluscum contagiosum, the development went on in lobes from the deeper to the superficial parts.—Dr. UNNA (Hamburg) found that, in molluscum contagiosum, it was difficult to distinguish between eleidin-granules and bacteria in the rete

Malpighii. In this disease, the changes went on as in the healthy skin.—M. VIDAL (Paris) found that, between the cells on the surface of the tumour, there were many spores and bacteria; but he did not believe that they had any special relation to the disease. The same appearances were to be found in all sebaceous matter.—Professor KAPOSI (Vienna) believed that great care was necessary in drawing conclusions from such appearances, since Nugeli had confessed that he was unable to distinguish bacteria from granules of decaying protoplasm. Then, if organisms were really present, they might not be the cause of the disease.—Dr. THIN had found in sections of molluscum contagiosum appearances similar to those described by Dr. Angelucci; but, as the sections had not been made with a view to their demonstration, if present, and necessary precautions not taken, he had held his opinion in reserve. In preparations of skin with psoriasis, he had not found the same appearances.—Dr. CAVAFY suggested that inoculation experiments might be tried.

On Balano-postho-mycosis. By OSCAR SIMON, M.D. (Breslau).—Professor O. Simon described an affection of the glans penis and inner surface of the prepuce, produced by a fungus. There were at first slight irritation and erythema, then more intense inflammation and secretion. Then followed excoriations and painful sores, phimosis, and a condition eventually which resembled papilloma acuminatum. Occasionally there were growths of a callous character. All these growths were permeated by fungi. The cause of the disease was always diabetes mellitus. The fungus found a good nourishing fluid in the saccharine urine in the preputial sac. The decomposition of smegma was also to be taken into account. The fungus consisted of mycelium and spores. The latter were single, or in pairs, or in chains. The mycelium was thin and was forked, or sent off different branches. Sporangium or organs of fructification were not observed. The prognosis was worse than in simple balanoposthitis. In treatment, the disposition of diabetic patients to gangrene, etc., must be taken into account. Operations could not be done without having first treated the diabetes. Dr. Simon ordered drying powders with salicylic acid for frequent use. For operating on the phimosis and the growths, he recommended the galvanic cautery.—Professor KAPOSI (Vienna) suggested the examination of the secretions of the prepuce in non-diabetic cases, so as to ascertain whether the fungus was found only in diabetic patients.—Dr. R. LIVEING remarked that persons who handled sugar were very liable to irritation of the skin. In diabetes, irritation of the skin was more common in women than in men. He thought that sugar was the irritant.—Mr. MALCOLM MORRIS had observed a fungus in a case of simple balanitis, in which there was no diabetes.—Dr. UNNA (Hamburg) remarked that sugar in solution was favourable to the growth of fungi, but in powder it killed them.—The PRESIDENT asked whether the application of fuller's earth and oxide of zinc would not be sufficient to relieve the patient; and whether in this country habits of cleanliness did not account for the rarity of such cases.—Mr. BALMANNO SQUIRE remarked that cane-sugar was distinctly an irritant, but that glucose was not.—Professor O. SIMON, in reply, stated that in non-diabetic balano-postho-mycosis, spirochæta and torulæ were found, but not the same mycelium that he had found in these cases. Moreover, in diabetic cases, the mycelium penetrated more deeply.

A Papillary Tumour of the Scalp, presenting Peculiar Histological Characters. By ALFRED SANGSTER, B.A., M.B.—This tumour was rather larger than a pigeon's egg, rising from the general surface about half an inch. The growth was papillary, and of a brownish tint, especially towards its margin. Many hairs devoid of pigment could be seen cropping up between the papillæ. The patient was quite healthy, and the tumour had existed from his earliest recollection. It had gradually increased in size. Microscopic examinations showed the deeper part to be mainly composed of dense fibrous tissue, while the more superficial portion was occupied by a new growth, probably sarcomatous.—Professor KAPOSI (Vienna) stated that he had described this disease under the name of dermatitis papillomatosa capillitii. Alibert had described it under the name of mycosis framboesoides.—Dr. THIN considered the tumour of which Dr. Sangster submitted sections and drawings to be an epithelial growth. The new growth consisted of an epithelium similar to that which formed the new growth in rodent cancer.—M. HILLAIRET remarked that the tumour was not an example of a special disease. It began by inflammation, and was simply a papilloma produced by artificial irritation.—Professor KAPOSI added to his previous remarks that, in this form of epithelioma, there was always epidermic proliferation, but that it was not an epithelioma which destroyed. It was a dermatitis papillomatosa.—Mr. GYLLOTS had seen a case which he believed to be of the same nature.

General Inflammation of the Sweat-Glands, following the Prolonged Internal Administration of Pilocarpin. By H. RASORI, M.D. (Rome).—The paper contained a review of the writings on dermatology, for the last ten years, in reference to the subject of inflammation of the sweat-glands; a notice of the etiology of the disease, according to various authors; evidence that no partial or general inflammation of the sweat-glands due to pilocarpin had been hitherto noticed; and the history of the patient, course of the disease, treatment, and a description of the cutaneous sequelæ.—Professor SCHWIMMER had seen one case of idrosadenitis after the injection of pilocarpin, but it was circumscribed, and only on the back.—Professor OSCAR SIMON (Breslau) did not think that Dr. Rasori had shown that the change was really a change of the sudoriparous glands more particularly.—Dr. UNNA (Hamburg) also doubted that it was true idrosadenitis.—Dr. RASORI had excised some of the papules, and had found in them *débris* of sweat-ducts.—Professor KAPOSI had often used pilocarpin, but had not seen a case in which these effects were produced.

On Vaccinal Skin-Eruptions. By GUSTAV BEHREND, M.D. (Berlin).—The author's position as public vaccinator had enabled him to pay considerable attention to this subject for several years. The paper contained reports of seven cases; of these, five (pustular, herpetic, and erythematous) appeared in the course of the first three days after vaccination, and one (resembling measles, but without fever and catarrh) on the eighth day. The seventh case was that of a rickety child, in whom pre-existing eczema was aggravated by vaccination. Further, the author was frequently informed by the mothers of children whom he had vaccinated, that evanescent erythema and urticaria had appeared in the first twenty-four hours, rapidly subsiding, so that they were no longer visible on the day of inspection (seventh day). The varied eruptions described were mild, and underwent spontaneous involution; they were not caused by any specific action of vaccine lymph, as precisely similar ones were noticed after the administration of certain drugs and articles of food. The author considered that any blood-change might give rise to skin-eruptions (pyæmia, septicæmia, operations, wounds), but that a certain predisposition was also a necessary factor in their production. There were two distinct phases in the course of vaccinia during which eruptions might appear: *(a)* in the early ones (first three days) the vaccination-wound itself might be a factor; while *(b)* the later ones (beginning from the eighth day) were probably due to absorption of certain materials from the developed pustule. Analogous eruptions occurred in variola; the earlier formed during the prodromal period, before the outbreak of the variolous eruption, while others appeared during the stage of maturation, or later. This analogy with vaccine-eruptions showed that they were not due to any specific operation of the poison of variola, and especially that the prodromal eruptions did not possess the prognostic value which was commonly attached to them.—Dr. HEBRA (Vienna) remarked that the prodromal eruption of small-pox could be diagnosed from its localisation. It was always on the abdomen. It was certainly produced by variolous poison. He had seen one case of vaccine-eruption after the eighth day.—Professor HARDY (Paris) remarked that vaccine-eruptions were of three kinds: 1. Generalised vaccinia, which is common; 2. Exanthematic eruptions over the whole body, usually occurring before the development of the vaccine; 3. Diathetic eruptions, eczema, etc., often caused by vaccinia after the development of the vaccine pustule. Except in eczema, the prognosis was favourable. He referred, however, to one case of pustular gangrene. He himself had been revaccinated during the siege of Paris. Three days afterwards, he was attacked by severe general urticaria, followed by bronchitis.—Dr. BEHREND, in reply, remarked on the great rarity of vaccinia gangrænosum.

On the Causes of [illegible] Alopecia. By R[illegible] L[illegible] M.D. —The author divided his paper into the following heads: 1. Parasitic hypothesis; 2. The disease considered as a neurosis; the latter hypothesis illustrated and confirmed by the following: *a.* Constitution of those liable to it; *b.* Various functional nerve-disturbances preceding and following the loss of hair; *c.* Action of blistering fluid on the skin affected; *d.* Regions especially liable to the disease; *e.* Changes in the skin and hair, the result of imperfect nutrition, and such as might probably result from defective innervation; *f.* Allied diseases.—M. VIDAL (Paris) remarked that there were several kinds of alopecia. There was first alopecia decalvans, which relapsed. He referred to a case in which the alopecia was limited to the nerve-zone of the great occipital and the [illegible] shock, grief, etc. The local symptoms were pruritus and redness. This form was never [illegible] there was a tonsure. [illegible] a depression. [illegible] parasitic. In the [illegible] were broken hairs as in [illegible] the

touch. M. Vidal had seen contagion occur in this form, in five members of one family; and again in three children of the same family; again in twins. He had also seen a case in which one doctor communicated the disease to another who was the same way. Referring to the alleged parasite, he remarked that no fungus was ever found deeper than the orifice of the sebaceous glands. He did not see his way to identifying any parasite with the cause of the disease. The changes were the same as in senile atrophy. The sebaceous glands atrophied and the vascular changes. Professor HARDY (Paris) considered that it was premature to decide whether there was more than one kind of alopecia celsi. He believed it probable that there was contagion in the first stage, but that it ceased to be active in the second stage. It was safe to isolate every case, as it was never certain that contagion might not occur. In illustration, he referred to a case in which a gentleman was infected on the scalp and in the beard by his groom after the latter had informed him that the malady was not contagious. Dr. HEBRA (Vienna) had not seen instances of contagion in Vienna. He referred to a case in which the subject of alopecia areata died of pneumonia, and Jarisch found changes in the grey matter of the spinal cord.—Professor KAPOSI (Vienna) was opposed to the parasitic theory, and referred to the occasional difficulty in distinguishing between alopecia and tinea tonsurans. In many cases, there were no nerve-symptoms or nervous antecedents. Dr. UNNA (Hamburg) related the case of a girl, aged 20, who, after a fright, had epilepsy, hemicrania, Graves's disease, and lastly alopecia universalis areata. In another case of alopecia, in a boy, after other remedies had failed, a growth of a little fine down followed the use of the electric brush.—Professor SCHWIMMER adhered to the nerve-theory. In two cases, after failure of stimulating applications, a little down appeared after electricity had been used.—Dr. THIN remarked that it was useless to hold seriously the nerve-origin of the disease unless the bald patches were observed to be distributed in the course of a nerve, or changes could be detected in nerve-elements. This had not been the case in alopecia areata. He did not see how, after cases that had been already published, and after cases that had been related by MM. Vidal and Hardy, the occasional contagiousness of the disease could be denied. But a disease that could be communicated must have a contagium. This contagium be found in a bacterium he had described as existing in the hair-roots and between the root and root-sheath.—Professor OSCAR SIMON (Breslau) said that the nerve symptoms are very prominent in local cases.—Dr. ALLAN JAMIESON had found the disease always in dark-haired, never in red-haired, persons. He had found in one case morphœa associated with alopecia areata. Nervous symptoms predominated in these cases.—Mr. GASKOIN had seen instances of contagion.

DISCUSSION ON LUPUS ERYTHEMATOSUS.

The discussion was opened by Professor KAPOSI (Vienna). He thought that the question should be, Is lupus erythematosus an inflammatory process or a neoplasm? He gave a description of the clinical symptoms and the histological characters of the process, and believed that its inflammatory character might be proved by them. He insisted at the same time on its being quite different from lupus vulgaris. To further penetrate into the nature of the process, he put another question: What kind of inflammation is it which so rapidly leads to a cicatrisation of the skin? He divided that question into two parts: (*a*) What is going on locally? (*b*) What remote causes may lie at the bottom? The first was answered by the results of histological examination, which he explained in its essential points. In trying to give an answer to the second one, he was led to discuss the etiology of the disease, and to give his own opinions, which were to the effect that the disease undoubtedly began and lasted as a local process; that, in the form described by him as lupus erythematosus acutus, the whole organism was attacked, but that not even in these cases was it necessary to suppose the primary cause of the process to be in the nervous centre, or in a special faulty constitution. Before closing the pathology of lupus erythematosus, he submitted another question: If his division of lupus erythematosus into two forms, as lupus erythematosus discoides, and aggregatus, might not be found as corresponding best to the clinical features? He then proceeded to discuss the various methods of treatment proposed in this disease.—Dr. THEODOR VEIEL (Canstatt) had arrived at the following conclusions: 1. Lupus erythematosus is an independent disease, and not a variety of lupus vulgaris; 2. No connection between it and scrofula, tubercle, and syphilis, can be shown; 3. The affection of the sebaceous and sweat-glands is only an accidental accompaniment of the disease, the essential feature of which is the change which advances along the blood-vessels; 4. There is no remedy given internally which will cure the disease; 5. The most effectual treatment of the disease is multiple scarification, and subsequent cauterisation by chloride of zinc.—The PRESIDENT remarked that the affection was inflammatory. It arose after exposure to irritating influences, beginning as an erythema which became permanent. He referred to the case of a woman in whom, during pregnancy, erythema appeared on the face. After exposure to cold, the erythema spread over the trunk, and eventually became lupus erythematosus.—M. VIDAL (Paris) thought that lupus erythematosus was not inflammatory, but occupied an intermediate position between inflammation and neoplasm. It was cured by producing inflammation. He recommended scarification, and then, to obtain inflammation, Vigo's plaster.—Dr. UNNA (Hamburg) remarked that, clinically, it was usually possible to distinguish between inflammation and new growth, but in lupus erythematosus the line could not be drawn. The disease was first inflammatory, and then a new growth.—Professor SCHWIMMER believed that it was a purely local disease, and inflammatory.—Dr. THIN said that it was only recently that the distinction between lupus erythematosus and lupus vulgaris had been widely recognised in this country. Some years ago, when discussing the pathology of lupus erythematosus at one of the medical societies, he had found himself called on to determine the distinction that he had drawn between them.

On the Influence of Climate, Difference of Race and Mode of Life in the Development and Evolution of Parasitic Diseases of the Hairy Scalp. By EUGÈNE VERRIER, M.D. (Paris).—After a summary of the various parasites of the skin, and especially of the hairy scalp (fungi of the different tineæ), the author reviewed the influence of the climates of France and the French colonies on the diseases resulting from the development of these fungi, and pointed out the importance of establishing a medical geography. He then examined, separately, the various races who inhabited the French colonies, and a few others, and showed the influence exercised by these races on the propagation of parasitic diseases of the hairy scalp. Lastly, the mode of life of the populations of all French countries, and of some parts of Europe, was examined in reference to this question.

Leucoplakia buccalis. By ERNST SCHWIMMER, M.D.—The above name was given to an idiopathic affection of the mucous membrane of the mouth and tongue, to distinguish it from symptomatic alterations occurring in the course of other diseases, especially syphilis. The names ichthyosis, tylosis, keratosis, and psoriasis membranæ mucosæ, by which it had hitherto been known, did not sufficiently emphasise the distinction between idiopathic and symptomatic forms, frequent errors occurring in diagnosis and treatment. The characteristic changes of the idiopathic affection consisted of red circumscribed hyperæmic patches on the tongue and inner surfaces of the lips and cheeks. These might last for some weeks or months, and then either subside, or become developed into circumscribed greyish or white discolorations. The same changes occurred in syphilis of the mucous membranes, but the affection of the epithelium came on with much greater rapidity. Further, in syphilis, either as a result of treatment or spontaneously, the affection subsided with ease; in the idiopathic affection, on the contrary, the diseased epithelium gradually became thicker, and extended into the deeper tissues, giving a thickened and fissured aspect to the patches. The whole process was characterised by infiltration and cell-proliferation of the corium, which explained the obstinate persistence of the patches, and the readiness with which they underwent conversion into other processes. Disease of the digestive tract, and excessive smoking, especially of strong tobacco, were of importance in the production of this affection, and syphilis itself might be a predisposing cause. This made the diagnosis difficult; but specific treatment, under which the idiopathic affection continued unmitigated, would serve to distinguish them. The avoidance of everything calculated to irritate the diseased mucous membrane was of primary importance, as serving to prevent an extension of the process. Cleanliness, and the frequent washing of the mouth, especially with alkaline washes, were of great benefit. Irritative treatment was usually unfavourable. Dr. Schwimmer had occasionally seen a temporary alleviation by solution of silver nitrate, but never a permanent cure. The most favourable local treatment was the application of a half per cent. solution of corrosive sublimate, or one per cent. chromic acid, under which a considerable number of cases had been permanently improved, and the passage into carcinoma possibly prevented.—M. HILLAIRET agreed with Professor Schwimmer, that the affection was not psoriasis, and that the term psoriasis of the tongue ought to be abandoned. The etiology was very obscure. Amongst the cases he had seen, many had occurred in persons with syphilitic taint and in smokers. It began by extreme sensibility, after which patches appeared, and these were often the first changes of cancroid. It was curable in old syphilitic patients. It occurred also in non-smokers. The irritation set up by false teeth might give rise to it, but the cause was often not recognisable. He had got good results from chromic acid and the frequent use of alka-

line washes. In syphilitic patients, it disappeared under iodide of potassium.—Professor KAPOSI (Vienna) said that a great distinction should be drawn between the earlier and the later stages. The latter he had named keratosis mucosæ oris. It occurred chiefly in syphilitic persons; but the later stages were not influenced by antisyphilitic treatment. It might pass into cancer by continued irritation. Cases occasionally occurred in hysterical women and nervous persons. In such cases, there was hyperæsthesia of the tongue, which was denuded of epithelium, and had hypertrophied papillæ. It was impossible to diagnose the syphilitic from the non-syphilitic cases.—M. VIDAL (Paris) remarked that psoriasis was a bad name, and that the diagnosis from a late manifestation of syphilis was extremely difficult.—Mr. MORRANT BAKER said that Mr. Hulke had long ago described the affection. It was non-syphilitic; not one case in ten being due to syphilis.—Mr. CLEMENT LUCAS believed that the disease had no relation to ichthyosis or psoriasis, and doubted that syphilitic could be distinguished from non-syphilitic cases. He related the history of a case in which leukoplakia developed thirty years after the infection of syphilis, and eventually became epithelioma.—Dr. BEHREND and Dr. BULKLEY also concurred in the opinion that it was not always due to syphilis.—The PRESIDENT had often seen epithelioma begin in leukoplakia.

Mycosis Fungoides or Lymphadenia Cutis.—MM. VIDAL and HILLAIRET (Paris) gave a sketch of the pathological anatomy and clinical history of a disease of the skin which, they thought, had not been widely recognised out of France. Alibert first used the term mycosis. Hardy called it hypertrophic lichen. In a case which was examined by Ranvier, the disease was found to be lymphadenoma. The tumours were sometimes as large as tomatoes, or they might be as small as a pea. They produced no irritation. There was first hyperæmia, which went on to ulceration, the neighbouring lymphatic glands becoming hard. Sometimes tumours appeared and disappeared in a day or two spontaneously; but they relapsed again and again. They might appear in the mouth and tonsils, and hæmorrhages might take place in the brain and other organs. Histologically, the tumour was lymphadenoma; clinically, it was different. The tumours reappeared more actively. The white corpuscles in the blood were increased only in the very latest, the cachectic stages.—Professor KAPOSI (Vienna) said that these cases were the same as those described by Dr. Duhring as sarcoma cutis multiplex.—Professor O. SIMON (Breslau) thought that the disease was started by some superficial irritation in the first instance. He recommended treatment by pyrogallic acid.—The PRESIDENT had called the disease eczema tuberculatum, and considered the tumours to be adenoid.

Prurigo or Hæmatous Prurigo or Pruriginous Eczema. By W. MORRANT BAKER, F.R.C.S.—The author drew attention to the frequent occurrence in England of a disease usually confounded with eczema, to which it bore, at first sight, a striking resemblance, but which had typical characters of its own, and was essentially prurigo. He thought the chief cause of the disease being so frequently overlooked was to be found in the fact that the symptoms of prurigo were masked by the eczema, which, in children especially, was always present to a greater or less degree, and often in a most severe form. The author believed that the supposed rarity of true prurigo in England, at least in children, was due rather to the cases being overlooked than to their not occurring.

Dr. LIVEING had published cases of true prurigo observed in England six years ago. Lichen urticatus was often the starting-point of true prurigo.—Mr. MALCOLM MORRIS had found the disease totally disappear before a certain age, and never found it after the age of twenty-one.—Professor KAPOSI said that Mr. Baker's cases, which had been shown at the previous meeting of the Section, were certainly examples of true prurigo. In the diagnosis, the whole disease must be taken into account. The localisation was chiefly on the extremities, mostly on the lower, beginning in infancy, and always with symptoms of urticaria. Papules appeared later on the back and buttocks and outer surface of the extremities. The disease was developed about the second year of life. There was great difference between prurigo mitis and prurigo agria. Lichen urticatus was an acute disease, which disappeared in a fortnight or three weeks; but it might relapse, and it would not lead to thickening, infiltration, dryness, and pigmentation of skin. Prurigo mitis, if treated early, was curable in a few years.—Dr. HEBRA (Vienna) said that prurigo had been first described by Willan. It had been overlooked in England through being confounded with eczema, which was only one character of the whole disease, just as, in scabies, eczema was also only one symptom. The localisation was very important. The essence of prurigo was the internal unknown cause of the itching, which gave rise ultimately to the lesion called prurigo. Auspitz put it amongst the neuroses of the skin, and with this Hebra fully agreed. The papules were only a later appearance. The treatment by sulphur baths, carried on for one or two years, was effective in the early cases.—Dr. WALTER SMITH (Dublin) found prurigo comparatively frequent in Ireland. He had seen true prurigo without eczema. It lasted many years, till, at the age of thirty, the patient nearly but not quite recovered. The only treatment found of use was pilocarpin or Turkish baths.—The PRESIDENT considered the cases shown by Mr. Morrant Baker, at the previous sitting of the Section, to be cases of chronic eczema, and not prurigo. He believed these cases to be curable, and recommended the application of zinc ointment night and morning, three minims of liquor arsenicalis thrice daily, and good food.—Dr. SANGSTER remembered a case of ichthyosis which became eczematous, and had seen cases of xeroderma in which eczema was very easily produced, and was very chronic.—Dr. BULKELEY (New York) had seen in America nothing exactly like the Vienna cases of prurigo. Only three cases had been observed in the United States. Lichen urticatus was something different.—Dr. UNNA (Hamburg) agreed with Mr. Baker. The cases he had seen at Hamburg were milder than those he had seen at Vienna.—Professor O. SIMON (Breslau) said that there was a great deal of true prurigo, both in Berlin and in Breslau—both prurigo agria and prurigo mitis. The cases he had seen in London were examples of the disease. Pilocarpin he had found useful, and many patients did not relapse after it.—Dr. ALLAN JAMIESON thought prurigo might appear for the first time in later life.—Professor KAPOSI replied that prurigo never began in later life.—Mr. MORRANT BAKER, in reply, said that lichen urticatus was easily curable, and doubted whether simple scratching and itching were enough to cause the disease. He had seen a case of prurigo without eczema, and a case in which what was very like prurigo appeared in later life.

Dipterous Larvæ under the Human Skin. By W. [illegible] G. SMITH, M.D. (Dublin).—A girl, aged 12, presented herself with the following history. About three months before being seen by a medical man, an ovoid swelling appeared on the outer side of the right ankle, causing her some pain and uneasiness in walking. This swelling gradually shifted its position, and slowly moved up the leg, thence towards the right axilla, then down to the elbow, and finally settled on the back of the neck. In this situation a small dark spot appeared, an orifice formed, and when pressure was made around this opening, a white grub, nearly an inch in length, protruded and escaped along with some unhealthy pus. Several other similar swellings developed upon subsequent occasions under medical observation, and the medical man extracted other grubs, exactly similar to the first specimen. No cause could be assigned for these curious phenomena. The larvæ were pronounced by competent authority to belong to a dipterous insect, although the genus could not be satisfactorily determined. There was no sufficient proof of the existence of an œstrus peculiar to man alone.

A Case of Supposed "Neurotic Excoriation". By ALFRED SANGSTER, B.A., M.B.—The case had been under observation at intervals for three years; it was one in which painful erythematous patches were succeeded by exudation on the surface of serum and sero-pus, each patch terminating in desquamation, and running its course in ten to fourteen days. There was no vesiculation or loss of substance. The longest interval during which the patient had been free from the lesions was three months. When the case first came under notice, it was described by the author in the Clinical Society's *Transactions* as one of abortive herpes; but its subsequent history went to show that the eruption (if genuine) was probably one of "neurotic excoriation" (Wilson). The patient had been under close observation in Charing Cross Hospital on two occasions; and had been seen by many gentlemen in London especially interested in diseases of the skin.

The PRESIDENT remarked that the case did not correspond to those described by him as instances of "neurotic excoriation". By this term he had designated a special affection of the cutaneous nerves, with pruritus, leading to hyperæmia and transudation, and sometimes to hæmorrhage. But when there were pruritus, hæmorrhage, and transudation, one factor only might predominate. He related a case of a young lady, in which blood-crusts were found on the face, although the patient was unaware of their presence. The patches were often symmetrical. He referred to another case in which, on taking off a glove, the hand was found bleeding. In these cases, the shape of the patches was crescentic, advancing by a convex border. The cases were always attended by [illegible]. Dr. LIVEING [illegible] period of observation of Dr. SANGSTER'S case, [illegible] variety of eruption in it, and was therefore induced to believe that the patches were artificially produced. In this patient, the skin was probably unusually sensitive. Two years ago, [illegible] very closely the [illegible] by the [illegible] neurotic excoriation. He referred to a case recently seen, in which

hæmorrhage was so easily produced, that blood could be drawn through the walls of the vessels by suction.—Dr. UNNA (Hamburg) said that the patch which he saw on the thigh of Dr. Sangster's patient impressed him as being artificially produced. It had sharp edges, and was straight and oblong in form.—Professor O. SIMON (Breslau) said that Appenbrock had described a very similar case as an instance of vaso-motor neurosis. In that case it was certain that the eruption was not produced by artificial means.—Dr. THIN was certain that, in Dr. Sangster's case, if the girl's hands were tied behind her back, there would be an end of the eruption. He had seen the case some months previously, and had examined an oblong erythematous patch on the front of the thigh, traversed from end to end by four linear excoriations, evidently produced by the four finger-nails.—Mr. STARTIN had observed a similar case in a little child in which the eruption seemed to follow the course of the superficial nerves of the abdomen and front of the thigh.—Mr. MORRANT BAKER remarked that the quadrilateral shape of the patches pointed to their artificial production. Mr. GASKOIN had seen linear and quadrilateral forms of erythema, and did not think that they were artificial.—The PRESIDENT remarked that there was agreement that in these cases there was a peculiar and specially irritable condition of the skin.—Dr. SANGSTER, in reply, said that he was glad to be able to claim the President's support in regard to the genuine nature of the eruption. The case was probably a mixed one, mechanical irritation producing effects which probably would not follow on a healthy skin. The patient had often been watched without fraud being detected. Professor Kaposi had suggested that it might be a bullous urticaria with abortive bullæ. Still it was remarkable that the patient had never had any lesions on the face.

A Critical and Historical Essay on the Sweat-Secretions. By Dr. UNNA (Hamburg).—Dr. Unna said that, although the parts of the nervous system concerned in the production of sweat had been defined by recent physiological research, which had also shown the mutual independence of circulatory and sweat-phenomena, yet the old puzzle of "cold sweat" and "dry heat" was for each individual case still obscure. This failure on the part of a one-sided nerve-theory had led the author to undertake a criticism of the opinions hitherto held as the basis of the ordinary theories of the secretion of sweat. It had not been shown, either by physiology or by pathology, that the sweat which exuded from the sweat-pores came exclusively from the sweat-coils, nor did such a conception harmonise with the facts of comparative anatomy. No one had hitherto contested the existence of an unbroken histological series of gradations between the ordinary sweat-glands and the glands surrounding the anus, the glands of the axilla, and the wax-glands of the ear; and that the latter continually, and the former intermittingly, poured out a secretion containing mucus, fat, or pigment. The watery element of the sweat, on the other hand, which no one had yet followed from the coil to the mouth of the duct, must in part be drawn from the blood-vessels of the papillary layer; perhaps, also, partly from those surrounding the duct, and from the rete mucosum, there being free communication between the interepithelial spaces of the prickle-cell layer and the lumen of the duct. The sweat was therefore a mixed fluid, derived from different sources, and its reaction varied according to its composition. Nerve-physiology had only shown that the secretion was independent of blood-pressure, and of the rapidity of the circulation, but not of the circulation as a whole; and the theory which held that the sweat-coil secreted watery sweat under continual nerve-stimulus must be rejected. The best theory was that derived from a vaso-motor and a musculo-motor hypothesis, which explained the action of the involuntary muscles connected with the gland; the remarkable transitions between fatty, mucoid, and pigmented sweat, and especially the phenomena of "cold sweat". The "dry heat", on the other hand, observed chiefly in general febrile states, and in certain skin-diseases, required other factors, outside the range of the nervous system, for its explanation. Amongst these, the expansion by heat of the horny layer of the epidermis specially deserved attention, as by this means the cleft-shaped lumen of the canal in the stratum lucidum was shut.

The PRESIDENT illustrated the peculiarities of the successive conditions of diminished and increased perspiration due to atmospheric influences, by relating his personal experience during the recent unusually hot weather in London.—Professor O. SIMON (Breslau) had made experiments on the influence of the nerves on the sebaceous secretion with positive results. Ludwig had had similar results in experiments on the duck. By carefully examining the skin in cases of seborrhœa, it could be seen that the moisture on the skin was partly due to the sebaceous secretion.—Dr. HEBRA (Vienna) said that the scalp was rich in sebaceous glands, and the palm in sweat-glands. Seborrhœa never occurred on the palms and soles, on which parts the secretion was always watery, with very little fat. The fatty matter found on the skin came chiefly from the sebaceous glands.—Dr. UNNA, in reply, said that nerves had not been demonstrated for the sebaceous glands, but they had been demonstrated for the sweat-glands. On the nose, the sweat-glands opened into the ducts of the sebaceous glands.

Sclerodermia Diffusa (Sclérème des Adultes, Thévenot). By J. HERBERT STOWERS, M.D. A living female patient, aged 47, had been shown at a previous meeting, who illustrated the advanced form of the above disease, the pathological changes having been first noticed at the age of 23, and affecting the skin, subcutaneous tissue, and bones. The regions involved included the scalp, ears, face, neck, trunk, and extremities. The case was characterised by discoloration and structural changes of skin, fixedness of joints, shortening of bones, disordered and impaired sensation, and pain. The paper included observations on the nature and cause, clinical history, and structural alterations of scleroderma.

Congenital Abnormality in the Production of Hair on the Scalp. By GEORGE THIN, M.D.—The paper described the case of a girl, aged four, whose hair, although normal in quantity, was defective in its formation, and was reported to have been so since infancy. The hairs were rough and crisp to the touch, varied in length from a fraction of an inch to little over an inch in length, and broke off in numbers when the scalp was firmly rubbed. There was continual formation and continual breaking of the hairs. When the hand was passed over the head of the child, the sensation experienced was like that felt on rubbing a pig's skin against the direction of the hairs.—Professor KAPOSI (Vienna) had seen two cases of the same kind. In one, a boy four years old, there were present features of lichen pilaris, especially on the neck. The affection was congenital, like ichthyosis. The second case was exactly similar. There was a gradual improvement in the first case under stimulating local treatment.—M. VIDAL (Paris) had also seen similar cases, but twice only. The sebaceous system was poorly developed in them, and the affection was probably due to defective development of the sebaceous glands. Breaking of the hairs was also found in seborrhœa sicca.—Dr. UNNA (Hamburg) had under his care a case of the same affection in a young lady. It was in this instance limited to the vertex, having come on after great mental depression. As in alopecia, there was dryness of the skin and coarseness of the hair, with hardness of the scalp. He thought it like scleroderma circumscripta. It got better under sulphur ointment.—Dr. R. LIVEING had seen one similar case, which had existed from earliest infancy.—Dr. BULKLEY (New York) had seen one case, in a boy aged 6, in whom there was also marked lichen pilaris on the arms.—The PRESIDENT remarked on the various alterations of the hair, and referred to its occasional wiry condition.

Dermato-therapeia. By ERASMUS WILSON.—The President read a short paper on dermato-therapœia. He explained what he termed the sealing process, in which the skin was kept completely protected by repeated applications of benzoated zinc ointment, the use of water being avoided. This ointment did not suit for the scalp, where an ointment of one part of red oxide of mercury ointment diluted with three parts of unguentum petrolei gave excellent results. A lotion of oxide of zinc, calamine, and lime water left a deposit on the skin, which was also an excellent protective.

After a vote of thanks to the President, supported by Dr. Hebra, M. Vidal, and Professor Kaposi, Dr. BULKLEY proposed, and Dr. STEPHEN MACKENZIE seconded, the formation of a committee to examine the question of dermatological nomenclature, and to report at the next meeting of the International Medical Congress.

SECTION OF DISEASES OF CHILDREN.

[Concluded from page 553.]

DISCUSSION ON CHOREA.

On Subcutaneous Nodules connected with Fibrous Structures occurring in Children the Subjects of Chorea and Rheumatism. By THOMAS BARLOW, M.D., F.R.C.P., and FRANCIS WARNER, M.D., M.R.C.P.—The nodules described varied in size from that of a mustard-seed to that of a bitter almond. They were strictly subcutaneous, the skin over them being simply raised, without any heat, pain, redness, or infiltration, and in most situations they were slightly movable. They occurred in connection with fasciæ and tendons, and especially near joints. The back of the elbow, the malleoli, and the margins of the patella, were the commonest sites. Other situations were in the neighbourhood of the vertebral spines, the spine of the scapula, the crista ilii, the extensor tendons of the foot and hand, the temporal ridge, and the superior curved line of the occiput. They were mostly symmetrical. In regard to minute structure, they consisted of small masses of loose fibrous bundles, sometimes very vas-

cular. These nodules might appear in one crop, or they might appear in succession. The nodules subsided generally within a period of two months; but they might undergo recrudescence. They never became bony, and never became infiltrated with urate of soda. Their evolution was not attended with pain, and rarely with marked pyrexia. Often, during the time when they were present, there was no pyrexia. They had been observed only in children and young adults, the limits being 4½ years and 19 years. In all the cases, it was believed there was heart-affection. Thirteen out of the twenty-six cases had well-marked chorea; eight had erythema marginatum, or erythema papulatum; one had purpura in addition. There was a history of acute rheumatism in ten, and of subacute rheumatism, with vague joint-pains, in eight. It was contended that these subcutaneous nodules might be taken as indicative of rheumatism in children; and that, when found associated with heart-disease and chorea, although no history of rheumatic fever could be obtained, their presence gave a presumption that the chorea was rheumatic. In nature, they were probably homologous with the inflammatory exudation which forms the basis of a vegetation on a cardiac valve.

On the Relationship of Chorea to Rheumatism. By Dr. BYERS (Belfast).—It was contended that the murmur heard in so many cases of chorea, was generally organic, only occasionally inorganic. The embolic theory would not explain all the cases of chorea, inasmuch as in some there was no history of rheumatism, and no evidence of cardiac disease.

Professor STEFFEN (Stettin) contended that a definite interdependence between chorea and rheumatism was not as yet proved. The relation between chorea and endocarditis could not be fixed anatomically or pathologically. Probably the chorea was always the primary morbid phenomenon. The chief symptoms of acute endocarditis were active fever, dilatation of the heart, with enlargement of the area of dulness, a systolic blowing murmur, and an accentuation of the second sound in the area of the pulmonary artery. The dilatation preceded the murmur, if the endocarditis had originally or exclusively attacked the heart-walls. In primary inflammation of the valves, the opposite took place. When an endocarditis which exclusively involved the heart-walls receded, the dilatation of the heart disappeared first, and then, gradually, the blowing murmur. If the valves were also attacked, the systolic murmur remained after the dilatation had disappeared. Dilatation and hypertrophy might afterwards develop afresh as a secondary process. Acute dilatation of the heart was observed without endocarditis in grave and acute obstruction of the pulmonary circulation, and in septic processes. Cardiac murmurs occurred in chorea without endocarditis. These depended on impaired function of the heart, not only through nervous influence, but also through the obstruction to the circulation of the blood, which occurs as a result of the spasmodic movements of the body. Dr. OCTAVIUS STURGES, in a short summary of facts, derived chiefly from cases under his own care, discussed the several modes of origin of chorea, its modifications at different ages, and particularly that view of the pathology of the affection which seems to be favoured by the observation of its heart-symptoms, and of their variations in childhood, adolescence, and adult life.—Dr. STEPHEN MACKENZIE arrived at the following conclusions, from an analysis of one hundred and seventy-two cases admitted into the London Hospital during six years. 1. That some cardiac abnormality is present in more than half the cases of chorea. 2. That the cardiac abnormality is due to endocarditis affecting almost exclusively the mitral valve. 3. That in over 80 per cent. of cases the heart-lesion persists. 4. That absence of murmur is no proof of absence of organic heart-disease. 5. That rheumatism has pre-existed in nearly half the cases for certain; and that there are strong grounds for believing that it has been an antecedent in a very much larger proportion of cases. 6. That no other very frequent exciting cause of endocarditis is shown to have persisted, or to be more frequent, amongst the non-rheumatic than the rheumatic. 7. That the form of heart-disease met with in chorea is that seen in connection with rheumatism. 8. That rheumatism is in nearly all cases the cause of the heart-murmur which so frequently attends chorea.—Dr. RANKE (Munich) pointed out the great importance of the study of the geographical distribution of disease; and he thought that future Congresses might do most useful work if general attention were drawn to this matter. In regard to chorea, Professor Ranke was inclined to think that it was much less frequent in some places than in others. He had lately searched his books, and found that, amongst 40,723 children treated by him in the University Dispensary for Sick Children, since 1867, there had only been nineteen cases of chorea; amongst these nineteen, only three had presented a systolic murmur; in all these cases the heart-sounds had been normal. Amongst the three cases with mitral trouble, there was only one in which an attack of acute rheumatism had previously occurred. Of the nineteen cases, two followed immediately after fright; in the rest, no immediate cause could be discovered.

THE TREATMENT OF CHRONIC DISEASES OF JOINTS.

On the Treatment of Scrofulous Inflammation of Joints. By Professor HUETER (Greifswald).—Scrofulous inflammation of a joint is characterised by the formation of granulation tissue, so that suppuration follows, while, in other forms of joint-inflammation, especially the traumatic form, suppuration precedes, this formation of granulation tissue. Scrofulous inflammation can be described as leading to the formation of granulations, as a *synovitis granulosa*, if it proceeds from the synovial membrane; as a *myelitis granulosa*, if granulation masses are previously formed in the medullary substance of the bones (of the joint). In the latter case, the synovitis granulosa follows the myelitis granulosa. In the scrofulous granulations, "noxæ" develop themselves, which, at the seat of the primary disease, lead to the formation of tubercles (local tuberculosis of joints), and, by getting into the blood-vessels, produce general tuberculosis. This form of joint-inflammation may, therefore, be called the scrofulo-tubercular. That form of joint-inflammation, which is produced by congenital syphilis, shows similar appearances; it must, nevertheless, be differentiated, both for diagnostic and prognostic purposes, since there are no "noxæ" which can lead to tuberculosis. The early stage of scrofulous inflammation may be successfully treated by the injection of a solution of carbolic acid (3 to 5 per cent.). The injection must be made with a Pravaz syringe, in such a way that the solution comes in immediate contact with the granulation tissue, *i.e.*, with the interior of the joint, if the case is one of synovitis granulosa; and with the interior of the bone, if it be one of myelitis granulosa. Antiphlogistic treatment of scrofulous joints (fixation, massage, compression, permanent extension, blood-letting, blistering), he considered to be of little or no value. He had discarded incision into the joints, drainage, scraping away the granulations, or partial resection of a joint. If carbolic injections failed, he considered that the best treatment was excision, especially after suppuration had set in; further, he thought that this excision should be total. When practised early, the results were the most satisfactory. Local scrofulous manifestations, after excision, were best treated by the application of the actual cautery, and the dusting on of iodoform; or by the introduction of iodoform crayons into the fistulous openings.

The Excision of Joints in Childhood, in reference to the Subsequent Growth and Utility of the Limb. By M. OLLIER (Lyons).—Every excision of a joint, during childhood, interferes with the subsequent growth of the limb; but the subperiosteal method of operating interferes less than any other. The inequality in length becomes visible only after a time, and varies with the extremity. This arrest of growth, which is quite inevitable, should induce the use of antiseptics and "abraision articulaire". In cases where ankylosis is desired (knee), it is well to remove as little as possible. Where mobility is essential, an effort must be made to constitute a new joint, especially when the parts of the bone about to be removed do not contribute much to the growth of the limb (elbow).—Professor SAYRE believed that, if these joint-affections could be diagnosed early enough, resection would never be necessary. The object to be held in view was to adapt an apparatus to the limb which took all pressure off the joint, but allowed the patient to get about, to take exercise, and so maintain his general health in good condition. If the case went on to suppuration, then excision was the best operation, and was often attended by most wonderful success. M. FOCHIER advocated the fixation of the joints in the early stages.—Mr. BENTON was pleased to find Professor Hueter thought that fixation and extension were of little use in the treatment of chronic disease of the knee-joint. He advocated movement of the knee; the pain was, he thought, due to adhesions, and the true way was to break down these adhesions by a sudden jerk, which snapped them in the middle; the child should then at once be made to walk about.—Mr. HOLMES did not understand how a disease which depends, as Hueter says, on auto-infection, can be cured by so simple a means as mere rest; yet, that it was so cured, is a very well known fact. He thought it also rather too dogmatic a method to say [illegible] and, if that fail, excise the joint. He did not feel inclined to accept this advice as final, though he had a great respect for the opinion of Professor Hueter. It was necessary, he thought, to give the joint rest; that it was important to achieve this end, more important even than to obtain fresh air, as was evidenced by the experience even in the London hospitals. He [illegible] methods were [illegible] scrofulous cases were [illegible] did not deny that the joint might be cured without injections, and so on; but he believed that it was cured by [illegible] by the rest.

SECTION OF MILITARY SURGERY AND MEDICINE.

THE PRESIDENT, Professor [illegible], delivered an introductory address, which was published at page 524 of the JOURNAL for August 6th.

DISCUSSION ON ANTISEPTIC SURGERY IN THE FIELD.

The following papers having been read, a discussion arose to a very active debate.

What has the late Russo-Turkish Campaign contributed to the Advance of Antiseptic Treatment in War. By Surgeon-Major H. J. L. MELLADEW, M.D. The paper was chiefly based on the reports made by surgeons who had served in the Russo-Turkish war. The more rigorously antiseptic principles were followed out on the field of battle, at the dressing stations, and at the hospitals, the better were the results. The work of the surgeon was much simplified, for there was no necessity for frequent renewal of the dressings, and more time could be given to the severe cases. The wounded could be more rapidly removed, and were carried to the rear of the battle-field, and, if thought advisable, to their homes, in much more favourable conditions than under the ordinary plans. Convalescence was much more rapid. The author quoted the authority of Reyher, Cassimerer, Pirogoff, and other surgeons, in favour of the use of antiseptics in war. Bergmann had successfully treated gun-shot fractures of the knee by at once washing the limb with a solution of carbolic acid, then wrapping it in cotton dipped in a solution of salicylic acid (10 per cent.). This cotton was covered in with gutta-percha, and the limb was rendered immovable by plaster-of-Paris. In several of the cases, the wound was found to be healed the first time the dressing was removed. The author insisted on the importance of not attempting to examine the wound by the sound or the finger, and quoted Langenbeck in support of the principle, which was followed by most of the Russian surgeons in the war. The experience of the Russian surgeons had shown that septic wounds could be rendered aseptic, even though a fortnight had elapsed since their infliction. This had been proved by Cammerer at Plevna, and by Watraszewski in the Caucasus. In conclusion, Dr. Melladew described a packet of dressing which, he said, every soldier should carry sewn in his coat below the clavicle. He objected to metallic cases, because they might be injured by pressure, and, if a ball struck them, they might act as foreign bodies. He recommended a case of linen impregnated with caoutchouc, containing a triangular bandage, a piece of antiseptic lint about eight inches long by three inches wide, and a gauze bandage one yard long, enclosed in parchment paper. The packet was very cheap, easily prepared, and small.

On Antiseptic Treatment of Wounds in the Field. By JAMES LILBURNE, M.D., Deputy Inspector-General R.N.—The author considered that the results of Listerism repaid the time and trouble entailed by the practice. In special cases, as in the field, he proposed a modification of Professor Lister's method. He advocated for the first line of help the syringing of wounds by an antiseptic lotion instead of the use of carbolic spray; and lint soaked in carbolised oil as a dressing, instead of antiseptic gauze. Other antiseptic dressings and materials were described by the author, as well as various surgical accessories for field use. He assumed a case of lacerated wound, and described the application to it of the modified antiseptic treatment advocated in the paper, prior to the removal of the patient to a field-hospital. He considered that at the field-hospital strict Listerism ought to be followed.

On Antiseptic Treatment of Wounds in the Field, etc. By D. PORT, M.D. (Munich).—The author demonstrated patterns of—(1) large antiseptic packets for use in field-hospitals and dressing-stations; (2) smaller ones, to be carried by each soldier for use when the larger ones are not at hand; (3) patterns of splints made from the iron wire and tin cases of the above. He was strongly in favour of antiseptic dressings on the field, as were Drs. Melladew and Lilburne.

On Antiseptic Dressing of Wounds. By Surgeon-General Dr. BECK (German Army).—Dr. Beck proposed the use of dry carbolised cotton wadding for dressings in the antiseptic treatment of wounds, in preference to the spray and wet dressings. He mentioned that this mode of dressing had been used with the best results in the garrison hospital at Carlsruhe (Baden). He described the mode of preparing the carbolised cotton-wool, and the method of using it. He detailed chemical experiments, the results of which had been to prove that cotton-wadding thus prepared, did not lose the carbolic acid with which it was sprinkled in any important quantity for certain periods of time. He alluded to various disadvantages of wet carbolised dressings from which the dry dressing was free. He also referred to objections to dry carbolised tow or jute, from which the cotton-wool dressing was free. As he regarded the method he described as being simple, the material cheap, and the dressing one which could be applied easily and without inconvenience under all circumstances, he thought it suitable for use in time of war, even at the dressing-stations; and hoped therefore, it might be taken into general use.

The PRESIDENT observed that none of the authors had advocated the use of the spray as part of the treatment of wounds in the field, although they advocated forms of antiseptic dressing of different kinds. What should be kept in view was to confine the discussion as far as possible to the subject of the antiseptic treatment and dressing of wounds in the field.—Professor ESMARCH (Kiel) said that surgeons could not treat wounds satisfactorily in the field. Their fingers were dirty on the battle-field, and the only thing they could effect was so to act as not to do any harm to the wounds.—Dr. SHINKWIN (Cork) said that he had followed out antiseptic treatment from the commencement in the North Cork Infirmary. He had not very long ago a very bad case of compound fracture under his care. The patient was a fine young man, and the spray was immediately applied on the wound when he was brought in, and afterwards split cotton-wadding. The temperature had not risen in the slightest by the next day, and the dressing was left for three days. When the gauze bandage outside the wadding was removed, they were amazed to see everything looking healthy and [illegible]. From that time he had used wadding almost entirely. He always used the spray in dressing, and he never attempted to remove the bandages, or to open the wadding, until he had the spray playing on the parts. He had seen symptoms of poisoning, fortunately not fatal, follow the sponging of a large burn, in a child, with a solution of carbolic acid.—Dr. GORI (Amsterdam) said it was true the greater part of the questions whether asepticism was to be applied on the field of battle were to be decided by experience; but to establish how much of antiseptic apparatus might be left alone without any danger—that question should be solved in time of peace. Two principles were predominant in that question: 1, to touch the wounds with nothing but antiseptics; and 2, to cover them as soon as possible with antiseptic material. The covering of the wounds as a preparation to the transportation was the most important part of the first help. He drew attention to a kind of wound-covering manufactured by the well known factory of dressing and bandage materials at Schaffhausen, and bearing the name of "Compresses antiseptiques". This was a combination of A. Guérin's cotton-wadding dressing with Lister's gauze and a piece of paraffin paper. This dressing might be folded double once or twice, and attached by a swathe or triangular kerchief. A second point was, how to preserve the antiseptic dressing. Several dressings had been proposed to be carried by the soldiers of the ranks and of the bearer-companies. This proposal would meet many difficulties in the application; and it was better to distribute the antiseptics among the combatants immediately before the battle.—Inspector-General MOUAT said that, forty years ago, he had himself practised antiseptic treatment in India, and afterwards in the Crimea partially, and in the campaign in New Zealand entirely, although not on the principle made out by Lister. Listerism was not, in his opinion, applicable to the field of battle. The great feature of all military treatment of wounds was the most perfect simplicity; and that could be secured possibly by merely soaking the ordinary lint, tow, etc., in antiseptics. Of these, one of the oldest antiseptics known was creasote. It did not volatilise, and the only objection to it was that it was not easy of solution. But that was easily overcome by using it in a mixture of acetic acid and mucilage, which was readily retained in water; and it retained its powerful odour in all circumstances. About forty years ago, he had occasion to perform an operation in very unusual circumstances. A soldier had been carrying a musket on his shoulder, and the lightning struck the musket and exploded it, twisted the barrel into a coil, and shattered his hand into portions. He amputated the hand with the flap in the usual way. The next day, he saw maggots in the wound. He used creasote to remove them, and had some difficulty in making the solution, until he overcame it as just stated. The result was that the maggots at once disappeared from the wound, which took on a healthy action and healed by first intention in eleven days. Twenty-five years afterwards, the same thing happened in the Crimea, at the assault on the Redan. All the amputations were affected with maggots. He at once applied creasote, and the wounds took on healthy action, and they found subsequently that when a dressing was soaked with this creasote solution, the flies immediately left the dressing. Therefore, antiseptic treatment could be applied in the field, but not Listerism. During the Maori war, five hundred wounds were treated with Condy's fluid, and the report was that no case of pyæmia or secondary hæmorrhage occurred during the whole campaign. Among these were nine cases of secondary excision of the shoulder-joint, which all recovered, and without any bad symptoms. He agreed with Dr. Esmarch that the complicated dressing of Listerism and its duration precluded it from being employed on the battle-field.—Dr. CASSON-

said that, in the Turkish war, he had performed operations on the actual field of battle, and also at the base. The long-continued processes of Professor Lister, without assistance, appeared inapplicable. But his experience had taught him that some modification of the antiseptic treatment, even in first dressing of the wounded, was a most desirable thing. A solution of about 4 to 5 grains of carbolic acid to the ounce of glycerine, was most servicable for dressing wounds when there was a difficulty in finding water on the field. Carbolised tow—that was to say, picked oakum, well saturated with tar, was of wonderful value. In regard to antiseptic treatment in base hospitals, he believed that, especially where it could be carried out fully, according to Lister's principle, it would be very useful. —PROFESSOR REYHER (St. Petersburg) addressed the Section in German.—The PRESIDENT said that it was quite evident that all agreed in the impossibility of applying strictly the spray in the first line of assistance. And it seemed to him that everyone had come to the conclusion that, although the spray could not be adopted there, still from the commencement, there might be an antiseptic dressing. Surgeons in all parts of Europe were greatly indebted to Professor Esmarch, who had given much attention to rendering the first dressing an antiseptic dressing. Professor Reyher had given the very great results of the antiseptic treatment on the field itself. But Dr. Reyher had hospitals that were furnished in a way and under circumstances that few military surgeons ever had. Then came the question—could they apply antiseptic treatment strictly at the field hospitals? If the field hospitals were placed in towns, as they were during the Franco-German war, then, very frequently at least, there would be no difficulty in applying the strict Listerism. But supposing their hospitals were tents in the open ground, the wounded would remain, or would be likely to remain in these tent-hospitals in the open fields for days, and perhaps for longer periods. There was no difficulty in using the various dressings that had been mentioned—the dry antiseptic treatment—Dr. Port's, Professor Govis's, and various others. The question was, which was the best? They wanted, he presumed, enlarged experience on this point. In regard to the application of the antiseptic treatment in the base, of course there was no more difficulty there than there would be in any fixed hospital in England. But then came to be remembered the length of time that would have to elapse before the wounded would have reached the place of the hospital. As the result of the discussion so far, although they were all agreed that, so far as field practice was concerned, certainly strict Listerism could not be applied, and that surgeons, at any rate, had at their choice various kinds of antiseptic dressings which might be applied with the greatest advantage, the question remained, probably only to be settled by further experience, which among all these was the best and most practicable, and the most applicable in the circumstances.

On the Influence of the Contagious Diseases Acts on the Prevalence of Venereal Affections among Troops serving in the United Kingdom. By Inspector-General ROBERT LAWSON.—The author gave a retrospect of the circumstances which led to the Parliamentary Acts in question, and of the chief objects attained by them. He noticed the periodic fluctuations in the prevalence of venereal affections, and the influence of these fluctuations in estimating the results of the operation of the Contagious Diseases Acts. Illustrations were given as regards ratios of admission for primary venereal sores, and also for gonorrhœa. The frequency of non-infecting sores was compared with that of infecting sores at certain dates. Statistics were quoted to show that, where the Acts had been applied, they had not only lessened the prevalence of all forms of venereal disease among the troops, but that they had materially reduced the frequency of syphilitic disease among the civil population at the stations where the troops had been quartered, and also in their vicinity.—Surgeon MYERS (Coldstream Guards) said that what was wanted was, to know whether syphilis was or was not being diminished. Both the supporters and the opponents of the Acts, according to their own statistics, proved what they believed to be facts. Statistics, even viewed most conscientiously, could be made to prove imaginary facts. He had no great faith in the statistics of syphilis having diminished in the army. But he had worked out the statistics of the Guards, who were a small body of men, moving about between two or three stations. The Guards suffered immensely in Windsor: but no sooner did the Acts come into force there than the disease diminished, and Windsor was now practically free from syphilis, whereas in London the statistics were large. Gentlemen who were opposed to the Acts based their statistics, he thought, chiefly on the diminution or otherwise of secondary syphilis and gonorrhœa. In regard to secondary syphilis, statistics were very fallacious. In the first place, before the Acts, no doubt many cases of secondary disease were never reported. Then the Government decided that the pay of a trooper suffering from primary syphilis should be stopped, but not that of a man suffering from the secondary. The result was that the medical men reported secondary syphilis, instead of allowing the patient to remain in the primary class. In order to get at the real effects of the Contagious Diseases Acts, it was necessary to work upon primary syphilis, and the same with regard to gonorrhœa. On syphilis itself, the effects produced had, in his opinion, been most markedly beneficial.—Dr. CATON (Liverpool) said that Mr. Lawson had withdrawn some of the tables which he had put before the House of Commons, on the ground of their being incorrect. The examination of the men when they came into the so-called protected district, and not when they went into other districts, was not scientific. There was no scientific evidence to lay before that meeting. Experiments were wanted like those of Pasteur, exact and scientific. These men of science—an official science—have opinions favourable to these Acts based on these statistics, without acknowledging that, from these protected districts, a large number of women ran away, and could not be traced.—Mr. CARTER said that, at a certain period, extending from 1866 to 1870, Acts of Parliament were brought into operation for the purpose of diminishing, not simply syphilis, but also gonorrhœa. In 1870, they were universally applied to the eighteen stations; and, after they had been in operation for two or three years, a royal warrant was issued imposing penalties on the men for acquiring this disease. He thought that this showed dissatisfaction on the part of the authorities with the operation of the Acts. In consequence of the Act, there was an immense fall of the primary disease—from 50 to to 42 per 1,000 on admission. This showed the possibilities of concealment. There was another very important fact—the trivial nature of many of the [illegible] of the hospital; and that the mass of the diseases influenced by the Acts were not primary venereal sores, but local ones, which would get well of themselves. The statistics of primary syphilis so-called, and of gonorrhœa, were absolutely unreliable after 1873, because of this vitiating and disturbing element introduced by Lord Cardwell's order. Mr. Lawson said that, in order to come to a correct conclusion concerning the incidence of syphilitic disease under the Acts, all the period from 1861 to 1866 must be taken. That would be scientifically fair if there was a constant fluctuation in the incidence of the disease during the period. But that was not the case. There had been at these stations during these six years an undeviating fall per thousand of admissions from primary [illegible]. Without one single break, there was a progressive amelioration owing to some cause independent of the Acts. He also drew attention to the Registrar-General's report as to the influences of disease during those years. The deaths were the indications of primary syphilis, and throughout the country the same indication prevailed. But, when there was such a fall in these stations, there was throughout the country a progressive rise, the deaths per million being 54, 59, 60, 64, 68, 65, and 81. Suppose there had been a small fall since the introduction of the Act. Was that the result wished? It had been stated that there was a small amount of decline up to 1866; but the moment that these Acts were introduced all further decline was attributed to them. Some of this must be attributed to causes that had acted before the new agency was brought into operation. Constitutional syphilis was more severe when got in the subjected than in the unsubjected districts, and the chance of taking the disease was greater. And yet, with this greater liability to danger, it was said that there was a diminution of syphilis. Not the slightest reliance could be placed on the Registrar-General's returns, because medical men, for the sake of their patients or their reputation, made returns, not of the disease itself, but of some of its complications.—Inspector-General Dr. MACLEAN (Netley) said that Dr. Caton had said that what he called very trifling sores might be allowed to take care of themselves. He remembered the case of an officer who had a trifling sore, so trifling that he never laid aside any of his very active duties as a cavalry officer. In due time, it healed, and, within about twelve months, he married; but, before being married, he subjected himself to a very careful examination, and was pronounced to be apparently perfectly free from disease. Four months after the marriage, Dr. Maclean found the wife covered with syphilitic blotches. In due time, she gave birth to a child, most miserably disfigured. On examining the [illegible], he could find of any taint was a small scaly patch between his shoulder, not the size of a crown-piece. [illegible] officers who supplied the statistics were men of the highest honour, and incapable of cooking statistics, even if biassed in opinion. The statistics, however, were [illegible] about the subject, but [illegible]. He quite agreed that the question was a scientific one, but it had been made a sentimental [illegible] sense and common [illegible] the Acts. He

ventured to say there was not an officer in the army and navy who had seen their beach who was not prepared to attest it. At Aldershot, he had given orders that the women were to be treated as if they were ladies, and they were so treated. And they had become more decent on account of the treatment. In regard to the question of the men concealing their disease, he admitted that they might conceal and had concealed it. That, however, was not the case in regard to secondary syphilis, which could not be concealed. All had one object in view, the common benefit of their common brotherhood.—Dr. CHAPMAN (Paris) was prepared to accept the statistics as good, at least up to the time when Lord Cardwell's Order was issued; but, after that time, he did not believe in them. Before that, however, they fairly represented the facts of the case. His difficulty with reference to them was as to the interpretation. He had himself elaborated a table showing how, as it appeared to him, they ought to be interpreted. To compare the stations under and without the Acts appeared to him unscientific, and involved infinitely difficult questions, some of which he discussed at length.—Surgeon-General Dr. ROTH (Dresden) wondered that in England there was so much discussion on the question. In Germany, the best results followed laws for protection against contagious disease.—Surgeon-General GORDON, who had had experience of the British soldier during thirty-nine years, spoke most strongly in support of the Contagious Diseases Acts.—Deputy-General LAWSON, in reply, maintained all that he had said in defence of the Acts. He denied, according to his experience, that the Acts were valueless as regarded gonorrhœa.

Invasion of Sanitation: Troops in Quarters or on the Line of March in Tropical Countries. By Sir JOSEPH FAYRER, K.C.S.I., M.D.—The author gave a general summary of the effects of this disease in India and the tropics; the proportion of cases to the strength of European troops, women and children, in native soldiers, and the gaol population. He defined the conditions to which the terms—*coup-de-soleil*, insolation, ardent fever, heat-asphyxia—were assigned, and described the principal forms in which it appeared. He described the condition of exhaustion, shock, and syncope, with the symptoms, pathology, and treatment; also the condition of hyperpyrexia of the blood and tissues generally, giving rise to thermic fever and grave structural changes in the nerve-centres; and the consequences attending lesions of the respiratory and circulating centres, with the symptoms, pathology, and treatment. He noticed also the influence of climate, of hot dry air, of damp heat, of direct solar heat, and of high temperature in the shade; in buildings or tents, and especially under certain unsanitary conditions—as the result of irregular living and imperfect hygiene; also the modes of death, treatment, and modes of prevention. Brief reference was made to the after-effects of sunstroke, and their consequences. The paper concluded with remarks on the mode of dealing with those who had suffered.

On the Best System of Meeting the Needs of Men Wounded in Action on Board Modern Ships of War. By Inspector-General JOHN D. MACDONALD, M.D., R.N., F.R.S.—This paper was arranged under the following heads: 1. Introductory remarks. Comparison of naval and military warfare. Practical suggestions, etc. (*a*) The ship, at once the encampment, the fighting-ground, and the hospital; (*b*) Surgical arrangements more systematic in the military than in the naval service; (*c*) One reason for this is, probably, that the sailor is always a man of resources, and, from the very nature of his calling, accustomed to weighty responsibility; (*d*) Experienced naval medical officers rather averse to "hard and fast rules", ships are now so varied in construction and internal economy; (*e*) All the "written law" on the subject; (*f*) Allusion to the Army Hospital Corps, bearers and nurses, and the propriety of supplementing the naval medical staff in some similar way; (*g*) The authoritative issue of more definite rules, not only for the guidance of medical officers, but also for those non-combatant officers and others who might be of assistance in time of action. 2. Manning and arming boats. Its importance; the use of tourniquets, and other particulars. 3. Preparation in case of action or fire, and general questions on the parade of action for exercise. Traditional rules, etc. 4. A summary of the subject matters demanding more particular attention. (*a*) The selection of a suitable place for the reception of wounded; (*b*) The means of conveying wounded men safely from one part of a ship to another, from aloft, or from deck to deck; (*c*) The necessity of dealing immediately with cases brought under the care of the medical staff; (*d*) The final disposal of cases after operation or the dressing of wounds; (*e*) The organisation of the medical staff, bearers, and trained nurses; and the assignment of definite duties to non-combatant officers and others, whose services might be available during action.

Surgeon LLOYD (Royal Navy) said it had been found in practice to be impossible to take the wounded to one place, and there had been two dressing stations established, one below and the other above, and those wounded abaft the middle of the ship should be taken down below by machinery. An ambulance corps, with bearers, had been established, and they made their way as best they could to the middle of the ship, and took the wounded to their respective places.—Medical Inspector BROWN (United States Navy) remarked that all Dr. Macdonald's suggestions might be carried out on board-ship; but it was impracticable, and almost, during an engagement, an impossibility, to have any fixed transport system. Dr. Macdonald had said that the sailor was always a man of resources, and, from the very nature of his calling, accustomed to weighty responsibility. This was constantly proved in the United States service; the general impression was, that the main object was to gain a victory. It was left to the medical officer to provide as best he might provisions for the wounded; but they all seemed to think there was no necessity for organisation. Dr. Macdonald had also remarked that experienced naval medical officers were rather averse to "hard and fast rules", as ships were now much varied in construction and internal economy. Therefore, whilst he heartily wished that the very valuable suggestions which had been offered could be adopted, he thought they could not be literally enforced on board-ships. During the civil war, he had served in a small fast steamer, with a heavy battery; and he had found that, although provided with ambulances, as a rule during an engagement they were never used. He was surgeon of the *Kersage* in her notable engagement in the Channel with the *Alabama*, and he had every preparation made. His only assistance was the druggist or apothecary, and some men for conveying the wounded; yet, when the engagement commenced, every man went to his post, and he found himself with the apothecary simply; and he did not see anyone else until after the engagement. And yet the ambulance was ready, and also the wounded; and one poor fellow—who afterwards died in hospital at Cherbourg—in order not to take the men from the guns, concealed the gravity of his injury, and dragged himself out of the way. And, after the fight, instead of placing him in a cot, although he had a compound comminuted fracture of the thigh, two of his comrades simply picked him up in their arms, and carried him away.—The PRESIDENT observed that sometimes military surgeons also had the advantage of the assistance of the navy cots and navy officers. After the action of the Alma, the greater part of their wounded were, in consequence of the absence of wheeled conveyances, removed by the sailors of the fleet in hammocks and cots. It then struck him that, with certain arrangements, the doubling-up of the patients in the hammocks, which was extremely inconvenient where there was a fracture, especially of the lower extremities, might have been avoided. Of course, that was merely an occasional occurrence, but it showed that there might be occasions in which military surgeons would be interested in the construction of the conveyances on board-ship.—Surgeon-General MOUAT would add his testimony to that of Mr. Longmore, of the value of any practical contrivances that would assist in conveying the wounded on board a ship. Medical officers in the army had constantly to make long voyages on board-ship, where they were left entirely to their own resources. He had proceeded to the Crimea, *viâ* Malta, on board a troop-ship. They had not gone beyond the Bay of Biscay when a terrific storm arose, and a dead bullock suspended in the rigging fell on the crowded deck. Several men were seriously injured, and there were three fractures, one of them compound. There was no mode of carrying the man below. He had accordingly to be kept on the deck for several days, and ultimately, when the weather became calm, the carpenter of the ship prepared a contrivance which enabled the man to be moved. This man was then a non-commissioned officer, now a colonel. Cots of the kind suggested by Dr. Macdonald would have materially lightened his labours in that case.—Dr. MACDONALD, in reply, explained some details of his contrivances.

On the Training of Subordinates for Service with the Medical Department. By SANDFORD MOORE, M.B., Surgeon-Major.—Surgeon-Major Moore read a paper on the special training of subordinates, whether civil or military, for service with the medical department of an army in the field; and the question of bringing supplies to the ground during or immediately after an engagement. He briefly considered—1. The degree of training requisite in each case to secure efficiency; 2. The measures for promoting the timely arrival of supplies for the use of the wounded.

Surgeon-General Dr. ROTH (Dresden) thought that the arrangement carried out in England was the best and the most complete for the management of the medical service. He had been pleased to hear the reports of how well the system of bearer-companies had worked, as in South Africa and in Affghanistan. He would prefer that the organisation of the bearer-companies should be independent, and not belonging to, or in connection with the regiments.—Surgeon-General MOUAT

said that the present tendency seemed to be to do everything for the medical officers, and to give them no credit for being men of resource. He sometimes looked back with astonishment at the things they were able to do in the old times; but an army hospital corps, which would be really a small army in itself, would be an addition to the difficulties of movement in the field and of transport. While he did not doubt that a real benefit had been gained by the establishment of an army hospital corps, he thought the real object of the separation of the two arms had been to make the medical officers more independent; and he thought that could have been secured quite as well without the destruction of the regimental system, which, owing to the *camaraderie* fostered by it, had been extremely popular. The accounts he had received from officers who had served at the Cape were not encouraging.—Dr. MOORE observed that Dr. Roth had said that the whole of the organisation was in the hands of the medical officers. That was not the case. It was to the men being independent of the medical officers that the falling off of supplies was due.—Surgeon-General MOUAT suggested that the real object of the regulation was to try to relieve medical officers of unprofessional duties at a time when their minds were, or ought to be, absorbed with other things. He agreed, however, that medical officers should have all that pertained to their department under their control. In his own case, he had come to an understanding with the general officer in command; and he agreed that that should be so, and gave orders that, in everything pertaining to his department, he should be obeyed. There was no reason why that could not be done always, if ordered officially from head-quarters.—Dr. ROTH said he had, in the reports, read very often that the hospital corps was under the command of Surgeon-Major Hector.—Dr. MOORE said it was true it was said that the medical officer was in command or in charge of the company; but he had not power to punish those in charge of the wagons.—After some remarks by the PRESIDENT on Dr. Moore's paper, to which the author responded, Dr. JAKREH stated that, in the Austrian service, medical officers had not right to command or to punish the bearer-company in the field. In the railway and street ambulances, the sanitary officer had the command, and also the right of punishment.—Dr. ROTH said that, if only the medical officer had the direction, all other things would follow. The corps of Royal Engineers had gone through all the same phases that the medical service were going through, and it might be hoped that everything would be executed in their arm in the same way as had been done in the scientific arm.—The PRESIDENT said that all the technical details of the transport department were in the hands of the transport officer, as they ought to be. But what was practically wanted was that the medical officer should give the order to the officer in charge of the transport to go wherever he might be required.—Surgeon-General MOUAT thought that the bearer-companies ought really to be a branch of the medical service, and not of the military service at all.

Observations on Wounds Inflicted by the Bullets of the Martini-Henry Rifle. By T. LONGMORE, Surgeon-General (Netley).—In 1879, Dr. Kirker brought under Professor Longmore's notice some observations which he had made on the character of wounds inflicted by spherical bullets and by conoidal bullets. The differences were quite reconcilable with the conditions of the experiments, especially as regarded the nature of the objects fired at, the relative dimensions and weights of the projectiles employed, and the distances at which the objects were hit by them. One observation made by Dr. Kirker was that, though bones penetrated by the conoidal bullets were extensively fissured, the periosteal investment of the fragments was not much disturbed; and Dr. Kirker was led to surmise that, in some instances, the cures without suppuration of fractures of bones caused by conoidal bullets, which had been attributed to special modes of treatment, might have been chiefly due to the fragments having been maintained *in situ* in the manner just mentioned. Professor Longmore said that the maintenance of the fragments by their periosteal covering should occur so largely as to enable the wound to become healed without suppuration was new to him. He had instituted some experiments with the hardened bullet of the Martini-Henry rifle in present use, for the purpose of comparing its effects with those of the bullet used by Dr. Kirker, and also with the effects of the Enfield rifle bullet. The results of the trials were briefly as follows. 1. The Martini-Henry bullet caused considerably more laceration and contusion of the soft tissues, with more comminution and displacement of bone at the site of impact, than were observed in Dr. Kirker's experiments. 2. The area of comminution was not so extensive, and generally the fragments were not so widely scattered, with the Martini-Henry bullet, as in experiments made by him with the Enfield rifle bullet, .55 inch in diameter, of soft lead. 3. A larger proportion of displaced fragments at the part of the bone struck by the Martini-Henry projectile retained their periosteal connections than when the Enfield rifle bullet was used; while long fragments, above and below the site of impact, though detached by fissuring from the adjoining bone-surfaces, were maintained in close apposition by the periosteal investment. 4. In one experiment, that, though fissures extended completely through the apophysis of the bone, the synovial membrane, covering the surface of the joint, remained intact. The author concluded that the state of the bone wounded by the hardened Martini-Henry projectile appeared to offer more opportunities of repair than if the fracture had been caused by an Enfield rifle soft leaden bullet. When the grave importance of the long fissured fragments being retained in juxtaposition, and in their normal relations to the shaft of the fractured bone, was remembered, and the further importance of the periosteum covering them being kept intact, these experiments pointed very strongly to the urgent necessity of immobilising such fractures from the onset. The special importance of immobilising gunshot-fractures, supposed to be accompanied with fissures extending into a neighbouring joint, was also very manifest; for in any case where the extremity of the bone was split, but the synovial capsule of the articulation was still complete, a small amount of rough movement might cause a communication to be established between the seat of fracture and the interior of the joint.

Professor REYHER (St. Petersburg) believed, with Professor Longmore, that it was not necessary in gunshot-wounds to use the antiseptic treatment in its entirety. He believed that was the great difference between civil and war practice.—Dr. BECKER had noticed, during the Franco-German war, the perforation of bones by bullets without fracture or fissure. He had seen this in almost every bone, most perfectly in the tibia; in the upper, middle, and lower thirds; and from the front to the back, and from one side to the other. As far as his opportunies went, he believed that only occurred from wounds with a Chassepot rifle. The German bullet shattered the bone. He could not say whether or not this fact had been observed elsewhere, or to give a reason for its occurrence.—Dr. CASSON said the reason why so many cases of fractures and comminutions had been observed in Russian soldiers was owing to the soft nature of the bullet used by the Turkish soldiers. With modified antisepsis, he had found those cases do remarkably well. There was one case only in which there was a wound of this kind right through the knee-joint, passing completely through the bone, and inflicting a slight injury on the opposite knee. That case did extremely well.—Professor REYHER had never seen a case of real perforation in the femur.—Surgeon-General MOUAT remembered distinctly the first case of perforation he had in the Crimea. He had not seen a case of the kind before; and he found nothing about it in his authorities, owing, no doubt, to the fact that it occurred from the different character of the projectile then used from that formerly employed. But the real question was, Did the fissure of the bone justify in attempting to alter the length of the amputated limb? It was a received axiom that the nearer to the trunk amputation was done, the more recovery was endangered. In some of the cases, where an attempt was made to amputate where the bone appeared sound, exfoliation took place.—Dr. HOWARD said that the best surgeon, in approaching a particular case, was always in doubt as to the exact nature of the fracture; and one of the nicest points in every case was, to what extent the removal of the fragments should be attempted. That depended on the nature of the wound, the shape of the missile, and the force with which it struck the part. Professor Longmore had enabled military surgeons to come at more accurate views as to the probable effects. He thought the chief value of the paper, however, was that it pointed towards conservatism in military surgery. There had been, and especially among young surgeons, a great tendency to amputate. But when it was known that there might be many linear fractures, and yet—the periosteum remaining intact—that they would become united without interference, that course was not defensible. In many cases, where there had been, perhaps, extensive fracture, he had found that they united with silver wire, or what might be called an internal splint, removing only such fragments as were perfectly detached. After the statements of Professor Longmore, he should be still more careful to remove few only of the fragments.—Surgeon-General MURRAY said it had always been a matter of ground that the ball went through the bone, and that only the comminuted fragments of the bone had to be dealt with. He had had under his care a case in which a ball had passed through the tibia. The man came under his charge about six months afterwards. The wound had healed, but sometimes reopened. His idea was that the ball, in passing through the tibia, had split, and that a piece of it had fallen down the shaft of the bone. On passing a probe down for about three inches, he came against a foreign substance. He laid bare and trephined the bone, and removed a portion of the ball. The man had remained well ever since.—Dr. KEITH proposed a vote of thanks to Professor Longmore for his presidency of the Section, and Dr. HOWARD seconded.—

Professor LONGMORE acknowledged the vote, and thanked the members who had contributed papers and taken part in the discussion. Thanks were also given to the Secretaries of the Section.

SECTION OF ANATOMY.

THE work of the Section was opened by Professor His of Leipzig, who demonstrated the normal characters of the human embryo by means of a number of beautiful wax models and figures. He considered that the number of human embryos in the early stage of development, that have now been described, is sufficient to enable us to determine what characters are to be regarded as normal. In a second communication on the allantois, he showed that the firm connection of the embryo to the chorion is present in the youngest known examples, and must be regarded as normal. The human embryo probably does not at any time possess a free vesicular allantois.—Professor ALLEN THOMSON opened the discussion on the two papers, and said that the embryologists present ought to have a special meeting to discuss the whole subject—an opinion in which he was supported by Professor KÖLLICKER.—Professor MCALLISTER had been fortunate enough recently to obtain a fœtus eight millimètres long, and he had a communication upon it in course of preparation; but, as he had not the specimen before him, he did not like to make any remarks on the subject.

Professor TURNER showed some skulls of natives of the Admiralty Islands, and made some remarks upon their characters and affinities.

Professor STRUTHERS read a paper on the Processus Supracondyloideus Humeri in Man, and showed a series of moist and dry preparations in which the process was well marked. According to his observations, it was present in 2½ per cent. of the subjects dissected. He explained its relation to the muscles, blood-vessels, and nerves of the arm; its anatomy; and its influence on surrounding structures; together with a review of the surgical and morphological aspects of the parts. The hereditary occurrence of the anomaly was referred to, and the author concluded by asking anatomists whether any hypothesis could be offered in explanation of the occurrence of this condition in the human arm, except that of descent, or the theory of evolution.—In the debate which followed, Professor FLOWER remarked that the communication was of importance, as illustrating the use of comparative anatomy in its bearing upon human anatomy. Considering that the processus supracondyloideus is found here and there through the whole animal kingdom, and variously developed, sometimes being indicated by only a rough eminence, while in other animals it forms a complete foramen, like it does in some of the specimens shown by Professor Struthers of the human arm, he had little doubt that the explanation suggested by the author was the correct one.—Professor MCALLISTER accepted Professor Struthers's explanation as to its occurrence, and remarked that it was curious to note the early stage at which the process became ossified in man.—Professor LESSHAFT had found many examples of the development of the process in numerous subjects dissected under his supervision in St. Petersburg. In comparing its homologies in the animal kingdom, he thought that it was necessary to consider the differences of action of the distal on the proximal portions of the fore-limb. In animals, the action was one of simple flexion and extension; but in man pronation and supination were superadded. These actions, he thought, modified the disposition and development of parts.—Professor BRAUNE had found the process several times in subjects dissected in the Anatomical Institute of Leipzig.—Professor TURNER said he had paid considerable attention to the anatomy of this process. His observations led him to believe that the nerve has a much more intimate association with it than the artery. He has found it present in about 2 per cent. of the subjects that had come under his observation.—Dr. KING (Philadelphia) asserted that the process was as frequently present in negroes as it was in white subjects.

Professor LESSHAFT read a paper on the Causes which determine the Form of the Bones. To illustrate the subject, he and Dr. Popoff made a series of experiments on different animals, and from those experiments deduced the following results. 1. The development of every part of a bone is in relation with the activity of the neighbouring muscles. When activity is great, the bones are strong; but, when feeble, the bones become thinner, weaker, more slender, and relatively longer. 2. The form of the bones varies when the resistance of the neighbouring organs is lessened; in such cases, the bone grows thicker towards the part which offers least resistance. 3. The form of the bones depends upon the greater or lesser amount of pressure by exterior organs; development is diminished whenever outside pressure increases; and if pressure be only directed on one side, the bone accordingly alters its shape, and curves. 4. The aponeuroses, which are under direct muscular influence, also exert a lateral pressure, which is lessened by section of the aponeurosis. This [illegible] the [illegible] on the form of the bones as removal of portions of the bones themselves. 5. The bones are active organs as far as their structure is concerned, serving as a basis and support to adjacent organs; but they are passive in relation to those organs. This relation depends mainly on the sources of their common nutrition, which increases as the pressure of adjacent parts diminishes, and as the action of neighbouring muscles is developed.

Professor LAURA read a second paper on the Situation of the Stomach, and the relation which exists between its Form and its Functions. The results of the examination of 1,200 subjects he embodies in the following propositions. 1. The stomach is placed vertically in the abdominal cavity, so that its fundus touches the diaphragm; its pyloric extremity is to the right; the lesser curvature is also to the right, with the upper part slightly inclined downwards; the great curvature is to the left. 2. The stomach is in the left hypochondriac region, and exclusively in the gastric region proper. The pylorus corresponds to a line drawn vertically downwards from the right border of the sternum. 3. The stomach, in consequence of its intimate relation with the neighbouring organs, cannot dilate by the displacement of one of its parts (the great curvature, for example); it can only become equally distended in all its parts in proportion to the accumulation of its contents. 4. The muscular coat of the stomach is made up of longitudinal, transverse, and oblique fibres. The longitudinal fibres are directed from the fundus towards the pylorus, and the circular fibres become thicker as they approach the latter; they are especially noticeable in the neighbourhood of the pylorus, where they form a true sphincter. It follows that the food-stuffs move in relation with the walls towards the pylorus, and this permits of a very advantageous admixture with the gastric juice. Then the contents return through the middle of the stomach towards the fundus, as there is here less resistance, on account of its larger size. 5. The peripheral movement of the contents of the stomach from the fundus towards the pylorus, and the central movement in the opposite direction, can only take place in consequence of the special shape of the stomach. The absence of the fundus in a new-born child, and its after-development, can be accounted for by taking into consideration the influence of the returning middle column of digesting food upon the walls of the stomach. With regard to the lengthened stay of the food in the stomach, and the slowness of its after-passage through the small intestines, it can be explained partly by the shape of the stomach, and partly by the disposition of its muscular fibres. 6. In consequence of the accumulation of gas in the transvere colon, this rises in the shape of an arch, and is directed towards the left of the stomach, reaching to the level of the fourth intercostal space, and sometimes even to the fourth rib. If the gaseous accumulation takes place in the small intestine, this becomes displaced in the same way, and rises behind the transverse colon; the lower part of the stomach thus becomes slightly displaced anteriorly, and its direction is more oblique, from above downwards, and behind forwards. 7. A large stomach, accustomed to a liberal diet supply, always retains its vertical position, and it is only the pyloric extremity which is directed upwards and to the right. 8. The spleen is normally placed behind the upper part of the large curvature of the stomach; its direction corresponds to the tenth rib on the left side, or to the ninth intercostal space, from the point where this space is crossed by the axillary line. By its upper border, it almost reaches the left side of the bodies of the vertebræ.

In the discussion which followed on these communications, Mr. LUTHER HOLDEN stated that he could not agree with Professor Lesshaft as to the position of the stomach.—Professor ALLEN THOMSON said his observations also led him to the conclusion that the stomach was situated almost transversely in the abdominal cavity.—Several other anatomists who took part in the debate were of the same opinion.

The next two papers were read by Dr. G. LAURA of Turin; the first on the Deep Origin of some of the Cranial Nerves; and the second on the Minute Structure of the Spinal Cord. Regarding the deep origin of the cranial nerves, Dr. Laura showed: 1. The cells of the hypoglossal nucleus are provided with processes which pass into the roots of the nerve. 2. The fibres of the hypoglossal nerve that appear to rise from the raphé really spring from cells interposed between the raphé and the roots of the nerve. 3. The cells grouped along the roots and in front of the nucleus of the hypoglossal nerve (the anterior accessory hypoglossal nucleus of Duval) send their nervous processes outwards and backwards; only in a few cases could I demonstrate processes sent forwards along the root. 4. The cells of the *nucleus ambiguus*, Krause (the anterior accessory nucleus of the pneumogastric, Meynert), send their nervous processes inwards and backwards as far as the nucleus of the pneumogastric; they do not, how-

ever, then turn outwards in the roots of this nerve, but, on the contrary, turn inwards, forming the marginal fasciculus, which is found in front of the hypoglossal nucleus. 5. The nucleus ambiguus has an extent in the medulla equal to that of the classical nucleus of the hypoglossal, and is probably to be regarded as an accessory-nucleus of that nerve. 6. In front of the roots of the pneumogastric nerve are large scattered cells which send their nervous processes, not into the roots, but forwards, between the fibres of the white lateral column. 7. The cells of the so-called external auditory nucleus send their processes, not into the roots, but inwards and forwards, into large fasciculi which cross the facial nerve and go towards the raphé. 8. The cells of the facial, abducent, and trigeminal nuclei, are provided with processes which pass into the respective nerve-roots. His researches on the minute structure of the spinal cord show that: 1. Many of the cells of the anterior cornu send their processes to the anterior nerve-roots; in the cervical region to the roots of the accessory nerve. 2. The anterior commissure receives fibres from the cells *(a)* of the various points of the anterior cornu, *(b)* of the various points of the posterior cornu. 3. The cells of Clarke's column are provided with processes which are directed at first inwards towards the central canal, but after a certain course they turn outwards in a very large fasciculus, which passes through the anterior cornu to the lateral white column. The group of cells, which in the conus medullaris occupies the position of Clarke's column, is not to be considered as its continuation, since its cells send their processes in a different direction, viz., outward and forwards, to the anterior roots. 4. The white lateral column receives processes from the cells of many regions of the anterior and posterior cornua. —Professor ADAMKIEWICZ demonstrated very effectually the arrangement of the minute vessels of the spinal cord.—Professor TRIPIER showed some transparent anatomical figures, mounted on glass, described in the JOURNAL of August 6th, page 242.—Professor HANNOVER described some specimens of the primordial cartilage of the human skull. These specimens, we understand, he has kindly presented to the museum of the Royal College of Surgeons.

Professor BENEDIKT (Vienna) read a paper on the Mathematical Law of Construction of the Skull, in which he advocated that, in measuring and comparing human skulls with those of other vertebrata, the visual line should be placed horizonally, and the skulls compared in that position.

Dr. D. J. CUNNINGHAM (Edinburgh) read a paper on the Relation of Nerve-supply to Muscle-homology. The object aimed at in the communication was to test the value of nerve-supply as a guide in our endeavours to trace the history of a muscle. In this country, it has been the almost universal rule to rely solely upon a study of the position, origin, and insertion of a muscle. Recently, Dr. Ruge of Heidelberg has enunciated the doctrine that there is an invariable and immutable relationship between nerve-supply and muscle-homology. He asserts that a muscle is to be regarded as the end-organ of a nerve; and therefore, when a muscle alters its positions and connections, its original and typical relations can always be identified by its nerve-supply. Views of a similar nature, it is true, have already been advanced, but never so strongly insisted upon. Whilst the nerve of supply is a most valuable guide to muscle-homology, it is certainly not an infallible one. If the source of the spinal cord from which the nerve-fibres are derived be invariably the same, it is a matter of fact that the nerve-strands through which the fibres reach the muscle are often very different.—Professor MCALLISTER (Dublin), who opened the discussion on the paper, remarked that he was very sceptical regarding any muscle-nerve-homologies, but thought that Dr. Cunningham's work was very valuable.—Professor BARDELEBEN (Würzburg) agreed with Dr. Cunningham that there is no fixed law of muscle-nerve-homology, as asserted by Ruge. Some muscles, such as the quadratus anteæ and the adductor magnus, often derive their nerve-supply from two different sources.—Professor STRUTHERS agreed with Professor Kölliker. Mr. FORBES said that Dr. Gadow, who has lately been working at the same subject in the sauropsida, had come to exactly the same conclusion as Dr. Cunningham regarding Ruge's theory.

Dr. HOWARD (New York) read a paper on the Elevation of the Insensitive Epiglottis by Position. He showed that the insensitive epiglottis is elevated instantly, and to the fullest extent, by forcibly extending the head and neck. In doing this, the hyoid bone is carried forwards and upwards, by means of the muscles passing between that bone and the inferior maxilla; and the epiglottis is drawn after the hyoid bone, in consequence of its attachment thereto by the hyo-epiglottic ligament. This is the only way in which the complete elevation of the epiglottis of a patient, in the supine position, and unconscious from any cause or otherwise, can be accomplished. Mere drawing forward of the tongue, and elevation of the lower jaw, has little or no effect upon the epiglottis; but, by throwing back the head as far as possible, and at the same time keeping the shoulders and lower part of the neck elevated, the epiglottis is raised upwards and forwards, so that air can freely enter the trachea.—Professor STRUTHERS remarked that Dr. Howard's suggestion as to the treatment of suspended respiration under anæsthetics was very practical. He thought the elevation of the lower jaw raised the epiglottis somewhat; he also believed that the tongue falling backwards and downwards was the cause of apnœa, because it pressed upon the opening of the larynx.

Dr. FÄSEBECK (Brunswick) read a paper upon the motor portion of the Trigeminal Nerve, in which he asserted that the so-called small portion of the trigeminus is an independent nerve, and in no way mixed with the third branch of the fifth. Professor Luschka gave the name of Nervus Masticatorius to this nerve, but Dr. Fäsebeck considered that, on account of its mode of distribution, the name Nervus Facialis Profundus is more appropriate. In support of his views, he showed a most elaborate and beautiful dissection of the side of the face prepared by himself, in which the independence of the nerve was shown.

Professor RANDACIO (Palermo) read a paper on the Relations of the Nucleus Tæniæformis with the Olfactory Nerve, in which he showed—1. The claustrum (Nucleus tæniæformis) is of very various forms, but in general follows the undulations of the island of Reil, and may be compared with the squamous portion of the temporal bone of a fœtus presenting a spur in the position which would correspond with the zygomatic apophysis. It often passes in part into the cortical substance of the narrow convolutions of the island, together with the grey matter of the inferior frontal convolution, of the upper temporal and with the lenticular nucleus, excepting where this presents its caudate extremity in zigzag (cauda nigra), which disappears on the outer side of the capsule of the pes hippocampis, and which, as well as the spur, seems not to have been previously observed by others. 2. The elements of the claustrum are identical in shape with those of the fifth layer of the Island [illegible] furnished with a granular protoplasm containing a large nucleus with a nucleolus. This nucleus separates very easily, and is furnished with one or two poles continuous with nerve-fibres, as observed by Luys. 3. The claustrum and amygdala may be taken as two points of concentration for olfactory impressions, to which is annexed another grey body, which he termed the "hood of the amygdala", and which has, he believed, up to the present not been described. 4. The external and median fibres converging to the above-stated points (like appendages) follow the course of the afferent fibres, whilst they emerge as efferent fibres to pass into the cortical substance at the origin of the temporo-sphenoidal convolution, the seat of olfactory perception. 5. From this centre the nervous fibrils spread in different directions, thus: the most superficial join the commissure and arrive at the posterior extremity of the corpus callosum. The deeper, if they do not form, join the tænia semicircularis on one side as far as the acies, and the posterior pillars of the fornix on the other side, and so continuing together into the anterior pillars, they recurve in the corpora albicantia to pass into the cerebral peduncle, and from this point to the pons Varolii, until they return as far as the funiculi siliquæ in company with the facial, rather further back than the glosso-pharyngeal or trigeminal, in the medulla oblongata, where the respective nuclei of these nerves are found. 6. There are some cases in which, on the one side or the other, one may see in the rostrum of the corpus callosum some bundles of the median and external roots of the olfactory nerve, and sometimes joined to the striæ of Lancisi. This is what is found in many mammalia, especially in the seal. 7. Contrary to the assertions of Luys, we must remember that the anterior nucleus of the optic thalamus has no connection with the above-named olfactory roots—1. Because the connection of the fibres is not in any way proved; 2. Because in a recent case of glioma in the third ventricle, [illegible] long ago diagnosed by Professor [illegible], the perception of smell still existed, in spite of the compression and partial atrophy of the optic thalamus, with destruction of the greater portion of the inferior layer, and of the crust of the left cerebral peduncle. In the same way, despite the opinion of Luys, the internal root of the olfactory nerve has not its nucleus in the septum lucidum, for in two cases where this septum was missing, the sense of smell was unimpaired. 8. From the above-mentioned anatomical facts, you may deduce that the psychical centre of the olfactory sense resides in the "origin" of the temporo-sphenoidal convolution, in the region of the gyrus hippocampi. In this, the researches of Ferrier find their principal support.

[illegible] read a paper on the [illegible] of the Muscles [illegible]; and [illegible] was [illegible] Dr. [illegible] on the Human Hyoid [illegible].

Dr. P. HEYDEN [illegible] read a paper on the Significance of Variations [illegible] Trunk, illustrated by [illegible] excited

wax model. His method of investigation was first to dissect bit by bit the venous branches in an uninjected subject, and make an accurate drawing of them. The veins were next injected in another subject and dissected, the position and direction of their valves being ascertained. After treating several subjects in this way, it was found, amongst other results, that the vein-trunks proceed from the venous networks on the anterior surface to the femoral, axillary, and subclavian veins; and that Braune's fascial pump-like action, which these large spaces exert upon them, is materially assisted by valves appropriately directed and placed at the mouths of these vein-trunks. The long vein-trunks which connect the femoral with the axillary vein on either side have, at and towards their mouths, powerful valves so directed as to prevent the passage of blood from the extremities into the abdominal and thoracic wall systems. The superficial are connected with the deep epigastric veins, and are possessed of valves allowing the blood to pass from the former to the latter, but opposing its return. The deep epigastric with the internal mammary vein forms a system similar to that found in the superficial epigastric vein. The intercostal veins, connecting the azygos with the internal mammary vein, have precisely the same valvular arrangement. The portal vein is in connection with the deep epigastric vein by means of Sappey's vein (in 8.3 per cent. with the superficial epigastric vein) and with the vesical veins.

Professor STRUTHERS read a paper on a Comparison of British and Continental Schools of Anatomy, reference being specially made to the universities of Germany; the object being to lead to the improvement of the teaching of anatomy in England. Reference was made to the completeness of the anatomical institutes of Germany; to the devotion of the teachers of anatomy in Germany to their department; to the thoroughness of the teaching; and to the result, in the large contributions which the anatomists of Germany have made in modern times to the progress of anatomical science in all its branches. The system generally pursued in the anatomical schools of England was contrasted with this, as deficient except in regard to surgical anatomy. The system pursued in the anatomical schools of Scotland is referred to as corresponding closely to that pursued in Germany. Professor Struthers proceeded next to explain what, according to his view, should be the constitution and aim of the anatomical school; that anatomy should be taught from the morphological as well as from the surgical point of view, microscopically as well as macroscopically; and that the teacher should be devoted to anatomy. The methods of the anatomical schools of Scotland, like those of German schools, have the advantage of securing the progress of the student, whereas the same cannot be said of those adopted in English schools. These national differences in the aims and methods of the anatomical schools of Germany, England, and Scotland are attributable to the differences in the university systems of these countries. In Germany and Scotland, the universities are the leaders of medical education; whereas in England, especially in the metropolis, there is an absolute absence of university influence, greatly to the detriment of anatomical teaching especially.—In the discussion which followed, Professor REDFERN said that he had found, as an examiner in the London University, that students are for the most part "crammed" for examination. A great fault in the teaching of anatomy is, that students are not taught the principles of the science, but only what is likely to tell at examinations. There is a want of independence in the teaching. This is probably due to the teacher not being the examiner in many instances, and the want of university teaching in England.—Mr. LUTHER HOLDEN thought anatomy was not properly taught in the London hospital schools. As a rule, it was entrusted to young men who wished to make it a steppping-stone to surgical practice—men who had to learn from students how to teach, instead of being able to teach. Then, after they had learned the art so far as to be useful as teachers of anatomy, they were moved off to teach some other subject, and another beginner set to lecture on anatomy. He agreed with Professor Struthers in saying that the teachers of anatomy should be only anatomists. As for higher anatomy, there was not such a thing taught in London—only as much as would pass candidates for their examinations; indeed, not so much as that. It was evident, from the results of the anatomical and physiological examinations at the College of Surgeons, that students were not taught even up to the moderate standard required by the College.—Professor TURNER thought that the more practical the teaching of anatomy can be made, the better it is understood and remembered by the student. Each anatomical fact should be applied to the student's own body as far as it is possible.—Professor ALLEN THOMSON disapproved of Mr. Holden's principle that teachers should be guided, in their methods of giving instruction, by opinions of examiners; and agreed with Professor Redfern and Professor Struthers that the teaching should be thoroughly independent, undertaken by men who are prepared to devote themselves entirely to it.—Professor STRUTHERS, in replying, stated that he was glad to find the principles he had advocated so universally endorsed by the Section. After the sweeping condemnation of the teaching of anatomy in the London schools by Mr. Holden, than whom no one could be a better judge, having been for so long a period connected with the largest one in the metropolis, he need not say anything on the subject; but he hoped that the exposure that had been made might stimulate improvement in the direction he had indicated.

Professor KEEN (Philadelphia) read a paper recommending the use of the living model in teaching anatomy. This science was, he found, much more impressively taught by showing the parts of the body on the subject, and then demonstrating them as far as possible on the living body. In this way, the various topographical relations of the osseous and muscular systems could be taught, and impressed more thoroughly on the memory of the student. The system had been used for several years with great success in Philadelphia, and he advocated its more general adoption.

Mr. KNOTT (Dublin) read a paper on the Cerebral Sinuses and their Variations, in which he noticed the descriptions of the old anatomists, and the peculiar views of the most eminent among them on the structure and physiological uses of these vessels. Some of these were described as quaint and amusing, while some are ludicrously absurd. He described the normal anatomy of the sinuses, and pointed out some of the mistakes contained in many of our popular text-books. The supernumerary and inconstant sinuses, which have from time to time been described, were then noticed and commented upon; the abnormalities observed by the author were described in detail, and compared with the results published by other authorities. Finally, the peculiarities of the cerebral venous circulation were considered, together with their bearing on practical medicine and pathology.

Dr. REIN (St. Petersburg) read a paper on the development of the mammary gland. He found that the following six stages are to be distinguished in its development: 1. Tubercular stage. A little mass of epithelial cells, originating in a localised overgrowth of the cylinder-cells of the epidermis; 2. Lenticular stage. The under surface of the epithelial mass becomes convex, and penetrates into the cutis. The round embryonal elements of the latter are at this point collected in large numbers, and form a zone from which the tissue of the nipple is subsequently developed (nipple-zone); 3. Conical stage. This results from the second stage, by a further penetration of the epithelial elements into the cutis, with gradual flattening above, and simultaneous increase in height of the epithelial deposit; 4. Club-shaped stage. The epithelial deposit continues to grow, and to make its way into the cutis in this stage. The deposit becomes so shaped that two parts can be distinguished, viz., a deeper globular part (body), and a superficial narrow, more or less elongated part (neck); 5. Formation of buds. The buds appear in the epithelial deposit at first as little elevations, which are rapidly converted into long, originally solid plugs (secondary epithelial deposit). These plugs are the rudiments of the future epithelial constituents of the gland: sinus lactei, ductus lactiferi, and acini. In the cutis, beneath the nipple-zone, there becomes differentiated a new zone of younger, rounded, closely packed connective tissue-cells; from these is developed the stroma of the gland (stroma-zone); 6. Degeneration of the primary epithelial deposit, further development of the secondary. The retrogressive metamorphosis of the central cells of the primary epithelial deposit proceeds rapidly in this stage, and in many animals, as well as in man, assumes the character of a cornification. The cornification spreads from above and the centre downwards, and to the periphery. As a result of these processes, a shrinking of the primary epithelial deposit takes place, leading to its complete disappearance, which, however, is observed only in the course of extra-uterine life, and even then usually very late. Other constituents of the rudimentary gland—the epithelial plugs, nipple-zone, and stroma-zone—become further developed in the sixth stage. The originally solid epithelial plugs become hollowed and converted into tubes; they give off tolerably numerous club-shaped buds at their ends. The acini only appear, as is already known, later, at the time of puberty.

Dr. GARSON read a paper on Pelvic Measurements. The object of the communication was to direct attention to the subject, with a view to attempt the determination of the measurements of most importance for comparing pelves of different form and from different races of men, and adopting a uniform and convenient method of measuring. The measurements of most importance are those which indicate the general form of the pelves, namely, the diameter of the brim, form and width of the crests of the ilia, the height of the pelves, and the diameter of the outlet, the form and length of the anterior and lateral parts of the pelves. Having given a list of the measurements, arranged in the order in which they may most conveniently be made, which seemed necessary for the purpose, he proceeded to discuss the

various ways in which these measurements had been made by different writers, and how he considered they were best made, so as to reconcile, as far as possible, the various systems that have been previously advocated. He proposed the adoption of a uniform standard with which to compare the various measurements. For this purpose, he thought that the transverse diameter of the brim was, perhaps, the most suitable, though the antero-posterior diameter was nearly as good. He also demonstrated a method by which it is possible to draw a diagram of the upper aspect of the pelvis from measurements, and showed one of a European and another of an Andaman Islander's pelvis, made from the average measurements of the brim, crest, and sacrum in these races.—Professor FLOWER said that this paper was an indication that the science of anatomy was not the worked-out subject that some people were in the habit of representing it to be. There was great diversity of opinion as to the way in which the pelvis should be measured, the less important measurements he thought would gradually become disused, till only those that yielded the best results remained. The diagrammatic representation of measurements would probably prove of great use, and he was glad to see an attempt at its introduction being made.—Professor TURNER observed that he was in the habit of describing the innominate bone as a fundamentally triangular bar, as seen in the pelvis of the marsupials. He thought that a measurement of each separate portion of the innominate bone would give good results.—Professor STRUTHERS said that he wished to direct Dr. Garson's attention to the form of the sacro-iliac articulation as probably indicating difference in various races.—Professor BRAMER remarked that he thought the diagrammatic representations of measurements of great value. He hoped that Dr. Garson would extend his researches to the external form of the pelvis in the subject.—Professor THANE thought that the standard used for comparing the different measurements should be the antero-posterior diameter of the brim.—Professor LESSHAFT said that he had found the form of the pelvis to be modified according to the position in life of the individual from which it is taken.

Dr. LEBEDEFF (St. Petersburg) read a paper on the origin of anencephaly and spina bifida in man and birds.

A paper by Dr. SAPOLINI (Milan) who was not present, was taken as read; and, after a demonstration by Professor HANOVER (Copenhagen) of specimens of funiculus scleroticæ in the human eye, the work of the Section was closed.

A vote of thanks was proposed to the President, Professor Flower, by Professor BRAEMER (Leipzig), which was carried with acclamation.

Professor HIS (Leipzig) proposed a vote of thanks, which was heartily endorsed, to the Vice-Presidents and Secretaries. He alluded in appropriate terms to the death of Professor Rolleston, whose name appeared as a Vice-President of the Section in the early lists of the Congress.

During the week, Professor Flower met the Section several times in the Museum of the Royal College of Surgeons, and demonstrated portions of the collection.

SECTION VII.—DISEASES OF THE TEETH.

AN introductory address was delivered by the President, Mr. EDWIN SAUNDERS, F.R.C.S. It was published at page 218 of the JOURNAL for August 6th.

The Replantation of Teeth. By Dr. MAGITÔT (Paris).—The author said he had operated on one hundred and twelve cases, and he exhibited a tabulated statement of particulars respecting the first hundred of them. The first were done six years ago, and he had taken the greatest pains to keep all the patients in view; up to the present time, he had only lost sight of ten patients, and in all these the results were satisfactory when the cases were last seen, at varying periods after the operation. Eight cases out of the hundred were failures, giving 92 per cent. of successes; in seventy-five cases, a cure resulted without any complications, whilst in twenty-five more or less severe inflammation supervened. Two-thirds of the patients were men, and nearly half were between twenty and thirty years of age. Of the teeth operated on, thirty-seven were incisors, thirty-one molars, and twenty-five bicuspids. The operation was performed in all cases on account of chronic periostitis, with suppuration about the apex of the tooth; and, in the majority of cases, necrosis of the apex of the root was found. This necrosed portion was cut off before replacing the tooth, but the root canal was not stopped. In most of the cases no other treatment would have saved the tooth. The operation was a simple one, and gave most satisfactory results, without the necessity for the prolonged treatment required for other modes of treating alveolar abscess.

Inflammation. Dr. FINLAY THOMSON read a paper, pointing out that the ordinary modes of treating alveolar abscess were in many cases tedious, and not always certain in their results. The operations of extraction and replantation could be performed painlessly with the aid of nitrous oxide; and the results, in a very large proportion of cases, were extremely satisfactory. He was in the habit, after extracting the tooth, of capping the apex of the root, or filling the root canal, with gold. In other cases he had inserted a tube, reaching from the apex of the root to the grinding surface of the tooth; this gave free vent to any discharges, and obviated the necessity for making openings into the alveolus through the gum, as recommended by Dr. Magitôt. As for his experience of the results of the operation, he had only met with eight failures out of eighty cases, five of which were immediate failures, and three others proved so within two or three months. He thought the operation should be confined to severe and otherwise hopeless cases of alveolar abscess; for such cases, although not entirely to be depended on, it offered such prospects of success as to be perfectly justifiable.—Mr. C. S. TOMES showed a clever caricature by Rowlandson, dated 1787, showing the operation of transplantation of teeth as practised at that time, owing to the suggestions of John Hunter.—Dr. TAFT (New York) said he only performed the operation in cases which had resisted other treatment. As to the immediate result, it was generally good, but the ultimate results were less certain; he had found that, in rather a large proportion of cases, absorption of the root took place, the tooth became loose, and, after some months, had to be removed. He thought the operation should be confined to the anterior teeth; it was rare for a replanted molar to last two years; but he had known cases in which incisors and canines had lasted twenty and thirty years.—Mr. COLEMAN said that, fourteen years ago, he had performed the operation rather extensively at St. Bartholomew's Hospital, but he had not been very successful. His comparative failure had been due to the omission of certain precautions which Dr. Magitôt had shown to be necessary; and to that gentleman was certainly due the credit of having made the operation practically successful.—Dr. ATKINSON (New York) having made some remarks on the pathological aspects of the operation, Mr. BALKWILL (Plymouth) said a good many of his cases of replantation had ultimately failed, either from absorption of the root or from recurrent abscess; but that it was most successful in some cases, he could himself bear witness.—Dr. JOSEF ISZLAI (Buda-Pesth) thought it should only be performed in cases of accident; he had seldom seen a tooth replanted after periostitis last more than two years, and thought these cases could be better treated antiseptically through the pulp canal.—Mr. SPENCER BATE would also confine the operation to cases in which teeth were accidentally knocked out or extracted. In cases of alveolar abscess, he preferred to drill into the alveolus, through the external wall, near the apex of the root, cut off any necrosed portion with pliers, and dress the abscess antiseptically. His opinion was dead against replantation in cases where old-standing inflammation existed.

Interrupted Second Dentition as a Cause of Reflex Constitutional Disturbance. By DANIEL CORBETT, M.R.C.S. (Dublin).—The author related cases in which various serious nervous derangements had resulted in young subjects from this cause, which had been overlooked for a long time by the medical attendant, and in which a rapid cure had followed the application of local surgical treatment.

Devitalisation of the Pulp. By Dr. ARKÖVY (Buda-Pesth).—Mr. S. J. Hutchinson read a paper which had been prepared by Dr. Arkövy, in which he gave the results of a series of experiments on the action of various agents used for the devitalisation of the tooth-pulp. Of these, the most satisfactory in their results were arsenious acid and pepsine. He showed how the action of these varied according to the dose employed, and the time during which it was left in contact with the pulp; great care in this respect being necessary in using arsenic on account of the risk of setting up periostitis and even osteo-myelitis. Pepsin was much less likely to cause this result, and was therefore indicated in cases where the occurrence of periostitis seemed probable, and in young subjects. If either agent were used, periostitis would occur unless the whole of the devitalised pulp was removed in due time. The pathological changes induced were described and illustrated by means of drawings and microscopical specimens.

Dental Surgery in the Army. By T. GADDES, L.D.S.—Mr. Gaddes read a paper pointing out the necessity for a knowledge of dental surgery on the part of army medical officers. He thought all candidates for naval and military surgical appointments should be required to go through a course of operative dentistry at Netley, and that the final examinations should include questions on this subject, and that they should be required to give some practical evidence of their knowledge of this branch of surgery.

Anæsthetics in the Dental Hospital of London since 1868. By A. COLEMAN, L.R.C.S.—He showed that various anæsthetics had been administered in over twenty thousand cases

nitrous oxide being the agent most largely employed, and that no case had occurred which had given the operator more than a few moments' uneasiness.

Pyorrhœa Alveolaris: its Nature and its Antiseptic Treatment.—Dr. W. H. ATKINSON contended that this disease was a sign of constitutional debility, and believed the best treatment to consist of a vigorous cutting away of all diseased and debilitated tissue until healthy structures were reached; by this means, the disease might be arrested, and its further extension prevented.—Dr. WALKER demonstrated, by means of diagrams and microscopic specimens, the way in which bone was produced in a socket after the extraction of a tooth, and pointed out how this normal process of deposition at the apex of the socket, and absorption at the base, differed from the abnormal process, producing somewhat similar results, which occurred in the class of cases under discussion.—Dr. ARKLY (Baltimore) believed that the disease in question was due to the action of a fungus. This appeared first as sphero-bacteria, then in the form generally known as leptothryx bucalis, and finally developed into a form which had not before been described or named, but which he found to be constantly present in all cases of pyorrhœa alveolaris, and which he believed to be an active agent in the production of the disease.—Dr. ISZLEI had found various fungoid growths in the discharge from the gums in these cases, and he believed that they were present from accidental causes, and had no necessary connection with the disease.—Dr. RIGGS gave a description of his method of treating this disease, which was often called by his name. He had worked at the subject for forty years, and the treatment, which he now found absolutely certain and satisfactory in all cases, consisted in the removal, by means of delicate scaling instruments, of all portions of necrosed bone and deposits of tartar from within the margin of the alveolus.—Mr. WALTER COFFIN said his father had succeeded even in cases which had defied Dr. Riggs's skill. His treatment consisted in removing the bulk of the diseased tissue by means of instruments, and then applying locally hydrate of phenyl, the strongest form of carbolic acid; this, combined with mechanical treatment, had never failed, but he did not consider that the latter by itself was sufficient in all cases.—Mr. OAKLEY COLES doubted the expediency of treating the disease as a local one; it arose chiefly from impaired nutrition, and a general tonic plan of treatment was absolutely necessary. He thought the presence of leptothryx and other fungi was due to the fact that the discharges, etc., offered a favourable nidus for their development. It was primarily due to a low form of inflammation of the margin of the gum round the neck of the tooth, then the peridental membrane became affected, and, lastly, the alveolus itself. The deposit of tartar was also a result, and not a cause of the disease. Local treatment, the removal of all sources of irritation, was of course useful, but the constitutional origin of the disease must not be lost sight of.—Dr. FREIDRICHS was of opinion that the primary cause was neglect of cleanliness.—Dr. SNOW could testify from personal investigation to the great success which Dr. Riggs had in the treatment of this generally intractable disease.—Mr. C. TOMES said that, in the case of a gentleman who was the victim of this disease, and who was obliged to go abroad, he had extracted all the teeth: some much affected, some little, and some healthy; and some of those which were most distinctly diseased had not a scrap of tartar on them.—Dr. WALKER, in his reply, contended in favour of the constitutional origin of the disease, and related cases in support of this view.

Dental Education, and the Means Thereto. By JOHN TOMES, F.R.S.—The author traced the history of special dental education first in America and then in England, and contrasted the plan adopted in the former country, of carrying on the education of dental students in separate colleges, quite apart from medical students, with that which had been adopted in England, of making the earlier part of the curricula identical, and entrusting the final stage only to a special institution; and also with the views held by some in England, and carried out to some extent in France and Germany, of making the dental student go through the whole of the medical and surgical curriculum, and only allowing him to study his own specialty after he had wasted a considerable amount of time in acquiring knowledge which could be of no use to him, and which he would very speedily forget.—Mr. Tomes's views were highly approved of by the President, Dr. BUTLER (United States), Professor SHEPHERD (Harvard University), Dr. ATKINSON, and Dr. TAFT. The latter pointed out that the establishment of separate educational establishments in America, which Mr. Tomes had deplored, was forced upon them by the fact that the medical schools repeatedly refused to admit dental students, except on condition of their going through the whole of the regular curriculum. Now many of them were quite willing to receive them on their own terms, but it was the success of the dental colleges which had brought this to pass.—The discussion was closed by some remarks from Dr. HOLLAENDER on the present state of dental education in Germany.

Preservation of the Contour of the Teeth.—Dr. [illegible] (Lancaster, United States) read a paper on the restoration of contour as the only way to keep the margins of the enamel of the proximal surfaces of the teeth permanently separated, and to prevent the recurrence of decay. In this, he advocated building out fillings placed in cavities or the proximal surfaces of the teeth, instead of making the surface of the filling flat, and making so-called permanent separations by cutting away the substance of the tooth. In most cases, these separations were not permanent, owing to the teeth closing together. He described his method of wedging the teeth apart, in order to gain room for working, and also his mode of preparing the cavity and filling it.

Honeycombed Teeth as Evidence of Infantile Convulsions. By Dr. MAGITÔT (Paris).—This paper was read at a conjoint meeting with the Section on Diseases of Children. Having described the various forms in which this peculiarity is seen, Dr. Magitôt pointed out that it was due to a temporary suspension of nutrition in the dental follicles, and was analogous to the ridges seen on the nails after certain illnesses. He thought there was a constant relation between the presence of this lesion and the occurrence of infantile convulsions. He argued against the idea that it might be due to any illness whatever occurring in infancy, and also against the opinions of Mr. J. Hutchinson and Dr. Parrot that it was a sign of inherited syphilis.

Mr. MOON said that Mr. Hutchinson no longer held to the opinion that these honeycombed teeth were indicative of hereditary syphilis. He now called them "mercurial teeth", and held that, in a large majority of cases, the administration of mercury during infancy had caused the malformation. Mr. Moon then demonstrated, by the aid of diagrams, the distinctive features of syphilitic teeth, as now generally received. These and the defective enamel teeth were constantly confounded together; but in the former there was not necessarily any fault of enamel, whilst in the "mercurial" teeth the enamel was always more or less defective. His experience was that, in a large number of cases, these defects were due to the administration of mercury in infancy, especially in the form of some very popular powders.—Mr. C. TOMES showed models taken from a child who had never had convulsions, but who had a severe attack of croup, for which she was treated freely with calomel. The front teeth were greatly honeycombed.—Mr. COLEMAN said he began as a sceptic; but further inquiry had driven him to the belief that there could be no doubt as to the truth of Mr. Hutchinson's opinions.—Dr. BLACHE said he had met with honeycombed teeth in children who were perfectly free from any taint of syphilis.—Mr. HAYWARD related a case in which a syphilitic child, who had never had mercury or suffered from convulsions, had honeycombed teeth.—M. DALLY (Paris) had never been able to associate teeth of this kind with the occurrence of convulsions, but had generally found reason to suspect syphilis.—M. QUINET believed that these erosions were not due to any such transient cause as convulsions, but were associated with some dyscrasia, syphilis, rickets, or scrofula.—M. PARROT said that the milk-teeth were attacked by these erosions in a systematic graduated manner; and that, among the permanent set, the bicuspids and the second and third molars escaped. How could the theory that the erosions were due to convulsions account for the escape of these teeth? Further, it was during intra-uterine life that the dentine was deposited in the case of all the first set of teeth, and of many of the second. Further, he did not think that the grooves, which must be produced gradually, could be caused by a condition of such short duration as an attack of convulsions. He believed these honeycomb erosions were due to hereditary syphilis.—Mr. JONATHAN HUTCHINSON did not believe that honeycombed teeth, by which he meant teeth deficient in enamel and pitted over a considerable surface, were due to hereditary syphilis. He thought they were due to stomatitis—often caused, no doubt, by mercury. Such teeth ought not to be confounded with the malformation which syphilis produced. This malformation could only be recognised with certainty in the upper central incisors, and consisted in the dwarfed, peg-like form of the tooth, and a single central notch. No doubt, since these patients often had stomatitis, it was not uncommon to find the teeth honeycombed as well as dwarfed. The usefulness of these dwarfed teeth for diagnosis was subject to two limitations. In the first place, they might not be found in patients suffering from other undoubted manifestations; and, secondly, they were only rarely present to a well-marked extent. Usually, the malformation was only slight, and was only of use in confirming an opinion suggested by other symptoms. He thought M. Magitôt had raised an interesting point; and that, among the many kinds of defect in the enamel of teeth, some might be due to the influence of some disturbance of the nervous system showing itself in connection with convulsions. He had himself described such cases; but

the question remained, whether such teeth were due to the convulsions or to the remedies given for them. Ophthalmic surgeons had long known that there was some connection between convulsions and lamellar cataract and erosions of the teeth. The erosions might be due to the convulsions; but he thought not, for cases occurred in which, with convulsions and lamellar cataract, there were, no mercury having been given, no erosions.

Effect of organisms on the Teeth.—Mr. ARTHUR UNDERWOOD read a paper describing some experimental investigations which had been carried on by himself and Mr. W. T. Mills into the effects of certain organisms on the teeth. The result of these experiments was to show that dental caries was due to the action of living organisms. When teeth infected with these were kept at the temperature of the mouth in a flask with some organic infusion, caries spread rapidly; but if the infusion had been sterilised, and the tooth subjected to rigid antiseptic treatment, no result followed, though the other conditions were the same. The presence of these bacteria was demonstrated microscopically, and a series of drawings exhibited illustrating the early stages and gradual advance of the process.—Dr. TAFT thought that these flask experiments conducted at an uniform temperature did not accurately represent the actual state of things in the mouth, and therefore any deductions from results so obtained must be received with caution.—Dr. DENTZ expressed himself as very sceptical with regard to the value of these experiments, though he admired the patience and care with which they had been carried out. Mr. Hutchinson and Mr. Charles Tomes thought that, until the theory now brought forward had been disposed of, or displaced by a better, it might be accepted provisionally. These researches went far beyond those of Lebu and Rottenstein. The older experimenters had produced artificial caries just as these had, but Mr. Underwood had shown that when germs were excluded, this result did not follow; then admit the germs and caries appeared.—Mr. COLEMAN pointed out that the admitted difference in the results of the experiments from the disease as seen in the mouth might be partly explained by the fact that in one case the parasite had a living, and in the other a dead, structure to work upon.—Mr. SPENCE BATE thought that bacteria theories were rather too much the fashion at present, and pointed out some weak points in the demonstration. He thought further experiments were required before it could be accepted as conclusive.—An animated discussion was continued by the President, Mr. Oakley Coles, Mr. Fothergill, etc.—Mr. UNDERWOOD then replied, saying that his experiments were still incomplete, and they only claimed to have shown the probability of their theory, and not to have proved it.

Causes of Dental Caries. By Dr. NORMAN KINGSLEY (New York).—After enumerating the many theories which had been brought forward to account for the increasing spread of dental caries amongst civilised nations, he came to the conclusion that it was the result of a fast life and constant mental strain: the intellectual faculties were stimulated and exercised at the expense of other organs, nutrition was diverted from these, and thus caries, dyspepsia, and many other derangements of the structure and functions of important organs were so generally met with.—Dr. BEARD agreed that caries of the teeth had a strong correlation to the prevalence of nervous diseases. The fact that every third person in the room used glasses was another result of the same cause.—Dr. MAGITÔT doubted whether caries had increased out of proportion to the increase of the population. He had found Egyptian teeth extensively carious; and, even in the prehistoric skull found at Abbeville, there was a carious tooth. Race, again, had a great influence on the spread of the disease: some races seemed proof against it, whilst others were extremely liable. In some parts of France, it was much more common than in others, and this could be ascribed only to difference of race, and not to any difference in habits or mode of life.

Irregularities of the Teeth. Mr. WALTER COFFIN read a paper on the treatment of irregularities of the teeth, by means of plates like Bell's, known as the "Crown," where the expanding force was applied by means of a spring made of pianoforte-wire. The paper was illustrated by a large collection of models, and was of great interest; but it abounded in details, and it is quite impossible to give any idea of it in a few lines. The SECRETARY read a paper by Dr. GUNNING, in which he advocated the regulation of teeth at a much earlier age than is usually the custom, mentioning the deformities produced by thumb-sucking as an instance of the facility with which teeth can be moved at an early stage of their growth.

Causation and Treatment of Certain Forms of Irregularity of the Teeth and Jaws. By OAKLEY COLES, L.D.S.—The author pointed out that in many cases expansion of the dental arch alone was useless; the jaw must first be expanded, and the teeth regulated afterwards. He also feared that expansion was sometimes unduly preferred to extraction, the dentist taking a pride in his professional skill and ability to move the teeth, and thus submitting the patient to more pain and risk of failure in the attempt to save the teeth than would have been the case had he extracted them.—Dr. [illegible] LEAL (Berlin) read a paper, in German, on Prognathism, pointing out that the classification of cases was in a very confused state, and suggesting certain terms of his own; and also an improved method of measurement.—Dr. ROSENTHAL spoke in praise of Dr. Coffin's regulating-plates: he had used them for eight years with steadily increasing success. It was an easy, rapid, and safe method of treatment, and would not, he felt sure, be allowed to fall into oblivion.—The discussion was continued by Dr. Cunningham, Dr. Dentz, and Mr. Spencer Bate; after which Mr. W. Coffin replied.

Erosion of the Teeth. By A. COLEMAN, F.R.C.S.—The process had been described by John Hunter under the term "decay by denudation". Mr. Coleman adduced much evidence in favour of the view that it was really due to the effects of friction, and not to an active morbid process. Somewhat similar effects were seen in some animals, as in the teeth of the fur-seal, as was due to the action of silicious particles taken up with the food.—Dr. Dentz, Mr. C. S. Tomes, Messrs. Gaddes, Magor, Spence Bate, and Dr. Taft joined in the discussion.

Dr. TAFT read a paper on Abscess of the Antrum.

Dr. DENTZ raised a question as to the advisability of retaining the term caries. Caries of the teeth was quite a different thing from caries of the bones, and should not be called by the same name; the term conveyed quite different meanings to the medical and to the dental student. He proposed to substitute for dental caries the word channosis, from the Greek, meaning softening. He had selected a word which did not convey any allusion to a theory, but which would be sufficient to call attention to the fact that the processes were distinct.

Mr. W. A. HUNT showed a mode of obtaining models in type-metal from the ordinary plaster-casts of the mouth; these were useful in working celluloid, as the plaster models would not stand the amount of pressure which was necessary.

Dr. PARMLY BROWN read a paper on the Use of Gold in Building up the Contour of Incisor Teeth, on which a somewhat heated discussion ensued. The majority of those present thought the use of gold should be avoided whenever possible in the case of the incisors, as being too conspicuous, and that the use of artificial dentine or pivoting with a porcelain crown would be preferable. Dr. Brown, however, informed his critics that they were twenty years behind the age, and that he had no intention of lagging in the same way.

Mr. SAUNDERS then delivered a short address, and closed the Section.

On each afternoon, practical demonstrations of dental operations, at which a number of foreign (especially American) and English practitioners otherated, were given at the [illegible] Hospital in Leicester Square.

SECTION OF MENTAL DISEASES.

AT the first meeting of this Section, President Dr. LOCKHART ROBERTSON delivered an address on Lunacy in England.

Dr. FOVILLE read a paper on Megalomania (the *délire de grandeurs*), in which he distinguished between the exalted delusions, which were fleeting, inconsistent, and generalised, and those which were systematised and permanent. This was followed by papers on the Physiological Pathology of Hallucination, by Dr. FOURNIÉ; on a Method of Preparing Large Sections of Human Brains, by Dr. HOLLER (Dr. SAVAGE reading the paper in his absence); Morbid Appearances produced by Methods of Hardening Tissues, by Dr. SAVAGE. An interesting discussion arose upon each paper, in which the following gentlemen took part—Drs. Savage, Clouston, Maudsley, A. de Yong, Ireland, Mercier, Ashe, Hack Tuke, Lasègue, Benedikt (Vienna), etc.

A paper on the Teaching of Psychiatric Medicine was read by Dr. CLOUSTON. In the discussion, a strong opinion prevailed that a certain amount of knowledge of mental disease should be required from medical men entrusted to sign lunacy certificates, the objections urged on the other side chiefly arising from the difficulty of providing adequate means of instruction for so many students. Dr. MacDonald of New York and Professor Ball of Paris [illegible] approved of Dr. Clouston's proposals.

Professor BALL (Paris) read a paper on the Relations of Insanity and Paralysis Agitans.

Professor MOTT read a pathological paper.

Dr. SAVAGE read a paper on Some of the Characteristics of Idiocy; and the same subject was treated by Mr. FLETCHER BEACH, of Darenth Asylum, in a paper dealing with the Morphological and Histological Aspects of Cranial and Microcephalic

Idiocy, illustrated by brains and microscopic sections. In the discussion of this paper, Drs. Huggard, Ireland, Clement, Hack Tuke, and others gave their views upon the various points suggested. Upon one of these—viz., the use of the forceps in delivery, and its share in producing idiocy—the general opinion seemed to be, that more cases of idiocy were produced by prolonged delivery than by the use of the forceps.

Professor TAMBURINI read a paper on Cerebral Localisation and Hallucinations, in which his object was to show that the first discovery of a sensory centre (that of sight) in the cortex cerebri was made by Panizza in 1856, but that the full development of the discovery was due to Ferrier. He also adduced evidence to prove that hallucinations were caused by disease of the sensory cortical centres.—Professor FERRIER followed, and gave the result of an experiment he had made upon an animal, by destroying the superior temporo-sphenoidal convolutions in both hemispheres. He expressed his strong conviction that further researches, having for their object the localisation of the functions of the brain, would be attended with most valuable results.

Dr. BENEDIKT (Vienna) exhibited a large number of Brains of Criminals, as a demonstration of the law of Atypia (a deviation from the type-form), the law of atypia consisting mainly in the general coalescence of the typical fissures and in the general appearance of the fissure-arrangements seen in various classes of mammals.—Dr. CRICHTON BROWNE criticised the classification of the specimens collected by Dr. Benedikt, and said that he did not consider that that gentleman had established any distinct departure from ordinary type which could be specially identified with the brain of a criminal.—Dr. HACK TUKE commented on the similarity which, to a certain extent, did exist in the skulls of criminals of certain classes, and cited the case of the murderers Palmer and Rush.—Drs. SIBBALD, NICOLSON, and others subsequently gave their views on the same subject.

Dr. ROBERTSON read a paper on Unilateral Hallucinations, and their Relation to Cerebral Localisation.

Dr. HACK TUKE read a paper on Mental Stupor, in which, after referring to the differences of opinion among alienists in regard to the diagnosis of acute dementia and melancholia attonita or cum stupore, he described the cataleptic and other varieties, and advocated the employment of the term "mental stupor", qualified by the words "with melancholia", when proof of the latter condition was present; thus getting rid altogether of the term "acute dementia", which he maintained was an unsatisfactory one.—Dr. FOVILLE said that in France the term "acute dementia" had been superseded.

Professor TAMBURINI read a paper on Hypnotism.

Dr. RAYNER read a paper on Gout as associated with Insanity.

Professor LASÉGUE read a paper on Epilepsy.

Dr. BUCKNILL read a paper on Testamentary Incapacity, in which the author commented on the importance of the subject in this country, where testamentary powers are unlimited, as distinguished from countries where testamentary powers are restricted by law. He reviewed the most important legal judgments on the subject, and fully criticised the judgment of the Court of Queen's Bench in "Banks *v.* Goodfellow", discussing the separate bearing upon testamentary incapacity of delusion; weakness and confusion of mind and of the emotional disturbance of insanity, and of imbecility, mania, and monomania.—Professor MOTET said that the most difficult of these cases were those of persons not recognised as lunatic, but suffering from coarse cerebral disease, causing mental disturbance; and he cited a French case, in which the law did not follow the opinion of the experts.—Dr. MAUDSLEY considered that if the will itself bore upon its face evidence of coherency of thought and judgment, the existence of a delusion of a foreign nature should not be allowed to upset it.—Dr. Orange, Dr. William Wood, Dr. Crichton Browne, and others, took part in the discussion on Dr. Bucknill's paper. Votes of thanks to the President and Secretaries terminated the meeting. During the Congress, excursions were made to several asylums, including the Middlesex and Surrey Asylums, Broadmoor Asylum, Northampton Asylum, and others.

SCIENTIFIC GRANTS.—The following grants for the purposes of biological researches were made at the last meeting of the British Association. *Mr. F. M. Balfour, Table at the Zoological Station at Naples, £80; Dr. Burdon Sanderson, Albuminoid Substances of Serum, £10; *Dr. Pye-Smith, Influence of Bodily Exercise on the Elimination of Nitrogen, £50; Dr. M. Foster, Zoological Station in Scotland, £40; *Mr. J. Cordeaux, Migration of Birds, £15; *Lieut.-Colonel Godwin-Austen, Natural History of Socotra, £100; Mr. Thiselton-Dyer, Natural History of Timor Laut, £100; *Mr. Stainton, Record of Zoological Literature, £100; Professor Flower, Photographs of Typical Races, £10. The names marked with an asterisk were reappointed.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

PAGE'S PATENT VAPORISER AND CRESOLENE.

IT is well known that the emanations from gasworks frequently prove serviceable in obstinate cases of whooping-cough. This mode of treatment would probably be more extensively adopted were it not for the trouble and inconvenience it entails. A chemist in America, whose child was dangerously ill with this complaint, conceived the idea of impregnating the air of the sick chamber with the principles contained in the gases given off from coal-tar. He designed for this purpose a little apparatus for vaporising cresolene, a substance closely allied to carbolic acid. His child was cured, and the treatment was adopted with success in other cases in the same epidemic. Although it has been introduced only about eighteen months, "vapo-cresolene" already enjoys an excellent reputation in the United States, and has been so extensively used, that Messrs. Allen and Hanbury have undertaken its agency in this country. The mode of using the apparatus will be seen by a glance at the woodcuts. We have given it a trial, and are satisfied that in many cases of whooping-cough it may be used with decided advantage. It is, of course, not a specific for this disease, but is a useful addition to our list of remedies. Many of the statements contained in the prospectus are exaggerated, but for this we understand Messrs. Allen and Hanbury are not responsible. They have placed it fairly before the profession, and are desirous that it should stand on its own merits. In chronic bronchitis and emphysema, and in that large class of cases which we call "winter cough", it is undoubtedly useful, not only easing the cough, but facilitating expectoration.



FOLDING STETHOSCOPE.

MESSRS. EVANS AND WORMULL have forwarded to us a most simple and ingenious form of folding stethoscope. It is extremely convenient in respect to portability and smallness of size, at the same time that it is perfectly efficient and elegant in appearance. The stem is a small gilt metal tube, the ear and chest pieces, polished ivory, and the stem is articulated to the chest-piece by a ball-and-socket joint, thus there are no separate pieces likely to be detached or to get out of order, nor any complication of construction. This stethoscope is likely to be very generally approved.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 1ST, 1881.

THE NEW AMBULANCE STATION OF THE ASYLUMS BOARD.

ONE of the greatest difficulties in coping with an epidemic of small-pox or fever in London arises from the division of authority and responsibility. The Metropolitan Asylums Board provide hospitals for the reception and the treatment of the cases, but the removal of the patients from their homes is performed by the parish or union in which they happen to live. In the hands of the so-called sanitary authority rests the duty of pointing out what is to be done to prevent the outbreak and the spread of the epidemic; and in the hands of another authority lies the carrying out of what in small-pox is the preventive, viz., vaccination. Centralisation may, in many instances, be productive of evil; but surely, in the present case, most people will agree, not only that it will not be productive of evil, but that, for efficiency, it is absolutely necessary. We hope, at no distant date, to have for the metropolis one sanitary authority, who shall have the responsibility, not only of taking all measures for the prevention of outbreaks of epidemic disease, but of providing isolation for the cases when an epidemic does break out.

Meantime, the Metropolitan Asylums Board have, we think, taken a step in the right direction. They have now in their own hands the ambulance system for the East of London, in connection with the Homerton hospitals and the hospital ship *Atlas*. A station has been provided near London Fields containing accommodation for nurses, male attendants, and coachmen, and for the ambulances and horses. When a case occurs in one of the districts allotted to the hospitals mentioned, intelligence is conveyed to the station, from which an ambulance, accompanied by a nurse, and, if necessary, by a male attendant, is despatched to convey the patient to the hospital to which he is to go. Arrived at the hospital, the ambulance is unloaded, and then thoroughly disinfected; the nurse changes her outer clothing, and all blankets, etc., are left at the hospital for washing. After this, the ambulance returns to the hospital. Besides this disinfection at the hospital, we are informed that nurses and officers bathe and change their clothes before they are allowed any leave of absence. There is not much fear, we apprehend, of the station becoming a centre of infection.

The people of Hackney are, however, not satisfied. A deputation, headed by a reverend gentleman, who had presided at a previous open-air meeting, and who displayed a want of precise knowledge of the facts, waited on the Asylums Board. Hackney, or, at any rate, Hackney Union, they said, had already a small-pox hospital, which was a source of infection, and they objected to having another. "The centralisation of nurses and ambulances would be prejudicial to the health of the locality." We have already pointed out the small chance there is of any danger arising from the station; but, even granting that it might, notwithstanding all precautions, prove a source of infection, we yet believe that the change is altogether for the better. Before the central station existed, the patients were transferred by the parish authorities to the hospitals. The parish ambulances, much inferior to the new ambulances of the Asylums Board, were always disinfected at the hospital to which they conveyed the patient, as also were the blankets and other appurtenances. The attendants, however, were not under the jurisdiction of the hospital, and were, of course, not dealt with. Each ambulance, therefore, carried back to the district whence it came an infected person. There, therefore, existed formerly in the hospital district several stations which possibly contained an infected person or persons, while now there is only one station, every individual in which has been freed from his or her infected clothing.

The ambulances are disinfected by thoroughly washing them with soap and water. But this, it is objected, is insufficient; and we believe that the Asylums Board have, in addition to the process of disinfection recommended by Dr. Collie, a method which may be called the "soap and water process", adopted certain suggestions by Dr. Tripe and Dr. Bristowe. Into the question of disinfection, it is not our present purpose to enter; but this much we may say: while we know that carbolic acid destroys bacteria, that Burnet's fluid destroys low animal life, that Condy's fluid dissipates disagreeable odours, and that sundry other chemicals attain similar desirable ends, we do not know what effect any one of them may have on the contagion of small-pox. We do know, however, from an overwhelming mass of evidence, that soap and water is of practical value in destroying the contagion; and we are of opinion that practical experience ought, in such a vital question, to outweigh chemical hypotheses.

Altogether, we think that Hackney has little ground for complaint; and we must congratulate the Asylums Board for taking the step they have done. We hope it is but the beginning of their work in this direction, and that they will speedily extend the plan to the whole of London.

CHERON AND FAWKNEZ ON THE COMPARATIVE ACTION OF THE ALKALINE BROMIDES.

MM. CHERON and Fawknez publish (in the *Journal de Thérapeutique*, August 25th) the results of their study of the action of bromide of sodium compared with the bromide of potassium and bromide of ammonium. Bromide of sodium is, according to them, a reflex moderator, which lessens sensibility, and only acts in an appreciable manner and motility when taken in large doses. It is in this distinguished from bromide of potassium, which acts both on the nervous and the muscular system, at the same time as a bromide and as a salt of potassium. In epilepsy, for example, a dram of sodium lessens the reflex power of the medulla and sensation, but does not affect in any marked degree the cerebral activity and muscular power. MM. Cheron and Fawknez administered bromide of sodium for several days to women in Saint-Lazare prison, with the view of studying its physiological action, and find that, in a dose of one to four grammes daily, this bromide (1) increases the quantity of urine passed, (2) increases its density, (3) increases the quantity of solid matter, (4) lessens the quantity of urea. But if the same individual receive a dose of four grammes daily and continuously, an equilibrium tends to establish itself. The quantity of urea rises again to an amount of seventeen to nineteen grammes, and the elimination of solid matters rises above the normal. This fact has led the author to use this means in gouty persons, and in those subject to gravel, rheumatism, and dyspepsia, with success. The bromide of ammonium taken under the same conditions, from a dose of one to four grammes, gave the following results: (1) diminution of the quantity of urine excreted; (2) augmentation of the density which results from diminution of the quantity of the urine; (3) diminution of solid excreted matters; (4) diminution of urea. The action of bromide of ammonium on nutrition is, therefore, characterised by diminution of the urinary excretion, and of the solid matters which enter into its composition. This salt acts like the diffusible excitants of its base, while preserving the sedative properties of [illegible].

As to bromide of potassium, which has been carefully studied by Rabuteau, like the bromides of sodium and ammonium, it lessens the quantity of urea, and it is hardly diuretic in doses of [illegible] grammes daily. In the same dose, it tends to lessen the urea, and, consequently, to moderate the act of nutrition. Like the other alkaline bromides, it is rapidly eliminated in part by the mucous membrane, of

which it modifies sensibility, and in part by the kidneys; thus it profoundly affects the excitability of the genital nerves.

The action on the digestive tube is judged by the alvine evacuations when the dose is somewhat high. The bromide of potassium is neuro-muscular; but it moderates the activity of the brain and spinal cord, which explains its symptomatic effects and the diminution of reflex power. The heart is slackened, and muscular paresis supervenes, because bromide of potassium acts as a bromide, and especially as a salt of potassium. As to the therapeutic use of the three alkaline bromides in the insomnia of nervous women, and of chlorotic persons, the bromide of sodium should be preferred; since in a dose of from four to five grammes it acts neither on the muscular system, nor on the digestive tube, and does not consequently produce the dulness and fatigue which the bromide of potassium produces. Bromide of ammonium is preferable to the other two when insomnia results from partial or general congestion of the brain.

In epilepsy, bromide of potassium offers divers inconveniences: it produces general torpor, with loss of memory and difficulty of speech, which is very painful to the patient; from four to ten gramme doses produce abundant diarrhœa. Lately, the collective administration of the three alkaline bromides has been attempted in epilepsy, a combination which offers as advantages: 1. A smaller dose is needed, since the atomical weight of sodium and ammonium are less than those of potassium; 2. It is more rapidly eliminated, since sodium is more rapidly eliminated than potassium, and ammonium is eliminated concurrently by divers ways; 3. The depressing action on the patient of bromide of potassium is avoided at the same time that the action of this salt on the central organs of circulation is permitted in sufficient degree. In chorea, the employment of the alkaline bromides is physiologically indicated in the following way: in chorea allied to rheumatism resulting from small microscopical embola in the corpus striatum, from the lesions of the endocardium, bromide of ammonium is indicated; in medullary chorea, bromide of sodium.

Bromide of potassium would not be indicated, except in so far as the disordered movements may be such that there is a danger in diminishing the energy of the muscular system. In asthma, the authors employ bromide of sodium in the majority of cases, and bromide of ammonium when the duration or frequent return of the attacks has produced disorder on the part of the cerebral circulation. When it is desired to act on the reflex power and on the muscular system, preference must be given to the bromide of potassium; if, on the contrary, it is desired to act on the reflex centre, bromide of sodium is indicated.

Finally, when, while respecting the muscular system, it is desired to act on the nervous centres, and to lower the pressure of the circulation, bromide of ammonium gives this result.

THE report of an outbreak of cholera at Reggio has been officially contradicted by the Syndic of the place.

According to advices from Barbadoes to the 8th instant, published in New York, 358 deaths from yellow fever occurred at Bridgetown during August.

FOOT-AND-MOUTH disease among cattle is on the increase in the north of England. Six more farms near Preston were reported to the authorities on Wednesday as being infected with it, and two others have suffered from the appearance of pleuropneumonia among their live stock.

M. PASTEUR, it is stated, has resolved to visit the Bordeaux lazaretto to study yellow fever, and ascertain whether it be due to a parasite, and can be guarded against by inoculation.

Dr. E. M. HARTWELL says that the first recorded *post mortem* examination made in America was done August 8th, 1670. Its record is found in a manuscript order of the Council of Lord Baltimore, dated at St. Mary's in Maryland.

THE Hospital Sunday Fund received its first legacy yesterday—one of £300, free of duty—from a gentleman, who made it a stringent condition of the acceptance of the bequest, that his initials only, "T. J. M.", should be given in any public announcement.

PROFESSOR William Warren Greene, of Portland, Maine, who recently attended the International Medical Congress in London, died while proceeding to New York in the Cunard steamer *Parthia*. He was buried at sea.

PROFESSOR BUSCH of Bonn, who performed a successful operation on the German Empress recently, has received the Great Cross of the House of Hohenzollern, accompanied by an autograph letter from the Emperor, signed, "your grateful king, William".

ON Wednesday, October 12th. Dr. Russell Reynolds will deliver an address on specialism in medicine, inaugurating the session of the Medical Society of University College, in the botanical theatre of the college. The chair will be taken by the President, Dawson Williams, M.B., B.S., at 8 o'clock.

UNQUALIFIED PRACTICE.

THOMAS THEODORE THOMPSON, residing at 40, Jamaica Road, Bermondsey, who was charged, at the Southwark police court, on August 25th, with having falsely represented himself as a medical practitioner, and with having by the representation obtained a sum of 14s. with intent to defraud, was brought up at the Surrey Sessions on September 8th. It transpired that for some years defendant had carried on the business of a dispensary with the aid of his father, who was now dead, and subsequently of his brother, who was an apothecary. The business was carried on in the name of William M. Thompson, whose name appeared over the door, whilst on the window there was a large blind setting forth the hours of attendance and charges for medical advice. The nominal prosecutor stated that he called at the defendant's dispensary in Easter week, and asked to see Dr. Thompson. The defendant said "I am Dr. Thompson," and then prescribed for his complaint, and gave witness a bottle of medicine, for which he paid 2s. 6d. He saw the defendant several times afterwards, and paid him altogether a sum of 14s. Finding himself getting worse he called in another doctor, and then went to the defendant to demand his money back. The defendant had guaranteed to cure him for a guinea, and instead he had nearly killed him for 14s. The defendant was fined £10. The case was set on foot by the South-Eastern Branch of the British Medical Association.

SOBER DRINKS.

THE Board of Inland Revenue are beginning to look with suspicion on many of the non-intoxicating liquors which have recently come into notice. They do not wish to interfere with ginger beer, treacle beer, and similar harmless decoctions, although these contain a small quantity of alcohol, but they have determined that in every case in which liquor flavoured with hops, or containing more than three per cent. of spirit generated by fermentation, is put forward under any of the names usually applied to beer, such liquor is liable to be taxed as beer, according to its gravity when brewed.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 27 and 26 in the two preceding weeks, were again 26 last week, and exceeded the corrected average weekly number by 12; 16 were recorded in the Asylum Hospitals, 5 in the Highgate Small-pox Hospital, and 5 in private dwelling-houses. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had been 582 and 528 on the two previous Saturdays, further declined to 476 on Saturday last, which included 113 in the "Atlas" Hospital Ship, and 36 in the Convalescent Camp Hospital at Darenth. The new cases admitted to these hospitals rose again to 84 last week from 105 and 68 in the two previous weeks. The number of patients in the Highgate Small-pox Hospital was 26 at the end

of last week, against 28 on the previous Saturday; 9 new cases were admitted during the week. The 17 fatal cases of measles exceeded the average by one; they included 3 in Paddington and 3 in Lambeth. The deaths from scarlet fever were 48, and were 2 above the average. The deaths referred to diphtheria, which had been 14 and 6 in the two previous weeks, rose again to 14, and exceeded the average by 4. The 31 fatal cases of whooping-cough showed an increase upon recent weekly numbers, and corresponded with the average. Three deaths were referred to typhus. The number of cases of typhus under treatment in the Metropolitan Asylum Hospitals had increased to 28 on Saturday last. The deaths from enteric fever, which had been 10 and 21 in the two previous weeks, further rose to 40 last week, and exceeded the corrected weekly average by 19. The 33 fatal cases of diarrhœa were no fewer than 77 below the weekly number.

OUTBREAK OF CHOLERA IN ARABIA.

A TELEGRAM from Aden, received at the British Embassy at Constantinople, on September 28th, states that, during the last four days, eight cases of cholera have occurred, of which six have been fatal. The Sanitary Commission at Alexandria have received an official telegram (September 27th) from Djedda, announcing that cholera had broken out among the pilgrims at Mecca. All communication between Egyptian territory and Arabia has been checked. The Sanitary Board at Constantinople have recommended that steps be taken to stop the embarkation of pilgrims for Mecca.

BRANCH PRACTICE BY UNQUALIFIED PRACTITIONERS.

WE have frequently referred with severe reprobation to the practice, in which some few medical men indulge, of employing unqualified assistants to conduct what are called sometimes "branch businesses", and sometimes "private dispensaries". Such a mode of conducting practice is contrary alike to professional sentiment and public interest, nor have we any doubt that it is illogical; and that the unqualified assistants thus practising may be made the subject of a prosecution, if the cases be properly investigated by local defence associations. This kind of abuse has grown up very extensively, owing to the apathy of the General Medical Council, and a palpable denial of duty, by which that body looks on, in the most unconcerned manner, while the Medical Act is evaded systematically and extensively throughout the country. The invidious duty is thus thrown upon private individuals, or private associations, of enforcing a law which, as the preamble itself expressly declares, is in no way framed for the benefit of the medical profession, but ostensibly for the benefit of the public, and to enable them to distinguish between qualified and unqualified practitioners. It was to administer this law, and to carry it out effectually, that the General Medical Council was named; and, it is only in virtue of its supposed willingness to carry out that law, and to protect the public from the illegal assumption of titles by unqualified practitioners, that it has any real right to exist. Its so-called influence on education is rather less than nothing—inasmuch as it is easy to observe that the whole evolution of education has progressed in advance of the General Medical Council; that it has never done anything but to register tardily, and accepted the declarations of professional opinion which it has not had the courage to enforce. It is not possible to suppress some feeling of indignation at reading such a report as the subjoined from the *Manchester Evening Mail* of September 23rd:

"At an inquest held this morning by Mr. Sidney Smelt, deputy-coroner for the city of Manchester, some extraordinary statements were made in evidence by Walter Carden, an assistant to Dr. Goddard, who has a dispensary at 129, Collyhurst Street, and others in different parts of the city. A woman named Emily Dawson, fifty-two years of age, of 2, King's Yard, Oldham Road, Ancoats, died, the said Carden was called in, and he prescribed for her. The woman died a few hours later; and, at the inquest this morning, Carden said he was an assistant to Dr. Goddard, who lived at Stockport, and had five dispensaries. Witness had no qualification whatever to practise, but was a medical man; and there were assistants at the other dispensaries who were all likewise unqualified. He prescribed for the deceased, in the absence of his employer, giving her a mixture composed of muriatic acid and tincture of opium, and also some purgative pills. He did not send for Dr. Goddard, and the next morning, when he called, he found the woman was dead. He charged sixpence for the medicine and sixpence for the visit. Dr. Goddard had had as many as fifteen places, and he had had several assistants who, to witness's knowledge, had been very drunken. Witness had been with him for thirteen months; had come from Grimsby, where he had been for two or three weeks in a druggist's shop. Previous to that he had been employed for several months by a manufacturing chemist. He had before that been apprenticed to a grocer and druggist at Spilsby. Dr. Goddard never lived at the place in Collyhurst Street, and witness commenced practice immediately on his arrival there. The coroner, in summing up the case to the jury, pointed out that there was very little doubt the woman had died from natural causes. He thought it a most scandalous thing that people like Dr. Goddard should practise in that manner. According to the witness, Goddard had had fourteen or fifteen places at which unqualified assistants were employed; some of them of drunken habits; and the witness himself confessed to being an unqualified man. He came to Manchester to practise after only three weeks' experience in a druggist's shop, and he pretended to visit people and prescribe for them in cases very often involving life or death. He should disallow the expenses of the witness. The jury made some strong animadversions on the case; and the coroner added, that he was surprised any medical man should lend himself to such deception. The jury returned a verdict of 'Death from natural causes'."

It may be hoped, and must be expected, that Dr. Goddard has some sort of explanation to offer, which may attenuate the statement of the witness, and lessen the severity which the comments of the coroner and the jury reflect upon his conduct. At any rate, we have no doubt that such practices, as there described, are utterly illegal, and that every one of those assistants, if the statement of the witness be true, could be prosecuted for illegal practices under the Apothecaries' Act; and that it would be found, on investigation, that their principal, in abetting and covering the illegal practice, is doing that which the law does not recognise and would not permit.

SALE OF PATENT MEDICINES BY DRUGGISTS.

ONE of the first measures which will be submitted to the newly elected French Chamber of Deputies will, it is announced, be an important Bill affecting druggists, which, after long consideration, has finally been drafted by the Council of State. It enacts that, in future, no druggist shall be allowed to combine with his profession that of a doctor, or to sell or advertise any patent medicines or nostrums.

PROTECTION OF CATTLE AGAINST CHARBON.

M. PASTEUR has addressed the following letter to the Prefect of the Seine et Marne, on the subject of the numerous demands addressed to him by various veterinarian surgeons through the medium of the Conseil-Général on the subject of the supply of the new vaccinal matter which he has introduced for the purpose of preventing black water or charbon. The demand for the vaccinal matter, it seems, now already far exceeds the available supply. "Monsieur le Préfet,—I was in London when you came to Paris to explain to me your desire of calling upon the Conseil-Général of Seine et Marne to set aside a grant for creating a small laboratory for furnishing my vaccinal matter by which to protect animals against charbon. I think that such a grant will be premature. Many questions of detail still remain to be solved, which can at present only be so solved by me. For example, all the vaccine which has passed out of my laboratory for the last month has been obtained by recent culture. An arrangement such as you propose implies storing, and the employment of tubes prepared at long intervals. Difficulties which will, no doubt, be easy to remove by further research, at present occur to impede the preservation of this vaccinal matter in tubes. Do not, however, fear a famine of this precious liquid next year. This pest does not prevail to any considerable extent during the winter, and at present I already possess the means of making it on a large scale. I shall find, after the holidays are over, one or two hectolitres of culture fluids already prepared; and by the month of March or April, when vaccination may be most usefully commenced, there will be, I hope, vaccine prepared for a million of animals. A very intelligent person in my laboratory will have no other occupation during

the whole of the year than the preparation of this vaccine, and will have an assistant. There will be a depôt of vaccinal tubes here; and I shall hope to be able to place it in the hands of veterinarians at five centimes per beast, which is about what it costs. During the first year, it will be necessary to watch the state of the preserved vaccine and the permanence of its protective powers. A provincial establishment would occupy me, and take up my time as much as the supply laboratory which I shall arrange here. When the regularity of working of that which I am here arranging has been proved, it will be time to follow out our plan, and you can then count on my readiness to serve you. I have the satisfaction to inform you that, thanks to the devotion of all assistant fellow-workers and laboratory servants, the number of animals already vaccinated reaches nearly 30,000 sheep and some hundreds of oxen, cows, and horses."

CREMATION ABROAD.

AT Copenhagen, at the last meeting of the Society for Cremation, the Secretary-General announced that the Society counted 1,400 members, among whom were 83 distinguished physicians, and many Protestant ministers of well-known character. The apparatus adopted by the Danish Society can complete cremation in about an hour, and the operation does not cost more than from five to seven shillings. It is expected that this economical result will assist in extending the practice among the poorer classes, for in Denmark the cost of a funeral by the ordinary method is very high. In Italy, we learn from the same source (*Revue d'Hygiène*), as the result of a series of lectures in various cities of Europe by the zealous propagator of cremation, Dr. Pini, new societies have been formed, which now number nine in all Italy; and new crematories have been constructed in Rome, Varese, Pavia, Cremona, Udine, and Leghorn. A Milanese gentleman, Signor Loria, has offered the municipality of that city twenty thousand francs to establish and keep up, as a cemetery, a chamber in which the necropsy of bodies destined to be cremated shall be made, especially in cases where the malady has not been rigorously diagnosed, or where death has been in any way sudden, or its cause not certainly known. In Hungary, the sanitary town of Buda-Pesth has published, on the 5th of September last, a report, in which it declares incineration "salutary from the point of view of public health, but it should be permissive only, and a special cemetery set aside for the purpose". The Committee strongly recommends the municipality to make the necessary arrangements for putting the project in execution.

DUELLISTS AND DOCTORS.

THE duty of secrecy which is incumbent upon a medical man in respect to circumstances which have become known to him in virtue of his professional functions is regarded by medical men in all countries as involving sacred obligations, of which it is necessary to preserve the principle intact, and to defend, if necessary, even against the law itself. This obligation, like all others which an honourable profession accepts and upholds, is based upon the interests of society at large; for it is certain that if, on the one hand, justice is concerned in acquiring the necessary knowledge for its operations, society is deeply interested in the maintenance of confidence in the medical profession, under whatever circumstances medicine is called upon to fulfil her functions. The question has recently come before the Belgian courts in connection with the recent duel. The medical man cited before the *procureur du roi* refused to answer whether he accompanied three other persons, accused of being concerned in a duel, to the spot at which it was alleged to have been fought, and whether he was present at the duel; and he alleged, as his reason for refusing to answer the questions put, that such knowledge as he possessed was in virtue and by reason of his profession of medicine, and under the seal of secrecy which was demanded of him. On the other hand, the court held that the facts concerning which the witness had been questioned could not be considered acts of his profession, and that the latter could, in fact, only have commenced at the moment at which it might have become necessary to have recourse to a special knowledge in the accomplishment of the duties which were demanded of him. The tribunal condemned the witness to a fine of £4 and costs, and the court of appeal at Brussels confirmed the judgment. This view, however, is contested by the medical journals, which contend that the professional act commenced, not at the moment at which any wound was actually inflicted, but at the moment that the doctor was summoned because danger of a wound existed, and it would be as reasonable to call upon a doctor to lead the officer of justice to the door of a criminal whose wound he had attended, under the pretext that his actual professional duty only commenced when he had passed the door and was engaged in tracing the wound. However, similar circumstances are not likely to occur in this country, as it is now recognised here that duelling, being an illegal act, is not one to which it is necessary for men of honour to have recourse in order to heal their injured self-respect.

INFECTION BY MILK AT THE ANTIPODES.

IT appears that we are not singular in the British isles in occasionally dispensing typhoid fever with our milk-supplies, since news from Christchurch, New Zealand, would seem to show that the sanitary circumstances of one at least of the local dairies rival those of some in our own country. An outbreak of typhoid fever at Christchurch, occurring in well-drained and clean houses, was only explicable on the assumption that the poison had been distributed with the milk by which all the houses attacked were supplied. A serious outbreak is reported at a lunatic asylum, supplied altogether by the milkman in question, and the fever is stated to have reached a "really alarming state" in the asylum. Examination of the milkman's premises showed them to be in a filthy condition; and there is said to be no doubt that the milk he supplied had spread the infection. In the absence of fuller particulars, it is, of course, impossible to form any judgment upon this point; but, as it is stated that the health-officer has for some time been urging the Board of Health to obtain sanitary control over dairies, it may be hoped that the experience of this outbreak will induce the colonial authorities to take a step which is still pressingly required in the mother-country.

THE GERMAN SANITARY EXHIBITION.

AT Berlin, active preparations are being made for the German Sanitary Exhibition to be held in that city next year, and officially styled, "*Die Allgemeine Deutsche Ausstellung auf dem Gebiete der Hygiene und des Rettungswesens*"; for it will include appliances for the direct preservation of life, or even property, as well as inventions which counteract sources of disease. The authorities are issuing, from time to time, a circular, which has already reached its fourth number. The Prussian Minister of Public Works has granted that exhibited goods not sold at the close of the exhibition may be returned carriage-free; and the Minister of Finance will permit the import and export of all exhibited goods duty-free. The Central Committee have decided to beg Her Imperial Majesty, the Empress of Germany, to bestow her patronage on the exhibition, which will be held on the site of the Industrial Exhibition of 1879. The governments of several German States have been very liberal in granting funds for defraying expenses connected with the dispatch of their contributions to Berlin, and local committees are in active process of formation. Cologne, Breslau, Landshut, Schwerin, and Hamburgh, have, in particular, shown great activity. The Committee from the great Rhenish cathedral-city have already appointed commissioners for nearly every section of the exhibition, which, considering that there are thirty-five special departments, is a proof of the energy of the medical and sanitary authorities of Cologne. The Central Committee indicate how special prominence will be given to municipal and parochial sanitary questions, encouraging local and private enterprise, in contradistinction to more centralising influences. A fair idea of the very wide scope of the undertaking may be gained by a perusal of the list of special departments as given in the official circular. Thus there are two separate sections for "Dwelling-houses" and "Institutions where large numbers of persons are congregated". Among other groups are "Sites, and the nature of their position, soil, and air"; "Thoroughfares and Public Squares,

etc."; "Public Water-supply"; "Lighting of Streets and Houses"; "Cattle-sheds and Slaughter-houses"; "Public Baths"; "Public Laundries"; "Public Educational Establishments"; "Hotels and Eating-houses"; "Manufactories and Laboratories"; "Agricultural Sanitary Arrangements"; "Means of Supply of Provisions and Catering for Public Enjoyment (*Nahrungs-und Genussmittel*)". "Communication by Water-Highways"; "Clothing"; "Infectious Diseases"; "Hospitals, Asylums, and Convalescent Establishments"; "Mortuaries and Interments"; "Veterinary Knowledge"; "Science, Literature, and Statistics"; "Fire-Escapes and Fire-Engines"; "Protection against Lightning, Inundation, Explosives, Accidents in Works conducted under Water, Accidents in Mining Operations, and Accidents from Machinery and Boilers": all these six sources of danger are the subjects of distinct sections. Lastly, there is a section for the immediate treatment of the victims of accident. A more comprehensive scheme could not be imagined; and, in order to meet all requirements, the Central Committee are actively pushing forward the construction of the exhibition-buildings, to be commenced shortly, and are planning the arrangement of the exhibition-grounds, on which they propose to erect not only the customary refreshment-rooms and concert-gardens, but also a large pond for the display of newly designed boats, diving-apparatus, and appliances for rescue from drowning.

ENGLISH PHYSIOLOGISTS IN AMERICA.

PROFESSOR Martin and Sedgwick appear to be pressing their work of teaching physiology earnestly at the Johns Hopkins University. At a recent meeting of the Maryland Faculty, Professor H. Newell Martin, of the Johns Hopkins University, detailed the steps by which he had succeeded in "isolating a mammalian heart". This had been done in the frog, but never before in a mammal. The heart of the former differs from that of mammals, in having no vessels proper in the heart-substance. The animal selected for the experiment was the dog. The problem was how to keep up circulation in the coronary arteries. The animal was first narcotised, and then tracheotomy was performed to allow artificial respiration. The various steps of the experiments were given in detail, showing how the vessels, etc., were divided, until the heart was completely separated from the rest of the body, except the lungs, and, although rigor mortis set in the rest of the body, continued to pulsate regularly for five hours; after this, fluctuating, yet continuing to pulsate irregularly for several hours longer. The opportunities afforded by these methods of observing the effects of heat and cold, of drugs, and even of fever, upon the pulsations of the heart were pointed out. Dr. Martin hoped to be able, in time, to separate the living heart from the lungs also. Dr. W. T. Sedgwick, also of the Johns Hopkins University, followed in an address upon the function of the semilunar valves of the aorta. Thebesius, in 1708, brought forward the view that these valves, in opening out for the passage of the blood from the heart, close completely the orifices of the coronary arteries. This was forgotten, however, until Brücke recalled attention to it in 1850, since which it has been generally accepted by physiologists. Professor Martin suggested the practicability of examining the circulation in the heart during life, and this had been successfully carried out upon the dog. A cannula was passed into a branch of the coronary artery—a very difficult and tedious operation—and the blood-pressure in that vessel examined; this operation was much facilitated by stimulating the vagus nerve, by which the action of the heart could be held in abeyance for half a minute or more. The registering by means of manometers of the blood-pressure in the coronary vessels, compared with that in other vessels—the carotids for instance—showed that the blood-pressure in the former is equal to that in the latter, whilst the pulsations in the two are synchronous.

MEDICAL LEGISLATION IN QUEENSLAND, AUSTRALIA.

Cedat non animum mutant, qui trans mare currunt. This good old Horatian maxim receives fresh illustration from the facts brought out in some correspondence which has recently taken place between the Medical Board of Queensland and the Colonial Government, with reference to the prosecution of unqualified practitioners; from which it appears that difficulties similar to those felt at home on the same subject have arisen in the colony, and that the need of united action among qualified medical men, which has led to the formation of our own and kindred associations in this country, is beginning to make itself felt in professional circles in Queensland. It appears that, in December last, the medical board enclosed to the Crown Law Officer of the colony copies of two local papers containing advertisements from a notorious quack, who, though unqualified, styled himself Doctor, in open defiance of the Colonial Medical Act of 1867. The Medical Board were of opinion that the public should be protected from such false pretences, and brought the matter under the notice of the Attorney-General, in order that he might take steps to put a stop to it. The Attorney-General, however, considered that it was not for him to direct any action to be taken against the offender, but that it was open to the board, through their secretary or otherwise, to take proceedings under the Act. The Medical Board, in consequence of this intimation, applied to the Colonial Secretary to place funds at their disposal for the purpose of these prosecutions; but, being informed that this official was unable to comply with their request, they appeal, in a circular letter which accompanies the correspondence, to the profession throughout the colony, to supply them with means for the purpose by annual subscriptions. We trust this appeal of the Medical Board will be well responded to, and that it may prove the starting-point for such combined action among medical men in the colony as may lead to the formation of a Branch of our Association there, as in the other Australian colonies. We wish we could hope that our own General Medical Council would learn from this example, set by a colonial board, that even they have a duty to perform to the public and the profession, in regard to the quacks who infest our large cities and centres of population; but, in despair of such a result, we can only recommend that a copy of this correspondence be laid before the Royal Commission on the Medical Acts.

EXTIRPATION OF THE LARYNX.

PROFESSOR A. CECCHERELLI has published recently (*Lyon Médical*) a short account of the operations for complete or partial extirpation of the larynx performed up till now, with a statement of the results obtained. The operations included in the list amount to thirty in number, of which twenty-five were cases of total extirpation, and five cases of partial resection. The operation has been performed eighteen times for a carcinoma. In twelve other cases, the tumour was either not of a malignant nature, or the nature of the lesion for which the operation was undertaken was not recognised. Of these thirty cases, cure is said to have been obtained twenty times; and, in the twenty-first case, the result is unknown. Twenty of the individuals, however, who recovered from the operation, succumbed later with symptoms of early relapse. The final result, then, shows eleven undoubted cures, or, at least, considerable prolongation of life, and one doubtful case. Professor Ceccherelli's conclusions are the following. 1. Extirpation of the larynx is an operation henceforth included in surgical therapeutics; 2. It is best carried out by the thermo-cautery; 3. It should be reserved for those cases in which the lesion is not too diffused for the successful attack of the surgical knife; 4. Tumours of a malignant nature are not suitable to the operation; 5. The operation is very admissible in cases of carcinoma, but only when it is limited, and when the case is not one of soft cancer, and the disease has not yet produced general inflammation.

VACCINATION IN CHINA.

IN a State paper, lately presented to the Legislative Council of Hong-Kong by the Governor, Sir John Hennessy, we find that, as shown by the census returns, in 1876 there were 198 Chinese doctors in Hong-Kong; now there are 333. These Chinese doctors are most useful in the manner in which they encourage the practice of vaccination. The colony has always been peculiarly liable to attacks of smallpox; but of late years the system of vaccination has been adopted by these Chinese doctors, not only in the colony itself, but also on the mainland in the adjoining province of the Chinese empire. Thousands of Chinese have

been vaccinated during the last few years; and the thoroughness with which this operation is performed is shown by the fact that the health-officer, when examining emigrants, finds that nearly all the young Chinese have three or four vaccination marks, or inoculation marks, upon the arms.

QUININE WINE.

THE sulphate of quinine, as sold in the shops at about one half-penny a grain, has been examined by Mr. Winter Blyth, and found, in the only two samples obtained, pure. A sample of "tincture of quinine" was bought from a chemist, and also found pure. Three samples of quinine wine, labelled to contain a grain of the finest sulphate of quinine in each wine glass of the wine, were found deficient in quinine; that is, if a wine glass means a measure of two ounces, as is generally accepted among medical men when they order a wine glass full of any medicinal wine. A prosecution was instituted upon one of the samples. It was contended for the defence that a wine glass, such as used in most households, did really contain three ounces, and that quinine wine was not a drug but a beverage. On the other hand, the prosecution urged the fact of there being such a thing as quinine wine in the *British Pharmacopœia*, which clearly proved that quinine wine was a medicine and not a beverage, and the general acceptance of a wine glass in reference to drugs as a measure of two ounces. The principal scientific witness for the defence was asked whether he would like to drink such a wine as a beverage, but a reply to this could not be elicited. The magistrate ultimately dismissed the case. Mr. Blyth, in commenting on the facts, expresses the strongest conviction, firstly, that quinine is a drug which should not be taken save by medical advice; secondly, that when so taken it should be administered in definite doses; and thirdly, that no wine containing any drug should be sold without a proper label giving the exact strength of the wine. In these views we concur with him.

A NEW AERIAL DISINFECTANT.

M. PEYRUSSON proposes to purify the air by nitrate of ethyl, which he considers one of the best antiputrescent and antifermentescible agents (*Journal de Médecine de la Haute-Vienne*, 1881, *and Progrès Médical*, August 13th, 1881). His method of proceeding is to make the nitrate of ethyl extemporaneously by putting a mixture of alcohol and nitric acid in large open porcelain vessels, and gently warming these porcelain capsules over hot water. In proceeding thus, he changes the proportions of alcohol and nitric acid indicated for the preparation of these ethers so as to avoid the disengagement of acid vapours; and he recommends the use of four parts of alcohol of 90° to one part of nitric acid of 36°. In these preparations, the secondary products of the reaction are never disagreeable; the alcohol, which is in considerable excess, completely saturates the acid products, which, however, are none the less active by reason of the nascent state in which they occur at the moment of decomposition by the impurities of the alcohol. He recommends the system thus simplified in hospitals, maternities, barracks, and other public establishments. Each evening about 50 grammes of the mixture to 100 cubic mètres of air should be put in porcelain capsules, placed about the wards; and it may be put upon vessels containing warm water. This mode of purification of the air, which is, he says, inoffensive and agreeable, acts upon the germs of putrefaction which are floating in the air in great quantity in hospital wards, and destroy volatile infected agents.

THE CURABILITY OF PHTHISIS AT HIGH ALTITUDES.

THE results claimed for the treatment of phthisis at high altitudes are of a sufficiently surprising kind. In some instances, it is said that there has been an actual increase in the capacity of the chest—in the vital capacity, that is, as measured by the spirometer. This fact has been adduced as a proof of the radical nature of the "cure". Assuming the observations to be accurate (though it must be remembered that there are many difficulties surrounding the application of spirometry to practice), they are yet quite incapable of sustaining so weighty a conclusion. A chest in which a considerable degree of consolidation has occurred, but in which the disease has become temporarily quiescent, may very materially alter in shape. While the apices remain flat, or even, through cicatricial changes occurring in the lung, become more retracted, the bases may become expanded. The expansion is due to a compensatory hypertrophy, as it has been called, or, more properly, to a process of dilatation—a kind of "hypertrophic" emphysema, such as is seen in its extremest degree in one lung, in cases where the other has been permanently incapacitated by pneumothorax or pleural adhesions. It is quite conceivable that such a dilatation of the lungs, occurring over a wide area at the bases, might bring about an increase in the total vital capacity, even though some considerable portions of the apices remained unfit for use. We do not wish to prejudge the subject of the beneficial influence of high altitudes on a certain class of phthisical patients; we wish merely at this moment, when the flight of the *poitrinaires* is about to commence, to enter a protest against the too sanguine views which have been put forward. The experience of every physician will supply him with cases of phthisis in which, after a longer or shorter period of quiescence under conditions such as those to which we have above referred, a further extension of the disease has occurred with extreme rapidity in this dilated and therefore not quite healthy lung. The artificial equilibrium which has been established is so readily disturbed, that a comparatively slight accession of disease may prove fatal in a short space of time.

DIPHTHERIA IN RUSSIA.

THE Russian journals publish, according to a correspondent of the *Daily News*, some terrible details of the diphtheria epidemic in Russia, which is stated far to exceed in intensity and in the extent of its range all the previous visits of this disease, so peculiarly fatal to the young. In certain communes and parishes, it is reported to have carried off all the children up to fifteen years of age. From the official statistics of the Medical Department, it appears that the origin of the attack dates from 1872, when it made its first appearance at Bessarabia; since then it has spread far and wide over the southern part of the empire, whence it has lately begun to make rapid progress towards the east and the north-west. It is observed that it follows the direction of the prevailing winds of the southern portion of Russia in Europe. The latest provinces affected are those of Tambof, Saratof, and Samara. In Pultowa, a province of considerably less than two millions of inhabitants, there have been 45,543 cases, of which no fewer than 18,765 have proved fatal.

SCOTLAND.

AT the last quarterly meeting in connection with Dr. Gray's Hospital, Elgin, Mr. Wm. Winslow Hall, Edinburgh University, was appointed surgeon, in room of Mr. Thompson, who is leaving for Aberdeen.

SMALL-POX IN LOCHEE.

TWO cases of small-pox are reported to have occurred in Lochee, one of the suburbs of Dundee. The sanitary authorities are taking the necessary steps to prevent the spread of the disease.

GAS EXHIBITION IN MARISCHAL COLLEGE, ABERDEEN.

THE Aberdeen Philosophical Society originated the idea of having an exhibition of appliances for gas-heating, lighting, cooking, etc.; and the University authorities have granted the use of Marischal College for the purpose. The exhibition was opened on September 19th, and will remain open for a fortnight. A large number of exhibitors are present to show what can be accomplished by the aid of gas and oils in cooking, heating, and ventilating. Various forms of gas-stoves for cooking are shown; and it is certain that they are both successful and economical. Food cooked or baked in these ovens has not the slightest flavour of gas, or the products of the burning of gas communicated to it. Numerous arrangements for the artificial heating of rooms by means of gas are shown, as are, also, the numerous applica-

tions of Bunsen's burners for fire-lighting, rapid boiling of water, etc. The use of these burners only requires to be better known to command their greater use in culinary operations. There are also numerous contrivances for regulating the pressure of gas in the supply-pipes, and also a vast variety of gas-burners for regulating the consumption of gas, so as to obtain the maximum of light with the minimum expenditure of gas; such as the burners of Peebles of Edinburgh, the duplex, and those of Messrs. Bray and Sugg. The two last firms show their arrangements for street-lighting. A very useful gas-apparatus, whereby the vapour of gasoline is used as the inflammable material, is specially useful for places beyond the reach of a liberal coal or gas supply. There are also many of the minor applications of gas for heating irons, kindling fires, etc. Swan's electric light is exhibited, and gives most satisfactory results, both as regards the amount of light and the small quantity of heat evolved from the carbonised thread glowing [illegible].

THE REGISTRATION OF DAIRIES IN GLASGOW.

BEARING in mind the importance which the milk-supply of towns has on the health of the community, and that several of the recent outbreaks of fever in the city have been traced to unsanitary arrangements about the dairies and milkshops, the authorities are, very properly, rigidly carrying out the provisions of the "Milkshops Order" of 1879; and we observe that last week heavy fines were inflicted on two purveyors of milk for the non-registration of their places of business.

RECTORSHIP OF ABERDEEN UNIVERSITY.

THE election of Rector will take place on an early day in November, and already the energetic electors who are in town are taking steps to bring forward their respective candidates. It was stated in the JOURNAL of last week that there was some intention on the part of the Conservative members of the University to bring forward Lord Cranbrook as a candidate. It appears, however, that it has now been definitely settled that Sir James Paget, Bart., F.R.S., D.C.L.Oxon., will be the nominee of the Conservatives. As already announced, Professor Bain will, we understand, be proposed by the other party.

THE EDINBURGH HOSPITAL FOR FEVER.

THE subcommittee of the Town Council of Edinburgh, charged with the conversion of the old infirmary buildings into a fever hospital for the Corporation of Edinburgh, have instructed Mr. Morham to prepare the requisite plans for the conversion. The drainage is to be reported on by the burgh engineer; while the medical officer of health, Dr. Littlejohn, will draw up a scheme for the disposition of the various wards in the hospital. The authorities have wisely determined not to proceed with the sale of the present fever hospital situated in Tolbooth Wynd until the completion of the new fever hospital.

IRELAND.

ON Friday evening, the 7th instant, a ball will be held in Cork in aid of the funds of the County and City of Cork Lying-in Hospital; and, from the influential patronage it has received, and the warm interest shown in the affair, it is confidently expected that a very handsome [illegible] will be made to the [illegible] deserving [illegible].

DEATH OF DR. ALEXANDER [illegible].

WE regret to announce the death, on Sunday last, of this gentleman, at a good old age. Known chiefly among the profession as the inventor of the aneurysmal compressor which bears his name, he was better [illegible]. At the time of his death, he was Director of the Natural History Department of the Science and Art Museum, Dublin, a post which he filled with credit for the last thirty years. For eleven years previously, he was Curator of the Museum of the Royal College of Surgeons in Ireland.

A CORONER FOR MONAGHAN.

BY the death of Dr. Reid, a vacancy has taken place in the coronership of the northern division of the county Monaghan. There are at present four candidates in the field, all belonging to the medical profession, viz., Dr. Stewart of Glasslough, Dr. Woods of Monaghan, Dr. Nesbitt, and Dr. Gage of Scotstown. The election will be conducted under the regulation laid down by the new Coroners' Act, passed last session, by which all persons entitled to vote for a parliamentary representative are permitted to vote for a coroner. The result of the contest is uncertain, but it is thought probable that Dr. Woods will be successful.

THE PUBLIC HEALTH DEPARTMENT IN DUBLIN.

SUBJECT to the sanction and approval of the Local Government Board, the Corporation of Dublin have promoted Dr. C. A. Cameron, the efficient Superintendent Medical Officer of Health and City Analyst, to the entire charge of the Public Health Department of the city under the Public Health Committee. This appointment is one which has long been recognised as most needed and desirable, and in accordance with the recommendations of all authorities. The importance of having a single superior executive officer to direct and control the entire department being sufficiently obvious, owing to the recent death of the late Secretary of the Public Health Committee, the present arrangement has been facilitated; that gentleman having had to perform exceptional duties, many of which were of purely a medical nature. Dr. Cameron is to receive a salary of £1,000 *per annum*, including the discharge of his present duties as city analyst. He is to be permitted to retain his Professorship of Chemistry in the Royal College of Surgeons in Ireland, and to hold his appointments as analyst to various Irish counties; but the remainder of his time he is to devote to the daily duties of his new office. Dr. Cameron, with the limited powers hitherto in his hands, has done much in improving the public health of Dublin. He possesses the confidence of his fellow-citizens and the good opinion of his professional brethren. We anticipate the most favourable results from the appointment which the Corporation have so judiciously made.

QUEEN'S COLLEGE, BELFAST.

DURING the session 1880-81, the increase in the number of students referred to in former reports still continued, although it was considered by some that the proposed establishment of the Royal University would tend to diminish the number of students in the Queen's Colleges. So far, at least, it is satisfactory to learn that the Belfast College has not been affected by the projected change in the system of university education. The President considers that the Intermediate Education Act has been of service, and that in a few years it will contribute to raise the standard of university education in Ireland. During the past session, 508 students attended the various classes, of whom 482 were matriculated and 26 non-matriculated. Three hundred and thirty-two students entered for the faculty of medicine. Having drawn attention to the method of instruction pursued in the college, the President refers to the deficient accommodation in the departments of anatomy, chemistry, and physics, in consequence of the number of students having doubled during the past twenty years. The medical school is now much the largest in Ireland, and ranks third in the United Kingdom; and, as the medical buildings in various universities have been recently enlarged, and their laboratories and scientific apparatus wholly remodelled, so as to meet the requirements of advanced education, it is now absolutely necessary in the interests of education in Ulster, and in justice to the professors and students, that the college should be placed in the same position as others. The professor of chemistry reports that the students in medicine, who numbered 330, are required to undergo a course of practical chemistry in the laboratory; and that the space in his department was totally insufficient to meet existing wants. There is, besides, scarcely a branch of the arts [illegible] considerable number of purely chemical industries have sprung up in Belfast; so that it is to be [illegible]

behind the times, and is not adapted to meet the requirements of a great centre of industry. The professor of natural history also asks for additional space in the museum, so that he may arrange, for purposes of practical study, rare and valuable specimens of plants and animals which have within the last few years been presented to the college. The increase in the number of medical students still continues, and the overcrowding of the anatomical lecture-theatre and dissecting-room during the past session was the cause of considerable inconvenience and anxiety. The recent extension of the field of medical science also requires a large amount of additional space, especially for the study of histology and physiology. It follows that, unless the buildings of the college are enlarged and its laboratories properly equipped, it cannot continue to give such practical training to the students as is now demanded of candidates for degrees. During the past year, the sum of £1,680 was raised by public subscription, for the establishment of a scholarship to commemorate the distinguished services rendered to the college and to chemical science by the late Vice-President, Dr. Thomas Andrews; and at the same time a full-length oil-portrait of Dr. Andrews was placed in the examination-hall of the college.

MIDDLETON UNION.

DR. RICHARD RYAN having been suspended by the Local Government Board under a sealed order, an election for the vacant appointment took place on two several occasions, with the result that Dr. Ryan was twice placed at the head of the poll. Another election has been fixed for Saturday, October 1st, when a similar result may be expected. The Local Government Board are, however, equal to the occasion; and have informed the Dispensary Committee that, if a proper medical officer is not elected within a month, the Board will themselves make the appointment.

HEALTH OF CORK.

DURING the four weeks ending September 10th, the deaths registered in Cork amounted to 141 (including 36 dying in the workhouse who formerly resided in the city), of which number 12 were due to infectious maladies, and 14 were infants under one year. During the same period, 153 births took place, a number equal to 25.38 per 1,000 of the population. The death-rate was equal to 23.38, but, if the deaths occurring in the workhouse be deducted, the total urban mortality would then amount to only 17.4; from infectious diseases, 1.9; and an infant mortality of 2.3 per cent. During the four weeks, no material alteration has taken place with regard to the amount of fever arising within the borough, there being 53 cases of every description of this disease recorded, as against 52 last month. It would appear, however, that typhus has shown a somewhat increased prevalence for the past few months, not only in the city, but throughout the country at large, but by no means to such an extent as to give rise to public uneasiness.

SURGERY AMONG THE MOUND-BUILDERS.—Dr. BRADFORD (*Boston Medical and Surgical Journal*, May 12, 1881), recently exhibited at the Boston society for Medical Observation, some morbid specimens picked from over a thousand skeletons of the mound-builders. There was a femur with a perforation partially filled up and surrounded by evidences of suppurative osteitis, which might have resulted from external violence. Of two tibiæ, one was normal, while the other gave evidence of caries of the ankle. An exostosis showed an attempt at repair. Dr. Bradford believed that the individual who had the latter bone must have been long sick, and gone about with some artificial support. In a case of caries of the spine, the whole dorsal region was involved and cure by ankylosis had taken place. The rest of the skeleton showed the person to have been a young female. Years must have elapsed before a cure was effected. There were also two fractured femora which had united in such good position that in his opinion must have been treated with considerable surgical skill. There was no bowing outward or forward, and but little rotation. The position could not have been maintained till the cure was attained without some pretty efficient means of maintaining the axis of the limb. The results would be considered good in these days in cases where extension could not be employed. From these circumstances, Dr. Bradford thought it very probable that the mound-builders were as much superior in surgical skill to the modern Indians, as they were in civilisation and knowledge of the arts.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 12th day of October, next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 6th, 1881.

BRANCH MEETINGS TO BE HELD.

SOUTH WESTERN BRANCH. The next quarterly meeting of this Branch will be held at the Exeter Hospital on Wednesday, October 5th, at 2 P.M. Members intending to read papers, or show specimens or cases, are requested to give notice to S. RICE PHILLIPS, M.D., Honorary Secretary, Wonford House, Exeter.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT. The next meeting of the above district will be held at the White Hart Hotel, Reigate, on Thursday, October 20th at 4 P.M.; F. B. Hallowes, Esq., in the chair. The following papers and communications will be read. Dr. Stephen Mackenzie: On the Diagnosis of Intracranial Tumours. Dr. John Walters: Case of Cerebral Abscess. Dr. H. S. Stone: Case of Urethral Calculus. Mr. W. A. Berridge: Case of Fractured Coracoid Process, with Specimen. Dinner at 6 P.M., exclusive of wine.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

SOUTH-EASTERN BRANCH: WEST SURREY DISTRICT. The next meeting will be held at the Bush Hotel, Farnham, on Thursday, October 6th, 1881, at 4 P.M. to the minute; Dr. W. W. Young, M.D., in the chair. Dinner at 6 P.M. precisely; charge, 6s. 6d., exclusive of wine. The following cases and papers have been promised. 1. Mr. Napper: A case of Complete Closure of the Vagina in Labour. 2. Dr. Pearse: A paper on Indigestion. 3. Mr. S. G. Shoman: A paper on the Necessity or otherwise of Frequent Revaccination; and a case of Prolapse of the Female Bladder. 4. Dr. W. W. Young will open a discussion on the Contagious Diseases Acts. 5. Mr. Lorimer: A case of Obstruction of the Bowels.—A. ARTHUR NAPPER, Honorary Secretary.

BATH AND BRISTOL BRANCH.—The first meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday, October 27th, at 4.15 P.M. This hour has been chosen to suit the convenience of country members especially; and it is hoped they will attend, and favour the meeting with their experiences. David Davies, President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries.—Bath, October 1st, 1881.

NORTH OF ENGLAND BRANCH.—The autumnal meeting of this Branch will be held at the Lumbton Arms Hotel, Chester-le-Street, on Thursday, October 6th, at 3 P.M. The following papers have been promised. 1. Dr. G. H. Philipson: Report of a Case of Perinephritis. 2. Mr. E. Jepson: A Case of Plastic Bronchitis. 3. Mr. E. Jepson: A Case of Scarlet Fever. 4. Dr. A. Mantle: Notes of a case of Stenosis of the Trachea and Right Bronchus. Members intending to read papers are requested to communicate at once with one of the Honorary Secretaries. Dinner at same hotel, at 5.30 P.M.; charge, 6s., exclusive of wine. T. W. BARRON, M.B., Durham; DAVID DRUMMOND, M.D., Newcastle-on-Tyne, Honorary Secretaries.

LANCASHIRE AND CHESHIRE BRANCH.—An ordinary meeting of this Branch will be held at the Town Hall, Bolton, on Thursday, October 13th, at 3 P.M. (Council meets at 2.30). The following communications have been promised. A short address on the Medical Reminiscences of Bolton, by Dr. Rothwell. On the Compulsory Registration of Infectious disease, by Dr. Sergeant, Medical Officer of Health for Bolton. On the transmission of Disease by some Foods, by Dr. Vacher. Case of Multiple Exostosis, by Dr. Shuttleworth. Case of Transfusion of Blood for *Post Partum* Hæmorrhage, by Dr. Walter. Enormous Fibro-Cystic Tumour of Breast, by Mr. Banks. On Modified Listerism, by Mr. R. Hamilton. On the Detection and Removal of Foreign Bodies in the Cornea, by Mr. Emrys-Jones. Cases of Cataract, Operation, etc., by Mr. E. Sunderland. This is the first meeting of the Branch at Bolton, and, among other matters of interest in the town, are the newly completed and extensive buildings of the Infirmary, at present containing a loan-collection of pictures. Dinner at the Swan Hotel, 6 P.M.; tickets 7s. 6d.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—September 27th, 1881.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

ON Thursday, September 8th, the eightieth meeting of the above district was held at the Royal Sea-Bathing Infirmary, Margate, under the presidency of Mr. W. KNIGHT TREVES, who, in conjunction with Mr. Thornton, conducted the members round the wards and the new buildings; the directors very kindly providing an excellent luncheon.

Papers.—The following were read:

1. Mr. TREVES read a paper on Angular Curvature, illustrated by living specimens representing all the chief varieties of spinal caries and the various modes of treatment usually employed.

2. Mr. S. WOODMAN read a paper on Some Disorders of the Teeth, and their Influence on Health, showing casts of some deformities. He mentioned three cases where persistent and unbearable heartburn from wearing vulcanite plates was cured by the substitution of gold ones; and urged the importance of extracting at an early age the first

molar or second bicuspid tooth, to give room for the proper eruption of the wisdom teeth.

3. Mr. DRING exhibited a Monster, born of a woman, aged 28, in her fourth confinement. The cranial cavity was large, and appeared collapsed and continuous with the spinal by double spina bifida. There was no difficulty about the delivery, but a large quantity of liquor amnii; and "the monster" was a female.

4. Mr. LYDDON showed an Uterine Fibroid Polypus, weighing twenty-eight ounces, of about four years' growth, which he had removed by the wire-cable *écraseur* from the fundus uteri. The woman suffered much from hæmorrhage during the early growth of the polypus, but not afterwards.

5. Mr. WHITEHEAD REID showed a specimen of Ulceration of the Vermiform Appendix, caused by the presence of a foreign body, in a lad aged 15, who died from peritonitis a week after swallowing cherry-stones; Peyer's patches in the ileum near the valve were inflamed, and small portions of cherry-stones were found in various parts of the small bowel.

Dinner.—The members afterwards dined together at the White Hart Hotel.

EAST YORK AND NORTH LINCOLN BRANCH.

THE half-yearly meeting was held at the Beverley Arms, Beverley, on Thursday, September 22nd, 1881, at 4.15 P.M.; the President, W. STEPHENSON, Esq., in the chair.

Communications.—The following communications were read:

Mr. Stephenson: A Case of Lithotrity.—A Case of Compound Fracture of the Radius, with Compound Dislocation of the Ulna, treated Antiseptically; the patient was shown.

Mr. R. H. Bourchier Nicholson: Notes of a Case of Paralysis of the Right Fifth Cranial Nerve.

Mr. Appleton: Remarks on Lithæmia.

Mr. Redmond, R.N.: A Visit to the Hospital at Kiel.

Dr. Kelburne King: Case of Epithelioma of Tongue, followed by Disease of Glands, treated by Excision and Removal of Lower Jaw.

Mr. R. H. Bourchier Nicholson showed a specimen of Perforating Ulcer of the Duodenum.

CORRESPONDENCE.

TREATMENT OF CURVES OF THE TIBIA.

SIR,—Mr. Freer's letter in your issue of to-day on the above subject, induces me to send you a few lines confirmatory of his views. In July 1878, I performed my first osteotomies for curvature of the bones of the lower extremities, and have repeated the operation on several occasions since that date, with invariable success (as regards the operation), and without antiseptic precautions. At the same time, many parents refused to submit their children to operative interference, even though their limbs were so curved they scarcely could walk, and these cases gradually became the most interesting. I watched them month by month, and found that the limbs gradually straightened to a considerable extent without any artificial assistance. But this result will not invariably follow; hence, during the last ten years, I have, both in hospital and in private practice, advocated support of the limbs by means of plaster-of-Paris bandages. There is little risk connected with so-termed forcible fracture of the bones of the limbs, or with osteotomy of those bones by means of the chisel or the saw; but, in my experience, both methods are as a rule not required in the case of children under six years old, and may be grouped in the class of meddlesome surgery. At the same time, as Mr. Freer states in his letter, there "is risk" attached to osteotomy.

Another point to which I would direct attention is that, while section of the femur will be followed by a straight limb which continues straight, section of the bones below the knee is only temporarily advantageous. If the latter cases be examined in a year or two after the operation, as a rule the bones will be found to have yielded. We all know that, on pressing on a flexible stick, the lower portion yields more readily than the upper. This, it seems to me, is the explanation of the curving of the bones of the leg before those of the thigh. My practice is, therefore, to fix the lower limbs up to, or rather above, the middle of the thigh in plaster-of-Paris bandages; and I have found that almost all cases in children under six years of age have been cured by this means in a few months. There seems to me no doubt that "the rachitic condition would have a tendency to continue to a certain extent in the new bone [bone], in very young children"; hence my rule is not to perform osteotomy in children under six years old who are able to walk. The plaster-of-Paris bandage is a simple, safe, and inexpensive method of treating curvatures of the limbs in children under six years old.

Another point I would moot is, that these curvings of the bones of the lower extremities are due rather to the child having acquired an improper centre of gravity, than to extra weight of the body, as is generally stated. It seems to me to be quite as essential to teach a child to carry its body properly, as it is necessary to instruct a man to acquire a proper seat in the saddle. Neither habit is intuitive; and, if we do not teach a child to walk so that the pelvis may bear the weight of the spine, as intended by nature, the body gradually inclines more and more forward, and the bones of the leg by degrees yield like the lower portion of a flexible stick. This observation has been demonstrated to me over and over again in private practice in children who are strong, healthy, with perfect hygienic surroundings, and with trunks not too heavy for their lower limbs. Support their lower extremities so that they acquire the habit of resting their trunks on their pelves, and the limbs become quite straight.

Hoping you will excuse my occupying so much of the valuable space of the JOURNAL with these remarks on the treatment of "bowed legs",—I remain, yours faithfully, P. M. BRAIDWOOD,

Senior Surgeon to the Wirral Hospital for Sick Children.

17, Rodney Street, Liverpool, September 3rd, 1881.

OBITUARY.

MR. A. B. STIRLING.

THE anatomical department of Edinburgh University has lost a valued servant in the death of Mr. A. B. Stirling, the assistant conservator of the Anatomical Museum. Mr. Stirling died at Thankerton, aged 70. He was born in 1811 at Milngavie, Stirlingshire, where his father was a shoemaker, and a man of great mental vigour and of robust intellect. Mr. Stirling inherited the independence of character, the robust and vigorous mental energy of his father. He early evinced a decided liking for natural history studies; and, in fact, he was an example of that type of man of which Scotland has produced many—men like Dick of Thurso, and Edwards of Banff. He was a born naturalist; and, although he did not find a sphere suitable for the manifestation of his extraordinary aptitude for anatomical work until about mid-life, still he accomplished an amount of work, after that time, which proved him to have been a man of no ordinary attainments.

In early life he was a policeman, and became inspector of police in the St. Andrew's district, and for some years he acted as a gamekeeper. His love of natural history brought him into contact with the late Professor John Reid and Dr. Adamson of St. Andrew's, who employed him to arrange the University Museum there. In 1856, he was introduced to the late Professor Goodsir, who recognised his aptitude for anatomical work, and saw in him one who would be a congenial help in the work which he had in view; and Mr. Goodsir appointed him assistant conservator of the Edinburgh Anatomical Museum—a museum which he has enriched with hundreds of anatomical preparations (normal and morbid), and also many comparative anatomy specimens, which are all characterised by great taste in the way in which they are mounted.

He thus found himself in a congenial atmosphere, and was enabled to follow the bent of his genius in the pursuit of anatomical work. He soon acquired an extensive knowledge of anatomy, human and comparative; but this was not all: he had so remarkable a mechanical turn, and so inventive a mind, that he devised many new methods for preserving the human body for dissection, for mounting anatomical preparations, for cutting microscopic sections, and for mounting the same. He was a most accomplished microscopist; and, long before any one in this country, he invented, and used with complete success, a microtome for cutting microscopic sections—a microtome which has formed the basis of several section cutters which have appeared in recent years. Above all, Mr. Stirling was an adept in the art of microscopic injection, and his preparations have never been excelled; many of them are still to be found in collections both at home and abroad.

He was a keen sportsman, especially a fisher, and this led him to take a great interest in fish, especially the salmonidæ; and, when the "Tangye disease" broke out amongst the salmon in the Tweed and other rivers, he investigated this matter, and communicated his results to the Royal Society of Edinburgh—results which contain by far the best description yet given of the pathological conditions of this remarkable disease.

Many generations of medical students knew and loved Mr. Stirling, but he was ever ready to [illegible] those [illegible] which [illegible] the result of [illegible]

was always a privilege to hear him talk on any subject, for he never spoke about any matter unless he had given it careful study; and, always when one discussed a scientific subject with him, one could not do so without obtaining some new light, or perhaps without obtaining just those facts which proved invaluable in research. He was ever ready to do what he could to help an investigator, and to give him what advice he could. Many a student derived an inspiration from Mr. Stirling; to not a few he suggested subjects for researches; to several he suggested subjects of investigation which have proved amongst the most fruitful of anatomical studies. In all this he kept himself in the background, content to labour, and seeing his reward in the success of those students whom his keen intellect and insight into character enabled him to single out as "men of the future"—many of them now occupying high and honourable positions in the scientific world. Not only did Mr. Stirling encourage and aid others, but, in turn, he was the esteemed and highly valued friend of the late Professor Goodsir and of Professor Turner, both of whom gave him every facility for carrying on his investigations.

In the death of Mr. Stirling, Edinburgh University has lost one of its most talented and inventive servants, and science one of her noblest self-made sons—one who, in his own quiet unostentatious way, did much to enlarge, directly and indirectly, the science of biology—the science which he loved so well, and which he knew how to woo so successfully. The grand figure of Mr. Stirling will be seen no more; and the link in the chain that binds the present with the past race of anatomists has been severed, and, with him, has passed away much that would have been valuable to science and to medicine.

JOHN O'BRIEN MILNER BARRY, M.D., F.R.C.P.

It is with much regret that we have to record the death of Dr. Milner Barry of Tunbridge Wells, who died, very suddenly, from disease of the heart, at his house, Mount Ephraim Road, on the 15th ultimo, at the age of sixty-six. Dr. Barry was the second surviving son of the late distinguished physician, Dr. Milner Barry of the city of Cork, who was the founder of the Cork Fever Hospital in 1802. The subject of our notice took his degree at the University of Edinburgh in 1837. He was a B.L. of the University of Paris, and a L.R.C.S.Ed., 1838. In 1859, he became a Member of the Royal College of Physicians, and a Fellow in 1876. He settled as a physician at Tunbridge Wells in 1852, and for many years he was one of the physicians to the Tunbridge Wells Infirmary, the duties of which office he discharged with zeal and ability. He was a safe and an excellent practitioner, having a thorough knowledge of his profession, and his advice was often sought by his professional neighbours and the medical men in the surrounding districts. He contributed papers in the journals on Cystine, Leucocythæmia, Diphtheritis, and Ovarian Diseases, all of which are characterised by the evidences of close observation. He had for some time past known the grave nature of the malady under which he laboured. About eighteen months ago, he was seized with a serious attack of angina, the occurrence of which he fully comprehended. This was subsequently followed by difficult, asthmatic-like breathing, and, latterly, with a tendency to fainting. He had been his round to see his patients on the day on which he died. To one of his professional friends he had, some months ago, expressed the opinion that he had not long to live; but he was calm, and ever cheerful, under the reflection; and spoke of the future as those alone can do who have the comfort and consolation of a firm and an undoubted faith. He was interred in the churchyard at Rusthall; and one of the local papers, in speaking of the funeral, says: "He was a man much beloved for his unostentatiousness of character, his charity, and his skill as a practitioner; and, as was anticipated, a very large assemblage met to pay the last tribute of respect to him they knew so well." He was twice married, but has left no family. His loss will not readily be filled up; and all who knew him will ever speak of his name with respect and esteem.

Nitrite of Amyl is alleged an effectual remedy in chordee and painful priapism. Three to five drops, by inhalation, is the proper dose.

Bequests to Scotch Medical Charities.—A sum of £100 has been bequeathed by the late Dr. Francis Charteris Henderson, late of the Bengal Medical Service, to the Edinburgh Royal Infirmary, and £50 to its Convalescent Home; he has also bequeathed to the Sick Children's Hospital and Royal Maternity Hospital, Edinburgh, £50 each, as well as various sums to other charitable objects. The late Mr. Marshall, Merchant, Trinidad, has bequeathed to the Glasgow Eye Infirmary £500, Glasgow Asylum for the Blind £500, Glasgow Royal Infirmary and Glasgow Western Infirmary £500 each, and to the Colquhoun Fund for Incurables £1,000; altogether the deceased bequeathed nearly £40,000 for charitable and religious purposes.

PUBLIC HEALTH

POOR-LAW MEDICAL SERVICES.

POOR LAW MEDICAL OFFICERS.

Sir,—Our position in the Dukeries [illegible] pay enormous taxes for meat, horses, butter, etc.—Yours obediently,

P[illegible]ON.

[illegible] work well, either for the interest of the officer or the public. It is now admitted that it is a failure, and is being suspended everywhere. At the time, we concluded that boards of guardians would supplement their officers' stipends by some small additional payments. This course, we have reason to believe, was generally [illegible] We can only [illegible] we hold that his expenditure would have been vastly greater if the markets of the world were not open to him. Our correspondent has lived so long in a rural district, that he has insensibly assimilated in tone to his agricultural patients. These latter, whilst ready enough to make a hard bargain with their medical officers, permit themselves to be led into the belief that protection will be of service to them, oblivious of the fact that an enhancement of the cost of their produce will ultimately, through increased rent, find its way into other pockets. But we are forgetting that ours is a medical, and not a political publication, and therefore we apologise for broaching this controversial question, into which we have been led by our correspondent.

Sir,—Will you kindly give me your opinion on the following case? If a qualified medical man, resident in the district, is willing to undertake the duties of parish medical officer, is it competent to the guardians, under these circumstances, to appoint another practitioner, resident in another district, there being no valid ground of objection against the former?—I am, etc., Inquirens.

The general order of the Local Government Board requires that every rural district medical officer, wherever practicable, shall reside in the district of the union to which he is appointed; and after every election, it is the duty of the clerk to forward without delay to the Department the [illegible] of residence of the gentleman selected, and its rests solely with the Local Government Board to annul or confirm such appointment. Under the circumstances mentioned in our correspondent's letter, we advise that he asks some friend to lay the facts before the Department, who will at once call on the local board to explain or justify their appointment. Recently the Local Government Board has relaxed the stringency of this general rule; its operation, however, is limited to the metropolis.

DISTRICT MEDICAL OFFICERS AS MEDICAL OFFICERS OF HEALTH.

It is not easy to understand what sort of sanitary administration there can be in the Llanfyllin Rural Sanitary District, to make necessary such a report as that which Dr. Parsons has recently presented to the Local Government Board. Had the local health-officers of the district done their duty, they would have acquainted both the Local Government Board, and the Rural Sanitary Authority, with the unwholesome state of things that has been left for Dr. Parsons, after eight years of so-called sanitary work, to find out. It is unnecessary to go in detail into the various unsanitary conditions which Dr. Parsons describes; but the case affords another instance of the futility of expecting district medical officers to properly perform the duties of medical officers of health. In the Llanfyllin district, there are four Poor-law medical officers appointed *ex officio* as medical officers of health. Dr. Parsons remarks, that, "without wishing to find fault with the performances of these gentlemen, whose duties have doubtless been discharged as well as could be expected under the circumstances, it must be observed that the Llanfyllin district affords an illustration of the general rule: that the sanitary administration of districts, in which the district medical officers act as medical officers of health, is inferior to that of districts which have secured, either singly or by combination with others, the services of a single officer, of special qualifications for the post, at an adequate salary, and with a reasonably assured tenure of office. In the Llanfyllin district, the annual reports of the medical

officers of health are, for the most part, very meagre, consisting mainly of recapitulation of the individual nuisances reported on during the year. Some sanitary improvements have been carried out in a piecemeal fashion; but, it is probable that far more systematic and satisfactory progress would have been made, if the sanitary authority had had the uniformity of advice, and the opportunity of personal conference, at their meetings, which the appointment of a single competent officer would have afforded them".

This entirely bears out the arguments brought forward by the deputation who recently waited on Mr. Dodson with regard to this very subject; and it is to be hoped that the President of the Local Government Board will see fit to consider, in the recess, whether some stop should not be put to the Board's toleration of such appointments as these.

MILITARY AND NAVAL MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.

SIR,—In the leading article of a recent issue of the [illegible] Times, the Editor remarks, with reference to the Indian Medical Service: "Although the military branch of the service has been seriously depreciated, the medical branch has undoubtedly been improved, and now all selected candidates for the service are made to undergo a course of training in London and attend lectures at [illegible]. What more we want are some further slight modifications in the interest of the military branch."

Now, sir, the "modification" I would suggest, from the experience of several years' service in India, would be the [illegible] of the military branch of the Indian Medical Service with, or its absorption into, the Army Medical Department. The details could be easily arranged, and we would then—the civil branch being entirely eliminated and independent—have one military medical department, and hear no more of one service or branch being improved at the expense of the other, of any detriment arising from the duties of military officers being administered or superintended by men fresh from civil employ, or the complaints of the latter that officers of the Army Medical Department supersede them.

The fact of the matter is, the Indian medical officers want the best of both services, to hold well-paid civil appointments as executives, and afterwards have the higher administrative grades of Deputy Surgeon-General and Surgeon-General, which should be the reward of military service. It is absurd that men should spend twenty or more years in civil employment, and then expect to be pitchforked into posts requiring an intimate knowledge of military men and military duties. The authorities appreciate the difficulty. Hence the six months' probation in medical charge of a Native infantry (!) required prior to promotion, and which is now being undergone by a medical officer who was recently officiating as Deputy Surgeon-General and Principal Medical Officer of a division in the field! The civil branch should become a distinct service, affording, as it does, a career for real ability, and giving ample scope for the talent of our Eurasian brethren, who [illegible]. I [illegible] them be appointed [illegible], as you suggest in the BRITISH MEDICAL JOURNAL of July 23rd, to various suitable [illegible]. Your [illegible].

INDIAN ARMY MEDICAL OFFICERS.

SIR,—Will you allow me to draw your attention to a grievance long experienced by the junior officers of the Army Medical Department serving in India; namely, the low rate of pay [illegible] Assistant Surgeons, First Class, Class A, at home drawing [illegible] Class B, [illegible] a year.

On being sent to India, he finds himself entitled to draw a consolidated pay, including all allowances, of 317 rupees a month, which, at the present rate of exchange, is only £17 more than the pay of a surgeon in Class A, and £33 a year less than that of a surgeon in Class B at home. On the issue of the new warrant of the 27th November, 1879, no mention was made of the fact, that the advantages offered in it did not apply to officers serving in India, and it was not until a considerable number of candidates were admitted, that a foot-note was added, saying that "[illegible] not apply to India". Assistant surgeons, therefore, find themselves in India drawing comparatively less pay than at home, while his expenses are nearly double; consequently, he is barely able to live. The relative rank of captain carries with it in India no advantage of any kind, as the pay is about £100 a year less than a combatant officer of the same rank.

From the foregoing facts, you will see that a junior officer, on completion of his tour of five years' service in India, is as poor, if not poorer, than when he left [illegible]. He [illegible] the authorities [illegible] the pay of junior officers [illegible] in India, [illegible] year.

I am, Sir, [illegible]

LIVERPOOL PORT. Dr. Stopford Taylor has the satisfaction to state that no case occurred in this port last year in which it was necessary to serve a notice or take legal proceedings, the owners of ships having readily complied with every requirement. From September 6th (when the port-inspector commenced his duties) to December 31st, 1,678 vessels were inspected, of which 364 were steamships and 1,314 sailing-vessels. The chief defect discovered was the dirty condition of the forecastle, which was noticed in 117 vessels; whilst 11 were found with faulty bulkheads, and 6 with defective water-closets. All others were found in a fair sanitary condition. Sixteen vessels were reported with disease on board, the chief of which were fever-cases from New York. Measles was very prevalent on board the training-ship *Conway* during August and September. The patients were treated by their own medical attendant; the ship was disinfected and cleansed by the crew; and 1,535 articles of clothing, etc., were disinfected by the port sanitary authority.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his Examination in the Science and Practice of Medicine, and received a certificate to practise, on Thursday, September 22nd, 1881.

Wigan, Charles Arthur, Pattenhall Street.

The following gentlemen also on the same day passed their Primary Professional Examination.

[illegible], Hospital.
Vivian, George Ernest, St. Thomas's Hospital.
Whitter, Samuel, Manchester Medical School.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BETHLEM HOSPITAL, [illegible]. Applications to A. M. Jeaffreson, Esq., Bridewell Hospital, Blackfriars, E.C., by October 1st.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Bath Place, [illegible]. Applications to Mr. E. W. [illegible], Secretary, [illegible] Street, by October 4th.

DENTAL HOSPITAL, Leicester Square—Dental Surgeon. Applications by October 10th.

DREADNOUGHT HOSPITAL, Greenwich—Resident House-Surgeon. Salary, £[illegible] per annum. Applications [illegible].

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Lady Superintendent. Salary, £[illegible] per annum. Applications [illegible] October.

ESSEX AND COLCHESTER HOSPITAL—Physician. Applications by October 5th.

HOSPITAL FOR CONSUMPTION, Brompton.—Lady Superintendent. Salary, £100 per annum. Applications by October 5th.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Portland Terrace.—Physician. Applications to Arthur Reade, Secretary, by October 12th.

HULME DISPENSARY, Manchester—[illegible] Surgeon. Salary, £[illegible] per annum. Applications to Dr. Wahltuch, Honorary Secretary, by October 20th.

LEAVESDEN ASYLUM FOR IMBECILES, near Watford, Herts—Assistant Medical Officer. Salary, £120 per annum. Applications by October 4th.

LEEDS PUBLIC DISPENSARY—Resident Medical Officer. Salary, £80 per annum. Applications by October 15th.

PLYMOUTH PUBLIC DISPENSARY—Assistant Physician. Salary, £60 per annum. Applications to the Honorary Secretary by the 4th October.

QUEEN'S HOSPITAL, Birmingham—Second Casualty Surgeon. Applications by October 5th.

RICCARTSBAR ASYLUM, Paisley—Medical Officer. Salary, £[illegible] per annum. Applications to R. Rowand, Inspector of Poor, Paisley, by October 6th.

TOWNS HOSPITAL AND ASYLUM, Glasgow—Assistant Medical Officer. Salary, £80 per annum. Applications, etc., to Dr. Robertson by October 10th.

WESTMINSTER HOSPITAL—House-Surgeon. Applications by October 7th.

MEDICAL APPOINTMENTS.

ANDREW, E., M.D., appointed Surgeon to the Eye, Ear, and Throat Hospital for Shropshire and Wales.

BUSBY, A. R., M.R.C.S., appointed Resident Medical Officer to the Bath General or Mineral Water Hospital.

CARTER, R. B., F.R.C.S., appointed Consulting Surgeon to the Eye, Ear, and Throat Hospital for Shropshire and Wales.

OZANNE, F. N., M.R.C.S., appointed House-Surgeon to the Weston-super-Mare Hospital and Dispensary.

SMYTH, Sydney, M.R.C.S., appointed House-Surgeon and Secretary to the Royal Isle of Wight Infirmary, *vice* C. B. Beresford, M.R.C.S., resigned.

[illegible], C. M. D., appointed [illegible] pital for Shropshire and Wales.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be remitted in stamps with the announcements.

BIRTHS.

DAVEY.—On September [illegible], at [illegible], the wife of A. Davey, M.R.C.S.E., L.S.A., of a son.

H[illegible].—On [illegible], at [illegible], the wife of Dr. E. B. H[illegible], of a son.

LUCBY.—On September 28th, at the Elms, Bush Hill Park, Enfield, the wife of W[illegible] L[illegible], M.D., of a son.

MARRIAGES.

[illegible].—On [illegible], at [illegible], by the Rev. [illegible], H[illegible] M.A., [illegible], to [illegible], Townhead, Rochdale.

W[illegible].—On [illegible], at [illegible], by the Rev. [illegible], W[illegible], to Mary, daughter of [illegible], M.D., [illegible] cards.

DEATH.

[illegible].—On September [illegible], at [illegible], Cambridge Crescent, [illegible], wife of Albert [illegible], Solicitor, and [illegible] Williams, Vicar of Croft, Lincolnshire.

PUBLIC HEALTH.—The following are the annual rates of mortality last week, being the thirty-seventh week of the year, in twenty of the largest English towns: Oldham 12, Leeds 13, Wolverhampton 14, Bristol 14, Bradford 15, London 15, Salford 15, Birmingham 16, Sheffield 16, Brighton 16, Manchester 16, Sunderland 17, Plymouth 17, Newcastle-on-Tyne 17, Norwich 18, Portsmouth 19, Nottingham 20, Leicester 26, Liverpool 28, and Hull 30. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, Leicester, and Sunderland; no fewer than 175 fatal cases of this disease have been registered in Hull since the beginning of July, of which 26 were recorded last week. The 16 deaths from diphtheria in the twenty towns included 6 in London, 8 in Portsmouth, and 2 in Birmingham. Fever, principally enteric, showed the highest death-rate in Wolverhampton, Hull, and Newcastle-upon-Tyne; 2 of the 3 deaths from "fever" in Newcastle-upon-Tyne occurred in the Fever Hospital, and were certified as typhus. Small-pox caused 27 more deaths in London and its outer ring of suburban districts and one in Liverpool, but not one in any of the eighteen other large provincial towns. In London, 2,493 births and 1,151 deaths were registered. The deaths were 251 below the average. The annual death-rate declined to 15.7. During the first eleven weeks of the current quarter, the metropolitan death-rate averaged 21.1 per 1,000, against 18.0 and 20.9 in the corresponding periods of 1879 and 1880. The 1,151 deaths included 26 from small-pox, 16 from measles, 51 from scarlet fever, 6 from diphtheria, 22 from whooping-cough, one from typhus fever, 21 from enteric fever, 2 from ill-defined forms of continued fever, 40 from diarrhœa, 6 from simple cholera, and not one from dysentery; thus, 191 deaths were referred to these diseases, being 116 below the average. The deaths referred to diseases of the respiratory organs, which had been 115 and 131 in the two preceding weeks, further rose to 156 last week, but were 9 below the average; 91 were attributed to bronchitis and 37 to pneumonia. The death of an inmate of the Greenwich Union Infirmary, whose age was stated to be 101 years, occurred on the 12th instant. Different forms of violence caused 49 deaths; 44 were the result of negligence or accident, among which were 19 from fractures and contusions, 5 from burns and scalds, 5 from drowning, and 7 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 55.0°, and 2.6° below the average. The mean degree of humidity of the air was 90, complete saturation being represented by 100; the air was, therefore, damp. The direction of the wind was variable, and the horizontal movement of the air averaged 6.9 miles per hour, which was 4.8 below the average. Rain fell on three days of the week, to the aggregate amount of 0.14 of an inch. The duration of registered bright sunshine in the week was equal to 23 per cent. of its possible duration. No ozone was recorded on any day of the week except on Sunday, when the amount was below the average.—The annual rate of mortality last week, being the thirty-eighth week of the year, in twenty of the largest English towns, averaged 18.2 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bradford 15, Leeds 15, Birmingham 15, Bristol 15, Brighton 15, Salford 15, Sunderland 15, Portsmouth 16, Sheffield 17, Plymouth 17, London 17, Oldham 18, Nottingham 20, Norwich 20, Leicester 20, Newcastle-on-Tyne 22, Wolverhampton 22, Liverpool 23, Hull 24, and Manchester 25. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, and Bradford; no fewer than 197 fatal cases of this disease have been recorded in Hull during the past twelve weeks, of which 22 were registered last week. The 21 deaths from diphtheria in the twenty towns included 14 in London, 5 in Portsmouth, and 2 in Birmingham. Fever, principally enteric, showed the highest death-rate in Liverpool and Portsmouth. The fatality of diarrhœa was considerably below the average for the season. Small-pox caused 27 more deaths in London and its outer ring of suburban districts, one in Oldham, and one in Newcastle-upon-Tyne; while no death from this disease was recorded in any of the seventeen other large provincial towns. In London, 2,330 births and 1,279 deaths were registered. The deaths were 108 below the average. The annual death-rate from all causes, which had not exceeded 16.2, 16.7, and 15.7 per 1,000 in the three preceding weeks, rose last week to 17,4. The 1,279 deaths included 26 from small-pox, 17 from measles, 48 from scarlet fever, 14 from diphtheria, 31 from whooping-cough, 3 from typhus fever, 40 from enteric fever, 2 from ill-defined forms of continued fever, 33 from diarrhœa, 3 from dysentery; thus, 217 deaths were referred to these diseases, being 46 below the average. The deaths referred to diseases of the respiratory organs, which had been 115, 131, and 156 in the three preceding weeks, further rose to 164 last week, but were 21 below the average; 85 were attributed to bronchitis and 52 to pneumonia. Different forms of violence caused 59 deaths; 53 were the result of negligence or accident, among which were 24 from fractures and contusions, 2 from burns and scalds, 13 from drowning, one from poison, and 8 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 58.2°, and 1.8° above the average. The mean degree of humidity of the air was 89, complete saturation being represented by 100. The direction of the wind was variable, and the horizontal movement of the air averaged 8.4 miles per hour, which was 2.6 below the average. Rain fell on five days of the week, to the aggregate amount of 1.19 inches. The duration of registered bright sunshine in the week was equal to 12 per cent. of its possible duration.

HEALTH OF FOREIGN CITIES.—The following facts, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate averaged 32.8 per 1,000; it was equal to 21.9 in Calcutta, 36.1 in Bombay, and 38.8 in Madras. Cholera caused 18 deaths in Bombay and 16 in Calcutta, and small-pox 31 in Madras. The fatal cases of "fevers" showed the usual excessive proportions in each of these cities. The rate in Alexandria was equal to 50.2, showing a further increase upon the rates in previous weeks; the deaths included 13 from enteric fever and 12 from whooping-cough. According to the most recent weekly returns, the average annual death-rate in nineteen European cities was equal to 25.4 per 1,000 of their aggregate population, whereas the rate in the twenty large English towns last week did not average more than 18.2. The rate in St. Petersburg was equal to 41.1, no fewer than 47 deaths being referred to typhus and typhoid fevers, showing a considerable increase upon the numbers in the preceding week. In three other northern cities—Copenhagen, Stockholm, and Christiania—the average death-rate did not exceed 20.2, the highest rate being 23.2 in Stockholm; whooping-cough caused 3 deaths in Copenhagen, and scarlet fever 2 in Stockholm. The Paris death-rate was equal to 24.8, while in London it did not exceed 17.4; the deaths included 33 from diphtheria and croup, 29 from enteric fever, and 15 from small-pox. The deaths in Brussels were equal to a rate of 23.3, and included 5 from "fevers". The rate in Geneva was 22.8, 3 deaths from fever being reported. In three of the largest Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 20.1, the highest being 23.4 in the Hague; typhus and typhoid fevers caused 5 deaths in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 26.2, and ranged from 21.3 in Vienna and 22.5 in Hamburg, to 33.5 and 36.2 in Munich and Buda-Pesth. Small-pox caused 13 more deaths in Vienna, showing an increase upon recent weekly numbers. Turin is the only Italian city contributing to last week's table; the rate in this city was equal to 26.4, and 15 of the 122 deaths were referred to enteric fever. In four of the principal American cities, the death-rate, calculated upon the population enumerated in 1880, averaged no less than 29.1; it was equal to 22.5 in Philadelphia, 28.6 in Brooklyn, 31.3 in Baltimore, and 33.0 in New York. Diphtheria showed fatal prevalence in New York and Baltimore, and typhoid fever in Philadelphia and Baltimore.

WEDNESBURY.—We are gratified to find that the suggestion we threw out (see vol. ii, 1880, p. 947) with regard to the publication of the health-reports for this important district has been acted upon, and that Mr. Garman's report for 1880 now appears in pamphlet form, after the fashion of others of its class. In 1875, the population of Wednesbury was estimated at 27,000, but bad trade and general mercantile depression have reduced it to 24,500. Last year the birth-rate was 37.8, and the death-rate 18.8, per 1,000 respectively, rates slightly in excess of those of 1879. Of the total deaths (462), 115 were from zymotic diseases, or nearly twice the number of such deaths in 1879. This alarming increase was due to the prevalence of scarlet fever and diarrhœa, which together were fatal in 87 cases. Mr. Garman deplores the prevalence of the first disease, which has increased of late years, and expresses the opinion that, whilst an intercourse is constantly kept up between the healthy and the sick, and in the absence of any system of notification of infectious diseases, scarlatina must continue to figure in the death-returns. The absence of isolation accommodation has, moreover, no doubt been to a large extent responsible for the lamentable prevalence of the disease. Diarrhœa caused 39 deaths, all, with one exception, in children under five years of age. There was a marked decline in the number of deaths from pulmonary diseases. Eighty-five deaths occurred last year, against 134 in 1879. There was also a decline in the number of deaths from wasting and tubercular diseases, a result which is attributed chiefly to the social improvement in the condition of those who have the care and rearing of children. Not much is said as to the sanitary condition of the borough; and, in future reports, Mr. Garman would do well to dwell somewhat more in detail upon his personal work, and upon the action taken on his advice for the improvement of the district.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M. St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M. Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1 30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

Public Health Departments.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

We cannot undertake to return Manuscripts not used.

Homeless Children.

Sir,—I shall be very glad if you, or any of your readers, can inform me if there is any home, not a baby farm, where a father about to go abroad could place his little girl, aged three years and a-half, to be well looked after.—Yours truly,

Orphan.

The Association in its Relations to Homœopathic Practitioners.

Sir,—At the meeting of the Lancashire and Cheshire Branch held here a few days ago, the amendment I brought forward in favour of [illegible] judgment was [illegible] majority. The [illegible] the meeting did not [illegible] though some of them were extremely interesting.

I simply explained that I had long felt that all practitioners, as soon as they were duly qualified, were entitled to perfect freedom of thought and action, might freely use all [illegible] could give them as to the [illegible] the management of what was [illegible] absolute freedom of thought was the very breath of [illegible] association, founded for scientific and social purposes, degraded itself into a trades union, or a Boycotting machine, when it hampered and [illegible] members by telling them what line of practice they were not to adopt, and what kind of practitioners they were not to meet.

I wish now to be permitted to expatiate a little more freely on this subject, and I will try not to be tedious. The question then, to my mind, we have to consider is, not whether it is right or expedient to meet certain practitioners or not, but whether it is [illegible] to compel them to meet them, to say to them "You must attend [illegible] or else [illegible] to the English mind.

And what is the penalty to be inflicted for meeting these [illegible] practitioners? Expulsion from this Association, the only Association that binds the profession together, and one which, looked at in its scientific and social aspects, commands our high respect, and, with many [illegible] warmer feelings. It is difficult now to conceive how resolutions of so arbitrary a character should ever have been passed unanimously by our meetings. If some despotic monarch had commanded us not to meet these gentlemen, or for that matter if he had commanded us to meet them (a thing not one whit more tyrannical), how we should have rebelled, or how servile we should have thought ourselves if we had submitted.

It may be said that we live in strange times, and that strange diseases demand strange remedies. But the times are always strange. There have been the days of Dr. Sangrado; there have been the grand times of Louis XIV when the [illegible] of the profession afforded so delightful a field for Molière to revel in. And here I must venture to give a translation I once made of a little scene from this writer's *L'Amour Médecin*, which sounds strangely familiar to medical ears.

A consultation of doctors is going on; each has already related what a [illegible] round of visits he has paid, and what distances into the country he has been; then M. Tomès says, "By the bye, now what do you think of the [illegible] between the two doctors Theophraste and Artemius, for it is a matter on which the whole profession is divided."

M. Defonandres: "For my part, I am for Artemius."

M. Tomès: "And so am I. Very true, his advice, as people say, may have killed the patient, and that of Theophraste may have been much better; still, the latter did wrong under the circumstances, and ought not to have had a different opinion from his senior. What say you?"

M. Defonandres: "I quite agree. Formalities must always be observed, happen what may."

M. Tomès: "For my part, I am strict as the deuce, unless it [illegible] and one day we had met, three others of us, with a strange physician, for a consultation, when I stopped the whole affair, and would not allow an opinion to be given on the case if things were not done in order. The people in the house pressed us all they could, and the malady was very urgent, but I would not yield a bit, and the patient died bravely during the dispute."

M. Defonandres: "It is very right to teach people how to conduct themselves, and to bring them to a sense of their errors."

M. Tomès: "A man dead is but a man dead, and makes no matter; but a formality neglected does a notable mischief to the whole medical profession."

The public in those days, as in these, may have reasonably been puzzled with the formalities of the profession, and, while they laughed [illegible] with an uncomfortable feeling that things were not altogether arranged for their benefit.

I have a strong opinion that the [illegible] between the profession and the public can never be quite satisfactory until every practitioner had the free use of his own independent judgment as to whom he shall meet, and whom he shall decline to meet. He can then give, if he please, reasons that may [illegible] people's common sense, and not be obliged to confess that [illegible] the dictum of others. But, independently of the question of expediency, every man's right to this measure of freedom is surely indefeasible.

My amendment, as your readers may know, was simply this: "That, in the opinion of this meeting, every member of the British Medical Association is entitled to the freest use of his own independent judgment in regard to the question of meeting gentlemen who practise homœopathy."

In conclusion, I would [illegible] and dignity of a profession that [illegible] stand without artificial buttresses.—I am, sir, yours obediently,

Liverpool, September [illegible] Henry [illegible]

M.B.—The practice of boring the ears is probably nothing more than a survival of a barbarous method of ornamentation; its relation to weak eye-sight is not only, in our opinion, purely [illegible] in practical experience or on theoretical data. It is a mere superstition.

[illegible] Hospitals.

Sir,—Will you be good enough to inform me, through your "Answers to Correspondents," as to a good [illegible] to prepare [illegible] myself for the [illegible] Primâ facie [illegible] Yours truly, [illegible]

[illegible] There is no special [illegible] information is to be found in the [illegible] Watson, Pye, Grey's *Anatomy*, translated by Holden, Quain's Practical Histology, Sharpey & Ruddock, Strange's Surgery, Salter's [illegible] are equally well known. [illegible] normal histology. [illegible] particular pathological specimens and varieties of [illegible] and Cooper Forster's Practical Pathology. A work on this has been lately published in France, of which a translation is [illegible] press (Smith, Elder, and Co.)

Medical Literature

Sir,—I wish to get some work on "practical medicine" (or, rather, on practical practice) written by some of the eminent men now living. I should like one that is up to the times. Would you kindly advise me which one to buy, giving me as well the name of the publisher and price?

F. R. L. S.

. F. R. L. S. would obtain all he requires in any one book. He would do well to get either Ringer's (3rd edition, 1880), or Roberts's (4th edition, 1880), and the new edition, now nearly ready, of Ringer's *Therapeutics*.

Consultations with Homœopaths.

Sir,—The question of an orthodox medical practitioner meeting a homœopath in consultation is again under discussion; and although I am aware much can and has been said on it, still, yet I think there is something about it to be said on the other side.

To begin with, allow me to say that personally I take a somewhat broad view of my professional responsibilities; and, while not forgetful of the claims due to my orthodox medical brethren, I am not unmindful of those of humanity, and I consider I should be wrong were I to refuse (as I have several times been told that I should) to have anything to do with any case whatsoever, however great its emergency, when asked to do so (as exception to which I even being made in midwifery complications), until the homœopath had retired.

Beyond all doubt, Dr. Wallace is in the right when he says, in his letter which appeared in the JOURNAL of the 17th inst.: "The crisis of a dangerous illness is an exceedingly unfavourable time to raise the question of a patient dismissing his usual medical attendant." I am bound to confess that I have, on more occasions than one, been unable to refuse to meet a homœopath in consultation in a critical case; neither could I refuse in the future if asked to do so; and, so far as my own experience goes, I have always found the homœopath by no means strongly wedded to strict Hahnemannic views, but always willing to fall in with any plan of treatment I may have suggested. Be it remembered that the homœopath of to-day is a qualified practitioner, and should not be regarded as a quack; but, on the other hand, in not a few instances is a very accomplished man, often a more liberal-minded one than his—so-called—more orthodox professional neighbour, and not unfrequently, take him all in all, quite as good a practitioner.

Let me ask: Why is a man to be subjected to professional ostracism for giving timely assistance to those in need—whether this be sought by the patient or his medical adviser? Your correspondent is again in the right when he says: "The consultant is not concerned in the opinions, practice, or character of a registered practitioner in any case, as long as he faithfully carries out the treatment ordered." I must confess I feel sympathy with those who are trying by the exercise of a little kindly courtesy and consideration to win over our homœopathic friends to our own way of thinking on medical matters, and not by treating them as professional outcasts.

Be it remembered that, after all, even as practised by "allopathic" practitioners, the science of medicine is but in its infancy; that but rarely can any two men be found to be in strict agreement, either as to the nature of an illness or the treatment to be adopted; that, until quite recently, comparatively little or nothing was known of the action of our commonest remedies; that they are even now ordered but too often on the mere chance of the patient deriving some benefit from them, but with no certainty that this will be the case; and also that, whether we like to admit the fact or not, every candid man must allow that to Hahnemann and his followers we are indebted for the knowledge that medicine is not always necessary for the cure of disease, and indirectly also for the more elegant pharmacopœial preparations and the use of the small doses we are in the habit of prescribing, both greatly to the advantage of the patient and in no small degree to our own. I know full well, from a somewhat bitter experience, that these opinions are not in accordance with those generally held in the profession; I have the courage of them however.

I sometimes think that the success often attending the homœopathic practitioner has something to do with the outcry against his peculiar notions. Beyond all doubt, homœopathy is believed in by many of the most highly educated and wealthy among us, and a homœopathic practitioner in good practice generally gets good fees, and has no poor-law or club appointments to worry him.—I remain, sir, yours very faithfully,

J. Fredk. Plomley, M.D.

Maidstone, September 20th, 1881.

Sir,—Will you allow me space for a few remarks on the second case of consultation with homœopaths referred to in a former letter: that between a homœopath and an orthodox practitioner of the same standing. This is evidently most in the minds of your various correspondents.

1. In the abstract, Dr. Markham's syllogism goes on four legs: physicians should not consult with fools or knaves; homœopaths are fools or knaves, therefore physicians ought not to consult with homœopaths. But in the concrete it will not go at all; for if I say "Dr. ——— is a fool or a knave; I will not consult with him", I expose myself to an action at law; and if I shuffle and make lame excuses, I am on the way to become a fool or a knave myself.

2. If every person seized with illness inevitably died unless the disease was arrested by some remedy, homœopathy would soon come to an end: so, probably, would a good deal else in medicine. But death being the exception, and recovery the rule, in somewhere about the proportion of one to thirty-three, the *post hoc* is mistaken for the *propter hoc*, and the recovery is credited to the treatment. Homœopathy is a huge instance of this mistake, but a good many traditionary modes of treatment are quite as much so.

3. There are greater differences of opinion and practice among orthodox practitioners than there can possibly be between them and homœopaths; for homœopaths certainly do no harm, whereas there are modes of treatment among us that are so opposite that one of them can hardly fail to be injurious. But doing good and doing harm are more irreconcilable than doing good and doing nothing. Surgery has been quoted as common ground between homœopaths and the orthodox. If it be, it is debatable enough among the latter between themselves. There are surgeons in whose eyes the germ-theory is quite as absurd as that of infinitesimals. How could a consultation between a Listerian and an anti-Listerian be anything but a sham, if an amputation and its after-treatment were in question? A "Country Practitioner" speaks of the humiliation of a medical man, if he had to stand by and see malignant scarlatina treated with an infinitesimal dose of belladonna. Does he know of any remedy which ever did more good? If he proposes a wet pack and the hypodermic use of pilocarpin as the most rational treatment, he had better keep clear of the old school orthodoxy of Cork.

4. I believe those are in the right who hold that homœopathy gets all its influence from being tabooed. The polypharmacy of thirty years ago—the buckshot prescription, like the Irish constabulary cartridge, plenty in that you may be sure to hit was worse than homœopathy. [illegible] let alone. Had it been made a sect of, and its exponents put in the professional pillory, it would be living still. Let us be honest, straightforward, and true. Abolish all [illegible] sham consultations with homœopaths, orthodox, but speak out our views [illegible] believe we can cure it, carry out our plan of treatment or retire. If we act thus, homœopathy and all other shams will disappear, or at least, let us alone.

Yours, etc.,

A. W. Wallace, M.D.

Parsonstown, September 20th, 1881.

Homœopaths as F.R.S.'s.

Sir,—Your correspondent of this week, speaking of the above in the plural, brings forward the (singular and solitary) instance of Dr. W. Sharpe of Bagley, who is known to be F.R.S. How far he is [illegible] homœopath may be gathered from his *Essays on Homœopathy*, which are devoted [illegible] to the praising of Hahnemann, and in one of which he goes so far as to state that had he himself "read nothing but Hahnemann's works, he should never have become a homœopath".—I am, etc.,

Verb. Sap.

Improved Berths for Emigrants.

Sir,—Permit me to call your attention to a new mode of constructing ships' berths for emigrants and steerage passengers, the object of which is to promote greater cleanliness and privacy among the passengers (particularly married persons), and increased ventilation in and around the berths. Under the old system of open berths, the medical attendant was required sometimes to crawl over several berths to a patient's bed; but, in Johnson's patent berths, the occupants have a dressing-room to themselves, and a separate entrance to each berth. Admirable ventilation is secured at night, and the berths are folded up during the day, allowing the whole floor to be thoroughly cleansed. The invention has, for some years, been used in vessels chartered by three of the emigration agencies. As its merits become more widely known, it is hoped that it may be generally adopted. The inventor and his friends are assured that many steerage passengers on the transatlantic lines would willingly pay an extra 2s. 6d. or 5s. for the additional accommodation if they had the opportunity. The British India Company's steamship *Chybassa*, which will sail with emigrants to Queensland on Monday, is now being fitted in the married people's quarters with these berths. The vessel is lying in the Victoria Dock; and I am desired by Mr. Johnson to say that he will be very glad to explain his invention on board the *Chybassa* any time on Saturday, October 1st. I enclose prospectus; and am, sir, yours faithfully,

Elgin Road, Croydon, September 21st, 1881. W. Wilson Horn.

Member Brit. Med. Association (Maidstone).—Duly received, with many others on both sides of the question of "Medical Titles", for more than a small proportion of which it has not been possible to find space.

Sanitary Condition of Hospitals.

Sir,—I have addressed copies of the enclosed letter to the Charity Organisation Society, to the Sanitary Institute, and to the Ambulance Committee of the Order of St. John, in the hope that some movement may be made to secure the sanitary condition of the hospitals. Having done this, I think it right to communicate the letter to you, that you may bring the subject before the profession through the medium of your admirable JOURNAL.—I am, sir, yours faithfully,

11, Willswood Park, Torquay. Charles Shrimpton.

To the Chairman of the ———.

"Sir,—Allow me to call your attention to the hospitals as one of the most important institutions for the benefit of the poor. I can venture to say that almost all hospitals, in all countries, instead of being in a healthy condition, are not only unhealthy, but are in themselves sources of diseases which are appropriately called hospital diseases. The hospitals in England are generally, I believe, in a much better condition than in many other countries; but, sir, there is no reason why every hospital should not be in a healthy condition. Midwifery cases are good tests of hospital salubrity. There are very few general hospitals that receive such cases; and I think I am right in stating that none of the general hospitals in London now venture to admit midwifery cases. The lying-in hospitals themselves are frequently closed on account of their insalubrity, and the consequent outbreak of puerperal fever; whilst we find that, in the Shorncliff hospital for soldiers' wives in labour, 'up to December 1869, there had been 702 deliveries in the hut.....There was not one single case of puerperal disease' (Miss Nightingale, *On Lying-in Hospitals*, page 44). Though all hospitals cannot have the same advantages of exposition as the Shorncliff hut, every hospital may be established on the same principles, and with the proportionate advantages. Should any hospital be allowed to exist if it is not in a healthy condition? Formerly, when the unhealthy condition of a hospital became very bad, it was closed for a time, and declared to be under epidemic influence. Epidemic influence? We now know that this epidemic influence may always be traced to the unpardonable neglect of hygienic care. Is it not strange that hospitals should be allowed to remain in this state whilst 'sanitation' is so actively pursued in every other direction? Who is responsible for the sanitary condition of a hospital? No one, I believe, is responsible for the sanitary condition of a hospital! Should not hospitals be governed by close boards? On whom can any responsibility be laid when a hospital is governed by an open board? Should not responsibility be inherent in authority? The board of governors is supreme in authority, but it is not, I believe, responsible. Should not the medical officers of a hospital have control over the sanitary condition in which their patients are placed? Might not the senior physician and the senior surgeon of a hospital be *ex-officio* members of the board?

"All hospital diseases—erysipelas, pyæmia, hospital gangrene, puerperal fever—are all preventable diseases; and deaths occasioned by any of them should be cases for coroners' inquests, as in other cases of death by imprudence or negligence. But hospitals may be in a very unhealthy condition without occasioning absolutely the death of a patient. We constantly see patients remain in hospital for weeks and months who, under favourable circumstances, might have recovered in a very much shorter time. When these poor patients return home after this prolonged stay in the hospital, their constitutions are so much impaired, that they, many of them, never recover their ordinary health and strength. Thus the expenses of hospitals are greatly increased, and great injury is inflicted on the patients, who frequently become a charge on their parishes.

"I am an old man, and can but feebly call attention to this state of things, in the hope that some influential medical men may, simultaneously with the charity and scientific corporations, take active measures to promote the reform of the sanitary condition of hospitals.—I have the honour to be, sir, yours very respectfully, Charles Shrimpton, M.D."

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

UNQUALIFIED PRACTITIONERS.

SIR,—I think "X.Y.Z.'s" letter, in your issue of the 3rd instant, is very much to the point, and that it behoves the medical profession, as a body to take some decisive step in reference to the large amount of unqualified practice going on. In the first place, could not the Medical Council get the unqualified men, who lend their names and influence to encourage unprincipled individuals practising illegally, just as easily as they "haul over the coals", and remove from the *Register*, some medical degree? (By the way, this seems to be the only practical achievement accomplished for our guidance.) If this were done to, it would considerably decimate the present large number of persons practising illegally.

It may be interesting to the members of the profession to know what assistance they may expect from the bodies who profess to prosecute in such cases. A medical defence society of which I was a member refused to prosecute at all. A second undertook it, and then exposed their own selfishness. He requested from me £10 as a retainer, and, six months after receiving the cash, he came to sift the evidence (this did not take more than a few hours). After the "sifting", I was told that it would cost £40 or £50 to obtain a conviction, although the society had a splendid case, as their solicitor admitted. On receiving this information, I withdrew from the affair altogether, as no single individual could be expected to undergo such an expense to have the felicity of acting as a public prosecutor.

Now, as we look in vain for aid from the authorities—medical, civil, and parliamentary—would it not be as well for each member of the profession to subscribe a little annually to uphold its dignity? A sum amply sufficient would easily be raised, and a good prosecutor or two employed to undertake all cases that could be found. In a very short time, by continuously attacking, the fraternity would be swept from the land, so annihilating a glaring disgrace, both to the public and the profession.—Yours, TRUTHFUL JAMES.

*** The Medical Council not being representative of the profession, and being, moreover, devoid of sympathy with the wishes of its working members, long ago decided that it was no part of the duty of the Council to undertake the prosecution of unqualified practitioners; it would be even less likely to interfere with those qualified men who disgracefully "cover" illegal practice, and whose proceedings are so justly complained of by correspondents in various parts of the country. If "Truthful James" has stated all the essential facts relative to his experience of defence societies, it seems evident that there is considerable room for improvement in the arrangements for prosecutions in some of those bodies, though, on the other hand, it would be unreasonable to expect that such societies, wholly dependent, as they are, for funds on the subscriptions of their members, should incur considerable expense, such as that mentioned, in order to prosecute on behalf of outsiders. We are informed that, in the Alliance Association, arrangements have been made with a highly respectable solicitor whereby cases approved by the Committee are prosecuted for members of that Association without expense to them or the Association; but this has only been accomplished by the untiring exertions of the Honorary Secretary, Mr. R. H. S. Carpenter. We have repeatedly suggested in these columns that a Medical Defence Committee might, without difficulty, be organised in any or every Branch of our own Association; and we feel confident that an extra subscription of five shillings a year would be amply sufficient to meet all expenses.

THE COUNTRY DOCTOR.

THE PARIS *Figaro* has published in the last number of the JOURNAL, p. [illegible], ("Art in a Parisian Hospital"), quoted the following beautiful lines composed by a great living French physiologist, as a pendant to Hippolyte Flandrin's picture "Le Médecin de Village", now in the Salle de Garde of the Charité Hospital.

[illegible] du village
Obscur, ignoré, méconnu
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
Sur un grabat se tord la mère..
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

EPILEPSY.

A. A. SPELLERS, writing in the *Vete[illegible]rian*, says:—"If the epileptic sufferer will carry with him a [illegible] handkerchief large enough to cover the face, and, when he feels the [illegible] will cover his face with it, he will find it a sure cure. This [illegible] by a old Frenchman, my mother having been subject to fits for many years. She never had one afterwards. When she felt one coming on she would place the silk over her face. I do not know the virtue of it, but do know from experience that it does the work. In exceptional cases, very simple and unexpected causes will sometimes ward off an epileptic attack; this, if successful in any case, is at least easy and harmless.

SIR,—Highland newspapers are frequently made to report some trifling operation, such as the removal of a corn from the [illegible] of amputation of a finger, carefully giving the name of the [illegible] the heroic operator. By taking notice of the following extract from the *Inverness Courier* of September 15th, you may do much towards discouraging [illegible] Yours, MEDICUS.

"VERY A NARROW ESCAPE.—A correspondent writes: We were glad to notice that our old friend Mr. Angus Macpherson, Kilmuir (formerly piper to Chisholm Macpherson, Esq.), took the first prize for pipe-playing at the Skye gathering. This is very creditable to him, as he has not played for years; but a successful operation was performed on his under lip by Dr. James Brown, Uig, Skye, about [illegible] months ago, with a cure result."

DEATH, NOT FROM ANÆSTHETIC.

SIR,—The following case, which occurred recently at this hospital, I think fully deserves to be brought under the notice of the profession, as explaining probably many deaths during the administration of anæsthetics the cause of which has remained a mystery. J. S., aged 42, underwent operation on August 9th, by Dr. Godson, for ruptured perinæum. She was brought under the influence of nitrous oxide gas, followed by ether; when the latter was turned on, she became rather blue, but soon recovered, and, for an hour and a quarter, continued to take the ether well. Nine days later, August 18th, she was placed on the table on her left side to receive the [illegible] given. As she complained of cardialgia, and appeared frightened, she was allowed to remain quiet for a few minutes. Dr. Godson then proceeded to remove the sutures, but desisted on noticing that the patient was pale in the face and had ceased breathing. Drawing the tongue forward, and performing artificial respiration, restored the patient. Some brandy was given her, and she was sent back to bed. In a quarter of an hour, she had a second attack of the same nature, ushered in by cardialgia and extreme lividity; and, before any remedy could be applied, she died. The *post mortem* examination revealed extensive [illegible] of the mitral valves, and a clot, evidently *ante mortem*, two inches and a half long, in the right pulmonary artery. There was no evidence of heart-disease during life. Had the patient been under the influence of an anæsthetic her death would, without doubt, have been placed to its credit, or rather discredit.—I am, sir, yours truly.

ERNEST CLARKE, M.R.C.S.,
Assistant Chloroformist to St. Bartholomew's Hospital.

INUNDATIONS AND THEIR RESULTS.

SIR,—It may be well to place on record the (negative) results of two extensive inundations that have occurred at Dinapore, a military station four hundred miles distant from Calcutta—within the past twenty years. The first took place in 1862; the last, which I witnessed, in 1874.

Dinapore is situated on the right bank of a small branch of the Ganges, which, leaving the main stream about a mile above the cantonment, rejoins it below the principal bazaar. A strip of land is enclosed between the river and the branch. Except during the height of the rains, this strip is under cultivation, and inhabited, and is in full view of the station. As the rainy season advances, the island, with the grass huts upon it, gradually becomes submerged, the inhabitants quickly making off in boats for the mainland, and soon all trace of them and vanishes. The river is there, at this point, nearly a mile in breadth. At the upper, or north-west, extremity of the station is situated one end of a canal, which here communicates with the stream. A mere watercourse at first, it gradually widens in its progress, and encircles the greater part of the cantonment, debouching into the river about half a mile below its commencement. This canal, called locally a "nullah", and utilised at its south-west extremity as a harbour for the smaller kind of native craft, is fed from the Ganges on one side, and, during the rains, by overflowing watercourses and semi-ravines (which, in the hot and cold season, are but dry beds) on the other. Shallow streams, situated some two or three miles distant to the west, contribute their quota in the wet weather; and the intervening country is at that time more or less flooded. It sometimes happens that this flooding is excessive; and, as in 1862 and 1874, an inundation is the result. Along a part of the cantonment, on its river face, an embankment has been constructed; and here there is no encroachment from the stream; but elsewhere, and at the narrow end of the canal especially, there is nothing to prevent an overflow; so that, from all sides, the station, in an exceptionally heavy rainy season, runs a risk of being flooded, and the slope of the surface increases this risk. Those of the older inhabitants who had witnessed the flood of 1862, awaited with comparative confidence the issue of that in 1874. The waters, as marked on a telegraph pole, had, at the former year, risen between four and five feet above the general level; they would hardly, it was predicted, rise higher now. Still, it was not without apprehension that, first, the roadways were seen to disappear; then the compounds—the space of ground surrounding the house—a kind of yard on a large scale; and the floor of the verandahs, unless very well raised, becoming submerged, and the water even entering the lower rooms of the bungalows. Then, day by day, communication became more difficult. Foot-passengers had literally to wade through the water, which in some parts was breast-high. Carriages were, generally speaking, useless. Boats were put into requisition; and happy they who possessed horses, and could ride them. For ten days, the flood prevailed higher, and yet higher. Private marks, made by anxious observers to-day, were obliterated by the ruthless waters to-morrow. "How much longer?" was in everybody's mouth. The "oldest inhabitant" continued to smile, and pointed to the mark of 1862, which was still a few inches above the level of the present flood. At length, after ten days of anxiety, it, too, was reached and covered; but happily, on the eleventh morning, a lull was noticed. The waters now began to subside, and, in a week, all trace of them was gone.

It is worthy of remark that no unusual sickness followed either of these inundations. But the station is not one of the most [illegible] kept. The vegetation is but scanty, and limited to gardens. Sewage is always first acted upon by dry earth, and then removed to a distance; so that, in the process of drying up, there would be nothing [illegible] to pollute the atmosphere, and [illegible] prejudicial to health. A peculiar smell pervaded the station for a few days afterwards, as might be expected from the evaporation of so large a body of water [illegible] vegetating earthy surface, but this would [illegible] in most cases, [illegible] that all conservancy [illegible] as the Government, [illegible] have not taken care to incur the expense of constructing an embankment along the entire river-face of the cantonment; and to so shape the canal that it might serve, in the event of a threatened inundation, as an artificial channel for the rapid discharge of the water into the river. Dinapore is a large military station, and it is scarcely desirable that no effort should be made to minimise the risk of its being occasionally [illegible]. I am, etc., R. FRANCIS, M.D., Surgeon-General.

Clapham Common, August 20th, 1881.

B. W.—Mr. Berkeley Hill or Mr. Henry Lee, F.R.C.S.

WITNESSES' FEES.

THE *Manchester Courier* of September 13th has a sub-heading to a police-court case of "Extraordinary Conduct of a Medical Man". On reading the details of the case, we find that this "extraordinary conduct" consisted in the house-surgeon of a public infirmary requiring to be paid his fee as an ordinary witness for giving evidence as to the condition of the patient when taken to the infirmary. As a matter of fact, Mr. Brown, the house-surgeon, was living entirely by his profession in requiring the usual fee. It is a matter of every-day occurrence in the courts. The only thing which is extraordinary is the amount, which is only an uselessly raised. Had any other officer of the infirmary been called to give evidence, he would have required, and been paid, the usual scale. Sanitarium, and why not the house-surgeon?

Low Mortality Statistics.

SIR, One is a good deal amused from time to time at the zeal of the inhabitants of certain watering-places in publishing the low rates of mortality of their respective towns, of course with the object of attracting visitors. The Builder lately recommended a guide to a very fashionable resort on the north coast of Devon in which it was affirmed that the mortality for a long series of years had been at the rate only of between nine and ten per thousand of the population, of which number three-fourths were infants. It has been conclusively supposed that, by the exertions of the late Sir G. Cornewall Lewis and Mr. W. J. Thoms, most of the so-called centenarians had been wiped out; but such statistics as these, if carried to their legitimate conclusion, taking the mortality at ten per thousand, show a town of which the age, not merely of a single individual here and there, but the average of the whole population at death, is 100 years, and excluding the infants each individual should arrive at 400 years. Thus some of the resident inhabitants might easily have known bluff King Hal, and as recorded on the tombstones people seem to have died at all ages (but none of them quadricentenarian), and by adding these defective ages to the resident population, some might even have been at the battle of Hastings. I think it is high time that a stop should be put to such absurd statements. In the JOURNAL of September 10th, there are several of the same family, which I suggest must be either watch-box statistics, or the reports of mortality must have been imperfectly kept, or the sick must have been sent to die elsewhere and not been brought in to the account. Supposing the New Zealand statistics to have any value, the following is the clear outcome. The average age of the whole population at death, on a sufficiently extended basis, should be: at Dunedin, 69½; Caversham, 72¾; Lyttelton, 76½; Oamaru, 86¼; Napier, 89½; Tamara, 92; Invercargill, 100; Thames, 131¼. Then we have at home Ealing, where the average age at death should show 52.

There are a great many factors that go to make up the mortality statistics; among these may be mentioned the aspect of the town, the soil, habitations, food, and the *vis vitæ* of the inhabitants, for there is a great difference in this respect among different people, some being full of vigour and never ailing, while others are always sickly, and can hardly be said to have ever been properly alive—a sort of half or three-quarter existence, in short, they may be said to have been born merely to suffer. But the most constant factor, and one that is occasionally more effective than all the rest put together, is the relative age of the population. This is so important that it may happen that though the death-rate may show higher in town A than in town B, town A may be the more healthy one on account of its containing a greater number of infants or very old people. Suppose, again, Brighton to have a certain death-rate and Birmingham one somewhat higher, it does not follow from this that Birmingham is a more unhealthy town, as the increased mortality may arise from many causes, as intemperance, insufficient or unsuitable food arising from poverty, dust arising from manufactures, difference of ages, etc. Of course, it might be the other way and Brighton be more healthy than it appears by the statistics. The Northampton table seems to make the greatest prospect of longevity to occur between the ages of 10-15, the Carlisle between 5-10, with a continual decrease afterwards. The life office tables, being founded on selected lives, are of no use in respect to this subject.

It seems clear, then, from the foregoing that the only possible way of arriving at a satisfactory mortality statistic is by taking a table—for this purpose the Carlisle would be as good as any—and ascertain what the mortality should be for each quinquennial period, and then measure the actual mortality at these different ages, and not in the present higgledy-piggledy manner, by which it is only shown, at the best, that out of so many people who were alive, so many have died, and leaves out of the count every circumstance that could render this information of the least value. If something like the plan above suggested could be carried out, it might be possible to trace the causes of mortality more effectually than at present, as why so many more people have died at certain ages than ought to have done according to the calculation; also the standard of comparison would be more satisfactory than at present, and we should be spared being so frequently offended by useless or impossible statistics.—I am, etc., G.

T. W. H.—We have had the subject under consideration more than once, but there are a good many difficulties in the way, both as to space and as to the best means of obtaining the required information.

Subcutaneous Injection of Quinine.

SIR,—I beg you will allow me to mention that, in the year 1862, when Assistant-Surgeon in the European General Hospital, Bombay, I first used quinine by subcutaneous injection. My manner of procedure, etc., was brought before the Bombay Medical and Physical Society in March, 1863 (*vide* JOURNAL), and also in the *Lancet* of August 1st, 1863. As I observe that this method of using quinine has been credited to some other gentlemen, I mention the dates and articles on and by which I brought it forward, being ready to retire from the position if anyone can show previous publication on the subject.—I am, etc., W. J. MOORE,
Deputy Surgeon-General H.M. Forces, Bombay.

Bombay, September 6th, 1881.

Treatment of Hard Corns.

RUB them daily with sand-paper till the hypertrophied epidermis is removed. If there be much tenderness, paint the corns every night with strong tincture of iodine; but the main point of the treatment is to remove the epidermis with the sand-paper. W. A.

A. R. W. (Airdrie) will find full details of the courses at the University of Vienna and other foreign universities, and the conditions of attending and profiting by the foreign colleges and universities, in the student's number of the *London Medical Record*, September 15th, which is devoted to the elucidation of the conditions and methods of education and graduation in foreign universities and colleges in Europe and America.

Professional Advertising.

A small pink handbill, of which the subjoined is a copy, has been sent to us from Manchester.

"New Surgery, 160, City Road (corner of York Street), Hulme. Terms: Advice and medicine, 6d.; weekly, 1s.; visits to patients' homes (including medicine), 1s. 6d.; teeth extracted, 6d.; certificates, 6d. and 1s.; vaccination, 1s.; confinements, 10s. 6d. to 15s. After 10 P.M., all charges double, except confinements. Hours: morning, 9 to 11; afternoon, 2 to 3; evening, 6 to 9. In opening the above surgery, an attempt has been made to meet the requirements of the middle and working classes, many of whom find it almost impossible, during these dull times, to pay the usual medical fees. The terms are strictly cash. Visits are paid, and messages may be left, at any hour. Special attention paid to children. W. W. Bremner, Physician and Surgeon."

Small Pox Inoculation in China.

SIR, I notice an inquiry in the number of the JOURNAL for August 27th regarding small-pox inoculation in China. The writer expresses a doubt as to the existence of inoculation being practised in China, and as to the mode adopted. I may state that full particulars regarding the practice are given in the translation of a native Chinese pamphlet on Inoculation, which I made several years ago, and which was published in the *Dublin Medical Journal* for 1843-4. The author says that this procedure was invented by a philosopher in the Sung dynasty about 1014 A.D., and has been followed ever since. There are three plans used: 1. Watery inoculation; the variolary crusts are rubbed with water to a fine paste, with which a plug of cotton-wool is moistened, and then inserted into one of the nostrils. 2. Dry inoculation; the crusts are rubbed into a dry powder, which is blown into the nostrils. 3. Clothes inoculation. In this mode, the person or child is made to put on the clothes of a child affected with small-pox. Then follow a long list of rules for the management of the patient. The abstract of the translation can be seen at page 336 in *Dublin Medical Journal* for 1843, published by me in 1844. Yours truly, WM. LOCKHART.

67, Granville Park, Blackheath, S.E., September 1st, 1881.

Factory Surgeons.

SIR,—Will you, in an early issue of the JOURNAL, be so kind as to inform me with whom rests the appointment of surgeon under the Factory Act? and also what are the formalities necessary in applying for such a post under the Act? I am, sir, your obedient servant, A. Y. Z.

. 1. The Home Secretary. 2. Formal application backed by professional applications and political influence.

Noises in the Ears.

SIR,—Would you, or any member of the Association, advise me as to the most satisfactory treatment for continued buzzing noises in the ears. I believe them to be caused by large doses of quinine I took twelve months ago as a preventative against ague, when travelling in unhealthy parts of Peru and Bolivia. In other respects, my health is perfectly good. Any suggestions for the relief of these distressing symptoms will be very thankfully received.—I am, etc., J. A. FREND.

Rosario, South America, August 19th, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Professor Longmore, Netley; Mr. G. Eastes, London; M.B.; Dr. Rees Philipps, Exeter; Mr. Pollard, Baildon; Mr. John F. Le Page, Durham; Dr. James G. Lyon, Glasgow; Mr. W. L. Beaty, Dublin; Mr. Cecil A. P. Osborne, Huntingdon; Mr. Edward D. Farmar, Aldershot; Mr. T. Taylor, Saltburn-by-the-Sea; Mr. Joseph Harper, Barnstaple; Dr. T. W. Barron, Durham; Dr. Montrose A. Pallen, New York; Mr. W. Makeig Jones, Wath upon Dearne; Dr. J. Groves, Carisbrooke, Isle of Wight; Mr. G. H. Darwin, Manchester; Dr. H. Lowndes, Liverpool; Dr. John R. Wardell, Eastbourne; Mr. C. G. Wheelhouse, Leeds; Dr. J. Steele, Sheldon; Mr. James Dewar, Buxton, Derbyshire; Mary Buller; Dr. T. F. Pearse, Liphook; Mr. Daniel Bradley, Dudley; Dr. Arthur Watson, Moss Side; Dr. R. C. Madros, Cork; Our Aberdeen Correspondent; Dr. A. K. Newman, Wellington, New Zealand; Mr. A. A. Napper, Cranleigh; Deputy Surgeon-General W. J. Moore, Bombay; Dr. J. W. Wilson, Camp Khozok Pass; Dr. F. B. Shepherd, St. Mary's Hospital; Dr. R. Wykeham Barnes, Thayetmyo, Burmah; Mr. E. P. Hardey, Beverley; Brigade-Surgeon W. Moore, Allahabad; Our Dublin Correspondent; Dr. A. B. Grant Rex, Lawton; Mr. W. T. Duncan, Holyhead; Professor Stirling, Aberdeen; Dr. A. Waddell, Airdrie; Dr. Charles J. White, Rochester; Dr. Scowcroft, Bolton; Dr. W. A. Greenhill, Hastings; Our Glasgow Correspondent; Mr. E. Thompson, Ormagh; Dr. G. Herbert Lilley, Portland; Dr. Fairlie Clarke, Southborough; Dr. Ward Cousins, Southsea; Mr. J. S. McMonagh, London; Mr. Herbert Stowers, London; Dr. J. Lloyd Roberts, Denbigh; Our Birmingham Correspondent; Mr. W. Tallack, London; Dr. Thorne Thorne, London; Mr. N. Stevenson, London; etc.

BOOKS, ETC., RECEIVED.

A Treatise on the Continued Fevers. By J. C. Wilson, M.D. London: Sampson Low and Co. 1881.

Cyclopædia of the Practice of Medicine. By Dr. H. von Ziemssen. London: Sampson Low and Co. 1881.

American Nervousness. By George M. Beard, A.M., M.D. London: Trübner and Co. 1881.

Text-Book of Modern Midwifery. By Rodney Glisan, M.D. Philadelphia: Presley Blakiston. 1881.

Transactions of the College of Physicians. Philadelphia: Lindsey and Blakiston. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,,	20 ,,
,, 26 ,,	25 ,,
,, 52 ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post Office High Holborn. Small amount may be sent in postage stamps.

AN ADDRESS
ON
MICRO-ORGANISMS AND DISEASE.

Delivered in the Health Department of the Social Science Congress.

By CHARLES CAMERON, M.D., LL.D., M.P.,
President of the Section.

THERE never has been a period since the days of Æsculapius during which so much has been accomplished to entitle medicine to take a place among the exact sciences as within the last ten or fifteen years. Up to that period, we knew diseases only as groups of effects. Of their causes we had no certain knowledge. As the methods of research adopted became stricter and more systematic, a mass of information was accumulated, pointing generally in one direction, and enabling more accurate hypotheses to be framed; but although, for years past, what is termed the germ-theory of disease has been generally accepted among scientific men, it is only recently that the organisms themselves have been identified; and it is only within a period to be reckoned by months, rather than by years, that their habits have been so exposed to us, that it is already in our power in many cases to isolate them from the living body, and cultivate them in artificial soils—to multiply, destroy, modify, weaken, or intensify them at pleasure. If, then, as is obvious, a correct knowledge of the nature and tactics of the foes we have to contend against, in our battle with those maladies which sap the health and life of mankind, is essential to the waging of successful war against them, there never has been a time when the physician could look forward with so much certainty as now to a speedy solution of many problems hitherto deemed inscrutable; or the man of science could anticipate with so much hope the possibility of triumph, not merely over individual cases, but over whole genera of disease.

I have, therefore, thought that I could not choose a more opportune theme for the address which, as President of the Health Department of this Association, I am called upon to deliver, than the light cast by recent discoveries upon the nature of virulent and infectious maladies, the practical account to which those discoveries have already been turned, and one or two lessons which they suggest in connection with the preservation of the public health.

The first idea to be grasped is that specific diseases are like specific forms of animal or vegetable life: they can be produced only by specific pre-existing germs or seeds. There is no such thing as spontaneous generation of the entities which cause disease, any more than there is of the innumerable forms of animal and vegetable life which make their appearance wherever a material suitable for their development is exposed to the atmosphere. We know that the air is full of floating living particles, ready to spring into activity whenever they may light upon a congenial soil. We know that in such numbers do they in many cases exist, that, present but the proper soil, and the appropriate germ inevitably finds its way to it. We know, on the other hand, that, but filter the air, purify it from such germs, and, without their intervention, no form of life can arise. It has long been suspected that the same was the case with certain specific diseases, especially with what are known as zymotic diseases. It has long been considered probable that the symptoms which constitute each particular malady in that class were due to the invasion of the system by some microscopic organism, which, multiplying itself within the living body, gave rise to the phenomena and constitutional disturbance which physicians described as the disease. It has now been proved that this is so in a number of diseases where such an origin was never suspected; so much so, that it may be taken as an axiom of medical science at the present moment that it is the case in every contagious and infectious disease, as well as in a number of diseases whose communicability is so masked that, up to the present, it has been generally believed not to exist.

Now, it is a remarkable illustration of the impossibility of foreseeing to what results any scientific investigation or discovery may lead, that the great advance recently made in our knowledge as to the causation of disease is to be traced to a very large extent to certain investigations made by a French chemist, M. Pasteur, with regard to fermentation. In the first place, it was through facts elicited in the course of these investigations that Lister first entertained the theory on which his system is based. At that time—now about fifteen years ago—it was known to the surgeon that the gravest laceration of tissue might occur under an unbroken skin without any danger of suppuration; but that, if the skin were broken and the lacerated tissues brought into contact with the air, suppurative action, attended with great constitutional disturbance, was the dangerous and, it was believed, the inevitable consequence. The same difference was recognised with regard to wounds made in surgical operations, which were known to be almost certainly followed by suppuration if they were external, while the reverse was the case when it could be so contrived that the air should not reach them. Taking Pasteur's researches regarding fermentation and the allied subject of spontaneous generation in connection with these facts, Lister asked himself whether this difference might not be due to the disturbing fermentative action of invisible organisms borne to the surface of the wound by the atmosphere. If so, if these could be destroyed suppuration would be averted, and the fracture where the bone had pierced the skin might be repaired as easily as that where the skin remained intact; the incision made in amputating a limb would give rise to as little constitutional disturbance, and would heal as readily, as the internal cut which had been so contrived by the surgeon that no air could find access to it. The experiment was made. By careful use of carbolic acid the air-borne germs were destroyed, and the results followed for which Lister had ventured to hope.

Again, it was the remarkable practical results which had attended his researches on fermentation that induced the French Minister of Agriculture, in 1865, to select M. Pasteur to investigate the causes of the silkworm disease, which at that juncture threatened to extinguish one of the most important industries of France. For M. Pasteur knew nothing about the silkworm. Indeed, he tells us that up to that period he had hardly seen the insect. But having undertaken the work, he applied himself to it for five years with all his energy. The result was, as he had shown the wine-grower how noxious fermentation might be guarded against, so now he showed the silk-producer how the silkworm could be regenerated and the disease stamped out. Previous observers had noticed, in the juices of diseased silkworms, tiny microscopic corpuscles, but of their nature, or the *rôle* which they played in the disease, nothing definite was known. To these M. Pasteur directed his attention. He soon ascertained that they were living organisms, which could be introduced into the insect's system through its skin, or in its food, and which, multiplying themselves in the silkworm's body, constituted the real cause of the malady. By watching their development M. Pasteur made this important discovery, that they take a considerable time to spread within the insect's tissues to such an extent as to do very much mischief. If a larva was not infected until it had completed a portion of its existence, the ravages of the disease had made comparatively little progress when it entered into the chrysalis stage. It spun an excellent cocoon, and for the purposes of the silk-spinner was as valuable as its healthy neighbour. If, however, it were reserved for the production of eggs, the corpuscle had, by the time it became a butterfly, made such progress within its body that it had penetrated even into the eggs it produced, and a greater or smaller proportion of these contained corpuscles. The silkworm which issued from an infected egg inevitably died before it could produce silk. But M. Pasteur observed that, even among the eggs produced by the most infected butterfly, a certain proportion were sound. Availing himself, then, of this fact, M. Pasteur devised a system whereby each silkworm was reared by itself under careful observation, and in conditions which would ensure the healthy insects against infection. The eggs of those that retained their health to the last—of insects which, after they had laid their eggs, the microscope showed to be free from the disease—were found to produce a perfectly healthy race. By breeding only from such stock, by avoiding conditions favourable to the production of the disease from germs which might find their way from without, M. Pasteur showed that in a short time it would be possible to regenerate the race and entirely to stamp out the disease. He showed, too, how, when circumstances did not admit of such elaborate precautions, a seed might be secured which, if not absolutely free from the disease, would still afford a very satisfactory crop. By a series of striking demonstrations, he converted the silk-grower to his views, and his services obtained the recognition, not only of his own, but of foreign Governments.

It is thirty years since Dr. Davaine discovered that, in the splenic fever of sheep and cattle—a terribly fatal disease, which continental writers identify as the plague sent upon the cattle of Egypt—a tiny microscopic organism, measuring the fraction of a thousandth part of an inch, was to be found in the blood; and [illegible] induced him to believe that this was the true cause of that disease. As time passed, other microscopic beings were discovered in the blood and tissues in other diseases. I will not trouble you with any attempt to describe the differences which these organisms present, for subse-

quent experience has shown that the most deadly may be undistinguishable from the most harmless by any detectable physical peculiarity. Like many of the lowest forms of vegetation, they exhibit movements, when viewed under the microscope, and multiply themselves with extraordinary rapidity, in certain circumstances by budding or subdivision like the yeast plant, and in others by the production of germs or spores. In 1876, Dr. Koch, a German physician, succeeded in isolating the little rod-like organism or bacterium which gave rise to the splenic fever of which I have spoken, and in cultivating it outside the animal body. Dr. Koch's success was of immense scientific importance, for, whereas it had before been impossible satisfactorily to observe the development or peculiarities of any of these organisms, or even to prove beyond possibility of cavil that it was they, and not the organic media in which they were found, which when inoculated on other animals gave rise to the disease, it now became practicable to remove them from all possible contamination, and to prove that this or that organism was really the cause of this or that malady. Dr. Koch's discovery was rapidly followed up by that of Dr. Klein, who showed, by methods similar to those adopted by Koch, that the disease known as pig-typhoid or pig-plague was also the result of a microscopic organism which he succeeded in cultivating; and, about two years ago, M. Toussaint, a veterinary surgeon of Toulouse, to whom I shall frequently again have occasion to refer, achieved a like success with the bacterium of fowl-cholera. I may say in passing that this is a disease in no respect resembling cholera, but, from the circumstance of its having ravaged the poultry-yards of France coincidently with an epidemic of human cholera, it acquired that unfortunate title. M. Pasteur had been engaged for some time, at the instance of the French Government, investigating the causes of the splenic fever which annually wrought such havoc among the flocks and herds of France, and Toussaint's discovery at such a juncture naturally directed his attention to a disease presenting peculiar facilities for experiments, and possessing this feature in common with the splenic fever of cattle, that it had been proved to be of similar parasitic origin. Having once brought to bear upon this fowl-cholera, then, his extraordinary scientific instincts and great experience, M. Pasteur was able, in February of last year, to announce to the French Academy of Sciences a series of discoveries, which, followed up as they have been by himself and others, have completely revolutionised our ideas of the nature of diseases, and the proper methods of dealing with them. Within little more than a year and a half—thanks to the enterprise and emulation of French investigators—a new romance world of contagion has been opened up, peopled with innumerable microscopic races, which every week shows to be more and more susceptible to human domination and control, but many of which are—till tamed by science—so fatal to mankind, that the slightest carelessness on the part of the experimenter, the accident of a scratch on the hand, might any day entail upon him a rapid and appalling death.

But to return to the bacterium of fowl-cholera. The vehicle of cultivation employed by Toussaint not proving satisfactory, M. Pasteur's first care was to find a more congenial medium, and this he soon discovered in chicken-soup. If the point of a needle be dipped in the blood of a fowl suffering from chicken-cholera, and then placed in a vessel containing pure chicken-soup, from which care has been taken to exclude all contamination by air-borne germs, and a suitable temperature be maintained, the bacterium or microbe—as M. Pasteur terms it and cognate organisms—multiplies itself exceedingly, rendering the liquid turbid by its presence. If, after this process has gone on for some days, a drop of the contents of this vessel be transferred to another portion of similar chicken-soup, it, too, speedily becomes permeated with the organism. The process may be repeated a hundred times, and the result inoculated upon fowls, or given them in their food, will produce the same fatal effects. But if, instead of carrying on these fresh cultivations at intervals of a few days, you allow the infected chicken-soup to lie over for a few weeks or months, Pasteur discovered that an extraordinary change occurs. The malignant powers of the bacterium diminish; it becomes, so to speak, tamed, or, as he terms it, "attenuated". A given quantity of infected chicken-broth, even at the hundredth rapid cultivation, inoculated upon twenty chickens, would, let us say, prove fatal to eighteen of them. If the same infusion were allowed to remain exposed to the oxygen of the air for a month, it would be so far attenuated that it would only prove fatal, say, to ten. Exposure for another month would render it still less virulent, so that it would only prove fatal to two or three; while, after exposure for six or eight months, it would not prove fatal in a single instance. But does it still retain any active power? and, if so, what relation does it manifest to the original disease? In its most attenuated form, the bacterium gives rise only to trifling local symptoms, not at first recognisable as bearing any affinity to the deadly fowl-cholera, and consisting of a small local slough. But the extraordinary and valuable fact discovered by M. Pasteur is, that the tamed and attenuated organism works upon the system a change protective against subsequent attacks of fowl-cholera, exactly similar to that which had been remarked to be enjoyed by fowl that had recovered from the virulent form of the disease.

Here, then, is a result exactly analogous to that experienced in the protection exercised by vaccination with cow-pox against subsequent attacks of small-pox, only in the one case the protective virus has been elaborated in the laboratory of nature, in the other in that of art.

Time will not permit me to do more than allude to one or two of the many curious and interesting features elicited in M. Pasteur's researches as to the life-history of this parasite. One most important fact elicited is this, that, altogether contrary to what one would expect, the most virulent organism is to be found, not in the ordinary rapidly fatal cases, where the fowl dies in the course of a few days, but in a much rarer form of the disease, where the bird lingers for weeks or months. Then the microbe acquires such virulence that the fraction of a drop of blood charged with it, inoculated on a score of hens, will kill every one of them within four-and-twenty hours. And yet even this doubly poisonous species of the organism can be reduced to a harmless vaccine by artificial cultivation, and between its most and least deadly form the microscope does not enable us to detect the smallest difference.

What is the theory of the protection which this new vaccination affords? I will not enter into the details of the theories which have been advanced; suffice it to say, that the world has long been familiar with the fact that one occurrence of a certain disease—such as small-pox, measles, scarlatina, typhus, etc.—in an individual, effects a change in the constitution which, except in very rare instances, is protective against any recurrence of the same complaint. Recent discoveries prove that in certain instances a similar change is effected by diseases not identical with those against which they protect. Thus, Pasteur has found that inoculation with fowl-cholera renders at least one class of animals refractory against subsequent inoculation with splenic fever, although the organisms which give rise to the two diseases are entirely distinct. But, in the course of his researches into the mechanism of the protection thus conferred, M. Pasteur discovered a very curious and interesting fact. One of the most prominent symptoms of ordinary fowl-cholera is an irresistible drowsiness which overcomes the fowl attacked. It lies down, falls asleep, and is with difficulty awakened, only to sleep again until, finally, death overtakes it. Well, M. Pasteur, in the course of his researches, filtered some chicken-broth in which the disease-organism had been cultivated, so as to free it from all traces of it, and injected the liquid into the circulation of healthy fowls. After a short time, they exhibited the same symptoms of overpowering sleepiness, and that whether they had been rendered proof against the disease by previous inoculation or not; but, instead of dying after four or five hours, the symptoms passed off, and they were restored to perfect health. This proves that, in the course of its development, the organism of fowl-cholera, by a fermentative action, gives rise to a narcotic poison which occasions this symptom, a symptom which masks the essential phenomena of the disease, but which can be altogether separated from it, and is only indirectly incidental to it. In the typhus fever of man, a similar symptom is constantly noted, and the question naturally presents itself, is it produced in a similar way? Here is a curious fact bearing on the point. In Senegal, the natives are subject to a terrible disease known among them as *nelavan*. The disease takes eighteen months or two years to run its course. It is attended with acute pain, stiffness of the limbs, glandular abscesses, and notably with constant drowsiness, the sleep being heavy, and accompanied with terrible dreams. The patient preserves his appetite to the last, but often loses his reason, and invariably dies. A French missionary in Senegal addressed a communication on the subject to M. Déclat, a French physician, and an ardent disciple of Pasteur's, who, suspecting in the disease a parasitic origin, recommended the missionary to try a treatment having for its object the destruction of the organism—its probable cause—by the injection into the circulation of phenic acid. The experiment was made in several cases, notably in one where the patient was in so advanced a stage of the disease, that the missionary was only induced to try the treatment by reflecting that if it did no good, it could do no possible harm; and in every instance the result was success. The organism was killed, and the patient recovered.

Turning now to the *Bacillus anthracis*, the organism gives rise to splenic fever in cattle. M. Pasteur found that it too could be cultivated in chicken-broth. In its case, however, a preliminary difficulty was experienced. The class of organisms to which the bacillus belongs multiply themselves in two ways—by subdivision of their cells into other cells, which rapidly attain the dimensions of the standard cells

and, secondly, by a process analogous to flowering in the higher classes of plants, resulting in the production of spores or seeds. So tenacious of life are these spores in the case of the bacillus of splenic fever, that M. Pasteur has found them in full vitality in pits in which oxen and sheep that had died of the disease had been buried for ten years. He has proved, too, that when thus buried, swallowed by earth-worms in the soil from which these derive their nourishment, they are brought by them to the surface, and may thus give rise to fresh outbreaks of the disease. He found that this was the case in an instance where a bullock had been buried in a pit over six feet deep. His proofs were absolutely conclusive. He placed sheep on the ground, and they took the disease. He separated the bacillus-germs from the earth by washing it, and, multiplying them by cultivation, found that by inoculation they produced the disease. He found them especially in the casts brought to the surface by earth-worms, and in the contents of their digestive organs; and he found, further, that in districts where the soil was of such a nature that earth-worms were rare, the disease, when accidentally imported, was not found to spread. Here is an anecdote which curiously illustrates how scientific discoveries may come about. In 1865, Baron Seebach was Saxon Minister at Paris. Having suffered severely from splenic fever on his estate, he took great interest in the subject, and had evidently conversed with the French Minister of Agriculture respecting it. The result was that he was asked to detail his experiences in a memorandum. That memorandum the French Minister placed in M. Pasteur's hands, and it seems to have given him the clue to the manner in which the disease is spread. It has recently been published. In it the Baron narrates various circumstances which had induced him to think that his enormous losses from splenic fever were due to the propagation of the disease from the graves of dead animals. But what confirmed him in his suspicions was this: a sheep that had died of the disease had been buried in the corner of a field on which a crop of corn had subsequently been grown, and which the following year was sown with clover. The attention of the Baron had been accidentally directed to the place at the time; and one day, in passing, he remarked that the clover had grown with exceptional luxuriance over the spot. A few days later, he noticed that someone had stolen the clover which grew at that corner of the field. The next day, a woman on his property came to him weeping, to tell him that her goat had just died, and her cow was very ill. The disease was found to be splenic fever; and the woman confessed it was she who had stolen the clover, and given it to the unfortunate goat and cow.

But to return to M. Pasteur and his experiments in cultivating the bacillus of this disease. He was not the man to allow himself to be foiled by the perversity with which this organism insisted, when artificially cultivated, on running to spores. He found that, by maintaining his chicken-broth at a temperature of about 110° Fahr., he could prevent spores from being developed, and induce the organism to multiply itself by subdivision like its congener in fowl-cholera. He found that, when this was accomplished, precisely the same results followed exposure to the atmosphere as had followed in the other case, but with much greater rapidity; that the organism could be tamed; that a virus could be produced of any desired degree of attenuation; and that, when it was sufficiently attenuated, inoculated upon sheep or cattle, it gave rise only to trifling constitutional results, but at the same time wrought such a change in the system of the animal as protected it against subsequent attacks of splenic fever just as effectually as was known to be the case when an animal recovered from the natural disease.

The annual loss to France from splenic fever being close on a million sterling, the commercial value of this discovery was too great to allow it long to remain without a public test. In May last, at Melun, before a number of scientific authorities, fifty sheep were taken, twenty-five inoculated with the attenuated or tamed organism, and ear-marked, and the others left untouched. A fortnight afterwards the whole number were inoculated with splenic fever. On the twenty-five previously inoculated with the attenuated bacillus, no result followed. As to the others, within fifty hours the whole number were dead of splenic fever. A similar public test undertaken in July exhibited precisely similar consequences. Since then many thousands of animals have been inoculated with the attenuated virus, and the commercial results of the experiment will soon speak for themselves.

But M. Pasteur has discovered that not only can this bacillus be attenuated, but that by a converse process it can be restored to its original virulence and ferocity. This *Bacillus anthracis* appears to be an organism of very cosmopolitan taste, so far as mammalia are concerned; for though it is chiefly known to us as infesting cattle and sheep, it also, when accidentally inoculated on man, gives rise to that terrible disease known as malignant pustule. It lies hid in the condition of spores, in hair of horses and the wool of sheep that have died of the disease, and finding its way along with other dust to the lungs of the people who handle them, occasions another terrible malady, known as hairworkers' or woolsorters' disease, and it particularly affects the class of rodentia. In them this bacillus appears to find a most congenial home, and in them it flourishes with a deadliness peculiarly characteristic. Now M. Pasteur discovered that, if the attenuated bacillus—the organism tamed through long cultivation in oxygen—be cultivated through a succession of young guinea-pigs, it will speedily re-acquire all its original virulence. That this is not an isolated fact in the history of such organisms is shown by the circumstance that a similar recrudescence can be effected in the case of the virus of fowl-cholera, by repeated cultivations of the attenuated organism on small birds, such as sparrows, to which it proves fatal long after it has ceased to be capable of destroying the life of fowls.

I shall only refer to one other curious discovery made in the course of M. Pasteur's investigation. I relate it because it seems to cast some light on the success which has attended the treatment of certain fevers to which mankind is subject, by cold affusions. M. Pasteur discovered that if you introduce the bacillus of splenic fever into the circulation of the fowl, under ordinary circumstances it produces no result. The temperature of the fowl's body appears to prevent its multiplication in the system. Cool down that temperature, however, by placing the fowl in water, and repeat the operation, and the disease at once manifests itself. Let the temperature rise, the organism perishes, and the fowl revives. And here I shall for the present leave M. Pasteur, and briefly recapitulate the results obtained—most of them, be it remembered, within the last few months—by other labourers in the same field.

There is another disease of cattle equally fatal in its results with splenic fever, but distinct from it, and known amongst French veterinarians as *charbon symptomatique*, or from the name of the author who first described it, *la maladie de Chabert*. Now M. Chauveau—to whose researches I have before referred—had proved that very different results followed on the introduction of certain morbid viruses into the animal system, according as they are carried right into the blood by injection into a vein, or simply introduced into the tissues outside the circulation. More recently, in investigating the strange resistance displayed by Algerian sheep to the power of splenic fever, M. Chauveau found that it could be overcome by the introduction of large amounts of the specific organism into the system. By carefully limiting the number of bacilli introduced, however, he found he could give rise to a trivial infection which increased the natural resistance of the animal to subsequent experimental inoculation with the disease. Working on the lines thus disclosed, three young veterinary surgeons of Lyons, MM. Arloing, Cornevin, and Thomas, discovered that if the micro-organism which gives rise to the *maladie de Chabert*, and which can also be artificially cultivated, be injected in carefully graduated doses into the torrent of the blood, so that the tissues shall not be contaminated, it gives rise to but very trifling constitutional disturbance, but at the same time produces a change in the system of the animal which effectually protects it against subsequent attacks of the disease. The discovery was publicly tested at Lyons in June last, and it, too, the French Government are now engaged in testing on a large commercial scale.

Let us now turn to another disease, which is probably the last in the world that you would suspect of being due to a parasitic organism—rabies, or hydrophobia. M. Pasteur has been working at it for some time past, and he has made some extraordinary discoveries. Among other things, he has found that the saliva of a boy who died of that disease contained organisms which could be cultivated artificially; and that the results inoculated on rabbits produced a disease which proved fatal with startling rapidity, but was quite distinct in its symptoms from any known form of hydrophobia. M. Pasteur considers this to be a new and distinct disease, but as yet no practical result of his investigations has been published. Meanwhile, M. Galtier, another veterinary surgeon of Lyons, who for years past has made a special study of rabies, adopting a hint from the result of the investigation of his colleagues with respect to the *maladie de Chabert*, tried the effect of introducing the virus of hydrophobia into the torrent of the blood by injecting it into the veins of a number of sheep and goats. To his delight he found that the same results followed the practice which had attended it in the *maladie de Chabert*. Animals which received the virus directly into their circulation, not only did not suffer the least inconvenience from it, but, when subsequently exposed to repeated inoculations of hydrophobic virus, it produced on them no effect; while unprotected animals, subjected to the same tests, invariably succumbed to the disease. Hydrophobia, communicated in the ordinary way, is generally a long time before it takes a hold upon the system; and M. Galtier is at present endeavouring to ascertain whether, by stepping in with his intravenous inoculation in animals which have been bitten by rabid dogs, he can

anticipate and neutralise the natural development of the disease, as we can the slower development of small-pox infection by the more rapid action of vaccine lymph.

Another disease, which, until within the last few years, was in this country believed to be absolutely non-contagious, is consumption; and yet it, and the whole class of tubercular diseases to which it belongs, have been proved to be eminently infectious. They have been transmitted from man to the lower animals, and from one lower animal to another. For some time back, M. Toussaint has been engaged in investigating the subject. He tells us that a large number of the cattle sent to the slaughterhouse in France suffer from the disease, and that the presence of tubercles in their lungs is not considered to render them unfit for human food; and I believe that the position of Great Britain, in both these respects, will be found precisely similar to that of France. He found that, by feeding pigs with the lungs of such animals, he produced tubercular disease in them. He found, further, that the juices of the muscles were permeated with the infection, and that they, too, were effective for the propagation of the disease. Further, within the last few weeks, M. Toussaint has announced to the French Academy of Sciences that he had succeeded in isolating and cultivating the microscopic organism which gives rise to tuberculosis; and, after a series of cultivations in animal soups, had reproduced tuberculosis with it on other animals. The important fact in connection with the organism is, that it can stand a high degree of heat without perishing, M. Toussaint having succeeded in inoculating the malady from juice expressed from the steak of a tubercular ox, cooked so as to be but slightly underdone. If this be true, it affords us a certainty of at least being able to limit the ravages of human tubercular disease, by directing our attention to what must be a most fruitful source of infection, namely, the sale of diseased meat.

Ague, again, has long been known to be associated with exposure to exhalations from marshy ground. Of late years, it has been known that a microscopic organism—also a bacillus—was to be found in the blood of persons afflicted with the disease. Within the last couple of years, Dr. Klebs, a German who has done much work in this field, and Dr. Tomassi Crudelli, an Italian *savant* associated with him in the investigation, discovered that, by treating with water the soil of a fever-haunted marsh of the Campagna, the germs of an organism which flourished in the soil could be washed out; that germs of this organism floated—though in much smaller numbers—in the air which rested on the marsh; that, by shaking it up with water, they too might be washed out; and that, by repeating the operation again and again, an appreciable number of them might be collected from the air. Water, suspending the organisms thus obtained, introduced into the circulation of a dog, produced ague more or less rapidly and more or less violent, according to the numbers in which the bacilli were present. This not only explains the nature of the danger encountered by persons exposed to emanations from marshy ground, but it shows why intermittent fevers so frequently manifest a new activity after operations involving a disturbance of the soil; and it further renders apparent why it is that quinine, which is known to kill such organisms, is so invaluable a remedy and preventive against the effects of exposure to swampy malaria.

But *cui bono?* you may ask; of what advantage is all this knowledge when, without possessing it, quinine has for years been known to be the appropriate remedy? In many forms of malarial fever the poison is too virulent, and the course of the disease too rapid, for routine medicine to be of any avail. But, guided by exact knowledge, you can go straight at the source of the mischief. With this object Dr. Déclat, to whom I have before referred, suggested the vigorous use of phenic acid, by injection into the veins and otherwise, as a means likely to prove effective against the organisms of yellow fever and kindred acute forms of malarial poisoning. The suggestion went out to Brazil, and in June last M. de Lacaille, a French physician resident in Rio, wrote home his experience of it. The first case on which he tried it was a young lady apparently on the point of death from the worst form of the disease, a fever attended with the fatal black vomit. In three days she was out of danger. "During the thirty years in which I have been employed in fighting yellow fever," writes M. de Lacaille, "this is the first patient whom I am certain of having snatched from death at such a period of the disease." In a dozen other cases the treatment was crowned with equal success; but in most of them, adds M. de Lacaille, "the cure was so rapid that, notwithstanding my long experience, I have asked myself if they could really have been yellow fever. Called in at the period of incubation, the triumph is easy."

Did time permit, I might quote other instances in which within the last few months the specific organisms which constitute the potential causes of diseases of mankind and the lower animals have been successfully isolated and cultivated in artificial media. I might tell you of the researches of M. Pasteur with regard to boils and puerperal fever. I might describe the important discoveries of M. Talamon with respect to diphtheria—how he has succeeded in isolating and cultivating the organism which occasions it—how he has shown that it can be conveyed from mankind to various domestic animals, and from domestic animals back to man; and how these facts explain many features in the history of diphtheric contagion hitherto inexplicable, and present to preventive medicine a new indication for the limitation of this terrible disease. I will conclude by briefly referring to two only of the numerous practical points which the history of the brilliant series of discoveries I have very inadequately sketched seems to me to suggest.

In the first place, it teaches in every line the necessity, from the standpoint of public health, of regarding every person suffering from an epidemic or contagious malady as a hotbed swarming with living organisms which cause and spread the disease. So long as these are confined within the body of the individual, the public—selfishly speaking—need not trouble itself; but when the organism commences to be eliminated from the body, when its spores in millions and hundreds of millions are sent forth by the skin or the intestines, then the danger to the community begins. We have seen how tenacious of life these disease-germs are, and we know that in many cases—as, for example, in small-pox and scarlatina—the stage of the disease at which the process of elimination is most active occurs when the patient is already convalescent. According to our present system, it is nobody's business to look after him at this period, and he is sent forth into the community to scatter disease-germs by the thousand wherever he goes. We spend enormous sums of money in endeavouring to cope with disease when it has broken out. It seems to me we might spend a little much more profitably in securing the destruction of its seeds. It should be the duty of the public sanitary authorities to provide convalescent homes for patients recovering from serious infectious diseases, where they might be taken care of until all danger of the propagation of infection by them had ceased. Were this duty attended to, the recent discoveries as to the nature and causation of disease, to my mind, leave not the smallest doubt that we might be spared many epidemics, and that one disease especially—I refer to scarlatina—might be made to show a very different death-tale in our tables of mortality.

In the second place, the whole history of the chain of discoveries which have furnished the topic of this address seems to me to teach the enormous importance of the study of comparative medicine and pathology—of medicine and pathology, not in their connection with human diseases alone, but as branches of a science affecting the whole animal and vegetable world. It was, as we have seen, Pasteur's researches on the pathology of ferments which led to Lister's application of his great principle to human surgery, and to the discovery of methods which promise to stamp out some of the most fatal diseases of flocks and herds; it was to Jenner's observation of an eruption of the cow that we are indebted for the discovery of vaccination; and it is their investigations into the diseases of domestic animals that has enabled the veterinary surgeons of France, within the last few months, to make such preponderating contributions towards the solution of questions vitally affecting, not merely those animals, but mankind. The University within whose walls we are now assembled has, by the institution of a new degree, acknowledged the importance of the study of State Medicine. If she would add to the many services she has already rendered to the cause of science, I would suggest that she could adopt no step of greater practical utility than the institution of a chair of Comparative Medicine and Pathology—a chair the duty of whose incumbent it should be to investigate and expound the most recent knowledge and discoveries as to the diseased condition of every living thing, and their bearings or probable bearings upon the diseases of mankind.

However this suggestion may be received, one thing is clear: unless greater prominence is given to such studies, this country can hardly hope to hold her own against her neighbours in the cultivation of medical science. And no greater misfortune could befall the nation. For it is all very well for us here to discuss the administrative phases of public sanitation. Administration, when intelligent and active administration can be secured, is capable of much. There is much which enlightened legislation may still effect. But we must beware, while crying out for fresh enactments and extended powers, not to overlook the fact that throughout the kingdom those powers which the law already provides for the preservation of public health are but half enforced. After all, the law in such matters can only follow in the wake of science, and for its effective operation must everywhere depend on the diffusion of correct and exact ideas as to the cause of diseases and the modes of preserving health. Every year's experience, therefore, convinces me more and more that it is to the spread of scientific knowledge, rather than to Parliament, that we must look for the full development of preventive medicine; that to the physician, rather than the statesman, we must appeal "to stand between the living and the dead, and stay the plague".

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF PHYSIOLOGY.

This section was worked on a somewhat different plan from the others, the business consisting almost entirely of a series of uniform discussions on important physiological questions, without the desultory interpolation of short monographs. This arrangement was a very wise provision on the part of the council of the section, the vastness of the subject imperatively demanding conciseness and absence of a diffusiveness which would have been involved in the introduction of too great a number of minor questions.

The sectional meetings were opened by an address by Dr. MICHAEL FOSTER, the President, the subject of his discourse being the History of Physiology in England. From this address we may extract a few of the more striking observations. In welcoming the guests he said: "In seeking some words with which to welcome from this chair my brother physiologists to their part in this gathering of the medicine men of all nations, I have felt that those words, to be acceptable, should be few. My choice was, therefore, bent towards some topic which by its very nature would make my discourse a short one. I propose, therefore, to open our proceedings by a story of the share which the country where we have this year assembled has taken in the past in building up our science of physiology. Such a step might seem to savour of national egotism were the end which I had in view that of magnifying the labours of British physiologists, but our meeting here to-day is in itself a proof that the true worker, wherever he happen to draw his breath, belongs to all lands; and in attempting to recall to your minds to-day the services of those who laboured in the past in Great Britain, I trust I shall appear in the eyes of our foreign guests merely as a cicerone striving to render a visit more interesting by weaving connections between the present and the past". Mr. Foster then referred to the works of William Harvey, and to the part taken by the Universities of Oxford and Cambridge during the middle and latter periods of the 17th century. The works of Francis Glisson, Wharton, Willis, and Lower, and the bearing which they had on the development of physiology in England were then referred to. He next referred to one distinctive peculiarity in the history of the development of physiology in England, namely the fact that much of the work which has been done has come from the hands not of the profession but of free lances in science.

"The next two names which I have to mention illustrate a feature peculiar almost to England. In the rest of the learned world progress in science is for the most part distinctly professional; discoveries are made by members of the professoriate. In England it is a matter of notoriety that some of the most important steps have been due not to accredited professors but to free lances in science; to men of business, lawyers, clergymen, and men of fortune. I have spoken of Glisson, the professor at Cambridge, and of Willis, the professor at Oxford, but after them the university professoriate, as far as physiology is concerned, became dumb. If you read the roll of the regius and other professors in the old universities you will find merely a long list of men, respectable it may be in their way, but whose names are unknown to physiological science. This feature, which appears so strange to men of other lands, is partly due to the anomaly that the great metropolitan heart of England, London, never had a university, and, indeed, till quite recently, was without even the beginning of one. Hence arose a diverse between metropolitan activity and the old established seats of learning. From its very institution the Royal Society—the Invisible College, as Boyle called it—had performed the higher functions of a university, and the very essence of the life of that body always had been that it gathers into its fold all manner of folk, demanding only that they shall have the desire and the power to advance knowledge.

"At all events, whatever be the cause, the next contributions brought by England to physiological science came through hands not professional, not even medical.

"Concerning one of these, Robert Boyle, the sagacious natural philosopher (who though for a while he took up his residence at Oxford, was not bred at that university, who was for so long one of the pillars of Royal Society), who busied himself with anatomy only in so far as he busied himself with all parts of natural knowledge, who touched nothing which he did not throw light on; to whom even more than to any of his fellows must be given the credit of having established, by experiment itself, the pre-eminence of what we know as the Experimental Method—whose name is praised even if his works be not read by all men—I need say little here. It will be enough if I remind you that his simple experiments showing that air, and fresh air, was necessary for the respiration and life of aquatic as well as of terrestrial animals, that the respiratory value of air varied according as it was rarefied by the vacuum Boyleanum or condensed by pressure, and that air already breathed became unfit for further respiratory use, mark the point at which the older view, that the chief use of the respiratory movements was to favour the circulation of the blood, began to be recognised as clearly untenable.

Speaking of Hales, the learned President said: "As you pass up the Thames from London towards Oxford, you come, a little beyond Richmond, to the first obstruction to navigation, in the shape of Teddington locks. In the early part of the eighteenth century, the minister of the adjoining hamlet of Teddington was the Rev. Stephen Hales, also rector of Farringdon in Hampshire, a man of varied accomplishment, of great practical ingenuity, and a master in the art of experimental investigation. Early fascinated with the mysteries, which fascinate so many of us even to-day, of muscular contraction, dissatisfied with current interpretations, as well as with the calculations of Borelli and the succeeding school of iatro-mathematicians, he turned his attention seriously to physiological experiments. In his statical essays, which received the Imprimatur of the Royal Society, the first volume in 1726-7, the second in 1732-3, after relating researches into vegetable statics, the movement of sap, etc., which, though of prime importance in vegetable physiology, need not detain us here, he proceeds to relate his experiments on the pressure of blood in the arteries and veins of horses, sheep, and dogs. Save that his methods were somewhat rough, that he measured his pressure, not by a mercury manometer, though strangely enough he employed this in determining the force of inspiration and expiration, but by the height of the column of blood itself, that, with characteristic ingenuity, he used, as flexible tube connecting the cannula with his manometer, the actual trachea of a goose, instead of that (artificial) rigid and yet flexible trachea which we now-a-days construct out of caoutchouc and rings of glass, his research, as far as the experiments are concerned, is a piece of quite modern work, the prototype and original of those valuable memoirs on vascular dynamics which have appeared from time to time from the laboratory at Leipzig. I do not think I am exaggerating matters when I affirm that, next to Harvey's discovery, a correct appreciation of blood-pressure is the keystone to the physiology of the vascular system, and indirectly of the rest of physiology and of pathology as well. Pull out from the web of our system of physiology the strand marked blood-pressure, you pull out also all that is suggested by the phrase vaso-motor, and leave the rest of the fabric a confused and tangled heap. If so, then how much is due to Stephen Hales, for he surely first opened the way in this weighty matter. In strong contrast with the labours of Keil, Jurin, and others of the iatro-mathematic class is his work. They, like some other mathematicians, fascinated with the very operations of their calculus, were content with such data as were at hand, and often, indeed, careless about them. In consequence, their labours were sterile. To Stephen Hales, the living organism was not simply a pretty field for mathematical exercises, but a crowd of problems to be solved first by diligent observation, and then, and then only, by calculation. He was an experimental philosopher in the truest sense of the word. As you read his works, you feel that the experiments were not made as experiments sometimes are, for the sake of the experiment, but simply that he might push further into the secrets of Nature. His reflections and deductions are as weighty as his operations were ingenious. There is one passage in particular, where he is descanting on the great variation of blood-pressure, not only in different kinds of animals, but in the same kind, and in the same individual at divers times, and under differing circumstances, in which he says (p. 31, 3rd ed.): 'Even in the same animal, the force of the blood is continually varying, according to many circumstances; for the healthy state of animals is not confined to the scanty limits of one determinate degree of vital vigour in the blood; but the all-wise Framer of these admirable machines has so ordered it as that their healthy state shall not be disturbed by every little variation of this force, but has made it consistent with a very considerable latitude in the variation of it.' Does not this sentence clearly show that Hales had completely freed himself from the animistic doctrines to which so many of his predecessors, and indeed contemporaries, were attached, and how far, on the other hand, he had pushed [illegible] and how fully he had entered into those conceptions of the animal [illegible]

therefore not brought up to a familiarity with the dissecting-knife and the operation-room, he was naturally averse to anatomical procedures; as a man of kindly humane nature—indeed, as one of England's earliest and best philanthropists—he felt a repugnance, as, indeed, who does not, to dabbling in the blood of living animals. 'The disagreeableness of the work', he says, 'did long discourage me from engaging in it; but I was, on the other hand, spurred on by the hopes that we might thereby get some further insight into the animal economy.' And further insight he did get, as, indeed, every one must get who works in Hales's spirit. No doubt ever crossed his mind as to the beneficial character of his labours; and I take it that could we question him as to how he thought he had best served mankind, he would answer that it was not so much by his having been the chief means of introducing ventilation in our then wretched English gaols, though he invented a ventilator for the purpose—great as has been the suffering thus saved—not so much by any of his many other similar practical inventions, as by the indirect results of his hydraulic and other theoretic researches."

Passing over the observations of the speaker regarding John Hunter and his works, we may quote one or two of his observations concerning Charles Bell, as here we touch upon a subject which is much discussed at the present day; viz., the relation of Bell's works to the question of vivisection. "We justly honour him as the author of the distinction between motor and sensory fibres; but that was only a part of the whole system of his new idea. That was the part which he submitted to the touchstone of experiment; that is the part which has remained, and which continues to this day more and more abounding at once in scientific fruits and in practical benefits to mankind. The rest of his views (his nervous circles, his paths within the cerebral-spinal axis, his respiratory nervous system)—and, if rumour be true, it was on these that he most prided himself—he refused to submit to experiment. And what has become of them? Are they not forgotten, or remembered only as stumbling-blocks and rocks of offence? Nay, more; he maintained that the anterior and posterior columns, as the continuations of the anterior and posterior roots, were engaged exclusively in conveying motor and sensory impulses respectively; and, though at first his anatomical data led him to look at the cerebellum as the origin of the latter, he subsequently satisfied himself that he could trace both right up to the cerebrum. It is not, I venture to think, too much to say that the chief effect of this view has been to serve as a stumbling-block and hindrance to further inquiry. He further insisted that in the midst of the general sensori-motor nervous system there was intercalated a special nervous mechanism of independent distribution and function, a nervous mechanism of respiration. The reader of Charles Bell's papers (where he is treating of the independence of the respiratory function) cannot but feel that, with his genius, had he not forsaken the path of experiment, he must almost inevitably, in struggling to understand the respiratory nerves, have come upon that doctrine of reflex action, which was destined at once to complement, and at the same time to swallow up, the doctrine of motor and sensory fibres. That Charles Bell accomplished as much as he did shows how valuable are the lessons which may be learnt as simple but careful deductions from anatomical data; that he failed to accomplish more warns us no less clearly that the teachings of anatomical deductions needed to be verified or guarded by experimental research."

A brief reference to the works of William Sharpey and William Bowman closed the speaker's review of the history of the development of physiology in England. We quote his concluding remarks in full.

"At the present day, careers are opening up; and a fair amount of useful work is, I trust, being done, or rather, perhaps, would be done, had not, in this country, physiology fallen upon evil days of a kind unknown in the eighteenth or any other century. A zeal not according to knowledge has, whatever commendable impulses may have nurtured it, given rise to legislative action which has gone far to cripple physiological research in this country. Our science has been made the subject of what the highest legal authority stated in the House of Lords to be a penal Act. We are liable at any moment in our inquiries to be arrested by legal prohibitions; we are hampered by licences and certificates. When we enter upon any research, we do not know how far we may go before we have to crave permission to proceed, laying bare our immature ideas before those who are, in our humble opinion, unfit to judge them; and we often find our suit refused. We sigh in our bondage, like the Israelites of old; we are asked to make bricks when they have taken away from us our straw. One good fruit of the present Congress may be this, that our foreign brethren, seeing our straits, will go home determined in their respective countries to resist to the utmost all attempts to put the physiological inquirer in chains; for we surely are all agreed that experiment is the chief weapon with which we can fight against the powers of darkness of the mysteries of life. This is written in letters which he who runs may read, over all the brief story which I have ventured to tell to-day. What was true in the days of Willis is true now, and I may fitly close with the very same words with which he ends the preface to the *Cerebri Anatomia:* 'Nam aut hac via scilicet per vulnera et mortes per Anatomiam et quasi Cæsareo partu, in lucem prodibit veritas aut semper latebit.' For either in this way, namely, through death and wounds, through dissection, and, as it were, by a Cæsarean operation, will truth be brought to light, or otherwise will lie for ever hid."

Discussion on the Localisation of the Functions in the Cerebral Cortex.

Professor Goltz opened the discussion by giving a short account of the history of physiological experiment on the functions of the cerebral cortex, referring to the works of Fritsch, of Hitzig, of Ferrier, of Munk, and of various others who have occupied themselves with the investigation of this question. Coming to the subject of localisation, in the cortex, of functions, Professor Goltz said that the assertion that there were certain centres, so-called psycho-motor centres, and centres for the special senses differentiated in different parts of the cortex of the dog's brain was simply false. The principal effect which Professor Goltz had found to follow the removal of smaller or larger portions of the cortex of the brain in dogs was the distinct and evident diminution of the intellectual powers of the animal, accompanied by a more or less marked change in the acutenesss of the special senses, but unaccompanied by any paralysis or paresis. He laid weight upon the fact that in the majority of observations which has been published upon this subject, only a portion of the cortex of the brain has been removed, and the operation had been found to be followed by more or less marked paralysis, the observations have not been continued for a sufficiently long period of time. Professor Goltz admitted that during the first few weeks after so serious an operation, paresis, or weakness of muscular power, may, and, indeed, not rarely does show itself, but laid weight upon the fact that this muscular weakness is not due to the removal of motor or psycho-motor centres, because it completely disappears if the animal is kept alive for a longer period of time. It is impossible for us in the space at our disposal to give a complete *resumé* of the interesting remarks of the learned professor, but on the appearance of the full report of the proceedings of the physiological section, we propose to print a number of extracts from it.—Professor Ferrier then addressed the meeting on the same subject. It is unnecessary for us to give a full account of the observations which were made by the professor, as his views on the subject, we believe, are well known to the profession, and even to the general public in England. Professor Ferrier, while admitting the truth of the facts brought forward by Professor Goltz, disputed the conclusions which the Strasbourg professor had drawn from them. In the case of the monkey, removal of portions of the cortex in the region of the psycho motor centres invariably, according to his experience in the case of monkeys, produced a paralysis of the limbs of the opposite side of the body, and this paralysis he found to be accompanied by a descending degeneration which could be followed from the positions of the removed portion through the spinal cord as far as the nerves supplying the paralysed muscles. This he demonstrated in a beautiful series of microscopic sections of the brain and spinal cord. He pointed out that in Professor Goltz's experiments the removal of the cortex of the upper part of the brain was not complete, inasmuch as certain convolutions near the median sinus, as well as in front and behind, together with the whole of the temporal lobe, remained intact. He moreover expressed some doubt whether in Professor Goltz's experiments the whole of the grey matter even in the region operated upon had been removed.

After the sectional meeting at which this discussion was held, members of the section adjourned to University College in order to attend a demonstration by Professor Goltz and Ferrier. Professor Goltz had brought with him from Strasbourg a dog which had lost nearly the whole of the cerebral cortex of the upper part of the brain on both sides. This animal, as Professor Goltz pointed out, had lost the whole of the psycho-motor region on both sides of the brain, but did not present the least trace of paralysis of either fore or hind limbs; the only change which was discovered in the movements of the animal was some uncertainty in its gait; but this the speaker pointed out was not due to weakness of the muscles. By means of various very ingenious methods it was clearly shown to the Section that while the special senses had not been entirely annihilated, that they were much less complete and perfect than under normal conditions. With regard to vision it was shown that while the animal was able to avoid running against conspicuous objects, it did not take notice of others which were in less striking contrast with the surrounding walls or furniture. Such an animal, the speaker remarked, resembled, in many particulars, frogs,

whose cerebral hemispheres had been removed, and which, while apparently blind, would avoid a book or other conspicuous object which is placed between them and the window. One of the chief characteristics of the vision of dogs which have lost a large part of their cerebral cortex consists in the fact that while they are able to see imperfectly, they are not able to understand the meaning of what is seen. Such an animal, for example, on being threatened with the hand, or with the whip held before it, does not express any fear. In the same way with the sense of hearing, while the crack of a whip was evidently heard by the animal, causing as it did a sudden movement of the head or body, it was clear that this sound was not associated in the animal's mind with fear. In this particular instance, the dog continued to wag his tail in the most friendly manner while a whip was being cracked close to his head. The sense of smell was also impaired, animals of this kind readily eating the flesh of animals of their own species; while, as Professor Goltz remarked, under normal conditions, it is rarely possible to force a dog to eat dog's flesh. The sense of taste was, in all probability, impaired in a similar manner; but it is much more difficult to demonstrate the existence of such changes before a large audience. In the same way, while tactile sensation was shown to be impaired, it was evident, from experiments made, that it was by no means completely annihilated. In order to demonstrate the greatly diminished intelligence in the case of this animal, he was placed within a square framework, rising only about a foot from the ground; but, although evidently wishing to escape from this more or less constrained position, the animal was not able to discover the means of overcoming the obstacle which apparently prevented his release. The demonstration of the learned professor excited the most lively interest and admiration of a large and distinguished audience. After seeing the dog, the members were shown two of the monkeys, a portion of whose cortex had been removed by Professor Ferrier. Concerning the first of these, Professor Ferrier said it had been his desire to remove as completely as possible the whole of the psycho-motor region. Whether in this he had succeeded perfectly, could not be learnt for certainty until after a *post mortem* examination had been made. From the effect of the operation, however, he was not inclined to believe that the motor region of the one side had been completely extirpated. The animal was evidently almost completly paralysed in the fore leg of the side opposite to the brain lesion, and there was also evident paresis of the corresponding hind limb. The fore leg was somewhat contracted, its condition resembling that of the limbs of hemiplegic patients—patients in whom more or less marked contraction has resulted. Another monkey shown by Professor Ferrier presented very evident deafness, the snapping of a pistol close to its head not attracting the least attention on its part. In this case, there was no evidence of the least paralysis, the lesion not affecting the motor sphere, but being situated at or close to the centre of hearing. These two demonstrations, so strikingly opposed to one another in the results obtained, created so much interest in the minds of those present, that it has since been decided that the condition of the brain, in the case both of the dog and of one of the monkeys, should be investigated by a special committee of the Physiological Section. The animals were killed by chloroform on Monday last, and the brains were laid before the members of the Section. It could be seen that, as Professor Goltz had stated, nearly the whole of the upper part of the cerebral cortex had been removed in the case of the dog. It is of especial interest that the whole brain was found to weigh very much less than was to be expected, even from the amount of matter which had been removed. In the fresh condition, the whole brain weighed only forty-three grammes; while the brain of an animal of a corresponding size ought normally to weigh somewhere near ninety grammes. As Professor Goltz remarked, this diminution in weight was evidently due in part to a secondary atrophy of the brain. The brain of the monkey, as seen in *post mortem*, completely verified the expectations which Professor Ferrier had expressed. It showed that he had not been completely successful in removing the whole of his "so-called" psycho-motor sphere. After being shown at the Section, the brains were taken charge of by a committee of four well-known histologists, who have undertaken to give a report regarding the exact amount of grey matter which has been removed in both cases.

Demonstration of Physiological Instruments and Methods of Research.

At the meeting of the Section for the purpose, Dr. Bowie showed a new cannula for the operation of gastric fistula. He was followed by Dr. Richard Ewald of Strasbourg, who showed his method of investigating the changes in the peripheral resistance of arteries. His method consists in causing a given quantity of blood to pass through any artery during a given time. The instrument employed is composed of a wheel, or rather of a number of spokes of a wheel, revolving round an axis, at the end of each of the spokes there being a small roller, which is intended to press the blood along the artery at a given rate. The artery rests upon a metal plate, the surface of which has the same curve as the circle described by the spokes of the wheel; and the ends of the spokes are at such a distance from one another that, while one of the rollers is leaving the peripheral portion of the artery which rests upon the plate, another of the rollers commences to compress the artery at the approximal end of the plate. By moving the wheel of this "arterial mill" at a constant velocity, exactly the same quantity of blood enters into the arterial territory supplied with the artery which rests upon the plate; and, if into a branch of this artery, on the peripheral aspect of the mill, a monometer be fastened, any rise or fall of the mercury in the "U"-tube must necessarily result whenever the arterials of the territory expand or contract. In this way, it is possible to investigate changes in the resistance of circumscribed vascular territories, any error due to a change in the aortic blood-pressure being excluded. With this instrument also, by increasing the rapidity with which the spoke-wheel revolves, it is possible to raise or lower to any desired height the blood-pressure within the vessels of a circumscribed territory, and thus to be able to discover the effect of glands or other tissues on the rise or fall of the blood-pressure uncomplicated by changes in the innervation of the part.

Discussion on the Mechanism by which the Heart is Regulated and Maintained.

Professor Francis Franck opened this discussion. The speaker commenced by giving a history of the discoveries which had been made in recent times on the subject of the innervation of the heart, and on the part taken by the inhibiting and accelerating nerves which reach it from the central nervous system. It is impossible for us to give here a satisfactory account of the observations which were laid before the Section by Professor Francis Franck, and the space at our disposal only permits us to refer briefly to the observations made by some of the speakers who followed him on the same subject.—Dr. Gaskell then described his method of investigating the action of the frog's heart. This method consists, briefly, in clamping the heart either at the auriculo-ventricular groove, or at a point higher or lower, and in recording, by means of light levers attached to the auricle and ventricle respectively by means of threads, the movements of the upper and lower parts of the heart. The organ which, it should be added, is removed from the animal, one or both of the vagus nerves being left intact, is held by means of the clamp referred to, and the degree of compression at the part held by the clamp can be regulated at will by means of a screw. Some of the results of Dr. Gaskell's observations may be briefly referred to. It was evident, the speaker said, that the system of the whole heart when removed from the body, and probably while still within the thorax, was dependent on separate impulses passing from the motor ganglia in the sinuses to the auricles and ventricles, and not, as has been held by some to be due to rhythmic summation of an enormous number of minute excitations. This fact was proved by the effect of tightly clamping the heart at the auriculo-ventricular groove, which produces, in most instances, a slackening of the ventricular rhythm, that of the auricles being intact; but the rhythm of the ventricles still retains a definite relation to that of the auricles, one beat of the former occurring synchronously with every alternate beat of the auricles, or in certain cases with every third or fourth beat—a definite relation, however, being invariably present. Moreover, any influence acting upon the auricles and sinuses alone, which can alter the rhythm, such as heat, cold, atropin, muscrin, etc., makes the rate of both auricles and ventricles synchronously quicker or slower, while the same influences affecting the ventricle alone produce no alteration in the rate of rhythm of either auricle or ventricle. We may conclude, then, the speaker remarked, that the cardiac muscle in the normal heart contracts to each impulse which reaches it from the sinus or auricles so long as the muscular tissue is in a condition in which it is ready to contract. Further, although it is impossible to make the ventricle beat quicker than the auricle by such a method as heating the ventricle alone, yet it is easy to make it beat slower—slower that is to say in such a way that it contracts once to every second or third contraction of the auricle. This can be attained by two different methods: first, by diminishing the excitability of the muscle by the action upon it of muscrin, lactic acid, etc., so that it is no longer capable of responding to all the impulses which reach it, but recovering itself more slowly, so to speak, from the effect of each contraction, it only responds to every alternate or to every third impulse which reaches it from the rhythmic centre; and, secondly, by diminishing the strength of the impulses to the muscle, as can be done by clamping the heart at the auriculo-ventricular groove by the method which was employed by the speaker. Of exceeding interest were the observations which Dr.

Gaskell has made on the effect of vagus stimulation upon the auricular and ventricular contractions. The method employed permitted of both the auricle and ventricle being investigated independently of one another, and also allowed of the action of the vagus being studied in both. The most striking fact observed in the course of the observations referred to, consists in the fact, that the force of the contraction both of the auricle and of the ventricle may, and indeed usually is, varied greatly by vagus stimulation, and that independently of any change in the rate of heart-rhythm. This was beautifully shown by a series of curves from the heart of the toad and frog, which Dr. Gaskell laid before the members of the Section. It could be seen from these curves that a very common effect of vagus stimulation was to cause a primary reduction in the strength of both auricular and ventricular contractions, this reduction of strength sometimes reaching a complete arrest of the movements of the heart, but in other cases being much less marked, while as a secondary result, taking place either during the time of the stimulation or following immediately afterwards, there was to be seen an enormous increase in the force of the contractions, both of the auricle and of the ventricle. This increase in force usually continues for several minutes, or even half or three-quarters of an hour, after the stimulation of the nerves, the contractions gradually diminishing in force, and the same result of primary diminution in strength, followed by a secondary increase in the force of the contractions, being readily brought about again by again stimulating the vagus. These changes in the force of the ventricular and auricular contractions may be accompanied either by a slight increase or by a slight diminution in the rate of rhythm of the heart as a whole. The only explanation which apparently can be given of this hitherto unknown result of vagus-stimulation appears to be that the vagus nerve contains fibres which regulate, or influence in some way, the nutrition of the cardiac muscle, independently of the other well-known action of the vagus—namely, its influence on the rapidity of the heart's beat. Either of the observations of Dr. Gaskell appears of the utmost importance, not only for the physiology, but also for the pathology of the heart, and will be referred to by us on the complete report of the experiment being published.—Professor H. KRONECKER (of Berlin) remarked that, according to his more recent observations, he could not accept the proposition which had been made, that the power of contraction of the heart, or indeed of any muscle, could be varied unless a sufficient amount of nutritive material was supplied to it. A muscle could not feed on its own proper substance; and, from recent experiments, it would appear that only one form of albumen—namely, serum albumen—(not peptone, not myosin) was fitted to give the nourishment required for the contraction of the heart. According to Professor Kronecker, the so-called trophic nerve theory of the vagus was due to the fact that this nerve caused nutritive material contained in the meshes of the cardiac muscle, and which previously could not be used for the nutrition of the muscular fibres, to be changed in position and place, and brought into contact with muscular fibres requiring further nutriment.—The debate was continued by Dr. CARPENTER.

A debate, on Animal Heat, was opened by Professor WOOD (Philadelphia). He brought forward the results of certain experiments made to ascertain the value of the influence of the great nerve-centres on animal temperature. In fever, he believed that both the production of heat and its regulation for use in the animal economy were thrown out of order.—Dr. BURDON SANDERSON referred to the improvements recently made for correcting errors which arise from want of certain precautions in making observations with the calorimeter.—Professor KRONECKER described his experiments, which demonstrated the large share which the secreting organs of the walls of the alimentary canal held in the production of animal heat.

The discussion on the Microscopical Appearances of Striped Muscle during Rest and Contraction was opened by Professor RUTHERFORD. His own remarks related rather to descriptive histology than physiology. In the voluntary muscles of the crab, he found that the so-called Krause's membrane was due to a row of globular bodies, as described by Busk and Huxley.—Dr. HAYCRAFT (Birmingham) believed that muscular fibrils were homogeneous, and produced by alternate concave and convex areæ. This Professor Rutherford could not agree to, and maintained that there was great difference of structure in different parts of each fibril.

In a discussion on the Intimate Structure of Cells, which, like the last, was essentially histological, Dr. KLEIN gave an account of his well-known researches on the nature of nuclei, etc.—Dr. DONDERS made a communication on Colour-Sensations. He discussed the duration, relative intensity, and anomalies in regard to perception of different colours; explained the characters of congenital and acquired Daltonism; and indicated means of remedy or cure for that remarkable infirmity.—This communication was followed by demonstrations, including one by Professor DASTRE on the Physico-Chemical Character of the Lecithin group.

Professor MORAT opened a discussion on the Vaso-Dilator Nerves. Some of the vaso-dilator fibrils of the head and neck join sympathetic trunks after leaving the spinal cord. On stimulation of the distal end of the combined vagus and sympathetic nerves in a dog's neck, unilateral dilatation of the mucous membrane of the lips, hard palate, and nasal fossæ follows; the side opposite to that of the irritated nerve being thus affected. On separate division of the vagus, and, in other subjects, of the sympathetic, above their point of communication, it was discovered that this effect was due to a stimulation of fibres contained in the sympathetic; and that these fibres were contained in the rami communicantes of the second and third distal nerves, into which they passed through the intermediation of the anterior roots of the corresponding spinal nerves.—Dr. ROY drew attention to his researches on the circulation through the kidney and spleen, made with the aid of apparatus which is essentially constructed on the principle of the plethysmograph. In the case of these two organs, Dr. Roy had failed to find any evidence of the existence of vaso-dilator nerves. Dr. Roy found that the spleen was the seat of rhythmical contractions and dilatations, and that effects were produced upon the renal circulation by drugs introduced into the blood, even after division of all the nerves going to the organs.

Dr. PAVY made demonstrations on New Researches in Relation to the Glycogenic Theory. Whilst still agreeing with many of the opinions of the late Claude Bernard on the subject, Dr. Pavy felt compelled to deny that the formation of glycogen was so localised as the great French physiologist believed. He considered that the spleen, thyroid gland, the thymus, and the lymphatic glands all played some part in producing glycogen.

SUBSECTION OF DISEASES OF THE THROAT.

THIS Subsection was opened with an address by the Chairman, Dr. G. JOHNSON, F.R.S., which was published at page 212 of the JOURNAL for August 6th.

The Invention of the Laryngoscope. By Signor MANUEL GARCIA.—Signor Garcia described the difficulty he had felt, in his earlier experiences in teaching singing, in consequence of the purely theoretical character of the knowledge then extant of the human voice. Although he devoted himself to the study of the subject, he could find no author who had derived his knowledge of the voice from a study of the living human larynx, which he believed the only mode of arriving at correct conclusions. He described how, in 1854, the idea suddenly flashed upon him of the two mirrors placed in position for the observation of his own larynx; how he went to the instrument-makers, procured a long-handled dentist's mirror, and, going home, placed it in his throat, and, reflecting light on to it from a small hand-mirror, saw in that his own larynx clearly reflected. Signor Garcia described the points which he was thus enabled to observe, dwelling specially on the anatomy and mode of action of the thyro-arytenoid muscle, and referring to his former papers read before the Royal Society.

Case of Web in the Larynx. By G. V. POORE, M.D.—Dr. Poore read a paper on a case of web, occupying the anterior third of the rima glottidis of a young girl. He regarded the web as congenital, possibly the result of intra-uterine disease. He thought it possible that more careful examination might disclose the existence of such webs in cases of atelectasis pulmonum, etc.—Dr. S. COHEN (Philadelphia) stated that such cases were not unfamiliar to him, and he narrated a case in which he had traced the formation of the web from the agglutination of eroded papillary growths; these had given rise to dyspnœa requiring tracheotomy; and some years after the operation, on again examining the case, the web was seen. He doubted the existence of such a condition as a malformation.—Dr. BOECKER (Berlin) had met with similar cases, and narrated one which he had cured by operation.—Dr. SCHNITZLER (Vienna) did not consider such cases rare; he thought they were sometimes natural malformations, at other times the result of disease. To prevent their formation by agglutination, he recommended the introduction of bougies into the larynx.

The Spray-producer. By M. F. RUMBOLD, M.D. (St. Louis).—Dr. Rumbold read a paper on the spray-producer, and the best means of making applications to the superior portion of the Respiratory Tracts. He commented on the necessity of removing morbid secretions without irritating the parts; and claimed for a properly constructed spray-producer the quality of being thorough in its action, and penetrating to the most concealed part of the diseased surface, thus differing from mere inhalation, and being perfectly safe and mild in its action, and thus differing from the probang and brush.

The Local Treatment of Diphtheria.—A discussion on this subject was opened by Dr. MORELL MACKENZIE. He strongly deprecated the use of caustics and forcible removal of the membrane, advocated the use of varnishes to exclude air, the best being tolu dissolved in ether, and recommended, according to the case, ice, warmth, and the swabbing with lactic acid solution and disinfectants.—Mr. LENNOX BROWNE read a paper, laying stress on the necessity for removing the tonsils, if much enlarged, even during an attack of diphtheria, expressing his disbelief in the utility of so-called solvents and varnishes, and recommending boracic acid as the best disinfectant.—Dr. MEYER (Copenhagen) brought forward the views of Dr. Fried Nix, a Danish practitioner, who had, with a very small mortality, employed the energetic and forcible removal of false membrane and application of caustic, a method which Mackenzie pointed out had been tried here and had signally failed.—Drs. BUROW (Königsberg), BÖCKER (Berlin), SOLIS COHEN, E. FRÄNKEL (Hamburg), ROTHE (Altenburg), PROSSER JAMES (London), and JOHNSON (Chicago) took part in the discussion.—Dr. SOLIS COHEN (Philadelphia) recommended the inhalation of fumes from slacking lime, and the application, in impending suffocation, of ice-cold cloths to the neck, throat, and ears, to excite the centres of respiration.—Dr. ROTHE (Altenburg) recommended the use of cyanide of mercury, which was condemned by Dr. Prosser James and by Dr. Mackenzie in his reply. The other speakers spoke of the modes of getting rid of the tracheal false membrane after tracheotomy.

Pathology of Laryngeal Phthisis.—A discussion on this subject was opened by Professor KRISHABER (Paris). He said that the lesions of laryngeal phthisis depended upon a *local* tuberculosis, even when, after death, the presence of tubercles in the tissues of the larynx could no longer be demonstrated. Cases occurred either in the form of diffuse infiltration or in the form of grey granulations. The occurrence of caseous tubercles *en masse*, on the other hand, was much rarer in the larynx. In the mucous membrane of this organ there were microscopically small cavities, in consequence of the necrobiotic process, the starting-point of which seemed to be connected with the encroachment of embryonic cells on the vessels. Laryngeal phthisis, apart from pulmonary tuberculosis, had been described by several authors; but its existence was doubtful. Pharyngeal tubercles were almost always accompanied by analogous lesions within the larynx. During the patient's life, the tuberculous laryngitis presented such well-marked characters that its diagnosis, with the aid of the laryngoscope, was very easy. Only a momentary confusion with syphilitic laryngitis would be pardonable in the event of auscultation not as yet revealing the concomitant pulmonary lesions; but the specific treatment of syphilis soon removed all doubts. The prognosis of tubercular laryngitis was most serious. The erosions, and even the ulcerations, might cicatrise *locally*, but the lesions reproduced themselves; and, even when the cicatrisation appeared to be definite, the general cause which had produced the larygeal lesions persisted.

Professor M. J. ROSSBACH (Würzburg) read a paper in which he stated that recent investigations, especially Heinze's, indicated that the great majority of laryngeal and tracheal ulcerations found in pulmonary consumption were tuberculous. On the other hand, Schottelius had traced the intra-arytenoid ulcerations, connected with great swelling of the tissues, to very simple physiological and mechanical causes, no deposit of tubercle being present. His view was that tubercle of the upper respiratory passages might also be produced by various causes; atomised inhalation of not only tuberculous sputa, but also of purely bronchitic sputa, and even of entirely different substances, such as calf's brain, cheese, etc., producing tuberculoid nodules in the lungs. The possibility of the secretion from non-specific tubercular ulcers penetrating into the lungs, and there producing phthisical disease, could be as little denied as the possibility of primary non-specific laryngeal ulcerations becoming tubercular in their further development. It was impossible to recognise laryngoscopically the deposition of tubercles in the larynx before or during ulceration. Certain diagnosis of laryngeal consumption was only possible if pulmonary consumption were simultaneously present; otherwise tubercular and syphilitic ulceration could only be distinguished from each other by their different behaviour to iodine. On the other hand, often long before the physical examination of the lungs yielded a decided result, the occurrence of obstinate laryngeal ulceration predicted with certainty an imminent or occult pulmonary disease. Laryngeal phthisis, though obstinate and difficult to treat, was not incurable.

The CHAIRMAN, Professors FRANKEL (Berlin), SCHNITZLER (Vienna), VOLTOLINI (Breslau), CADIER (Paris), GERHARDT (Würzburg), and Dr. E. FRÄNKEL (Breslau), took part in the debate. There was a general agreement that the existence of primary tubercle of the larynx had not yet been proved; and the differences as to the curability or incurability of the disease evidently depended on different views as to what constituted a cure.

Laryngoscopic Signs of Lesion of the Motor Nerves of the Larynx.—Professor GERHARDT (Würzburg) read a paper, of which the conclusions were as follows:—Destruction of the root of the accessory nerve, or of the trunk of the pneumogastric nerve in the neck, produces complete immobility of the vocal cord in cadaveric position. Destruction of the superior laryngeal nerve, or of its external branch, produces slight changes in form and mobility of the vocal cord which are not quite uniformly described. They refer to the act of phonation, and especially to the form, the level, and the visible vibration of the edge of the vocal cord; and further, to prevention of the active lowering of the epiglottis. Destruction of the recurrent laryngeal produces cadaveric position of the vocal cord. If the superior laryngeal nerve be cut in animals *after* the inferior, the form of the glottis is still further changed. In man, the difference between paralysis of the pneumogastric nerve and of the recurrent nerve (*i.e.*, the influence which the crico-thyroid muscle is still able to exercise when all other muscles of the vocal cord are disabled) is still to be ascertained. Slowly acting pressure on the inferior laryngeal paralyses first the abductors. Exclusive paralysis of the posterior crico-arytenoid muscle causes well-marked adduction of the vocal cord, still more complete adduction in inspiration, and normal vibration of the vocal cord during phonation. There is some reason to believe that the secretory functions of the laryngeal mucous membrane are also influenced by the laryngeal nerves.

Professor G. M. LEFFERTS (New York) read a paper in which he suggested the following five great classes:—1. The result of complete, usually acute, morbid implication of the nerve centres, or of the main nerve trunks, the lesion being either unilateral or bilateral, and the vocal cord or cords assuming the cadaveric position. 2. The result of incomplete, usually slowly progressive lesion of either the nerve centres, or more commonly of the nerve trunks; in their course, certain nuclei of the former, or certain fibrils of the latter alone being implicated, certain muscles alone are paralysed—the abductor muscles of the glottis presenting a peculiar proclivity in this respect, and practically being the only ones thus affected; the lesion may be unilateral or bilateral. 3. Paralysis of individual muscles of the larynx, the result of implication of certain peripheral nerve twigs—by local or intralaryngeal lesion. 4. Paralysis of single, or groups of laryngeal muscles—the result of simple myopathic change in said muscles. 5. Motor paralysis—functional in their nature, the adductor muscles being the ones commonly affected—the abductor very rarely.

The CHAIRMAN, Drs. ROSENBACH (Breslau), SEMON (London), SCHNITZLER (Vienna), BOSWORTH, and BARROW, took part in the discussion. The special liability of one muscle to paralysis in disease of the trunk of the nerve and centres supplying it and other muscles, was specially noted as a point calling for clinical and experimental study.

Neuroses of Sensation of the Pharynx and Larynx.—Professor J. SCHNITZLER (Vienna) read a paper in which he said that anomalies of sensation in these parts were very frequent. The usual forms of neuroses of sensation (hypæsthesia, anæsthesia, hyperæsthesia, hyperalgesia, paræsthesia), were also observed here. Sometimes no strict separation between the single forms was possible. He described the subjective symptoms of the single forms, and noticed the association of spasmodic cough, aphonia, dysphagia. Objective symptoms were generally quite negative, or at any rate unimportant, and out of proportion to the subjective complaints (hyperæmia, anæmia, catarrh, remains of by-gone inflammation, etc.). The causes were partly central (diseases of brain and spinal cord, hysteria, hypochondriasis); partly peripheral (diseases of the pharynx and larynx); between the two, diphtheria. The treatment should mainly be directed against the original cause; soothing inhalations, applications of the brush, hypodermic injections, astringents, caustics. The best remedy in most forms was electricity, especially the constant current.

An elaborate paper by Dr. ELSBERG (New York) was then read. In this essay a minute subdivision of the neuroses was recommended.—Drs. BAYER (Brussels), TOMWALDT, and FRÄNKEL spoke on the subject.

[illegible] by M. J. ROSSBACH, M.D. (Würzburg). The author [illegible] with the quantity of [illegible] from the centres had been cut, even after ligaturing the tracheal mucous membrane in two places, the mucous secretion quietly continued; this could only be [illegible] nerve-cells situated within the mucous membrane. Cooling, *e.g.*, of the abdominal wall by an ice-bag, produced almost immediately an

intense vascular spasm, which gave way after a few minutes to a very marked distension with blood, and copious secretion of mucus. External stimuli of a mechanical or chemical nature produced, if attacking the mucous membrane, an augmentation or acceleration of the mucous secretion. The secretion of mucus became much augmented and thinner by the internal or subcutaneous administration of emetin, apomorphia, and pilocarpine. It was much diminished, or even entirely abolished, by injection of alkalies into the blood, or of atropine under the skin. It was augmented by painting with alkalies, especially of ammonia, or by a 1 to 2 per cent. solution of turpentine, dilatation of the vessels being simultaneously produced; and was diminished by a current of air which had passed through rectified oil of turpentine, and by painting with nitrate of silver.

Influence of the Female Sexual Apparatus upon the Larynx. A paper on this subject was read by Dr. BAYER (Brussels).

Treatment of Growths in the Larynx. A discussion on the indications for the extralaryngeal or intralaryngeal treatment of growths in the larynx was opened by Dr. FAUVEL (Paris). The following were his conclusions. The indications for the extralaryngeal treatment of polypi of the larynx were extremely rare. One would have to suppose it impossible for the surgeon to pass through the mouth and upper part of the larynx the instruments necessary for operating. The indications for intralaryngeal treatment, on the other hand, were extremely frequent. Extralaryngeal operations were rejected for the following reasons. 1. Laryngotomy, however employed, was a risky operation. 2. The artificial opening made by the surgeon was always very narrow, and his work was not only impeded by this narrowness, but also by the blood, which masked the field of operation, and ran into the trachea, producing not only cough, but occasionally asphyxia. 3. On account of the narrowness of the field of operation, one was never sure whether the whole of the growth had been removed. 4. Even if the entire growth had been removed, complete aphonia might remain if the vocal cords should have been injured.

Professor BUROW (Kœnigsberg) also read a paper, in which he said that every benign laryngeal tumour ought, if possible, to be removed *per vias naturales*. Total thyrotomy was more dangerous to life than was commonly supposed. Thyrotomy protected as little against recurrence as does the endolaryngeal method. It endangered, to a high degree, the subsequent re-establishment of the function of the organ by injury to the vocal cords, cicatricial contraction, etc. The facilitation of the removal of the tumour was by no means so great as one might believe *à priori*, in consequence of insufficient separation of the alæ of the thyroid cartilage, hæmorrhage, great sensibility, etc. Partial thyrotomy was entirely to be repudiated, on account of the insufficient space obtained by it. As to the comparative quickness of cure, thyrotomy was not superior to the endolaryngeal method, as the former confined the patients to bed and house, whilst the latter permitted them to follow their occupation. Certain qualities of growths, supposed by many to be sufficient indications *per se* for the adoption of the extralaryngeal method were, as a rule, only so, if they occurred, not separately, but several of them together. Such were broad bases, unusual hardness of consistency, origin in the ventricles, great size, multiplicity (in papillomata), even situation beneath the glottis. In the majority of cases, these difficulties could be overcome by sufficient persistence and employment of suitable instruments, and especially of the galvano-cautery. In proper cases, the division of the crico-thyroid ligament was recommended, especially in subglottic tumours, and also in polypi originating from the free border, or from the upper surface of the vocal cord, if they had a long and movable pedicle. Subhyoid pharyngotomy gave a good means of approach to tumours of the upper laryngeal cavity, especially to those originating from the epiglottis. In children, the tumours most frequently found were papillomata; here neither method could boast of very good results. The endolaryngeal method should be tried in children also; if this were impracticable, one should tracheotomise children from six to eight years old, if dyspnœa were present, and try to operate one or two years later *per vias naturales*. In infants, thyrotomy was to be practised, tracheotomy having been previously performed. — The Chairman, Dr. HOPMAN (Cologne), SCHÄFFER (Bremen), and several others, took part in the debate, the weight of opinion being decidedly in favour of operating *per vias naturales*, except in very rare cases.

Mechanical Treatment of Laryngeal Stenosis. By PAUL KOCH, M.D. (Luxemburg).—The following were the author's conclusions. 1. Catheterism and "tubage" of the glottis are to be rejected in cases of acute laryngeal stenosis as soon as the latter endanger life. This rule is especially to be applied in cases of children suffering from croup, diphtheria, and œdema glottidis. Catheterism and "tubage" cannot in any respect replace tracheotomy. 2. In cases of chronic laryngeal stenosis, the first question will be: whether the morbid process has arrived at its end; if not, the appropriate general treatment should be employed, and the final development of the laryngeal affection must be waited for. 3. In cases of chronic narrowing which do not endanger life, mechanical treatment can be employed from the very beginning; but, if there be the slightest danger in delay, prophylactic tracheotomy ought to be practised forthwith. 4. The low operation of tracheotomy should always be performed in these cases. 5. If free respiration, either *per vias naturales* or through the artificial opening be secured, the mechanical treatment might be executed, either through the mouth or through the tracheal fistula. 6. If mechanical treatment be unsuccessful, recourse must be had to prophylactic tracheotomy, and to laryngotomy, followed by excision, galvano-caustic cauterisation, etc. 7. If laryngotomy and the subsequent treatment is not efficient, they should be followed by partial resection, and the intervention either of a T-cannula or of an artificial larynx.

Mechanical Dilatation of Laryngeal Stenosis by Bougies. By Dr. HERING (Warsaw).—The author showed, from the statistics of one hundred cases, that the failure of the method depended on the misapplication or want of perseverance in its use, not on its own defects.—Dr. GROSSMAN (Vienna), and others, spoke on this treatment, all agreeing as to its value.

Indications for the Complete or Partial Extirpation of the Larynx. By D. FOULIS, M.D. (Glasgow).—The following is a summary of this paper. 1. Total excision is better than partial excision. 2. The extirpation of the larynx for malignant diseases, is indicated: *(a.)* As soon as the diagnosis is clearly made; *(b.)* Where the glands along the side of the neck are involved, there may be a barrier to the operation; *(c.)* Very old people, *i.e.*, over seventy, should not be operated on. 3. The larynx may be excised when it is in an advanced stage of thickening and ulceration, even though this be not malignant.

Extirpation of the Larynx. By PHILIPP SCHECH, M.D. (Munich).—The author said that total extirpation was indicated: 1. *(a.)* In all malignant new formations, which, whilst attacking large tracts, or more than half the larynx, have spared the neighbouring parts; *(b.)* In cases of dysphagia due to excessive hypertrophy of the cricoid or arytenoid cartilages, or of their mucous coverings, in which nutrition by means of the stomach-pump was impossible, and feeding *per anum* insufficient. It was contraindicated: *(a.)* In all benign neoplasms and multiple papillomata, even if they could not be thoroughly removed by any other method, and recurred repeatedly; *(b.)* In perichondritis and necrosis of the cartilages; *(c.)* In all malignant neoplasms, which had either already led to carcinomatous affections of neighbouring or more remote organs, or to which were added other severe diseases, even if not malignant. 2. Partial extirpation was indicated: *(a.)* In highly developed unyielding tubular laryngeal stenosis, and in other forms of stenosis in which the vocal apparatus had undergone so much destruction that phonation without artificial larynx was impossible; *(b.)* In those benign neoplasms of the larynx, in which thyrotomy would be indicated, but was impracticable on account of ossification of the cartilages; *(c.)* In those malignant neoplasms, which, whilst being circumscribed, had affected the cartilage, or which, though infiltrating a larger surface, were limited to one-half of the larynx. It was contraindicated: *(a.)* In simple, dilatable laryngeal stenosis, especially in cases of membranous adhesion of single parts of the larynx; *(b.)* In cases of papilloma, even if they recurred repeatedly; *(c.)* In malignant neoplasms, which, though unilateral, had infected neighbouring or more remote organs.—Drs. S. COHEN, CASELLI (Milan), MACKENZIE, CZERNY (Heidelberg) (whose experiments on animals first proved the practicability of the operation), SEMON, BUROW, JAMES, LEFFELS, and JOHNSON, took part in the discussion. There was an universal agreement that the operation was practicable, but much difference as to the frequency with which it should be employed; the laryngologists limiting its application more than the surgeons, who would adopt it in almost all cases of recurrent papilloma and carcinoma.

The Galvano-Caustic Method in the Nose, Pharynx, and Larynx.—A discussion was introduced by Professor VOLTOLINI (the father of the practice), Dr. FOULIS, and Mr. L. BROWNE.—Drs. LOEWENBERG (Paris), THUDICHUM, BOSWORTH, LINCOLN, and MAYER spoke in the debate. While each speaker appeared to have his favourite instrument, of which ingenious forms were described by Drs. Voltolini, Loewenberg, and Thudichum, all agreed that the method was universally applicable in the nose and pharynx, more rarely in the larynx, where, before adopting it, the operator must be "very sure of his hand, his patient, and his instrument".

Pathology of Nasal Catarrh. By FRANK H. BOSWORTH, M.D. (New York).—The author said that two pathological changes characterised nasal catarrh—a true hypertrophy and an atrophy; the former (rhinitis hypertrophica) brought about by changes in the cavernous structure on which the nasal mucous membrane is superimposed. The muciparous

glands were at the same time enlarged and dilated. In atrophic catarrh, or rhinitis atrophica, the prominent change lay in the gland-structures, which were to an extent destroyed and their function abolished. Certain minor changes were also noticeable, according as the diseased condition was prominent in the anterior or posterior portion of the cavity, and on the middle or lower turbinated bones.

Adenoid Vegetations in the Vault of the Pharynx. By W. MEYER, M.D. (Copenhagen).—The following were the conclusions. 1. The existence of adenoid vegetations in the vault of the pharynx, up to the present, was everywhere verified when looked for. 2. A cold and damp climate was very likely to favour their development. Other certain etiological factors were youth, family tendency, and cleft palate. The connection with scrofulosis was doubtful. 3. The symptoms following adenoid vegetations did not depend exclusively upon impeded passage of air through the naso-pharyngeal cavity. 4. The practical importance of adenoid vegetations almost always depended rather upon their situation than on their quantity. 5. The prognosis of ear-diseases connected with the presence of adenoid vegetations was comparatively favourable. Removal of vegetations was of the highest importance for the cure of concomitant ear-affections. 6. The presence of adenoid vegetations in certain acute exanthemata (measles, scarlatina) was of prominent prognostic importance. 7. Neither anterior nor posterior rhinoscopy, nor digital exploration, alone, gave sufficient clue for its physical diagnosis. The last named was practically and scientifically preferable. If possible, all three should be used. Microscopic examination was necessary in dubious cases. 8. The removal of adenoid vegetations was certain and free from danger. Difficulties of operation sometimes depended upon their hidden position and tough consistence. 9. Among the operations for removal, those were to be deprecated where neither the finger nor the eye guided the cutting instrument. 10. The extraordinary tendency of adenoid vegetations to recur gave to the after-treatment a not less important place than to primary operative removal.

Adenoid Vegetations. By Dr. LOEWENBERG (Paris).—The paper was summed up as follows. 1. Suppression of nasal respiration and nasal voice, generally accompanied by ear-troubles, forms a group of symptoms often met with in childhood and youth, and not due to a nasal or tonsillar affection, but to the existence in the nasal part of the pharynx of tumours composed in the immense majority of cases of adenoid tissue. 2. In certain numbers of children suffering from this disease, the respiratory embarrassment causes a peculiar deformity of the thorax. 3. The disease alway affects the pharyngeal tonsil, and often simultaneously the lateral walls of the pharynx. 4. The removal of all these tumours ought to be effected as soon as possible. At any rate, portions sufficient to re-establish the permeability of the nasal fossæ and the Eustachian tubes should be removed. 5. The tumours resulting from hyperplasia of the pharyngeal tonsils can be operated upon after different methods. The vegetations situated on the lateral walls of the pharynx, and especially those which are in the vicinity of the ostium of the Eustachian tube, are best destroyed by means of a fine galvano-cautery guided by the rhinoscopic mirror. — Papers on the same subject were read by Dr. GUYE (Amsterdam) and Dr. WOAKES. Dr. Guye dwelt on the prophylactic treatment. Drs. MICHEL, FRÄNKEL, BÖCKER, and HOPMANN spoke on the subject, the various speakers recommending different modes of treatment, all insisting that the finger or the eye must guide the instrument used, whether the snare (Michel), the ring-knife (Mayer), or the finger-nail (Guye) be employed.

Ozæna, its Nature and Treatment. Papers on this subject were read by Professor FRÄNKEL (Berlin) and Dr. FOURNIÉ (Paris); and Mr. SPENCER WATSON, Drs. KRAUSE (Berlin), K. FRANKS (Dublin), GOTTSTEIN (Breslau), JURASZ (Heidelberg), and others took part in the discussion. All agreed that in ozæna proper there was no disease of the bones or cartilages such as was common in acquired syphilis, and no ulcers, but that there was a diseased condition of the mucous membrane, as to the true pathology of which several valuable facts were contributed, and several varieties described. Great difference of opinion was evident as to the true nature and significance of some of the morbid changes described; Dr. Krause's opinion, that the fœtor depended on the decomposition of fats and formation of fatty acids, meeting with no support. All agreed that as yet the disease was incurable; that treatment was only palliative; and that with suitable constitutional remedies, local treatment to remove the morbid secretions, either by syringing (Michel's plan) with proper solutions, or the use of Gottstein's tampon, must be employed.

The sittings of the Subsection were [illegible] with votes of thanks to the officers; Dr. Johnson congratulating the members on the large amount of valuable original work done during the week.

SECTION OF OPHTHALMOLOGY.

THE President, Mr. W. BOWMAN, F.R.S., delivered an opening address, which was published at page 277 of the BRITISH MEDICAL JOURNAL for August 13th.

DISCUSSION ON THE ESTIMATE OF ANTISEPTIC METHODS IN EYE-SURGERY.

This discussion was opened by Professor HORNER (Zürich). He said that the most improved methods of extraction resulted in a loss of 4.8 per cent. of the cases. This loss depended on differences in the methods of dressing, rather than on the constitution and ages of the patients; in fact, suppuration ensued in cases in which these conditions were most favourable. In such cases, the suppuration must be due to infection. To prevent this, antiseptic precautions must be employed, which should be most rigid in large hospitals, or whenever the surrounding circumstances were unsatisfactory from the possibility of infection from diphtheria, etc. The conjunctival sac should also be washed out. These precautions should be especially adopted when suppuration had already commenced.

The Antiseptic Method in Cataract-Extraction. By Dr. REYMOND (Turin).—The author had employed Lister's dressings in extractions of cataract for the last eighteen months. In seven out of three hundred and sixty-four cases thus treated, the cornea sloughed primarily; but, of these, four were cases in which the patients had themselves taken off the bandage before the third day. He thought that failure was in inverse proportion to the number of precautions taken, and that the morbid appearances resulting from septic influences were characteristic.

The Action of Foreign Bodies introduced into the Interior of the Eyeball. By TH. LEBER, M.D. (Göttingen).—Professor LEBER found, as the result of a series of experiments, that foreign bodies which were clean, and which did not cause any chemical action, did not produce any inflammation in the interior of the eye, if introduced antiseptically; but, if oxidisable metals were similarly introduced, there was inflammation, but no formation of pus. But, under ordinary circumstances, metallic fragments produced, as was well known, ordinary suppurative inflammations. He attributed these effects to the action of germs which had entered through the wound. Cysticerci, however, and certain very irritating chemical substances, produced purulent inflammation quite independently of the presence of germs. Even after the germs had been destroyed by boiling, a chemical substance might be left which would cause some amount of inflammation.

The Frequency of the infectious Diseases of the Eye at Different Times of the Year. By C. EMMERT, M.D, (Bern).—Professor Emmert found infective diseases to vary with the season of the year. Ophthalmia neonatorum was most abundant in May, least in December. Diphtheritic conjunctivitis was most frequent in January, least in August; hypopyon keratitis most in August, least in December. He deduced from these observations the importance of meteorological influences, which, he thought, might have a practical bearing.

Dr. DOR (Lyons) expressed the opinion that, in certain special cases (dacryocystitis, erysipelas, etc.), antiseptics must be employed. The dressings should not be kept unchanged, but the wound should be inspected often. Indeed, in all cases, antiseptics should be employed, though the spray was inadmissible.—Dr. DE WECKER (Paris) had made full trial of the antiseptic methods during the last eighteen months. During 1880, out of two hundred and fifty cataract-extractions, only one suppurated. He thought he had overcome this terrible enemy of eye-surgery; but, unfortunately, among the hundred and fifty cases already operated on in the present year with the same precautions, he had had seven suppurations, giving, for the whole four hundred cases, eight suppurations, or 2 per cent., which was the percentage before the introduction of Listerism.—Dr. GALEZOWSKI (Paris) adhered generally to the propositions of Dr. Horner, notwithstanding that the results were not always the most encouraging. In 1879 and 1880, he had 2 per cent. of suppuration; but in the present year it was far more more numerous. This he attributed to an epidemic influence, which should be combated by a more rigorous application of the antiseptic methods.—Dr. WARLOMONT (Brussels) thought the use of antiseptics only legitimate when circumstances were unfavourable: *e.g.*, in large hospitals, or when the patient himself was unhealthy.—Dr. GAYET (Lyons), though strongly in favour of antiseptics, had not had markedly [illegible] even when in weak [illegible] Dr. KNAPP (New York) [illegible] after extraction of cataract, and [illegible] mechanical, and [illegible]

Professor HORNER, in concluding the debate, pointed out the little value of statistics extending over a short period. His, in the course of fourteen years, showed a gradual improvement from 6.6 to 1.1 per cent. This he attributed to the use of antiseptics. He did not consider pure carbolic acid to be in any way injurious to the conjunctiva.

DISCUSSION ON SYMPATHETIC OPHTHALMIA.

Professor SNELLEN (Utrecht) opened a discussion on sympathetic ophthalmitis, the mode of its transmission, and its nature. He said that sympathetic ophthalmitis might well be called one of the most serious and interesting diseases of the eye. The physiological explanation of it had been an open question ever since Mackenzie first suggested, in 1830, that the inflammation was either transmitted by reflex action through the ciliary nerves, or by continuity along the optic nerve and chiasma. The hypothesis of reflex nervous action was at first the most popular; it found its analogues in the neuroparalytic keratitis after division of the fifth nerve, and also in the herpetic affection of the cornea connected with naso-frontal herpes zoster trigemini. These facts had, however, now lost their value as proofs of trophic nervous action. The author showed, in 1857, that the so-called neuroparalytic keratitis was of traumatic nature, caused by the loss of sensitiveness of the eye. Wyss of Zürich proved anatomically that the zoster keratitis was the result of a continuous inflammation proceeding along the nervous fibres to their utmost ramifications in the cornea and skin. The attribution of sympathetic affection to reflex nervous action, therefore, now remained as an isolated fact. Sympathetic ophthalmitis followed such injuries as exposed the uveal tissue to external influences; such as wounds of the anterior sclerotic, as far as this was covered only by the conjunctiva, or total sloughing of the cornea. From either cause a slow uveitis might result. Suppurative panophthalmitis caused no sympathetic transmission. The sympathetic inflammation, which should be well distinguished from sympathetic neurosis, never occurred before a characteristic process had developed itself in the eye first injured, the principal symptoms of which were—1. Dilatation of the posterior lymphatic spaces, with closure of the anterior lymphatics of the globe; 2. An infective plastic inflammation of the uveal tissue. The iris became covered and infiltrated by solid exudations; the anterior chamber was lessened; the vitreous humour, and often also the retina, was drawn forward into a funnel-shape; the tension, diminished at first, always increased beyond the normal before the transmitted affection appeared; the perichoroidal lymph-space and the perineural lymph-sheaths of the optic nerve dilated. The inflammation was sometimes transmitted to the interior of the cranium, as well as to the other eye. Dr. Snellen had seen a case where meningitis and otitis arose simultaneously with sympathetic ophthalmitis three weeks after injury of one eye. The patient became totally blind and deaf. In sympathetic disease, the choroid showed an impregnation with lymphoid cells, and there was also more or less neuritis. Microphytic organisms were also found, whose movements could be observed in every freshly examined case. Lymphoid cells (McGillavry), and also microphytes, were to be observed in the lymphatic sheaths of both optic nerves. The secondarily affected eye showed corresponding changes of nervous tissue and choroid. Dr. Snellen summed up his remarks as follows. 1. The hypothesis that sympathetic ophthalmitis is explained by the reflective action through the ciliary nerves is devoid of all convincing proof. 2. Sympathetic ophthalmitis is to be looked upon as proceeding from a septic choroiditis of definite type, not improbably resulting from an abnormal continuity between the external tissue and the uvea. 3. The morbid changes of the vessels, the increase of the lymphoid cells, and the accumulation of microphytal organisms, are the guiding signs that may indicate the direction in which the morbid process is propagated. 4. The path of the transmission is most probably through the lymphatic spaces of the optic nerve.

The Pathological Changes in Sympathetic Ophthalmitis. By W. A. BRAILEY, M.D. (London).—Dr. Brailey said that he considered uveitis serosa (so-called iritis serosa, keratitis punctata, etc.) to be the same disease as uveitis maligna, which term he proposed to continue for the typical inflammation of sympathetic disease. In the first eye, only uveitis maligna was met with; in the second, it might be either this or uveitis serosa. The first he held to be the mild, the last the severe type of the same disease. The two remained separate for the most part, but wounds of the iris (*e.g.*, operations) might convert the first into the second. In such cases, the pathological characters of the two types were seen to coexist. He maintained that the pathological characters of uveitis maligna were precise. In the choroid, the lymphoid cells of this inflammation appeared first in its middle stratum, the chorio-capillaris and the outermost layers being entirely free. The pigment-epithelium internal to the choroid was not affected, even when the whole choroid was densely infiltrated with lymphoid cells. Similar aggregations constituted the first morbid condition in the iris and connective-tissue layer of the ciliary body. But, in the case of the iris, there were many cells exuded on its posterior surface, and, in the case of the ciliary body, on its internal surface, beneath the pars ciliaris retinæ. There was no exudation on the choroid at any stage. The blood-vessels of the iris were characteristic; their walls were thickened and pellucid, and their lumen was obliterated by their proliferated epithelioid lining. He found sympathetic disease more abundant in summer than in winter. He distinguished sympathetic ophthalmitis from sympathetic irritation. The two might coexist; and enucleation of the first eye should never be performed for the benefit of the second eye, except when sympathetic irritation was present.

Histological Examination of an Eye Enucleated after Enervation. By Dr. PONCET (Cluny).—Dr. Poncet read a paper on an interesting case of sympathetic disease. The patient had lost the sight of his left eye from a spontaneous irido-choroiditis. The sight of the right eye began to fail, with vitreous opacities; and consequently section of the optic and ciliary nerves of the left eye was performed. The right eye, however, continued to become rapidly worse, with great pain, so that the left was enucleated two weeks later. After this, there was some improvement of the symptoms in the right eye, both as regards sight and pain. The choroid of the enucleated eye was found infiltrated with pus-cells. The optic and ciliary nerves were involved and compressed in a dense mass of connective tissue, the result of the neurotomy. He attributed the permanence of the sympathetic pain to this condition.

Dr. MOOREN (Dusseldorf) pointed out how frequently the existence of papillitis could be shown in sympathetic disease. He thought the disease was transmitted by a travelling inflammation, the optic nerves, with their chiasma, being its most frequent path.—Dr. GRUENHAGEN (Königsberg) found that, when the cornea of curarised animals (rabbits and cats) was cauterised, there appeared an excess of albuminous and fibrinous substance, not only in the aqueous humour of that, but of the other eye also. He thought that the irritation caused a dilatation of the vessels, with abnormal secretion.—Professor PFLÜGER (Berne) had, two years ago, a case just like that of Dr. Poncet. The eye became painless after neurotomy, but the patient had a sensation of something hard behind it, and then there came on irritation of the other. The nerve-fibres were found, on enucleation, to be compressed in the scar-tissue. For this reason, he preferred neurectomy to simple neurotomy, as offering less chance of this. He thought the possibility of such a result to be no valid objection to the latter operation, for it might happen even after enucleation.—Dr. SAMELSOHN (Cologne) suggested another way for the transmission of sympathetic disease, for in one case he had found inflammatory cells along the scleral vessels and outside the dural sheath of the nerve.—Dr. LEBER (Göttman) had made numerous experiments in various ways, and never obtained any results like those of Dr. Gruenhagen. He had not observed even an enlargement of the blood-vessels, which, had it been present, could scarcely have been passed over.—Dr. BOUCHERON (Paris) thought that the case recorded by Poncet was not suitable for neurotomy, for the ciliary nerves within the eye were quite degenerated, and so could not transmit sympathetic disease. He thought the corneal sensibility, found often soon after complete section of the optic and ciliary nerves, was due, not to their reunion, but to undivided recurrent branches of the trigeminus.—Dr. PANAS (Paris) pointed out the dangers of enervation. He had known death occur from suppurative meningitis within three days. He thought the operation should be performed antiseptically.—Dr. GRUENHAGEN said, in reply to Professor Horner, that, in each of his experiments, the animal had been killed previously to his examination of the second eye.—Dr. SNELLEN, in reply, said that he, like Dr. Leber, had performed various experiments on all sorts of animals, and had never got any results like those of Dr. Gruenhagen. The fallacy in these last experiments lay in the examination of the aqueous humour of the dead eye. When the eye was punctured during life, no excess of fibrine was found. He believed in the transmission of a special inflammation, to which, indeed, the researches of Dr. Brailey also pointed. The nerve was often, but very slightly, affected; indeed, he believed that the lymphatic spaces (probably the subdural) were the actual channels of transmission.

DISCUSSION ON THE RELATION OF OPTIC NEURITIS TO INTRACRANIAL DISEASE.

Professor T. LEBER, (Göttingen) in opening a discussion on the subject said that optic neuritis in cerebral diseases was a true inflammation, and was not essentially different from other forms of papilloretinitis, either in the character of the vascular congestion, or in the nature of the histological changes. It was, on the other hand, very

different from the hyperæmia caused by venous stasis and the lesions which depended on it. This inflammation was not caused by stasis in the retinal veins from compression of the cavernous sinus, due to diminished intracranial space. It was not the result of irritation of vaso-motor nerves, caused by the cerebral affection. It was the optic nerve which was the path of communication between the affection of the brain and that of the eye. An essential part in this transmission was taken by the effusion of a serous fluid into the sheath of the nerve extruded from the cranium by the increased intracranial pressure. This fluid did not act by simple mechanical pressure, since its quantity was sometimes small; probably it possessed phlogogenic properties. Intracranial tumours acted as a sort of foreign bodies, provoking inflammatory congestions, and excessive secretion of fluid (internal hydrocephalus). The same effusions were found in meningitis when it was followed by papillitis. The origin of papillo-retinitis in cerebral diseases might, then, be explained by assuming that the intracranial inflammation produced serous effusion, which passed into the optic sheath, and exerted an irritating action on the papilla and neighbouring parts of the eye. Certain experimental researches supported this hypothesis, for, when young rabbits were killed at various dates after the injection of the cranial cavity with tubercular pus, there was found either a dropsy of the sheath with some neuritis, increasing as the eye was approached; or, in the later stages, miliary tubercles in the intervaginal space. The results of these experiments seemed to prove that some irritating matter was transmitted along the nerve-sheath.

Ophthalmoscopic Changes in Relation to Cerebral and Spinal Disease. By Dr. BOUCHUT (Paris).—The author thought that all important diseases of the brain and spinal cord, and the serious diathetic diseases, could be recognised by ophthalmoscopic examination, or cerebroscopy. Thus, congestion of the disc indicated congestion of the brain, or meningitis, or commencing spinal disease; œdema of disc, œdema of the meninges; complete anæmia of disc, arrest of the cardiac and cerebral circulation; miliary aneurysms in the retina showed the same in the brain; miliary tubercles in the retina or choroid showed tuberculosis of the meninges or of the brain.

The Vascular Change of the Retina and Optic Nerve. By N. GALEZOWSKI, M.D. (Paris).—The changes found in the retinal arteries were of two kinds; those which caused slight or progressive impairment of sight, such as occurred in optic neuritis of cerebral origin and in retinitis albuminuria; and those which occasioned instantaneous and almost complete loss of vision, as in embolism of the central artery of the retina. The analogy between the cases of embolism and those of endarteritis obliterans was so close that they had hitherto been confounded together; thus, when a man was seized with sudden blindness of one eye with contraction of the retinal arteries and exudation round the vessels and the macula, it was pronounced to be embolism. For some years past, the author noticed that in some of these cases there was not the slightest indication of cardiac disease. Out of fifty-nine cases, the heart was perfectly healthy in thirteen; these he attributed to thrombosis of the retinal arteries, caused by ague in three cases, in three by syphilis, and in two by ophthalmic megrim.

Dr. SAMELSOHN referred to the anatomy of his well known case of retrobulbar neuritis localised in a portion of each optic nerve, and producing in each eye a central scotoma.—Dr. DOR expressed his opinion that one result of a study of neuritis optica was that the colour-sense resided in the brain alone. He found no local eye-affection produced dyschromatopsia.—Dr. HUGHLINGS JACKSON said that though he accepted the vaso-motor hypothesis, he did so very loosely. He simply considered it as being hitherto the most plausible explanation of the fact that there might exist with and after optic neuritis a perfect acuteness of vision. Dr. PARINAUD (Paris) agreed with Professor Leber that optic neuritis was not produced by any pressure in the optic nerve-sheath. He thought it was in cerebral affections produced by a lymphatic œdema which was itself the starting-point of an inflammation.—Dr. S. MACKENZIE agreed in rejecting the theories of venous stasis, of vaso-motor irritation, or of pressure. But he had met cases where there was no meningitis and no distension of the nerve-sheath. He thought such cases due to a direct descending cerebritis; and he cited in proof of it many cases reported by Edmunds, in which inflammation was found in the optic nerve at all points of its course. He thought Dr. Leber's view perfectly applicable to cases where there was distension of the sheath.—Dr. POXER (Cluny) thought the neuroglia was the tissue most concerned in the inflammatory and degenerative changes of neuritis optica.—Dr. LAQUEUR (Strassburg) had, like Dr. Galezowski, seen many cases of so-called embolism with acute inflammation of the optic nerve, but without any cardiac affection. He thought that some of these were thromboses, while, again, others were due to hæmorrhages within the nerve.—Dr. PANAS (Lyons) found swollen disc to have no value as a means of prognosis or diagnosis in traumatisms of the head. Necropsies had convinced him that this condition went hand in hand with the presence of fluid in the sheath.—Dr. KNAPP (New York) said that orbital tumours only caused choked disc when they encroached on the sheath of the optic nerve. He had seen cases of choked disc with headache and vomiting make a complete recovery. Cases, too, of choked disc from meningitis caused by suppuration in the middle ear recovered completely if the disease of the ear were cured.—Dr. BRAILEY said, in opposition to Dr. Knapp, that orbital tumours not involving the nerve or its sheath might cause neuritis. He had examined the preparations of Dr. Edmunds alluded to by Dr. S. Mackenzie, and agreed that there was evidence in every case of a continuity of inflammation along the optic nerve, the walls of the smaller blood-vessels being the parts in which it was most expressed. But doubtless a serous exudation into the sheath could transmit an inflammation by virtue of its solid particles.—Professor LEBER, in reply, acknowledged the valuable suggestions thrown out by many of the speakers. He agreed with Dr. Parinaud as to the existence and influence of lymphatic changes.

TESTS OF VISION.

The report of the committee as to the tests of vision for those engaged in responsible occupations in connection with signalling was presented to the Section. The committee consisted of Professor Donders (chairman), Dr. Maréchal (France), Dr. Warlomont (Belgium), Dr. Reymond (Italy), Dr. W. Thomson (United States), Dr. Leber (Germany), Dr. Osco (Spain), Dr. Ole Bull (Norway and Sweden), Dr. Gama Lobo (Brazil), Dr. Knaggs (New South Wales), Mr. Rudall (Australia), Mr. Bowman (England), and Dr. Brailey (secretary). It advised that, for land service, the recommendations of the Ophthalmological Section of the Amsterdam Congress should be in the main adhered to. For the sea, eight rules were suggested. The first advised that in small steamers and ocean-going ships the person in responsible charge of the helm and at least one of those on the look-out should have been certified as having normal vision. For the coasting service, the committee were content with two-thirds of this amount. All pilots and signallers were to have normal vision. No greater degree of hypermetropia was to be allowed at the age of eighteen than one diopter; and in every case re-examinations were to be made at forty-five years of age. It was further recommended that in each country one central medical authority should have control of all relating to the examinations, and that an International Commission should be appointed to regulate the precise colours of the signals, as well as other questions. After discussion, the report was adopted with slight modifications.

The Pathology of Glaucoma. By ADOLF WEBER, M.D. (Darmstadt).—Dr. Weber was of opinion that glaucoma was essentially due to an obstructed outflow of fluid from the eye. But, independently of this, there were generally antecedent morbid conditions, perhaps due to general causes—to senile degenerations, for example, which had diminished the pressure of the blood within the arteries. The more this approximated to the pressure within the cavity of the globe the greater transudation of fluid was there into the eyeball, and the greater was the density of the fluid exuded. In such case, any slight obstruction to the exit might cause a glaucoma, the eye being already on the verge of this disease. But the intra-ocular pressure could never be so great as actually to become equal to the pressure within the arteries; for, before this height could be reached, the compression exercised by the vitreous body upon the one hand, and by the resisting sclerotic on the other, upon the blood-vessels would be sufficient to diminish their size.

Dr. LAQUEUR (Strassburg) had observed in twelve cases where iridectomy had been performed for glaucoma that the refraction became notably increased after the operation. He found no corresponding change after iridectomy for other causes, and he thought that the hypermetropia often observed in glaucoma was due to an altered shape of the lens from a morbid condition of the zonula.—Mr. PRIESTLEY SMITH (Birmingham) adhered to the view he had previously brought forward, that an abnormally large size of the lens was the most potent factor in glaucomatous conditions. He attributed its increase to advancing age, and thought that, when it became considerable, any slight congestion of the ciliary folds might be the immediate starting-point of this disease. He agreed with most previous authors in attributing glaucoma to an obstructed outflow at the periphery of the anterior chamber, but differed as to the manner in which this was brought about. For him the space surrounding the margin of the large lens became obliterated by a swelling of the ciliary folds. Thus the escape of the fluid from the vitreous chamber was prevented, and consequently the lens and ciliary folds, with the peripheral part of the iris, were thrust forwards. He had measured the [illegible] in thirty persons whose eyes were normal, and he came to the conclusion that the

size of the lens became increased with advancing years. He had found, in two cases of acute glaucoma, the lens in close contact with the ciliary processes, and these with the iris.—Dr. ANGELUCCI (Rome) was of opinion that the primary cause of glaucoma rested in vascular changes. He had detected in the cases he had examined a sclerosis of the walls of the arteries, and a phlebitis or periphlebitis leading to obliteration of some veins and dilatation of others. Thus, a venous stasis was produced with resulting increased secretion of lymph into the cavity of the globe. This, superadded to an obstructed outflow of fluid from the eye, constituted a true glaucoma.—Dr. DE WECKER (Paris) called attention to Ulrich's experiments, which showed that, in the eye, the current of nutrient fluid did not pass between the lens and iris, but through the iris at its base. He thought that measurements were required showing the various relative sizes of lens and cornea in the physiological state. When the limits of these had been defined, it would be comparatively easy to study pathological variations.—Professor LEBERS (Göttingen) called attention to experiments in which the iris and ciliary processes were removed from the eyes of rabbits with the effect that the entire vitreous body and aqueous humour disappeared. From this, it was legitimate to infer that these were secreted by iris and ciliary folds alone. He found that the fluid left glaucomatous eyes with extreme slowness, thus supporting the view that there was some obstruction. He had repeated Mr. Smith's experiments in a few instances on living eyes, but so far had not obtained the same results.—Mr. G. WALKER (Liverpool) held that increased size of the lens in certain rare cases, *e.g.*, traumatisms, might cause glaucoma. But, in most cases, the continued tension of the ciliary muscle caused its inflammation; and a similar condition of the ligamentum pectinatum produced retention of fluid in the eye from a blockage of its lymph-spaces.—Dr. BRAILEY had examined many glaucomatous eyes directly after excision, and had found their lenses, whether opaque or transparent, to be, on the average, rather smaller than those of eyes with normal tension. He had often watched a clear lens diminish very much in diameter after removal from a glaucomatous eye. He attributed its previously increased diameter to a tension of the zonula; and thus it was a consequence, and not a cause, of the tension.—Dr. GALEZOWSKI (Paris) accepted a disturbance of the nerves influencing intraocular secretion as a cause of glaucoma. He had seen this condition develope fifteen days after excision of the apex of a conical cornea. He thought that this and other cases demanded some explanation other than that of obstructed filtration.—Dr. WEBER, in reply, thought that, though an obstructed outflow was so important, yet that an alteration in the amount, or even in the quality, of the fluid was a sufficient cause. For example, even a higher albuminosity of the intra-ocular fluids would cause an obstructed outflow.

DISCUSSION ON THE OPERATIVE TREATMENT OF GLAUCOMA.

A discussion on this subject was opened by Dr. DE WECKER (Paris). He thought that all would agree that there were cases which urgently demanded some other operation than iridectomy, and that these were met, for the most part, by sclerotomy. Thus sclerotomy must be resorted to in buphthalmos, in simple chronic glaucoma, in glaucoma hæmorrhagicum, and in cases where the field of vision was contracted nearly to the point of fixation. But iridectomy still remained the best operation for most cases, and notably for cases of acute glaucoma. Indeed, operators were likely to cling to it, as sclerotomy was undoubtedly the more difficult operation to perform. Moreover, when myotics produced no effect on the pupil, sclerotomy was inadmissible, however well marked were the other indications for it, on account of the entanglement of the iris which was sure to ensue. But in glaucoma absolutum, where the iris was completely atrophic, and where attacks of pain demanded some operation, sclerotomy might be employed in preference to the older operation.—Mr. BADER held firmly that sclerotomy was the best operation in all cases of glaucoma. He thought that the essential point in the performance of this operation was that a staphyloma of the sclero-corneal junction should result from it. He encouraged, rather than otherwise, the prolapse of the iris into the staphylomatous bulging. In performing his operation, he cut through all tissues down to the conjunctiva.—Dr. ABADIE (Paris) thought that sclerotomy was indicated where the anterior chamber was of normal or increased dimensions, and that recent cases were more benefited than others by this operation.—Professor LEBER communicated the results of some experiments by Professor SCHÖLER (Berlin). From them, it appeared that sclerotomy did not owe its curative effect to any filtration through the scar; and that even the cystoid scar only admitted of passage of fluid by its being from time to time ruptured under the increase of tension. He thought that sclerotomy had simply the effect of a very large paracentesis.—Mr. POWER (London) did not believe in any operation for glaucoma hæmorrhagicum, or for the glaucoma of young people. In acute glaucoma, he thought that any mode of letting out the fluid of the eye would afford relief. In chronic glaucoma, he preferred iridectomy. His objection to sclerotomy was on account of the prolapse of the iris.—Dr. PANAS did not doubt at all the immediately favourable results of sclerotomy. Indeed, he had had a case in which this had lasted a year. But he thought it was imperatively necessary to find out by statistics how large was the percentage of non-success, or of cases where the good result was but temporary.—Dr. ARGYLL ROBERTSON (Edinburgh) reserved his operation of trephining the sclerotic and that of sclerotomy for the worst cases, preferring always to treat the cases of more favourable prognosis by iridectomy. He had even seen the worst eye after sclerotomy become better than the other eye which was iridectomised.—Dr. KNAPP (New York) had seen suppurative irido-choroiditis follow a sclerotomy. During the last eighteen months, he had treated all cases of chronic and subacute glaucoma by this operation. He thought, with Dr. Panas, that statistics were urgently required.—Dr. G. WALKER (Liverpool) called attention to his operation of hyposcleral cyclotomy. He thought that, with a less degree of traumatism, it did as much good as either sclerotomy or iridectomy.—Dr. GALEZOWSKI (Paris) had known the cure effected by sclerotomy to endure in a case of simple glaucoma for two years; and in a case of glaucoma hæmorrhagicum for more than one year. He strongly objected to any prolapse of iris into the wound.—Dr. DE WECKER, in reply, could not allow the experiments of Professor Schöler to be accepted without protest. In experiments upon domestic animals, and especially upon rabbits, the periphery of the iris became always applied to the sclerotomy wound, and, therefore, prevented the formation of a true cicatrix of filtration. His mode of operating was quite opposed to that of Mr. Bader; for, instead of encouraging a prolapse of iris, he guarded against it by every possible means. He agreed that statistics were wanting. But he himself had operated successfully on six medical men, in the case of one of whom the cure had lasted three years.

At the conclusion of the last meeting, Dr. ARGYLL ROBERTSON, who occupied the chair in Mr. Bowman's absence, addressed a few words to the members, in acknowledgment of the great services rendered by the President, Mr. Bowman, to whose exertions, combined with those of the Secretaries, Mr. Nettleship and Dr. Brailey, the success of the meetings had been largely due.

LIVING SPECIMENS AT THE MUSEUM.

THE demonstrations of living patients, in a room adjoining that devoted to the specimens which constituted the temporary museum, in the apartments of the Geological Society, Burlington House, proved very successful, and deservedly so, since the cases were mostly of great interest. Among the most important were the following.

Living Example of Charcot's Joint-Disease. Exhibited by Mr. HERBERT W. PAGE.—The patient was a farrier, aged 30, who presented himself in the out-patient room of St. Mary's Hospital, last February, on account of a swelling in his right foot. The foot and leg had begun to swell, without known cause, in the previous October, and, when first seen by Mr. Page, there was considerable enlargement in the region of the cuboid, scaphoid, three cuneiform, and heads of the metatarsal bones. These bones could be moved upon one another in any direction; but free manipulation caused him no pain. Shortly after this he had "gathered corns" on the sole of the other foot; but, although they made his foot look very sore, he was able to walk without pain. Increased suspicion was excited by this new feature in the case, and by the striking resemblance of these corns to "perforating ulcer"; and it was then found that the "tendon-reflex" was entirely absent in both limbs, and that his pupils presented the "Argyll-Robertson" phenomenon. He also gave a history of having suffered from severe pains, like "jumping toothache", in the limbs, for the last four years, and of having two years previously had an attack called "nervous debility", of which the most notable feature was daily vomiting. This attack—clearly a "gastric crisis"—began without known cause, was uninfluenced by treatment, and passed away spontaneously. The swelling of the foot had gradually subsided; and, although there was still enlargement of the bones originally involved, they were no longer movable upon one another. More remarkable, however, than the state of the right foot was that of the left. In May, this foot began to enlarge in much the same way as the right; and within last three weeks before exhibition the ankle-joint had also become involved. He was able to walk about quite well, until one day the ankle suddenly gave way. There was enormous enlargement of the left foot and ankle, with well-marked bony crepitus in all the joints. The foot, in fact, felt exactly like a bag of bones; but free manipulation caused him no pain. Mr. Page drew especial attention to the fact that there had never been any ataxic

gait, and that this usually most obvious symptom as a guide to diagnosis was entirely absent. The sores on the soles had healed of their own accord, and so also the condition of the right foot had subsided without any local treatment. Were it not for these two facts, the grave state of the left foot would call for surgical interference; but he was not without some hope that the example set by the right foot might be followed by the left, and that this limb might also be preserved. The man has quite recently had renewed attacks of vomiting. M. Charcot stated that he had seen only one case like the present, in which both feet were attacked in an almost identical manner.

Three Cases of Lupus Erythematosus. Exhibited by Mr. MALCOLM MORRIS.—Case 1. W. E., aged 38. Father is living, aged 73. Suffered from epilepsy. Mother died at patient's birth. Had always enjoyed good health. Brothers and sisters healthy. Disease began as a small red patch beneath the right eye about five years ago. Shortly after, another patch appeared on the left cheek, and another about the centre of the scalp. He said that he bathed a good deal in the sea, and was exposed to the sea just before the eruption first appeared. Was a draper by trade.—Case 2. Most extensive, involving the whole of the right leg and a greater part of thigh. Patches on both arms and left leg. Great destruction of tissue on the scalp and face. C. N., aged 64. Father died, when quite young, of decline; mother, at patient's birth. Always enjoyed good health till the age of forty-four, when the disease first showed itself on the right ankle, after a slight attack of dropsy. Nine years ago, it began on the scalp, and had since slowly spread over the forehead, nose, and cheeks.—Case 3. A middle-aged woman, with lupus erythematosus in a very early stage. Both cheeks and the backs of both hands involved.

Cases of True Gout. Exhibited by Dr. DYCE DUCKWORTH.—This series of eight or nine cases illustrated the principal varieties of the disease. It was believed that such cases would prove of extreme interest to visitors from foreign countries, who hardly ever see gout. Well-marked cases, accompanied with "chalk-stones", in women were shown. Some examples of "seemingly acquired" and several of inherited gout were shown. Gout, as set up, or influenced by, lead-impregnation, was likewise illustrated. Attention was directed to the several well-recognised physiognomical features of the gouty; and the conditions of the vascular and venous textures were pointed out. A case, illustrating distinct rheumatic history in a gouty woman, was brought forward, the patient having, what is very rare in her sex, a tophus of nitrate of soda in the ear, and rheumatic valvular cardiac disease. The features of gouty, as distinct from so-called rheumatic arthritis, were demonstrated.

A Case of Keloid of Alibert, undergoing Involution, was shown by Dr. DYCE DUCKWORTH, with the following interesting history. A man, aged 50, suffered from rheumatic fever, on two occasions, ten years ago. He was under Dr. Duckworth's care in St. Bartholomew's Hospital. He had pericarditis, and was blistered over the præcordia. Nine months afterwards, lines of keloid growth began to form in the scar left by the blister, and they extended rapidly. In two years' time they were still enlarging. In seven years some subsidence was noticed; and when exhibited, ten years after their first formation, involution was markedly progressing. The case illustrated the frequent origin of Alibert's keloid in scar-tissue, its common occurrence over the sternum, and the fact of the subsidence of the new growth in course of time.

A Case of Osteitis Deformans was shown by Mr. CHARTERS J. SYMONDS. The patient was a woman aged 70. The affection began twenty years ago, in bowing of the tibia. The main feature in the case was an elongation and enlargement of the radius, which had become so much curved as to drive the hand into complete pronation. No disease in the spine or cranium. The case is published fully in *Guy's Hospital Reports* for 1880 81.

Osteitis Deformans. Exhibited by Mr. TREVES.—The patient, a woman aged 49, has always had good health; no syphilis. The family history good, except that the mother was crippled with rheumatism. Five years ago, the patient began to notice a sense of weariness in the legs on walking, and then discovered a "bending" of the left shin. The case now presented a typical aspect. The left tibia was enormously thickened, and bent forwards and outwards. The right femur was bent forward at its upper part, and greatly thickened. The right tibia and left femur were but little affected. The spine was much curved in the upper dorsal region; and in five years she had lost four inches in height. The skull was enlarged, presenting a very characteristic outline. Of the bones of the upper limbs, only one was affected, viz., the left ulna. This bone was much thickened and curved backwards. The movements of the hand were not impaired. The affection was painless; the general health good.

Varicose Veins of Abdominal Wall, exhibited by Mr. TREVES.—A lad aged 17 was kicked in lower part of abdomen by a horse ten years ago. Some months after, he noticed commencing varices in the left leg. The condition gradually extended. The left internal sapheous vein now appeared extremely varicose, and ended as a huge mass at the saphenous openings. The superficial epigastric and superficial circumflex veins of the left side were also very varicose. The vein that runs from the axillary to the femoral vein (described by Mr. Fenwick in the Anatomy Section), was very conspicuous. He had a double varicocele. No piles; viscera healthy. It is difficult to understand where the obstruction existed if there be obstruction. If in the vena cava it is hard to understand why the right leg should have been quite sound, if in one common iliac vein the double varicocele is difficult to understand.

Mr. STARTIN exhibited a well-marked case of true Eastern Leprosy, of the Tuberculous and Anæsthetic variety, in a native of England. The tubercles showed on the face and tongue and mucous membrane of the mouth, and on the arms, legs, back, etc. The thickening of the ulna and of the cutaneous nerves of the extremities was very evident. There were brown patches of tubercular skin, quite anæsthetic on the forearms, and characteristic wasting and atrophy of the muscles of the thumb and interossei of the back of the hand, and a want of power in the hands and fingers—so that the patient could not pick up a pin nor button his coat. The man was in India thirteen years, and had been at home for eleven years; the disease showed itself about ten months after leaving India. He had several attacks of ague and fever, and the disease could not be attributed to any particular article of diet. He partook of little or no fish; this, therefore, could not be ascribed as the cause of leprosy in his case. The case has been treated with chaulmoogra-oil both externally and internally, with large doses of quinine at the beginning of treatment, with constant improvement, as the patient regained much motor power in the hands, and the maculæ that were seen at first nearly disappeared, and the anæsthetic patches of skin became more sensitive.

A Case of Leucoderma, very well marked, showing patches of bleached skin and hair upon the arms, face, legs, and buttocks. The man was a native of England; he went to Canada, but returned home after living there three years, as he says "he could not stand the intense cold". The disease showed itself about a year after he got out there. There was no alteration of sensation in the patches, and no inconvenience from them. The probable cause was deficiency of pigment in the skin, due to defective innervation, produced by the patient's inability to bear intense cold.

A Case of Local Plantar and Palmar Xeroderma, or keratoderma (Vidal), apparently unique, in a child eleven years old. The disease began when she was ten months old. There was dense thickness of plantar and palmar surfaces of the feet and hands, showing well-marked large square plates of epidermis, interlaced with yellow horny tissue. There were no signs of disease in the rest of the body.

A Case of well-marked Xanthelasma in a Child five years old, showing characteristic patches of yellow tubercles of firm consistency on the posterior surfaces of the elbow-joints, on the junction of the folds of the buttocks, and upon the popliteal spaces. The duration of the eruption is now about three years. There was no history of hepatic or renal mischief.

A Case of Lupus Erythematosus observed for two years on the right cheek of a man aged about forty. The eruption, when first noticed, had a well defined and a good margin, and a very red erythematous centre. The case had greatly improved under the treatment by application of caustic ethylate of sodium in one month.

Mr. CLEMENTS LUCAS showed the patient upon whom he had performed nephrectomy on the 17th of February, 1880. The man had left his work as a bricklayer, to attend at the temporary museum. He was quite free from pain and in a good state of health. There was a sound white cicatrix in the loin indicating the position of the operation. This was T-shaped, a vertical incision through a sinus having been first made, then a transverse one just below the last rib, to enable the pedicle to be more easily reached. The kidney removed was also shown preserved in spirit. It was much punctured on the exterior, and dilated into a number of abscess-cavities. A coloured sketch made of the organ just after removal showed faithfully the degeneration which had taken place in it.—Mr. LUCAS pointed out the great thickness of a portion of the ureter removed, and accounted for the persistence of purulent urine after the operation by the degeneration which had taken place in the mucous membrane of this tube, and in that of the bladder, owing to the continual passage of kidney pus over them. The pus gradually disappeared, and when last examined the urine was quite clear.

Chronic [illegible] Mr. CHARLES LUCAS showed a patient the subject of the peculiar pigmentation which he described in a paper read before the Clinical Society in December, 1880. The man had suffered from [illegible] in both legs [illegible] had

become firmly ankylosed in an abducted, everted position, so that the thighs crossed above the knees, and the heels were far apart. The crossing of the thighs and the separation of the heels gives to the extremities a resemblance to a pair of scissors, as the patient himself had suggested. Mr. Lucas demonstrated how that, in normal walking, the forward movement takes place entirely at the hips, the knee being only used to shorten the limb as it passes forward; but in these cases of double hip ankylosis the deformity is an actual advantage in progression, since the knee, becoming obliquely directed, is capable of forward movement, and thus knee-walking is substituted for hip-walking.

Aneurism of the Internal Carotid Artery.—This rare and highly interesting case had been under Mr. Lucas's care for three years. The man, a native of Canada, attributed the commencement of the swelling to the inflammation consequent on the eruption of a wisdom tooth, at the age of eighteen. The enlargement commenced beneath the orbit, and gradually involved, as a pulsating swelling, the whole of the right half of the face. Mr. Lucas has operated on this case altogether fifteen times—first by ligature of the external carotid arteries, which stopped the pulsation for a time, then by electrolysis, galvanic cautery, elastic ligature, and several times by excision. The last operation was twisting of the facial and transverse facial arteries of the left side. Mr. Lucas said that one argument that had been advanced against torsion of arteries was, that the twisted end would slough and act as a foreign body. This case proved that the twisted end was not thrown off, for primarily union of the wounds had taken place after twisting the two ends of both the arteries referred to. The case still remained under treatment. The part which had increased most of late was the portion situated within the orbit. This pushed forward the eyeball about half an inch beyond the level of the other eye, and Mr. Lucas is now contemplating the advisability of ligaturing the common carotid artery.

Tumour of Groin and Scrotum.—This case came under Mr. Lucas's care on June 27th. The patient had been attended before by Dr. Duke of Dover. He was a wheelwright, aged 55, and had suffered severely from bronchitis. He had an enormous tumour occupying the left groin and scrotum, reaching to within two inches of the umbilicus and completely obliterating all evidence of his penis. In the centre of the tumour of the scrotum, there was a fossa through which the urine escaped during micturition. The circumference of the scrotum was 26½ inches, and the tumour, measured from the upper edge to the back part, was 26 inches. It was dull on percussion and in the scrotum gave the sense of fluctuation, but on tapping no fluid was obtained. He said it commenced as a small swelling about the external abdominal ring about seven years ago, but that it was never reducible. Mr. Lucas was of opinion that it was an enormous hernia consisting chiefly of omentum, but some who saw it thought that there must be a new growth. The question of operation has been entertained, but a severe attack of bronchitis, from which he was still suffering, contra-indicated any immediate interference.

Two cases of *Dactylitis Syphilitica* were shown by Mr. DAWSON WILLIAMS, Registrar to the Victoria Hospital for Children. Case 1 was a male child, aged 2½ years, under the care of Mr. Churchill. Nearly all the metacarpal bones, most of the phalanges of the hand, the metacarpal bones of the great toe on both sides, and the upper end of the radius and ulna on both sides, were affected with an inflammation which had advanced, in the case of the hands and feet, to the suppurative stage. The patient also suffered from ozæna and thickening of the nasal bones. No distinct history of syphilis could be obtained. Case 2 was a male child, aged 1⅝ years, under the care of Mr. Walter Page. The bones of one hand and the radius on the opposite side were affected. There was a distinct history of syphilitic infection in the parents. The disease is described under the above title by Bunstead and Taylor; but it is undoubtedly a question whether it be not really of a scrofulous nature. Messrs. Parker and Crocker had described a similar case under the name of scrofulo-syphilis. Mr. Hutchinson, however, regards it as due to hereditary syphilis.

NIGHT CALLS.—The *New York Medical Record* mentions that a physician is suing, at Shelbyville, Ind., for a divorce from his wife, on the ground of cruel and inhuman treatment. Having a large practice, he is frequently called out at night. His wife, being jealous, refused to believe that all his absences from home were professional, and demanded that he should stay in of nights. He said his patients would not stand neglect. Then she adopted the plan of taking poison whenever he had a night call, thus compelling him to remain and doctor her. She swallowed a deadly drug in this way several times, and her life was saved with difficulty. The husband claims that such conduct is a just cause for divorce.

ABSTRACTS OF INTRODUCTORY ADDRESSES

THE METROPOLITAN AND PROVINCIAL SCHOOLS IN OCTOBER 1881.

ST. GEORGE'S HOSPITAL.

THE Introductory Address, on Liberty and Authority in Medicine, was delivered on October 3rd by Mr. WARRINGTON HAWARD, surgeon to the hospital.

After some introductory words of welcome to the students, the lecturer proceeded: "I do not think I need say anything to you of the advantages or disadvantages of the medical profession. You will have considered these before your entrance here, and have probably come to the conclusion that the path you have chosen is neither all smooth nor all rough; that it has its special difficulties as well as its special attractions; its grave responsibilities as well as its grateful rewards; its opportunities of good and its possibilities of evil. Neither do I think it would be at all profitable to attempt to advise you as to the method in which you should pursue each particular study in which you are about to engage. That will be told you far better than I can by the teacher of each special subject. What I should like to speak to you about, in the short time that is to-day at my disposal, is the spirit or tone of mind in which, as it seems to me, you may best enter upon your studies as a whole. A question which meets the student at the outset of his career is, how far he is to trust to the dictation of his teachers, and how far to depend upon his own judgment or investigation. For you cannot wholly depend upon either the one or the other. We should indeed be poor both in knowledge and resources if we were deprived of the great inheritance of observation and doctrine which has descended to us from our forefathers, or if we accepted nothing from the past of which we had not ourselves tested the accuracy and the value; but, on the other hand, unless we duly exercise our judgment, it will become enfeebled by disuse, and, like the weakened muscles of disease, liable to irregular and errant action, and easily turned aside by the smallest obstacle. The knowledge of to-day is built, not with fragments from the ruins of the past, but with new material added to the solid structure which has stood the test of time. We must perforce avail ourselves of the basis furnished by the labour of those who have gone before; but we must know well the foundation, see that it is firmly established, and that the superstructure stands erect, and beware of the bias of prejudice or passion, remembering that every such deflection from uprightness introduces an element of instability into the edifice, so that the more it is added to the more dangerous it becomes, and the nearer it is to its inevitable downfall. He, therefore, who in arrogance or self-conceit despises the teachings of his predecessors, and believes only in himself, is equally in error with him who, either from feebleness or idleness, yields his independence of thought to, and takes his opinions from, another. How, then, are you to steer between these two dangers; how, while imbued with the lessons of the past and yet receptive of the influences of the present, can you best use them both for your secure progress in your studies and the attainment of the knowledge that will best help you in the exercise of your profession?"

This question, it was pointed out, involves the right balance of liberty and authority, and its consideration was the chief matter of the discourse.

It was shown that the knowledge which has been arrived at by the observation, investigation, and reasoning of the master-minds of medicine should be sought for from its teachers; but that a first essential for the profitable reception of the teaching of others is that we approach our studies in the student frame of mind—that is, with the consciousness that there are others who know more about the subject than ourselves.

The lecturer did not think that the proper and philosophical state of mind for the students was one of profound scepticism of everyone and everything except themselves. "Rather," said he, "let me advise you to remember at the outset of your studies—what we in the progressive studies of our lives discern more clearly every day—that 'there are more things in heaven and earth than are dreamt of in our philosophy'; that even within the limits of our own special studies there are many more things than can by us be known, at least at present, and many others which are as yet but dimly seen, and that, concerning all, the Hippocratic maxim still holds good, that 'true judgment is difficult.'"

The consciousness of the imperfection and deficiency of our knowledge should engender in us modesty, toleration, and caution, mental qualities no less becoming than profitable to cultivate; while the sense of the vast extent of the unknown which invites our investigation should add the stimulus of enthusiasm. These mental qualities were each considered. Modesty, a due sense of the proportion which we bear to the rest of the world—developed, therefore, in proportion to the amount of real knowledge attained. Toleration naturally followed upon modesty, and the recollection of our fallibility, and of the difficulty of attaining absolute certitude. Caution was the best guarantee for real advancement in learning, and that it was not opposed to real progress was shown by the examples of Bacon, Hunter, and Darwin. Enthusiasm gave the healthy stimulus and inspiring influence needful to overcome difficulties and failures. The following questions were then discussed: 1. What facts and doctrines are there in medicine so certainly known and established that they may be taken for granted and used as a basis of action? 2. What authorities are we to trust, and what are to be the limits of our assent? 3. Wherein are we bound to investigate for ourselves, and to claim full liberty of action?

In connection with the first, it was shown that the doctrines to be received must be established by credible witnesses, received by competent judges, and confirmed by sufficient experience; and that many of the beliefs in medicine upon which we are daily acting are the *dogmata* of the ancients, sanctioned by time. Under the second question the limits and criteria of authority were considered, and it was held that its dicta should, when possible, be submitted to the criticism of reason, and that no penalty should attach to not accepting them. In answer to the third question, it was said that, "whenever we advance towards the unknown, we are bound to use all available means of inquiry, and to claim full liberty of judgment. This is the place for the scientific use of the imagination, and for the free play of the speculative as well as of the critical faculties." The application of these principles to the study of medicine having been explained, the lecturer concluded with some advice on the right use of the knowledge thus gained. "Our business," he said, "is the prevention, the alleviation, and, where possible, the cure of disease"; and he entreated his hearers not to think too exclusively of the last, and to forget the importance of the first two of these functions. Seeing, too, that their profession was one involving much responsibility and care, and needing at the same time an habitual calmness of mind, he advised them to alternate their labours with the rest of reasonable recreation, for which there was nothing more refreshing than the study of natural beauty and the art which has striven to represent it. Finally, it was shown that, both in science and nature, there was the same evidence of the ever-present influence of authority; that life was the manifestation of law and order; disease a disorder, an endeavour to escape from authority; and that death would seem the triumph of disorder over the order of life; a dissolution of the bonds which hold the elements of the body in co-operative union; a release from a beneficent authority into a baneful and destructive liberty, were it not for the recollection that there is an Authority even over death—that it is but the night through which we must all pass to enter on the everlasting day; that even here completest liberty is only to be attained by deference to authority, for the authority is of Him "whose service is perfect freedom."

KING'S COLLEGE.

THE Introductory Address was delivered by Sir JOHN LUBBOCK, Bart., M.P., F.R.S., on Monday, October 3rd.

After some words of introduction and congratulation to Dr. Barry and the staff on the prosperity, efficiency, and prosperity of the College, Sir John Lubbock observed that the number of students had risen in all the principal departments; and that not only had the number of candidates for the London University steadily increased, but they had passed most creditably. Indeed, he observed that the history of the College had been one of constant progress. When founded, just fifty years ago, it consisted of only two senior departments. In 1838, engineering and applied sciences were added; in 1839, King's College Hospital was erected; in 1847, the theological department was added; in 1856, the evening classes were founded; in 1861, the oriental department; in 1875, one specially adapted to the Civil Service examinations; in 1880, the art and metallurgical department; and it was now proposed to institute a department for women's education. The number of students had risen to more than 1,500. He congratulated the staff also on giving some share of encouragement to all the great branches of human knowledge.

He thought the time had come when it would be desirable, under the auspices of the University of London, to institute more joint action between the educational institutions of the metropolis. In this way, he thought, considerable improvements might be effected. For instance, lectures might be given on subjects perhaps too special for any single college or school.

He congratulated the successful students, and pointed out that the possession of special gifts, as proved by their success, imposed on them special responsibilities. He hoped, however, that those who had not been successful would not be discouraged. Success in life depended much on many things which no examination could test. He impressed on all the importance of laying down for themselves a healthy rule of life; working as hard as they could, but not overworking. In urging them never to waste a moment, he did not mean to deprecate holidays. Much time, however, went in occupations which were neither work, rest, exercise, nor recreation. That he called wasted time. After dwelling on the necessity of exercising care in the selection of the best books and the best friends, he concluded by wishing them success in the ensuing session.

ST. MARY'S HOSPITAL.

THE Introductory Address was delivered by Mr. G. P. FIELD, aural surgeon to the hospital, on Monday, October 3rd.

Mr. FIELD, in welcoming new comers, spoke approvingly of the custom of introductory lectures, where much was said that has been said before; but it was matter which would bear, and indeed require constant repetition. He referred to the liberality of Mr. Stanford, who has left £25,000 to build a new wing to the hospital, which will raise the number of beds to 260; and it is much to be hoped that there would, at no distant date, be accommodation for 380 in-patients, as originally intended. The loss of Sibson and Gascoyen were then referred to, and these departed colleagues held up as bright examples for imitation. Working early in the morning, with moderate indulgence in athletic pastimes later in the day, was recommended to the student, and the study of some special science was held to be the best mental recreation for the student of medicine. Mr. FIELD spoke in favour of the army and navy public services which, since the new warrants are better than they ever were. He considered that the heads of the profession deserved life peerages, and that it was hardly fair that a president of the College of Physicians should receive a title one grade lower than that often bestowed on a respectable contractor or alderman. He believed that, to increase social respect, the lights of the profession should take higher fees. If our leaders took five or ten guineas, it would do good in every way. They would not be obliged to work so hard themselves, the juniors would get more practice, the profession would be better thought of, and the public better served. Mr. FIELD related a characteristic anecdote of the late Sir William Fergusson, who, after a successful operation on a Manchester millionaire, was asked by the patient to name the fee. "Two hundred guineas" was the reply. "Two hundred guineas", exclaimed the patient? "Yes", said Sir William; "you forget the life-long experience required to give the proper skill, the time and toil of the journey, and the loss of practice in London". "But you have only been ten minutes about it", said old Dives. "Oh, if that's your objection", said Sir William, in his broad Scotch, "the next time I come I'll keep ye an 'oor under the knife". "Are there not hundreds of cases in which younger physicians can give as good an opinion as most eminent practitioners? What would junior counsel think of the Attorney-General taking the same fees as themselves? Fancy calling a Bishop or Lord Chancellor out of bed at three in the morning—and yet the heads of our profession run this risk. If any rich num-skull has feasted too liberally, he immediately sends for what he considers the first opinion, naturally thinking he will get the best for his money; but if the fee were a hundred guineas, the heads of our profession would sleep peacefully, their slumbers would not often be disturbed.

"But the great difficulty seems to me to be with those who are on the border line, such as past presidents of the Colleges of Physicians and Surgeons. They are all men of eminence, but have not all succeeded in becoming the fashionable doctors of the day; at the same time they could hardly take smaller fees than others holding the same position.

"As was well said here by Dr. Farquharson, 'The trading mind has lately been much exercised by the unheard of and insolent, if not illegal attempt of some [illegible] practitioners, to [illegible] with the general [illegible] the luxury of a fashionable opinion they must pay for it'.

"There is a body of men who work [illegible] for nothing, being scarcely thanked for what is termed charitable work. Hospital [illegible] their [illegible] ration, instead, as is frequently the case, making the staff pay even to become governors of the institution. [illegible] painting, [illegible] and play, do they not [illegible] instead of a wreck [illegible] £20

a-year to gentlemen of culture and position, a requital fifty-fold as much? The public must be taught what is obviously its duty. This year the census was taken, showing that there are about 20,000 duly qualified medical men in the United Kingdom to 35,246,562 of inhabitants, or one in every 1,750; and in London about 4,000 medical men to 3,814,571 inhabitants, or one in every 4,000. At this rate there is room for us all. But hundreds of patients in London who can well afford to pay a fee, habitually resort to hospitals. And take the labouring classes and ask what they do for the hospitals from which they, of all others, chiefly derive benefit. The Hospital Saturday we may look upon as the offering of the working classes, amounting only to about £5,000 a year. Now, if 3,000,000 out of every 4,000,000 in London subscribe but one shilling per annum each, the contribution would be £150,000. It is therefore obvious that the working people of London subscribe less than a halfpenny a year each to the support of their hospitals. Poverty cannot be pleaded, as a recent statistical investigation has shown that in a single square mile in London £400,000 is spent in drink in one year".

Mr. FIELD then made short references to the question of homœopathy and to the anti-vaccinators. He believed that the repeal of the Contagious Diseases Act would be a public calamity, contrasting the state of things existing before the Acts were passed with that which now prevails. Ever since that change, where the Acts have been in force, immorality has decreased, and therefore there is less disease. "Do those who clamour for the repeal of these Acts comprehend what a dreadful scourge this disease is? Have they any conception of the horrors of a case of this kind allowed to run its course? A few years ago every breakfast table was inundated with appeals from these people, a majority maiden ladies, perfectly innocent in both senses of that word, with the best intentions, blessed with great energy and a wonderful amount of crass ignorance. The cry was, is it right that women should be subjected to such degrading investigations? If Jeremy Bentham is right, happiness results from doing the greatest good to the greatest number, and in this case the end must justify the means. A minor wrong may possibly be done to individuals in order to confer unspeakable benefit on our race. Although instances of respectable women being annoyed by the police are hardly known, the objectors declare that if men sin they deserve to be punished. This we may admit, but there is such a thing as hereditary disease. Total deafness and loss of sight are far from uncommon from this cause, and Hinton found that one-twentieth of the aural patients at Guy's Hospital suffered from hereditary syphilis. 'No other cause except, perhaps, fever, brings on deafness so rapid and so complete'. And knowing all this, and having a remedy at hand, are we not to make use of it? If all the idiots, the wretched, puny, diseased mortals, who have to drag out a life of misery, through no fault of their own, could rise up in judgment, they would cry shame on these sickly sentimentalists who are working hard for the repeal of the very Acts which people of intelligence and information know to be the only way of stamping out this dreadful pestilence. Such persons should have witnessed in the hospitals a few cases of disease before 1866, human beings whose condition can be described by no other term than rottenness. Compare such cases with the milder type of disease that is now seen at the Lock Hospitals, as the rule, and not the exception. Let them picture to themselves the offspring of such parents, who surely are visited with the sins of their ancestors for many generations. It is our duty, as medical men, to improve the condition of the human race, and this is best done by stamping out disease, and so preventing in a great measure, misery and crime from riding rampant; and we shall then hand down to future times, not a feeble and sickly, but a virtuous and vigorous race.

"But how are we to stamp out this disease, and what is being done to further this object?

"The Contagious Diseases Act is still in its trial on its original limited scale at the larger naval and military stations. It has been the case now for many years, and again lately shown by Surgeon-General Lawson, before the Select Committee of the House of Commons this session, that the amount of primary venereal disease is considerably less than half at the stations under the Acts, as compared with those not so protected. But in addition to this, and what is of still more importance, the number of admissions for secondary disease has been shown to be during recent years as much as 40 per cent. less at the protected places than at the others, where it has remained as nearly as possible stationary. It would be of incalculable advantage to the public if these Acts could be extended to all the large centres of population. Seaport towns, such as Liverpool and Hull, are known to be hot-beds of venereal disease of all kinds. It is impossible, however, in the face of the fanatical and unreasoning opposition which is still being carried on to hope that much can yet be done in this direction. The Anti-Contagious Diseases Acts Association, as shown before the Committeee of the House of Commons, collects £3,000 a year to carry on the agitation.

"The opposition is similar in character to that which prevails against vivisection and vaccination, and is almost confined to places far away from the working of the Acts, where there is an almost complete ignorance as to their operation and effects. The testimony given this session from places where these measures are in operation is overwhelming, not only as regards the diminution of disease, but the improved condition of the towns in the suppression of street solicitation, riotous demeanour, etc. Clergy of all denominations have given most striking evidence to this effect, as well as to the facilities afforded for the reformation of fallen women and the suppression of juvenile prostitution, which they find now to be almost a thing of the past. It would be well if the profession generally would make themselves more familiar than they are with these facts, so as to be able, when opportunity offers, to guide public opinion in the right direction, There is one point which is well worthy of mention, and which has been brought out by the labours of Surgeon-General Lawson. He has ascertained from the Registrar General's Returns, the proportion of deaths from syphilis in the different parts of England and Wales, taking three quinquennial periods from 1865 to 1879, and he has found that in the counties south of the Thames and the Bristol Channel, in which are situated all the stations under the Acts, except Colchester, there has been a decline in the deaths from syphilis, comparing the first with the third period, of 14 per cent. In all the other groups of counties—Midland, North Midland, and Northern, there has been an advance of 14, 37, and 15 per cent. respectively. The death-rate varies in the different groups of counties, but the only place north of the Thames where there has been a decrease, is London, where the rate is very high but has fallen 9 per cent. These are most remarkable statistics, and being given chiefly on the authority of Mr. James Lane, cannot be doubted; they are of especial interest when it is considered that three-fourths of recorded deaths from syphilis are in children under one year of age. Further investigation in this direction is much to be desired, for if it can be shown that legislation of this kind can make a really serious impression on hereditary syphilis, the benefit which would accrue to the community could hardly be over estimated".

Mr. Field then made some observations on the unfair tactics of the antivivisectionists and the abuses of certain special institutions, remarking that it is a crying evil that general hospitals in this great and fabulously rich city should be obliged to close their wards for want of funds, while other places of little worth are springing up daily from the importunity of clever promoters, who set to work in the same way as they would to float a company. Institutions for infectious diseases, insanity, diseases of women and children, etc., are necessary; but all special branches of medicine and surgery must be taught in medical schools. After making complimentary allusions to Dr. Crichton Browne and Mr. Critchett, as able and eminent teachers of special branches of medical knowledge at St. Mary's Hospital, Mr. Field spoke in high terms of Dr. de Watteville's valuable demonstrations of the use of electricity at the medical school, practical instruction in a science which will shortly play a great part in civilisation. The people, to be healthy and happy, must, however, not wait for new discoveries, but improve themselves, for drink is still a fearful source of misery. Allusion was also made to the great success of the International Medical Congress, and to the abuses inherent to medical evidence in courts of law.

Mr. Field spoke favourably of the advances made in the sciences; but in the arts we are yet behindhand in many respects. The æsthetic mania is as inartistic as it is affected and unnatural; and the evils of tight lacing, a practice based on spurious ideas of beauty of form, is on the increase, in spite of what has been so often rightly urged against it. Mr. Field hoped, now that so many ladies go to ambulance classes, that they may consider the physical sufferings of the poorer and younger members of their sex who have to stand for long hours in unhealthy shops.

On the other hand, society, and the other professions, cannot say that medicine has failed in its duty, in doing benefit to mankind. In our day, anæsthetics, improvements in abdominal surgery, and the antiseptic system of dressing wounds have all been either introduced or made practicable; and the introducers of chloroform and ether, as well as Mr. Spencer Wells, M. Pasteur, Professor Lister, and others, have saved thousands from untimely death and avoidable suffering.

It may be asked, what comes of all the good we have done? All things are doomed to die; and, moreover, as science advances, does the world grow better and purer, and does a belief in a God amongst men of science seem to be more common?

A great deal has been said about the antagonism of science and religion. Paget observes: "You will find among scientific men very

few who attack either theology or religion; the attacks imputed to them are made for the most part by those who, with a very scanty knowledge of science, use, not its facts, but its most distant inferences, as they do whatever else they can get from any source, for the overthrow of religious belief."..."When two beliefs seem incompatible, it does not follow that one is true, and the other false; they may both be true; and their opposition may be due to their both being ignorant of some intermediate truth, which, when gained by increasing knowledge, will combine the truths they now hold apart."

Lastly, Mr. Field observed that if the medical man let a strong sense of duty pervade all his thoughts, words, and deeds, then, and only then, can he reasonably expect to ride calmly through the storms of this troublesome world into the haven of perfect peace; and concluded in the following words: "You will then be able to look back with feelings of satisfaction upon an honourable career, in which it has been your privilege to mitigate the sufferings of that being of whom our great dramatist has said, 'What a piece of work is man! How noble in reason! how infinite in faculties! in form and moving, how express and admirable! in action, how like an angel! in apprehension, how like a god!'"

MIDDLESEX HOSPITAL.

THE Introductory Address was delivered by R. DOUGLAS POWELL, M.D., F.R.C.P., Physician to the Hospital, on Monday, October 3rd.

After a few words of cordial welcome to old and new students, on the part of his colleagues and himself, Dr. Douglas Powell proceeded to observe that there was at this time of year but little temptation to depart from the special purpose of an address introductory to the work of the coming session; for in the past autumn all topics of general interest had been exhausted; the harvest of science had been gathered; the harvest festivals held; the fruits of the year garnered; and seed-time had again commenced. He congratulated his audience on having chosen medicine for their profession; it was the most interesting and beneficent of callings. As a science, medicine embraced a wide and free range of thought, ever seeking out what was true. The relief of suffering, and the endeavour to preserve human life to the maximum term allotted, were the objects justifying medicine as an art. Fortunately for her stability, in this age of tottering dynasties and threatened institutions, the aims of medicine were aside from politics; her growth must be with the growth of civilisation; her teaching and purpose took an ever-deepening root in the selfishness, if not in the philanthropy, of mankind. Dr. Powell pointed out how the most dry details of elementary study in medicine became profoundly interesting when the light of a better knowledge of their application and bearing was reflected upon them; and he urged the students, in what he termed the anatomical period of their career, to observe the most obvious phenomena of health and disease, such as the heart-sounds, breath-sounds, body-temperature, secretions, pulse-characters, and the like, as matters of mechanism, of chemistry, of nutrition-changes, which were within their ken, and which reflected increased interest upon the anatomical, physiological, and other work more proper to this period of their career. The more advanced students should still pursue their studies upon the same lines, proceeding from healthy anatomy and physiology, with which they were now familiar, to consider those alterations of structure and perversions of function and nutrition which constituted disease; for pathology could not be separated from physiology. Every opportunity should now be taken to study the natural history of disease, and to gain experience by practical work in the wards, and by holding, whenever they could get the chance, offices of responsibility in the hospital. Actual experience was the only counterpoise to that weight of responsibility which pressed so heavily upon the medical practitioner. In acquiring this experience, he asked his hearers not to be content to study only the acute phases and the last results of disease. A more careful observation of the various steps of that happier solution, which the majority of the disease-problems that came before them underwent, would teach them the brighter side of pathology, to disregard which tended to fatalism in prognosis and to vacillation in practice. Dr. Powell then gave some examples illustrating the vicissitudes of repair and convalescence, the rapidity with which disease-products were sometimes removed, and how, in the course of such removal, symptoms might sometimes arise due to the presence of an overcharge, so to speak, of effete materials in the blood. Here was a source of secondary disease from too great an eagerness on the part of Nature in her reparative efforts, which it was well to ponder. *Compensation* was another great feature in the natural history of disease, in effecting which the reserve powers inherent in organic structures, which constituted our wealth of vitality, were called forth and developed. Compensatory function was the *motive power* in chronic disease. The sources and methods and paths of compensatory function would afford them a rich field for interesting and original research. All knowledge respecting it was to be gained from practical observation in the wards; little or none from books. The *vicarious* principle, by which one set of organs temporarily bore the burdens of another set, was also frequently illustrated in medicine. He did not invite attention to these phenomena of the natural history of disease merely for the satisfaction their study would afford, whether as intellectual exercises or as matters of purely scientific interest; they were the essential conditions of life to thousands of people; and to start, to stimulate, and to maintain them in chronic illnesses, were the grand objects of our art, in attaining which some of the most brilliant triumphs of therapeutics were achieved. The possibilities of compensatory, reparatory, or vicarious action in any given case formed the grounds for a rational prognosis, and prompted a judicious treatment. Nature required not only watching, but aid, direction, and control, in her doings. Her attempts at repair even were not always timely, and would sometimes prove disastrous, were it not for the interference of the surgeon.

Dr. Powell next addressed his observations more especially to those who had completed their studies, and were passing on to the practice of their profession in the public services, the town, the country, or the colonies. He pointed out that the work of hospital physicians and surgeons was largely educational. In their hasty interviews with their poor patients, they were constantly advocating the laws of hygiene—cleanliness, temperance in all things, directing the care of children, instructing in diet, etc.; and in the aggregate their work in this direction was of immense value. Public hospitals and convalescent institutions, well ordered as they now were, inculcated lessons of decency and cleanliness in many cases unknown before. But the doctor in private practice throughout the world was literally teaching from door to door the laws of healthy living, which were in greatest part identical with the purest morality. We might all well think more of this. The doctor might give a friendly hint to many who were not accessible as yet to higher teaching. Referring to the oft-witnessed fact that everyone around the sick man's couch saw the approach of death save himself, Dr. Powell touched upon the duties of the physician in this matter. In starting, especially for country or colonial practice, he urged the importance of a thorough equipment, and of a supply, in portable form, of remedies ready to hand. They must not be content with carrying with them only the means of diagnosis. He commended the army service to those fond of travel and interested in investigating the effects of climate. Some of the most interesting and important questions in medicine had been, and were to be, worked out by military surgeons.

Dr. Powell concluded his address by observing that, just as the chief labours of early studentship consisted in the foundation-studies of anatomy and physiology, and as that of later studentship was concerned with the natural history of disease, not only regarded in its acute phases and ultimate results, but including the phenomena of repair and convalescence, the development of compensation and vicarious function, and the modifications effected by treatment, so, in the still more advanced stage of studentship which some amongst them were but now commencing, and from which the earnest practitioner never emerged, we had yet to learn much of the beginnings of disease—in individuals, in families, in communities. Here was worthy labour for many lifetimes.

ST. THOMAS'S HOSPITAL.

THE Introductory Address was delivered by Dr. A. J. BERNAYS, Lecturer on Chemistry to the Hospital, on Saturday, October 1st.

After thanking the Treasurer and the Governors for the support which they had so generously given to the staff and to the medical college, Dr. Bernays, in the name of his colleagues, welcomed the many friends and strangers who came to the support of the institution. Nor would he fail to remember the honour done to one of his colleagues. So richly deserved, and so promptly carried out, the title conferred by Her Most Gracious Majesty upon him, assures us of the interest of royalty in the noble profession of medicine, and of the fact that it has been ably sustained by Sir William Mac Cormac.

Dr. Bernays then addressed himself to the students, and gave them much useful advice as to habits and methods of study. He insisted that the second and third year's men should take interest in, and charge of, the first year's men. He warned them to be wary in accepting many of the opinions which are afloat with reference to their own being, and to that of the Great Creator. Whilst for himself he humbly believed that God has revealed Himself to us, and not left us in total darkness, he warned them of the error of supposing that we could find Him by any scientific research. When he was [illegible] the Most [illegible] infidelity, [illegible] was

not even thought a fool who suggested that the beginning of all life upon our globe might be accounted for by the fall of a meteorite from some other orb. To the late illustrious Dean Stanley, the lecturer then paid full tribute (he having recently distributed the prizes at St. Thomas's), and considered that the Dean was fairly entitled to the name given to him by Mr. Simon, "the liberator of the conscience of mankind". Students of medicine should be the last people to suggest *cui bono?* as to research in science. Dr. Bernays had a lively recollection of a former student, exercised in mind by the reactions of chlorine upon alcohol, finding no satisfaction in the production of chloral. What is the use of it? Shortly afterwards, he informed me of the discovery of Professor Liebreich in the application of chloral-hydrate. Consider, again, the antiseptic treatment, the benefit it has already wrought for man. We owe all our present knowledge to experience, which is but experiment. From what we already know of the germ-theory, our hopes are great in the preventative treatment in medicine and surgery. Who shall say what inhalation may not bring about when the action of disinfectants is better understood? Experiments in this direction might be undertaken with advantage by students in their third or fourth session. This led Dr. Bernays to repeat a former suggestion of his, published in the St. Thomas's *Transactions*. At every medical school, there are many able young men who, if the means could be found, would delight in remaining another year or so at the hospitals; their increased experience would be of immense advantage to the public. As no modern education is complete without some knowledge of physiology, our medical schools, being distributed over London and the provinces, would furnish the most advantageous centres for teaching, practically and theoretically, physiology and chemistry. In the place of a system of centralisation, we should have colleges sufficiently widely apart to be convenient to a scattered population. South Kensington, with reference to greater London, reminded Dr. Bernays of a scene in *Nicholas Nickleby*. Mr. Squeers is boasting of the fatness of his son, as proving the quality of the feeding at Do-the-boys Hall; whereupon the gentleman to whom he appeals declares that the boy has got the whole of it. Everything is starved for the sake of South Kensington. It is a waste of means that the museums, lecture-rooms, and laboratories, should be so little employed, compared with their capabilities. Assuming the hospital authorities consented, what a spur it would be if clever students could look forward to continuing to walk the hospitals whilst they gave a portion of their time to teaching in the laboratories under the guidance of the respective professors. Dr. Bernays remarked that it is only in laboratories properly appointed for the purpose that the requisite time could be given for the analysis of the various nostrums, which last year paid £140,000 to Government for stamps alone. From the advertisements appearing in the religious papers, where one sees vaunted the superiority of vegetable over mineral medicines, one is led to speculate on the credulity, in matters medicinal, which belongs to their readers. The various drinks, manufactured and natural, clogged with elements that require as skilful administration as does the treatment of disease; mineral waters of a different composition to that vaunted in the published analyses; these, and such as these, are matters upon which students can only obtain proper information by possessing a practical acquaintance with chemistry.

Dr. Bernays further stated that very little could be done in the way of research without expensive apparatus, and that very much of our hopes for future knowledge depends upon it. Comte stated, in 1842, that it was hopeless to expect to determine the composition of the heavenly bodies; nevertheless, the spectroscope has, to a great extent, revealed it. No element had been discovered in the planets and stars which was not found upon our own earth, although many of the minerals contained in them must have been formed under different conditions. At present, our information was insufficient to dogmatise as to the nature of the elements. Not very long since, the idea that electricity could compete with gas was considered the dream of an enthusiast; now it is much more probable that a less luminous gas will be employed for heating rather than for lighting. Surely, too, in the time soon to come, smoke will no longer be permitted to defile the air, nor will volumes of sulphurous acid be allowed to escape unheeded. And yet the greater portion of this nuisance could be prevented by the removal of our open fire-places, and by the introduction of Doulton's stoves; and even more by the employment of purified gas, from which, also, much of the lighting property has been removed by the application of a greater heat in the manufacture. All these things, Dr. Bernays said, were matters of experiment, and worthy of the attention of our medical students, offering them fresh fields for employment.

Dr. Bernays concluded his lecture by elaborate illustrations, accompanied by diagrams, of the wondrous progress which has been made in latter years in constructive chemistry.

UNIVERSITY COLLEGE HOSPITAL.

THE Introductory Address was delivered on October 3rd by GEORGE VIVIAN POORE, M.D., F.R.C.P., Professor of Medical Jurisprudence, University College; Assistant-Physician to University College Hospital.

After discussing the [illegible] of medicine, both as a profession and as a branch of science, and after showing that the continual and inevitable growth of medicine and the collateral sciences were daily making it more difficult to compress medical education within reasonable limits, Dr. Poore said: "It is common enough to hear people speak of 'medicine and the allied sciences', but, as a matter of fact, medicine can scarcely be said to have any individuality as a science. It may be defined as 'the application of various branches of knowledge to the alleviation of human suffering', but, without the so-called collateral sciences, it could have no existence whatever. It may be compared to one of those figures which we sometimes see in the intricate tracery of a Gothic window, or the elaborate pattern of a rich mosaic. In these traceries and mosaics, one may discern forms of great beauty and symmetry, which, although they are perfectly defined, seem to have no true outline of their own; but depend for their shape, regularity, and beauty, upon the intersections of adjacent figures. A clearly defined and many-pointed star may be the result of the intersections of many equal circles. Remove the circles, and the star ceases to exist. Remove one of them, or allow the circles to vary in size, and the star will lose much of its symmetry and beauty. So it is with medicine as a science. It has no outline of its own, and its perfection depends upon a due proportion being maintained in the amounts of the various so-called natural sciences which enter into its composition. There are those who hold that the student of medicine has but little need of special training in the natural sciences, but such a position is untenable"; and Dr. Poore emphatically advised first year's students not on any account to neglect their purely scientific studies. "They are the very foundation of professional knowledge, and, without a solid foundation, no firm or worthy superstructure can be raised." Dr. Poore discussed at length the advantages of studying physics as well as biology. There is one branch of medical knowledge which "does but encumber whom it seems to enrich", which was entirely of our own creating, and which in times past had brought much deserved ridicule upon medicine. He alluded to medical language. The extent to which this cumbersome branch of knowledge had grown was shown by the *Dictionary of Medical and Scientific Terms*, which was in course of publication by the New Sydenham Society, and which, when completed, might be expected to contain more than 300,000 medical and scientific terms. Dr. Poore continued: "In making use of language to express our thoughts, we ought to be sure—(1) That the words used really express the idea which it is wished to convey; (2) That they are the shortest; and (3) That they are the most familiar words which are available. Words must be as objective as possible, *i.e.*, they should bring the subject with the utmost vividness before the mind's eye: and therefore those words to which the eye, and the ear, and the mind have been accustomed for the longest time (vernacular terms used from infancy), are the best; and as it is equally obvious that a word of two syllables requires twice the mental attention that is necessary for the comprehension of a word of one syllable, it is clear also that, other things being equal, the shortest words are the best. If the advantages of expressing ourselves simply are so obvious, why, it will be asked, do we continue to use the polysyllabic gibberish which passes current as the language of science, but which proves, I think, that we have not yet come to a right comprehension of the scientific use of language? The only justification which can be given for it is the desire, which we all must share, that there should be a common language to serve for the interchange of thought between scientific men of all nations; and the fact that these specially coined words are possibly comprehensible to a select clique of some few nations is supposed to compensate for the fact that they are not only perfectly incomprehensible, but absolutely repellent to the millions of all nations. By using a language 'not understanded of the people' for the expressing of scientific facts, we undoubtedly seriously curtail the area from which we draw our scientific recruits; and I take it that one explanation of the scientific fervour which pervades the whole of Germany, is to be found in the fact that scientific terms are in that country very largely derived from the German vernacular, and that he who only knows the German language is not necessarily confronted in a German scientific book, with words which compel him to close the volume almost as soon as opened with a sigh of helplessness and hopelessness. There may be those who still think that it would be an advantage to science if Latin were still its common language as it was two centuries ago, but it is hardly conceivable that science would have advanced by leaps and bounds as it has done if its professors had continued to express their ideas in a language which could never become, like their vernacular, really a

part of themselves and the active machinery of their thoughts. It must be admitted that our long words have not hitherto been of much use as a means of international communication. The scientific work of the French and Germans is still a sealed book to us, unless we have mastered the French and German languages, and those who listened to the polyglot discussions which lately took place at Burlington House must have been impressed with the fact that, however desirable a common language for science may be, we never were farther from its attainment than at present. Now the only branches of knowledge which have anything like a common international language are mathematics, chemistry, and music, and, in these, international communication is only possible as long as professors rigidly adhere to the use of the symbols which have come to represent the elements of their respective sciences, and as soon as they attempt to write or talk about the facts which these symbols represent, all mutual interchange of thought is at an end. In order to have anything like an international language for medicine, the first step must be to definitely settle upon a set of names, or a code of symbols to represent the elements of Anatomy and Histology. This we have already got to a certain extent, but there is not yet a perfect international agreement as to the names to be applied to some of our best known anatomical elements. As a sample of this I may allude to the fact that the nerve which we call musculo-spiral is universally called radial on the continent; and that several muscles of the hand and arm, have one name on the continent, and another name in this country. I will not weary you by giving other instances, but I would suggest to the promulgators of International Congresses the desirability of appointing a committee to settle once and for all the names by which the anatomical and histological elements of the human body are henceforth to be known. I do not of course mean to suggest that existing names should be altered. Utterly bad as many of them are, we have become accustomed to them by use, and the very antiquity of many of them, and the fact that some are derived from the names of the older anatomists, serve to give an historic interest to dry facts, and to remind us how laboriously and slowly our knowledge has been pieced together by the great men who have preceded us.

"If we had one common name only (instead of an indefinite number as is now the case) for the elementary factors of our frames and tissues, and if diseases were named solely with reference to their anatomical seat and the process producing them, we should have attained, I believe, as far as it is possible to attain, a code of expressions capable of international use. As international communication is the only conceivable reason for employing other than vernacular words, so is it also a reason for adhering to our vernacular terms outside the restricted province which I have defined. For international communication we must make ourselves familiar with each other's languages. That is certain. And it is manifestly of importance that each nation should try to keep its language pure in order that it may be the more easily learnt. The practice of concubinage with the dead languages merely has the effect of producing a mongrel language (as unproductive as are all other mules), of huge bulk and monstrous form which has to be learnt as an additional study. It seems to be the pitiable ambition of some writers to seize upon a trifling fact and to give it the longest name they can invent with the aid of a lexicon, and if such a practice be not vigorously discouraged, medicine may become again what it once was, 'a rhapsody of words'. Some, possibly, are under the impression that their dictionary-made expressions may gain for them a reputation for classical learning. They cannot afford, as did John Hunter, to rely for their reputation upon the facts which they discover, and who when he was twitted with his want of knowledge of Greek and Latin, wrote thus characteristically to a friend—'Jesse Foot accuses me of not understanding the dead languages; but I could teach him that on the dead body which he never knew in any language dead or living.' Many of our long words exercise a most unwholesome fascination upon the student, and I have known some who appeared to think that a parrot-like use of words was the main object of medicine, and who have talked, for example, of 'sclerosis', as if the word itself had some magic power of explaining every symptom of disease, and defined at once the process at work and its situation. I may be wrong in supposing that our English equivalent 'hardening' would be more likely to make the student think, not only of the *hardness*, but also of the 'why?' and the 'where?' Among unworthy motives which have induced us to have long words, must be reckoned the desire to appear more learned than we are, and there was a time, perhaps, when there was very little true knowledge behind the verbiage which was the chief stock-in-trade of the profession. Now, however, times are changed. Pathology, or the study of disease, has become a true science, and we are no longer content merely to translate the symptoms of which the patient complains into Greek or Latin, as the case may be, and call it a diagnosis. We now recognise when a patient comes to us complaining, for example, that he has lost power on one side of his body, that by calling his trouble 'hemiplegia', we make no forward step. It is merely telling him in Greek what he had confided to us in English. It is rather a step back, for it throws what has been called 'the decent obscurity of a dead language' over a matter which is self-evident. Our duty now is to discover the *cause* of his symptoms, to form a *judgment* or *diagnosis* on the disease process at work and its exact situation, and to make a *forecast* or *prognosis* as to his chances of recovery and the best means of bringing it about." It was the natural tendency to put an undue value upon the unknown, which led the hero of Warren's famous novel, *Ten Thousand a-Year*, to make the fatal experiment of applying to his hair the pomade called "Cyanochaitanthropopoion", and it is the same tendency which leads the public to buy anything to which the vendor has given an incomprehensible name. By pandering to this tendency, Dr. Poore pointed out that medical terms have been in reality an unspeakable, though delusive, comfort to the public; and that the lady who was told by the physician "that there was still in her husband's lung a perceptible amount of 'whispering pectoriloquy', although the 'œgophony' had happily completely disappeared", derived from the information the same kind of consolation as did the old woman who, listening to a sermon by her rector, found solace in "that blessed word Mesopotamia". The advantage of using plain language is nowhere more manifest than in courts of law, where the life or reputation of a fellow-creature may depend upon the medical witness making himself perfectly understood by the twelve plain men who constitute the jury. Not only the jury, but counsel and judge also, are probably completely ignorant of terms which to such witnesses have become a second nature. Reporters for the press are equally ignorant; and, owing to a non-comprehension of the witness's language, his evidence, when it appears in print, will seem to him and his professional brethren a mass of rubbish. Dr. Poore, in conclusion, reminded those who are beginning their studies, how necessary it is to be sure and understand every technical phrase they come across. "Those who are soon to be adding to our sum of knowledge should be merciful to posterity; and remember the simple lines of good George Herbert—

'[illegible]
What fine variety each tongue affords:
I like our language, as our men and wit
We cannot dresse it [illegible]'

WESTMINSTER HOSPITAL.

In the absence of Mr. Bond, from illness, the introductory address at the Westminster Hospital was read for him by Dr. Allchin, Dean of the Medical School, on Monday, October 3rd.

The first portion of the address consisted in giving a detailed account of the medical curriculum, which was described as being the resultant of Royal Commissions, Acts of Parliament, decrees of the Medical Council, and regulations of the licensing bodies; but, nevertheless, still remaining far from perfect. A contrast was drawn between the present-day system and the old apprenticeships, whereby much useful knowledge was gained, and for which some substitute now would seem to be necessary. The compulsory period of four years for education was shown to be inadequate to meet the requirements of the widely growing sciences included in the professional course. The advantages of small schools in affording students better opportunities for work, and for holding minor hospital appointments, were dwelt upon. The relative importance of lectures, books, practical work, and tutorial classes, was fully referred to, and occasion was taken to point out the great advantages enjoyed in these directions by the students of the present day. The lecturer advised caution in forming friendships, and deprecated a too assiduous devotion to athletic sports, which he regarded as becoming a far too prominent and even dangerous feature, in medical as well as public schools. The existence in the United Kingdom of nineteen examining boards, all empowered to grant qualifications as various in their titles as they are unequal in the amount of knowledge requisite to obtain them, was condemned as a scandal, and the substitution of a uniform examination was strongly advocated. The address then went on to describe some of the advantages offered by the profession, which, far from being overstocked, as is so generally the case in most other pursuits, affords to the student the opportunity of a livelihood directly he becomes qualified. Looked at, therefore, from a financial point of view, entering the medical profession may be regarded as a safe and fairly good investment for a man whose means do not extend beyond providing him with his education. The wide range of choice which the doctor has in following his calling was mentioned as a further inducement. Hospital work, private practice in town and country; the Army, Navy, and Indian Medical Services; colonial, Poor-law, and sanitary appointments, offer a wide and varied field to choose from.

The very important question of specialism in practice was shown,

within certain limits, to be the legitimate outcome of the vast area covered by the healing art, no less than of popular demand, though it behoved the profession, in the interests of the public, to exercise great precaution against any undue extension of the principle, as dangerously tending towards quackery. The greatest safeguard was the enforcement of a high standard of general medical education, leaving it to the individual, when qualified, to devote himself to any special branch, as opportunity or inclination might suggest. Thus only could it be insured that a specialist should know his subject and something else, instead of knowing something of his subject and nothing else. The formation of special departments in the general hospitals was described as of great benefit to patients and to students, but the development of special hospitals was far from being regarded as an unmixed good. The social position enjoyed by the medical man, though not marked by titles, as conferred upon the Church, the Bar, the services, or trade, was spoken of as peculiar in itself, and granted without hesitation to everyone who should prove himself not unworthy. Notwithstanding the confidence and trust placed by the public in their doctors as individuals, indications were not wanting of a disposition to treat them collectively with gross injustice, and ascribe to them a want of common honesty and honour. The recent legislation upon vivisection might be taken as one example. The absence of direct representation in Parliament of the medical profession was noticed as a singular fact, considering the number of questions affecting the health and happiness of the community in which they were concerned.

In conclusion, the reader bade a hearty welcome to the freshmen, urged renewed efforts upon the older students, and wished success and prosperity to all.

The proceedings terminated with the distribution of prizes for the past year, by the Chairman, Dr. Fincham.

LONDON SCHOOL OF MEDICINE FOR WOMEN.

THE inaugural address of the eighth winter session of this School was delivered by Miss Annie Reay Barker, M.D., who gave a concise sketch of the history of the movement for the medical education of women, and then congratulated the students on the way in which they had worked to maintain its dignity and reputation, and especially called attention to their achievements at the recent examinations of the London University, when Miss Frances Prideaux took the gold medal and exhibition for anatomy. Mrs. Scharlieb and Miss Emily Tomlinson also took honours. Miss Barker said that, not only were the ladies working well as students, but they were beginning to spread themselves gradually and quietly over the country, becoming centres of usefulness in the towns in which they had established themselves, and thus supplied a need which was making itself more apparent, now that there was a possibility of obtaining the help of skilled women-doctors. Of the twenty-six ladies now on the register, twelve were practising in England and Scotland. Six of these were in London, four in the provinces, and two in Edinburgh. Dispensaries for women and children had been founded by lady practitioners at Manchester, Leeds, Bristol, and Edinburgh, and in the most recently founded, that at Manchester, by Dr. Anna Dahms, the number of patients had so far outstripped the power of one practitioner that the small fee charged for each visit had had to be raised to keep it within bounds. Of the success of the new hospital for women, Marylebone Road, founded by Mrs. Anderson, M.D., there was no need to speak. A Provident Dispensary had been established at Notting-hill, of which Mrs. Marshall, M.D., was the medical officer. Miss Barker bore personal testimony to the progress that had been made in Birmingham, and expressed her pleasure in speaking of the fairness, practical good sense, and kind feeling with which medical women had been received there. The prejudices against women-doctors must, Miss Barker told the students, be overcome, not by showing ill-will in return, but by honest, true work, and by showing that though they have entered a profession, they have lost none of the refinement and dignity of true gentlewomen.

QUEEN'S COLLEGE, BIRMINGHAM.

THE opening address was delivered on October 4th by Mr. OLIVER PEMBERTON, the subject being "The Present Means for the Cultivation of Medical Science in Birmingham"—a title which, Mr. Pemberton observed, he thought could not fail to be acceptable to those present as interested in the growth of the healing art. The term medical science he applied in its widest sense, "comprehending within its limits the art of surgery, dealing with injuries; as well as that of medicine, which seeks, by the administration of remedies, to cure or alleviate disease".

After alluding to the fact that, more than fifty years ago, Mr. William Sands Cox founded a medical school in Birmingham, of which the Queen's College was the lineal descendant—an effort realising a success "more than adequate to connect the remembrance of his work with that of the ablest pioneers of provincial teaching"—Mr. Pemberton proceeded to call attention to the materials afforded at that time to the student, stating that, then, the one hundred and eighty beds at the General Hospital were all that were available for clinical teaching; that of one hundred and twenty members of the profession in the town, only eight were really in a position to afford clinical instruction; whilst occasional lectures on scientific subjects, given at the Philosophical Institution, closed the records. The curious circumstance, that the governors of the General Hospital, by their committee, absolutely refused to admit more than a limited number of pupils to witness the practice in the wards, had one most happy result: "it absolutely led to the foundation of the Queen's Hospital, which enduring monument of the best energies of William Sands Cox claims, since 1840, no ordinary share of gratitude from the people of Birmingham; and at this moment enjoys the same repute, the same honour, the same consideration, that has been for a century enjoyed by its friendly rival".

Mr. Pemberton then proceeded to touch on the subject of lectures, saying, that he feared "very many students of medicine entertain the idea that, if they diligently attend lectures, they have within their reach the chief part of their education". Whilst not wishing to undervalue lectures, "if given by men of learning in the theoretical chairs, and by men of experience in the practical ones", he considered them "too apt to divert men's minds from the dissecting-room, the hospital, and the dead-house". The great question of the day is, the lecturer observed, "In what manner can the present system of education be altered, so as to bring students once more face to face with medicine as a practical art—an intimacy, it is only too well-known, that has been slowly but surely cooling from the time when the apprenticeship ended, and the hospital dressing was curtailed?"

"Referring to this particular deficiency, the British Medical Association, in January last, passed the sixth of their series of eight resolutions on Medical Education"; and "the statement of the late Dr. Parkes to the Medical Council in 1864, in reference to this matter, is as true now as it was then". Mr. Pemberton said he did not feel, that, "because the examining bodies have not thought fit to make this practical learning more imperative than they have done, that therefore he should be silent on the matter". He remarked: "I have seen a good many men go out into the world 'legally qualified', during the four and thirty years that, without a break, I have taken a share in training and teaching; and I am bound to admit that the majority who have gone forth have been lamentably ignorant of the practical duties they were about to undertake; in other words, their experience was likely to have no other source than that arising from a public too confiding in the guarantees of mere academic or university records."

After pointing out what could be done by students to amend this state of things—whilst conforming to regulations—by witnessing operations and attending *post mortem* examinations, Mr. Pemberton proceeded to dilate upon the means within reach for the cultivation of medical science in Birmingham—there being four hundred and forty beds at the General Hospital, the Queen's, and the Children's, affording opportunity for clinical study; and, giving the statistics, he showed that sixty-five thousand patients were received at these institutions for treatment during the year 1880—surgery predominating, as would naturally be the case in a community of mechanics. Furthermore, in connection with these institutions, he stated there was every facility for the study of morbid anatomy—observing that, perhaps, no circumstance belonging to the practice of the calling excited more admiration than the fact of "how seldom are selfishness or sentiment permitted to interfere with the lessons for the benefit of the living that may be learnt from the examination of the dead".

"Would that prejudice and ignorance, under the guise of benevolent sentiment, were equally absent in another direction. I allude to vivisection. Amid all the outcry, and out of the very clamour itself, sounding the names of those who appear in support of unreasoning condemnation, how curious it is to detect the shrill scolding voice of the female enthusiast; you can trace her influence in every movement of the new game. She writes to the press. One of them wrote to the local press here, a few weeks ago. The female enthusiast knows little of the world, and less of science. She cannot reason, and she will not read—at any rate, she will not read the account of those facts that have been brought to light only by vivisection, which, if she did, would make her shiver as she stood up, lest even her ill-judgment should hazard the preservation of human life! Good God!—to think of the monstrous cruelties practised daily under the name of sport, and of the unrelenting deprivation of so many animals of their sexual life for the convenience of man! Alas for consistency! The thought would be ludicrous in its very absurdity, were not the issues of life and death involved to our fellow men and women in the consideration, that these things go

on daily with the wretched brutes at the hands of unskilled and unlicensed operators; and that an Act of Parliament—a valuable evidence of the collective wisdom of a Senate—an Act of Parliament restrains the hands of confessedly the most humane and disinterested race of men, the scientific observers—from what? From carrying out painless experiments on these very brutes, for the benefit of present, and possibly untold, generations of human beings. Did any one ever hear of anæsthetics being administered in the domestic operations to which I have alluded? Has Parliament interfered with this beneficial object in view? But I digress; and I will only add that, if any of these anti-vivisection enthusiasts, and especially the female ones, desire light, allow me to inform them that they will find it clear and lasting, and incapable of being extinguished by noise, in the address on Public Medicine, delivered at the recent meeting of the International Medical Congress, by Mr. John Simon, C.B. (BRITISH MEDICAL JOURNAL, August 6th, 1881.)

Having mentioned the institutions in Birmingham which direct their attention to special diseases, and which are also open for study, *i.e.*, the Eye Hospital, the Orthopædic, the Ear and Throat, and the youngest —the Skin and Lock, the lecturer laid strong emphasis on the Hospital for Women; the introduction of anæsthetics, "that event which had secured the greatest amount of relief to suffering", had also made possible operative proceedings previously deemed unjustifiable. "Surgery of women's diseases has sprung from this, absolutely and entirely."

Mr. Pemberton then proceeded to remind the students of the difficulties which had hitherto beset them in acquiring a knowledge of natural sciences, "which had not unfrequently defeated the industry of Birmingham students"; and then enlarged on the value of Mason's College to the town, saying: "For the first time can it be said that these obstacles are no more. The Science College of Sir Josiah Mason fills in the deficiency of medical education in Birmingham. Its scientific classes are complete and in working order. They are to the practical teaching of this College what the University of Oxford and Cambridge are to the barrister ere he reaches his Inns of Court in London. Henceforward, no man will be deprived of the fruits of his industry through imperfect training. He may commence the earliest steps of his work here, he can rest in the same place whilst he makes them perfect, and it will be his own fault, and his only, if he cannot attain all that his wishes or ambition may suggest"; he added: "That dream, the fragments of which Cox half a century ago gathered, but could not realise, has already come true: 'Birmingham has become the seat of a grand scientific and commercial college" (June 18th, 1831. Address by W. S. Cox).

After reminding the students of other advantages which lay within their reach, of how libraries had been "founded amid the din of hammers, in the very centre of a life of steam and smoke", Mr. Pemberton proceeded to call their attention to the grand literature connected with the history and progress of medicine, remarking that whilst the class-books would be pointed out by the several professors, he would desire to direct their minds to the "imperishable writings" of Hippocrates, "who, four centuries before Christ, succeeded in bringing into order and filtering the mythic traditions of his predecessors"; passing on to Galen, who taught anatomy and surgery in Rome in the last days of the imperial city, the second century of the Christian era, and enjoyed the ability and the power to make a fresh epoch; then to Ambroise Paré, who, many centuries after, established in France the ligature in amputation in place of the horrors of the cautery, making the third epoch, "to be completed as time went on in our own land, in the last and greatest: that of John Hunter". These four names, the lecturer stated, he had brought forward as those of the "four apostles of surgery", as they had been called by a distinguished professor (Macleod).

Mr. Pemberton then went on to say that the thoughts of the students would turn to Alexandria, "undoubtedly the cradle of anatomy and where Galen himself learnt, thence to Arabia, and thence to the names surrounding the teaching at Bologna, the earliest university"; he also reminded them "that it would repay them to learn something about Vesalius, the Father of Anatomy; of Fabricius, who did so much for operative surgery; and so on through the glorious names fixed indelibly in literature and in the nomenclature of anatomical study. A very few cited would convince them of how they worked and what they left—Fallopius, Eustachius, Glisson, Steno, De Graaf, Nuck, and Winslow; and so to the days of Hunter, and to the writings of the men who immediately preceded and followed him: Cheselden and Pott, Abernethy and Cooper".

Mr. Pemberton concluded with saying: "These, then, faintly sketched are some of the means for cultivating the art of medicine in Birmingham. The road to them is wide and straight. You must, however, tread it yourselves. None of us here can more than direct your footsteps. The burden of responsibility you carry may be light or heavy; light it certainly will be with hope and truth graven on your hearts; and should any fall out by the way, as having lost hope, when help was probably most near, do you, the survivors, bestow on their memory the blessing belonging to a faithful comrade, to one who has shared with you both labour and danger; and do you, with hope renewed and truth abiding, 'fill in the ranks and march on'."

UNIVERSITY COLLEGE, LIVERPOOL.

THE Introductory Address at the opening of the Medical Faculty of this College, on October 3rd, was given by Dr. OLIVER LODGE, Professor of Experimental Physics to the College.

Professor Lodge began by speaking of the vast strides which had been made in the public education of the people; but still it was but a meagre pittance of knowledge that was enforced by compulsory education. Not only should the lowest standard of ordinary teaching permitted in this country be raised, but the higher feelings should also be cultivated; for every nascent human mind is generous enough to be capable of having something of this feeling impressed on it by a sufficiently liberal training, as manifested by numerous instances of spontaneous chivalry and loyalty under circumstances sufficient to call up in any man his own inherent manhood. Liberal education had undergone greater improvement than primary teaching; but it was on still higher education that Dr. Lodge dwelt more especially. The desire of the great towns of England for a wider culture and a higher training for the more intelligent of their youth has led to a movement which must influence the future of English history, a movement hardly as yet mature. Three years ago, Canon Lightfoot, now Bishop of Durham, predicted, in a public speech, the future of University College, Liverpool. Its founders, have most wisely acted on the principle that a College is not a building, but a society composed of students and teachers, supported and encouraged by public approval and benefaction. At the same time, a suitable tenement, to replace the temporary lodgings which constitute the College buildings at present, is needed, and no doubt, in so rich a city as Liverpool, will not be long forthcoming. The University has been started on the best principles, and it will have the advantage of more permanently developing around that firmly established and well known nucleus, the Liverpool Medical School; this latter will, on the other hand, gain inestimable advantages by becoming one of the faculties of a College aiming at the highest culture of all branches of knowledge. The use of more extended and less purely technical libraries, laboratories, etc., and association with students of other faculties, will counteract that narrowness of tone inevitable in a community too intent on the pursuit of one special subject. It is much to be desired that the College should include resident "halls", etc.; indeed, the more resident students the better, if any successful competition with the older universities be expected.

It is absolutely necessary for the student of medicine to be well grounded in the collateral sciences: London University has set a good example in this respect; and the association of the Liverpool Medical School with other faculties promotes this desirable end. Physics, Professor Lodge's special subject, is most important to the medical man; for, as Huxley has pointed out, modern physiology is a composite science half made up of applied physics and chemistry. The study of the eye and ear involves the most intimate acquaintance with the principles of optics and acoustics; the science of heat lies at the very root of animal mechanics and muscular exertion; and the fascinating science of electricity bids fair to become very shortly the agent of a revolution in our methods of obtaining power and light—a revolution one of the most important and beneficent in the history of the world. What the entire poorer population of towns in civilised countries most suffer from is contamination of the air by smoke and similar agencies. Professor Lodge believes that at a period not very far distant, town air may, through the agency of electricity, become as pure as country air, since that science will replace certain contaminating influences by contrivances that will not involve any blackening and poisoning of the atmosphere. Every student of the liberal professions, especially of medicine, should study the principles of this great science if he wishes to be carried forward, and not engulfed by its great wave that is sweeping [illegible].

In distributing the prizes after Professor Lodge's introductory address, Lord Derby made the following observations:—"The agreeable duty of presenting the prizes won by students of the Medical Society has been discharged, and it only remains for me, according to custom, to address to you one or two remarks. They will be very few, for two reasons: first, because I cannot flatter myself that words of a stranger encouragement coming from a stranger will seriously influence young

men who have deliberately chosen their career in life; and next because counsel addressed to professional men comes best from those who have gone through the same training, and can speak from personal experience. You students have selected, among the various occupations open to you, one of which the interest and importance can scarcely be exaggerated. The services of the soldier or of the sailor, invaluable as they are, are not always—happily, in our day they are not often—in requisition; but the war against disease is constant and never ending. The lawyer, bound by his instructions and by the customary requirements of his profession, cannot always feel that his success, however honourable and deserved, is the triumph of justice; but the saving of life is work which no man can regret, however slight the apparent value may be of the individual life so rescued. The ecclesiastic and the politician live in an atmosphere of controversy, and are daily compelled to affirm and to act upon convictions which, nevertheless, fall far short of certainty. The art of the physician may err also; but if it does, Nature has a very speedy and effectual way of pointing out his mistake. The student of abstract science gratifies in the fullest measure the intellectual requirements of his nature, and he may be sustained by a perfectly just conviction of the ultimate utility of his work, but the stimulus of a direct and visible result is most frequently wanting to his exertions. Your privilege, the privilege of your chosen employment, is—and a high and enviable one I call it—that you can largely satisfy the intellectual impulse to know and to discover on the one hand; while on the other hand, you can equally, in the ordinary routine of your duty, do useful service to your fellow men. Intellectually considered, the subject of your study is that which most deeply concerns us all. It has grown into a proverb that the proper study of mankind is man; and in this age, when the intimate connection of body and mind are recognised—when we know that no thought, no feeling, no emotion, can pass over the human frame without leaving traces of its passage—the enormous importance of studying the physical organisation of our race is less than ever likely to be disregarded. The ultimate mystery of existence can never be solved; but on the conditions of existence every successive generation of inquirers thrown clearer and clearer light, and in that line of research, never exhausted or capable of being exhausted, there is space enough for the highest ambition, and interest enough to compensate for much of mere drudgery and dulness. But there is another, and perhaps a more practical, aspect in which the profession of which we speak may be regarded. Medical science applies itself more directly than any other to the promotion of human well-being and the prevention of human suffering. And it does more than that. Those who practise it are the guardians, so to speak, of the national health, and I need not tell you what is implied in that practice. The struggle for existance between races, as between individuals, is incessant. The strongest must win in the end; and the very first condition of a strong race is that it shall be physically healthy." After some local allusions Lord Derby continued—"In no age of the world have sanitary matters attracted so much attention as in ours, and in the extension of life and the diminution of disease we are reaping the fruit of what has been done during the last twenty or thirty years. I need not point out in connection with that subject how great is the power and the influence of the medical adviser in distress; nor need I dwell on what is obvious enough, the demand made upon him for courage and honesty to speak the whole truth where scientific matters are in question: where money is on one side and health on the other; and where plain speech may give serious offence in quarters where offence is dangerous. But it is not in such questions alone that the moral as well as the intellectual qualities of the physician are constantly called into play. He has to deal, not with dead matters, but with men and women. He has to witness and experience their caprices, their passions, their weaknesses, and of these last at least he sees more than the members of any other profession, and that is no light burden to bear. He must be firm under penalty of being useless. He must be sympathetic, or the experience of his daily life will force him into cynicism. He must avoid needless pugnacity and antagonism, yet without yielding in any essential point to the quackery and empiricism in which a half-educated public delights. But, on the other hand he probably enjoys more of the confidence of those with whom he has to do than any other adviser. We do not in these days confess ourselves to priests, but we do confess ourselves generally with great sincerity to our lawyers and our physicians. For the great office, as I most seriously call it, of a trusted medical adviser there is wanting more than mere science, though that must necessarily be the basis; he must have tact, judgment, firmness in opinion, courtesy, and gentleness of expression. One thing more I will add. There is, happily, in all departments of life much unpaid service, freely and ungrudgingly rendered, often by men who might be excused if they thought first of their own scantily-provided families; but I assert with some confidence that the absolutely gratuitous assistance given by the medical profession to those who are unable to pay for it far exceeds that which is bestowed or demanded in any other line of life, and it is not less creditable to those who give it because custom has in great measure caused it to be expected as a matter of course. Whether it is equally creditable to the public that it should be expected to the extent it is, is a different question, into which I need not now enter. What I here say to you medica students may be summed up in one word—Respect your profession, and respect yourselves. You have great examples before you; you have noble traditions to follow; you have exceptional opportunities of leading a life not only blameless, but intellectually and publicly useful. Remember that each one of you, young as he may be, can do something to honour, or if so willing, to discredit, his profession. I have no doubt which your choice may be, and I hope many of you may look back from a respected and honoured professional position on these early days of discipline and training, when you stood on this platform as prizemen in our new University College."

SHEFFIELD SCHOOL OF MEDICINE.

THE introductory address was delivered, on October 1st, by Mr. E. SKINNER, Lecturer on Anatomy.

Mr. Skinner began by addressing himself more particularly to fresh students, and reminded them that they had probably very vague ideas of the work before them, and had formed erroneous notions of medical-student-life from works of fiction. Surrounded by social and technical difficulties, which they have not the experience to overcome, they will ever find help and receive advice from the medical staff. Lecturers are, to a certain extent, guardians of their pupils, and therefore morally responsible for their well-being; and the student should ever seek them when in trouble or perplexity. Mr. Skinner reminded freshmen of the arduous duties of the medical profession; and impressed upon them that any one out of their number who had commenced the study of medicine at the solicitation of his friends, or for the mere respectability of belonging to a profession, without any true interest in the matter, had much better give up at once all intention of attempting to live by the practice of physic. Those who love the profession, and manfully set to work, will find that they will have much anxiety in early practice through cases that will not run the course as given in text-books. The close observation and record of such cases will keep them students for life—for such, the medical man must ever remain. Still greater anxiety attends the beginner through patients forgetting to pay their fees—yet such patients are often those who introduce the young doctor to other sufferers; and, with perseverance, a comfortable income is generally forthcoming at last. All doctors have to pass through the irksomeness of no fees, or, at the best, very slender receipts, at the beginning of their career. William Hey of Leeds had to practise for ten years before his income covered his expenses, but great success was his lot at last. Mr. Skinner also described the still better known experiences of Sir Astley Cooper during his slow rise to fame.

The student should avoid excessive study in the early part of the session, followed by fatigue or even idleness later on; nor should he attempt to study medicine and surgery before mastering the elements of anatomy and physiology and chemistry; still less should he play the doctor, in style, talk, and gesture, yet neglect the studies without which he is no medical man. Mr. Skinner earnestly begged fresh students to begin anatomy by acquiring a sound knowledge of the bones—from the bones themselves rather than from text-books. The freshman should dissect for himself, and beware of help from older students, who may dissect his part for mere love of the mechanical pleasure of dissection, yet will fail to teach. Knives should be kept very clean, as well as sharp, for dirty scalpels are the constant cause of dangerous dissecting wounds. Physiology must be most conscientiously studied from the earliest part of the first session; it is more important in these days than ever to the medical man. Mr. Skinner admitted that it was advisable that the freshman should occasionally visit the out-patient department of his hospital; for it quickens his powers of observation, and allows him an opportunity of learning how to treat a patient, which will save much annoyance to timid sufferers who first come under his care when he undertakes the duties of a dresser. Amusement the student should and must take, in moderation, and the study of biographies of great physicians and surgeons will be found both interesting and edifying. In the summer session, the student must be very particular about learning how to know drugs by sight, for which they have not so great facilities as in the old days of apprenticeship. Mr. Skinner knew a case where a packet, labelled "radix gentianæ", proved to contain aconite-root; but the gentleman who opened it fortunately recognised the error. Most wholesome advice was then given on working for examination; on attending as many cases of midwifery, above the regulation number, as possible; on attention to common diseases and chronic patients, rather than too great application to the study, by specimens

etc., of pathological and surgical rarities or curiosities. This is a common failing in hospital students; and Mr. Skinner hoped that, before long, a short compulsory apprenticeship would be insisted upon by the authorities. Ignorance of common and slight ailments must be obviated by a short service as qualified assistant, between the period of leaving hospital and beginning practice. Special subjects, such as diseases of the eye and ear, should be studied after the pass examination; and mental and sanitary questions must be considered by all who wish to be sound practitioners. In conclusion, Mr. Skinner laid great stress on the good results of that thirst for scientific knowledge and original research which is now pervading society, and which has done so much to clear away error, and lead to new discoveries, for the benefit of humanity.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

POCKET URINARY TEST-CASE.

Messrs. Wright and Co., of 108, New Bond Street, have brought out a new pocket urinary test-case, designed by Dr. T. Morton, which combines in an unusual degree portability and efficiency, and bids fair to prove most useful in practice. It is based upon the principle that a spirit lamp is unnecessary, as one can always be extemporised by burning in a teaspoon any kind of spirit which the sick room or house may afford. Scent will light readily, potable spirits usually require the spoon to be warmed. The arrangement consists of a vulcanite case of the shape and size of a two-ounce vial, containing a small but sufficient trial jar, inside which is a test tube; and inside this again a sp-gr-float. The top contains a small bottle of ascetic acid, and the bottom cavity for two of Dr. Pavy's cupric test-pellets. A few discs of litmus paper complete the materials necessary for ascertaining at the bed-side the chief points generally necessary to be known with regard to the urine. The extreme length is $5\frac{3}{5}$ inches, and the diameter $1\frac{1}{4}$.

MARTINDALE'S ANTIDOTE BAG.

It frequently happens in cases of poisoning that considerable delay is experienced in obtaining the necessary antidotes. Mr. Martindale has recently made, at Dr. Murrell's suggestion, an antidote bag, which should be to the toxicologist what the midwifery bag is to the obstetrician. It contains everything likely to be of use in cases of poisoning, so that, in an emergency, everything would be at hand, and valuable time would not be wasted in looking for stray bottles and instruments. At the bottom of the bag is the stomach-pump, which can also be used as an enema apparatus for injecting coffee into the rectum in cases of narcotic poisoning. Then there are various emetics, such as sulphate of zinc and powdered ipecacuanha, with stimulants in the form of brandy, sal volatile, and chloric ether. The specific antidotes are acetic acid, tannic acid, calcined magnesia, bromide of potassium, French oil of turpentine, Wyeth's dialysed iron, syrup of chloral, chloroform, and nitrite of amyl. In addition, there is a small case containing, for hypodermic use, solutions of morphia, apomorphia, atropia, aconitia, strychnia, pilocarpine, and tincture of digitalis; the whole being compactly arranged in a morocco bag. It is an ingenious invention, and should be kept ready for use in the casualty room of every hospital and dispensary. It is a curious circumstance that it should have received no award at the recent International Medical and Sanitary Exhibition.

Bequests and Donations. Miss Martha Grant, of Gloucester Place, Portman Square, bequeathed £1,000 each to the British Home for Incurables, and the Convalescent Home at Blackrock, Brighton, and, upon a certain contingency, one-fifth of the residue of her personal estate to the Brompton Hospital for consumption. Mr. Arthur Evans has given £1,000 to the Newport (Mon.) Infirmary and Dispensary. The Rev. Basil Beridge, Rector of Algarkirk-cum-Forsdyke, bequeathed £10 per annum each to the Lincoln County Hospital, the Convalescent Home at Mablethorpe, Lincolnshire, and the Boston Cottage Hospital, out of a sum of £10,000, to be set apart for that and other purposes. The Eye Hospital, Birmingham, has received £200 under the will of the Rev. G. Inge. A Friend (Worcester) has given £100 to the London Temperance Hospital. The Duke of Bedford has given 30 guineas to the National Hospital for Consumption at Ventnor. "S. Z." has given £50 to the Royal Free Hospital.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

Subscriptions to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 8TH, 1881.

THE MODERN MEDICAL STUDENT.

Popular literature has done great injustice to the student of medicine. The London medical student as he really exists, familiar to us all, is indeed a type unknown to the stage, to fiction, and to contemporary journalism. It is more curious than instructive to compare the popular estimate of the student, with that of other members of society as shown by the novelist and magazine-writer. The young military man is now, as ever, the spoilt child of romance. We do not find him described as fighting duels on the Thames Embankment, wearing huge epaulettes, or telling French gentlemen that he could fight any three of their countrymen. Nor is the modern literary aspirant depicted as "going the round of the night houses", and singing vulgar songs with endless choruses at the Cider Cellars. The fighter and the writer are represented after fair average models of their kind, as seen at the present day. Whenever the medical student is mentioned, he is described after the stereotyped model of a clever and humorous caricature, the almost extinct Bob Sawyer, a young gentleman as effete in London as is his homologue the *carabin* in Paris. In any large school of medicine, or more frequently in a tavern parlour adjoining it, there may still, from time to time, be seen a few idle, seedy-looking young men of low social type and inveterate bad habits, but they are such as shun the light, being half ashamed when they face their colleagues in the dissecting room, and, at the worst, they form but an infinitesimal fraction of the entire body of students. They are, too, nobody's enemies excepting their own. They do not delight their colleagues by tales of the last night's revelry, of the avulsion of knockers and the breaking of windows, for in these days they no longer indulge in such habits, and, if they did, would not be over-anxious to relate them to their fellow students.

Certain reactionary circles, well known to the reader of newspapers and of the "heavy" monthly magazines, have indeed evolved out of their inner consciousness a newly modified type, a terrible being who, as they would like their simple readers to believe, represents the average student of to-day. This young man is, in the first place, "advanced," and laughs at anybody who goes to church, chapel, or meeting. Then, too, he vivisects from time to time his "faithful hound", or invents new tortures for the wandering cat. He does, it is true, go to the "bed of suffering" daily, but that is for the purpose of indulging in mere scientific research, and not to witness or to study the relief of pain, or the saving of life. Our reactionary friends "shudder" at the idea of attempting to describe this young man's private character, for what can be expected of a youth whose teachers are of that "cursed medical hierarchy" which advocates compulsory vaccination, and the Contagious Diseases Acts? If such writers observed, before they wrote, they would find that so far from extra courses of physiological and pathological experiments being popular, it is often hard to induce the student to work at the enforced duties of the dissecting-room; that the dresser and clinical clerk will sacrifice night and day to some desperate effort to help a bad case towards recovery; and that rough language, neglect of duty, harshness of manner, coarseness of demeanour, are not the rule, and inevitably lower the student in the eyes of his colleagues.

The average [illegible] as a boy of about eighteen years of age. He is generally fairly well-

dressed, and averse to slangy habits, though he very seldom sets himself to become the mirror of fashion. He is very eager to dissect his first "part," and does not object to osteology; if of a mechanical or artistic turn of mind he likes to prepare and mount microscopical specimens; but he shows less energy in the study of physiology, and has little or no taste for the collateral sciences. It is proverbial that during the winter session the chemistry lecture is, on this account, generally the scene of the least orderly conduct. The first year's man has the deepest admiration for the medical staff of his hospital, and an implicit belief in their teaching—a very wholesome instinct for a learner. His faith in the superiority of his medical school over all others is often unbounded. Hence, even if too studious to join in the sports and games of the athletic clubs of his hospital, he delights to hear how his "team" or "eleven" have beaten another hospital at football or cricket. Nobody can thoroughly like or trust what he cannot understand, hence the junior student is generally prejudiced against the lay authorities of his hospital. He cannot comprehend why non-medical men should be put over the experts whom he so deeply honours. He has grounds for his prejudice, but has to learn that for the management of technical institutions the ruling body should not be wholly technical.

The modern student likes to pass his "first college" at the end of his second winter session, and always feels more or less disconcerted if he be not ready for that ordeal at the earliest possible date. Owing to the severity of the test, however, rejection does not involve so deep a stigma as formerly. During his last two years the student alters somewhat from his earlier type. He has his preferences, as before, and likes surgery as a rule better than medicine; midwifery, with all its offensive surroundings, is not so very distasteful to him, as there is something adventurous in watching patients night after night in a back slum; besides, he knows that he is training for a very important branch of practice. The advanced student is apt to be more critical than he has the right to be over the relative merits of members of the staff. His views concerning the lay governors are also, for sundry reasons, apt to undergo great modification. He always looks forward to qualification, for then he becomes a "medical man" or "the doctor", not simply a student. Then he can be house-surgeon, or take a long holiday, and afterwards join his father as a partner, or set up on his own account, according to circumstances.

The average student is never a Bohemian; indeed, free and easy habits, especially in the wards, are looked on with discredit by the pupils of London schools. It was till recently the minority that wore short coats and low hats, and smoked wooden pipes in the day-time, but of late this style has become more general among the youth of England in every profession, and particularly in high life, and the medical student is only falling in with the fashion. The student is, as a rule, rather a hard than a moderate worker, even in cases where he works by fits and starts; he is still too apt to look on work as consisting of learning text-books by heart, and to love dry condensations in preference to standard works.

The average student does *not* fail in his earlier examinations, hence he is not of the "chronic" type, which includes the inert and the still more objectionable varieties of his colleagues. We do not include under the heading of "average" the students who come from the two old English Universities, who can teach much to their hospital fellow-students in matters of style and method of learning, but also can sometimes learn a great deal from those who have not had the same advantages.

As to the student's moral character, that is entirely an individual question, and so are his habits. In a large hospital where there is a "college" we observed, some years since, resident students who spent their leisure time in the most varied manner, some playing the piano or violin, some studying the dead languages, even Celtic literature, some actively joining the hospital athletic clubs, and others without any special tastes, merely taking long rambles when not at work. Every one of these students, varied as were their habits, passed their final examinations, and have settled in practice or in hospital appointments. The tendency to level all to one common type, even in non-technical matters, does not exist among medical students, nor are the moderately eccentric so liable to pertinacious ridicule as elsewhere. Is not this spirit rather advantageous to those who have not, hereafter, to adopt the uniform method of the pulpit, the bar, or the parade-ground, but have to meet the innumerable contingencies of practice, and to deal in a different manner with the varied prejudices and tastes of patients?

Such is the average student of to-day. We have only roughly sketched the outline. He has not yet been fully and impartially discussed in print; he has been calumniated as a rule, or in very exceptional cases elevated into a hypothetical being wrapped in the cause of abstract scientific progress. As a matter of fact the average student is nearer to the type of which we have given a slight, superficial and hasty glimpse.

NEW SCHEME OF EDUCATION AT THE IRISH COLLEGE OF SURGEONS.

We publish in another column an interesting communication from a well informed correspondent on the subject of the new scheme of education of the Irish College of Surgeons, and our recent criticism of it. The rejoinder is somewhat tartly polemical, perhaps more than is altogether desirable in the discussion of an abstract question. But the question is one which may most advisedly be approached with the calmest and most generous feelings on the part of those who support, as on the part of those who condemn, the new scheme. We may, in the first place, remark that our criticism of the scheme was not made, as our correspondent chooses to assume, on any *ex parte* statement, but on a careful study of the scheme itself. The facts of the scheme were fully before us, and, unfortunately, they show a large divergence—indeed, almost a complete divergence—from many of the conclusions which have been arrived at as essential in the report of the Committee of Council of this Association on the subject of medical education: a report of which was the result of a pretty general consensus of opinion after a very extensive discussion by leading thinkers, teachers, and practitioners in many parts of the country, and of principles which we regard as essentially sound. It is suggested, in the letter, that our objections to the position which certain subjects occupy in the student's period of study in the new scheme are based upon a misconception, and that we mistake the preliminary scientific year for the student's first school year, and, calculating upon this, complained that subjects suitable for the student's first year are deferred until a later period. We have not, however, fallen into any such mistake on the subject. Either the scheme is a four years' scheme, or the mention of four years has no real meaning, which, of course, is not a permissible or justifiable assumption on the part of anyone.

On our correspondent's showing, however, there would seem to be some foundation for such a suggestion. A preliminary scientific year after registration is not only in direct opposition to the conclusions of the report to which we refer, but, as the examination in these subjects is at present left in the hands of the Fellows of the College, who must, as all experience of such colleges has shown, only rarely include the most highly instructed persons in recent physiology and recent physiological teaching, such examination must be open to many objections, and must be more or less incomplete and unsatisfactory.

We cannot concur in the suggestion that the new scheme does not materially alter the rotation of study which everyone admits that the student should undergo. The fact is that it does most materially alter what those who are most experienced in medical education, and what we believe the general consensus of medical opinion is disposed to consider not only advisable, but essential. The recent report is very decided in the opinion that no student shall be admitted to the final or qualifying examination until three years have passed from the date of passing his first professional examination; and a large proportion of the members of the Association certainly, to our knowledge, support the Committee in urging the following resolution on the notice of the various medical authorities: "After passing the examinations in ana-

tomy and physiology, every student shall be compelled to devote at least two years to the study of clinical medicine, surgery, and obstetrics, at a recognised hospital or hospitals, prior to being allowed to present himself for his final or qualifying examination."

In 1877, Professor Humphry carried the following resolution at a meeting of the Council: "That the professional examinations be arranged in two divisions; the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study; but the second division not till the expiration of two years after passing of the first division, nor before the completion of the fourth year of study." Our correspondent suggests that the scheme will require the attendance of the student at the study of pathology in the mortuary. We fail to find, however, in the scheme, the mention of a mortuary; while we consider that the systematic teaching of pathology, which would include much more ready and more completely regulated study in the mortuary, is one of the greatest necessities of modern medical teaching. Dr. Jacob suggests that one year out of the four is to be occupied by the students in studying elementary physics, botany, osteology, and chemistry; but this year, he observes, "is in no sense a part of the professional course". The suggestion and the observation at once show the hollowness of the whole scheme; for, if this be so, why should the pretence be adopted of making it a part of his medical education, and part of the four years devoted to medical education? Why, above all, should it follow registration? and why should the examination be called the first professional examination? He remarks that "the curriculum is expressly constructed to enable the student to pursue this period of study under the supervision of a practitioner in the country, as is frequently done in England". But is it, we would ask, seriously contended that the practitioner in the country, manifold as are his practical opportunities and abilities, the best or the proper person to direct a student in the study of the principles of chemistry and physics? If the study of these subjects is to be of real advantage to the student of medicine, it is their practical study; and, if exact methods are—as they certainly are—destined, in the course of improved education, to supersede the rule of thumb, practical laboratory instruction in these subjects is, above all things, essential; anything short of this is retrogressive, and deceptive as a system of teaching. General practitioners, whether in town or country, may, when so inclined and fitted, undoubtedly play a useful part in completing the education of the medical student, but it is not at this time, or in this part of their curriculum, that we should expect any thoughtful person to recommend that their aid be called in.

The part which professional opinion allots to them is well expressed in the report to which we refer. "A student, before being granted his licence to practise, should work for a time under a general practitioner, or at a public institution, where he has personal charge of patients at their own homes. Work of this kind should certainly not be undertaken before a pupil has passed his examination in anatomy and physiology; probably the best time would be after he had completed his examinations, and before actually assuming charge of a practice." The suggestion that, "counting from the student's first school-year, the position given to the subjects of his study in the new scheme of the Irish College of Surgeons is the same as that usually given to them in London", appears to us to be a complete misconception of the facts. A London student is not started in surgery and hospital work in his first year; nor is he compelled to take out his only course in physiology when he knows nothing of chemistry (except the so-called elements), of anatomy (except the bones), or histology; and this, we take it, might well be the position of the Irish student under the new scheme.

There is one series of propositions in our correspondent's letter in which, from what we have been able to learn, we shall be disposed entirely to agree. The Irish "pupil-farmer" exercises an influence extremely hostile to the progress of medical education. If there were no pupil-farmers, it would be far easier to improve the curriculum, and to make education of the student less onerous and more fruitful. So far as the system of annual examination reduces the Dublin credit system to one year, it is good. But there is another form of credit farmer existing, viz., the grinder, who sends his apprentices to whatever school he is attached, and who has thus a lever which may be unsparingly used to dictate terms to such schools; and, by this new scheme, the first year offers an opportunity to the grinders of getting hold of student-pupils before they really become connected with a school, an opportunity such as never existed to anything like the same extent before. But this fact has nothing to do with the merits of the scheme, considered as such.

Our correspondent lays great stress upon the names of the signatories to the petition on this subject. We have only to say we do not know the name of a single signatory to the petition, and that we have in no way advocated the adoption of the petition. We have only considered the scheme on its merits and in in relation to the principles which it involves. We find those principles largely opposed to the conclusions of the most recent study of the question contained in the Report of the Educational Committee of the Association, and tried by that standard, and on its merits, we think the scheme bad.

Our correspondent assumes that the scheme is approved by the overwhelming opinion of the profession in Ireland. We have fairly good means for gauging popular opinion of the profession on subjects of education in Ireland, as well as in England, and we shall be much surprised if our correspondent, notwithstanding this bold assertion, can prove to us either that the University of Dublin, Queen's University, or the King's and Queen's Colleges in Ireland regard this scheme with approval; and if they do not, his assertion is at least a bold one. It is not by any vague or generalised statements of the kind that such a scheme can be supported. If, however, Dr. Jacob seriously thinks that the authorities of the Irish Universities we have named, and those of King's and Queen's Colleges approve of this new scheme of education, let him challenge their opinion and acquaint us with the result. We condemn it on principle, and believe it to be in the respects which we have mentioned essentially bad; but if he can find the support which he claims from other of the educational bodies than his own, he will have made out a better case than he has at present, for, considering that education in Dublin needs to be conducted on other principles or other methods than those recognised as the best in themselves; and even if he fails to convince us that this scheme, which we consider essentially bad, deserves our advocacy, he will at least have shown that there must exist some local reasons which at present he has totally failed to indicate; and that the highest authorities outside of his own college join in approving the scheme which we condemn.

THE METROPOLITAN SMALL-POX HOSPITALS.

To those who can read between the lines, the letter of the Local Government Board discussed at the meeting of the Metropolitan Asylums Board last Saturday is a highly significant document. The plaintiffs in the recent proceedings taken against the Asylums Board with regard to the Fulham Hospital had proposed that the managers should undertake not to receive into the hospital, between the present time and the trial of the action, any small-pox patients from any parish except Fulham and Hammersmith, within which the hospital is situate. The solicitors of the managers desired immediate instructions as to the views of the Local Government Board on this matter, and the nature and extent of the arrangement, if any, which they were prepared to sanction. In response to this appeal, the Board have returned an answer, which is virtually no answer at all. They say, indeed, that they cannot take upon themselves the serious responsibility of any such arrangement; and that, in their opinion, the managers could not, without great injustice to those for whose benefit the hospital was established, restrict it to patients from the two adjacent parishes. But of help or useful counsel in the managers' present dilemma the Board give absolutely none. It might reasonably have been supposed that the results of the special inquiries which have for some months been making by two of the medical inspectors of the Central Board into the incidence

of small-pox in the vicinity of this very hospital would have by this time been so far known to the Board that they could have made up their minds as to their future line of action in the matter. Instead of this, however, they feebly refer back the managers to their own counsel; and, on the ground that they could not properly advise in the matter without knowing more precisely the evidence which was before the court (as if this were impossible or difficult of ascertainment), leave the managers in effect to their own devices. It is, however, not to be tolerated that the question can remain in this most unsatisfactory and anomalous position any longer. The Local Government Board, as the supreme authority in matters of public health, and the censor of the Asylums Board in their performance of difficult and arduous duties, must before long take a definite line with regard to these hospitals and the alleged spread of disease through their agency, and the present temporising of the Board can only complicate and delay matters. The ambiguous terms in which their letter is couched raises unpleasant suspicions as to the results of the Government investigation into the influence of the Fulham Hospital on small-pox prevalence in its neighbourhood; and on every ground it is essential that the report of the inquiry should be published, without delay, immediately it is completed.

Whilst this inquiry has been going on at Fulham, another, equally careful and detailed, has been made with regard to the Homerton Hospital by Dr. Tripe, who records the results in his report on the public health of Hackney during 1880. Coming from a source so accurate and trustworthy, Dr. Tripe's conclusions are in themselves sufficiently startling. He finds abundant evidence to prove that the Homerton Hospital has, in fact, been a focus of infection; and he supports his arguments with figures, too detailed and complicated to admit of reproduction here, but which are eminently worthy of careful attention. Dr. Tripe has collected together all the cases reported to him during the ten years from 1871 to 1880, and has distributed them amongst the streets and places where they occurred. Shortly, he has found that, in a circle of a quarter of a mile radius of the hospital, no less than 167 deaths from small-pox occurred in 1871-80, amongst an average of about 6,823 inhabitants; whilst, in the same streets, the population of which had remained with little alteration during the period in question, there had been only 18 deaths in the ten years 1861-70, before the hospital was erected. Amongst the other 30,177 poor inhabitants outside the quarter of a mile radius, there were 484 deaths, or a rate of 1.6 per 1,000, as against 2.45 inside the circle. The inhabitants of these houses and the houses themselves were very similar, and differed in no essential points from one another. In the streets nearest the hospital, many of the houses in which were inhabited by the better class persons and tradesmen, the mortality was as high as 4.1 per 1,000 *per annum*. The number of cases reported show very strongly, in Dr. Tripe's opinion, not only the extent to which the inhabitants of these streets were infected, but the permanence of the infection. In the streets adjoining the hospital, there were 11.97 cases per 1,000 *per annum* during the last ten years; and, amongst those residing in the quarter-mile radius, 9.16 per 1,000, against 5.76 amongst the other 30,177 poor persons. Dr. Tripe gives instances which he regards as showing that the hospital has exercised a decidedly prejudicial effect on the public health of the adjoining neighbourhood, and he proceeds to inquire whether a small-pox hospital is necessarily injurious to the persons living near it, and, if not, whether there are any especial reasons to account for the injuriousness of the Homerton Hospital.

It is so far satisfactory to gather from Dr. Tripe's report that, inasmuch as no injurious effect has been shown to result from the use of the Highgate Small-pox Hospital, or from other temporary hospitals set up in the parish, erections of this description need not necessarily be a nuisance. He thinks, however, that the Homerton Hospital is badly placed, being too near the adjoining houses and grounds, and that the ambulance arrangements have been defective. He examines the question as to the carriage of infection by the air, and, whilst giving no positive evidence on the point, is inclined to regard a belt of one hundred feet as a reasonable protection against such carriage from a small-pox hospital. The experience of Homerton proves, however, that it is not safe to have a large hospital-laundry or recreation-ground nearer than ninety feet at least from an inhabited dwelling or a public footpath. Generally, he believes that there is some danger to the neighbourhood from all hospitals for small-pox to which a large number of patients are admitted; but he thinks that, if not more than from 130 to 150 patients, convalescent and acute cases being counted, be treated in one hospital, and not more than 25 patients be allowed to an acre, the risk would be reduced to a minimum, especially if there be two entrances to the hospital, so as to divide the traffic, and if every other precaution be taken to prevent the spread of the disease. He further recommends, as convenient and generally satisfactory, that a hospital should be provided for each metropolitan borough, and, if possible, within its own limits, that each should bear its own burden, and not thrust it on other people.

Though we may not agree with all the arguments that Dr. Tripe advances, nor with the deductions he draws from his figures, there can be no doubt that the position of the Metropolitan Asylums Board with regard to their small-pox hospitals needs very pressingly careful and thorough inquiry. If it can be proved, or even reasonably suspected, that these hospitals have been the cause of spreading small-pox amongst the people who live near them, it will be impossible any longer to insist upon their continuance; and yet the thought of London unprotected with isolation-accommodation against a new epidemic of small-pox is not one that can be contemplated without the gravest anxiety and concern.

THE leading citizens of Washington are taking measures for building a Garfield memorial hospital there. It will be international in character.

PROFESSOR MORRISON WATSON, of Owens College, Manchester, is a candidate for the Chair of Human and Comparative Anatomy at the University of Oxford.

DURING the month of August, only twenty-two deaths occurred at Torquay, equal to the remarkably low death-rate of 10.5 per 1,000 of population.

DURING the thirteen weeks which ended on Saturday last, the metropolitan death-rate averaged 20.5 per 1,000, against 18.0 and 20.7 in the corresponding periods of 1879 and 1880.

THE Royal Microscopical Society will hold its next meeting on Wednesday, October 12th, at 8 o'clock, when a paper on Multiple Staining of Animal and Vegetable Tissues will be read by Mr. B. Willis Richardson, F.R.C.S.I.

A CONSIDERABLE improvement is noted in the vaccination results at Mysore. During the past year, there were 94,010 operations performed, of which 73,716 were successful. In 1879, the total vaccinations were 92,150.

THE recent outbreak of small-pox in Maidstone—particularly remarkable for the large number of seizures within a few days—has been conclusively traced by the medical officer of health to infection disseminated in the sorting of rags at a paper-mill. There seems to be no reason to doubt that every case, except two for which other incidental causes are suggested, was due to this cause.

THE total mortality in the district of Columbia for the month of August 1881—which acquires a special interest in view of the circumstances of the late President's illness—was 434, an increase of 109 as compared with the corresponding month of last year, and 34 more than the average number of deaths for the month of August for the past seven years. The death-rate was 28.93 per thousand, 12.73 being from zymotic, 5.47 from constitutional, 7.26 from local, 2.4 from developmental diseases, and 1.07 from violence.

THE hospital dinners of this session appear to have been very successful, and the habit of coming up to attend the opening meetings of their old medical schools appears to be growing among practitioners of the country. Nothing could be more agreeable than the reunion in which past students, teachers, present practitioners, and students join in a common act of homage to their Alma Mater, and renew or form new ties of friendship and interdependence based upon community of interest in the hospital and schools around which centre pleasant and fruitful reminiscences of the past, and large and generous hopes for the future. The hospitals and medical schools are, in the medical profession, what universities are in other professions; and the sentiment of attachment to the old hospital and school in which the days of studentship were passed is an influence wholly good, and one which it is part of the result of a liberal education, and one of the elements of a high-toned professional life, to cultivate and cherish.

THE practice is springing up of holding these dinners in the board-room of the hospital, or at any rate in part of the hospital or school building; this practice, too, has much to recommend it, where it is possible, as against that of holding the commemoration dinner at any place of public entertainment. There is a sentiment which attaches to the very building and site in which the work of healing and education are carried on which is not readily transferable; and such gatherings appear (as it is natural they should) to be more homelike, and to represent more fully the whole meaning of the occasion.

IT was announced at St. Mary's dinner, on Monday last, by the Chairman of the evening, Dr. Broadbent, that the Victoria Cross had been bestowed, and will this week be gazetted, to Surgeon-Major Mahon, a pupil of the school, for his gallant humane conduct in succouring the wounded under fire on the Majuba Hill, and gallantly holding to his task under circumstances of the utmost peril to life. Surgeon-Major Mahon was wounded, but not daunted in the discharge of his duty. Such conduct reflects permanent honour on the profession to which he belongs, and this announcement of his name was greeted with cheers, which indicate how highly such a record is appreciated.

THE addresses this year are fewer in number, but by no means inferior in quality to those of past years. Dr. Vivian Poore managed to find a distinctly novel and interesting subject in his discussion of medical nomenclature at University College. No doubt there is a good deal of truth in his objection to the barbarous character of some of the terms in use in medicine. It is easier, however, to find fault than to suggest a remedy; and his hearers must have felt that, towards the end, he answered himself, and that his aspirations are totally opposed to his conclusions. At the outset, he seemed to favour the use of vernacular terms for the description of disease, and for the general purposes of medical science; but, at its close, he deplored the want of an international language for science; and it is now obvious that, the more strictly Greek and Latin terms are employed for technical purposes in medicine, the more nearly do we approach the possibility of an international language; and that the wretched habit which French and German writers have, of employing special French or German words, is a great hindrance to the student of medicine; for, however thorough may be his acquaintance with science on the one hand, or with French and German on the other, it is necessary for him to acquire quite a special vocabulary in order to keep pace with the nomenclature in use in those countries. Agreeing with him in aim, therefore, as we do, we are yet quite unable to concur with him as to the means, but would, on the contrary, warn all students that they should, as far as possible, adhere to a strictly scientific nomenclature; and they will certainly find the accurately-formed compounds which the use of classic languages facilitates, is of itself an advance in thinking and writing on scientific subjects. Examples may be found in chemistry and in comparative anatomy, in both of which something like an international language has been attained by these means.

MR. FIELD, in his address at St. Mary's, touched discursively, but acutely, on many topics of current medical interest. He especially advocated the course which we have several times suggested to the leaders of the profession: that such of them as had achieved high positions should feel themselves at liberty to take up a position analogous to the Q.C. in the sister profession of law, and fix their fees on a really consulting scale, seeing patients only in consultation, and charging always a minimum fee of five guineas for home-consultations. A like suggestion was recently stated with approval by Mr. Hutchinson; and we are glad to see it frequently recurring now in professional addresses, and always with approval. We are satisfied that its adoption would greatly tend to raise the status of medicine, to increase the usefulness of its leading members by adding to their dignity, and to their leisure for learned pursuits and continued teaching, without in any way diminishing their incomes.

MR. FIELD touched also on the question of special departments in general hospitals—the real cure for the injurious multiplication of special hospitals; and he was able to point to St. Mary's as having done much to complete such special departments by recently adding Dr. Crichton Browne to their staff in the chair of psychology, and Dr. de Watteville as demonstrator of galvanism and electro-therapeutics.

MR. OLIVER PEMBERTON took a gloomy view of the progress of medical education, observing that during the last thirty-four years he was bound to admit that a majority of the students whom he has had a share in training had gone forth lamentably ignorant of the practical duties they were about to undertake. In other words, their experience was likely to have no other source than that arising from a public too confiding in the gratuities of academic or university records. This was an emphatic way of indicating the strong opinion that students should be brought face to face with medicine as a practical art; that a period of apprenticeship should be instituted, and the period of hospital dressing lengthened—an opinion well worthy of mature consideration, but one which would certainly carry with it the necessity of the addition of another year to the medical curriculum; so that no student should be able to begin to go up to pass examination until the close of four *bonâ fide* years spent in medical study after the period of registration, as is the case in France and Germany, where no student passes until the close of his fifth year from the date of studentship.

AN outbreak of scarlet-fever is reported by Dr. Parsons in the Bridgwater Rural Sanitary District, the disease having been imported into the district by two children who were sent from London in the company of a nurse when recovering from the disease. The nature of their illness was kept a profound secret by the parents, and, in consequence, no special care was taken to isolate the children, who were permitted to mix freely with others, with the result that six cases and one death have already occurred. It is satisfactory to learn that the rural sanitary authority have unanimously agreed to prosecute the father for his recklessness in exposing the children while in so dangerous a state of infection.

THE opening ceremony of the extended and reconstructed Devonshire Hospital and Buxton Bath Charity will take place in the central hall of the hospital on Tuesday, October 11th, at 11 A.M. His Grace the Duke of Devonshire, K.G., will preside; and the Right Hon. the Earl of Derby, the Chairman, and the Governors of the Cotton-Districts Convalescent Fund, are expected to be present. It is in consequence of a grant of £2,000 from that fund that the hospital has been so extensively enlarged and improved.

DR. BARKANY has made a successful trial of the Court St. Etienne arsenical waters on an extensive scale, as a means of relieving sea-sickness. He reports that, of 185 passengers on board the steamer [illegible] from Antwerp to New York, on June 4th, 1880, 110 suffered from sea-sickness. He gave each one-half part of a litre daily of this water to drink; 18 were not benefited

by it in any way; among the others, a considerable proportion felt immediate relief, and some were at once cured. So greatly did the passengers appreciate the relief which they derived from the use of this water, that, although his intention had been to distribute only one case of sixty bottles which he had with him, and to reserve the other case for a physician in New York, to whom he was conveying it, he was induced, by their earnest entreaties, to distribute the second case of sixty bottles also among the patients. This is very strong testimony; and, if it should be confirmed, the use of this arsenical water, in small quantities, under medical advice, will, no doubt, be extended on board ship.

THE OPENING OF THE LONDON MEDICAL SCHOOLS.

We publish this week both the abstracts of the introductory addresses, and the condition of the dissecting-rooms in the London Medical Schools. Conversaziones were held at Guy's, Charing Cross, and University College Hospitals; and annual or biennial dinners were given by the following hospitals: St. Bartholomew's (Mr. Power in the chair), St. George's (Mr. H. Lee in the chair), London (Dr. Robert Barnes in the chair), St. Mary's (Dr. Broadbent in the chair), Middlesex (Mr. S. W. Sibley in the chair), St. Thomas's, and Westminster. A longer mention of some of these entertainments will be found further on. Distributions of prizes took place at King's College, Middlesex, Westminster, and at Guy's Hospital, where Mr. Hucks Gibbs, the President of the hospital, distributed the medals, prizes, and certificates of honour gained during the past year by the students. Addressing the meeting, the President congratulated the school upon the great successes they had achieved in public competitions during the past session. Dr. Wilks, on proposing a vote of thanks to the President, remarked that he was glad to have this opportunity of pointing out that the recent troubles at the hospital had been solely connected with the administration, and had in no way impaired the efficiency of the Medical School; to this the President's remarks bore ample testimony. It had been frequently asserted that the privilege of the students in the wards had been curtailed, but this he could assure them was untrue. From the first, the President and governors had pledged themselves to maintain intact these privileges, which were the glory of Guy's Hospital, and were unequalled at any other school. Mr. Bryant, in seconding this vote, cordially endorsed the remarks of his colleague. The President, in acknowledging the unanimous vote of thanks, assured the audience, on behalf of himself and the governors, that they held the interests of the school in the highest regard; and though their first duty was the care of the patients, they considered that the maintenance of the school was of the greatest importance as a necessary adjunct to its beneficent work.

OPHTHALMOLOGICAL SOCIETY.

The first meeting of this Society for the current session will be on Thursday, the 13th instant. A list of the communications promised will be found amongst "Meetings of Societies next week".

CASUALTIES IN PEACE AND WAR.

In a recent address on the subject of instruction in administering preliminary aid to injured persons, delivered in the Rifle Drill Hall, Malvern, Surgeon-Major Hutton gave the following as the numbers of persons who had been killed or wounded in connection with railways and railway service, and of those who had lost their lives by drowning in the United Kingdom, in the course of a single year. The railway casualties occurred last year, and are taken from the Board of Trade Returns. These returns show that from the 1st of January to the 31st of December, 1880, no less than 1,136 passengers, railway servants, and others were killed, and 3,958 injured on the various lines of railway in the United Kingdom. In addition, the railway companies returned 45 persons killed, and 2,733 injured by accidents which occurred on their premises, but in which the movement of vehicles on the rails was not concerned. During the several South African and the Afghan campaigns, the number of officers, non-commissioned officers, and men who were killed or died of their wounds, was 3,200; while the number of wounded shown in the army returns was 2,178. Thus while the number killed by wounds was greater in the wars mentioned than those killed on the railways, the number injured and requiring surgical aid was more than three times greater on the various lines of railway and their premises in the United Kingdom in one year than it was during all the period these campaigns lasted. The accidents by drowning referred to by the lecturer were taken from the returns of the year 1879, and only included those which occurred in the inland waters, such as the lakes, rivers, and canals, of the kingdom. The number drowned in such waters in England and Wales was 2,815; in Scotland, 549; and in Ireland, 326; so that there were no less than 3,690 lives lost by drowning in one year in the United Kingdom. Who can tell how many of these lives might have been saved if swimming formed a part of general education, as it ought to do, or even if a knowledge of how to resuscitate the apparently drowned, were more diffused than it yet is.

NAPHTHOL IN SKIN-DISEASES.

Professor Kaposi of Vienna has recently experimented (*Wien. Med. Wochenschr.*, No. 22, 1881) with naphthol in the treatment of skin-diseases. The naphthol used is the β— naphthol of chemists, and was employed either in solution in diluted alcohol, or in ointments. This substance has a therapeutic value in skin-affections similar to that of tar, of which it is a product, but has the great advantage of being almost odourless and colourless when used in a thin layer; and it stains neither the skin nor the hair. An ointment of 10 to 15 per cent. was found efficacious in scabies; and, in the Vienna Hospital, the modified Wilkinson's ointment has been replaced by one for which the following formula has been given: ℞ Naphtholi 15; axung 100; sapon. vir. 50; cret. alb. p. 10. The advantages claimed for this treatment are that the eczema provoked by the acarus is cured simultaneously with the destruction of the parasite. The simple naphthol ointment was found efficacious in psoriasis; and, as it does not stain the skin and hair, it is especially suitable for psoriasis of the scalp, face, and hands. In eczema, a two-and-a-half per cent. solution in diluted alcohol was found useful in conditions in which tar would have been indicated, and its use in this disease requires similar caution. Professor Kaposi is continuing his experiments with this substance, which promises to be a useful addition to the means at our disposal in the treatment of diseases of the skin.

SCOTLAND.

ABERDEEN UNIVERSITY: RECTORIAL ELECTION.

We are informed that Sir James Paget has allowed himself to be brought forward as the nominee of those opposed to Dr. Bain's election to the Lord Rectorship. His consent, it is stated, has been given subject to two limitations: first, that the contest be non-political; and, second, that he be assured there are reasonable grounds to believe that he will be well supported.

MEDICAL BURSARIES AT ABERDEEN UNIVERSITY.

The Education Committee of the Town Council have recommended that the Council's bursaries in the Faculty of Medicine be restricted to those students who have passed all the subjects imperative for registration in medicine. The competition will take place this year on the first Saturday of November. The subjects of competition will be: (*a*) Physics: viz., heat, light, and electricity; (*b*) natural history; and (*c*) botany or inorganic chemistry. All students, therefore, who have been "registered" as medical students may compete. The bursaries are eight in number, of the annual value of £20 each, and are tenable for four years. Two bursaries will be competed for each year.

THE REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending September 24th, it appears that the death-rate in the eight principal towns during the week was 18.2 per thousand of the estimated population. This rate is 0.7 below that of the corresponding week of last year, but 0.2 above that of the previous week of the present year. The lowest mortality was recorded in Perth—viz., 7.0 per thousand; and the highest in Paisley—viz., 20.5 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per thousand, or 0.2 below the rate for the last week. Acute diseases of the chest caused 78 deaths, or 1 less than the number recorded last week. The mean temperature was 53.1, being 0.3 above that of the week immediately preceding, and 0.4 above that of the corresponding week of last year.

IRELAND.

A DEATH from small-pox took place last week in Belfast, in a patient who had not been vaccinated.

A PERSON named Murphy was last week prosecuted by the guardians of the Rathdown Union for having failed to comply with the provisions of the Vaccination Act, and fined ten shillings and costs.

AT a meeting of the Committee of Knocknadona Dispensary District, Lisburn Union, held last week, it was stated that although they had advertised for a medical officer in the room of Dr. Johnston, resigned, yet no applicant had come forward. Another advertisement was ordered to be published; and in the event of there being again no candidate, a special meeting of the guardians will be held to reconsider the salary to be paid.

DEATH OF A SOMNAMBULIST.

AN accident which terminated fatally took place last week at Limerick, when the daughter of a newspaper proprietor in that town was found lying in her night-dress in an insensible condition in front of the house she resided in. Her bedroom was about forty feet from the ground; and as it was known that she was in the habit of walking in her sleep, it is supposed that during a fit of somnambulism she opened the window aud walked out to her death. The poor girl lived only half-an-hour after being discovered, and never regained sensibility.

DR. MCCLINTOCK'S ILLNESS.

WE are glad to learn that Dr. McClintock of Dublin is recovering rapidly from his recent severe illness. The rumours lately circulated, that he would be incapacitated from following his profession any more, were, we are enabled to state, exaggerated, and fortunately, as the result has proved, unfounded. Should Dr. McClintock's inclination actuate him to discontinue practice, we trust he may long be spared to advance the interest of medical science and of his profession—as he has so eminently done in the past—by his counsel and experience in the committee-room, and through the medium of the press.

THE QUEEN'S UNIVERSITY IN IRELAND.

WE understand that, at a meeting of the Senate of this University, it was resolved to petition the Government to allow the examinations that would—if the University be not previously dissolved under the provisions of the new Royal University of Ireland Act—be held under ordinary circumstances in June 1882, to take place instead in the month of April next. Should this be granted, it would be a great advantage to the students—especially the medical ones—of the present University, and probably a convenience to the Royal University, which may not possibly have its arrangements so completed as to be [illegible] as April. Under these circumstances, it would be necessary, we presume, for Parliament to postpone the dissolution of the Queen's University.

THE SOCIAL SCIENCE CONGRESS.

THE twenty-fifth annual meeting of this Association opened in Dublin, on Monday evening last, with an address from Lord O'Hagan, Lord Chancellor of Ireland, President of the Congress. The departments commenced work in the New Buildings of Trinity College on Tuesday morning, the general attendance being larger than at any former meeting of the Congress, with the exception of the Liverpool meeting. Much interest was exhibited in the proceedings of the Health Department, over which Dr. Cameron, M.P., presided; the debates on the subject of the Compulsory Notification of Infectious Diseases, and the State Supervision of Hospitals, being particularly interesting and well sustained. We hope to refer more fully next week to the proceedings of this department.

HOSPITAL DINNERS AND CONVERSAZIONES.

ST. BARTHOLOMEW'S HOSPITAL.

THE annual dinner of old students was held in the great hall of the hospital on Monday, October 3rd, Mr. Power, Senior Ophthalmic Surgeon and Lecturer on Ophthalmic Surgery, in the chair. One hundred and nineteen old Bartholomew's men were present and the dinner proved in every respect a great success.

GUY'S HOSPITAL.

THE Medical Session was opened by a *conversazione* on Monday, October 3rd. About two thousand guests were present, including the Lord Mayor and Lady Mayoress. The grounds of the hospital were illuminated, and some of the hangings employed in the reception-room were those used at the Grand Durbar held in India on the occasion of the visit of his Royal Highness the Prince of Wales. The centre of the spacious ward was arranged as a drawing room, with antique tapestry and furniture. Two short concerts were given by members of the Royal Academy of Music and of the Guy's Glee Club, and the guests were further entertained by exhibitions of scientific instruments, recent inventions, valuable archæological collections, works of art, and an interesting group of busts and portraits of past members of the Guys's Hospital staff. The observations of the President and Dr. Wilks, at the distribution of prizes, will be found at p. 612.

ST. MARY'S HOSPITAL.

ON Monday, 3rd inst., under the presidency of Dr. Broadbent, was held the annual dinner of the past and present students of St. Mary's Hospital Medical School. Ninety-four persons sat down to table. After the usual loyal toasts, in introducing which the chairman spoke with warmth of the kindly interest evinced by the Prince of Wales in the proceedings of the late Medical Congress, the health of the "Army, Navy, and Reserve Forces," was drunk, and Dr. Slogget and Mr. Stanley Bird briefly responded. The health of Mr. Daniel Grant, member for Marylebone, was then proposed. In his subsequent remarks that gentleman alluded hopefully to the increasing appreciation in the House of Commons of the value of thoroughness in medical education. "Prosperity to St. Mary's Hospital and School" was next given by the chairman, who, in the course of his speech, referred to numerous successes recently attained by old pupils of the hospital. With respect to the appointment of Dr. Danford Thomas as Coroner for Central Middlesex, Dr. SIEVEKING, who proposed "The Past and Present Students," observed that "if there is one thing certain in medical jurisprudence, it is that a medical man ought to be the coroner in every place in the kingdom. Whether it is desirable that he should have a legal assessor is a matter for future consideration. There is no doubt that the questions brought before the coroner are, in a large proportion of cases, such as a medical man only can answer." The toast was acknowledged by Dr. DANFORD THOMAS for the past and by Mr. GOTCH for the present students. The delivery of the next toast was undertaken by Mr. ERNEST HART, who said:—"Before I came into the room, I was warned that a sort of teratological curiosity would be entrusted to my care—a monster with two faces, one looking to the past and one to the future; tripodal, with one foot backwards, one planted in the present, and one stepping forwards to the future. I have to propose to you a comprehensive toast, "The Staff of St. Mary's," with all its retrospective interests, its present strength, and its future hopes; and I experience no anxiety in attempting this task. . . . I have had a personal relation with that staff from its birth [illegible] to the present moment; and I have as deep an interest in [illegible] welfare of the hospital and school as I have any right to [illegible]. I stand, as it were, with one foot on the bridge, looking from the

past to the shores of the future. I cannot but recall to mind, as I speak to you in this room, the fact that within the short period that the hospital has existed there have been among the staff not a few without whom the history of medicine and surgery in this country could not be written. To Coulson we owe the introduction into England of lithotrity as it now is. He fought a battle with men of the greatest authority, and even broke a lance with Brodie, and came out successfully from the strife. We most of us have personal reminiscences of Tyler Smith, whose name will always be borne in mind as that of one of the most philosophic writers on obstetrical science. Next to his comes the name of one still living amongst us, but not here, a name never to be mentioned in this building without feelings of the utmost respect and veneration—I mean Samuel Lane; a man of chivalrous honour, trustworthy judgment, placid gentleness, firm independence, great learning and skill both as a surgeon and teacher".

Mr. Hart concluded his speech with a tribute to the fervid, laborious and enthusiastic character and professional worth of the late Dr. Sibson, and sketched the science of Mr. Gascoyen and of Dr. Markham and Mr. James Lane, adding finally, "I have to couple with this toast the names of two physicians who sit with us, and to mention them will ensure its success, viz., Dr. Chambers, for the past staff, and the senior physician of the hospital, Dr. Handfield Jones for the present".

The remaining toasts, "The Chairman", "The Orator of the day", "The Board of Governors", and "The Dean of the School", were heartily received.

Messrs. Critchett, Mivart, E. Lane, M. Hallett, and F. Lewin greatly added to the enjoyment of a most pleasant evening by their masterly rendering of a varied selection of solos and part songs.

MIDDLESEX HOSPITAL.

MANY of those who are or have been connected with the Middlesex Hospital dined together, after the introductory address, October 3rd. Mr. Sibley took the chair, and among the guests were Professor Flower, Captain Bedford Pim, and General Sibley.

UNIVERSITY COLLEGE.

A CONVERSAZIONE was held after the introductory address had been delivered by Dr. Poore. The Flaxman Gallery and the Museums were thrown open, and among a numerous company we noticed, in addition to the working staff of the hospital, Sir Wm. Jenner, Dr. Russell Reynolds, Dr. Henry Maudsley, and many old students.

WESTMINSTER HOSPITAL.

THE Medical School celebrated the beginning of the new session by a dinner at the Langham Hotel, under the presidency of Mr. Davy, surgeon to the hospital. Covers were laid for seventy guests, a larger number than had been gathered on any previous anniversary.

THE DISSECTING-ROOMS OF THE LONDON MEDICAL SCHOOLS.

THROUGH the kindness of the demonstrators of anatomy, we are enabled to publish the following information regarding the state of the dissecting-rooms in the London medical schools. In all cases, work has been commenced punctually, and the beginning of this winter session is more remarkable for a good supply of subjects than for any new discoveries in the preservation or injection of bodies.

ST. BARTHOLOMEW'S HOSPITAL.—On October 1st, five subjects were being dissected. A considerable number of fresh bodies have been coming in during the early part of the week, and are being rapidly prepared for distribution. The new dissecting-room porter has proved to be a remarkably able injector. No new methods of preparation of the subjects has been introduced. In order that first year's students may have as early a chance of working practically at anatomy as can possibly be arranged for their convenience, the demonstrators have decided upon allotting each arm and each leg to two junior students. A large series of bones are kept in the rooms for the use of the students, and will henceforth be lent to them under the same conditions as are the books in a lending library.

CHARING CROSS HOSPITAL.—Four subjects were stored during the summer session. Dissecting began on Tuesday, October 4th. The dissecting-room is at the top of the new school-buildings; it is capable of accommodating twenty tables. The light is afforded by a glass roof running the entire length of the building. There are special arrangements for ventilation, flushing the floor of the room with water, storing bodies, and preserving parts. The room is kept warm by apparatus constructed on the most modern principles. The room is prettily decorated, very well lit, and calculated to answer, in every detail, the special requirements of anatomical rooms. By means of a lift, bodies are brought up from the injecting-rooms on the basement.

ST. GEORGE'S HOSPITAL.—The work of the dissecting-room commenced on Tuesday, October 4th, and ten subjects had then been received.

GUY'S HOSPITAL.—Dissection commenced on the first day of the Session; twenty-five bodies had been received, and the demonstrators have made every endeavour to get them all ready, and to distribute them among the students by the end of the week.

KING'S COLLEGE.—Dissecting was commenced on Tuesday, October 4th; ten subjects had been received, and eight have already been allotted to the students.

LONDON HOSPITAL.—Dissecting commenced at 9 A.M. on Monday, October 3rd; eighteen bodies were ready, and will most probably all be allotted by the end of the week. The dissecting-room was much enlarged last year, and since then it has undergone great improvements in ventilation and facilities for ensuring constant cleanliness; so that during last summer it was in no way disagreeable to work in. All the lectures and demonstrations began punctually on October 3rd, and the lecturers and demonstrators are urging forward special arrangements for improving the teaching of practical anatomy.

ST. MARY'S HOSPITAL.—The dissections commenced on Tuesday, October 4th, with two subjects, and no more had been received by the evening of October 6th.

MIDDLESEX HOSPITAL.—Six subjects were ready at the beginning of the week, and five are being dissected.

ST. THOMAS'S HOSPITAL.—Dissecting was commenced on Tuesday, October 4th, and ten subjects were ready.

UNIVERSITY COLLEGE.—Dissection commenced on Wednesday, October 5th; fourteen subjects had then been received.

WESTMINSTER HOSPITAL.—Dissection commenced on October 4th; there were five subjects in the dissecting-room. A new antiseptic injection fluid is now employed; it is prepared as follows: To each subject take of common white arsenic one pound; dissolve in about one quart of water, with a little piece of common washing-soda, size of walnut. Add about half a gallon of brown glycerine, and inject rather warm. Then add to above one pound of saltpetre, to preserve the colour of the muscles. Inject through aorta, keeping the syringe in motion.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the offices of the Association, 161A, Strand, on Wednesday, the 12th day of October, next, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, September 6th, 1881.

BRANCH MEETINGS TO BE HELD.

SOUTH EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting of the above district will be held at the White Hart Hotel, Reigate, on Thursday, October 20th, at 4 P.M.: F. B. Hallowes, Esq., in the chair. The following papers and communications will be read. Dr. Stephen Mackenzie: On the Diagnosis of Intracranial Tumours. Dr. John Walters: Case of Cerebral Abscess. Dr. H. S. Stone: Case of Urethral Calculus. Mr. W. A. Bernidge: Case of Fractured Coracoid Process, with Specimen. Dinner 6 P.M., charge 6s., exclusive of wine.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will take place at Canterbury, on Thursday, November 3rd; Mr. Holttum, F.R.C.S., in the chair. Members intending to read papers are requested to give immediate notice.—T. WHITEHEAD REID, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH.—An ordinary meeting of this Branch will be held at the Town Hall, Bolton, on Thursday, October 13th, at 3 P.M. (Council meets at 2.30). The following communications have been promised. A short address on the Medical Reminiscences of Bolton, by Dr. Rothwell. On the Compulsory Registration of Infectious disease, by Dr. Sergeant, Medical Officer of Health for Bolton. On the transmission of Disease by some Foods, by Dr. Vacher. Case of Multiple Exostosis, by Dr. Shuttleworth. Case of Transfusion of Blood for *Post Partum* Hæmorrhage, by Dr. Walter. Enormous Fibro-Cystic Tumour of Breast, by Mr. Banks. On Modified Listerism, by Mr. R. Hamilton. On the Detection and Removal of Foreign Bodies in the Cornea, by Mr. Emrys-Jones. Cases of Cataract-operation, etc., by Mr. E. Sunderland. Micro-photographs, illustrating Dr. Woodward's paper on Pseudo-Polypi of the Colon, and other subjects (War Department, U.S.A.), exhibited by Mr. R. Harrison. Six Water-Colour Drawings, illustrating Plastic Operations for Extroversion of Bladder, by Mr. R. Parker. Two Specimens illustrating Antiseptic Abdominal Surgery, by Dr. Wallace. This is the first meeting of the Branch at Bolton, and, among other matters of interest in the town, are the newly completed and extensive buildings of the Infirmary, at present containing a loan-collection of pictures. Dinner at the Swan Hotel, 6 P.M.; tickets 7s. 6d.—A. DAVIDSON, Honorary Secretary, 2, Gambier Terrace, Liverpool.—September 27th, 1881.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, November 3rd, at 4 P.M. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dinner (5s. a head, exclusive of wine) at 5.30 punctually. The question as settled by the Council for the meeting to discuss is: The Advantages or otherwise of Vaginal Injections after Delivery. Members intending to make any communications, or to be present at the dinner, are requested to give notice to the Honorary Secretary.—W. M. KELLY, M.D., Honorary Secretary.

BATH AND BRISTOL BRANCH.—The first meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday, October 13th, at 1 P.M. The Chair has been chosen to suit the convenience of country members especially; and it is hoped they will attend, and favour the meeting with their experience.—David Davies, President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries. Bath, October 5th, 1881.

METROPOLITAN COUNTIES BRANCH: FOURTH DISTRICT.—The first meeting of the fourth session of the above District will be held on Thursday, October 20th, at 8.30 P.M., at the New Town Hall, Hackney; Mr. Edwin Saunders, President of the Branch, in the chair. Members willing to read papers or exhibit specimens are requested to communicate at once with the Honorary Secretary, Dr. ROBERT WARNER, 241, Hackney Road.—October 7th, 1881.

BORDER COUNTIES BRANCH.—The autumnal meeting of this Branch will be held at the Keswick Hotel, Keswick, on Friday, October 28th. Members intending to read papers or show specimens are requested to give notice to one of the Honorary Secretaries, J. SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal.

CORRESPONDENCE.

THE NEW SCHEME OF EDUCATION OF THE IRISH COLLEGE OF SURGEONS.

SIR,—In the interest of that medico-educational reform which you yourself consider to be urgently required in Ireland, I deeply regret that, upon the *ex parte* statement of a nameless correspondent you have been induced to condemn the earnest and honest effort to improve the system which has been recently made by the Council of the Irish College of Surgeons. If you had known the history of that effort, and if the intention and the method of the New Scheme had been laid before you, I am confident that you would never have lent the influence of the BRITISH MEDICAL JOURNAL to discourage those who have for several years devoted themselves to the cause of educational amendment in this country.

Permit me to say that your objection to the position which certain subjects occupy in the student's period of study are based upon a complete misconception. You mistake the "preliminary scientific" year for the student's first school year, and calculating upon this, you complain that subjects suitable for the student's first medical year are deferred until a later period. The fact is that the New Scheme does not materially alter the rotation of study, which every one admits that the student should undergo. It requires that he shall give three years to purely professional subjects—one to preparatory work in anatomy, surgery, and medicine, in lecture-room, hospital, and dissecting-room; the next to the more advanced branches of the same subjects studied in the same places, but by better developed methods; the third to the actual work of eye, ear, and hand in hospital, operating-room, and mortuary. These three stages I believe every one recognises as being the proper sequence of study. But something preparatory is essential, and therefore the Irish College has prefixed to these three years a fourth, or "preliminary scientific" year, which heretofore has had no existence in Ireland. In it the student is to study elementary physics, botany, and mechanical pharmacy, the anatomy of the bones, and some chemistry; but except that these two last subjects *may* be taken in a medical school, the year is in no sense a medical part of his professional course. Indeed, its curriculum was expressly constructed to enable the student to pursue this period of study under the supervision of a practitioner in the country, as is frequently done in England.

You will thus observe that, counting from the student's first *school* year, the position given to the subjects of his study is the same as that usually given to them in London.

Your reference to the "influential body of the Fellows" who were defeated "by a narrow majority" in the effort to upset the contemplated reform, and who have now memorialised the Home Secretary against the Scheme, obliges me to expose candidly the nature of this opposition, which I would gladly abstain from doing were I not convinced the time has come for plain speaking, because the very existence of the College itself and the future *prestige* of the Irish School of Surgery would be seriously endangered if the personal interests of teachers were now to overcome the effort at reform of which the New Scheme is the embodiment.

There exist at present in the Irish medico-educational system two specially gross abuses:—1. That which you define as "the antiquated notion of enjoining upon the student attendance thrice over on certain courses of lectures."—2. The "credit fee" system, which enables the pupil-farmer to keep the money of the student in his pocket, paying nothing to any of his teachers until the end of his term of study, and then paying only on condition that a testimonial of diligence is signed. If space permitted I could expose and illustrate the disastrous effect of these abuses, the least of which is that the lecture and hospital certificates of study have ceased to be regarded of any value whatever as evidences of study.

At these abuses the New Scheme especially aims, and hence the opposition of a few to it, which opposition you dignify by representing it as the protest of "an influential body of the Fellows". The "influential body" numbers 31 objectors out of a total constituency of 334 Fellows. Amongst them is not to be found the name of a single member of Council save one, or any of the Courts of Examiners save one. The leaders of the movement are the teachers whose reiterated courses of lectures have been pruned down, and some of the signatories to the memorial are the pupil-farmers who have not been able to recognise the propriety of payment cash down for *bonâ fide* teaching. These are the "Fellows" who came themselves to the College as one man to crush the reform, and who whipped up half-a-dozen provincial Fellows to swell the glorious minority of 28; these are the opponents whose hostility the Council has evoked by its timid and insufficient curtailment of a ridiculously redundant lecture curriculum; and this is the "influential body of Fellows" whose cause you have championed against the carefully-considered decision of the Council, the vote of the College at large, and the overwhelming opinion of the profession in Ireland. I invite you to reconsider the scheme of reform. I challenge denial of what I have said; and if this statement be not disproved, I claim with confidence your advocacy of a scheme of educational reform which may be fairly considered practical, inasmuch as it has occupied the most anxious attention of the Council once a week for nearly two years. It may not coincide with the standard of perfection set by the British Medical Association, but, at least, it is an earnest effort in the right direction, an honest attempt to do justice to the student and raise the standard of professional education in Ireland. As such, I submit it deserves your approval.—I am, Sir, yours truly,

ARCHIBALD H. JACOBS, M.D. Dub., F.R.C.S.I.,
23, Ely Place, Dublin.

A CORRECTION.

SIR,—Will you kindly permit me to correct the statement published in to-day's JOURNAL, that the prosecution of Thomas Theodore Thompson, for falsely representing himself as a medical practitioner, was set on foot by the South-Eastern Branch of the British Medical Association. The prosecution was authorised by the Council of the Medical Defence Association, and was ably conducted to a successful issue by our solicitor, Mr. Pridham. Further, we shall have the privilege of paying the whole of the costs (which in this case are heavy, as counsel had to be retained), for although Thompson was fined £10, the whole of the sum is retained by the police authorities.—Yours faithfully,

GEORGE BROWN,
Honorary Secretary Medical Defence Association.
3, Gibson Square, N. October 1st, 1881.

THE DISCUSSION ON THE TREATMENT OF INTRA-PERITONEAL TUMOURS AT THE CONGRESS.

SIR,—As my contributions at this discussion were evidently new to many of my audience, would you kindly allow me to say that the details of all the cases but one alluded to have been given before the Royal Medico-Chirurgical Society, and have been published *in extenso* either in the *Transactions* or in the JOURNAL of the time. I gave merely a bare summary of the fifty-eight cases at the Congress, and this accounts for Dr. Dunlop's expression that, "concerning my operations more facts were wanted". He will find them fully recorded.—I am, etc.,

LAWSON TAIT.
7, Great Charles Street, Birmingham.

UNIVERSITY INTELLIGENCE.

OXFORD.

AN examination will be held at Exeter College on Thursday, October 13th, for the purpose of filling up a Natural Science Scholarship, tenable for four years during residence. The examination will be in biology, chemistry, and physics. Candidates will be expected to show pro-

ficiency in at least two of these subjects, and the scholar will be required to read for honours in biology in the Natural Science School. The same papers will be set in chemistry and physics as in the examination for the Natural Science Scholarship at Trinity College. Candidates are desired to call on the Rector between 6 and 7 p.m,, on Wednesday, October 12th. They may obtain further information by application to the Rector, or to Mr. W. L. Morgan, the Lecturer in Biology at Exeter College.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, September 29th, 1881.

Barr, Joseph, Dunmore, Ireland.
Findlay, Archibald, Custom House Terrace, Victoria Docks.
Haddock, William Isaac, Acland Street, Burdett Road, Bow, E.

The following gentlemen also on the same day passed their Primary Professional Examination.

Malli, Hormusji Rustomji, Bombay.
Roger, Thomas Lockyer, Charing Cross Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary, £[illegible] per annum. Applications by November 16th, to Alexander Forrest.

BOSCOMBE PROVIDENT INFIRMARY—Resident House-Surgeon. Salary, £60 per annum. Applications to J. Savage Borthwick, Boscombe Spa, Bournemouth.

BRISTOL GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to the Clerk by November 5th.

CITY OF LONDON INFIRMARY—Assistant Medical Officer and Dispenser. Salary, £100 per annum. Applications by October 11th.

CLINICAL HOSPITAL AND DISPENSARY FOR WOMEN AND CHILDREN, Park Place, Manchester—House-Surgeon. Salary, £80 per annum. Applications to Mr. E. W. Marshall, Secretary, 38, Baclon Arcade, Manchester, by October 8th.

DENTAL HOSPITAL, Leicester Square—Dental Surgeon. Applications by October 10th.

DREADNOUGHT HOSPITAL, Greenwich—Resident House-Surgeon. Salary, £50 per annum. Applications by October 8th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Lady Superintendent. Salary, £60 per annum. Applications to the Secretary by Oct. 8th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST—Resident Clinical Assistants. Applications by October 15th.

HOSPITAL FOR EPILEPSY AND PARALYSIS, Portland Terrace.—Physician. Applications to Arthur Reade, Secretary, by October 12th.

HULME DISPENSARY, Manchester—House-Surgeon. Salary, £130 per annum. Applications to Dr. Wahltuch, Honorary Secretary, by October 20th.

KINGTON UNION—Medical Officer. Salary, £80 per annum. Applications to the Clerk by October 10th.

KINGTON RURAL SANITARY AUTHORITY—Medical Officer of Health. Salary, £40 per annum. Applications by October 10th.

LEEDS PUBLIC DISPENSARY—Resident Medical Officer. Salary, £80 per annum. Applications by October 15th.

LEEDS UNION—Medical Superintendent. Salary, £300 per annum. Applications by October 17th.

LISBURN UNION—Medical Officer for Knocknadona Dispensary District. Salary, £100 per annum, with £15 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 12th instant.

NATIONAL DENTAL HOSPITAL AND COLLEGE, 149, Great Portland Street, W.—Dental Surgeon and Lecturer on Dental Surgery and Pathology. Applications by October 15th, to Arthur G. Klugh, Secretary.

NENAGH UNION—Medical Officer for Toomvara Dispensary District. Salary, £100 per annum, with £10 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 11th instant.

ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, Northampton—Assistant Medical Officer. Salary, £200 per annum. Applications to the Medical Superintendent.

TOWNS HOSPITAL AND ASYLUM, Glasgow—Assistant Medical Officer. Salary, £80 per annum. Applications, etc., to Dr. Robertson by October 10th.

WESTERN OPHTHALMIC HOSPITAL, 155, Marylebone Road—Surgeon. Applications to the Secretary.

MEDICAL APPOINTMENTS.

BROSTER, A. E., L.R.C.P., appointed Medical Officer to the Ashburne Union.

BULTEEL, Marcus H., L.R.C.P.L., M.R.C.S., appointed Surgeon to the Provident Dispensary of the Royal Albert Hospital and Eye Infirmary, Devonport.

CADDY, H., M.R.C.S.E., L.S.A., appointed Medical Officer of Health for the Eastern Division of the Truro Rural Sanitary District.

FONCECA, R. J. T., L.R.C.P., appointed Assistant Resident Medical Officer for the Birmingham Children's Hospital.

GRAHAM, C. R., M.R.C.S., appointed Senior Resident Medical Officer for the General Hospital for Sick Children, Pendlebury.

KIDD, Philip Horace, M.B., appointed House-Surgeon to the Great Yarmouth Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

BLUMER.—On October 3rd, at Keyworth House, Nottingham, the wife of Percy Blumer, Surgeon, of a daughter.

HUTCHINSON.—On the 1st instant, at Brondesbury, the wife of S. J. Hutchinson, Esq., of Hill Top Villa, Brondesbury, N.W., and Brook Street, W., prematurely of a daughter.

MARRIAGE.

WALKER—BROADBENT.—On the 11th August, at the Longwood Wesleyan Chapel, by the Rev. Amos Dawson, and the Rev. T. M. Perry, J. Barnsley Walker, M.D., of Field Head, Golcar, to Eliza (Leila), youngest daughter of the late John Broadbent, Esq., of Longwood Edge.

DEATH.

POLLARD, James, M.R.C.S., L.S.A., Honorary Surgeon to the Torbay Hospital, Torquay, aged [illegible].

BRITISH MEDICAL DEFENCE ASSOCIATION.—On Wednesday a meeting of medical practitioners and others was held at the residence of Dr. Hewitt, Lancaster Gate, Hyde Park, for the purpose of forming an association which shall have for its object the suppression of medical practice other than that sanctioned by the law of the State. Dr. Hewitt was voted to the chair, and it was announced, at the outset of the meeting, that letters had been received from Mr. W. J. Payne, the City coroner; Mr. S. F. Langham, deputy coroner for Westminster, and other gentlemen, expressing their keen sense of the necessity for the course which the association intended to take. The chairman then said that the poorer neighbourhoods of London and other large cities were infested with unqualified medical practitioners, who were practising without a diploma, and who were doing an incalculable amount of harm to their patients. This fact had frequently been proved at numerous inquests. Many of those quacks practised in so-called "dispensaries", and took the small fee of the poor people, while they were simply permitting their diseases to gain a deadly grip on them. The law had given the profession ample remedy against these persons, and it was the general belief of all the doctors he had met that the time had arrived when the law should be strictly and remorselessly enforced. He then moved that a committee be formed for the purpose of establishing this association on a strong basis, which should invite the co-operation of all registered medical practitioners and gain all information possible regarding the class of persons against whom the association intended to proceed. This motion was carried.

HEALTH OF FOREIGN CITIES.—The recent health and sanitary condition of various foreign and colonial cities are indicated by the following facts and calculations, derived from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the death-rate averaged 32.4 per 1,000; it was equal to 24.1 in Calcutta, 28.8 in Bombay, and 37.4 in Madras. Cholera caused 16 deaths in Calcutta and 14 in Bombay, while 12 fatal cases of small-pox occurred in Madras. The death-rate in Alexandria showed a slight decline, but was equal to 47.2; the deaths included 12 from whooping-cough and 11 from "fevers". According to the most recent weekly returns, the average annual death-rate in nineteen European cities was equal to 23.2 per 1,000 of their aggregate population, whereas the rate in the twenty large English towns did not average more than 17.9 last week. The rate in St. Petersburg, although showing a further decline, was equal to 38.8; 45 deaths were referred to typhus and typhoid fevers, and 12 to scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the average rate did not exceed 16.4, the highest rate being 19.3 in Copenhagen, where 2 fatal cases of scarlet fever and 2 of whooping-cough were recorded. The Paris death-rate declined to 21.8, but was 5.2 above the exceptionally low rate in London; the deaths included 37 from diphtheria and croup, 21 from enteric fever, and 12 from small-pox. The deaths in Brussels, which included 3 from typhus and typhoid fevers, were equal to a rate of 19.1. In Geneva the death-rate was so low as 10.6. In three of the largest Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged only 18.3, the highest rate being 19.9 in Amsterdam, where 6 cases of whooping-cough were reported. The Registrar-General's table includes eight German and Austrian cities, in which the average death-rate was equal to 23.1, ranging from 17.9 and 19.8 in Dresden and Hamburg, to 27.9 and 30.1 in Breslau and Buda-Pesth. Small-pox caused 9 more deaths in Vienna, and typhus 5 both in Hamburg and Buda-Pesth. Rome is the only Italian city contributing to the Registrar-General's table now under notice; the return from that city is for the last week in July, when the rate was equal to 29.2, and the deaths included 17 fatal cases of malarial fever and 4 of typhoid fever. In four of the principal American cities, the death-rate averaged no less than 33.6; it was equal to 25.2 in Philadelphia, 35.5 in Brooklyn, 36.3 in Baltimore, and 37.4 in New York.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M. King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Hunterian Society. 7.30 P.M., Council Meeting; 8 P.M., First General Meeting. Introductory Remarks by the President. Mr. J. Hutchinson will read a paper on "Second Attacks of Syphilis".

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Mr. J. E. Adams, [illegible] Diplopia. Dr. W. M[illegible] Diplopia. Mr. J. E. Adams: Cases of Suppurating Ophthalmitis from Septic [illegible] Mr. [illegible] specimens: 1. Tubercle of Choroid; 2. Perforating Ocular [illegible] Mr. [illegible]

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Wiltshire: A Case of [illegible] Mr. C. [illegible] Mr. [illegible] Joint-Disease (living specimen). Mr. C. T. Dent: A Case of Strangulated [illegible]

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names, not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

FALL PIPES.

SIR,—I should be greatly obliged if some one of your readers having special experience in sanitary matters would kindly favour me with replies to the following questions.

1. Are rain-water fall pipes from the roof, which communicate directly with the sewer, objectionable or dangerous practically, given that such fall pipes are of adequate bore, are perfect [illegible] and that the sewers [illegible] they run are adequately ventilated by other channels; and, if dangerous, how?

2. If not objectionable, have such fall pipes any value as accessory ventilators of the drains into which they enter?

3. If [illegible] are the [illegible] to render necessary or expedient the breaking of the fall pipe connections with the sewers, in accordance with modern procedure, in cases in which the older plan of direct communication everywhere prevails, and where, therefore, the alteration would entail considerable cost?—I am, sir, yours faithfully, M.

** We have referred these questions to Mr. William [illegible], C.E., Argyll Street, the well-known sanitary engineer, who has favoured us with the following reply.

"1. If rain-water pipes descending from the roof of flats of a house are not disconnected from the house-drain or the sewer, they will be always full of foul air derived from drain or sewer, and will, in cases of pressure, puff out foul air level with the windows. The tightness of the joints or the sectional area of the pipe does not affect this; for so long as no fresh air enters the pipe it will remain full of foul air. However well the sewers were ventilated, the rain-water pipes should be disconnected, on account of the foul air present in the house-drains; and the sound rule is to disconnect the feet of rain-water pipes over a proper gulley, even if a disconnection chamber be close by. Cases of resulting death are not uncommon where the rain-pipe, connected at foot, ventilates the drain, etc., too near a window.

"2. Rain-water pipes have no sound value as ventilating pipes, as they terminate generally against a wall or behind a parapet, and are not always subjected to the induced action performed by the wind. It is held, even, that when the rain-water pipes are delivering into a rain-water tank, they should nevertheless be disconnected above ground, on account of the smell of silt, soot, etc., from tank. The best ventilator for the house drain is a full diametered continuation of the soil-pipe; and if the end of the drain be distant therefrom, a separate pipe may be raised, but no rain-water pipe made use of.

"3. If it be granted, and it must be, that a rain-water pipe remains always full of impure air, unless a free current of fresh air be taken in at the foot of the pipe, it follows that undisconnected pipes are unsanitary things, which it would be wise to abolish. The authorities of a town or village may not like, in the teeth of the necessary cost, to insist upon gulley-deliveries, at least for the present; but wise householders will disconnect their pipes for themselves if they love pure air and an open window."

A TUTOR, MANCHESTER.—The preliminary examinations of the Royal College of Surgeons having now come to an end, all inquiries with respect to recognised preliminary examinations should be addressed to the Registrar of the General Medical Council, Oxford Street. There were 610 candidates at the examination just concluded, and, of this number, 238 were rejected; the successful candidates can, of course, commence their professional studies at once, either at metropolitan or provincial hospitals. Our Educational Number will give you all the desired information.

DENTAL EDUCATION.

SIR,—The apparent indifference to professional dental education by some who occupy important office as members of the Medical Council is illustrated by the following facts. One of the most prominent members of the Council not only employs a person whose sole qualification is registration, but also sends all patients needing dental assistance to him. Taking into consideration the eminent position in the Council and professional status of this gentleman, one seems justified in concluding that in it there exists almost total indifference to the claims of education for our branch of the profession. And perhaps that is the explanation of "The extremely unsatisfactory condition in which the Medical Council left the question of a purgation of the *Dentists' Register*" as stated in your JOURNAL of the 24th ultimo on that subject.—I am, sir, your obedient servant,

U. STEVENSON, M.R.C.S., L.D.S.

[illegible], Wimpole Street, Cavendish Square, W.

THE [illegible]

SIR,—I have under my care a case of old-standing dyspepsia, the most distressing feature of which is a curious hypertrophied condition of the lingual papillæ. This condition is most annoying in the morning, when the patient wakes with the tongue rather dry and the papillæ "like spikes", very horny, and when applied to any portion of the mucous lining very painful, until the tongue becomes moistened [illegible] hypertrophied, but in the filiform this peculiarity is most marked. The patient has at times slight hysterical manifestations, and a history of a sudden somewhat [illegible] me a hint as to the treatment of such a case, I shall be deeply obliged, and am, yours very truly,

CARMEN.

Buenos Ayres, August [illegible]th, [illegible].

[illegible] A Member [illegible] in a day or two, he will feel much benefit, and, after a week, I do not expect the spasms will continue, when he can use the remedy twice in the twenty-four hours, [illegible] in the case of an old lady of seventy years of age, who used to shriek with agony [illegible] micturition.—I am, etc.,

ROBERT C. MADRAS, M.B.

Dripsey, Cork, September 22nd, 1881.

[illegible]

A Case illustrating the Identity of Croup and Diphtheria.

SIR,—In August last I was asked to see a child [illegible] having [illegible] Hospital [illegible] Dr. Thomas [illegible] in their house [illegible] after he [illegible] the [illegible] the mother, [illegible] seized with it. The baby was a sickly delicate child at the time, suffering from acute eczema of the head and [illegible]. For two days, however, it became very ill, and could not [illegible]. On the next visit I observed [illegible], but there was no false membrane to be seen. After two or three convulsive fits, it died quietly. The other sick members of the family, viz., the mother, eldest daughter, and one son, were all feeling ill, and complained of their throats; but besides swelling and [illegible] of the tonsils and palate, there was nothing special to be seen. A day or two after the baby's death, however, the boy who was at the time ill in bed, became much worse, and false membrane of an unmistakable type appeared on the uvula, palate, and tonsils. Shortly after this, another son was taken ill, but with only the signs of ordinary sore-throat. Up to this time, the only remaining member of the family (besides the husband who had not been ill) was a little boy aged three years. About a week after the baby's death, however, he was said to be poorly and complained of his throat. His symptoms gradually developed; he became hoarse, coughed a little, lost his appetite, and his mother said he seemed at times as if he was going to be choked. There was no membrane visible from the mouth, the throat being merely red and swollen. The child, however, when [illegible] there was some obstruction in the larynx. The mother stated he awoke during his sleep, had fits of coughing with a "croupy" noise, and great difficulty to get his breath. He was rather better during the day. The case of this last child corresponds exactly with the disease so-called "croup", whereas that of the other child—his elder brother—exactly corresponds with the ordinary form of diphtheria. The family, although not strong, have previously been in good health. These cases seem all to have occurred through the illness of the boy brought from London. There has been no other case of diphtheria in the neighbourhood. Locally [illegible] has actually [illegible] but the prostration, swelling of the glands of the neck, and other symptoms of diphtheria, have been very marked. The boy with so-called "croup" is just the age at which this disease occurs; the others may be said to be too old for "croup".—Yours truly,

T. FREDERICK PEARSE, M.D.

Liphook, Hants.

P.S.—Since writing the above, the child with croup has died, apparently from suffocation; and also the boy who had the diphtheria so severely, apparently from paralysis of the heart.

The Alcohol Question in Nebraska.

In the following unfavourable notice of a Society in a remote Western State, the New York *Medical Record* points out an amusing clerical error.

"The State Medical Society of Nebraska has published the proceedings of its ninth, tenth, eleventh, and twelfth annual sessions. At the tenth, the following unique resolution was introduced: 'Resolved: That the Nebraska State Medical Society deprecates the abuse of alcohol in any manner except for medicinal purposes, believing it to be detrimental to health, degrading to nature', etc. In view, however, of certain facts, among others, 'that it would be a committal of the Society, after having accepted of the champagne tendered at the previous evening', the motion to adopt was withdrawn, and we are left to infer that the Nebraska State Medical Society sanctions the abuse of alcohol, even for medicinal purposes."

Hard and Soft Water.

SIR,—Having a patient who has always been of a constipated habit, I recommended her, whilst visiting here, where the water is very soft, to take a tumbler each morning on rising, combining this with oatmeal, wheatmeal bread, etc., for breakfast. This was quite sufficient; and I heard no more of it until she returned to her home, where the water is hard. Now she says that, as expected by her, the constipation has returned, although all her old measures are continued as instituted here. Will some member resident at Margate or elsewhere, where the water is proverbially hard, kindly suggest a way out of my difficulty? I still desire very much indeed to continue the water-drinking, for the reason that my patient is of large build and good appetite, and suffers from dyspepsia somewhat; and for other reasons it is essential that a fair amount of water be taken daily.—I am, yours faithfully,

MANCUNIUM.

TOBACCO (H. A.).—We are unable to refer to any trustworthy condensation of reliable evidence concerning the use of tobacco, either for or against. We regard with great distrust a great many of the strong but general statements often made on the subject without detailed evidence or the means of testing the grounds of such statements. The late Professor Parkes, F.R.S., one of the most careful and moderate of investigators and teachers, wrote on this subject: "As to the effect on the young, even, it is curious, in Burmah, to see children smoking in their mothers' arms; and yet when I was serving in Burmah, many years ago, I often saw a woman walking along smoking her cigar of tobacco rolled up in a plantain-leaf, and carrying on her hip her child of two or three years old, who also had his or her little cigar, which was smoked with the greatest gravity. On talking to the Burmese (who smoke constantly), they would never allow that even child en were in the least damaged. When I was in Turkey, I tried to make inquiries of some of the intelligent Turkish gentlemen; one or two of them said they thought the Turks had learned to smoke from the Europeans, and had been growing apathetic and dull ever since. But others laughed at this; and the rural Turk, who smokes a good deal, is a fine, active, energetic fellow. I have talked to many Germans, who all stand out manfully for tobacco. In conclusion, I confess myself quite uncertain. I can find nothing like good evidence in books; too often a foregone conclusion, without any evidence to back it, is given. I think we must decidedly admit injury from excess; from moderate use, I can see no harm, except it may be in youth."

What next?

SIR,—Can the Council of the Metropolitan Hospital Sunday Fund be aware that one of its members advertises himself in *Lloyd's Weekly Newspaper*, the *Weekly Dispatch*, and other similar publications, in the following terms:

"*Eye Hospital for the Working Classes.—Self-supporting.* Surgeon, Mr. Jabez Hogg. For the treatment of diseases and injuries of the eye. Patients seen daily at 1, Bedford Square, W.C., from 9 to 11 every morning; and from 1 to 4 on Saturdays."

In any case, will you allow me to call their attention, and the attention of the profession, to so exceptional and undesirable a practice with a view to obtaining a remedy?—Your obedient servant,

A HOSPITAL MANAGER.

ERRATA.—In the description of Dr. Ward Cousins' new elastic cord tourniquet, [illegible] for "A ring [illegible] ring [illegible] converting [illegible] the [illegible] was [illegible] for that of Dr. Carter [illegible].

L. H. R. (Nunhead).—The question [illegible] a "gallo"; at the same time we can not see how there should be any illegality in such contract: but apart from illegality it is one open to obvious objections.

G. F. MASTERMAN.—Duly received.

SIR,—I should [illegible] [illegible] [illegible]

A REVIEW
OF THE
PRESIDENT GARFIELD'S CASE.

By F. H. HAMILTON, M.D.
Surgeon to the New York Hospital.

THE following article by Dr. Hamilton, on President Garfield's case, was to be published in the *New York Medical Gazette*, October 1st.

In answer to inquiries, Dr. Hamilton dictated as follows.

So far as I am informed, the testimony is conflicting as to the relative positions of the President and the assassin when the pistol was fired. It is now rendered probable that the assassin stood well to the right and slightly in the rear of the President. The ball entered about four inches to the right of the spine, penetrating and comminuting the eleventh rib, entering the intervertebral substance between the last dorsal and first lumbar vertebræ, and, passing obliquely forward, emerged at a point near the centre of the first lumbar vertebra in front, and was found some distance to the left of the vertebra at the lower margin of the pancreas—being situated nearer its posterior than its anterior surface—wholly without the peritoneal cavity. It is unnecessary to say that the course of the ball, after penetrating the rib, was not determined until after death. I saw the patient on the morning of July 4th, in consultation. We were then informed of the manner of the accident, and that, on receipt of the injury, the President had fallen to the floor, sinking down to the right side; that, being interrogated, he complained of pain in his right ankle, and subsequently, in the course of the day, of a similar pain in his left ankle, which pains had been promptly relieved by the hypodermic injection of morphia. He vomited immediately after the receipt of the injury, and in the course of the day his urine had to be drawn once by the catheter. There was not, when first seen by myself, nor has there been at any time subsequently, any apparent loss of power in his lower extremities, or diminution of the natural sensibility at any point. The pains in his ankles, however, were accompanied with hyperæsthesia of the integument; and, a few days later, it was observed that there was hyperæsthesia of the integument of the right side of the scrotum. All of these symptoms—the pain and the hyperæsthesia—disappeared wholly in the course of the first week or two, and never returned. On the morning of July 4th, the patient, being partially under the influence of the morphine, was not suffering pain, the bowels were tympanitic, and the pulse was feeble. At the first consultation, the question having arisen as to the probable course of the ball, it was stated that Surgeon-General Wales, of the navy, had, on the day of the receipt of the injury, introduced his finger to its full extent, and that he had declared that it penetrated the liver, the structure of which he recognised by its granular feel; and Dr. Bliss stated that he had introduced a probe about three inches, which seemed to have passed in the same direction. This testimony was regarded sufficient to determine that the ball was at least beyond our reach, and beyond the reach of safe exploration. Dr. Woodward had introduced his finger sufficiently deep into the wound to determine that the rib was broken. Finding, upon personal examination and inspection, that the track of the wound was completely closed by a firm clot, I refused to make any further exploration.

From this time forward, great uncertainty existed in the minds of the medical attendants as to the actual course and presence of the ball. On July 24th, and after the complete subsidence of the tympanites, a circumscribed point of induration was discovered in the right iliac fossa, which at once led to a suspicion that the ball had been deflected, coursing along the anterior surface of the lumbar muscles, and that this induration indicated its present seat. This suspicion was sustained by the hyperæsthesia of the right side of the scrotum, which, as Professor Weisse had already shown in his anatomical observations, would be the natural result of an injury of the ilio-inguinal or ilio-hypogastric nerves, which lie in the course of the then supposed track of the ball. Still further confirmation was added when, on July 27th, we found that a flexible catheter could be carried downward in the direction of the supposed situation of the ball to a distance of seven inches. The point of induration in the right iliac fossa gradually moved downward and became more hard and defined, conveying the impression that it was the ball, and that it was encysted. At the necropsy, it having been determined that this was not the ball, further examination of the channel in this direction was not prosecuted. Indeed, this induration had entirely disappeared after death, and it is now presumed that it only indicated the lower end of the long sinus already described.

About this period, a small pouch of pus was formed in connection with the main channel, extending underneath the integuments of the back, causing rigors which were at once relieved by a free incision; and, a little later, rigors followed in consequence of the temporary obstruction of the channel caused by the floating of a small fragment of the rib into the orifice, which were relieved on the removal of the fragment.

On August 8th, great difficulty having been experienced in the introduction of the drainage-tube into this long suppurating canal, an incision was made below the twelfth rib, the patient being under the influence of ether. About a week later, the stomach of the President became exceedingly irritable, and it was found necessary to suspend alimentation by the mouth, and for three or four days he was nourished only by enemata. On the fourth day after the suspension of alimentation by the mouth, the right parotid gland began to enlarge (August 17th), and on August 24th suppurated, and was incised, the first incision giving exit only to a few drops of pus. Subsequently, it opened into the mouth and meatus auditorius externus, and three or four incisions were made at different points on the surface for the exit of matter. At the time of death, the suppuration and swelling of the parotid gland had almost entirely disappeared.

Following the parotitis, there was a gradual development of bronchitis in the right lung; and, finally, a broncho-pneumonia of the lower portion of the right lung, indicated by well-defined dulness and a total absence of the respiratory murmur in that region. From this time until the period of his removal from Washington, there are no events of striking interest worthy of being related in this brief summary, except the alarming weakness and great somnolency of the patient, which occurred on the 24th, 25th, and 26th of August, and which led to an apprehension that a fatal issue was at hand. The patient was evidently suffering from atmospheric influences, the heat being intense and oppressive, and most of the time the air being motionless, so that a leaf could not be seen to stir upon the trees surrounding the White House. There was no evidence, however, at any time, that the patient suffered from malaria having its source in the house-drainage or the marshes in the vicinity, which latter, at a later time in the season, had always been regarded as pestiferous. His removal to Long Branch occurred on the 6th of September, and was effected without injury or discomfort to the patient, with only a slight amount of fatigue, manifested after his arrival, and from which on the following morning he had completely recovered. There was no day while he lay in the cottage at Long Branch that he did not express himself as pleased, and even delighted, with the change; nor was he ever oppressed by the heat, although one of the days (the first after his arrival) was the hottest day of the season. At two o'clock in the afternoon of this day, when the heat was greatest, in reply to my inquiry, he said he experienced no discomfort. From this time until the period of his death, which was sudden and unexpected, although in no sense unanticipated, there is no incident worthy of special note—except that there was a gradual change in the last two or three days for the worse. The manner of his death, and the result of the subsequent necropsy, are sufficiently explained in the official bulletin.

[We here insert the official bulletin.—Ed.

"A [illegible] made, eighteen hours after death, in the presence and with the assistance of Drs. Hamilton, Agnew, Bliss, Barnes, Woodward, Reyburn; Andrew H. Smith, of Elberon; and Acting Assistant-Surgeon D. S. Lamb, of the Army Medical Museum, Washington. The operation was performed by Dr. Lamb. It was found that the ball, after fracturing the right eleventh rib, had passed through the spinal column in front of the spinal canal, fracturing the body of the first lumbar vertebra, driving a number of small fragments [illegible] below the pancreas, about two inches and a half to the left of the spine and behind the peritoneum, when it had become completely encysted. The immediate cause [illegible] the mesenteric arteries adjoining the track of the ball, the blood rupturing the peritoneum, [illegible] cavity. This hæmorrhage is believed to have been the cause of the severe pain in the lower part of the chest complained of just before death. An abscess cavity, six inches by four in dimensions, was found in the vicinity of the [illegible] colon, which were strongly adherent. It did not involve the substance of the liver, and [illegible] wound. A [illegible] between the [illegible] right kidney, almost to the right

groin. This channel, now known to be due to the burrowing of pus from the wound, was supposed during life to have been the track of the ball. On an examination of the organs of the chest, evidences of severe bronchitis were found on both sides, with broncho-pneumonia of the lower portions of the right lung, and, though to a much less extent, of the left. The lungs contained no abscesses, and the heart no clots. The liver was enlarged and fatty, but free from abscesses; nor were any found in any other organ except the left kidney, which contained, near its surface, a small abscess about one-third of an inch in diameter. In reviewing the history of the case, in connection with the necropsy, it is quite evident that the different suppurating surfaces, and especially the fractured spongy tissue of the vertebra, furnish a sufficient explanation of the septic condition which existed."—D. W. Bliss, J. K. Barnes, J. J. Woodward, Robert Reyburn, F. H. Hamilton, D. Hayes Agnew, Andrew H. Smith, D. S. Lamb.]

It may be necessary, however, to repeat, inasmuch as contrary statements have been made, that the lungs contained not even the most minute abscess, and that there was no metastatic abscess found in any of the structures examined, except one less than half an inch in diameter near the surface of the left kidney. There were three small serous cysts under the peritoneal covering on the convex edge of the right kidney, each about the size of a vertical section of a large pea. The abscess found between the transverse colon and the liver was evidently not metastatic, but probably was caused by the original injury. There was no cicatrix or wound of the liver, nor anything to indicate that it had suffered injury in the slightest degree.

Since it has been thought by some that it was the duty of the surgeons to have ascertained positively the course and location of the ball, it is proper to consider whether either the one or the other was practicable.

As to determining the course of the ball by a probe, every anatomist will see that it was impossible, if he will consider the very tortuous course which the ball must have taken to reach its final destination; that it passed through the solid structure of the vertebra; and that no metallic instrument sufficiently firm to give indications of the course and direction which it took within the body could ever have reached the ball; nor would any surgeon of experience, familiar with gunshot wounds of the belly, in the absence of any satisfactory or conclusive evidence as to what course the ball had taken, venture to introduce a probe into the abdominal cavity for the purpose of exploring the supposed track; nor, indeed, if he had evidence as to the course and situation of the ball, could he have been justified in such an exploration. No point is better settled in surgery than that interference of this sort in gunshot wounds of the belly is meddlesome, useless, and dangerous; and had it been done, and a fatal peritonitis, in consequence, been set up, the surgeon doing it would have been justly held responsible for the fatal result.

As to the possibility of the extraction of the ball safely, it would have required a large tegumentary and muscular incision as a means of approach to the spinal column; the actual removal of the whole of the twelfth lumbar vertebra in order to furnish a sufficient channel through which the bold surgeon should advance with his instrument for extraction; and, after emerging from the cavity thus made in the spinal column, he would have to penetrate or grope his way cautiously between the ganglionic system of nerves, and arteries, veins, lymphatics, including the thoracic duct, all of which are vital structures, almost inextricably joined to each other on the front and sides of the spinal column, and the lesion of any one of which must have proved inevitably fatal.

Throughout the whole course of the treatment, contrary to what has been publicly said repeatedly, so far as it was possible to apply the system of antiseptic surgery advocated by Mr. Lister to a wound of this character, it was rigorously employed.

I am reminded now to say, in reply to some suggestions made from time to time, that we ought to have made a counter-opening in the lower portion of the long sinus which terminated in the right iliac fossa; that there was no period of time during the progress of the case in which we felt absolutely certain that what we recognised in the fossa as a point of induration was the ball; nor were we entirely certain at any time where the lower end of the sinus was actually situated; nothing but a very flexible instrument could ever be introduced, and, inasmuch as when introduced its presence in the track could not be recognised by the sense of touch, we were left without any means of determining, with a sufficient degree of accuracy to justify an operation, where the lower end of the channel was. Indeed, it is probable that the flexible catheter employed never reached the lower end of the channel, but doubled upon itself near the crest of the ilium. To have cut through, or between, the great mass of muscles in the lower portion of the lumbar region, for the purpose of making a counter-incision into a small channel, the course of which we did not and could not know, even approximately, would have been, under any circumstances, an unjustifiable procedure—and especially so in the case of the President, whose hold upon life during all this long period seemed to depend upon a thread.

AN ADDRESS
ON
SPECIALISM IN MEDICINE.

Delivered before the Medical Society of University College, London.

By J. RUSSELL REYNOLDS, M.D., F.R.S.,
Consulting Physician to University College Hospital; etc.

THERE was a time when every man was his own doctor, priest, and lawyer; and, with a due or undue regard to himself and his immediate relatives, may have exercised the functions of those three professions to the entire satisfaction of himself and of those about him. But the age of perfect capacity to do everything has long since passed—if a man would pay due regard to anyone but himself; and yet it is not so very long since that I have seen persons who thought themselves able, not only to do all these things, but to command the Channel Fleet, or correct telephonic apparatus with its last and newest improvements, if such delicate operations were only confided to their charge. But are such persons competent and sane? or are they self-important people, who are ignorant and crazy?

When knowledge was very small, people, and those who thought that they possessed it, were very great; since information has become very great, and the means for acquiring it are also vast, the want of wisdom and the power to use it may make men very small.

Some departure from the primal condition of man soon became necessary; and yet, not many centuries ago, the "wise man", the "seer", the "priest", was the person to whom those about him would go if there were anything wrong in their mind, body, or estate; and it was mainly to the priest that such appeal was made. He was the man who could give help in those rough times; and he often did so well: giving counsel to those suffering with morbid thoughts, and medicines to those with upset bodies, and advice to those who did not know how to arrange about their neighbour's landmark; and also comforting those whose hearts were tried about the meaning of it all, and the ending of it all in some other world than this. He was the only man who knew anything outside his own daily routine of work; and so he was not only the parson or priest, but the doctor and the lawyer.

But what have we now? There are so many professions, and so many subdivisions of the work of each of them, that time would fail me to say anything of any other than our own. The priest, the doctor, and the lawyer, have been distinctly separated in the general nature and character of their several lines of work; and yet often they follow their respective callings hand in hand, and with mutual help. And it is with no disrespect to either profession that I say it is not outside the experience of some that the priest feels the pulse, and occasionally asks questions which he might have left unasked; and sometimes gives drugs, often of harmless "homœopathic" sort; but sometimes does things, and more often says them, which may be mischievous; and that the doctor goes outside his vocation in the matter of prayers and tracts; and that the lawyer does not always see the distinction that the clergyman sees upon ritual or doctrine, or that the physician holds to be of importance in regard to public or domestic health. We know that it is so; but we might do well, perhaps, to regard these acts in the light of spasmodic activity of the organs left in a rudimentary state, in either one or the other, by the processes of differentiation, evolution, and specialism, that have brought us to the positions we now occupy. I draw a sharp and broad line between those three words and their outcome in modern present life. "Differentiation" means "division of labour"; "evolution" means its upward growth in utility to all; and "specialism" means its abuse.

With the expansion of human life, and the increasing complication of its requirements, division of labour becomes a necessity. The "simple cell", with its simple elements, may, as it does in some "low forms of organisation", as we term them, do all that the cell needs to do. But some cells, looking equally simple, have within them powers that necessitate, for their real use, a differentiation of those powers; and so, out of a "primordial cell", with some appropriate materials

and conditions, muscles, nerves, and the like, are grown and rendered useful. And so it is with human life, and all its complex social arrangements. Some of the differentiated elements must do one thing, and some another; and so the "corporate body" (as it is sometimes called) of humanity requires this aid.

It would be simply waste of time if I were to say anything more about the entire necessity for division of labour. It would be waste of words for me to tell you, members of this "Medical Society"—for you must all know it quite well—that you cannot any one of you attain to the proficiency, in all of the several branches of your calling, to which others have attained by special work. You must be content, first of all, to master what is common to all, *i.e.*, the knowledge that will fit you to undertake all the work that will come before you in after-life—the common knowledge of facts, and of principles, without which you can have no good ground from which to start in any "special" work that you may wish to do.

Next let me say a few words about "evolution". Your able Assistant Clinical Professor, Dr. Poore, said, in this theatre, a few days ago, in the admirable and wise address which I had the great pleasure of hearing, many weighty things, well worthy of your consideration, as to the meaning and use of words. Let me urge upon you to realise that which he said, and to see carefully to it that such words as "evolution" and "survival of the fittest" do not, in themselves, convey the whole of biologic or social science. Evolution does not involve in its primary meaning all the disturbing elements that may derange its processes, when these have been brought into it from outside by perverse activities of surrounding forces; nor does the phrase "survival of the fittest" distinctly convey to every mind an answer to the question: "Fittest" for what? When I used these words, a few moments ago, it was my intention to convey to your minds that which, in the progress of time, has to be observed and valued in our profession, viz., the progress from the lower to the higher ranges, from the simple to the complex; and, so far as individual work may make it so, the giving of the results which special labour could, or can, alone obtain, to those whose circumstances were such that they could not obtain this information for themselves. The results of their toil has often been given by these special workers to those who have no time nor opportunity for such direction of their industry; and they are of vast advantage to those who can use them well. By such mutual help all may derive advantage, and medical science may be carried, as it has been, to a higher stage of usefulness than that which it could otherwise have attained. But, by the expression "survival of the fittest", it seems to me sometimes questionable whether or no that expression, unqualified, would express exactly what we mean by "professional progress" in any other sense than "progress of the individual". The response to the earnest feeling expressed in the words "Il faut que vivre" may be perhaps answered now, as it was years ago, by "Je ne vois pas la nécessité". In many instances, this division of work and this process of evolution have resolved themselves into "specialism"; and it is to that I wish now to direct your attention. It is, in my view, the wrong side of two right things and processes: the abuse of divided labour, and evolution of knowledge.

At the outset, let me remind you that there are thousands of members of our profession, practising in town and country life, who are absolutely free from the vice of "specialism"; but as absolutely dependent, if they do their work well, on the labours of the "specialists". All honour to them; their life is hard, and in the country beset with difficulties and risk to which the London or town practitioner is not exposed. The one has to undertake anything and everything, at a moment's notice; to treat apoplexy or pneumonia; to set a broken limb; encounter a case of placenta prævia; treat croup and diphtheria, cholera and chicken-pox; and to do this single-handed; and in the vast majority of instances he is equal to the occasion. In all sudden or acute maladies, he must do something before any outside help can come, and he must often do this promptly, and do it well. The other, the practitioner in a town, is equally liable to sudden calls and immediate responsibilities; but within ten minutes he can generally summon to his aid a professional brother to share his responsibility, or advise him from special knowledge, as to what he should do, and so much mitigate his sense of care.

But if the country practitioner be thus well-informed, and able to do his work, and to do it well, let me ask, in what way was he fitted for this work? And to this I answer, without hesitation, to the work of specialists, who have taught him, in the wards of hospitals, and in systematic lectures, and by their writings, what their special work has enabled them to teach, and which they could not by any but the rarest gifts or still rarer accidents have obtained in any other way. Other men have sown, and they have reaped, or entered into their labours.

It is not possible that the courses of instruction that are given in this college and hospital could have been made of any use to the general practitioner unless the teachers had already been taught by their own "special" devotion, or by that of others, to separate branches of inquiry, so numerous that life is by far too short for any one man, by his own industry, to acquire even a superficial knowledge of them all, or of a hundredth part of them. The results of years of labour are summed up by your teachers, and these fit you to undertake the work of life. These, in physiology, in medicine, and in surgery, are the outcome of special work, digested, sorted, and put forth into shape the most usable for those who have to learn.

But, when I speak of "specialism", the word carries us into a region quite other than that of helpful work—into that of miserable retrogression, instead of "evolution"—into that of the "survival", not of "the fittest", but of the charlatan and the quack. You may not know all or even much of this; and I hope that you never may, because there is a belief in my mind that specialism may die out. I may not live to see it; but you, many of you, will; for, foolish as people are, they are beginning to see through much of it, if not all.

But let me make one word of distinction between specialism and the adoration of great names. For the former, our profession is to blame; for the latter, the public. I have known distinguished surgeons go down into the country to say whether or no a patient with rheumatic fever had endo- or peri-carditis, when neither of them would know which end of the stethoscope to use. I have known physicians treating onychia or stone, and doing minor operations in surgery, for which, as the results proved, they were quite incompetent; but also men in both major branches of the profession who have declined to accept such responsibilities, and who referred the applicants for relief to those who could help them wisely and well. Great names will often override specialism; but, as I have said, this is due to the fault or ignorance of the public, and has its reward.

If you ask me what I mean by specialism, I should say: "It is a morbid condition of the mind—of physician or surgeon, as the case may be—which shows itself in his regarding every patient who comes under his care as a sufferer from the particular disease which he has studied; of seeing the symptoms only from the point of view which he has assumed, and made quite clear—to himself—and of treating it in a manner which no one like himself understands; and of treating it to the utmost degree of attention, frequency, and speciality of treatment that his patient's patience will endure."

It is well to classify "specialities" and their commonly attendant "specialisms", and the classification which is now proposed is in a somewhat "natural order": first of all, the distinction between those who deal with men, women, and children; then, secondly, those who treat either of those groups of patients as sane, or insane; thirdly, those who divide certain parts of the human being upon a somewhat regional, anatomo-physiological basis, and take as their fields for cultivation nervous system, respiratory system, digestive system, and the like; fourthly, those who make particular diseased conditions, such as gout, fever, their line of study; fifthly, those who take special lines of work, such as medico-legal practice, in courts of law.

1. *Men, Women, and Children.* To what does specialism often lead? There are many surgeons in large cities who never, except by caprice, accident, mistake, or good nature, find a lady in their consulting-rooms. They have to treat what they find in the so-called "sterner sex", and their practice becomes somewhat closely confined to a particular class of maladies that most frequently arise from irregular modes of life, of which many of them are ashamed. There are those who have chosen this speciality, and done what they have to do, with good to their patients, credit to their profession, and honour to themselves. But this cannot be said of all. Are there not some who prey upon the sense of shame, and extort money for needless operations, and worthless drugs, holding in terror over their victims the knowledge of facts that have been confided to them, and using that knowledge, which is power, to benefit, not their patients, but themselves? Are there not undergraduates and others who dare not "call in the family doctor?" and are there not "potent, grave, and reverend seniors", who are just as anxious as their sons may be that nothing of their malady should be known at home?

The consulting-room—as sacred as the confessional—is degraded to the lowest depths of degradation when it is used, or abused, as the engine of terror and extortion. But yet debts are incurred, and bills are drawn, and Jews are sought for, aye, and Christians too, in order to meet the so-called "obligations" of these sufferers. The surgeon has the power in his hand, and he knows it, and wields it often with a cruelty that no words of mine can utter, or efficiently contemn.

The surgeon who resorts to no such baseness as this might, I think, in another way, be helped if, occasionally, he had some other things to do, and were, every now and then, consulted by some few of what is

called the "[illegible]," [illegible] and exalted character; some one of virgin soul, or matron dignity, who might break in upon the routine of daily practice, and teach, by their bearing and their anxiety, a higher lesson than that which is learned mainly in the chatter of the clubs. The surgeon becomes rough and ready, and there are hundreds to speak well of his skill; but often his roughness has risen to such point that men will say, "I cannot again see so-and-so, he is so outrageously rude and overbearing.

We know that there are a very large number of physicians, and a very small number of surgeons, who devote their lives to the treatment of women, and who do their work well; never shunting a duty, never overstating a case, never condescending to anything in their practice that they would object to inspection by the *élite* of their professional brethren. They have studied, have learned, and have taught; and their lives are as valuable as they could wish them to be.

But we know that there are others of whom this cannot be said. Physicians have coined names for trifling maladies—if they have not invented them—and have "set fashions" of disease. They have treated, or maltreated, their patients by endless examinations, speculations, applications, and the like; and this sometimes for months, sometimes for years; and then, when by some so-called accident the patient has been removed from their care, she has become quite well, and then there has been no more need for caustic, speculum, or pessary.

The profession is not altogether to blame for this. Such is the want of education on physiological matters, that women do think and feel a great deal more about any "irregularities" of a certain kind than there is reason for them to think or feel. They attach an amount of importance to dysmenorrhœa entirely out of proportion to that which they render to dyspepsia; and tight lacing and ball-dressing, and all that they involve, are disregarded, so long as these special functions are not disturbed. But when anything goes wrong in such way that the "lunar periods" are put out, then the specialist is consulted; and happy is it for them if the doctor himself do not suffer from specialism. If he do not, he treats the patient as she ought to be treated. If he do, too often he "makes a case" of it; and then follows the whole ritual of what I need not describe.

Some years ago *ulceratio uteri* was the fashion, and applications of various sorts were made two and three times a week in order to cure a malady which some eminent men, in special practice too, said did not exist. Lately I have rarely heard of this complaint; the disease has died a natural death, or has met with a violent end. But now, according to some authorities, there is scarcely any woman living whose uterus is where it ought to be. It is anteflexed, or retroflexed, or verted this way or that way, so that all kinds of contrivances have to be adjusted or readjusted in order to cure backache, vesical irritation, albuminuria, hysteria, and I know not what besides. Now, when this is all done by some one who knows with what he is dealing, and honestly deals with it, as many do, much good may be accomplished. But when imitators of the good workers take such cases in their hands, nothing but harm can follow. There is meddling and muddling of the most disreputable sort, and the patients after a time grow sick of it and give it all up, and get well; or they go on from bad to worse, and become chronic invalids, and a great trouble to themselves, their relations, and their friends.

There are the consulting-rooms of some doctors that are as they ought to be; there are others soothed by "a dim (can I say?) religious light", into which the patients are ushered, and in the dim silence of which all this kind of "treatment" goes on. And not only so, but in their own homes, patients are sometimes treated by—or shall I say to?—a vaginal injection of warm water, which the physician himself must administer.

This kind of thing is "specialism", and in one of its worst forms. It is the taking advantage of a natural solicitude on the part of women, and of their undue anxiety; and, instead of correcting it by steady purpose and common honesty—is a pandering to the weakness of human nature, petting their patients into a feeble condition of dependence, and rendering them unfit for life, in all its personal and domestic relations.

If some surgeons may be at fault in seeing life only as they read it in the clubs, surely some specialistic physicians are also to blame in looking at life only as they see it through a speculum; and it would be of advantage to them if they could occasionally have men for their patients, and so lose a little of that tendency to soft words and compliments in the use of which they are such conspicuous adepts.

There is not much that need be said about specialism with regard to children. They are virtually unsexed, and so do not fall into the hands of either of the classes of practitioners that I have mentioned. But it is quite possible for the man who deals solely, or even mainly, with children's diseases to take an exaggerated view of their differences from those with which adults may be afflicted, and so construct a pathology and a therapeutics which may be of disadvantage to the profession and of no real use to the child. Specialism can scarcely be said to exist here, unless it be in the physician sometimes taking upon himself the functions of the nurse, and seeing almost all things from a nursery point of view.

2. [illegible]. The [illegible] of the physician who directs his attention mainly, or, it may be, even exclusively, to the charge of the insane, is a most direct advantage to the profession and the public; and this is demonstrated by the fact of its general recognition. This is true, however, only when the physician is at the same time competent to treat the other bodily ailments that may range themselves around the brain-disease with which he has primarily to deal.

The fault of "specialism", however, in this department is, that the so-called "mad-doctor" fails, sometimes, to see anything from a sane point of view. The *mens sana* is a myth to him, and he cannot bring himself to believe in its existence. He may think that it exists in *corpore sano* of his own possession, and in other *corpora* of his friends; but, beyond that narrow range, the sane mind is not to be found in those who are suffering from anything which may perturb the current of their thoughts. He may be right in regarding all people as somewhat mad, but he may be wrong in thinking that all men are so far mad as to require restraint.

There can be no doubt as to the fact that men and women have been, in the past, and sometimes—but much more rarely—in the present, dealt with as insane, when they were simply incompetent, vacillating, eccentric, extravagant, or perverse. But, the mode in which "specialism" becomes mischievous in these physicians is this: that they have but one idea; and that is, that the patient must be secluded, or sent to an asylum to be treated; and the upshot of such advice often is that the patient is not "treated" in any other sense than that he or she is delivered over to the care of attendants, who are not always of the best-informed, the wisest, or the kindest sort.

The physician who is affected with "specialism", in regard to the insane, seems to take his stand upon the threshold of an asylum—half in, half out; and, holding that to be the stand-point for the observation of human life and human history, bases his creed with regard to both of them upon the facts that lie behind him, and does not look, face-forward, into the world beyond.

3. *Regional Physiology.*—There are "specialisms" in regard of nervous system, of lung and heart systems, of digestive systems, and the like; and, with regard to them, I have but this to say, that the faults lie in the incompetency which many who have devoted themselves to one line of study often exhibit in their analysis and diagnosis of cases, into the complicated conditions of which their speciality of study has prevented them from entering.

Thus, I have known learned and distinguished "head-doctors" to speak of grievous palpitation of the heart as a merely nervous phenomenon, when the patient had dilated heart, with obvious valvular disease; of dyspnœa of very trying sort as a "nervous condition", when there were, in addition to dyspnœa, cough, expectoration, and the physical signs of emphysema, chronic bronchitis, dilated bronchi, and enfeebled heart; of short breathing described as "hysterical", when one half of the chest was filled with fluid.

On the other hand, "heart and lung doctors" have failed to trace that anything was the matter, because the stethoscope could tell them nothing, when it was obvious that disease of the spinal marrow in some cases, and disease of the kidneys in others, was the cause of altered breathing.

Again, it has often been my lot to see "digestion-doctors" worrying their patients with blue pill and elaterium, and bringing them to the verge of extinction from not having been able to discern that a diseased heart was the *fons et origo* of their sufferings.

4. *Special Diseases.*—With regard to these, "specialism" is sometimes more interesting and amusing than directly mischievous. There are consumption-doctors, cancer-doctors, gout-doctors, and the like. If the former send their patients to the Riviera, or the uttermost parts of the earth, when it was unnecessary for them to make such pilgrimages, they, at least, have had the benefit of seeing new scenes, and sometimes of acquiring the knowledge of a foreign tongue. If cancer-doctors have given, with grave looks and graver forebodings, a diagnosis and prognosis that may have been most distressing, yet sometimes tears have been turned into joy, when the tumour has disappeared, and the cancer of the liver has turned out to be a gall-stone. If "gout-doctors" have given their patients very wise instruction as to life and diet, they have been often rewarded by the extermination of "the fear of the evil" from which the patient suffered, and have found favour in their sight.

5. *Lines of Practice.*—The one illustration that I will give now is that of the "specialism" which affects many members of our profession

when they are in the frequent habit of giving evidence in courts of law, and I will take for example that which happens in the case of railway accidents. It is pretty well known who, among the physicians and surgeons of the day, will be called upon for the plaintiffs, the injured, and who for the defendants, the company. So familiar in legal circles has this knowledge become that the phrase, "So and so is a very rising witness" has been used, and not unfrequently. What does this mean but that members of our profession, whose only object should be truth and justice, "take sides"? Many years ago much of this came under my notice, and I alluded to it in some lectures which I had the honour to deliver before the College of Physicians; but, for many years I have declined to take any part in such proceedings, owing to the manner in which evidence was given by what I must call "party witnesses".

It seems to me quite unpardonable that six or eight members of our profession should meet together, and go through the farce of a so-called "Consultation" when no one of the physicians or surgeons, on either side, would interchange a single word with those on the other. I have tried to break through this absurdity more than once, and sometimes have succeeded in my attempt. But more frequently I have failed, and have given it up; and this because I have heard said in courts of law such things as were so utterly unscientific, ignorant, or perverse that it was simply impossible to deal with them. One instance will suffice; after rather understating the probable issue of a case of hemiplegia, the result of accident, it was urged, "on the other side", by an eminent surgeon, that the man was shamming, because, forsooth, he did not exhibit ptosis, strabismus, and dilated pupil, and that he had never seen a case of hemiplegia in which those three things did not coexist.

There are some members of our profession who have become specialists in this direction, who seem to think that everything that a man tells them of his subjective symptoms are matters of fact and of great importance; and, on the other hand, there are those who regard every plaintiff as either a knave or a fool, and most probably a combination of the two, but who never believe that any man is injured in a railway accident unless he has broken his neck, or has a compound fracture of his thigh.

It is time that this specialism should come to an end; and we, of our profession, can bring it to an end, if we will but insist upon it that the meetings together of the doctors is a consultation, and not a farce.

There are many other points upon which I should have liked to speak to you, of the specialisms that have so limited an area that it is quite impossible for any man, who is restricted to any one of them, to make an income, unless he does so by inducing his patients to pay him needless visits; such, for example, as to touch his throat with something every day; to turn the screw of his "instrument for the back" two or three times a week; or to do something to the Eustachian tube with equal frequency. But what I have said is enough to guard you, I hope, from falling into these mistakes, these "worse than crimes, these blunders".

In conclusion, let me revert to an illustration used at the outset, with regard to what "differentiation" means—viz., the springing into being of varied structures, with their varied uses, and of their development into the being of a perfect whole—a living thing, with complex powers—all its parts subservient to the ends for which they were intended, and for which they are so ordained as to conduce to the "survival of the fittest"; but let me carry the illustration yet further, and say that all these different members are members one of another, and that when any member suffers all the other members suffer with it; and that when any physician or surgeon does that which is ignoble, he not only does injury to himself, but to the whole of the noble profession to which he belongs.

THE EFFECTS OF OIL OF TANSY. Dr. G. Jewell, [illegible] *and Surgical Journal*, reports eight cases of poisoning with this drug. Case 1.—Fifteen drops at 11 A.M., teaspoonful, at 2 P.M.; convulsions, shock, general cyanosis; recovery. Case 2.—Teaspoonful to promote catamenia; convulsions and death in one hour and a half. Case 3.—Unknown quantity to cause abortion; convulsions; death in three hours and a quarter; no abortion. Case 4.—Teaspoonful to cause abortion; coma, recovery; no abortion. Case 5.—Four drachms; spasms and death. Case 6.—To cause abortion; rapid death; no abortion. Case 7.—Decoction of tansy leaves to produce abortion; paralysis; coma; death in twenty-four hours without abortion. Case 8.—Infusion of leaves daily for a week; also for vaginal injection; abortion, metritis, peritonitis; recovery after three months. As druggists are often asked for oil of tansy under various pretences, we believe the above table will be useful in reminding them of the danger [illegible] the sale of tansy and its preparations.

ON THE OCCURRENCE OF MICRO-ORGANISMS IN FRESH URINE.

By WILLIAM ROBERTS, M.D., F.R.S.,
[illegible]

THE fresh and healthy urine is perfectly free from bacteria or other minute organisms. The ordinary types of morbid urine, although they may contain blood, pus, or casts of tubes, are equally free from organisms. But there are conditions in which the urine, at the moment of emission, contains bacteria, that is to say, conditions in which the urine breeds, or becomes contaminated with, bacteria during its sojourn in the urinary passages. It is to these that I propose now to direct your attention. Before doing so, it will facilitate the understanding of my subject if we glance very briefly at the quasi-spontaneous changes which the urine undergoes after emission when it is abandoned to itself.

When a sample of acid healthy urine is set aside in a clean bottle or other glass vessel, it remains for a while apparently unaltered; but after a time it begins to change. In a day or two, it loses its transparency and becomes turbid. If a drop be now examined under the microscope, it is found to swarm with dancing dots and actively moving minute rods; these are bacteria. At first the urine continues acid, but the acidity gradually declines, and in two or three days the urine becomes neutral, or even slightly alkaline. This is the phase of incipient decomposition. Then a further change ensues: the urine becomes strongly alkaline from the production in it of carbonate of ammonia; it exhales an evil ammoniacal smell; the earthy phosphates are precipitated, and the chemical constitution of the secretion is profoundly altered. This is the phase of ammoniacal decomposition. These two phases run into each other without any appreciable break; but it is important to distinguish the one from the other; for, as we shall presently see, they correspond to clinical conditions which are widely different.

The changes just described as incipient and ammoniacal decomposition are entirely due to the ferment-action of bacteria. These organisms, or their germs, gain access to the urine with the dust particles which pervade the air, or with the subtle particles which float in every natural water and cling to all surfaces that have come in contact with water. The leading or principal ferment-change which occurs in decomposing urine is the transformation of urea into carbonate of ammonia.

The most common and numerous of the cases in which micro-organisms are voided with the urine are those in which the urine has become decomposed in this manner in the bladder. But there are other and different cases in which bacterioid organisms come away with the urine, and yet the urine is not in the least degree changed by decomposition. It is, therefore, necessary to divide cases of bacteruria into a certain number of groups or categories. How many groups of this kind it may eventually be necessary to establish, I cannot say; the subject is as yet new, and the field of inquiry only partially explored. The examples which have fallen under my own observation up to the present time are divisible into four categories, namely:

I.—Bacteria with incipient decomposition of the urine.

II.—Bacteria with ammoniacal decomposition of the urine.

III.—Bacteria without decomposition of the urine.

IV.—Beaded filaments (micrococcus chains) without decomposition of the urine.

Each of these categories demands a separate notice.

I. [illegible] is not uncommon, especially among women. The urine in these cases is opalescent when voided; it is feebly acid, neutral, or feebly alkaline in reaction. When examined under the microscope, it is found to contain bacteria in active motion. The urine, on standing, does not recover its transparency; on the contrary, the turbidity tends to increase, and it passes quickly on to ammoniacal decomposition. This condition is accompanied with few or no symptoms; there may be a little heat about the genitals or a slight undue frequency of micturition, but for the most part no complaint is made. This condition is not unfrequent in females of weak health suffering from leucorrhœa, and among men who have suffered from stricture and who have frequently used catheters [illegible] without requiring attention; but it assumes a graver significance if, as

I have reason to think, it renders the subjects of it liable to the next form of bacteruria with ammoniacal decomposition of the urine.

II.—*Bacteruria with ammoniacal decomposition of the urine* is a condition which always involves the patient in serious suffering and danger. The change, or at least the chief change, which occurs in the urine in these cases is the transformation of the bland innocuous urea into fiery carbonate of ammonia. This change, from a chemical point of view, is a simple matter. One atom of urea assumes two atoms of water, and these become two atoms of carbonate of ammonia ($C_2 H_4 N_2 O_2 + 2 H O = 2 N H_4 C O_3$). This transformation is due to a ferment action, and is identical with that which takes place in the ammoniacal decomposition of the urine outside the body. The urinary ferment has been named the "micrococcus ureæ". If you examine the urine of a person who voids his urine in an ammoniacal state, you will find it under the microscope to teem with dancing dots or micrococci, mixed more or less with bacteria rods. I am unable to say whether this organism is a distinct species of bacteria, or whether it is merely the micrococcus phase of the common putrefactive bacterium (B. termo). But in any case, wherever you find the urine ammoniacal as it escapes from the bladder, there you also find these micrococci, generally, if not always, associated with bacteria rods. The urine, as you know, is very rich in urea; and if all, or the larger part, of the urea becomes changed into carbonate of ammonia, the urine thereby acquires the property of a strong irritant to the sensitive mucous membrane of the bladder, and speedily provokes a dangerous cystitis, with abundant discharge of pus, and mayhap of blood, with micturition.

Ammoniacal decomposition of the urine, with all its alarming and painful accompaniments, is apt to arise in old stricture cases, in cases of stone in the bladder, enlarged prostate, paraplegia, fungoid growths in the bladder, and in all conditions where the organ is unable to empty itself completely, or which require the frequent use of instruments.

In this class of cases, and in those milder ones where bacteruria is associated with incipient decomposition of the urine we must assume that the offending organisms gain access to the bladder from without by the urethra. In the female, the short and comparatively wide urethra offers obvious facilities to wandering bacteria to penetrate into the viscus from the external genitals. In the male, the long and narrow urethra forbids this mode of entrance in the healthy state; but, in cases of gonorrhœa, or other type of urethritis, in which the passage is lined with a continuous layer of purulent discharge, it is quite easy to understand that, along this purulent tract, bacteria may breed their way up into the bladder. In a good many cases, the infective organisms steal in with the instruments, which always come into use, sooner or later, in all kinds of vesical trouble. A dirty catheter is a most efficient infective agent. It must not, however, be overlooked that, in states of depressed vitality, septic germs may, occasionally at least, find their way into an ailing organ or tissue by the channels of the circulation. Such a mode of intrusion of bacteria-germs into the bladder in cases of paraplegia seems highly probable.

The rational treatment of these two classes of bacteruria is based on the assumption that a colony of bacteria has become established in the bladder; and the method of dislodging this colony consists in washing out the viscus with antiseptic solutions. One of the most effective of these, and at the same time one of the least irritating, is a solution of boracic acid, in the proportion of two drachms to the pint of water.

III.—*Bacteruria without decomposition of the urine* is a much less common condition. The organisms which appear in the urine in these cases consist of moving bacteria-rods and micrococci, which are not clearly distinguishable in structure from those which appear in decomposing urine. But the character of the urine in the two classes of cases is very different. In decomposing urine, the turbidity is persistent, and the organisms go on multiplying in it until it becomes ammoniacal.* But, in the group now under consideration, the urine, although opalescent when voided, becomes clear on standing, and continues transparent and acid for many days, and the organisms show no disposition to multiply in the urine. Indeed, the urine shows less tendency to decomposition than the healthy secretion, and remains clear and acid for seven or ten days. This leads to the inference that, in this kind of bacteruria, the seat of growth of the organism is not the urine itself, but some portion of the surface of the urinary mucous membrane. These cases run a long and interrupted course, and the symptoms consist of more or less severe irritation of the urinary passages.

This form of bacteruria seems to be controlled in an important degree by the internal administration of full doses of the salicylate of soda.

* It must be remembered that, when ammoniacal decomposition is completed, the urine again becomes clear, with [illegible] deposit of phosphates.

As I have given a detailed account of this disorder, in a paper read before the Medicine Section of the International Congress in London, I will now content myself with a brief relation of two typical cases.

CASE I.—A retired professional man, about fifty years of age, fell on his left hip on February 11th, 1881. As the hip continued painful, a strong solution of iodine was applied to it, which produced vesication. Four or five days afterwards, there arose a violent irritation of the bladder. It was thought that this might be due to a congested state of the prostate, and, with that view, blistering fluid was freely applied to the perinæum. This was followed by an immediate aggravation of the bladder-symptoms. Micturition became excessively frequent and painful. These symptoms persisted with severity for a period of two months, and then began to abate under the influence of warm baths. Neither blood nor albumen appeared in the urine during all this time, and the reaction of the secretion was always acid.

When he consulted me, three months after the accident, the same symptoms continued in a mitigated degree. He voided urine in my presence. It was opalescent, and swarmed with bacteria, but it was sharply acid. A portion set aside in a urine-glass became quite transparent in twenty-four hours, and let fall a deposit consisting of bacteria-rods mixed with pus-corpuscles. This urine remained transparent and acid for seven days in a warm room. Three other specimens subsequently examined behaved exactly in the same way. Thirty grains of salicylate of soda were prescribed twice a day. In less than a week, the symptoms subsided, and the bacteria disappeared from the urine.

CASE II.—A merchant, aged 40, consulted me in June of the present year. Ten years ago, I had attended this man for severe chronic cystitis, with abundant discharge of pus. This attack gave way after some weeks of treatment with large potations of the decoct. trit. repens., and the patient resumed his occupation. But the recovery was never quite complete; there still remained a recurrent slight irritation of the bladder. Some months ago, he fell ill with what he called rheumatic gout. While slowly recovering from this, the bladder-trouble returned in great severity, and for this he sought my advice.

A sample of urine voided in my presence was found to be loaded with actively moving bacteria-rods. This specimen cleared on standing, and retained its acidity undiminished for over ten days. Several other specimens, obtained at subsequent visits, behaved in a similar manner. They were all acid, and opalescent from bacteria when voided; they became transparent on standing, and continued so, without losing their acid reaction, for more than a week in warm summer weather.

The irritation of the bladder speedily subsided under the use of thirty-grain doses of the salicylate of soda twice a day; but the patient was very intolerant of the drug, and the full doses were not continued for more than a fortnight. At the end of two months, I could still detect a few, very few, bacteria in the fresh urine; but the symptoms remained in abeyance.

In neither of these cases had an instrument ever been passed into the bladder. We must, therefore, assume that the organism had obtained access to the urinary channels through the circulation; and that the mode of infection resembled that which occurs, on the assumption of the germ-theory, in an ordinary case of contagious fever.

CASE IV. *Beaded Filaments (Micrococcus Chains) in the Urine.*—I have only encountered one case of this kind, but it is a sufficiently remarkable one. The patient is sixty-eight years old. Thirty years ago he spent some years in South America, and of late years he has had a few slight but undoubted attacks of gout. His health continued generally good until a year and a half ago, when he suffered from hæmaturia for a few days. Six months later, the hæmaturia returned with more persistency, and gradually assumed a threatening severity. In May and June of the current year, the bleeding became so constant and profuse that the patient sank steadily, until at length he was entirely confined to his bed. There were no physical signs. The bladder was repeatedly sounded for stone, with negative results; and no signs of renal tumour existed on either side. No gravel had ever been passed at any time. The examination of the urine up to this time had only revealed the presence of blood-corpuscles and little flakes or masses of leucocytes. There was some irritation of the bladder, but no pain in the loins. The usual hæmostatic remedies were all exhibited without benefit. Towards the end of June, larger doses of the oil of turpentine than had hitherto been employed were tried. Fifteen drops of the oil, enclosed in gelatine capsules, were administered three times a day. Under this treatment, a decided improvement took place; the hæmorrhage lessened greatly, and the patient's strength steadily increased. At the present time (September 1881), the condition is stationary; there is still a discharge of some blood and a considerable quantity of leucocyte-flakes with the urine;

micturition is too frequent; and the patient is also much tormented with hæmorrhoids, and with an eczematous state of the skin about the neck and face.

Now comes the curious part of this history. During the height of the hæmaturia, the urine had been repeatedly examined, with no other result than the finding of blood-discs and leucocytes; but on July 14th I saw something I had not observed before. I saw in the deposit a number of long delicate beaded threads. In all my experience of urinary examinations I had not seen anything like them in the fresh urine. Since this date, I have examined more than twenty different samples sent to me at half-weekly intervals, and invariably have seen the same appearances. Care was taken to obtain the specimens fresh and uncontaminated; and on one occasion the microscope was actually taken into the patient's bedroom, and the urine was searched as soon as it was voided; so that no doubt could exist that the beaded threads came from within the urinary passages; and that they were not, as was at first suspected, intruders from without.

The following account of the beaded filaments was gathered from repeated examinations of different specimens of the urine. To the naked eye, the fresh urine looks very much like that from an ordinary case of acute Bright's disease. It has a smoky appearance, and deposits on standing a loose reddish-brown sediment. On closer examination, the sediment is seen to consist of little soft brownish masses, or flakes. Under the microscope, these flakes are found to be composed of leucocytes or pus-like corpuscles, intermixed with a few blood-discs. In these flakes are found the beaded filaments, twisted and turned in every direction, and forming an inextricable tangle of threads running in and out amongst the corpuscles. There is also not unfrequently observed a brownish granular matter, like altered blood-pigment, lying amid the threads and leucocytes. In perfectly fresh specimens, the threads are found exclusively in these leucocyte-flakes; but, after the urine has been kept awhile, the flakes tend to break up more or less, and then detached fragments of the threads are seen scattered about in the field of the microscope.

With a magnifying power of 500 diameters, the threads are seen to consist of moniliform filaments, of extreme delicacy and regularity of structure. Their width measures about a tenth part of that of a blood-disc, and is remarkably uniform. Their length varies greatly. Some are so long that they stretch across and beyond the field of microscopic vision; but, for the most part they are so twisted and turned on themselves, that it is impossible to gain a precise idea of their length. Some appear as shorter fragments, and many of these have, at one end, a brightly refracting molecule, which is larger than the width of the rest of the thread, and suggests the idea that this is a spore from which the filament springs. Under an immersion-lens, and with good illumination, the threads are resolved into a row of minute spores or micrococci, apposed end to end like a string of beads. Here and there are seen isolated, larger, and strongly refracting molecules, similar to those just described as forming the initial element of one of the shorter threads. The aniline dyes stain the threads deeply, and bring out their structure splendidly. Neither the threads nor the isolated molecules exhibit the slightest movement. The common forms of bacteria-rods and micrococci are never seen in the fresh urine, which exhibits no undue tendency to decomposition. The threads dry on a glass-slide without appreciable change, and they can then be stained and mounted in Canada balsam without losing their characteristic appearance.

As regards the nature of these beaded filaments, I cannot pronounce positively. They certainly resemble no tissue of the animal body—either normal nor pathological. I can make them out to be nothing else than chains of micrococci. Chains of this character constitute a phase in the life-cycle of several bacterioid organisms. F. Neelson has described and figured such chains (calling them "gonidia-chains"), as occurring in the life-history of the bacillus, which produces the pigment of blue milk.* I could not detect, in the chains found in this patient's urine, any tubular structure enclosing the molecules—nor any investment of any kind.

The relation of the organism to the symptoms is, at the present stage of the inquiry, only a matter of conjecture. It is not difficult to conceive that a mycelium-like growth of the beaded filaments might act destructively on the lining membrane of the urinary passages, and cause hæmorrhage. The fact that, in the fresh urine, the threads are found exclusively in the leucocyte masses, seems to indicate that their seat of growth is not in the urine itself, but in a proliferating tissue. I may also remark that the only remedies, among the many that were tried, which efficiently controlled the hæmorrhage, were the oil of turpentine and the oil of eucalyptus—both of them agents of high antiparasitic repute.

Whether this case will furnish a key to some of those inexplicable cases of hæmaturia, which one not unfrequently encounters in practice, can only be determined by future research.

A SUBSTITUTE FOR CARBOLIC SPRAY.

By A. W. MAYO ROBSON, F.R.C.S.Eng.,

Lecturer on Pat[illegible] L[illegible]

THE purpose of the present paper is to give the results of some experiments which have extended over a period of several months, and which were undertaken in the hope of bringing before the notice of the profession a substitute for carbolic spray, now used in antiseptic surgery.

Most, if not all, surgeons acknowledge the advantages of the Listerian method of dressing wounds; and nearly all are equally unanimous in asserting that the spray, hitherto a necessity, is both inconvenient and dangerous. The surgeon has his vision obstructed, and his sense of touch impaired. He moreover has the serious discomfort of living during a considerable portion of his time in an atmosphere which treats him not quite so well as an ordinary Scotch mist would. There are many slighter inconveniences to patient, assistants, and surgeon, which are so well known that it is unnecessary to mention them here; but these are trifling when compared with the dangers to the patient attending the use of the spray, especially in abdominal surgery. That the risks of poisoning are not fanciful has, I think, been abundantly proved by Dr. Keith and other observers, who have been led to abandon the spray in ovariotomy. I believe I have myself seen death caused in more than one case of abdominal section by chilling of the viscera.

More than a year ago, an apparatus was advertised as a substitute for the spray, which created a current of air by means of a fan set in motion by clockwork, the air being forced through layers of gauze moistened with 1 in 40 carbolic solution. About the same time I had an apparatus made which created a current by means of bellows, and sucked the air through two wash-bottles filled with 1 in 10 carbolic solution. From some experiments I made at the time with sterilised flasks, I came to the conclusion that, although the carbolic air was pure or aseptic, it was not antiseptic. It then occurred to me that, if one could saturate the air with some more volatile antiseptic, such as oil of eucalyptus, cajuput, or peppermint, a really antiseptic air might be obtained, which, by being diffused in a room or blown on a wound, might answer the same purposes as the spray, without having its disadvantages. Unfortunately, I was prevented by other work from following out my ideas until last month, when I made the following experiments, in which I have been much assisted by my brother.

The first and most essential point to be proved was whether or not air impregnated with the vapour of volatile antiseptics is really antiseptic. To ascertain this, I sterilised a number of flasks of hay-infusion by boiling for fifteen minutes, capping with cotton-wool, and boiling for five minutes longer; after which, to prove their freedom from life, they were placed in an incubator, and kept at a temperature of 100° Fahr. for two days. Having obtained some large wide-mouthed glass jars, capable of holding several gallons, I poured into one series about an ounce of eucalyptus-oil, and into another series the same amount of cajuput-oil, so as to have a thin layer of the fluid covering the bottom of the jar. Into these jars the sterilised flasks, previously freed from their cotton covering, were inserted; being suspended by means of thread from a bar placed across the mouth of the receiver. The transference and opening of the flasks were rapidly performed under carbolic spray; but, when once in the jars, there was nothing to interfere with the entrance and exit of the ordinary atmospheric air.

After a varying period of exposure of from two to twenty-two hours, the flasks were recapped with cotton, and again transferred to the incubator; in doing which the former precautions were adopted, and, in addition, the cotton which had to come immediately over the flask was moistened with a little 1 in 40 carbolic solution, to avoid the contact of germs. After being in the incubator for two days, they were put aside to be examined at leisure.

No change occurred in the flasks through keeping, the hay infusion looking bright and transparent throughout: there was a slight sediment in all, both in those simply sterilised and in the ones subjected to the action of eucalyptus and cajuput; but in no case was there a formation of scum on the surface of the fluid. In contrast to this, some flasks that had been simply exposed to the air, and then covered with cotton-wool, began to appear opaque and have a scum on the surface within six hours.

[illegible] an experienced microscopist and botanist, to examine the solution [illegible] I examined the slides.

The following are a few details of the above experiment.

1. Hay infusion, sterilised August 18th, placed in the incubator for two days; exposed to eucalyptus air for two hours on the 22nd; and then placed in the incubator for two days. Examined on September 7th, and found to be absolutely free from living organisms, but to contain what appeared to be dead micrococci in the slight sediment.

2. Sterilised August 18th, incubator till the 20th; eucalyptus air for thirteen hours, incubator till the 23rd. Examined on September 7th, under a one-eighth object-glass, and found free from living organisms.

3. Sterilised August 20th, incubator till the 22nd; cajuput air for twenty-two hours on the 23rd, incubator for two days. September 7th, one-eighth objective revealed dead bacteria and micrococci, but absolutely no living organisms.

Numerous flasks, acted on in a manner similar to the above, were examined with like results, except in one case, where living bacteria and micrococci were found; this had had the usual precautions adopted, but failed from some cause. Curiously, in one flask, which had gone through the ordinary process and had been exposed to eucalyptus vapour, there was found a growth of penicilium, or some allied plant; but, as there were no living bacteria or micrococci, it would seem that this vegetable growth is capable of enduring greater hardship than its allies; but, as this is only one example, one cannot draw definite conclusions from it.

The experiments related above go far, in my opinion, to prove that, in the vapour of eucalyptus, cajuput, and other similar volatile fluids, we have powerful antiseptics, which, at the ordinary temperature of the atmosphere, may so saturate the air as to kill all infective particles; perhaps not only bacteria and micrococci, but also the germs of fevers and other infectious diseases.

In a chamber regularly used for operating, there would be no difficulty in having a large pair of bellows, worked by hydraulics, to pump a continuous stream of air, which might be carried to any part of the room by means of a flexible tube; the air having been forced through two or three wash-bottles containing pumice-stone and the volatile oil, cajuput or eucalyptus. If the end of the tube have a large bell-shaped opening, the current of air will diffuse itself over a radius of many feet.

I am at present experimenting with a portable apparatus having essentially the same principle as the above; but, as my instrument does not yet realise my expectations, I shall defer its description for a time.

Perhaps there may be no need for an apparatus, if it can be proved that the air of a room saturated with the vapour is freed from germs; for then, all that would be necessary would be to have some evaporating dishes, containing the volatile antiseptic, distributed in the operating chamber. In cold weather, or if the air will not absorb a sufficiency of the material, the current might easily be heated before passing through the wash-bottles; and, in the chamber, a little heat could easily be applied to the evaporating dishes. I hope, before long, to give some further results of trials with oil of peppermint, terebene, and other volatile bodies.

OVARIAN TUMOUR TREATED BY INCISION AND DRAINAGE.—In the *New York Medical Journal* for June, Dr. T. Gaillard Thomas relates the case of a lady on whom two attempts had been made to extirpate a large ovarian tumour, which were abandoned on account of extensive adhesions and profuse hæmorrhage. The patient on several occasions passed into a state of collapse, and was thought by her physician to be dying. She now entered Dr. Thomas's private hospital, where, after vain endeavours to improve her condition by great care and thorough drainage (a drainage-tube having been inserted by the surgeon who first attempted the removal of the tumour, and the opening still persisting), Dr. Thomas cut directly down upon the tumour, and without opening the peritoneum, tried to enucleate it. There was so great hæmorrhage, however, and the sac was so universally attached, that he gave it up and cut directly into the mass, when a large amount of colloid fluid escaped. Carrying his hand into it, he found a large number of sacs, each about the size of a cocoa-nut, filled with fluid, which he broke up. One existed almost outside of the large tumour, and it was into that that the India-rubber tube had been inserted. He opened this thoroughly, exercising care that none of its contents should enter the peritoneum. Two glass drainage-tubes were then inserted, one above and one below, in Douglas's *cul-de-sac*, through which carbolised water could be injected. The patient was placed upon the most nutritious diet, and injections of carbolised water were employed. The tumour diminished in size until it was no larger than the head of a child at birth; and one month after the operation she left the hospital, with instructions to keep up the injections of carbolised water. A month later she appeared to be perfectly well, a cyst of the size of a goose's egg still remaining, which was drained with perfect ease.

SURGICAL MEMORANDA.

MANIPULATION OF THE SCAPULA IN DISLOCATION OF THE SHOULDER.

I HAVE recently had two cases of dislocation of the humerus into the axilla, and in both I have been surprised at the ease with which reduction was effected, under the above mentioned treatment. The arm having been abducted and extended with slight force by an assistant, I firmly grasped the scapula with the right hand over the acromion, and depressed it in such a manner as to make the lower edge of the glenoid cavity slide over the rounded head of the humerus; whilst with the fingers of the left hand I exerted gentle pressure upwards on the shaft of the humerus just below the head. Reduction in both cases was immediate.

I have only these two cases to report, but I am inclined to believe that this method is by far superior to that of the "heel in the axilla", which is not only tedious, but tiring to both patient and surgeon. It might be well, however, to have an expression of opinion upon this important manner, from members who have treated larger numbers.

C. R. ILLINGWORTH, M.B., Clayton-le-Moors.

CLINICAL MEMORANDA.

INDUCTION OF PREMATURE LABOUR AT THE EIGHTH MONTH.

MRS. W., aged 42, a slight pale woman, was married at 22, and had her first child at 24. She was confined at the eighth month and fourteenth day of a dead child, after a prolonged labour. The medical man said it had been dead for a fortnight. The second child, born one year and ten months afterwards, was alive up to the commencement of labour, but was born dead after a severe struggle. No instruments were used. The third child was born dead, under similar circumstances. In the fourth pregnancy, she aborted at the fifth month. In the fifth, at the eighth month. The child had been dead some days. The sixth pregnancy terminated in a similar way. The seventh commenced the first week in November 1880. The child being ascertained to be alive, labour was induced the first week in July 1881. The right elbow presented; the child lay with the back to the left ilium. The left foot was brought down under chloroform, and the trunk and upper extremities delivered. But moderate traction on the trunk with finger over shoulders caused the cervical spine to give way. The head was then delivered with forceps.

The following points require to be considered: 1. Was the induction of premature labour justifiable? 2. Was the proper mode of delivery adopted? 3. What are the indications for treating another pregnancy, should it occur?

T. JOYCE, M.D.Ed., Shepherd House, Cranbrook.

BRIGHT'S DISEASE IN AN INFANT OF THREE MONTHS.

As, apart from the sequels of scarlatina, well-marked renal disease is of uncommon occurrence in young children, I desire to communicate the details of such a case which was lately under my observation. In the middle of April last, I was called to see a child of four months, presenting well-marked signs of renal dropsy. About three weeks previously, during very inclement weather, when the child was taken to church to be baptised, he caught cold, and shortly afterwards the genitals and abdominal wall began to swell. There were but slight fever and thirst, with only occasional vomiting, and the child never refused his food. The skin became very pale, and the œdema extended to the face, legs and arms. Since then, the œdema had varied a great deal in extent, coming one day and going the next, but never entirely disappearing. When he was first seen on the 20th April, the general anasarca was well-marked; the eyelids, legs, hands, abdominal wall, and genitals, being much distended and pitting readily on pressure. So tense indeed were the genitals, that both on this, and one or two subsequent occasions, they had to be punctured in order to lessen the difficulty of micturition. The urine was of a pale yellow colour, presenting a very slight smokiness without visible sediment, is faintly acid, and had a specific gravity of 1,001. When boiled, and treated with nitric acid, it threw down one fifth of its bulk of albumen. Microscopic examination showed blood and granular casts, and blood-discs in abundance. A mixture containing iodide of potassium and acetate of potash was ordered; a caution against exposure and cold was given; and a free and frequent use of diluted milk enjoined. On May 1st, the œdema of the abdomen and legs had began

to disappear; the specific gravity of the urine had risen to 1010; and the quantity of the blood-discs and casts had much diminished. By the 8th May the œdema had almost disappeared. The urine exhibited no smokiness, and had a specific gravity of 1012; heat and nitric acid showed a mere trace of albumen, and the microscope but a few blood-corpuscles.

In the end of May all trace of œdema had vanished, the pallor of the surface had given place to its usual pinkness, and the urine had regained its normal condition: nor has there been any relapse since then.

J. Mackenzie Booth, M.A., M.B., Aberdeen.

VARIOLOID ERUPTION AFTER CLIPPING SHEEP.

Robert P., aged 49, a well-built and generally a healthy man, employed, as a rule, as an agricultural engine-driver, clipped sheep from May 24th to May 28th, 1881. The sheep appeared moderately healthy; but some had been struck with fly, and some had hard lumps on them. Their skin, however, was clear, and free from eruption. The patient said the sheep felt hotter to him than usual; but this he attributed to his having been out of sorts for about three weeks previously to the clipping.

On May 30th, he came to the surgery complaining of sickness, headache, and violent stinging pain in the hands, on which appeared raised isolated spots about as large as threepenny-pieces, intensely red and tender, in appearance like commencing variola, but each spot very much larger. These increased from day to day, until they became confluent; the hands swelled to twice their size, and were exceedingly red, tender, and hot. This went on for seven days, spreading to each part of the body that he had rubbed with the hands—*i.e.*, back of the neck, face, eyes, etc., but nowhere else. The eruption then became stationary until the ninth day, the pain subsiding, when it commenced to die away. On the twentieth day, the hands commenced to peel, the whole of the epidermis ultimately coming off the affected parts. No vesicles were formed during the attack.

Lotions of lead and opium, carbolic acid, and iodine, were used at different stages of the disease; but most relief was afforded by cold bread-poultices. He had milk-diet, and the following draught three times a day: ℞ Zinci sulphatis gr. iss; magnes. sulphatis ʒss; acidi sulphurici diluti ♏xv; aquæ menthæ viridis ʒi. About the tenth day, finding the patient below the mark, I ordered him beef-tea and three glasses of port wine daily. He made a fair recovery from that time, and is now at work. I have not seen or heard of a similar case, and should be glad to compare notes with any gentleman who has, and who will throw some light on the exact nature and origin of the disease.

John C. Eaton, Ancaster.

THERAPEUTIC MEMORANDA.

THE BROMIDES IN RELATION TO TRAVELLING.

The value of the bromides, in mitigating the wear and tear of the nervous system in travelling, advocated by Dr. Tilt in the Journal of July 2nd, does not appear to be recognised as fully as one might expect, or as it deserves to be—at all events, I have not found, out of a very large number of travellers in all parts of Europe, more than a very small number equipped as Dr. Tilt suggests. I have for years made use of the bromides in the case of my patients, and for my own personal comfort, while making long railway journeys across the continent; and have, by means of a full dose (twenty-five or thirty grains), taken at starting, and repeated perhaps early next morning, escaped the severe nervous headache which such a journey as that from Paris to Turin invariably occasions me. It is not so much the simple want of sleep as the nervous exhaustion, consequent on being cooped up for twenty-four hours or more in a railway-carriage, with its noise and clatter, that tells prejudicially on an invalid, and is often productive of serious aggravation of the malady. Although this is particularly the case with nervous and delicate girls or with women at the critical period of life, it must be felt even by the strongest persons, more or less. I have enabled invalids, sometimes extremely weak, and recently convalescent from acute disease, to accomplish, by this means, so long a journey as that from Rome to Turin, or even Paris, with comparative comfort, and a minimum amount of injury. It is not merely useful to those who are travelling to Switzerland, or the south of Europe, or to a German bath, with a view to a more or less lengthened sojourn, and who are *bonâ fide* invalids; but it is a matter of hardly less importance to the jaded man of business, who takes the journey for much needed change and rest, that he should not have his brief holiday abridged if it can be avoided. A few doses of bromide may, therefore, be wisely added to his small stock of medicines, and be used with great advantage in the way suggested.

Edward Drummond, M.D.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LEEDS INFIRMARY.

A CASE OF IDIOPATHIC ANÆMIA WITH LEUCHÆMIC MARRIAGE.

(Under the care of Dr. Clifford Allbutt.)

[Reported by A. G. Barrs, M.B., Resident Physician.]

J. A., a turner, aged 43 years, was admitted on April 6th, 1880. His family history was good and irrelevant. He was married, and the father of ten children, all of whom, except one, who died when seventeen days old, were living and well. He had worked as a tanner during the last thirty years, and was following his occupation up to nine weeks before admission. He had lived in Leeds, his native place, all his life. He was attending in the out-patient department here for the same symptoms as at present, in March 1879, with this exception that there had been no previous illness. There was no history of syphilis, nor of malarial poisoning.

History.—The present illness was of twelve months' duration. The onset was gradual, with what he described as a nasty sickly feeling in the epigastric region, followed soon by loss of appetite, and gradually increasing weakness. At this time (twelve months ago) he was not able to work more than three or four hours daily, in consequence of his much enfeebled condition. The pallor of surface first attracted his attention twelve months ago, and gradually became intensified. He said he had lost much flesh during the illness. Shortness of breath had not been a prominent symptom. During the last nine weeks before admission, there had been almost daily vomiting. The vomiting did not come on at any particular time, nor in any definite relation to feeding, but was always uncertain in its appearance; sudden movement from the recumbent to the erect posture had sometimes caused it. There had never been hæmoptysis. Epistaxis occurred on one occasion. Had never suffered from chronic diarrhœa or hæmorrhoids.

Present Condition.—He was an intelligent, fairly nourished man, of extremely cachectic appearance. Hair grey, but abundant. Fingers not clubbed. The whole surface of the body was of an uniform dirty yellowish wax-like hue. There was no unusual pigmentation. The conjunctivæ, lips, and nails presented a perfectly anæmic condition. The pupils were equal, and moderately dilated. He complained now only of nausea and occasional vomiting; but shortness of breath and faintness were easily induced by rising from the recumbent posture, or by some such trivial muscular exertion. The lungs presented no unusual physical signs. The heart's impulse was feeble. The apex beat, in the fifth space over a wide indefinite area, and the cardiac action was rapid and feeble. Over the apex-beat a long systolic *bruit* was heard, easily traced up to the base, and over to the right of the sternum, but of maximum intensity at the apex, and inaudible in the axilla or in the back. The aortic and pulmonary sounds were unaltered. Pulse 112, soft, small, easily compressible, and regular. The abdomen was natural. The liver and spleen were not felt. The blood was examined with the hæmacytometer. The solution was of fair colour; the corpuscles assumed most varied shapes under the influence of the saline solution. Some few had the spindle-shape, with recurved ends, described by some observers. Total hæmal unit, .3. The white cells were not in excess. Vision was good. The ophthalmoscope showed slight hypermetropia in both eyes. The fundus generally was pale, and the vessels small; otherwise no pathological changes were to be noted in the disc or retina.

The patient was immediately put upon small doses of arsenic, and a selected diet.

On April 29th, considerable improvement had taken place both in his appearance and general condition. The hæmal unit had risen to .5, and he had gained 5 lbs. in weight. With the exception of tolerably severe diarrhœa on the 25th and 26th, there had been no change in symptoms to note.

Between April 6th and May 8th, when he left [illegible] other than those noted above.

August 31st [illegible] gain ground [illegible] Hospital at Cockersley. He [illegible] patient's room, still looking ill, but [illegible]. At the end of June he returned to his work, and continued at it up to six weeks ago, when all symptoms returned.

On August 31st, he was extremely anæmic. His surface was of a dirty light citron colour; conjunctivæ pearly. His face bore a melancholic expression. When asked what he had to complain of, he said: "I am fairly done. I can scarcely breathe, and dare not move in bed." The respiratory movements were deep and somewhat laboured, and more abdominal than thoracic. The breath-sounds were normal. The heart's impulse was extremely feeble, the apex-beat could not be found, and the cardiac dulness was small. The systolic sound was impure at the apex, but no distinct murmur was audible at any point. The liver and spleen could not be felt. The urine was loaded with lithates; specific gravity 1020; a slight cloud of albumen.

During September and October his condition varied much; but on the whole there was some improvement. During that period he was again taking arsenic, and the hæmal unit, gradually rising, had reached .6 on September 29th. During November, there were occasional severe attacks of diarrhœa, which exhausted him much, and probably accounted for some loss of weight which took place about this period. Such slight exertion as putting on his clothes gave rise to sometimes even alarming dyspnœa.

On November 4th, the pulse was beating at 120 per minute, and was soft, feeble, and easily obliterated. The heart's apex was beating very softly in the fourth space, three inches to the left of the middle line; and a soft systolic *bruit*, confined to the region of the apex, was heard. The base-sounds were clear.

From August 31st to November 17th, repeated ophthalmoscopic examinations were made, with negative results; but on the latter date I made the following note. Ophthalmoscopic examination showed the whole fundus to have a hazy obscured appearance, perhaps from œdema of the retina; and the discs were somewhat pale and obscured, but showed no distinct pathological changes. Numerous fair-sized recent hæmorrhages were visible on the fundus of each eye. Those in the left eye were the larger and more distinct. There was one especially large just a little below and to outer side of the disc, of considerable thickness—so much so as to be visible at two inches from the cornea, with a convex lens of 2 diopters. Two other hæmorrhages, one situate upon and about two veins running outwards, were of characteristic flame shape. The hæmorrhages were smaller and more generally circular in outline than those in the left. The vision was not in any way affected, except a little asthenopia arising from his general condition, and slight hypermetropia.

During the following two months, there was steady but slow retrogression. The anæmic condition became intense; vomiting and diarrhœa were frequent, and difficult to control. The shortness of breath was great; the pulse extremely soft and small, beating 152 per minute.

On January 17th, many hæmorrhages in the retina were still visible, and showing little or no change from their original conditions, except that there was some softening and obscuration of their margins. The specially large one noted in the left eye was still present.

On January 23rd, he became delirious; and died exhausted on January 25th.

[The pathological conditions of the organs will form the subject of some future communication.]

CHINESE REWARDS.—When the late Empress Dowager Tsze An, generally known as the Eastern Empress, died about three months ago, it was currently reported that her colleague and co-Regent, the Empress Tsze Hi, was dangerously ill of an incurable disease. Had her death followed, a grave political crisis would inevitably have supervened, for there are not wanting many in power who hold that the selection of the present boy emperor as heir to the throne was contrary to the constitutional and religious principles of the Empire. Happily, all that has been spared—for the present, at all events; for the reports of Her Majesty's convalescence are confirmed by a decree in a recent *Pekin Gazette*, which confers rewards and promotions on the medical attendants who have brought the malady to a successful issue. A correspondent of the *Globe* adds that this same decree throws some curious light on the position which practitioners of the healing art hold in this country. When the Empress's illness became serious, several of the leading provincial governors were directed to seek out the most skilful doctors in their respective jurisdictions, and send them on to the capital to consult with the Medical College there as to the course of treatment to be pursued. About half a dozen were forwarded, and, as the result has been so eminently successful, they are now all to get substantial Government appointments. One is to be made a taotai, or intendant of circuit, on the first vacancy; another a prefect; another a district magistrate, and so on. Suppose, after the recovery of the Prince of Wales, Sir William Jenner had been made a county court judge, and Sir W. Gull a stipendiary magistrate, we should have a somewhat analogous case in England.

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.

SECTION OF STATE MEDICINE.

THE Section was opened on Wednesday, August 3rd, by Mr. SIMON, C.B., F.R.S., who delivered an address, published in the JOURNAL of August 6th, page 219.

The Legislature of the United States in connection with regard to Asiatic Cholera and Yellow Fever. By J. S. BILLINGS, M.D. (Washington).—Referring to the risk which the United States runs from the importation of cholera during periods of emigration, the author pointed out the necessity of some international system of notifying the existence of the disease in the various ports in the civilised world, and of some quarantine measures which should include the thorough aëration and cleansing of vessels. As to yellow fever, he explained that the majority of physicians in the United States accepted Dr. Chaillé's views: that the poison had a limited period each year for its reproduction; that immunity from attack amongst natives and others is due to a prior attack of the disease; that the preservation and growth of the poison is favoured in places containing warm, damp, foul air—such as exists in the holds of ships; and that the influence of latitude on the disease is solely due to temperature. As regards the influence of quarantine, both in cholera and yellow fever, the author pointed out that the American system practically failed; that quarantine, to be successful, should be as defined by the Vienna Conference; and should consist rather in rigid medical inspection than in mere detention of vessels. When yellow fever has gained a hold in the country, the means for staying its spread are isolation, disinfection, and depopulation; and he feared that, the disease once existent, would not be stayed by any mere perfection of the sanitary arrangements of the district in question, although it was difficult to express any final opinion as to this, because, in the yellow fever region, there was no city which could be deemed to be in a proper sanitary state. In the author's opinion, each Government should secure trustworthy information as to the existence of certain diseases—such as cholera, yellow fever, and plague—within its district; this information should be communicated to the other parties to the agreement, by means of their consuls and otherwise; the bills of health needed by any Government should be signed by its own agents, who should both have the right to inspect the ships in question, and be free to notify by telegraph to their respective Governments the departure of any ship from an infected port. The bill of health, instead of being either clean or foul, should be a certificate in detail as to the sanitary condition of the port and ship.

On the Measures to Prevent the Spread of Yellow Fever. By R. LAWSON, L.R.C.S.Ed., Inspector-General.—The author considered the poison could travel without the intervention of man, that its spread was due to local causes, and that the measures of prevention should aim at preventing its localisation.—Dr. FAUVEL (Paris) considered that any general code of rules for all countries would be very inexpedient, the measures of prevention depending on so many different considerations. Thus, cholera reaching Europe by the Red Sea would need most stringent measures at Malta, and a comparatively mild treatment in England.—Dr. CARLO CUTURI (Pisa) supported Dr. Fauvel's views.—Dr. J. MURRAY (London) fully concurred with Dr. Billings as to the impossibility of guarding every avenue by ordinary quarantine measures.—Professor DE CHAUMONT (Netley), referring to Indian experience, gave instances in proof of the communicability of cholera by water.—Dr. COLAN described his successful action in staying yellow fever at Port Royal, Jamaica; the sick were isolated and placed in quarantine, and all articles of clothing, etc., dealt with by carbolic acid or heat.—Dr. ACLAND (Oxford) pointed out that each country is able to know with precision the existence of a disease, and it ought to be able to find out the local causes of such disease, and the best local means of prophylaxis; both the causes and the prophylaxis varying in different countries, and even within the borders of the same country. He trusted that the adoption of the principles of Drs. Billings and Fauvel would lead to an understanding between nations as to what is possible in the international prevention of disease.—Dr. DRYSDALE also spoke as to the contagious nature of cholera.—Dr. BILLINGS and Mr. LAWSON replied.

The Etiology, and the Measures to Prevent the Diffusion, of Dengue. By JAMES CHRISTIE, M.D. (Glasgow).—Having at some length traced the history of the disease, he concluded that it was of hybrid nature;

and that we might have a cholera dengue, a yellow fever dengue, a plague dengue, etc.; and that the measures of prevention must be addressed to the varying sources. Especial importance should be attached to the proper burial of the dead, as dengue had followed on the imperfect burial of victims to such epidemics as cholera, etc.—Dr. EZRA HUNT (United States) considered that the hybridisation of disease, either naturally or as the result of experiment, must now be recognised, a special type attaching to disease according to the locality or the person invaded.—Dr. NORMAN CHEVERS, as the result of his experience in Bengal, could not view dengue as connected with cholera.

Dr. RÓZSAHEGYI (Buda-Pesth) read a paper on the Means of Preventing the Spread of Plague.

On Typhoid Fever at Havre. By Dr. GILBERT (Havre).—Dr. Gibert brought under notice an epidemic of enteric fever, which, during the six months ending April 1881, had caused one hundred and seventy-three deaths at Havre. Having shown at some length that the poison had not spread by means of the ordinary channels, he described the geological circumstances of the town, and also the existence of a main culvert, which, according to the author, hindered the flow towards the sea of the subsoil water fouled by soakage from many cesspools sunk in a retentive soil. With a lowering subsoil water, foul emanations escaped into the surrounding air, and to this cause the origin and spread of the disease was attributed. The remedies suggested were drains, which would carry off all liquid refuse, and so do away with the saturation of the subsoil by means of cesspool-soakage.

The Principles that should Guide in Attempting to Prevent the Diffusion of Disease. By F. S. B. DE CHAUMONT, M.D., F.R.S. (Netley).—Pointing out at the onset that, in our present state of knowledge, it was impossible to deal separately with the means for preventing the origin, and those for preventing the spread of disease, he divided the preventable diseases into those which are communicable through the agency of persons—that is, the group of infectious or contagious diseases; and those which, though preventable, are not thus communicable—such as the paroxysmal fevers. The infectious diseases were further divided into those which are directly or immediately contagious by means of a poison multiplying in the body of the patient, and those in which the poison is chiefly developed outside the body, as occurs in enteric fever and cholera. Adverting to the origin of the infectious fevers, he thought that, whilst we might look to the discoveries made in lower organic life for a solution of the question, and that we might even adapt our measures of prevention to such knowledge as has been obtained on this subject, yet that views relating to germs, and which have been clung to with confidence, might have to be abandoned, as had already been the case with some similar former ones. The author next referred to the means by which such organisms find their way into the system, as by air and water—thus getting access to the mucous membranes of the mouth, nares, stomach, conjunctiva, etc.; and he then dealt with the means of prevention under two headings. First came the direct method—such as the production of a mild disease, of a cognate type, to act as a prophylactic; this being specially useful in the case of a disease which attacked most persons only once in a lifetime, but which would probably never avail for such diseases as diphtheria and cholera, an attack of which conferred no immunity against a second. Next came the indirect method—such as disinfection, and works of general hygiene. To the former, not much importance was attached; but the necessity of everything which favoured pure air, pure water, and a pure soil, was strongly insisted on. Isolation was also referred to as especially needful in scarlet fever; and quarantine, as originally understood, was described as a relic of barbarous times.

The Importation of Infectious Disease into Liverpool, its Diffusion, and the Measures of Prevention. By J. STOFFORD TAYLOR, M.D. (Liverpool).—Dr. Taylor described the introduction of typhus from Ireland into Liverpool in 1847; the outbreak of the same disease following on the influx of starving people into the city during the cotton-famine in 1862-66; and the epidemic of relapsing fever in 1870-71, brought about by emigrants travelling from London to the port of Liverpool. Reference was also made to cholera brought from the continent by the passage of foreign emigrants through the city, and appearing both on board ship and in the town. The measures of prevention were then referred to. These included the opening out of crowded districts; the provision of increased means of ventilation in the courts and alleys; and the abolition of cesspols and open middens, so as to do away with the soil which was so congenial to the spread of imported infection. The measures of isolation available in Liverpool were also described; such as the hospital which has been erected for the reception of the passengers and crews of infected vessels, and to which the sick can be removed, whilst the healthy can, for a short time, be received into huts, with a view of seeing if they have also taken the infection. Liverpool is also seeking powers for the notification of infectious diseases, in order to protect the inhabitants more efficiently against infection.

On the Prevention of Scarlet Fever. By DAVID PAGE, M.D. (Kendal).—Premising that all national or international preventive measures against the diffusion of scarlet fever must, in their essence, be measures for individual control, the author pointed out that two main clinical facts were involved in the determination as to what these measures should be: one relating to the duration of the incubation period of scarlet fever; the other to the modes of exit from the system of the fever-poison. He concluded that the more common incubation period in scarlet fever is from twenty-four to forty-eight hours; that in some instances it was from three to five days; and that in rare cases it followed almost immediately on exposure to infection. Acting upon these conclusions, it was pointed out that no one should be pronounced safe from infection until he had been kept in surveillance for a week after coming into contact with the poison, and then only after change of clothing and baths. And, further, it was alleged that the infective process should never be deemed at an end until about a fortnight after the cessation of desquamation, and until all signs of albuminuria had disappeared. The action to be taken by the authorities with a view of preventing the spread of the disease were: the separation of the sick in hospitals and convalescent homes; the notification of infectious diseases; the supervision of scarlatinal convalescents; the control of school attendance in infected families; and the disinfection or destruction of infected articles. In the adoption of these measures, the main error to be avoided was that of laxity.

Sanitation of Contagion and Infection. By H. MAC CORMAC, M.D. (Belfast).—Dr. H. Mac Cormac showed how it was possible to limit, and more or less practically nullify, the force of contagion and infection by holding the breath while in immediate contiguity with the patient. —Dr. VARRENTRAPP (Frankfort) referred especially to Dr. Gibert's contention that enteric fever at Havre had been caused by the damming back of underground and foul water by means of a main sewer. Dr. Varrentrapp did not think we were justified in accepting this explanation of the epidemic; and he pointed out that the pollution of the ground referred to had been of long standing, and that it probably did no more than afford a suitable soil for the poison when once this had been introduced into it. Besides which, no information had been given to show that the obstruction to the flow of water had really taken place, whereas it was well known that water made itself a channel of outfall by the side of all large sewers. In Germany, the influence of a lowered ground-water has become more and more acknowledged as favourable to certain epidemic influences, but other conditions had to be noted as well; thus the period at which the soil at a depth of several feet reached its highest temperature was also favourable to a similar development.—Dr. EZRA HUNT (United States) referred especially to Dr. de Chaumont's paper. He considered it an important question how far such direct methods of prevention as are typified by vaccination may not be extended, for it is certain that much depends upon the channel by which infection is introduced into the system. However severe the result of inoculating an animal beneath the skin with the virus of pleuropneumonia, that method of its introduction prevented the disease from attacking its favourite organ, namely, the lung, perhaps owing to a sort of dilution of the poison, the result of lessening the amount which might otherwise have been introduced by the extensive surface presented by the air-cells of the lung.—Dr. DAHL (Christiania) drew attention to the spread of infection by means of rags amongst those occupied in the manufacture of paper, and expressed the opinion that, short of boiling, no disinfection was efficient.—Dr. BEVERIDGE (Aberdeen) drew attention to the voluntary notification of diseases in Aberdeen, and pointed out that, notwithstanding the large sum paid for the certificates, there had, owing to the lessening of infectious disease, been a large saving in the expenditure by the Sanitary Committee. He expressed his disbelief in the process of disinfection by heat, and gave instances to show that even where 300° Fahr. was reached in a stove, a single fold of cloth prevented the temperature from rising within that fold.—Dr. THORNE THORNE demonstrated the excellent results which had followed the notification of infectious disease in Leicester and Warrington. He had no hesitation in expressing the opinion that the stove designed by Dr. Ransom of Nottingham, and manufactured by Messrs. [illegible] was not only the most efficient apparatus for disinfection by dry heat with which he had met, but that it was thoroughly successful to that end. The difficulty in securing a thorough penetration of heat into the interior of articles such as bedding, etc., to which Dr. Beveridge had referred, had been completely overcome, and at the smallest possible cost, because, on account of the automatic action of the stove, [illegible] In many towns, the stove was filled at night with bedding and clothing

which included costly articles, such as silks, crape, furs, sealskins, etc., and it was then left in action until the following morning without any supervision whatever and without risk, it being known that during the whole period the temperature at which the regulator had been set, and which as a rule varied from 248° to 258° Fahr., had been maintained in every part of the stove. Dr. W. Odling, F.R.S., also testified to the efficiency of Dr. Ransom's stove.—Mr. D. B. Balding (Royston) bore similar testimony as the result of his personal experience.—Dr. Henri Heurot (Rheims) described and exhibited a filter which could be placed over the mouth and nares, and which would enable the physician to remain for any length of time in the immediate presence of infectious patients without risk.—Dr. Tripe (London), referring to the two small-pox hospitals within the district for which he was medical officer of health, stated that the mortality from small-pox in the streets in the neighbourhood of the hospitals amounted to 4.1 per 1,000, whilst amongst the remaining population it was only 0.21 per 1,000; and he considered that the disease spread from the hospitals through other means than by the air. As regards the fever hospital, scarlet fever and enteric fever were not more rife round the hospital when it was in use than in other parts of the district.—Dr. Grimshaw (Dublin) supplemented Dr. Stopford Taylor's paper by showing that the small-pox epidemic of 1871-72 in Dublin had its origin in Liverpool, and referred to another instance of the importation of small-pox from Brooklyn *viâ* Liverpool.—Dr. Dudfield had hoped that the Section would have passed a general resolution expressing their opinion on the notification of infectious diseases; but, having been informed that there were reasons which rendered it undesirable that any general resolutions should be passed, he trusted that the obvious unanimity which had prevailed on the subject might have the same weight as any such resolutions.

The Prevention of Syphilis. By Dr. da Cunha Bellem (Lisbon).—The author pointed out that the tyranny of syphilis could only be counteracted by the tyranny of inspection; that no one should be free to contract this malady, or to maintain it in his own person, because he thus became a centre from which contagion could spread. Hence everyone suspected of having syphilis should be subject to inspection. With a view of carrying this into effect, a number of regulations were drawn up by the author, similar to those which had been submitted to the International Congress of Hygiene held at Turin, and which, in his opinion, would, if adopted, result in the abolition of syphilis.

The Prevention of Venereal Disease. By A. L. Gihon, M.D. (Medical Director, United States Navy).—The author drew attention to the increasing popular interest which was being taken in preventive medicine, and to the large proportion of preventible maladies which were due to enthetic diseases. As regards syphilis, he pointed out that the ruin caused by it reached far beyond the original transgressors, and that the question of protection from its influence should fall to the same plane with the protection against small-pox and allied diseases. It was then shown by means of statistics how widely syphilis is spread amongst certain classes, the tables showing that at least one man in every ten in the United States navy, one in every nine in the army of that country, one in every six of the negro troops, and one in every four amongst the merchant sailors, presenting themselves for treatment at the United States marine hospitals and dispensaries, was affected with some form of venereal disease; and, as the result of this, the ravages of syphilis amongst pure women and innocent children were on a scale of the greatest magnitude. The plan of coping with this evil adopted by the American Public Health Association was then referred to. It has been recognised that, although Contagious Diseases Acts have done good, any system of mere registration and compulsory examination of prostitutes is certain to fail, and this mainly because no account is taken of the men who are the original contaminators of women. The association therefore contemplates the enactment of a law, constituting it a criminal offence to knowingly communicate, directly or indirectly, or to be instrumental in communicating, any contagious disease, such as small-pox, etc., or venereal disease; and giving to health-officials the same power in the prevention, detection, suppression, and gratuitous treatment of venereal affections, which they now possess as regards other contagious diseases. It is admitted that there are difficulties to be contended with, but that these are by no means insuperable; that only few offenders will be brought to punishment, and that women will make false accusations. The latter, however, will deter men from running any such risk. In carrying out such a law, it is also contended that there need be no violation of professional confidence. When it is understood that the communication of a venereal disease is a crime against society, no code of ethics will excuse the physician's neglect of duty, any more than it does now in the case of small-pox; while the syphilitic who infects a woman, however degraded, or who marries and contaminates a pure woman, and begets a diseased child, has no right to cloak his infamy under a medical diploma.

The Importation of Syphilis. By C. R. Drysdale, M.D.—Dr. Drysdale referred to a statement of M. Vleminckx, at Brussels, to the effect that the tendency which England had of abolishing the visitation of prostitutes, constituted a danger to the continent, and that the English might be accused of being importers of syphilis. This Dr. Drysdale contended was untrue; and he maintained on the contrary, that, where no regulations existed as to the enforced examination of prostitutes, but where great facilities for the treatment of syphilis are available, there is less syphilis than in towns such as Paris and Brussels. Thus, as regards Brussels, which had been called by M. Vleminckx, senior, the purest of all cities as regarded public morality, it was admitted that clandestine prostitution was largely carried on, and could not be got rid of. So as to Paris also, the ninth part only of the prostitutes could be brought under police regulations. In Vienna, too, where the police performs the duty of controlling the spread of syphilis by means of prostitutes, it had been admitted by Dr. Kraus that there was an augmentation of that disease in the large hospitals, and probably also amongst private patients. Dr. Drysdale urged, for the diminution of syphilis, that there should be the easiest possible admission into hospital, and the abolition of State inspection, which results in clandestine prostitution.—Dr. H. A. Allbutt (Leeds) pointed out, by means of reference to official statistics, that the Contagious Diseases Acts had failed to effect their intended purposes; that syphilis and gonorrhœa were contracted in licensed houses, where the inmates were regularly examined, and that one of the principal means of staying the spread of syphilis would be to subject any person communicating it to very similar laws as those relating to the spread of other infectious diseases.

The Measures by which to Prevent the Diffusion of Syphilis. By Henry Lee, F.R.C.S.—The author first explained in detail the meaning which he attached to the word "syphilis". He expressed the opinion that real syphilis may be distinguished in its origin from the local venereal sore, and stated that, physiologically, it is conceivable that a community might all be inoculated in their infancy with true syphilis, and in such a community we might have every reason to believe that, if syphilis subsequently appeared among them, it would be in a very mild and modified form. He stated that the Acts relating to the State regulation and examination of prostitutes in France and in England, were framed on the supposition that, by a local inspection, a person could be pronounced either contagious or free from disease, whereas he considered that fully one-half of the cases of syphilis were the result of secretions from persons who have long ceased to have primary sores. And, as regards the results of the Acts in England, it was contended that, under their operation, syphilis was hardly, if at all, diminished; and, also, that much of the apparent benefit which has been alleged to have taken place has been at the expense of districts bordering upon the protected districts, and into which women have passed in order to avoid compulsory examination and detention. So, also, the diminution in the primary sore amongst the troops is only similar to a corresponding diminution which may be observed in all classes, and quite irrespective of the influence of such Acts, being, indeed, rather due to a change in type which is in progress as regards this disease, as also in the case of others. Gonorrhœa, too, had hardly diminished in the home army.

Dr. C. M. Giersing (Copenhagen) was not in favour of the Acts. Freedom from venereal disease could not be guaranteed by examinations, and, unless men were examined, all regulations were unfair and useless.—Dr. Ladame (Neuchâtel) pointed out that, in his opinion, the only prophylactic measures which could be efficacious towards the prevention of the spread of this disease were those which attacked its root and origin, namely, prostitution; and the only intervention of the State which was needed was to protect the public from the solicitations of public women, in the same way it is protected from mendicants.—Dr. William Carter (Liverpool) quoted statements which indicated how State interference in the matter led to increase of prostitutes and clandestine prostitution.—Dr. H. Schœnfeld (Brussels) desired to see the scope of the Contagious Diseases Acts enlarged by making it compulsory on every man who frequented a licensed house, first to submit himself to examination.—Dr. Bell Taylor (Nottingham) maintained that the Contagious Diseases Acts were not only ineffectual, but quite unnecessary; that the vast majority of men who contracted disease suffered from gonorrhœa only, and that many of the sores contracted were non-syphilitic, whereas true syphilis was easy of cure. True syphilis, he maintained, had increased in the army under the influence of the Acts, and these latter were in the end bound to fail, for reasons which were given in detail.—Dr. Nevins (Liverpool) produced evidence to show that hereditary syphilis was almost unknown

amongst the working classes in the manufacturing districts; that the amount of venereal disease in the mercantile marine of Liverpool was very trivial; and that, since strict periodical examination of women had been in operation, secondary syphilis and gonorrhœa had increased.—Dr. B. KRAUS (Vienna) looked upon syphilis as being mainly spread by means of prostitution, whether open or clandestine. Its spread by means of public prostitution could, he believed, be effectually controlled, provided all prostitutes were compelled to ply their trade in licensed brothels. As regards clandestine prostitution, no remedy would be satisfactory short of an enforced examination of the working classes through whom the disease was mainly spread; and a series of propositions were laid down as to the periodical examination of artisans in factories, and domestic servants, both male and female, the examination to be followed by the issue, free of cost, of a certificate of health. In this way only could persons be saved from the risk of syphilis being conveyed to their children by nurses, and to themselves and their families by means of infected food, etc. The remedy he admitted was a severe one, but it was the only efficacious one, and he trusted the Congress would bring the subject under the notice of the Government.—Professor G. VAN OVERBECK DE MEIJER (Utrecht) considered that the action which should be taken with regard to syphilis was that which we took in controlling other contagious diseases, namely, to seek out and deal with those infected; and, if hitherto we have failed, it is because our measures are not properly organised, and some more efficient organisation than State inspection should be sought out. The infliction of punishment in the matter is a fundamental error, for it is not only impossible to find out the culpable, but, the more public prostitution is crushed, the greater is the increase in clandestine prostitution. The police should endeavour to abolish private houses of vice, and, whilst to a certain extent sanctioning licensed houses, they should do all they can to prevent their inmates from spreading disease.—Dr. L. LE GROSZ DE CSATÁR (Buda-Pesth) advocated the confining of prostitutes absolutely to licensed houses as the most effectual method of staying the spread of syphilis.—Professor G. PACCHIOTTI (Turin) asked those who talked of liberty to explain the measures by which they would restrain the spread of syphilis, whilst they allowed infected men and women to remain unrestrained.—Dr. ROUTH quoted statistics to show that towns under the Contagious Diseases Acts suffered more from syphilis than others which were under no such control. In the former, a supposed security against infection led to an increase of disease, and hence it was useless to adopt plans of so-called prevention which elsewhere had resulted in failure.—Dr. ELDER maintained that great obstacles stood in the way of restrictive measures, these obstacles including the impossibility of ascertaining that a patient was incapable of conveying infection. Both syphilis and gonorrhœa were communicated when both diseases were unrecognisable in the women communicating them.

Grounds for believing that the Tubercular Disease (Perlsucht) of Animals which supply Milk and Meat for Human Use is communicable by such Food to Man. By C. CREIGHTON, M.D. (Cambridge).—The author stated that, during recent years, strong presumptive evidence had been accumulated as to the conveyance of tubercular disease from one species to another. The tubercular disease, or pearl disease, of animals was widely spread amongst those animals to whom we trusted for a food-supply; and it existed in a chronic state as an inherited disease, without obvious symptoms, for many years. The disease, too, in its worst and most advanced forms, was mostly met with in milch cows, especially those kept in towns, where they are subjected to close confinement and to artificial food. Indeed, there was no question but that the milk of cows in a more or less advanced state of tubercular disease was being constantly consumed both by infants and adults in this and other countries. In all probability, the greatest source of danger lay in the use of milk from animals having tuberculous abscesses in the udder, which facilitated the admixture of tuberculous matter with the milk; and, although it was impossible to condemn the use of all animals suffering from tubercle, yet it was believed that a special danger attached to the consumption of such parts as the diaphragm, the lymphatic glands, and certain viscera containing tubercular nodules. Experiments were next detailed to show that, when some of the common domestic animals have been fed with the milk of tuberculous cows, tuberculous infection has resulted; guinea-pigs and rabbits being the most easily affected. The poison, however, was by no means a rapid one, its influence being of very slow growth. The possibility of a phthisical disposition, through inheritance or otherwise, had always to be taken into consideration in determining the value of such experiments; but, all allowance being made for such a source of error, grave suspicion remained that the disease could be communicated in the manner described. After considering the pathology of the disease, the author pointed out that, in the animals experimented on, the disease was co-ordinate in all the various organs affected, there being no primary focus—a fact which indicated that the virus must be referred to some extraneous source, on the analogy of syphilis.

Dr. CARLO CUTURI (Pisa), referring to the labours of Dr. Creighton, reminded the Section that Drs. Portal and Lebert had also studied the disease in question with reference to the treatment sometimes adopted of using largely the milk both of cows and of asses; and Lebert especially had recognised the analogy between the scrofulous tumours and the tuberculosis of cows. It was difficult to form an opinion as to whether the affection had its origin from without, as in the case of syphilis; but he could not but regard the researches which had been detailed as having an important bearing on the use of the milk of animals as a food for man.—Dr. ALFRED CARPENTER (Croydon), whilst admitting that meat and milk from diseased animals kept in close confined places could not be regarded as a wholesome food, yet felt confident that they were not likely to propagate tubercle. As regards meat, it was known that about 90 per cent. of animals used as food had tubercle to some extent, and no apparent harm resulted from consuming their flesh; and, on the other hand, tubercle prevailed mostly amongst the children of the poor working classes, who had but little milk.—Dr. GÜNTHER (Dresden) stated that experiments with tuberculous milk in Dresden had only led to negative results, and that phthisis did not appear to be specially prevalent where milch cows were found to be most affected with the disease.—Dr. THUDICHUM also addressed the Section.

The Distinctive Characters of an Acute Specific Disease produced by eating Pork infected [illegible] By T. SHAPTER, M.D., and E. KLEIN, M.D.—The paper was illustrated by two series of cases; the first being a record of the cases of poisoning which took place at the sale on the Duke of Portland's estate at Welbeck in Nottinghamshire; the next relating to fifteen cases of illness which resulted from eating a hot baked leg of pork purchased in a cookshop in Nottingham—both series having already been recorded in the JOURNAL. It was submitted by the authors that in these series an acute specific disease had been defined, which had not hitherto been recorded; and that it differed essentially from the ordinary cases of so-called sausage-poisoning.—Dr. TRIPE gave instances of poisoning from beef sausages and from dripping, which in their symptoms resembled the cases referred to in the paper; but no poison could be found, neither were there any bacilli or fungoid growths. He believed that many cases of severe diarrhœa could be traced to a very similar cause.—Dr. BUCHANAN referred to very similar results following on the consumption of beef at a town in Norfolk.—Dr. EZRA M. HUNT (New York) stated that it was important in such cases to ascertain the locality from which the meat used, for example, in sausages, was derived; and to find out whether it had not, during transport from other countries, or owing to exposure to other articles, become the nest for some foreign parasite. Sausage in the United States was a composite structure, representing more than one animal; and hence, for the purposes of State Medicine, it was very important to trace each article back to its exact source, in order to comprehend the import of the symptoms resulting from its consumption. Competent microscopists and veterinarians were working at the subject in America, under the Government.

The Epidemiology of Milk [illegible] By [illegible] HART, Esq.—The author submitted an abstract, giving, in a tabular form, particulars of seventy-one recent epidemics due to infected milk, that have been recognised and made the subject of detailed observations in this country, sixty-seven of them since the Marylebone milk typhoid epidemic, traced and reported by the late Dr. Murchison and the author, in 1873. The particulars of the epidemics were given under the following headings: 1, date of outbreak; 2, locality; 3, reporter; 4, total number of cases; 5, deaths; 6, number of cases amongst drinkers of infected milk; 7, percentage to total cases (col. 6 to col. 4); 8, number of families supplied by milkmen; 9, number of such families invaded; 10, percentage; 11, sanitary circumstances of the farm or dairy from which milk was derived; 12, exciting causes of the outbreak; 13, circumstances implicating the milk; 14, facts showing special incidence of the disease; 15, references to sources of information. The three diseases which have as yet been recognised as capable of being spread by milk are typhoid fever, scarlatina, and diphtheria. There is nothing in the analogy of epidemics to limit the list permanently to these, and already there are indications of other cognate diseases being spread by the same agency. The number of epidemics of typhoid [illegible] fifty, of scarlatina fourteen, and of diphtheria seven. The total number of cases [illegible] during the epidemics [illegible] thousand five hundred of typhoid fever, [illegible] of scarlatina

and five hundred of diphtheria. As regards typhoid fever, the most common way in which the poison has been observed in these epidemics to reach the milk is by the soakage of the specific matter of typhoid excrements into the well-water used for washing the milk-cans and for other dairy purposes, and often, it is to be feared, for the dilution of the milk itself, for which, in official reports, "washing the milk-cans" has become a convenient euphemism, advisedly employed to avoid raising unpleasant questions. In twenty-two of the fifty epidemics of typhoid fever recorded, this is distinctly stated by the reporters to be the case; and in other cases it was more or less probable. When a dairy is unwholesomely or carelessly kept, there is obviously a great variety of ways in which the poison may reach the milk. (Numerous instances of this kind are given.) Scarlatina being almost invariably spread by contagion and by the inhalation of the bran-like dust which is thrown off from the body during the disease, we should expect, in epidemics of milk-scarlatina, to receive evidence of this dust having access to the milk; and in the majority of recorded epidemics it was found that persons employed about the dairy operations were in attendance at the same time on persons sick of scarlatina. In none of the seven recognised outbreaks of diphtheria due to milk has it yet been possible to trace the exciting cause of the outbreak, though as to the disease being spread by milk there could be no doubt whatever. It has, indeed, been suggested whether a disease of the udder of the cow, called "garget", may not so affect the secretion of milk as to give rise to diphtheria in the human subject. So far, this notion is a mere conjecture unsupported by fact. The great majority of cases give statistical as well as experimental support to the conclusion that the responsibility of the epidemic lay with the milk. It is upon the largest drinkers of the milk (those, namely, who, consuming the greatest quantities, have a correspondingly greater chance of imbibing disease-germs) that the incidence of the disease chiefly falls. Thus young children (ordinarily little liable to attacks of typhoid), who are accustomed to drink milk largely in the raw state, domestic servants, who, after children, drink the most raw milk, and large milk-drinkers of every rank and station, furnish by far the largest quota of cases in each epidemic. People, too, who drink exceptionally of the implicated milk are attacked, although the milk taken at their own houses is derived from other sources. The houses invaded during the epidemics are found to be commonly of the better class and in healthy situations. The poor, who take very little milk, and that only in tea or coffee, commonly escape the disease. The striking fashion in which the disease "picks out" the streets supplied by the implicated dairy, and the houses in those streets receiving the milk, is noteworthy. People in adjacent houses, and who drink milk supplied by different retailers, escape; and when supplies from two sources enter the same house, the disease only attacks those drinking from the infected source. The contemporaneous invasion of so many households at once can only be explained on the hypothesis of a common cause acting on a particular set of persons, and on no others.

On the International Conditions of Admissibility to Practice. By H. W. ACLAND, M.D., F.R.S. (Oxford).—Dr. Acland held that there were conditions under which one country ought to recognise the legal medical practitioners of other countries, and that these ought not necessarily to include any re-examination. He also agreed with Mr. Simon as regards our attitude towards our colonies; and considered that legal colonial qualifications ought to confer a presumptive right to practise in the mother country. Finally, he contended that one country might, without any loss of self-respect, confer privileges in this matter upon the practitioners of another State, even if the latter State withheld similar privileges from the countries conferring them.—Dr. MARKUSOVSZKY (Buda-Pesth) explained, that any one who in his country could prove that he had followed a curriculum, and passed examinations corresponding with those required in Hungary, was only compelled to pass such an examination as would suffice to prove his identity.—Dr. BILLINGS (United States) explained, that in his country the regulation of the practice of medicine came under the jurisdiction of the individual States, and not of the central Government; and so long as this was so, no international agreement could be entered into by them. He added that, in all the States in which such regulations were in force, such diplomas as would suffice to enable a medical man to practise in this country would also entitle him to practise in those States.—Dr. VAN OVERBECK DE MEIJER (Utrecht) strongly supported Dr. Acland's conclusions, and explained that physicians practising near the borders of the Netherlands, Belgium, and Germany, were free to practise in the adjoining countries within certain specified limits.—Dr. DEFFERUEZ (Jumet) having advocated reciprocity, Dr. DE CHAUMONT (Netley) urged that free trade, and not reciprocity, should be adopted in this matter. He could, however, well conceive that, so long as we had in this country nineteen licensing bodies and sixty-two different medical titles, foreigners could not understand their value or meaning; and he trusted the time was not far distant when we might have an examination which would suffice to show that the holder was an educated man, who was fit to practise in this or any other country.—Mr. SAVONA (Malta) drew attention to the serious disabilities under which colonial medical graduates were placed when they arrived in the mother country, none of their degrees being capable of registration by the General Medical Council.—Dr. THORNE THORNE (London) read a communication which he had received from the Melbourne University, in which the treatment to which the colonial universities were subjected by the mother country was strongly adverted to; and it was contended that this treatment was neither warranted by the character of the instruction given to medical graduates in many of our colonies, nor by anything else. Indeed, whilst a practitioner, holding any British diploma, was free to practise his profession in any part of Australia, a colonial graduate, who sailed to England as surgeon to a passenger vessel, was not allowed in the mother country to act in the same capacity as regards an outward-bound vessel.

The Spread of Disease through the Influence of Food. By F. VACHER, F.R.C.S.Ed. (Birkenhead).—The author pointed out that the diseases spread by such means belonged to three orders: miasmatic, parasitic, and tubercular. Food itself might act in three ways. It might itself be in a pathological condition; it might serve as a culture-medium for the nurture and multiplication of germs; or it might act as a nidus for such germs. The foods which could alone spread their own diseases to the subjects by whom they were consumed were necessarily meat, milk, and their derivatives. Foot-and-mouth disease could be communicated to man; tubercle might possibly be conveyed to children fed on uncooked milk from tuberculous cows. A specific disease could be conveyed by means of meat tainted with splenic fever or anthracoid disease; and other diseases, similarly spread, resulted from the presence of cysticerci and trichinæ. The *materies morbi* of enteric fever and cholera were almost certainly nourished and bred outside the body, as in perishable foods. Especially was this the case as regards animal fluids—such as milk and serum; but, whether vegetable foods acted in a similar way, was open to doubt. Food also acted as a passive agent in conveying contagia: thus, infection was spread by bread, groceries, etc. In conclusion, the author stated that four measures were necessary to contend with this influence of food as a means of spreading infection: 1. A more intelligent and scientific system of meat inspection; 2. The giving effect generally to the Dairies' and Milk-Shops' Order; 3. The provision of free hospitals for infectious convalescents; and 4. The thorough cooking of all meat or milk to be used as human food.

The Prevention of Trichinosis.—By Dr. GUILHERME JOSÉ ENNES (Lisbon).—The following were the conclusions. 1. The complete prohibition to import pork, whether fresh or preserved, from countries where trichinæ are known to prevail, appears to be a course which is fatal to free international commerce and to the public food-supply, as also a grave medical error, and a needlessly heavy privation to the poorer classes. 2. Instead of such absolute prohibition, a constant and active supervision and inspection of all supplies of pork exposed for sale, should be inaugurated. 3. In its character of an acute gastro-intestinal affection, produced by the presence of the parasite introduced into the system, trichinosis may be cured; in its state of general distribution in the interior of the muscles, the possibility of cure needs confirmation. 4. A microscope magnifying 100 diameters is the only logical means of determining the investigation of the subject, and of avoiding the dangers attendant on the consumption of pork. 5. All meat recognised as containing trichinæ should be conveyed to the knackers *(l'équarissage)*; and all pigs, living or dead, found to be infected, should be destroyed by cremation. 6. Thorough cooking at a high temperature affords a sure guarantee against the introduction or emigration of the parasite into the tissues. 7. The fatal cases always result from the consumption of imperfectly cooked meat.

On the Adulteration of Food-Supplies: its Causes and Effects: Measures of Prevention. By WALTER DOUGLAS HOGG, M.D. (Paris).—After having shown the advancing progress made in the adulteration of food-supplies in France, the author reviewed the legislation of foreign countries, and especially that of England, which was intended to deal with adulterations and fraudulent practices. He concluded by propounding a bill of eleven clauses, which would protect the interests both of the public and of the trader.

On the Means for Preventing the Diffusion of Hydrophobia.—In the absence of Dr. H. VAN CAPELLE (the Hague), a paper which he had prepared on this subject was read by Dr. VAN OVERBECK DE MEIJER. The author commenced by asserting that the prevention of rabies involved the prevention of hydrophobia, and that rabies was essentially a contagious disease. Holding these two principles in view, the Govern-

ment of the Netherlands, in 1875, promoted a measure, in the Chambers of the States General, in order to do away with the large fatality which for years past had resulted from hydrophobia. This measure came into operation in September 1875, and it involved the slaughter of every dog or cat which was mad or had been bitten by a mad animal; the use of the muzzle in communes in and near which any mad animal had been seen; the slaughter of all dogs found under such circumstances without a muzzle; the giving of information to the superintendent of police as to all cases of madness; and the examination by a veterinary surgeon of all animals supposed to be mad. In the last four months of 1875, 41 cases of canine madness were reported, and they were distributed throughout all parts of Holland. In 1876, vagrant dogs were found to have become much less numerous, and 55 cases of canine madness occurred in 49 communes, the majority, however, being concentrated on the borders of Belgium. In 1877, only 14 cases of canine madness occurred, all being reported from communes bordering on the Belgian and the Prussian frontiers. In 1879, 7 cases were reported, 3 occurring in the centre of the country. One of the latter was a sporting dog imported from England, one was an ownerless dog which had escaped from the docks at Rotterdam, and no information concerning the third dog could be ascertained. In 1880, 13 cases, all near the Belgian frontier, were reported. Having regard to these facts, which were illustrated by a series of maps, the author contended that rabies, and consequently hydrophobia, could practically be stamped out, but that, in order to a complete success, it was necessary that all countries should unite in the adoption of some international measure. So long as one country alone took steps in this direction, it would always be subject to the importation of rabies from without.—Dr. THOMAS COLAN, fleet-surgeon in the late Arctic expedition, stated that the Greenland or Esquimaux dogs, which were much like wolves, and took the place of horses, suffered from a disease which much resembled rabies, although differing from it. It appeared to be communicable from the dog to the fox, and it was believed to have been imparted, by means of the saliva, from foxes to dogs. He could not hear of any natives having been bitten by infected dogs, but he knew that the skins of such animals were used, and that their flesh was at times eaten with impunity. So largely did the disease prevail amongst the dogs, that the Danish Government issued directions with a view to its extermination. The measures to be adopted involved the disinfection of all dog-harness, of food-utensils, sledges, etc., and of the ground on which the dogs had lain; the separation and cauterisation of infected animals, or, if necessary, the destruction of the entire pack. The result was that the disease steadily declined in extent and virulence. Dr. Colan suggested, as the result of his inquiries, that the dog-disease of Greenland was probably an ill-developed form of hydrophobia, which, if imported into a warmer latitude, would ripen into, and in every way resemble, the latter disease. At the same time, it was possible that true rabies was modified in passing through some of the northern carnivora; or, again, that rabies, when it first appeared in any country—as, for example, in Greenland—might not be so virulent as after a number of years. This latter view seemed to be borne out by the experience of other countries where the disease had prevailed mildly at first, and more severely later on.—Drs. DOLAN (Halifax), FEDELI (Rome), RABAGLIATI (Bradford), and VACHER (Birkenhead), also addressed the Section.

Sewage Irrigation v. Sanitary Science. By ALFRED CARPENTER, M.D. (Croydon).—The various points in the paper were illustrated, as far as possible, by a visit which many members of the section paid to the Croydon sewage-farm after the reading of the paper. The first point to which attention was directed was the innocuousness of sewage-farms so far as the health of persons living in their immediate neighbourhood was concerned. Many facts were brought forward in support of this view, and tables of both sanitary and mortality statistics were exhibited tending to prove its truth. The efficacy of sewage-irrigation in satisfactorily cleansing the effluent water was next referred to, and supported by means of chemical and other proofs. The author also contended that vegetable products from fields continuously irrigated by sewage, constitute satisfactory articles of food for animals and man. On this point, the mortality statistics of the parish of Croydon were brought forward, in order to show that, in a locality where the milk and flesh of animals fed on a sewage-farm were largely used, the death-rate from a number of specified causes, and especially from certain zymotic diseases, was less than in surrounding districts having other food supplies. In a similar manner, statistical proof was adduced the effect of which was to show that when the discharges of patients suffering from infectious diseases were passed on to a sewage-farm, those discharges lost their infectious character; the changes which take place in sewage when in motion, and when brought into early contact with the soil and with vegetable life, being opposed to any further development of the infective matter. Having regard to these facts, Dr. Carpenter contended that properly managed sewage-farms constituted the best method of sewage disposal for districts having an abundant water-supply; and as the result of experience he advised: 1. That the rainfall and the subsoil water should, if possible, be separated from the sewage; 2. That the utilisation of sewage should be as near as possible to its own watershed; 3. That a number of small farms was, as a rule, preferable to one large sewage depôt, which from its mere size might become unmanageable.

ABSTRACTS OF INTRODUCTORY ADDRESSES DELIVERED AT PROVINCIAL SCHOOLS IN OCTOBER 1881.

LEEDS SCHOOL OF MEDICINE.

THE Introductory Address was given by Mr. W. NICHOLSON PRICE, President-Elect for the year, on Tuesday, October 4th.

Mr. Price referred at the outset to the fact that two and twenty years had elapsed since he last had the honour of occupying the position of President of the Council, and of delivering the introductory address; and that of those with whom he had then some years been working in the school, its treasurer alone remained actively engaged in connection with it. Having thanked his colleagues for the distinction they had again conferred on him; he said that the school had completed its fiftieth year, and that they were now entering upon the fifty-first session. Looking into the dictionary of the school's history, they could read the meaning of the word jubilee as concerned that institution. It meant the result of fifty years of hard, patient, self-denying toil. About fifty years ago, the school was established quietly and unostentatiously; its promoters were men imbued with the old Leeds' spirit, the nature of which might be expressed in two words, "hard work". That was what succeeded there, and that day they celebrated the jubilee of their effort. They began with a few back rooms in the old dispensary in North Street, which would hardly have compared favourably with the traditional two-pair back of a London lodging; and a dissecting-room, the ascent to which was difficult, and the descent dangerous, typical, no doubt, of the steepness of the path of knowledge, and of the peril which would result from slipping thereon, completed the local habitation of the early institution. After referring to some of the early lecturers in the school—the first presidents of the Council, Dr. Williamson, Charles Turner Thackrah, Dr. Hunter, Joseph Prince Garlick, George Morley, Samuel Smith, and Dr. Disney Launder Thorp, of Cheltenham, the only living member of the band of founders—the president went on to say that, in 1834, the school was removed to East Parade, then a strictly residential street; and, in order that the privacy of the neighbourhood might not be disturbed, no outward indications of the purposes to which the house was devoted were permitted. The students were obliged to enter and leave by a side door in St. Paul's Street, so as to prevent crowding about the front, and otherwise interfere with the comfort of foot-passengers in the Parade. At length, it became necessary to provide more space; so the Council erected the present building, which was formally opened by Sir James Paget, who delivered the inaugural address on October 3rd, 1865. During the past recess, the Council had not only increased the teaching power of the anatomical staff, so as to afford greater facilities for instruction, but had very considerably enlarged the dissecting-room and built a new injecting and preparation room, so as to double the amount of the available accommodation. The importance of the study of physiology was earnestly insisted upon by all whose opinion was worthy of consideration, not only as a matter of scientific investigation on which the future progress of true medical knowledge must be based, but also as intimately associated with and essential to, not only the study of pathology, but also the practice of medicine and surgery at the present day.

After commending most heartily the addresses of Dr. Humphry of Cambridge, in February 1879, and of Dr. Michael Foster on Physiology, delivered before the British Medical Association last year, he remarked that it was in the spirit of the suggestions contained in them that the Council had re-enforced the teaching power in that branch of study also. The old students' chemical laboratory, no longer required, as the science of chemistry, practical as well as theoretical, was now taught at the Yorkshire College, had been [illegible] students to obtain a practical acquaintance by [illegible] with the

different physiological processes to which their attention was directed in the lecture-theatre. A private physiological laboratory had been built for the convenience of the lecturers in that course, as well as to facilitate teaching. Believing that medical education meant something more than attending lectures and examinations—dissecting, reading, and clinical instruction—he offered a few homely hints to the younger men to whom he spoke, mainly based upon the experience of people he had known. It was formerly the fashion to say that the student was over-lectured. Lately he had been said to be over-examined; but, as they could not alter this, let them make the best use of the means set before them, complete the curriculum as thoroughly as possible, and so run that they might win the prize as speedily as they could. Of one examination all must approve, namely, the examination in general education before the commencement of medical studies. With regard to the special work before them, the study of anatomy must hold the first place, and in its fore front stood that of osteology, confessedly a dry subject, which appeared difficult to beginners, though not so in reality. It was the alphabet of their work. The study of medicine and surgery everyone, and particularly their friends of the laity, would tell them was intensely interesting; and the power to relieve pain and suffering must afford most genuine satisfaction to those who possessed it. His friend Mr. Smith used to say that one reason why the practice of midwifery was so interesting was because in it was a double responsibility. There two lives instead of one were committed to their care. He believed that there were no conditions which, to a greater degree, taxed the anatomical knowledge, manipulative skill, patience and physical endurance of the practitioner, as the so-called bad cases of midwifery. There was an institution called the Alpine Club; and, although he was quite ignorant of all the aims and objects it set before its members, there was at least one patent to all, and worthy alike of their wonder and imitation, namely, the attainment of great eminence in their work. The course the members of the club took, and the qualities they required to accomplish their desire, by no means inaptly illustrated the paths upon which they were now entering, and the resources and training necessary to obtain a like result. Mr. Price then observed that, without courage and self-reliance, no man dare begin, and certainly could not successfully carry through, the great and complicated operations in surgical and obstetric practice. It was entirely a mistake to suppose that the danger was all on the side of the patient, an instance of which was afforded but a few days ago by an effort made by Dr. Lowson of Huddersfield to save the life of a patient at the extreme risk of his own, an act for which he was awarded a medal. There was danger in the very simplest act performed by the surgeon, to say nothing of contagion and exposure thereto when overwearied.

Mr. Price then dwelt on the necessity of untiring energy; and reminded the students that, having made up their minds to work hard, the best way to do so was quietly and steadily to follow out the curriculum laid down by the authorities. He was old-fashioned enough to have a sort of lingering preference for the apprenticeship system, which was almost universal in his day. An old physician, who had been twenty-six years attached to a large London hospital, told him, when he joined, that he found all their best men had been previously trained in established practices. The progress of science and the "march of intellect" rendered that impossible now. If it could be adopted, it would enable the pupil to learn many practical points, and early to apply and test the fruit of his more scientific training in school and hospital, besides assisting him in the formation of methodical habits of work, which he would be long in teaching himself in after life. It would also afford some protection to young men against the temptations with which cities abounded, and to which none were more exposed than medical students. It was greatly to their credit, whatever certain detractors might say, that they passed through the ordeal of temptation in large towns, in the majority of instances, in the very satisfactory manner they did. Euclid, [replying to a question of King Ptolemy, said, "Sire, there is no royal road to learning". They must pardon his presumption in saying that he thought there was—the road that royalty followed, namely, the tutorial system. Of course, they could not follow it out completely, but they might improvise it sufficiently for themselves. They would thus very soon know each other better. They should form themselves into groups for mutual examination, proceeding with regularity and perseverance.

Mr. Price urged all students to try to measure their powers; and while, by carefully training, they sought to develop them to the utmost, they should aim to act within them. In other words, let them not allow love of adventure, or the pressure of social circumstance, or adventitious aids, to force them into positions for which they had not fitted themselves by study, early professional training, and subsequent habits of thought and action; for the penalty was pretty sure to be increased anxiety and over-taxing of both mental and physical power, and, if that ended in failure, how sad the disappointment. Far be it from him to advise them not to avail themselves of every honourable advantage, professional or otherwise; but they must take care to be fitted for the posts they aspired to fill. In conclusion, he wished the students health and happiness in their work, and very great success; but, above all, he wished that, when the long-drawn shadows of life's evening fell upon their heads, they might be able to enjoy the comforting reflection that, whether they had succeeded or not, at least they had made an honest attempt to do their duty.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.

THE Introductory Address was delivered, on October 3rd, by Dr. JAMES MURPHY, Lecturer on Botany in the College.

Addressing the students, he warned them against entering on the profession of medicine solely for the sake of making large fortunes, or even for such honours and distinctions as might be obtained. Large sums no doubt had been and would be made; but these were rare exceptions. The study of the profession was laborious; but the real difficulties of the medical graduate commenced when he obtained his diploma. He had to decide whether he would seek a livelihood in this country or abroad; whether he would settle down in some large town as a consultant, and wait for months, if not for years, before he earned a single guinea; or whether he would seek his fortune in some quiet village, where, after twenty years' hard work, he would find his income the same, if happily not less, than when he first began; or whether he would seek an appointment of medical officer of health, seek a commission in the public services, or content himself with the charge of a lunatic asylum. Probably, the majority of them would choose general practice, and there would be no time that they could call their own. It had been urged that medicine was the noblest of professions; but it was the most arduous and the worst remunerated. The social standing and the political influence of the profession were small. Civil appointments were few and badly paid; and in the army and navy the best efforts of the medical officers might be frustrated by the obstinacy of the combatant department. He trusted, however, that the students had other motives than those of mere money-making, and that they had come to engage in a beneficent work, and looked for their highest reward in relieving the sufferings of their fellows, in prolonging life, and in advancing medical science. The lecturer congratulated such, and hoped that they would utilise the means of education at their disposal. The way to knowledge was by constant, steady, and devoted work. There was no other way to knowledge; there was no royal road. They would soon perceive that medicine was not a perfect science, nor could it ever become one. Its scope was so extensive, that it would never be possible to fully master all the facts to be learned about it; and it was facts that were wanted. But though the science was not perfect, it was rapidly progressive; and in the distant future the discoveries and knowledge of the present century, though perhaps greater than those of all the ages which had gone before, would be but small compared to what had yet to be done. The difference between students and practitioners was only one of degree. Both were students, but the one had so far advanced in his studies that he might safely be entrusted with the treatment of disease. He therefore advised the students to realise that they had commenced to-day a study which should last them all their lives. The time had passed when unseemly and disorderly conduct was held to be the ordinary, if not the necessary, attribute of the student. He did not pretend that he had never met with a medical student whose ways were not susceptible of improvement, but he could bear testimony that, taken collectively, medical students compared favourably with an equal number of students of arts, law, or divinity; and even, he believed, military cadets. The character of students was often most unfairly assailed by persons who, before magistrates, falsely described themselves as medical students. The lecturer afterwards proceeded to review the course of study, and to advise the students as to the best means of pursuing it. Speaking to those who had recently become qualified, or were about to do so, he advised them to become, if possible, house-surgeons to some large hospital for a couple of years before entering into private practice; or, failing that, to go as assistants to some practitioner for a time. It seemed to him that this was the time when an apprenticeship would really be of service. In the work of the profession, they had opportunities which were denied to their forefathers. After having been some years in practice, if they felt the inclination, and had the opportunity, to pursue some special branch, they then could do so, as there could be no doubt that, once a man had a good general medical education, the more he devoted himself to one special branch the more perfect he became at it. In illustration of the work done by such men, he referred to the

labours of Spencer Wells, Lister, Tilbury Fox, Sir Henry Thompson, Murchison, Barnes, Playfair, and a host of others. Dr. Murphy warned his hearers against looking on their fellow-workers with the eye of the Pharisee; they should when they found him in error keep it secret. All were liable to error, and those who had worked the hardest and knew the most were the most charitable to shortcomings of others. Further, he warned them against perpetually talking about medical etiquette. What was thought of the man who in every-day life kept telling of the advantages of the manners and customs of society? The lecturer continued as follows: "Finally, gentlemen, pursue your study for its own sake, and if you do it in a proper spirit you will find it a work of love. For my own part, I must own that, with all its drawbacks—pecuniary, social, and political—I think there is no calling in existence equal to it, and all you who are of like mind, in the name of my colleagues and myself, I welcome you to our college, and I bid you Godspeed in your work."

REVIEWS AND NOTICES.

DISEASES OF WOMEN, INCLUDING THEIR PATHOLOGY, CAUSATION, SYMPTOMS, DIAGNOSIS, AND TREATMENT. By ARTHUR W. EDIS, M.D.Lond., F.R.C.P. With Illustrations. London: Smith, Elder, and Co. 1881.

DR. EDIS may be congratulated on having produced a most readable and trustworthy guide to the diseases of women. Those who, from lack of time or opportunity during their student days, neglected to acquire that familiarity with the subject essential to successful practice, may by it be enabled to make good the omission. The author tells us, in the preface, that his aim has been to present the student and junior practitioner with such an account of the diseases incidental to women as will prove a trustworthy, practical, clinical guide.

The chapter on the important subject of physical diagnosis is full and clear. Dr. Edis, in detailing the various means of exploring the uterine cavity, very justly points out the dangers which result from the incautious use of tents. Of all the various forms of pessary which have been devised, that known by the name of Hodge is the most generally useful, and the most widely known; and has, therefore, been specially selected by the author to illustrate the method of the introduction and adaptation of vaginal pessaries. He is careful to give instructions as to the way they should be worn, and when they should be removed.

The whole chapter on chronic metritis is full of practical suggestions. There is some excellent advice as to the management of habitual constipation. The author classes subinvolution, hypertrophy, and hyperplasia of the uterus or chronic metritis, together, as being but stages of one and the same condition. The chapter on this subject is well worthy of attentive perusal, as imperfect involution of the uterus unquestionably forms an important factor in the production of uterine disorders among married women. Dr. Edis has dwelt on the importance of prophylaxis in relation to this subject.

The question of Emmet's operation for laceration, which was the subject of discussion at the late International Medical Congress, is fully considered; the view of Dr. Emmet, that neglected laceration of the cervix is a fruitful cause of malignant degeneration of the uterus, is discussed, and the operation of trachelorrhaphy is clearly explained.

The differential diagnosis of abdominal tumours is most exhaustively gone into, and will commend itself to those who are called upon to express an opinion in doubtful cases of enlargement of the abdomen. The whole subject is treated most systematically, and evinces a practical knowledge of the student's requirements in arriving at a rational diagnosis.

The operation of ovariotomy is minutely described, including the indications and contraindications, the precautions before operating, the preparation of the patient, antiseptic precautions, and other details, which are of great importance in contributing to a successful issue.

There is one point which is new in works on gynæcology: the question of [illegible] operation. This Dr. Edis has fully considered in his work, and we think it will prove acceptable to many. The chapters on laceration of the perinæum include all the new procedures, and are carefully done. Over one hundred pages are devoted to functional disorders, including amenorrhœa, dysmenorrhœa, dyspareunia, metrorrhagia, and sterility.

In concluding this short notice, we may remark that the get up of the book is excellent; it is handy in size, and not too expensive. It is profusely illustrated, and contains drawings of all the essential gynæcological instruments. The index is copious, and will facilitate reference. Dr. Edis has adopted the course, which might with advantage be more generally followed, of giving the names of his authorities—not only in the case of illustrations, but in quotations from other authors. The work is up to date, and is evidently that of one who has specially studied the diseases of women—not of a specialist, who can see nothing except through a speculum. It is sure to be popular with students, as well as with practitioners.

NOTES ON BOOKS.

Aids for Sick-Nursing. By H. CROOKSHANK, M.R.C.S. (London: Simpkin, Marshall, and Co.)—This book consists of a short course of lectures, delivered lately to an advanced class of the St. John's Ambulance Association; and is printed, at the request of its central executive committee, as a text-book for the classes on home-nursing and hygiene. It has been carefully revised by Dr. Sieveking and Dr. Lionel Beale, and is evidently destined to a considerable circulation. We are glad to see that it is throughout practical, sensible, and clearly written. It would not be adequate as a complete handbook; but, as a first text-book, it is worthy of confidence, and merits commendation.

COLEMAN'S *Manual of* [illegible] by Smith, Elder, and Co.)—Mr. Coleman has, in this valuable manual, not limited himself merely to the study and discussion of the accepted doctrines of standard authors, but while furnishing a careful and thorough digest of recent literature and guide to modern knowledge, has edited the results of his own experience. The author has had an especial practice, and large opportunities of observation in reference to dental anæsthesia, and this chapter is particularly good. The manual is handy, clear, brief, and reliable, and likely to be a favourite with students.

GRIFFITH and HENFREY'S *Micrographic Dictionary.* Fourth Edition. (Van VOORST.)—The *Micrographic Dictionary* has long been known to working microscopists as a mine of information, and a constantly useful companion for handy reference. Its reputation has long since been established, and it is now, in its fourth edition, carefully brought up to the level of the latest information by its highly competent editors. It is copiously illustrated, and supplies valuable lists and bibliographical references brought up to the most recent data. It is being issued in monthly parts, which brings it within easier reach of many microscopists of limited means.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ALLEN'S SMALL SPRAY APPARATUS.

Messrs. JAMES ALLEN AND SON, 21 and 22, Mapleton Lane, Oxford Street, have submitted to us a small spray apparatus to meet the requirements of those who find the larger hospital spray unnecessarily large. This apparatus may be used as a small hand-spray for the purpose of dressing, or as a throat-spray, for which purpose a funnel piece is supplied. It is very durable in construction, being supplied with metal jets in lieu of the fragile glass jets. It has an independent boiler, and is furnished with safety valves, shifting handle, and cup. On the whole, it may be safely recommended as being portable, lasting, convenient in size, and moderate in price.

LANMAN AND KEMP'S FLORIDA WATER.

THE desirability of obtaining a really good floral water for use in the sick-chamber has long been recognised. Many of the scents in ordinary use are simply ingenious combinations of well-known chemical compounds, and their influence on those suffering from ill-health, or convalescent from acute illnesses, is likely to prove anything but beneficial. The introduction by Messrs. Lanman and Kemp of New York of Florida Water, prepared solely from flowers, obviates a difficulty which has long been experienced. It may be used with perfect confidence in the sick-room. It has an agreeable odour, and, when diffused by means of a spray apparatus, gives a refreshing coolness to the air which is highly beneficial. To those suffering from overwork and irritability of the nervous system, it undoubtedly acts as a sedative. It possesses antiseptic properties, and, diluted with water, forms an ex[illegible]. It [illegible] commended. It is undoubtedly a valuable preparation, and has already [illegible].

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 15TH, 1881.

ANTIVACCINATION ADVOCATES.

IT is a singular and certainly a significant fact that none of the opponents of vaccination are able to discuss the subject, or the official statistics inseparably connected therewith, without accusing all those who, believing in the beneficent influence of vaccination, have the courage to express it, of *mala fides*. It is with regret that we find Mr. P. A. Taylor, M.P., in his letter to Dr. W. B. Carpenter, C.B., fully adopting the offensive tone which is the characteristic of all antivaccination literature, which invariably makes the preposterous assertion that the vast majority of the educated classes of this and of every other civilised nation who recommend and practise vaccination consist of knaves or fools. It is useless to point out how hopeless and futile must be any argument conducted on such a basis. Mr. P. A. Taylor's opposition to compulsory vaccination is so fully in consonance with his special school of politics, that it need cause no surprise, and may even be said to command a certain modified respect. Now, however, that he has fully adopted not only the views of the most extreme antivaccinationists, but their own particular method and tone of conducting the discussion, he must be content to be judged on the real merits of the cause he has espoused. His pamphlet may, indeed, be in a way claimed as a triumph for the antivaccination party, inasmuch as they have succeeded in getting an M.P. so fully to adopt their matter and method, including their most extravagant assertions, that the little pamphlet in question might have been written by Messrs. Hume-Rothery, Baker, Wheeler, or Gibbs. Mr. P. A. Taylor is in full accord with his party in his treatment of what may be called the strong points of the case for vaccination. It has been stated, on the authority of the entire series of the Registrar-General's Annual Reports, that, notwithstanding the remarkable epidemic of 1871-2, the average rate of mortality from small-pox in England and Wales since vaccination was made compulsory has fallen to less than half the average rate that prevailed in all the years prior to compulsory vaccination for which records exist. Small-pox statistics were given *in extenso* for each year since civil registration was established in 1837, in a table published by Mr. Ernest Hart in his recent pamphlet on *The Truth about Vaccination*. This is an awkward fact for antivaccinationists; and how does Mr. P. A. Taylor meet it? He expresses astonishment at the statistics, so entirely at variance with the figures in his possession; and says that, after some difficulty, he discovered their source in "a work lately published by the ingenious Mr. Ernest Hart, and highly ingenious is the table which he gives"; adding, "It is not difficult to prove from figures any proposition you may have set your heart upon, by judicious selection and unscrupulous comparison". Now, Mr. Taylor does not actually say that Mr. Hart's table is the result of "judicious selection and unscrupulous comparison"; but the obvious inference is left to the ignorant and ill-informed, among whom Mr. Taylor's pamphlet letter is doubtlessly being circulated by the Antivaccination League and its kindred societies and associations. He does, however, add that "it is evident that, by such a process of selection, such calculations are absolutely valueless; much more, indeed, than valueless; for, as a test of the value of vaccination, they are positively and, I fear I must add, intentionally deceptive". Let us briefly state the facts of the case about this so-called "selection of dates", and leave the public to judge whether Mr. P. A. Taylor has honestly met the case.

Civil registration was established in 1837, and certain mortality statistics of England and Wales are available for each of the 43 years 1838-80. It is, however, an unfortunate fact that the causes of death were not abstracted or classified for the four years 1843-46. As regards the causes of death, therefore, and, as a matter of course, as regards the fatal cases of small-pox, we have only official and trustworthy statistics relating to the five years 1838-42, and the 34 years 1847-80. Mortality statistics of small-pox are, therefore, only available for twelve years preceding the operation of compulsory vaccination, namely, 1838-42 and 1847-53; while such statistics are available for the unbroken series of 27 years 1854-80, since the adoption of compulsory vaccination. By adopting, without any selection, other than the necessary exclusion of the four years 1843-46, relating to which no official report of the causes of death have ever been published, the whole available small-pox mortality statistics, we obtain the following results, which Mr. Taylor abuses, and attempts to discredit. The annual rate of mortality in England and Wales from small-pox averaged 420 per million of the population during the 12 years 1838-42 and 1847-53, prior to compulsory vaccination; whereas the annual death-rate from this disease has not exceeded 201.6 per million during the whole unbroken series of 27 years since the adoption of compulsory vaccination. Mr. P. A. Taylor, holding the avowed opinion that the system of vaccination has been "proved a delusive superstition", is open to adopt some other explanation of the marked decline of small-pox fatality since the adoption of compulsory vaccination; but we are quite willing to let public opinion decide whether he is justified in asserting that these calculations are the result of "judicious selection and unscrupulous comparison". Such assertions may have a mischievous effect upon the readers for whom the letter appears to be specially intended; but we are glad to believe that an opposite effect will be produced on intelligent readers. With regard to the four omitted years 1843-46, Mr. Taylor says: "I believe they are known to have been low in small-pox mortality", thus indirectly suggesting that, if the statistics for those years could be added, the calculated rates of mortality in the two periods would be altered in favour of antivaccination. There is good ground, however, for believing 1844 to have been an epidemic year as regards small-pox; and, at any rate in London, it was the most fatal year since the establishment of civil registration in 1837, prior to the epidemic of 1871-2.

In conclusion, we may express astonishment that, in the face of the tone which Mr. P. A. Taylor, in common with other antivaccinationists, adopts, in reference to the medical profession, he should be so anxious to quote medical authorities in support of his view, and that he should be so reckless in his assertions of so-called "accepted medical facts and theories". His statement that "the permanence of vaccine marks is known to be quite uncertain" is a specimen of many similar assertions which abound in his letter.

EXPERIMENTS ON THE ORIGIN OF TUMOURS.

PROFESSOR COHNHEIM'S two volumes of *Lectures on General Pathology* (Berlin, 1877-81) contain a fresh and often brilliant treatment of many parts of the theory of disease. But those of us who are accustomed to a less modern standpoint, and to older books, will be apt to think, in turning the leaves of these volumes, that the use of new methods and the acquisition of new facts has somehow altered the distribution of matter in a pathological text-book, has curtailed the space given to certain very old and obdurate problems, even if the newer subjects get no more than their due. Whether these alterations in proportion, this change in the centre of gravity, which one finds in the new pathology, are merely personal to the individual writer, merely fashionable for the day, cannot be settled by contemporary judgment. But there is abundant evidence that the profession still gives the first place in its thoughts to some of the older questions, to those, indeed, which arise most naturally out of its every-day experience. Professor

Cohnheim's modernised sense of proportion has led him to dismiss tuberculosis in a few pages, and tumours in a single chapter. But it is round those two subjects that the interest excited by Professor Cohnheim's book mostly circles. If there is anything in that work on which more has been written than what the author says about tubercle, it is the theory of tumours.

Tumours, says Cohnheim—all tumours, be it observed—owe their being to the persistence, in various organs and parts of the body, of small residues of embryonic tissue. At the time when the embryonic tissues were passing into their mature forms, there were here and there minute portions which retained the embryonic character. Such embryonic residues might remain in one's body throughout life, and never come to anything. But, in other cases, through one kind of stimulus or another, they will start into active growth; and an overgrowth of embryonic tissue, surrounded, as it would naturally be, on all sides by the ordinary mature tissues, is neither more nor less than a tumour. Such is the theory; and it need hardly be said that it is expounded and illustrated in a most seductive and convincing way. It should be said, on the other hand, that these residues of embryonic tissue, so important for this theory of tumours, have never been seen in their residual quiescent state. The tumours of the body may very well be such embryonic residues grown large; but the existence of the residues themselves is a pure hypothesis. If the residues of embryonic tissue be not such as can be detected by our gross senses, then the hypothesis, like some of the classical hypotheses of physics, may be said to be a legitimate one. If, however, these residues are within the ken of human eyes—and embryonic cells are exceedingly easy to the observer when they are once safely under the cover-slip—then we may look for a proof of their existence at no distant date, or for the downfall of the hypothesis. A recent writer in Virchow's *Archiv* (vol. 85, August 1881), Dr. Leopold, who has spent some of his professional leisure in the working out of the hypothesis in Professor Cohnheim's own laboratory in Leipzig, observes, in the introduction to his paper, that there are two lines of inquiry which may be followed in elucidating the origin of tumours. There is, first, "investigation with the naked eye, and with the microscope, of the parts and organs in the fœtal period and in childhood". That line of inquiry would, doubtless, be for the sake of determining the existence of embryonic residues, and the laws which govern them. But Dr. Leopold perhaps felt that searching the body of a fœtus or of a child for residues of embryonic tissue would be much the same sort of task as looking for a needle in a bundle of hay. He, at any rate, chooses the other line of inquiry—to wit, the experimental. Dr. Leopold is one of the numerous modern instances of a pathological investigator who sees in the experimental method, if not a royal road to discovery, at all events a more attractive occupation for himself than the morphological method of an earlier and a ruder age would afford. But let us see whether Dr. Leopold's well-devised and successfully carried out experiments really enable him to dispense with that somewhat tedious search for the embryonic residues which he (perhaps wisely) declined to institute.

The attempt to grow tumours in the bodies of animals has been tried several times in various countries, but has failed. The plan was to graft under the skin, or otherwise to introduce into the body of an animal, small fragments of a freshly removed tumour (of man or dog). In every case, the grafted fragment simply became encapsuled, as if it were a foreign body. A more successful experiment was devised by Cohnheim and Maas.

They introduced into the jugular vein of an animal pieces of periosteum from the tibia of rabbits, dogs, or fowls; the pieces came to rest in the branches of the pulmonary artery; there they became vascularised, like a simple thrombus, and, within two weeks, produced cartilage and then true bone. But these bone-plates always disappeared after a short time; at the fourth week, only a small rudiment of coarse tissue remained, and at the fifth week, not a single trace. An important step forward was made by Zahn in 1878. He introduced, into the external jugular veins of rabbits, fragments of hyaline cartilage from the costal cartilages of full-grown animals, and no growth followed; but, whenever he took embryonic cartilage (broken up in liquor amnii), the lungs were found, after a time, to contain numerous cartilaginous nodules (situated chiefly near the surface), which were composed of small-celled hyaline cartilage in their periphery, and were calcified at places in their interior. His chief conclusion was that, in general, the embryonic tissues are nearly akin to the pathological, and especially to those that enter into the formation of tumours.

The experiments of Leopold, which are described in the first part of his paper, are an extension of those of Zahn. It was by using embryonic tissues instead of mature tissues that he succeeded. He used a considerable variety of tissues, but he confines his account to his success with embryonic cartilage. A pregnant animal (rabbit) was killed, and the fœtuses placed in warm saline solution, so that their tissues might preserve much of their normal living characters during the somewhat difficult and delicate manipulation that followed. The experiment-animal was also the rabbit, and the experiments, sixty-one in number, were done either on the anterior chamber of the eye (thirty-eight), or on the abdominal cavity (twenty-one), or on the external jugular vein (two). The anterior chamber was opened through the sclerotic, and some fluid let out; a fragment of embryonic cartilage was then thrust in until it came in front of the pupil. The embryonic fragments were introduced into the abdomen through a short vertical cut immediately under the ensiform cartilage. The abdominal experiments read somewhat ambiguously, but those on the anterior chamber led, at least in a certain proportion of cases, to interesting degrees of new growth, which are figured—both as they appeared to the naked eye, and also in their microscopic structure—in the plates that accompany the paper. The implanted fragments of embryonic cartilage took root and grew, till it was in some instances two or three hundred times its original size, and became in the end an enchondromatous nodule. Dr. Leopold, with just satisfaction, says that he "more than once succeeded in artificially producing a real tumour, to wit, an enchondroma, which had enduring powers of living and growing". He adds that the "admissibility of Cohnheim's hypothesis, that tumours depend upon embryonic rudiments, is now made good also by experiment".

What the experiments really show is, that a transplanted fragment of embryonic cartilage will, under the most favourable circumstances, sometimes grow very considerably; and, as it is made to grow in a strange place, the nodule may fairly be called an enchondroma. Leopold's experiments are interesting in themselves, but for Cohnheim's hypothesis they are irrelevant. No one can doubt that quiescent embryonic rudiments of tissue, if they existed, might on occasions take an active growth, and that such overgrowths of embryonic tissue would correspond to some at least of the numerous varieties of tumour. But the point at issue is, whether there are real residues of embryonic tissue scattered throughout the adult body, or whether the mature tissues of the body do not revert sometimes to their embryonic characters. The latter theory is an old one, and it can hardly be said that Professor Cohnheim's theory has superseded it. Further, neither the one theory nor the other is universally applicable to tumours. The sarcomatous class of tumours do indeed often reproduce the embryonic forms of the connective-tissue series. But there is nothing specially embryonic in that other great division of tumours into whose structure epithelium largely enters.

We are asked to call the attention of our readers to the change of address of the office of the General Medical Council, which will now be known as 299, Oxford Street, instead of 315 as heretofore—a change resulting from the renumbering of Oxford Street.

At the first meeting of the Pathological Society, on October 18th, Dr. Stephen Mackenzie will show a case of hæmato-chyluria, and, prior to the meeting, will demonstrate in the freshly drawn blood the *filaria sanguinis hominis*—the first time the living [illegible] has been shown at any Society in England.

RECENT numbers of the Russian medical journal, *Vratch: nitza Vedomosti*, contain translations of Professor Lister's address on the Catgut Ligature, delivered before the Clinical Society; of Dr. J. S. Billings's address on Modern Medical Literature, delivered before the International Medical Congress; and of M. Pasteur's address on Vaccination in relation to Chicken-Cholera and Splenic Fever.

DR. SYMES THOMPSON announces his Gresham lectures for the autumn season to commence on Tuesday, October 11th. The first lecture is on "Mind and Matter"; the second, "Involuntary and Reflex Nervous Action"; the third, "On the Nerves of Special Sense"; and the fourth, "On the Results of Defective Nervous Action". The lectures are given on successive evenings from the 11th to the 14th inclusive, and commence each evening at six o'clock. They are of a popular character, and open to the public free.

IN his last annual report on the sanitary condition of Newcastle-upon-Tyne, Mr. Armstrong gives a typical instance of the gross carelessness which people evince in exposing themselves to infection. In the instance to which he refers, six cases of scarlet fever (four of them fatal) happened in one house, which was tenemented by four or six families. Even after the funeral of one of the cases, notwithstanding the strong recommendation given to the parents not to allow the attendants at the funeral to meet at the house, an inspector found that "a funeral feast" had been held in the only living room, which was also that where three of the sick children had lived and died.

MEDICAL SOCIETY OF LONDON.

THE Lettsomian Lectures at the Medical Society of London will be delivered on January 9th and 23rd, and February 6th, 1882, by Mr. Hutchinson Royes Bell, Surgeon to King's College Hospital. The subject will be "Diseases of the Testicles and their Coverings". The annual oration will be delivered in May by Dr. Symes Thompson. The subjects for the Fothergillian Gold Medal are: for March 1882, "Whooping-cough: its Pathology and Treatment"; for March 1883, "The Operative Treatment of Pleuritic Effusions". Essays must be sent in before the 1st of the previous November.

SCARLET FEVER AT CARLISLE.

SCARLET FEVER is again prevalent at Carlisle. In a recent report to the Town Council, Dr. Elliot states that there were thirteen patients (all suffering from scarlatina) in the infectious hospital. Although the disease, which is generally prevalent throughout the borough, is reported as of a mild type, two deaths had occurred up to the 4th instant, after illness of only two days' duration. The very mildness of the disease is moreover a source of difficulty, since the patients being, with hardly an exception, children, and being but slightly ill, they are allowed to run about without check, and thus distribute the infection broadcast.

THE VICTORIA CROSS.

THE *London Gazette* contains the announcement, dated War Office, October 4th, that the Queen has been graciously pleased to signify her intention to confer the decoration of the Victoria Cross upon certain officers and soldiers, whose claims have been submitted for Her Majesty's approval, for their conspicuous gallantry during the recent operations in South Africa (Basutoland), and in Afghanistan, as recorded against their names. Among the names is that of "Surgeon-Major Edmund Baron Hartley, Cape Mounted Riflemen, for conspicuous gallantry displayed by him in attending the wounded under fire at the unsuccessful attack on Moirosi's Mountain, in Basutoland, on June 5th, 1879; and for having proceeded into the open ground under a heavy fire, and carried in his arms, from an exposed position, Corporal A. Jones, of the Cape Mounted Riflemen, who was wounded. While conducting him to a place of safety, the corporal was again wounded. The Surgeon-Major then returned, under the severe fire of the enemy, in order to dress the wounds of other men of the storming party." It is not often that the medical profession is thus honoured. Dr. Hartley is a Devonshire man, and the eldest son of Dr. Hartley, of Warwick Square, S.W. After leaving St. George's Hospital, in 1874, he proceeded to South Africa, with the idea of entering on private practice; but war soon broke out, and he was appointed Surgeon to the Cape Mounted Rifles. Subsequently, he was made Principal Medical Officer of the Colonial Forces. He is a member of the British Medical Association.

THE DISADVANTAGES OF COD-LIVER OIL FOR YOUNG CHILDREN.

ACCORDING to the *Revue Médicale*, the Council of Public Health has recently submitted for the sanction of the Academy of Medicine of Paris a report on the disadvantages of cod-liver oil administered to infants and young children. The Commission on the hygiene of infancy has not yet reported its opinion on this subject; but the accusations brought against this medicine by the Council of Hygiene are worth notice. All physicians are aware what disastrous influence is exercised on the health of young infants by defective alimentation, and especially animal nourishment; fatty matters are as little suited to the alimentation of the newly-born infants as albuminoids, excepting always casein, which exists normally in milk, and is found to be perfectly assimilable. In fact, in the first period of life, the juices necessary for emulsifying fatty matters are almost entirely wanting. The liver, in spite of its enormous development in this stage of existence, secretes only a small quantity of bile; and the researches of Langendorf and Zweifel have proved that, in young children, pancreatic juices possess an emulsive power which is almost *nil*, or, at least, very slightly marked. These physiological considerations sufficiently indicate that—far from being profitable to the infant—fatty matters, and especially cod-liver oil, can only injure its health, and gravely compromise the integrity of its digestive functions.

ARMY MEDICAL SCHOOL.

THE winter session of the Army Medical School at Netley was opened on Monday, the 3rd instant; the introductory address being delivered by Professor F. de Chaumont, F.R.S. The class for the session consists of twenty-four surgeons on probation of the Army Medical Service, and ten of the Indian Medical Service, together with one colonial militia surgeon. The thirty-four surgeons on probation were only successful after a keen competition in London for their appointments; sixty-three gentlemen having competed for the twenty-four appointments in the Army Medical Service, and thirty-two for the ten appointments in the Indian Medical Service. The opening was attended, as usual, by the military and medical staffs of the hospital and school, and by visitors from the vicinity of Netley. Professor de Chaumont's address chiefly consisted of an exposition of the results of the sanitary changes that had been effected in the army since the time of the Crimean war, and the influence that some of them had exerted upon civil life. The diminution in the rates of sickness and mortality in the army since the subject of hygiene had attracted special attention was shown, and the particular directions in which further improvements might be expected under extended sanitary arrangements in the future were indicated. We hope that the address, which was listened to with much interest and attention by those who were present at its delivery, may be printed, and so rendered available for general perusal.

DENGUE.

IN an article on Epidemics of Dengue Fever, their Diffusion and Etiology, in the *Glasgow Medical Journal* for September, Dr. James Christie contributes some interesting information regarding the history of this singular epidemic malady. It is usually stated that the first outbreak of the disease occurred in 1824, among a body of troops at Rangoon. It appears, however, that this outbreak at Rangoon was caused by the spread of an epidemic which originated at Zanzibar the previous year. Dr. Christie believes that the disease was conveyed from Zanzibar to the Bombay Presidency in 1824 by native craft which made the voyage during the south-west monsoon, that it prevailed at Calcutta in May, and in Rangoon in June and July. The epidemic

which was observed at St. Thomas, in the West Indies, is also, Dr. Christie thinks, traceable to Zanzibar, the vessel which brought the disease being from the coast of Africa, and probably a slave-ship, which touched at St. Thomas from the Mozambique Channel on a voyage to Cuba. Three epidemics in all are reported as having occurred within the eastern hemisphere: the first (necessarily imperfectly reported), during the years 1779-84; the second, from 1823 to 1829; and the third, from 1870 to 1875; or, if certain recent sporadic appearances are taken into account, from 1870 to 1880. The true derivation of the term dengue, the author informs us, is from the Swahili word *dinga* or *dyenga*, meaning "a sudden cramp-like seizure".

DEATHS FROM ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 26 and 15 in the two preceding weeks, further declined to 13 last week, and corresponded, the first time for many months past, with the corrected average weekly number in the corresponding week of the last ten years. The 21 fatal cases of measles showed a further increase upon recent weekly numbers, and corresponded with the average. The deaths from scarlet fever were 55, as in the previous week, and were 5 below the average. The 12 deaths referred to diphtheria corresponded with the number in the previous week, and exceeded the average by 2; 2 were recorded in the City, and 2 in Bermondsey. The 38 fatal cases of diarrhœa, of which 33 were of children under five years of age, were 26 below the average. The deaths referred to enteric fever, which had steadily increased from 10 to 48 in the four preceding weeks, were 46 last week, and exceeded the average by 22.

METROPOLITAN WATER-SUPPLY.

DR. FRANKLAND'S report upon the quality of the waters supplied to the metropolis by the various water companies, during September, states that the quality of the Thames water delivered by the five companies drawing their supply from that source was, with the exception of that sent out by the Lambeth Company, inferior to that of the water from the same source delivered in August. Each sample of water, except that furnished by the Chelsea Company, had been efficiently filtered before delivery. The Lea water, supplied by the New River and East London Companies, was superior to the Thames water.

ROYAL SEA-BATHING INFIRMARY.

WE understand that their Royal Highnesses the Prince and Princess of Wales will shortly visit Margate, to open the new wing and chapel attached to the infirmary, upon which Mr. Erasmus Wilson, the President of the Royal College of Surgeons, has expended upwards of £30,000.

THE VITAL STATISTICS OF SALFORD.

IT would be well if more medical officers of health had the enthusiasm and industry of Dr. Tatham of Salford in publishing, at short periods, well arranged and carefully digested tables of the vital statistics of their districts. Not content with an elaborate annual report and quarterly bulletins of the health of Salford, Dr. Tatham issues week by week a tabular statement, giving the population of each district in the borough, and the deaths in each, classified both as regards diseases, ages, and localities. One of these statements, for the week ended the 1st instant, lies before us. It shows the mean temperature during the week to have been 57.8° Fahr., or about half a degree in excess of the mean temperature of last week. The rainfall measured nearly an inch. The general direction of the wind was westerly. A total of 151 births and 73 deaths were registered during the week. Allowing for increase of population, the births exceeded by 17, whilst the deaths were less by 13, as compared with the average numbers recorded in the corresponding week of the previous ten years. The death-rate from all causes, which during the previous four weeks had not exceeded 17.4, rose to 21.4 per 1,000. The 73 deaths included 1 from diphtheria, ; from whooping-cough, 2 from fever, and 7 from diarrhœa. The death-rate from the seven most familiar infectious diseases was, therefore, equal to 3.8 per 1,000. Fourteen deaths were referred to acute lung-diseases, and 6 to pulmonary consumption. Four inquests were reported: on an infant nine weeks old, found dead in bed; a girl aged 12 years, killed by a street accident; a child 4 years old, poisoned by drinking caustic soda; and a woman aged 70 years, burnt to death.

UNQUALIFIED PRACTICE.

THE letter which we publish in another column from Mr. R. H. S. Carpenter, the indefatigable and public-spirited Honorary Secretary of the Medical Alliance Association, is characteristically full of hard hits and very unmistakably plain language. But it tells a tale which must command respect and admiration, and should ensure attention. The complaint of one of our correspondents was that "a private society"—and Mr. Carpenter says that he refers to the Alliance, and it is not easy to see how he could refer to any other—"prosecutes a few poor fellows who manage branch establishments in the slums of London on behalf of their employers, whilst great offenders who drive their carriages are allowed to go unpunished." This, says Mr. Carpenter, is untrue. "Of the thirty-three prosecutions instituted by the Alliance (including two cases now in the hands of Mr. Pridham), only one such person was proceeded against; the others comprised leading London venereal quacks, registered medical men in good practice, men practising with bogus diplomas from America, Jena, and Giessen, and registered chemists and druggists. All these defendants had ample means for fighting, they all fought well, and some so well that they dragged us into the Court of Appeal. The costs on the side of the Alliance of the prosecutions they instituted in the superior courts ranged from £60 to £90 each. All these costs were paid by the defendants, and they had their own costs to pay in addition, so that it will be seen that our prosecutions were amongst a class of men the very reverse of that alleged by 'X. Y. Z.'" It further appears from Mr. Carpenter's statement that, at the formation of the Alliance, he guaranteed to all the members thereof that not one of them should be responsible for a shilling in payment of law or other costs, beyond their yearly subscriptions of ten shillings and sixpence each. The whole of the prosecutions in the police-courts were instituted in his name, so that he alone became liable for costs; and those in the superior courts were instituted in the name of the Master, Wardens, and Society of Apothecaries, after an assurance to them that they should not be liable for costs in cases of defeat; and, by a special arrangement between the solicitors and himself, even in that event, the members of the Alliance would have been absolutely safe; yet so many of them, forgetting all this, have neglected to pay their subscriptions, in some cases after their own ends have been served, that a sum of about £120 is now due from them to the Alliance; and as the "lawyers" do not, in point of fact, give their services altogether "free, gratis, and for nothing", the Society "would be very glad if these gentlemen would deem themselves in honour bound to forward their subscriptions, which are much wanted for prosecution purposes, to the Treasurer, C. Chaple, Esq., M.D.St.And., 230, Burdett Road, E." This plain unvarnished tale reflects infinite honour on the courageous public spirit of Mr. Carpenter, and records for the first time, we believe, publicly, a part of the record of unflinching devotion to a public cause which has for many years characterised his conduct. This is only a small part, remarkable as it is. For the amount of personal labour given by Mr. Carpenter to the personal investigation of the cases brought before him in his official capacity, his strong good sense in rejecting unworthy appeals, and the acumen and success with which, with infinite labour and expenditure of valuable time, he prepared for legal procedings a long series of cases, have no public record, and are fully known to none but himself, with the [illegible] to speak of them. The fact is, that complainants are much more numerous in this matter than practical supporters; and, but for Mr. Carpenter, Mr. Nelson Hardy, and Mr. G. Brown, and a few practical specialists, the Medical Acts would, in respect to the repression of false pretences and sham practitioners, have been pretty nearly a dead letter. One of our correspondents proposed that "a general appeal should be made to the pro

fession for small yearly subscriptions, with the view of forming an association for the purpose of suppressing illegal practice." Mr. Carpenter, however, rejoins on this head: "At the cost of about £70 in postage and printing, the Alliance at various times made such an appeal in England, Ireland, and Scotland, but with barren results as regards the increase of their members, though complaints of illegal practice came to them in profusion. I fear, therefore, that 'Truthful James's' suggestion, if resorted to, would end in failure and expense; but that proposed by you, that every Branch of the British Medical Association should have a Defence Committee, is admirable and practicable; and, seeing that the organisation of that association is complete, a yearly subscription of two shillings and sixpence per member would be sufficient to cover the expenses of all prosecutions, provided they were conducted upon some such principle as that adopted by the Alliance." When this matter was brought under the consideration of the central executive of the Association, a few years since, difficulties presented themselves which prevented any action organised from the centre; but it is quite within the sphere and competency of any branch to add such a committee to its organisation, and to act for its own district when and as such action may seem to be called for. Meantime, societies such as that so energetically represented by Mr. Carpenter seem to deserve very warm and general support.

GRATUITOUS SERVICE TO RATE-SUPPORTED HOSPITALS.

THE Corporation of Sheffield have recently built a Hospital for Infectious Diseases, according to the requirements of the Local Government Board. The cost of erecting this new institution has been defrayed out of the rates, and it will be supported from the same source. The building will shortly be finished and ready for opening; and the question now arises, how it is to be administered. The committee, who have carried out the details, propose that a non-resident medical officer should be appointed at a fixed salary, and that, if necessary, a resident house-physician should be appointed as well. This is, we believe, the usual custom in such cases. But it would appear that the Corporation of Sheffield do not approve of this arrangement, and propose to appoint a resident medical officer and two honorary visiting physicians. This proposal has, we understand, given rise to great dissatisfaction among the medical men in Sheffield, and we cannot be surprised that such is the case. To charitable hospitals our profession is always ready to extend a helping hand. Indeed, many persons think that the principle of gratuitous medical attendance has already been carried too far. But, an infirmary for infectious diseases, erected under the Public Health Act, is in no sense a charity. It is altogether a matter of business, regulated by law, and chargeable on the rates. There is no plea *ad misericordiam* which can be urged upon the medical profession. On the contrary, the services required of the medical attendants are difficult and dangerous, and they are fully entitled to claim adequate remuneration. If the medical men of Sheffield are united in their view of the matter, and if they lay before the Corporation their reasons for the attitude they have assumed, we cannot doubt that their representations will meet with the consideration they deserve.

THE DEVONSHIRE HOSPITAL.

THE Duke of Devonshire opened on Tuesday last the new wing of the Buxton Bath Charity and the Devonshire Hospital, Buxton, amidst many manifestations of rejoicing, the town being generally decorated, and hundreds of visitors arriving by special trains. It had been announced that the Earl of Derby, in his capacity of chairman of the Cotton Districts Convalescent Fund, which had contributed £24,000 to the extension of the hospital (very nearly the whole amount required), would take part in the proceedings, but his lordship was at the last moment unable to attend. The hospital with its lofty and magnificent dome forms one of the principal architectural beauties of Buxton, and was originally founded by the Duke of Devonshire. By the recent extension the buildings have been doubled in size, and it is intended to place the benefits to be derived from drinking the mineral waters of Buxton within the reach of the poorer classes in the cotton districts. His Grace, in performing the opening ceremony, spoke of the beneficial working of the hospital, and expressed his acknowledgments to the chairman and governors of the Cotton Districts Fund for their most liberal grant. The Earl of Redesdale, Lord Edward Cavendish, Sir U. Kay-Shuttleworth, Mr. Hugh Mason, M.P., Mr. Cheetham, M.P., Mr. S. Evans, M.P., and others were present at a luncheon which was subsequently held in the dome, when speeches of a complimentary and congratulatory character were delivered.

MEDICAL SOCIETY OF UNIVERSITY COLLEGE.

THE opening meeting of this society was held on Wednesday evening, and was largely attended. An address was delivered by Dr. Russell Reynolds, consulting physician to University College Hospital, and formerly professor of medicine in the College. The subject of the address was "Specialism in Medicine". It is published at p. 620.

ABSINTHE.

THE consumption of this seductive, health-destroying liqueur appears to be on the increase, and it is now, according to Mr. Winter Blyth, sold in a large number of places in Marylebone, for which parish he is the public analyst and medical officer of health. It seemed to him, therefore, a right and proper thing to chemically examine samples of this liquid, which was done. Absinthe is a yellowish green liqueur, which contains, as a peculiar ingredient, a poisonous oil having a deleterious effect on the nervous system; the oil is called wormwood oil, and is produced in nature by the *Artemisia Absinthium*. Other flavouring oils are always added, such as peppermint, angelica, cloves, cinnamon, and aniseed. The colour is produced by the juice of nettles, spinach, or parsley; or, in other words, is due to the common green "chlorophyll", found in all green plants. Most samples of absinthe contain sugar. The average composition of absinthe is as follows: Absolute alcohol, in 100 parts, 50.00; oil of wormwood, .33; other essential oils, 2.52; sugar, 1.50; chlorophyll, traces; water, 45.65. Alcohol causes drunken sleep; alcohol and absinthe combined produce convulsions. The poor wretches given up to absinthe drinking suffer from a peculiar train of nervous symptoms, the most prominent of which is epilepsy of a remarkably severe character, terminating in softening of the brain and death. The last moments of the absinthe drinker are often truly horrible. M. Voisin records a case in which a man was picked up in the public street in an epileptic fit. He was known to be a large consumer of absinthe. The convulsions lasted until death—four days and four nights. During the last five or six hours of life, the skin of the face became almost black.

DR. NEALE'S "MEDICAL DIGEST".

THE second edition of Dr. Neale's *Medical Digest* is now in course of publication, and those members of the profession who are desirous of procuring a copy should at once sign and return the slips which have been forwarded to them by Dr. Neale by post, since the number of copies printed will be nearly limited to the number of announced subscribers. We call attention to the subject, because the work is one of unusual value to medical readers who desire to retain a key to the current literature of the last thirty years. The labour which Dr. Neale has spent upon it has been largely for public purposes, and with a view rather to the general good than to any individual profit. The new edition will, we believe, contain more than one hundred thousand references to journals, carefully digested, and selected with much judgment; thus affording to any person who desires to collect information upon subject matters of medical interest, either clinical, therapeutical, or scientific, a ready means of obtaining the references to a considerable body of information on the subject from the pens of the best known British writers. Such a digest is an extremely valuable addition to any library, however limited, since it at once indicates to its possessor where to seek for fuller information on the subject, and what has been the nature of the communications made in respect to it to medical journals of past years. In one respect, the first edition is extremely defective, since Dr. Neale did not, in his earlier career, suf-

ficiently appreciate the value of the information contained in the pages of the BRITISH MEDICAL JOURNAL; and the first edition was, therefore, very incomplete. In the present edition, this defect has been remedied for the last eight or nine years; and the references to the abstracts in the *London Medical Record*, for late years at least, have also been added. Therefore the *Digest* is a tolerably near approach to completeness; and its usefulness is as undoubted as is the industry and skill with which it has been compiled.

CHOLERA IN THE EAST.

TELEGRAMS from Constantinople report that the question of taking measures to prevent the extension of cholera which is raging at present in Mecca is causing a good deal of trouble to the Turkish Government. The medical authorities are of opinion that pilgrims should be prevented from going to the holy places, for the epidemic would certainly be intensified by the aggregation of many thousand people in a small town which has no proper accommodation for them, and it would be rapidly disseminated over the whole Mussul man world by the pilgrims returning to their homes. The Sultan, however, is afraid lest fanatical believers should condemn him as an infidel, and political intriguers should make capital out of the religious discontent. It was supposed on Tuesday that a compromise had been found; for the International Commission was allowed to pass a resolution that no ships having pilgrims on board should be cleared for the Red Sea ports, and a Russian steamer was obliged to land the pilgrims whom she was taking to Jeddah. The compromise, however, has since been withdrawn, for the next day a director of a company which is under the control of the Admiralty went to the palace and declared that he had 350 pilgrims waiting impatiently to be transported to their destination. The matter was submitted to the Sultan, and His Majesty replied laconically, "Let them go." They have accordingly been despatched, but it is expected that they will be stopped at Port Said.—According to a Reuter's telegram from Constantinople, the only authentic reports from Mecca are that there were twenty-one deaths from cholera on the 20th of September and five on the 21st. No news has been received of a later date. The Porte has promised to ask the Khedive to facilitate communications between Jedda and Swakin, the last Egyptian telegraph station, in order to obtain more frequent advices. The Sanitary Board has ordered a military cordon to be formed between Gaza and Jerusalem, and the enforcement of ten days' quarantine at Damascus for caravans coming from Mecca. Munif Pasha had promised the Sanitary Board to stop the departure of pilgrims, and, on the strength of this promise, the board recently sought to prevent a Turkish vessel from proceeding to Jeddah, but as the undertaking had been given without the sanction of the Sultan the vessel ultimately received permission to sail. The last news is distinctly unfavourable, and should warn us of the necessity of taking local precautions. At Aden the cases have been of a very bad type, and the deaths almost as numerous as the persons attacked. At Mecca, also, the cholera cases are of a severe type, and, according to communications from Egypt, it is pretty clear that cholera has existed at Mecca for at least a month; for as long ago as that at least 7,000 or 8,000 pilgrims coming from India and stopping at Aden had arrived there. It is very important that the English Resident should be requested to communicate frequently by telegram with our Government here, informing us of the exact facts. The Sultan has sent his First Secretary to the International Council of Health to concert the necessary measures, and the following have been adopted. *Protective Measures by Sea:* 1. Every ship coming from an Egyptian port on the Mediterranean will be submitted to medical observation for at least twenty-four hours, and to two visits, one on arrival, the other on departure. 2. Every ship coming from India (where the cholera is raging severely at Lahore) and from the Red Sea, whether it has undergone quarantine or not, will be submitted to a quarantine of ten full days in one of the ports of the Empire, provided with a lazaretto. These ports are Beyrouth, Smyrna, Cunea, and Salonica. For further security, no quarantine will be arranged at the Dardanelles, but exclusively at the ports having a lazaretto. At the Dardanelles those vessels belonging to the category mentioned will undergo only a medical visit of twenty-four hours. 3. Every ship, of which the sanitary condition may be bad, or suspected (irrespective of cholera), or having defective hygienic conditions, will be submitted to debarkation of the crew and merchandise in the port with the lazaretto, as well as disinfection at such port; and it will not receive free *pratique* until after a quarantine of ten days, and special permission from the International Council of Health. 4. Every ship, presenting itself at a port of the Turkish Empire, having had or having cholera on board, will be submitted to quarantine, and will not receive free *pratique* until ten days at least after the formal declaration of the disappearance of the disease, and on the express authorisation of the International Council of Health. *Preventive Measures on Land:* 1. Establishment of a cordon, called Syro-Egyptian cordon, from the port of Gaza to the interior; 2. A quarantine of ten full days imposed at a distance of three days' march at least south of Damascus, on every caravan of pilgrims and everything coming from Arabia; 3. The same measure will be applied on the frontiers of Arabia and Mesopotamia to caravans coming from Arabia, as well as in every centre in which the authorities think it necessary to take precautions against anything coming from Arabia; 4. Bassora will submit to quarantine everything that comes to Aden from the Red Sea, Persian Gulf, and in general from all suspected localities. The International Sanitary Council has further adopted resolutions having a like tendency, such as to arrest the movement of pilgrims, and to ensure rapid service of correspondence between Arabia and Constantinople. It has sent to Mecca Dr. Arif-Bey, Vice-President of the Sanitary Council, who studied at Vienna. Egypt, on its side, has taken energetic measures. By a decision of September 27th, the International Council of Alexandria has ordered that, during the period of duration of the epidemic, the territory of Arabia and Egypt will not be allowed free communication with each other. It is also decided to advise Mussulman powers to stop any new departure of pilgrims. The Sanitary Council of Constantinople has very earnestly urged upon the Egyptian Government to depart from its fatal neglect of public hygiene in the capital and ports of the empire more directly exposed to danger. The Governor-General of Algeria has, with the advice of his Committee of Health, prohibited this year Algerian subjects from making the pilgrimage to Mecca. Since the foregoing correspondence was received, telegraphic despatches report that the Sultan has departed from the arrangements advised and made prohibiting further movement of pilgrims to Mecca, and has allowed a boat-load of 250 pilgrims to be despatched on their journey. No doubt, however, these pilgrims will be stopped, for the International Council of Health has fortunately considerable influence with the Egyptian Government, and it is not likely that the Government will take the risk of incurring a further extension of ravages of cholera. It is much to be desired that the Khedive should be informed by the British Consul of the willingness of the Government to support him in these measures of international hygiene against the fatal indecision of the Sultan.—Messrs. Thomas Cook and Son have received the following telegram from their Egyptian representative, dated Cairo, Sunday, October 9th, 11.5 a.m:—"Public health of Egypt perfect. Last report from British Consul at Aden to Sanitary Council, Alexandria, dated October 5th, states that one case and two deaths from cholera on September 27th, since which date no death or fresh case. All reports from Mecca greatly exaggerated. Official report from Mecca by mail."

FEVER IN INDIA.

UMRITSUR is now suffering from a severe fever epidemic. The mortality is 200 to 300 daily. The total deaths for eleven days ended on the 1st of October were 2,265, of which 1,138 were children. The pestilence is believed to be due to the late abnormally heavy rainfall. The Punjab Government is making every endeavour to cope with the disease by sending extra medical aid and opening dispensaries.

A GOOD INVESTMENT.

At the quarterly meeting of the Court of Directors of the Society for the Relief of Widows and Orphans of Medical Men, held on Wednesday last, it was mentioned by the secretary that a widow had recently died who had been in the constant receipt of relief for herself and her children since the year 1833. Her husband had been a member of the Society for nine years only before his death; thus for a payment of eighteen guineas only, spread over his nine years of membership (two guineas per annum), his widow and children received from the Society the sum of £2,272. No case could better illustrate the advantages of this most excellent Provident Society; and we again would strongly urge upon all members of the profession resident in the metropolis to become members thereof. They will then know that in the event of their death their widows and orphans will always have a moderate competence. A registered medical man resident at any time in London, or within twenty miles of Charing Cross—as one of the house-surgeons of the metropolitan hospitals, for example—can join the society; and he may afterwards live wheresoever he may please, without ceasing to enjoy all the benefits of membership, so long as the annual subscription is paid. Application should be made to the secretary, Mr. J. B. Blackett, at the office of the society, 53, Berners Street, W.

EUREKA.

The amiable exaggerations with which the records of cure at healing springs, baths, and health-resorts abound, are sufficiently well known; and, as unconscious bias is an element in case-taking which all thoughtful readers take into account, a wholesome scepticism exists which usually discounts somewhat severely—sometimes, no doubt, too severely—the enthusiastic reports of "dwellers on the spot". The enterprising friends of the "Eureka Springs", Missouri, of which the virtues in the treatment of cancer, cataract, and other miscellaneous and malignant bodily troubles have been much vaunted, have resorted to extreme measures to raise the reputation of their spring. Dr. Rumbold of St. Louis, after giving an account of some of these at the St. Louis Medical Society, winds up as follows. "Another case that is reported is that of a man who went to Eureka Springs, and went round to the different places and took his hat off, showing that his head was entirely bald. He drank the water, and stayed there several weeks; and the hair commenced to come out, and before long a good crop of red hair had appeared. A few weeks afterwards, the man got tight in Springfield, and told how he had been paid five dollars a day to have his head shaved clean and stay long enough to have the hair grow out." It would not be easy to beat this novel element in the manufacture of the history of balneology.

CENTENARIANS OF ANTIQUITY.

Solon, Thales, Pittacus, Epimenides, four of the seven sages of Greece, exceeded a century in age, according to Lucian, who fixes the date of their deaths at about 600 years B.C. Epinides, poet and historian, died at the age of 154 years, according to Pliny. Aristarchus, a tragic poet of Tegæa in Arcadia, died a century old, about the year 460 B.C. The comic poet Cratinus of Athens died at 93 years of age, in the year 431 B.C. According to Valerius Maximus, Sophocles composed *Œdipus* when he was nearly 100 years old, about 405 B.C. The satirical poet Democritus died at the age of 109, in the year 361 B.C. Gorgias of Leontium died at 108, in the year 400 B.C. The great orator Isocrates is said to have starved himself at 99 years of age, about the year 338 B.C. Hippocrates, the father of medicine, died at the same age, 361 years B.C. The philosopher Theophrastus died at 107, about the year 288 B.C. Cleanthes of Epirus, disciple of Zeno, died at 100, about the year 240 B.C. The historian Hieronymus of Rhodes died at the age of 104, about 254 B.C. The immortal Galen died almost a centenarian, like his great predecessor Hippocrates, in the year 193. The philosopher Demonax of Crete starved himself to death at 100 years of age, in the reign of Adrian, 120 A.D. The Romans have also their centenarians, but their dates are often unrecorded. Juvenal is said to have died a centenarian, A.D. 120. Terentius Varro of Atax died at 98, A.D. 28. Quintius Fabius Maximus died a centenarian about 107 B.C. Perennius Tutus died at 111 years of age, at Cornelia, in the year 117. It appears from this list, as collected from the *Lyon Médical*, that, in ancient times, some people had already acquired a habit of allowing themselves to die of hunger; and Dr. Tanner, with his long fast, is only a plagiarist. The ancients had, however, as a justification, their great age; and they might reasonably think that they had lived long enough.

SCOTLAND.

THOMSON LECTURES IN ABERDEEN.

At a recent meeting of the Senatus of the Free Church College, Professor Alexander Macalister was appointed (subject to the approval of the College Committee) Thomson Lecturer in Natural Science for the session 1881-2. Professor Macalister holds the Chair of Anatomy in Trinity College, Dublin; and, from his well-known attainments, a very interesting course of lectures may be anticipated. Zoology will be the special subject of which he will treat.

COMBE LECTURES.

The three Combe Lecturers have each commenced the winter course of lectures. Dr. Andrew Wilson delivered the first of the Edinburgh course in the United Presbyterian Synod Hall there last Thursday. In Glasgow, Professor McKendrick delivered the first of the Glasgow course in the Glasgow Young Men's Christian Association Hall; while, on Tuesday, October 4th, Professor Stirling delivered the first of the Northern Course of Lectures in the Assembly Hall, Montrose. In connection with this subject of public lectures, it may be maintained that the syllabus just published of the Popular Health-Lectures for the Industrial Classes, to be delivered by members of the profession in Edinburgh, is an exceedingly promising and attractive one.

HEALTH-LECTURES IN GLASGOW.

This series of health-lectures, to which reference has already been made in the Journal, commenced on the evening of the 10th instant. The lectures, which are to be given by gentlemen well qualified to treat of the subjects selected, are to be of a popular character, and specially adapted to the improvement of the working classes. Indirectly, they are in connection with the "Combe Trust", which was a sum of money left by the late Mr. Combe at his death, to accumulate till it was sufficient to secure the services of qualified lecturers for regular courses of health-lectures in the larger towns of Scotland. This year, Glasgow has been selected as one of the towns; and, as the admission-ticket to the present course costs a mere trifle, it is to be hoped that the working classes will avail themselves of the advantage of hearing the important matter of health discussed by competent authorities. Professor McKendrick gave the opening lecture of the series, his subject being, "Bodily Waste and Repair". The lecture, which was well illustrated by diagrams and experiments, was very favourably received by the large audience present.

MEDICO-CHIRURGICAL SOCIETY OF GLASGOW.

This Society met in the Faculty Hall, 242, St. Vincent Street, on Friday, October 7th. The following office-bearers were elected. *President*—Dr. George Buchanan; *Vice-Presidents*—Dr. J. B. Russell, Dr. Peter Stewart; *Council*—Dr. Bruce Goff, Dr. George Willis, Dr. George Mather, Dr. H. C. Cameron, Dr. Robert Forrest, Dr. Lapraik, Dr. D. Maclean, Dr. J. C. Woodburn; *Secretaries*—Dr. Joseph Coats, Dr. W. L. Reid; *Treasurer*—Dr. Hugh Thomson. The President gave an address, in which he referred to the changes in the medical profession and the medical schools of Glasgow within comparatively recent times. The subject of vivisection having been introduced, the following resolution was put from the chair, and carried unanimously: "That it is the opinion of this Society that experiments on animals are necessary for the advance of medicine, and that no obstacles should be

thrown in the way of competent men performing such experiments. Further, that this Society strongly deprecates the infliction of unnecessary pain, and would support any law which would check this without obstructing competent observers, as the present law does." A committee was afterwards appointed to carry out the resolution in co-operation with similar committees from the faculty and other bodies.

ABERDEEN UNIVERSITY RECTORIAL ELECTION.

WITH regard to the nominees for the Rectorship in this University, we believe that it is premature to prophesy who the gentlemen may be who will be nominated. Sir James Paget has not given his final decision, nor has Dr. Bain, as far as we can learn. When the students assemble on the 26th current, active campaigning will be begun. Neither Sir James nor Dr. Bain desire that the issue—should they consent to be nominated—should be based on political grounds. The election will take place on Saturday, November 12th, and will thus be over at an early period of the session, so as to admit of the students applying themselves to work.

EPIDEMIC OF SCARLET FEVER IN BROXBURN.

SCARLET fever has been very prevalent for some time back amongst the children in this village; and a good many of the cases have proved fatal, as many as fourteen deaths occurring in one week. The number of cases in the district at present amounts to about ninety. Bad ventilation and overcrowding are held to be some of the chief factors in the occurrence and continuance of the epidemic.

GLASGOW SOUTHERN MEDICAL SOCIETY.

AT the thirty-eighth annual meeting of this society, held on the 6th instant, the following gentlemen were appointed office-bearers for the session 1881-1882: Neil Carmichael, M.D., President; J. Barras, M.D., Vice-President; E. Macmillan, L.R.C.S.E., Treasurer; A. Turnbull-Smith, M.B., and Robert Pollok, M.B., Secretaries; and Archibald Johnstone, M.B., Seal-keeper.

HOSPITAL APPOINTMENTS, EDINBURGH.

MR. D. J. HAMILTON, M.B., F.R.C.S., Edinburgh, has been appointed Pathologist to the Royal Hospital for Sick Children, Edinburgh, in place of Professor Saunders, deceased. The directors of that institution have also appointed Mr. R. M. Johnston, M.B., to be resident physician in the hospital, succeeding Mr. J. W. B. Hodsdon, M.B., who retires. For the Royal Maternity and Simpson Memorial Hospital, Mr. James Hewitson, M.B., and Mr. John Waugh, M.A., M.B., succeed Mr. R. Barclay Thomson, M.B., and Mr. Roger Kirkpatrick, M.B., as house-surgeons for the ensuing three months, while, for the same time, Professor Simpson succeeds Dr. Halliday Croom as medical officer on duty.

ROYAL INFIRMARY, EDINBURGH.

THE amount of money paid to the Royal Infirmary, Edinburgh, during the financial year just closed, as legacies and donations, in sums of £100 and upwards, reaches a total of £7,299 19s. 6d. The individual donations vary from £100 to £2,250 (received from the estate of a deceased clergyman), there being two of £1,000, one of £500, and three of over £300. The managers state that, while they feel deeply grateful for these legacies and donations, a considerable sum is still required to enable them to clear the debt remaining on the new buildings.

ROYAL CHILDREN'S HOSPITAL, EDINBURGH.

DURING September, 809 cases were treated at the Royal Hospital for Sick Children, Edinburgh, of whom 688 were dispensary and out-door cases, 40 were admitted as in-door cases during the month, while there were 56 inmates of the hospital at the beginning of the month.

THE REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending October 1st, it appears that the death-rate in the eight principal towns during the week was 17.4 per the estimated population. This rate is 1.4 below that of the corresponding week of last year, and 0.8 below that of the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 10.8 per thousand; and the highest in Perth—viz., 26.1 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.7 per thousand, or 0.3 above the rate for the last week. Acute diseases of the chest caused 83 deaths, or 5 more than the number recorded last week. The mean temperature was 54.5, being 1.4 below that of the corresponding week of last year.

THE POISONING WITH RABBIT AT NAIRNSIDE.

IT may be remembered that, a month ago, there appeared in the JOURNAL a notice of a case of poisoning of several persons from partaking of some rabbit-soup, and that one of those persons died from the effects of it. The matter was remitted to Dr. Littlejohn, Edinburgh, as an expert, and the necessary evidence sent to him. It appeared that the soup made from the rabbit contained curry, and, as was supposed, parsley. Dr. Littlejohn, in his report, states that the symptoms pointed to poisoning by a narcotic, and not a pure irritant, and were similar to those produced by certain members of the *Umbelliferæ*. Had some "fools' parsley", in mistake for ordinary parsley, been accidentally introduced into the soup, he is of opinion that it would be sufficient to account for the death of the cook Macdonald, and for the symptoms of poisoning exhibited by others who partook of the same material.

THE DEATH OF DR. JOSEPH BROWN.

AT a meeting of the Fife and Kinross District Board of Lunacy, held on October 4th, an expression of deep regret for the melancholy death of Dr. Joseph Brown was entered on the minutes, and a copy was ordered to be sent to the nearest relative. A resolution was arrived at not to advertise for candidates for the vacant post, on account of the great trouble such a plan would give to every member of the Board. It was determined to ask Dr. Fraser, Deputy Commissioner in Lunacy, to nominate a candidate for the approval of the District Board. Now, although Dr. Fraser was formerly Superintendent of the Fife Asylum, it certainly appears an extraordinary step to ask him, now that he is a Government official, to perform such an important and delicate duty. It is a method of procedure which will not meet with the approbation of the medical profession, in which body there is a general consensus of opinion that all such appointments should be perfectly open to competition, and that official nomineeism is distinctly objectionable. It is to be hoped that the District Board of Fife and Kinross will reconsider its resolution, and act more in accordance with its duty.

COMBE LECTURES ON PHYSIOLOGY IN THE NORTH OF SCOTLAND.

PROFESSOR STIRLING, of Aberdeen University, commenced the above course in Montrose on October 4th. There was a large attendance, and the lecturer was listened to throughout with the utmost attention. Dr. Stirling gave a short account of the object of this course—viz.: to convey instruction of a sound and practical, yet popular, nature regarding the general structure and functions of the human body, and the bearing of such knowledge on the preservation of health. A short account of the life-work of George Combe was given, in which special attention was directed to Combe's views on the subject of education—views which are now regarded as just and right, although they were stoutly opposed during Combe's lifetime. The general build of the body was next described; and the chief facts about matter and energy were illustrated by a number of simple but striking experiments. The indestructibility of matter and energy, and the transformation of one mode of motion into another, were brought home to the audience by experiments. The general type or plan of construction of the body was then dwelt upon; and the lecture was brought to a close by a short description of the skeleton. Several simple, yet ingenious, models were used to illustrate certain parts of the bony framework. The use of physiological and anatomical knowledge, as [illegible], was illustrated by a reference to the case of President Garfield. The pain of which he complained in his right foot, shortly after being wounded,

was clearly due to some injury done to the nerves when the first lumbar vertebra was fractured by the bullet. A special feature of these lectures is the syllabus which Dr. Stirling has prepared, and which, through the liberality of the Combe trustees, is given to each holder of a ticket for the course of lectures. The syllabus consists of twelve pages of printed matter, giving an outline of each lecture; and, in addition, there are ten small quarto lithographed plates of the chief diagrams and drawings which are used by the lecturer. Each member of the audience has a pictorial guide to the course; and, further, an outline of the whole subject. In this way, every one, by a reference to the syllabus, can see exactly what the lecturer is talking about. This is decidedly a great step in advance, and will ensure that these lectures shall be "popular" in the best sense of the term; and that they will not be merely a means of passing an agreeable hour, but that there shall be actual teaching of the leading facts of physiological science to large audiences. This is an extension of the principle of giving lithographic slips to students, which is largely practised in Aberdeen University, and which is highly appreciated by the students, as it lightens the work of note-taking, and ensures that each student has a permanent record of the chief facts of each day's lecture.

ABERDEEN ROYAL INFIRMARY.

AT a meeting of the Committee of Management of the Aberdeen Royal Infirmary, held on the 7th instant, a proposal, submitted by Dr. Alex. Ogston, for a change in the present system of the clinical instruction of students at the hospital, came up for consideration. At present, the clinical lectures are delivered by the various members of the hospital staff, in rotation; and Dr. Ogston's proposal was to the effect, that each of the staff should be at liberty to give a course of lectures all through the college session. The committee, we understand, did not see their way to approve of the proposal.

IRELAND.

LORD WAVENEY opened, a few days ago, a new cottage hospital at Ballymena, to contain seven beds. Towards its support, donations amounting to £261, and annual subscriptions amounting to £124, have been received.

THE annual dinner of the Ulster Medical Society was held last week, when Sir William Mac Cormac of London was entertained by the members at the Imperial Hotel, Belfast. The toasts included the guest of the evening, the "British Medical Association", and the "Ulster Medical Society".

ON the 7th instant, a grand ball was held at the Assembly Rooms, Cork, on behalf of the funds of the Cork Lying-in Hospital. The ball-room was handsomely decorated, and great credit is due to the committee for their efforts in producing so successful a result.

ILLNESS OF DR. HAYDEN.

WE regret to learn that Dr. Hayden, President of the Dublin Branch, has been seriously ill for the last fortnight. At a meeting of the Senate of the Royal University, on the 1st instant, he got a chill, from sitting in a draught, which was followed the same evening by a rigor. Symptoms of double pneumonia rapidly supervened, and for many days his condition was most critical. During the present week, he has had a favourable change; and we but re-echo the sentiments of his numerous friends in earnestly wishing for his speedy restoration to health.

BANDON DISPENSARY.

AT a meeting of the Bandon Dispensary Committee held last week, a letter was received from Dr. Toole, informing the committee that debility, consequent on advanced age, rendered him incapable of performing the duties of medical officer of the district, and tendering his resignation. The following resolution was unanimously adopted: "That we beg to express our regret at the resignation of Dr. Toole (through infirmity) as physician to the dispensary of the Bandon District, and who, for a period of thirteen years, discharged his duties with ability, punctuality, and kindness to the sick poor. The Local Government Inspector frequently testified to the accuracy with which the dispensary books were kept; and we desire that a copy of this resolution be sent to Dr. Toole."

ULSTER HOSPITAL FOR SICK CHILDREN.

THE annual meeting of the friends of this institution was held in the Clarence Place Hall, Belfast, on the 5th instant, the chair being occupied by Sir John Savage, J.P. The committee, in their report, stated that there had been steady progress in each department of the hospital during the past year, and that the working of the institution had been very satisfactory. During the twelve months ending August 1st, there were 5,396 new cases, and 3,606 old, making a total of 9,002 sufferers who received medical relief, while the number treated as intern patients amounted to 130. The nursing arrangements appear to be most satisfactory, and Dr. Whitla, one of the medical staff, in reference to this matter, states that "the nursing and internal management of the hospital is perfect in every detail, and will compare favourably with that of any similar institution of its size in the kingdom. The committee report that His Excellency Earl Cowper, Lord-Lieutenant of Ireland, has signified his intention to become a patron of the hospital. In consequence of an expenditure for hospital requisites, a small debt has been incurred, and, in order to remove this, it has been decided to hold a bazaar early in November, when it is hoped that a fund will be raised sufficient for the purpose, and to leave a sum in hand to meet any extra expenses that may arise. The report was adopted, and a vote of thanks was accorded to Drs. Esler and Whitla for their services to the hospital during the year.

HEALTH OF BELFAST.

DURING the month of September, 13 cases of fever and 5 of small-pox were removed to the hospital for contagious diseases, and the usual sanitary precautions taken to prevent the spread of these diseases. In the four weeks ending 24th ultimo, 41 deaths took place from zymotic diseases, including 3 from small-pox, and 27 from diarrhœa. Phthisis caused 48 deaths, and diseases of the respiratory organs 47, making a total of 95 deaths from chest-affections. The total births registered amounted to 535, and the deaths to 294, showing a natural increase of 241. The average death-rate for September was 18.3; from lung-affections, 6.0; and from zymotic diseases, 2.5, of which diarrhœa caused more than half. Zymotic diseases did not prevail to any great extent, but phthisis, bronchitis, and pneumonia, still show a high death-rate, viz., 6.0 per 1,000, or one-third of the entire deaths. Typhus fever, which recently appeared in Belfast after a considerable absence, has not spread, and small-pox has not prevailed, as only three cases were reported in the first two weeks of the month, and then 2 cases after an interval of twelve days, which were of a modified type.

SANITARY WORKS IN IRELAND.

IT appears from the recently published report of the Public Works Loan Commissioners that, under the Labourers' Dwellings in Towns Act (Ireland), seventeen loans, amounting to £28,870, were granted to borrowers during 1880, as against £31,858 granted to nineteen borrowers in the previous year. The expenditure of this amount, when fully completed, will have aided in the erection of 302 dwellings. The quantity of land thoroughly drained under the Public Works' Act (Ireland) since the commencement in 1847, to the 31st March in this year, was 274,827 acres, at an average cost of £7 per acre. Of this quantity, 5,944 acres were drained during the year 1880-81. In Ireland, sanitary works have been proceeded with to a larger extent than in any former period, an impetus having been given to them by the desire on the part of local authorities to afford as much employment as possible during a period of much general distress. Loans amounting to £218,558 were granted by the Commissioners of Public Works for the execution of these works.

ASSOCIATION FOR THE PROMOTION OF SOCIAL SCIENCE.

THE following papers, among others, were read in the Health Department at the recent meeting of the Association in Dublin.

State Supervision of Hospitals.—A paper on this subject was read by MR. H. C. BURDETT. He said that a review of the discussions and circumstances relating to the management of hospitals and kindred institutions in the United Kingdom during the past five years led to the conclusion that hospital managers are becoming alive to the fact that the system heretofore in force cannot much longer continue unaltered and unreformed. During this period, no fewer than four influential deputations have sought interviews with the Home Secretary, with the object, in each case, of obtaining a Royal Commission of investigation into the subject. These deputations have represented all hospital interests, and Mr. Burdett thought there could be small doubt that the appointment of such a Commission would secure the adoption of adequate measures based upon the reliable data which would then be forthcoming.

He placed first amongst the circumstances which have produced so active and unanimous a desire for inquiry the many anomalies of the present system of hospital administration. In the metropolis especially, the hospital accommodation is imperfectly distributed, and in many districts is altogether inadequate.

The administration of the hospitals as at present conducted is so uncertain and unsatisfactory, that inquiry is needed to secure amelioration in the interests of the poor. To facilitate a right judgment, and to furnish reliable data, Mr. Burdett had prepared a variety of elaborate and carefully compiled statistical tables, based upon the published reports and statements of the various institutions. These showed that the cost of management in sixty-one general hospitals varies from 2½ per cent. at Cork, to 27½ per cent. at the Metropolitan Free Hospital; the cost per patient per week from 9s. 4d. at the Cork County Hospital, to £3 0s. 4d. at the Leeds General Infirmary. A difference of 25 per cent. in the cost of management, and of nearly 700 per cent. in the cost of maintaining the patients, would alone warrant the appointment of a Commission. The special hospitals show equally startling discrepancies.

As to the distribution of hospital accommodation, nearly nine-tenths of the bed-accommodation in the London hospitals is situated within a radius of a mile and a half from Charing Cross. The population of London resident within the metropolitan area, and exclusive of the large number of persons who are annually sent to London for hospital treatment, cannot be less than four and a half millions, one-third of which number is annually relieved at the London hospitals. Out of a total of 4,579 beds for the whole metropolis, 3,486 are provided by the hospitals situated in the narrow area above specified.

At present, North London, with a population of nearly 1,000,000, possesses but one hospital, the Great Northern, with thirty-three beds; the East End, with its river-side and manufacturing population of 1,100,000, is dependent upon the London Hospital with 790 beds, and the Metropolitan Free Hospital with twenty beds, both of which are inconveniently situated for a large proportion of the inhabitants. The West End, with a population of 950,000, has but two hospitals—St. Mary's with 190, and the West London with 60 beds respectively. A population of nearly one and a half millions on the Surrey side of the Thames has to rely upon Guy's with 700 beds, and St. Thomas's with 400 available beds, both of which, though largely endowed, are situated miles away from a portion of the district to the wants of which they nominally minister.

The unsatisfactory condition of the present out-patient system, and especially of that in force at the large metropolitan hospitals, demands reform. At the present time, more than a million people, or one in three, receive relief at the London hospitals; in Liverpool, one in two; and in Birmingham, one in three and a half of the whole population at present in receipt of free medical relief. About 600,000 people come annually to thirteen of the best hospitals in London for medical advice and assistance, at an annual cost of £15,000 in medicine alone. The average attendance of these patients is from three to seven hours before each can be attended to; and the rush is so extreme, that the medical advice they receive is almost perfunctory. Prince Leopold had well said that the time and attention of eminent physicians and surgeons are generously placed at the service of the poor, but unfortunately eminent persons have no more time than persons who are not eminent; and when a million out-door patients apply at the London hospitals in one year, it becomes rather a delicate arithmetical problem how many seconds can be bestowed on each of them.

It is desirable that every hospital and medical institution intended for the relief of the suffering poor should be administered by a board of management, subject to periodical election by the governors, upon which board the medical staff of the charity should be adequately represented.

An authoritative supervision over the administration and a public audit of the accounts of all such institutions is needed to secure a right distribution of medical relief, and a more economical expenditure of the funds entrusted to the boards of management. A public audit is absolutely necessary to check extravagance and to protect the public, which has at present but little or no voice in restraining reckless mismanagement. The donors of charitable funds and the recipients of the benefits arising therefrom have at present but little guarantee that strict economy is practised or the greatest possible good achieved. An authoritative supervision would prevent foolish squandering, the occupation of unhealthy and unsuitable buildings as hospitals, and it would also promote good feeling between the hospital authorities and the medical staff.

The absence of organisation and combination amongst the medical institutions throughout the country materially lessens their usefulness. This is strongly enforced by the enormous and needless difference in the cost of management and maintenance of different hospitals. The absence of this combination or co-operation leads to lamentable extravagance and an enormous waste of money, owing to the repetition of an expenditure in the management of very many charities.

In the administration of the wards, so far as it affects the treatment of the patients, and especially in the management of the nursing arrangements, the medical staff should have an authoritative voice. Recent events have shown the public and the medical profession to be in substantial accord on this point. No one who knows anything about the management of a hospital has any doubt on the subject. Yet the old system not only attempts, as in the case of Guy's Hospital, to openly defy public and professional opinion in this matter, but its audacity leads it to brave the interference of a court of law by studiously excluding all medical men from the governing body, in distinct contravention of the original and expressed views and intentions of the founder himself. No wonder that the nurse has been encouraged here and elsewhere to neglect her twofold duty towards the doctor, viz., *(a)* to strictly carry out his directions as to the treatment of the patient; *(b)* to observe the patient's condition, to notice the changes in it, and what she may either know or suppose to be the effects of the treatment, so as to enable her to give a short, clear, and correct account to the doctor at each visit. It really resolves itself into the question, Is the patient for the nurse, or the nurse for the patient? If the former is to be the principle upon which modern hospital nursing is to be conducted for the future, hospitals must soon cease to exist, because patients will cease to seek admission to their wards.

Unfortunately, in the majority of the large hospitals the nursing arrangements are under the control of a matron, unaided by a nursing committee, and only indirectly, if at all, assisted by those alone qualified to direct, viz., the medical staff. Out of twenty-two hospitals having medical schools, there are but seven where this important department is superintended by a nursing committee upon which the medical element is represented.

The importance of medical education, and the adequate training of the members of the medical profession, require an intelligent recognition of the relation of the hospitals to their medical schools, to insure an improvement in such relations. Inasmuch as the education of medical men is a matter of vast importance to the State, it should be as complete and practical as the science of the day permits. It is, therefore, an imperative necessity that the relationships existing between the large hospitals and their medical schools should be those best calculated to promote this end. Yet, notwithstanding this, medical education in this country almost entirely depends upon private speculation and haphazard enterprises whose success rests upon the preservation of a harmonious relationship between corporations with apparently separate aims. Should this harmony between hospital and school at any time be ruptured, the existence of the school becomes at once imperilled, thereby seriously endangering the interests of the public. Granted that the obligations conferred upon the schools by their respective hospitals are great, yet those bestowed on the hospitals by the schools are vastly greater.

The consideration of these points is, however, almost entirely neglected by those who ought to foster their growth. So little do the governors recognise their responsibilities, that in most schools the buildings are inadequate for the purpose, in consequence of being mainly, if not altogether, erected at the expense of the teachers, who are merely tenants at will. With adequate representation of the medical staff upon the boards of management of the hospital, and of the governors upon the school committees, an intimate acquaintance with

the practical requirements of these joint institutions would secure the highest efficiency in the administration of the whole.

During recent years, the Metropolitan Asylums Board has built and opened some of the most extensive and complete of modern hospitals. These splendid Poor-law infirmaries have provided accommodation for nearly ten thousand in-patients. They are placed in charge of paid resident medical officers, whose clerical duties, under the present system, are so onerous, that they have far too little time to devote to the treatment of the cases entrusted to their care. These infirmaries afford a magnificent field for the treatment and investigation of disease, for pathological research, and for medical education. A Royal Commission would consider if any and what alterations were necessary in the management of these splendid Poor-law infirmaries; how far, if at all, they could be made available in a re-arrangement of the hospital accommodation of the metropolis; and whether or not it might be desirable to appoint visiting physicians and surgeons, assisted by efficient juniors, and aided by a staff of clinical clerks, dressers, sisters, and nurses, to relieve the resident staff by undertaking the treatment of some or all of the cases.

Mr. Burdett left it for the Congress to decide whether or no it was desirable that our hospitals should be placed in some sense or other under State supervision. He claimed to have produced enough evidence to show that the time was ripe for an exhaustive inquiry by a Royal or other Commission. The present Home Secretary had already expressed himself favourably disposed towards such an investigation, and there was good reason to believe he might be induced to grant an inquiry at the instigation of the Social Science Association. In the writer's opinion, whether State control be ultimately decided upon or not, it was undoubtedly desirable that an annual conference of the representatives of all the hospitals of this country should take place, because it would possess great economical advantages, and be likely to prove useful and attractive to the charitable public, and so doubly beneficial in the end to all medical institutions. He advocated the establishment of a central store for the distribution of all articles of consumption, and of a central office for the receipt of subscriptions to all hospitals.

The appointment of a controlling authority, endowed with adequate powers to sanction, restrict, or prohibit the erection of a new, or the extension of an already existing hospital or dispensary was, he thought, urgently called for.

Nearly everywhere the building mania seems to have blinded hospital managers, so that extravagances, going far beyond the requirements of the districts in which the hospitals are situated, and entailing half-empty wards and increased cost of maintenance, are becoming the rule and not the exception. The indiscriminate institution of special hospitals and dispensaries is productive of evil, and a controlling power is urgently called for to prevent the multiplication of so-called charities, which oftentimes, springing from unworthy motives, decoy charitable funds from legitimate channels. Such examples of ill-advised expenditure reflect directly or indirectly great injury upon the poor, for whose benefit the large sums involved were originally intended.

The social and public aspects of this great question of the right government of our hospitals alone demand an immediate investigation. When something like one million and a quarter of the population of London annually seek and receive gratuitous medical relief, and when the whole wage-receiving class in the metropolis cannot be estimated at more than 1,400,000, there is enough to warrant an independent inquiry into the whole question by a Royal Commission. This feeling is rapidly spreading, and is making itself felt in the diminished incomes which the hospitals are now receiving from voluntary sources. This difficulty will certainly increase as the public become impressed with the knowledge that it is not the sick poor at all who are being benefited, but nearly the whole wage-receiving and industrial classes, a large proportion of whom are well-paid artisans.

A paper by Dr. PROSPÈRE DE PIETRA SANTA of Paris, on Hospital Administration in Paris and in London, was also read, as bearing on the special subject. The Assistance Publique in France, the author said, is organised by law, and placed under the special supervision of the Minister of the Interior; a Director, invested with every requisite authority, being appointed by the Minister. It constitutes a mixed organisation, which resembles the voluntary assistance of England, as well as the communal assistance, taking advantage of both their good points, without being affected by those dangers which English legislation has created by the Poor-law rates.

In the discussion which followed on both papers, several speakers took part. The Rev. Dr. Haughton, Surgeon Myers (Coldstream Guards), and Miss Downing were opposed to State supervision; and Drs. Jacob, C. A. Cameron, Grimshaw, and Mr. Collins approved of it. Finally, the following resolution was adopted.

"That, in the opinion of this section, the council of the association should take measures to promote and procure an inquiry with the view of securing independent supervision over all public hospitals."

Legislation for Habitual Drunkards.—Dr. NORMAN KERR of London read a paper on the Present State of Legislative and other Treatment for the Habitual Drunkard, dealing with the subject under the following heads: History of the Act, 1879; Hindrances to the Success of the Act; the Dalrymple Home; Pauper Dipsomaniacs; Success of Voluntary Female Homes; Need for the Governmental Inspection; Reply to Recent Criticism. On the subject of Pauper Dipsomaniacs, Dr. Kerr said: "The British Medical Association, desirous to provide an opportunity to dipsomaniac paupers to avail themselves of the provisions of the Act with a view to reclamation, recently communicated with the Local Government Board and with Boards of Guardians throughout the kingdom. No definite promise to do anything was elicited from the former. As regards the appeal to the Guardians, while some Boards were desirous to have the power, if they should think fit to exercise it, to pay for the detention of pauper habitual drunkards in Retreats, the majority of the Boards did not wish for any power to enable them to add to the rates for the poor". He concluded with the following appeal on behalf of the Dalrymple Home: "At present there is ample accommodation at excellent private establishments for the wealthy dipsomaniac, but for the habitual drunkard in moderate circumstances, or in a state of destitution, there is no provision whatever. Magistrates, clergymen, and medical men are constantly calling for inebriate retreats, which they could speedily fill with suitable inmates. Shall the appeal of men so well qualified to form a sound judgment be unheeded? Can we turn a deaf ear to the distressful and despairing cry of so many victims to our national vice, whom a little money and a strong hand might, by such Retreats as those whose cause I plead to-day, transform from paupers to ratepapers, from drones to workers, from disease to health, and from misery to happiness?"

THE ENTRIES AT THE MEDICAL SCHOOLS.

BY the courtesy of the Deans, Wardens, and Secretaries of the undermentioned medical schools, we are enabled to publish the following list of students who have entered at the beginning of the present winter session. A refers to students entered for the full curriculum; B to students who enter to some special course; and C refers to dental students.

School	A.	B.	C.
St. Bartholomew's	120	7	—
Charing Cross	100	4	2
St. George's	63	3	6
Guy's	141	5	3
King's College	96	—	—
St. Mary's	91	—	—
Middlesex	3	3	1
St. Thomas's	64	24	—
University College	122	41	—
Westminster	4	3	—

Students preparing for the Preliminary Scientific Examination for the degree of M.B. London University.

PRIZES IN THE MEDICAL SCHOOLS.

THE following are lists of the successful candidates for prizes in the Medical Schools during the session 1880-81.

ST. BARTHOLOMEW'S HOSPITAL.—Lawrence Scholarship and Gold Medal (not awarded); Brackenbury Medical Scholarship, G. F. Barnes; Brackenbury Surgical Scholarship, J. Harper; Senior Scholarship in Anatomy, Physiology, and Chemistry, T. W. Shine; Open Scholarships in Science, 1. J. Nail; 2. H. C. Chapman and S. K. Alcock (equal); Preliminary Scientific Exhibition, C. B. Innes; Jeaffreson Exhibition, R. Wrigley; Kirkes Gold Medal, W. P. Herringham; Bentley Prize, J. Berry; Hichens Prize, R. Ott; Poor-law Prize, A. Shadwell; Wix Prize, J. R. Forrest; Harvey Prize, E. C. Pettifer; 2. A. M. Page; 3. E. J. Cave; 4. E. A. Opie and J. F. Steedman (equal); 6. A. Gresswell; 7. E. W. Willet; Practical Anatomy, Senior: Foster Prize, A. E. Hind; 2. H. C. C. Shaw; 3. J. F. Steedman; 4 J. N. Vogan; 5. E. J. Cave and R. De Morini (equal); 7. C. O'B. Harding and A. M. Page (equal); Practical Anatomy, Junior: Treasurer's Prize, J. C. Heath; 2. H. W. Chambers; 3. H. C. Chapman; 4. J. P. Fenoulhet and E. Jessop (equal); 6. N. W. Woods; 7. C. H. Upham; 8. G. P. Newbolt; 9. C. Kebbell; 10. J. Gay.

CHARING CROSS HOSPITAL.—Llewellyn Scholarship, James Donald. Governors' Clinical Gold Medal, W. B. C. Treasure; special certificate, G. Locke and S. Wyborn (equal); Pereira Prize, W. B. C. Treasure; special certificate, G. Locke and S. Wyborn (equal); Senior Anatomy: Silver Medal, C. L. Josling; Certificates, J. H. Crocker, G. H. Phillips, A. J. Turner, E. Atkins. Junior Anatomy: Bronze Medal, H. A. Sheppard; Certificates, A. R. Joliffe, J. McKno Ackland, A. Bowhay, A. D. Jollye. Senior Physiology: Silver Medal, J. H. Crocker; Certificates, E. J. G. Berkeley, E. Atkins. Junior Physiology: Bronze Medal, C. W. Ward and E. J. Norris (equal); Certificates, J. McKno Ackland, G. F. Hentsch, J. C. Smith. Chemistry: Silver Medal, G. R. Fletcher; Certificates, F. A. Saw, G. Morgan, A. R. Joliffe, J. C. Smith. Senior Medicine: Silver Medal, H. R. Hancock; Certificates, W. Tibbles, S. Wyborn. Junior Medicine: Bronze Medal, C. F. Clarke; Certificate, P. S. Oram. Senior Surgery: Silver Medal, J. Donald; Certificate, S. Wyborn. Junior Surgery: Bronze Medal, G. H. Phillips; Certificate, A. J. Turner. Botany: Silver

Medal, H. D'Arcy Power; Certificates, E. Atkins, C. F. Clarke, A. J. Turner. Materia Medica, E. Atkins; Certificate, G. H. Phillips. Midwifery: Silver Medal, W. Tibbles; Certificate, James Donald. Forensic Medicine: Silver Medal, W. B. C. Treasure and S. Wyborn (equal); Certificate, J. T. Tibbles. Pathology: Silver Medal, J. T. Tibbles; Certificate, S. Wyborn. Practical Chemistry: Silver Medal, E. J. G. Berkeley; Certificates, J. W. Nelham, A. W. Harris.

St. George's Hospital.—*Summer Session.* Brackenbury Prize in Medicine, O. Giles; Brackenbury Prize in Surgery, W. Robinson; Proficiency Prizes: Third Year, A. Codd; Second Year, A. T. Tilly; First Year, H. Mead.—*Winter Session.* Henry Charles Johnson Memorial Prize, E. C. Arnold; Treasurer's Prize, O. Giles; Thompson Medal, W. V. Robinson; Sir Charles Clarke's Prize, A. Willis; William Brown Exhibition, A. Sheild; William Brown Exhibition, A. Sheild.

Guy's Hospital.—*September*, 1880. Open Scholarship in Arts, R. M. Ward. Open Scholarship in Science, H. W. Pigeon. *October*, 1880: Gurney Hoare Prize, E. A. Starling. *March*, 1881: Michael Harris Prize, A. Martin. Treasurer's Gold Medal for Surgery, L. E. W. Stephens. Third Year's Students: First Prize, £35, Thomas Carr; Second Prize, £20, W. T. F. Davies; Certificates, W. T. Harris, J. O. Littlewood, and J. H. Booth. Second Year's Students: First Prize, £25, A. Martin; Second Prize, £10, A. E. Larking; Certificates, F. Heatherley, J. H. H. Manley, T. H. Miller, and A. G. Minns. First Year's Students: First Prize, £50, G. E. C. Anderson; Second Prize, £25, R. M. H. Randell; Certificates, A. H. Tubby, E. W. Phillips, and W. H. Bowes.

King's College.—*Winter Session.* Medicine, Prize, G. L. Webster; Certificates, G. D. Porter, S. E. Craddock. Surgery, Prize, E. W. Benson; Certificates, W. Green, St. Clair Thomson, G. D. Porter. Anatomy, Prize, S. S. Merrifield; Certificates, W. S. Hayman, T. S. Short, C. P. Childe, C. D. Greenwood. Physiology, Prize, T. S. Short; Certificates, S. S. Merrifield, C. D. Greenwood, G. G. Hodgson. Chemistry, Prize, S. S. Merrifield; Certificates, G. G. Hodgson, J. F. Freeland. Comparative Anatomy, A. Carless. Clinical Medicine, G. L. Webster. Clinical Surgery (Professor Wood's), S. E. Craddock, Samuel Rabbeth; (Professor Lister's), St. Clair Thomson; Certificates, R. G. Lynam, R. H. Russell, Joseph Pollard.—*Summer Session.* Practical Physiology, Prize, R. C. Priestly; Certificate, R. S. Fairbank. Practical Chemistry, Prize, A. Carless; Certificates, A. W. Laing, H. B. Lavies. Botany, Prize, Albert Carless; Certificates, J. Wheatley, E. P. A. Marriette, A. F. Dimmock. Pathological Anatomy, Prize, H. R. Beevor; Certificate, H. Groom. Forensic Medicine, Prize, G. P. Porter; Certificates, C. D. Greenwood, G. Wall. Obstetric Medicine, Prize, H. Groom; Certificates, R. H. Russell, G. Wall. Materia Medica, Prize, S. S. Merrifield; Certificates, T. S. Short, G. T. Cheves. Tanner Prize, B. H. Stivens. Todd Clinical Prize, C. E. Goddard. Medical Clinical Prize, St. Clair Thomson; Certificate, J. E. Londen. Practical Biology, Prize, A. Carless; Certificates, E. P. A. Marriette, M. P. Holt, A. W. Laing.

London Hospital.—Clinical Medicine, £20 Scholarship, J. A. Williams; Certificates, D. P. Harris and G. Adkins. Clinical Surgery, £20 Scholarship, J. A. Williams. Clinical Obstetrics, £20 Scholarship, W. F. Dale; Certificate, J. A. Williams. Dressers' Prizes, £15 Prizes, R. H. Nicholson and F. H. Taylor; £10 Prize, W. Blaxland. Entrance Science Scholarships, £60 Scholarship, F. Hickens; £40 Scholarship, E. Bryceson. Buxton Scholarships, £30 Scholarship, S. Ashley; £20 Scholarship, H. G. Guinness. Duckworth Nelson Prize, J. A. Williams; Certificate, J. H. Russell. Human Anatomy, £20 Scholarship, G. H. Allden; Certificates, J. Thomas and J. J. Langston. Anatomy, Physiology, and Chemistry, £25 Scholarship, F. H. Taylor; Certificate, T. E. Gordon. Dissection Prizes, W. Blaxland, W. A. Nutt, J. S. Caskey.

St. Mary's Hospital.—1880. Open Scholarship in Natural Science, A. P. Luff; second, J. H. Fisher. 1880-81. Scholarship in Pathology, W. Pearce; Scholarship in Anatomy, R. H. S. Spicer; Prosectors, C. H. Hale and A. T. Masters.—*Winter Session*, 1880-81. First Year, Anatomy and Histology, Prize, A. R. Hall; Certificates, T. B. Drew and A. P. Luff (Anatomy). Chemistry, Certificate, I. P. Shopoff. Second Year, Anatomy and Physiology, Prize, E. P. Cockey; Certificates, C. H. Hale and G. W. Hill; G. E. Hale and F. A. Rogers (Anatomy), K. U. Dutt (Physiology). Third Year, Medicine (no award). Surgery, Certificate, R. R. Hardwicke (disqualified for Prize) and J. R. Cater. Operative Surgery, Prize, J. R. Cater; Certificates, R. R. Hardwicke (disqualified for Prize) and A. H. Willoughby. Pathology, Certificates, R. S. Wright (disqualified for Prize) and W. F. Webster. Third and Fourth Year, Clinical Medicine, Prize, L. E. Wood; Certificates, H. E. Sieveking, P. P. Whitcombe, and R. C. Wright. Clinical Surgery, Prize, J. R. Cater; Certificate, F. Gotch.—*Summer Session.* Botany, no prize awarded; Certificates, P. A. Lloyd, W. R. N. Maloney. Practical Chemistry, Prize, A. R. Hall; Certificates, G. A. Pedley, F. F. White. Materia Medica, Prize, A. R. Hall; Certificates, A. P. Luff, H. Tanner. Midwifery, Prize, C. E. Hale; no Certificate awarded. Medical Jurisprudence, Prize, A. H. L. Stewart; Certificate, H. W. R. R. Crosse. Comparative Anatomy, Prize, A. H. L. Stewart.

Middlesex Hospital.—1880. Open Scholarship in Arts, J. T. Mould; 2. H. H. Kent. 1880-81. Broderip Scholarships, 1. J. H. Douty; 2. J. B. Sutton. Governors' Prize, J. B. Sutton. Clinical Prize, M. W. Russell. Medicine, Prize, G. Frost; Certificates, J. B. Sutton, J. H. Douty. Surgery, Prize, G. Frost; Certificates, J. B. Sutton, J. H. Douty, M. W. Russell. Pathological Anatomy, Prize, J. B. Sutton; Certificates, G. Frost, J. H. Douty, W. Hern, J. F. McMillan C. G. Brodie. Practical Surgery, Prize, H. J. Thornton; Certificates, W. Hern, W. H. Crago, P. W. B. Smith, P. B. Bentlif, A. W. Ogle, R. J. Bowker. Anatomy, Prize, W. H. Crago; Certificates, H. J. Thornton, A. W. Ogle, G. M. Braine, J. R. Roberts. Physiology, Prize, H. J. Thornton; Certificate, W. H. Crago. Chemistry (no award). Dissections, Prize, H. J. Thornton; Certificates, H. G. Nicholson, C. J. Deyns, J. G. D'Aguiar. Prosectors, Certificates, W. H. Crago, A. E. Flaxman, B.A., A. W. Ogle, J. O. Shemmonds, H. J. Thornton, W. E. Wynter. Midwifery, Prize, W. H. Crago; Certificates, E. H. Freeland, M. V. Stace. Forensic Medicine, Prize, W. H. Crago; Certificates, E. H. Freeland, M. V. Stace. Materia Medica, Prize, E. G. Foot; Certificates, Alfred Kirby, C. L. Hudson. Practical Chemistry, Prize, C. L. Hudson; Certificates, J. J. Andrews, J. S. Robertson, J. K. Frost, E. G. Foot. Botany, Prize, C. L. Hudson; Certificates, N. H. Forbes, L. M. Guilding, W. E. Newey, J. K. Frost, E. G. Foot, E. W. Paul, E. J. Penny. Practical Physiology, Prize, C. L. Hudson; Certificates, J. S. Robertson, W. E. Newey, E. J. Penny, Comparative Anatomy, [illegible] Certificate W. H. Livermore. Psychological Medicine, Prize, H. J. Thornton; Certificates, W. H. Crago, M. Williams, G. M. Braine.

St. Thomas's Hospital.—[illegible] Scholarships, R. Lawson, £100 and Certificate; H. H. Lankester, £60 and Certificate. First Year's Students, R. Lawson, Tite Scholarship, £30, and Certificate; H. H. Lankester, £20 and Certificate; G. A. Carpenter, £10 and Certificate; S. Gregory and W. J. Maurice, Certificates. Second Year's Students, W. B. Tomson, Musgrove Scholarship, £42, and Certificate; C. D. Green, £20 and Certificate; F. F. Caiger, £10 and Certificate; A. E. Charpentier, R. Andrews, H. B. Robinson, Y. Saneyoshi, J. P. Glover, C. K. Bond, G. W. Ford, J. R. Keele, J. L. Cox, G. D. Johnston, Certificates. Third Year's Students, A. V. Bernays, £20 and Certificate; A. D. Roe, £15 and Certificate; W. J. Sheppard, £10 and Certificate. Anatomical Assistants, F. H. Furnival and W. J. Sheppard, Certificates. Prosectors, W. B. Tomson and G. W. Ford, Prizes and Certificates. Surgery and Surgical Anatomy, C. W. Haig Brown, Cheselden Medal. Practical Medicine, W. Wansbrough Jones, Mead Medal. Resident Accoucheurs, Hutton Castle, A. Newsholme, J. Shaw, and J. R. Lunn, Certificates. House-Physicians, H. P. Butler, G. S. Hatton, H. R. Hutton, and T. D. Acland, Certificates. Assistant House-Physicians, J. R. Lunn, T. D. Savill, G. S. Hatton, F. R. Walters, C. B. Richardson, H. Swale, J. B. Lawford, Certificates. House-Surgeons, J. R. Lunn, C. A. Ballance, H. P. Butler, and A. B. Carpenter, Certificates. Assistant House-Surgeons, F. R. Walters, C. B. Richardson, M. P. M. Collier, and H. Swale, Certificates. General Proficiency and Good Conduct, W. W. Jones, Treasurer's Gold Medal.—*Summer Session*—First Year: First Prize, £15, G. A. Carpenter; Second Prize, £10, R. Lawson; Third Prize, £5, G. S. Sims; Certificates, J. B. Smith, O. F. Frohwein, and H. Bedwell. Second Year: First Prize, £15, H. B. R[illegible]

University College.—*Winter Session.*—Anatomy: Gold Medal, E. Hudson. First Silver Medal, A. J. Turner; Second Silver Medal, W. A. Gostling and T. F. Gardner (equal). Certificates, 5. *R. H. Marten; Second Class, H. Littlewood, H. H. Wigg, T. Wilson; Third Class, A. F. Blagg, R. E. Duke, J. J. Powell, H. Williamson. Junior Class: Silver Medal, J. W. Carr. Certificates, 2. *P. Flemming; 3. *L. Barnett; 4. *J. H. E. Brock. Second Class, F. C. H. Smith, W. Washbourne; Third Class, J. R. Adie, C. Andrews, H. Armstrong, C. Bohrsmann, H. D. Buss, S. L. Deeble, J. B. Fowler, W. A. B. McCabe, E. K. O'Connor, J. Pearson, P. D. Turner, J. W. Yeats. Physiology: Gold Medal, W. A. Gostling; First Silver Medal, J. H. E. Brock; Second Silver Medal, A. J. Turner. Certificates, Second Class, H. R. Spencer; Third Class, W. H. Brown, T. F. Gardner, J. E. Jeffris, A. King, H. Littlewood, J. J. Powell; Fourth Class, R. Hill. Junior Class: Silver Medal, P. Flemming. Certificates, 2. *S. C. Jones; 3. *E. H. Thane; 4. *J. W. Carr; 5. *R. F. Bowie; Second Class, H. Armstrong, L. Barnett, W. T. Cocking, Joseph Taylor; Third Class, J. R. Adie, A. G. M. Creagh, F. W. Day, S. L. Deeble, W. G. Earle, W. M. Ellis, E. B. Holland, A. Lawrence, P. D. Turner, A. F. Voelcker, H. S. Walker, H. J. Webb, F. White. Chemistry: Gold Medal, P. Mukerji; First Silver Medal, J. W. Carr; Second Silver Medal, J. R Bradford. Certificates, 4. *E. H. Thane; 5. *F. Moul; 6. *E. G. Stocker; 7. *J. J. Quelch; Second Class, J. R. Adie, W. G. Earle, W. P. May, O. C. J. G. L. Overbeck, C. E. Sunder, J. W. Yeats; Third Class, C. Andrews, H. W. Fox, E. E. Graves, A. G. Green, W. A. B. McCabe, H. S. Walker. Medicine: Gold Medal, W. C. Wilkinson; First Silver Medal, S. H. C. Martin and C. Stonham (equal). Certificates, 4. *F. J. Bollen, C. J. Pike, and E. W. von Tunzelmann (equal); Second Class, R. Boxall, J. W. Draper, F. J. Lea, W. H. Tomlins; Third Class, G. W. Collins, E. Skipper, P. Vincent. Surgery: Gold Medal, C. Stonham; First Silver Medal, C. J. Pike; Second Silver Medal, E. W. von Tunzelmann. Certificates, Second Class, E. Laurent; Third Class, J. W. Draper, E. Skipper, P. Vincent; Fourth Class, M. J. Khan. Zoology and Comparative Anatomy: Gold Medal, A. E. Tovey; Silver Medal, W. M. Bayliss. Certificates, 3. *W. B. S. Benham; 4. *J. J. Quelch; Second Class, J. R. Bradford, E. F. Bright, H. S. Green; Third Class, E. L. de Chazal, J. Hamel, T. M. Porter, E. G. Stocker; Fourth Class, C. P. Crouch, C. E. Sunder, J. Yeomans. Clinical Medicine: Fellows Medals: Gold Medal, C. Stonham; Silver Medal, E. Laurent and C. J. Pike (equal). Certificates, 4. *C. D. A. Collings; 5. *H. W. Newsholme; 6. *George Sergeant. Junior Class: Silver Medal, S. H. C. Martin. Certificates, 2. *C. O. Fowler and W. D. Halliburton (equal); 4. *P. F. Moline; 5. *E. Skipper, E. T. Thring and H. D. Waugh (equal); 8. *J. W. Walker; 9. *A. H. Cook and W. C. Wilkinson (equal); 11. *J. R. Day, A. H. N. Lewers, and F. H. Lane (equal); 14. *C. R. Elgood; 15. *M. E. Dovaston and E. W. von Tunzelmann (equal); 17. *F. Knight and E. A. Dingley (equal); 19. *F. J. Bollen; Second Class, J. W. Draper; Third Class, H. Downes, W. P. Graham, W. H. Tomlins; Fourth Class, J. F. Lea, L. R. W. Leeming.—*Summer Session.* Materia Medica: Gold Medal, W. A. Gostling; First Silver Medal, J. H. E. Brock; Second Silver Medal, P. Flemming. Certificates, 4. *H. W. Pilgrim; 5. *A. F. Blagg and J. J. Powell (equal); Second Class, H. P. Birch, Harry Littlewood, H. R. Spencer; Third Class, R. Boxall, E. O. Croft, W. H. Evans, Frank Hinds, G. V. Perez, A. J. Turner, T. Wilson. Botany: Second Class, E. F. Bright; Third Class, J. R. Bradford, H. J Webb. Practical Chemistry: Senior Class, Gold Medal, J. H. E. Brock; First Silver Medal, Lawrence Barnett; Second Silver Medal, A. J. Turner. Certificates, 4. *W. T. Cocking; Second Class, J. R. Adie, C. J. Arkle, C. Bohrsmann, J. W. Carr, P. Flemming, W. A. B. M'Cabe, G. V. Perez, J. J. Powell; Third Class, C. Andrews, H. R. Spencer, E. H. Thane. Junior Class: Gold Medal, A. G. Green; First Silver Medal, J. J. Weaver; Second Silver Medal, H. S. Green. Certificates, 4. J. F. [illegible] W. W. [illegible] *T. H. Beare; 9. *H. Bonnefin; Second Class, W. M. Abbott-Anderson, E. F. Bright, A. W. Burrell, E. L. de Chazal, H. F. Cleveland, F. W. Gee, A. M. Joly, F. Moul; Third Class, H. D. Buss, J. Hamel, W. Lees, J. N. Lewis, N. M'Gillicuddy, I. P. Nassau, C. E. Sunder, J. Yeomans. Midwifery: Senior Class, Gold M[illegible]; [illegible] Barnes, [illegible] Medals, W. D. Halliburton and E. W. von Tunzelmann (equal); Third Class, [illegible] Medicine and Surgery: Silver Medal, W. C. Wilkinson; Third Class, C. R. Bam[illegible] M. R. C[illegible] G. F. Phillpot (equal); Second Class, F. J. F. Culhane, T. F. Gardner, Ernest Hud-

son, R. W. Watson; Third Class, J. L. Pearse. Obtained number of marks qualifying for a prize.

WESTMINSTER HOSPITAL. *Winter Session.*—Fence Entrance Exhibition, £60 *per annum*, G. Cresswell. Exhibition for First Winter Subjects: W. Weaver. Scholarship for Second year Subjects: P. R. Mander. Frederick Treves Medal and Prize: J. W. Batterham. Clark Prize: C. H. Wise. Dr. Murrell's Prize for Histology: C. S. Humphreys. Clinical Surgery: A. de C. Scanlan. Case Certificate—Anatomy: Senior Class, H. Larder, P. R. Mander and C. Waller (equal); R. Cudwell; C. S. Humphreys and W. Urwick (equal). J. Swain and H. W. Hart (equal); Junior Class, G. C. Macdonald, W. Weaver, C. Davidson, J. D. Staples. Physiology: Senior, H. Larder, P. R. Mander; Junior, G. Cresswell, J. T. Boyd, W. A. Wills, and W. Weaver. Chemistry: G. Cresswell, W. Weaver, W. A. Wiley, and R. L. Gregg. Medicine: C. H. Wise and J. H. P. Walsh. Surgery: C. H. Wise, J. H. P. Walsh, and A. de C. Scanlan. Histology (3rd Stage), C. S. Humphreys, P. R. Mander, P. Jackson, P. C. Kempster, W. Urwick, H. Larder.—*Summer Session*—Botany: J. Swain, Prize and Certificate; W. A. Wills, Certificate. Practical Chemistry: W. Weaver, Prize and Certificate. Forensic Medicine: H. Larder, Prize and Certificate. Midwifery: H. Larder, Prize and Certificate. Anatomy (Junior Class): C. R. Davidson and G. Macdonald (equals), Prize; J. D. Staples, S. Wright, and R. Courteen, Certificates. Materia Medica: W. Weaver, Prize and Certificate; H. W. Hart, Certificate.

QUEEN'S COLLEGE, BIRMINGHAM.—Medicine: Medal and First Certificate, F. L. Phillips; Second Certificate, A. T. Holdsworth. Surgery: Medal and First Certificate, H. L. Swinson; Second Certificate (not awarded). Pathology: Medal and First Certificate, A. T. Holdsworth; Second Certificate (not awarded). Anatomy: Senior Division, Medal and First Certificate, C. J. Evers; Second Certificate, E. D. Vinrace. Junior Division, Medal and First Certificate, C. E. Purslow; Second Certificates, G. H. Melson, A. F. Messiter (equal). Practical Anatomy: Senior Division, Medal and First Certificate, C. J. Evers; Second Certificate, J. D. Price. Junior Division, Medal and First Certificate, C. E. Purslow; Second Certificate, A. F. Messiter. Physiology: Medals and First Certificates, C. J. Evers, J. D. Price (equal); Second Certificate, A. W. Scott. Practical Physiology: Medal and First Certificate, J. D. Price; Second Certificate, A. W. Scott. Chemistry: Medals and First Certificates, C. E. Purslow, G. H. Melson (equal); Second Certificate, J. B. Wall. Botany: Medals and First Certificates, C. E. Purslow, G. H. Melson (equal). Materia Medica: Medal and First Certificate, W. Aston; Second Certificate, G. H. Melson. Forensic Medicine: Medal and First Certificate, F. L. Phillips; Second Certificate, C. J. Evers. Midwifery: Medal and First Certificate, F. L. Phillips; Second Certificate, J. D. Price. Practical Chemistry: Medals and First Certificates, W. Aston, T. Young (equal); Second Certificates, J. W. Crowther, — Richards (equal). Sands Cox Prize: A. T. Holdsworth. Ingleby Scholarship: F. L. Phillips.

LEEDS SCHOOL OF MEDICINE.—Hardwick Prize, J. W. H. Brown. Surgeon's Prize, J. W. H. Brown. Medicine, Prize, J. W. H. Brown; Certificate, F. J. Burman. Surgery, Medal, T. H. Smith; Certificate, J. W. H. Brown. Anatomy (senior), Medal, H. Child; Certificates, E. Beaumont and H. J. Robson. Anatomy (junior), Medal, R. P. Halliday; Lecturer's Prize, E. G. Morris. Physiology, Medal and Lecturer's Prize, H. Child; Certificate, E. Beaumont. Forensic Medicine, Thorp Prize, first award, W. Spencer; second award, J. H. Naylor. Practical Physiology, Medal, A. H. Barstow; Certificate E. R. F. Mason. Pathology, Prize, W. J. Waddington. Botany, Medal, G. H. Oliver; Certificate, G. S. Greenwood. Chemistry, Medal, O. Scattergood; Certificate, R. W. Green. Practical Chemistry, Medal, H. C. Baldwin; Certificate, G. H. Scott. Midwifery, Medal, H. Child; Certificate, H. J. Robson. Materia Medica, Medal, H. Child; Certificate, H. C. Baldwin

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—Lyon Jones Scholarships, F. C. Larkin, A. Barron, J. W. Ellis, and A. H. Wilson.—*Winter Session.* Third Year Subjects (Medicine, Surgery, and Pathology), Silver Medals, Joseph and R. Williams (equal). Second Year Subjects (Advanced Anatomy and Physiology), Torr Gold Medal, W. O. Travis; Bronze Medal, F. C. Larkin; Certificates, — Dawson, H. A. Bredin (equal). First Year Subjects (Elementary Anatomy and Physiology, and Chemistry), Bligh Gold Medal, McLoughlin; Bronze Medal, Lewis; Certificates, 1. Collins; 2. Wild. Histological Prizes, W. O. Travis, F. C. Larkin, — Robinson.

OWENS COLLEGE.—Turner Scholarship, £25 (no competition). Dumville Surgical Prize, £20, T. Harris; *Prox. acc.* J. Hayes. Platt Physiological Exhibitions, £20 each, Second Year, W. Thorburn, B.Sc.; First Year (not awarded). Dauntesey Entrance Scholarship, £100, O. J. Kauffmann. Class Prizes, Third Year: Medicine, J. M. Beverley; Midwifery, J. M. Beverley; Pathology and Morbid Anatomy, C. Challinor; Medical Jurisprudence, J. M. Beverley and J. Collier; Hygiene, J. Collier; Practical Surgery, G. Preston; Ophthalmology, J. Collier and G. Preston. Second Year: Anatomy, R. Jennings; Physiology, W. Thorburn, B.Sc.; Surgery, W. Thorburn, B.Sc.; Materia Medica, W. J. Black; Practical Physiology, O. S. Fisher. First Year: Anatomy, W. H. Brazil and C. S. Earle; Physiology, H. C. Bowman and O. J. Kauffmann; Practical Chemistry, E. Somers.

UNIVERSITY COLLEGE OF BRISTOL MEDICAL SCHOOL.—*Summer Session.* Botany, Prize, L. K. Rankin; Certificates, J. E. Jefferis, L. Vassal, F. W. Weir, H. C. Thurston, W. J. T. Barker. Practical Chemistry, Certificates, W. J. T. Barker, W. Basset, H. H. Tomkins, F. W. Weir, W. C. Lysaght, H. C. Thurston. Practical Physiology and Histology, Prize, W. J. T. Barker; Certificates, H. H. Tomkins, J. E. Jefferis, F. W. Weir, H. W. Windsor-Aubrey, R. S. Coulthard, W. C. Lysaght, H. C. Thurston. Materia Medica and Therapeutics, Prize, W. A. Jones; Lecturer's Prize, W. C. Lysaght; Certificates, H. W. Windsor-Aubrey, F. W. Weir, R. S. Coulthard, H. H. Tomkins, W. Basset, H. C. Thurston, L. Vassall, E. M. Meaden. Obstetric Medicine, Prize, J. Jenkins; Certificate, H. T. Rudge. Operative and Practical Surgery, Prize, J. P. Myles; Certificate, H. T. Rudge.—*Winter Session.* Anatomy and Physiology (Junior Class), Prize, A. N. Little; Lecturer's Prize, P. W. Williams. Certificate in Junior Class of Anatomy, H. J. Capron; Certificates in Junior Class of Physiology, W. G. Thorold, H. J. Capron, L. K. Rankin, A. M. Gray, W. Basset. Senior Anatomy, Prize, H. C. Thurston; Certificates, H. H. Tomkins, H. Simmons, E. A. Hughes, H. W. Windsor-Aubrey, R. S. Coulthard, and W. C. Lysaght (equal), W. A. Jones, W. J. T. Barker, F. W. Weir. Senior Physiology, Prize, W. J. T. Barker; Certificates, H. H. Tomkins, H. W. Windsor Aubrey, W. C. Lysaght, R. S. Coulthard, H. Simmons, W. A. Jones, H. C. Thurston, E. A. Hughes, F. W. Weir. Practical Anatomy, Prize, H. W. Windsor-Aubrey. Prosector's Certificates, R. S. Coulthard, W. C. Lysaght, H. H. Tomkins, F. W. Weir (equal). Chemistry, Prize, A. N. Little; Certificates, A. J. Gibbons, F. J. Wethered, W. H. Stevens, W. Basset, W. G. Thorold, A. M. Gray. Surgery, Prize, L. E. A. Salmon.—ROYAL INFIRMARY. Pathological Prizes, J. P. Myles and F. Tratman (equal); Suple's Medical Prize, J. P. Bush; Clarke's Prize, L. E. A. Salmon.—GENERAL HOSPITAL. Martyn Memorial Entrance Scholarship, A. N. Little; Clarke Scholarship, H. T. Rudge; Lady Haberfield Prize, I. Kiddle.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-UPON-TYNE. Tulloch Scholarship, Isaac Hartley; Charlton Scholarship, William Robinson; Gibb Scholarship, W. Robinson; Dickinson Scholarship, with Gold Medal added, W. Robinson. *Winter Session*, 1880-81. Anatomy (Senior Class): Medal and First Certificate, J. Hartley; Certificates, 2. A. Bourne: 3. F. E. Abbott; (Junior Class): Medal and First Certificate, J. L. Reveley; Certificates, 2. W. H. Wigham; 3. G. R. Hall. Dissections: Medal and First Certificate, A. Hepworth. Physiology (Senior Class): Medal and First Certificate, A. Hepworth; Certificates, 2. J. A. Hutchinson; 3. J. Hartley; 4. F. F. Abbott and C. A. Wigan (equal); (Junior Class): Medal and First Certificate, J. L. Reveley; Certificates, 2. H. B. W. Plummer; 3. T. Clifford; 4. J. Lazenby. Medicine: Medal and First Certificate, W. Robinson; Certificates, 2. J. Foggin; 3. E. L. Prowde. Surgery: Medal and First Certificate, W. Robinson; Certificates, 2. C. H. C. Milburn; 3. J. Waldy. Public Health: Medal and First Certificate, C. H. C. Milburn; Second Certificate, W. Robinson.—*Summer Session.* Botany: Medal and First Certificate, William Jacques; Second Certificate, J. Lazenby. Materia Medica: Medal and First Certificate, William Jacques. Practical Physiology: Medal and First Certificate, W. H. Wigham; Second Certificate, T. Harling and W. Slater (equal). Practical Shemistry: Medal and First Certificate, W. Jacques; Second Certificate, J. Lazenby. Therapeutics: Medal and First Certificate, A. Hepworth. Medical Jurisprudence: Medal and First Certificate, A. Hepworth. Pathology: Medal and First Certificate, Charles S. Blair.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—*Winter Session*, 1880-81. Chemistry: Class Prize, W. Jones. Chemical Division: Prize, H. B. Melville. Medical Division: Prize, M. S. Wade; Certificate, J. H. Owen. Anatomy—Senior Division: First Prize, J. W. White; Second Prize, A. Tunstall: Certificates, H. C. Leng, W. Morris, J. Hunter, J. Amy, W. Middleton, H. J. Roberts. Junior Division: First Prize, A. Moon; Second Prize, D. Nairn; Certificates, E. Coyle, R. D. Morgan, A. C. Boothman. Practical Anatomy—Senior Division: Certificates, W. A. Algie, J. Amy, J. Hunter, H. C. Leng, W. Middleton, W. Morris, R. Price, H. J. Roberts, A. E. Tunstall, J. W. White. Junior Division: Certificates, J. C. Clark, S. P. Clark, R. D. Morgan, J. A. Moon, D. Nairn, T. Scholes, J. Swanson. Class Prosectors, J. W. White and P. F. Jardine. Physiology: First Prize, J. Hunter; Second Prize, J. W. White; Certificate, J. A. Moon. Surgery: First Prize, C. S. Young and J. W. White (equal); Second Prize, T. H. Williams; Third Prize, G. D. Moon and T. B. M'Farlane (equal); Certificates, J. Gillies, J. G. Anderson. Practice of Medicine: First Prize, C. S. Young; Second Prize, T. H. Williams; Third Prize, G. D. Moon. Clinical Class: First Prize, C. S. Young; Second Prize, T. H. Williams; Third Prize, P. F. Jardine. Materia Medica: First Prize, G. D. Moon; Second Prize, T. H. Williams; Certificates, C. S. Young, J. W. Owen, J. Gillies.

CARMICHAEL COLLEGE OF MEDICINE AND SURGERY.—Carmichael Scholarship, T. E. Cahill; Extra Prize (£5), P. de B. Skerrett. Senior Class Prizes: 1. P. de B. Skerrett; 2. M. J. Treston. Second Year's Class Prizes: 1. J. T. Bolger and E. D. Mullan (equal); 3. C. Wynne. Junior Class Prizes: R. H. Clement and J. O'Hara (equal); Extra, F. S. Heuston and W. H. B. Robinson (equal). Special Prizes: Chemistry, J. Meenan and H. W. Smart (equal). Medicine, G. Macartney. Midwifery, G. N. Wynne; Extra, G. Macartney. Ophthalmic Surgery, G. A. Walpole. Botany, G. N. Wynne; Extra, W. H. B. Robinson. Materia Medica, J. K. Irwin; Extra, G. N. Wynne. Medical Jurisprudence, T. C. Moore; Extra, W. H. Waterfield. Practical Chemistry, W. H. B. Robinson. Practical Histology, J. T. Bolger and F. S. Heuston (equal). Mayne Scholarship: J. T. Bolger; Extra Prize (£5), P. de B. Skerrett.

ACTION OF LONDON AIR ON PUBLIC BUILDINGS.—The magnesian limestone of many public buildings is suffering slow disintegration. The surveyor of Marylebone lately submitted to Mr. Winter Blyth some of the dark brown to black efflorescence obtained from the tower of Christ Church. The substance was light, porous, dark in colour, and friable. On heating in a small tube, closed at one end, tarry matters were evolved, and a strongly acid liquid distilled. An analysis of the incrustation showed the following composition: water and tarry volatile matters, 14.6 per cent.; organic matter, 18.0; sulphate of lime, 22.5; sulphate of magnesia, 27.4; silica, 10.6; chlorine, 2.5; iron and alumina oxides, 4.4. On examining the powder by the microscope, a vegetable growth, consisting of minute cells, containing chlorophyll, was discovered. It would then appear that the magnesian limestone, which is mainly composed of insoluble carbonates of magnesia and lime, on exposure to the air becomes here and there covered by a minute growth of lichens. But the sulphuric acid present in London air and London smoke converts the carbonates very gradually into sulphates, which appear as an efflorescence on the surface of the stone, and, by its roughened porous structure, affords a nidus for soot and dust. Mr. Blyth observes that the amount of stone that in one year could thus be made soluble and washed to earth may be insignificant, but the process is continuous night and day, and, similar to the slow silent geological disintegration of rocks, performs enormous degradations in the course of a number of years; in time, Christ Church might be almost entirely changed into soluble purgative salts.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The first meeting of the fourth session of the above District will be held on Thursday, October 20th, at 8.30 P.M., at the New Town Hall, Hackney; Edwin Saunders, Esq., F.R.C.S.Eng., President of the Branch, will take the chair and deliver an Introductory Address. F. H. Dale, M.D., will read a paper on Contagious Pneumonia. Other communications will be made should time permit. The times and places of meeting for the ensuing session will have to be arranged.—FREDERICK WILLETT, Honorary Secretary, 76, Cambridge Road, October 12th, 1881.

THAMES VALLEY BRANCH.—The next ordinary meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, November 3rd, 1881, at 6 P.M. Members intending to bring forward any communications are requested to give early notice to EDWARD L. FENN, M.D., Honorary Secretary, Richmond.

SOUTHERN BRANCH: DORSET DISTRICT.—The next meeting will be held at Wimborne, on Wednesday, October 19th, 1881. The business meeting will be held at the Board Room of the Hospital at 2 P.M. Agenda: Election of Officers for 1882. Dr. Gayner's Paper: Dr. Leach: On the Advantages which accrue in case of Ophthalmic Goitre, by Dr. Thomson. Cases illustrating the Value of the Laryngoscope in Diagnosis and Treatment, by Mr. Hemming. Short notes of a Case of Pernicious Anæmia, with *Post mortem* Examination, by Dr. Leach. A Case of Strangulated Bubonocele, by Dr. Leach. Typhoid Fever Temperature-Charts, by Dr. Batterbury. After the business meeting, opportunity will be afforded of seeing the Minster. Dinner at the Crown Hotel at 4.30 P.M.; charge, 6s. each, without wine. Members intending to be present, and who have not already done so to Dr. Lush, are requested to notify the same to Mr. Parkinson, on or before Monday, October 17th.—WM. VAWDREY LUSH, M.D., Weymouth; C. H. WATTS PARKINSON, Wimborne, Honorary Secretaries.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, November 3rd, at 4 P.M. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dr. Gayner will read a paper on [illegible] gestation. The question to be settled by the Council for the meeting to discuss is: The Advantages or otherwise of Vaginal Injections after Delivery. Members intending to make any communication, or to be present at the dinner, are requested to give notice to the Honorary Secretary. W. M. KELLY, M.D., Honorary Secretary.

BATH AND BRISTOL BRANCH.—The first meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday, October 27th, at 4.15 P.M. This hour has been chosen to suit the convenience of country members especially; and it is hoped they will attend, and favour the meeting with their experiences. David Davies, President.—R. S. FOWLER, E. MARKHAM SKERRITT, Honorary Secretaries. Bath, October 1st, 1881.

BORDER COUNTIES BRANCH.—The autumnal meeting of this Branch will be held at the Keswick Hotel, Keswick, on Friday, October 28th. Members intending to read papers or show specimens are requested to give notice to one of the Honorary Secretaries, J. SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal.

STAFFORDSHIRE BRANCH.—The eighth annual general meeting of this Branch will be held at the Swan Hotel, Stafford, on Thursday, October 27th, 1881, at 3.30 P.M. An address will be delivered by the President, J. K. Wynne, Esq. Dinner at 5.15 P.M. Tickets (exclusive of wine), six shillings each. WM. H. JACKSON, General Secretary.—Wolverhampton, October 9th, 1881.

SOUTH LONDON BRANCH: EAST SURREY DISTRICT.—The next meeting of the above district will be held at the White Hart Hotel, Reigate, on Thursday, October 20th, at 4 P.M.; F. B. Hallowes, Esq., in the chair. The following papers and communications will be read. Dr. Stephen Mackenzie: On the Diagnosis of Intracranial Tumours. Dr. John Walters: Case of Cerebral Abscess. Dr. H. S. Stone: Case of Urethral Calculus. Mr. W. A. Berridge: Case of Fractured Coracoid Process, with Separation [illegible] (exclusive of wine). J. H. [illegible] STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

SOUTH LONDON BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at [illegible], on Wednesday, November 2; Mr. H. Irwin, F.R.C.S., will read a paper on [illegible], and exhibit specimens. Members intending to be present are requested to send their names to the undersigned immediately.—E. WHITFIELD KELLY, Honorary Secretary.

READING BRANCH.

THE autumnal meeting of the Reading Branch of the British Medical Association was held in the Council Chamber, Reading, on October 5th. An introductory address on the Progress of Medicine was delivered by the President, Dr. PHILLIPS. After transacting the business of the Branch, the members repaired to the Queen's Hotel for dinner. Dr. Woodford was nominated as President-elect.

THE Guild of St. Luke announces that its seventeenth anniversary festival will be held in St. Paul's Cathedral on Tuesday, October 18th, at 7 P.M. The sermon will be preached by the Rev. H. Montagu Villiers. The service will be sung by the London Gregorian Choral Association. Seats under the dome will be reserved for the medical profession, for which tickets may be had of Dr. Meadows, 27, George Street, Hanover Square; Henry Tuke, Esq., 77, Wimpole Street, W.; Dr. W. Hodman, 68, Adelaide Road, N.W.; or Morton Smale, Esq., 80, Seymour Street, W.

CORRESPONDENCE.

FARMAR AND SEALEY FUND.

SIR,—It will be remembered that when the reports of the disaster at Majuba Hill, on the Transvaal border, reached this country, public attention was called to the admirable manner in which certain medical officers and men of the Army Hospital Corps had distinguished themselves by their efforts to assist and protect the wounded under the peculiarly trying circumstances of that sad occasion. The gallant conduct of Corporal Farmar, A.H.C., was particularly brought to notice in the official despatches, and this non-commissioned officer has since had the special honour of receiving the Victoria Cross at the hands of Her Majesty the Queen, at Osborne. When Corporal Farmar, and another man of the Army Hospital Corps, Private Sealey, who had also made himself conspicuous by his attention to the wounded, and who, like Corporal Farmar, had been severely wounded himself while dressing them, reached Netley, it was found that both men had become incapacitated by the effects of their wounds for active manual exertion in the future. With the permission of the Director-General of the Department, a subscription was then started by some of the medical officers, and officers, non-commissioned officers, and men of the Army Hospital Corps, with a view to supplement the Government pension which the men would receive in the regular course on their discharge from the service; and my object in now writing is to state that this fund, which at present amounts to £78, must shortly be closed. In the meantime, any additional subscriptions to the fund may either be sent to the address of Surgeon-General Shelton, head of the Medical Branch, 6, Whitehall Yard, who has kindly taken the trouble to collect subscriptions, or to myself, and I shall, with your permission, report hereafter the total amount of the fund, and the manner in which it has been distributed.—I am, Sir, your obedient servant,

THOS. LONGMORE, S.Gl., H.P.,
Netley, October 10th, 1881. Professor of Military Surgery.

P.S.—As the wounds of both Corporal Farmar and Private Sealey present some features of interest, I send a short report of them.

GUNSHOT WOUNDS AMONG MEN OF THE ARMY HOSPITAL CORPS AT MAJUBA HILL.

Case of Corporal Farmar, A.H.C.—This man was attending to the wounded on Majuba Hill, under the directions of Surgeon Landon, when the Boers, having gained the summit, directed a fire upon the troops, who were retreating past the spot where some of the wounded had been collected. Surgeon Landon, who, with his assistants, remained with these disabled men, was shot, as well as some of the wounded men themselves. Corporal Farmar held up in his right hand a bayonet, with a triangular bandage fastened to it, as a signal to the Boers, who are believed to have been about fifty yards off, that they were not combatants. He was almost immediately struck by a bullet in the forearm. He then, saying that he had still another arm, held up the extempore flag of truce with his left hand, but this arm was also directly hit. In the first of the two wounds the bullet struck and partially fractured the right ulna on its inner aspect, injured the ulnar nerve, and tore its way out by the base of the metacarpal bone of the little finger. Sensation in the parts supplied by the palmar branches of the nerve still continues very dull and imperfect. The cicatrix of the wound adheres to the bone, and is tender on pressure. In the second wound, that in the left arm, the bullet entered in front, just above the bend of the elbow-joint, partially fractured the humerus near its inner border, and escaped just behind the prominence of the inner condyle. The ulnar nerve on this side was completely severed, and he has never had any sensation in the parts supplied by the nerve below the wound since. When the bullet passed through the limb, he felt as if he had received the shock of a strong galvanic battery, and the hand and arm remained quivering and very painful afterwards. The hand and forearm are now very much wasted. The little finger is strongly contracted, and, in addition to total loss of sensation in the little finger and ulnar side of the ring finger, there is a marked diminution of temperature in these situations. Owing to alteration of shape in the lower part of the humerus, the result of the gunshot fracture, the elbow is permanently contracted. The forearm can be flexed on the arm fully, but cannot be extended beyond an angle of forty-five degrees. The injuries disable him from ordinary manual labour.

Case of Private Sealey, A.H.C.—This Private Sealey was [illegible] dressing a wounded man on the second location, when [illegible] and passed through him, near the left shoulder. The wound of entrance was 2¼ inches above the top of the acromion [illegible] inches below the coracoid process: the [illegible] opposite, about 2 inches above the [illegible]

nerves appear to have escaped entirely. He merely felt a blow locally, and, not realising the fact that he had been shot, went on bandaging the patient. The bullet must have been a rifle-bullet of narrow diameter, and armed with very high velocity, for the cicatrix of the exit opening is exactly similar in size to that of the entrance wound—viz., ⅜-inch in diameter. Within a minute or two after receiving this wound, and while still dressing the patient, he was struck by another bullet in nearly a corresponding place on the right side. This bullet entered just below the acromio-clavicular articulation, between it and the coracoid process, nearly 4 inches above the top of the anterior axillary fold, passed downwards and backwards, and escaped at the inferior margin of the scapula, about 2½ inches above its inferior angle. A small gap remains in the border of the scapula, whence a piece of bone appears to have been punched out. During the healing process, some small fragments of bone escaped by both openings. The instant he was hit on this side the man felt pain through the whole limb, and the arm dropped useless, so that the nerves were evidently injured by the passing projectile. They have since recovered their function, but the arm remains seriously disabled. Owing to deep cicatricial contractions, he cannot extend it above an angle of 45 degrees from his side, and all the movements of the shoulder are impaired. The left arm is also weak, and any attempt to elevate it above the level of the shoulder causes much pain. The injuries just described were aggravated by the colonial ambulance wagon in which Sealey and several other wounded men were brought down from Mount Prospect Hospital becoming overturned on the way. Private Sealey was much bruised about the chest at the time of this accident. It is remarkable that in each of the two wounds, close as they were to the articulation, that the joint itself should have escaped from being opened. From both wounds being so nearly on the same level, so close to each other, and following in such quick succession, it was probably the same Boer who fired both shots. It is not unlikely that Corporal Farmar's two wounds were also inflicted by one man.

I am tempted to add the following anecdote, which has not hitherto been made public, regarding Surgeon Landon, of the Army Medical Department, who was mortally wounded on the same occasion. It not only illustrates the immense value of the subcutaneous injections of morphia in certain cases in field practice, but affords additional testimony to that which has already been published regarding the cool and thoughtful character of that much regretted young officer. Surgeon Landon was kneeling, attending to a wounded man, when a bullet wounded him in the loin, and he at once fell forward. The lower half of his body at the same time became completely paralysed. Dr. Landon at once recognised the nature of his injury, and told Corporal Farmar he must die. After the firing had ceased, some Boers came down among the wounded, and, with them, a man who said he was a doctor. At this time Corporal Farmar, who, as before mentioned, had both ulnar nerves injured, was suffering excessive pain in the two arms, and Dr. Landon, who had brought in a field-case, which he had carried slung from his shoulder, some morphia and syringes, advised some of the solution to be injected for its relief. The Boer doctor attempted the operation in one arm, but, from the bungling way in which he set about it, it was evident the proceeding was not familiar to him. Dr. Landon then caused the upper part of his body to be propped up against a boulder of rock, and in that position administered the morphia injection in both Farmar's arms in succession. The result was the corporal obtained such relief from the pain that he shortly afterwards, in spite of the rain and general discomfiture, fell asleep, and remained so for several hours. When all the circumstances are remembered, it is difficult to imagine a more perfect example of professional heroism than was afforded by the conduct of Surgeon Landon from the time when the Majuba fight commenced to that when death put an end to his own sufferings.

NEW SCHEME OF EDUCATION AT THE IRISH COLLEGE OF SURGEONS.

SIR,—I think it only right to support your admirable article on this subject by some facts, and some corrections of the statements in the letter which evoked it. The thirty-one signatures to the memorial, begging the Home Secretary to withhold his approval, were obtained in a few days without any circular, and, at any rate, they equal the number of the Fellows who at the annual meeting supported the scheme. *En parenthèse*, I may remark that some of those who then voted in its favour are now convinced of their error. Amongst its thirty-one advocates on that occasion there were nearly three times as many country Fellows as amongst the twenty-seven Fellows who opposed it—these latter having been in many cases gentlemen connected still, or formerly, with hospital or school teaching. Before the memorial was forwarded, the amount of fees per pupil to be obtained by lectures in physiology and surgery was fixed by the conference of the schools at a total greater under the new system than under the old. It would have been, therefore, more profitable for such teachers to be promoters, rather than opponents, of the change. So far from these teachers being supporters of the repeated courses, they petitioned, in April, 1878, that two only should be required, and that these should be made practical.

The credit system in lecture-fees is no doubt an evil, but means for its continuance, even under the sessional plan, would be found. The memorial, however, merely concerned the examinations, which are to be doubled, with some certain, and much probable, increase of expense to the candidates and to the College. As no other of the nineteen licensing bodies has adopted similar regulations, the scheme, even if it were good, which I deny, would drive candidates from our College in such numbers as to endanger its existence. The present system in this Corporation is no doubt capable of improvement, yet it is no secret that it recently obtained the warm approval of the inspectors of the General Medical Council at their recent visitation.

Your comments on the country year, and the increased influence of the private teacher, are so full and forcible that it would be vain on my part to attempt any addition. I accept Dr. Jacob's challenge, and I assert, with little fear of contradiction, that the "overwhelming opinion of the profession in Ireland" is against, not for, the scheme.—I am, etc.,

LAMBERT H. ORMSBY, F.R.C.S.I.,
Surgeon to the Meath Hospital, Dublin.

4, Merrion Square, West.

THE ETIOLOGY OF ENTERIC FEVER.

SIR,—In the discussion on the etiology of enteric fever, at Ryde, as reported at page 510 of the JOURNAL, Dr. Carpenter said "it was very clear that the germs of disease would be perfectly harmless, and persons in a healthy condition might with safety even go among those suffering from infectious diseases", if the sanitary arrangements of every house and place could be got into a satisfactory state. That is a very important doctrine to teach, and, never having met with any facts in support of it, I feel sure that many members would feel obliged if Dr. Carpenter would be good enough to disclose the evidence by which it has been made very clear to him.—I am, yours truly,

JOHN HADDON.

Monks Hall, Eccles, Manchester, October 10th, 1881.

OBITUARY.

JOSEPH J. BROWN, M.B., C.M., F.R.C.P.ED.

STUDENTS of Edinburgh University of ten or twelve years' standing will remember the many genial qualities of Dr. Joseph J. Brown, Superintendent of Fife and Kinross Asylum, who was killed under very painful circumstances at Springfield, near Cupar, Fife, on the 28th ult. Dr. Brown was about to mount his dog-cart, in which three ladies were seated, when the horse bolted just as he had caught the reins. In order to restrain the animal, he kept hold of the reins and ran alongside of the horse for a distance of one hundred yards when he stumbled and fell right in front of the wheel of the carriage, which passed over his chest and bruised him fatally. Dr. Brown raised himself, but fell back immediately and died, evidently from some severe internal injury. The carriage was stopped near the asylum, and the ladies were uninjured. Dr. Brown was the able superintendent of the Fife and Kinross Lunatic Asylum, to which he was appointed without competition—so strong were his claims on the ground of merit—a little over three years ago, as successor to Dr. Fraser, who was promoted to the office of Deputy Commissioner in Lunacy.

Dr. Brown studied at Edinburgh University, where he graduated in medicine and surgery, with second-class honours, in 1871, and in 1876 he became an F.R.C.P.E. For over a year he was assistant at Saughton Hall Asylum, and from there he went to Morningside as senior assistant, where his skill was much appreciated and his genial manners and many social accomplishments soon made him one of the most popular and successful assistants which Morningside had had. He was then transferred to Fife and Kinross Asylum, where he soon made his mark as one of the foremost superintendents in the country; and it was only on the day preceding his death that the newspapers contained an account of the annual report of his asylum, of so satisfactory a nature that the directors proposed to increase his salary, and above all, to reduce the assessment chargeable on the parish for the maintenance of lunatics. Under Dr. Brown, the institution accumulated money, which was entirely due to his efficient management.

Cut down in the flower of youth—for he was only thirty-two years of age—in the full sunshine of prosperity, and just when a career of seemingly ever-growing success was opened to him—Dr. Brown will be deeply and sincerely regretted by those who were his college companions, and by the many public and private friends whom his many accomplishments—social and scientific—secured for him. Dr. Brown contributed to various journals several articles on psychological subjects; and his papers were always characterised by extreme conscientiousness, by a rigid statement of fact, and by a thoroughly scientific tone.

Of few men could it be said in juster terms that verily he was without an enemy. To know him was to love him; and, now that he is gone, those who knew him will cherish the recollection of his gentlemanly and noble qualities, and his many social and professional virtues.

JOHN POSTGATE, F.R.C.S., BIRMINGHAM.

WE regret to announce the death, from cancer of the stomach, of Mr. John Postgate, of Birmingham. Mr. Postgate had been ailing for some time. In August, accompanied by his daughter, he went to Neuenahr, in Germany, in the hope of recruiting his health. On his return home, while passing through London, he became, somewhat suddenly, very ill, and he was taken to the London Hospital, where he had formerly been a student, and died there on the day of his admission, the 26th of September. Mr. Postgate was born in Scarborough in 1820. After pursuing his professional studies in Leeds, London, and Paris, he took the diplomas of L.S.A. in 1843, and M.R.C.S., in 1844. He settled in practice in Birmingham about thirty years ago, and he was admitted a Fellow, by examination, of the Royal College of Surgeons, in 1854. For many years he was a successful teacher in the Birmingham Medical School, first as demonstrator of anatomy in Sydenham College, and afterwards as professor of medical jurisprudence in Queen's College; the duties of the latter office he fulfilled with much energy and devotion until the rival colleges were merged into one institution. Mr. Postgate's work in connection with the adulteration of food, drinks, and drugs, is well known. For several years prior to 1854 he had devoted special attention to this question, and he seldom missed an opportunity, in private or in public, on the platform or through the press, of denouncing the shameful prevalence of those adulterations which sapped the strength and imperilled the health of the people. In January 1854, he first began his public crusade against adulteration, in an admirable letter to the late Mr. Scholefield, M.P., in which he first suggested the appointment of public analysts for the detection of adulteration, and the enactment of penalties for the repression of such trade frauds. A public conference of medical and scientific authorities was held at Mr. Postgate's instance in Birmingham in the following April for the consideration of the question, and resolutions were adopted which formed the basis of the recommendations of the Select Parliamentary Committee of Inquiry into the adulterations of food, drink, and drugs, appointed, on Mr. Scholefield's motion, in 1855. At his own pecuniary cost, and with much professional self-sacrifice, Mr. Postgate promoted an active public agitation on the question, in the course of which he attended and addressed meetings in various parts of the kingdom, at which he demonstrated the prevalence of adulteration, and explained the methods for its detection. Altogether no less than nine Bills dealing with adulteration were introduced into the House of Commons by the members for Birmingham under Mr. Postgate's influence; but it was not until 1860 that the first weak Permissive Bill became law. To remedy the defects of this first tentative measure, Mr. Muntz, at Mr. Postgate's instance, introduced an Amendment Bill, which became law in 1872, and other suggestions of the subject of our notice were embodied in the later Sale of Food and Drugs Act, 1875.

CHARING CROSS HOSPITAL MEDICAL SCHOOL.—Mr. F. W. Abbott has obtained the entrance scholarship of £30, and Mr. H. A. W. Coryn that of £20.

THE inquiry into the death of John Plant, killed at a recent prize fight at Coventry, was concluded on Saturday. A witness stated that there was no sparring in the fight; it was a regular bull-dog affair. The *post mortem* examination showed three broken ribs, the nose completely smashed, effusion of blood on the brain, and shocking contusions on the chest and head. Dr. Wm. [illegible] expressed his opinion that no man could break another's ribs with his fists unless the man so struck were held or propped up, but witnesses denied that deceased was so supported in the last round. A verdict of manslaughter against the man Arnold was returned.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 6th, 1881.

[illegible], William Crump, [illegible]
Brewster, William, St. Bart[illegible] Hospital.
Miller, James, Brunel Street, S.E.
[illegible], Harry Gordon, [illegible] Stamford Street.
Simms, Charles Nathaniel, Luton.

The following gentleman also on the same day passed the Primary Professional Examination.

Culhane, Francis J. F., University College.

UNIVERSITY OF CAMBRIDGE: SANITARY SCIENCE EXAMINATION.—The following gentlemen have satisfied the Examiners in both parts of the examination.

G. F. D[illegible], M.D.; R. [illegible], M.R.C.S.; C. Burgess, M.B.; W. [illegible], M.B.; A. Bostock Hill, L.R.C.P.E.; R. Moodie, M.D.; S. C. Mukhopadhya, M.B.; A. M[illegible], M.D.; H. [illegible], L.R.C.S.; W. [illegible], M.D.; R. D. [illegible], C.M.; W. J. [illegible], M.D.; F. Wa[illegible], M.R.C.S.; F. A. Wa[illegible], M.R.C.S.; L. F. Wa[illegible], M.B.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BANDON UNION Medical Officer for [illegible] District. Salary, £120 per annum, with £[illegible] per annum [illegible] Officer of Health, registration and vaccination fees. [illegible]

BIRMINGHAM GENERAL DISPENSARIES.—Five Resident Surgeons. Salary, £[illegible] per annum. Appl[illegible] by November [illegible]

BOSCOMBE PROVIDENT INFIRMARY [illegible] Salary, £[illegible] per annum. Applications to [illegible], Bournemouth.

BRISTOL GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to the Clerk by N[illegible]

DISPENSARY OF THE GENERAL HOSPITAL FOR SICK CHILDREN, Gardiner Street, Manchester—[illegible] Salary, £[illegible] per annum. Applications by October 29th.

GATESHEAD DISPENSARY—[illegible] Salary, £[illegible] per annum. Applications to Mr. J. Jordan, Honorary Secretary, [illegible] Newcastle.

GATESHEAD DISPENSARY—Dispenser. Salary, £80 per annum. Applications to Mr. J. Jordan, Honorary Secretary, [illegible] Newcastle.

GLASGOW MATERNITY HOSPITAL—Assistant Obstetric Physician. Applications by November 4th.

HULME DISPENSARY, Manchester—House-Surgeon. Salary £[illegible] per annum. Applications to Dr. Wahltuch, Honorary Secretary, by October 20th.

INVERNESS DISTRICT ASYLUM—Assistant Medical Officer. Salary, £80 per annum. Applications to Dr. Aitken, Medical Superintendent, by October 20th.

JERSEY GENERAL DISPENSARY—Resident Visiting and Dispensing Medical Officer. Salary, £[illegible] per annum.

LEEDS PUBLIC DISPENSARY—Resident Medical Officer. Salary £[illegible] per annum. Applications by October 15th.

LEEDS UNION—Medical Superintendent. Salary, £300 per annum. Applications by October 17th.

NATIONAL DENTAL HOSPITAL AND COLLEGE, [illegible] Great Portland Street, W.—Dental Surgeon and Lecturer on Dental Surgery and Pathology. Applications by [illegible]

OUGHTERARD UNION—Medical Officer for Lettermore Dispensary District. Salary, £[illegible] per annum, with £[illegible] per annum as Medical Officer of Health, registration [illegible]

RATHDRUM UNION—[illegible] Salary, £[illegible] per annum, with £[illegible] per annum as Medical Officer of Health, registration [illegible]

READING AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, [illegible] Salary, £[illegible] per annum. Applications to the Secretary, 9, Alfred Street, Reading, by October 15th.

RICHMOND HOSPITAL, Surrey—House-Surgeon. Salary, £80 per annum. Applications [illegible]

SOUTHPORT INFIRMARY AND LOCAL DISPENSARY—[illegible] Salary, £[illegible] per annum. Applications [illegible]

ST. ANDREW'S HOSPITAL FOR MENTAL DISEASES, Northampton—Assistant Medical Officer. Salary, £[illegible] per annum. Applications to the Medical Superintendent.

ST. THOMAS'S HOSPITAL—Assistant Surgeon. Applications to A. Tritton by November 16th.

WESTERN OPHTHALMIC HOSPITAL, [illegible] Square—Surgeon. Applications to the Secretary.

MEDICAL APPOINTMENTS.

[illegible], A. H., [illegible] Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

[illegible], E., [illegible] Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

[illegible], R., M.[illegible] Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

[illegible], F. T., M.R.C.S., appointed Demonstrator of Anatomy at St. Mary's Hospital Medical School.

LATHAM, G., L.R.C.S., appointed House-Surgeon to the West Bromwich Hospital.

MILLER, R. S., M.B., appointed Surgeon to the Western Ophthalmic Hospital, Lisson Marylebone Road, *vice* T. B. Archer, M.R.C.S., resigned.

ORR, W. V., M.B.Ed., M.R.C.S., appointed Assistant House-Surgeon to the Northern Hospital, Liverpool, *vice* W. Rushton Parker, M.R.C.S., resigned.

PARKER, W. Rushton, M.R.C.S., appointed House-Physician to the Northern Hospital, Liverpool, *vice* C. H. B. Shears, M.R.C.S., resigned.

PARRY, J. H., L.R.C.P., appointed Honorary Surgeon-Accoucheur to the Bristol Lying-in Institution.

PHILLIPS, Sidney, M.D., appointed Demonstrator of Anatomy to St. Mary's Hospital Medical School.

ROW, F. E., M.R.C.S., appointed Dispensary Surgeon to the Royal Albert Hospital, Devonport.

TERRY, Henry G., M.R.C.S., appointed House-Surgeon to the Royal United Hospital, Bath, *vice* R. J. H. Scott, M.R.C.S., resigned.

WICKHAM, Walter, M.R.C.S., L.S.A., appointed Medical Superintendent of the Poplar Board of Works Small-pox Hospital, Plaistow, *vice* P. Thornton, resigned.

WOOLLEY, Geo. Talbot, M.R.C.S.Eng., appointed House-Surgeon to St. Peter's Hospital for Stone and Urinary Diseases, *vice* W. R. Williams, F.R.C.S.Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

HUGHES.—On October 6th, at Barmouth, Merioneth, the wife of Dr. Arthur Hughes, M.R.C.S.E., L.S.A., of a son.

LYON.—On October 7th, at Houghton-le-Spring, Co. Durham, the wife of Walter Lyon, M.A., M.D., of a son.

SCOTT.—At Musselburgh, N.B., on the 6th inst., the wife of Thomas R. Scott, M.B.(Edin.), of a son.

MARRIAGES.

MACLEAN—MASSEY.—On the 11th inst., at S. Matthew's Church, Edgeley, by the Revd. E. J. Reeve, Kenneth Maclean, Surgeon, to Minna Crosse, second daughter of Thomas Massey, Surgeon, Stockport.

MARSHALL—SMYTHIES.—On September 24th, at Hathern, Leicestershire, by the Rev. A. Dalby, Chaplain to Earl Ferrers, Lewis Walter Marshall, M.D., Nottingham, to Frances Elizabeth Ethel, daughter of the Rev. C. Smythies, Rural Dean and Rector of the Parish.

DEATHS.

CURTIS.—On the 7th instant, at Alton, Hants, William Curtis, M.R.C.S., in his 79th year.

WHITING.—On October 8th, in London, suddenly, of heart-disease, John Whiting, M.R.C.S., of St. Bartholomew's Hospital, surgeon of British India ss. *Chyebassa*, in his 25th year, youngest son of the late Rev. Robert Whiting, Rector of Ringsfield. Interred at Ringsfield.

VACCINATION.—Dr. W. R. Tolerton of Sherston Magna has obtained a second grant for successful vaccination in his district.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—The competition for the two Entrance Scholarships in Natural Science, £100 and £60, having resulted in a tie between Mr. J. S. Hutton and Mr. H. Sydney Jones, the value has been divided between them equally—viz., £80 each.

BEQUESTS.—Queen Charlotte's Lying-in Hospital has received £536 10s. 8d. under the will of Mrs. C. Batty, and £19 19s. under that of Mr. W. F. Kelly. Colonel Arthur Robert Naghten of Blighmount, near Southampton, has bequeathed £500 to the Royal South Hants Infirmary.

MIDLAND MEDICAL SOCIETY.—At the annual meeting of this society, on October 5th, the following gentlemen were elected to the offices of the society. *President:* Mr. John Manley. *Treasurer:* Mr. J. Harmar. *Secretaries:* Messrs. H. Eales and T. F. Chavasse. *Members of Council:* Mr. J. F. West; Dr. Welch; Dr. Sawyer; and Mr. Garner. The inaugural address this year will be given on October 19th, by T. Clifford Allbutt, M.A., M.D., F.R.S., of Leeds.

EASTERN COUNTIES DENTAL ASSOCIATION.—A meeting was held at Norwich on October 5th, when it was determined to form a Dental Association for the Eastern Counties, embracing Norfolk, Suffolk, Essex, Cambridgeshire, Northamptonshire, Huntingdonshire, Bedfordshire, and Hertfordshire. The majority of these counties being duly represented, the necessary by-laws were agreed to, and officers and provisional committee duly appointed. The first annual meeting is arranged to be held in April next.

BORING operations, which are now being conducted at the Parkfields, Nantwich, in connection with the proposed sanatorium and salt-baths scheme for Cheshire, continue to excite considerable interest. A depth of nearly seventy feet has now been reached from the surface; and, during the past few days, the drill has been cutting through the stone flag under which lie the true brine streams. The flow of brine through an upper stratum of gravel already exceeds three hundred gallons per day, and its strength is regarded as very satisfactory. There seems to be an unlimited supply.

SMALL-POX PATIENTS.—A special meeting of the Derby Town Council was held on Saturday to consider the subject of making provision for small-pox patients. It was stated that a lad had arrived from London suffering from that disease, and that he had been refused admission into the Derbyshire General Infirmary, as well as into the union. A man had also been attacked with small-pox and died. A long discussion took place, and ultimately it was resolved—"That a Committee be appointed to confer with the Weekly Board of the Infirmary and the Board of Guardians with respect to the provision for accommodating persons suffering from small-pox and other infectious diseases, and report to the Council in regard thereto."

PRESENTATION TO DR. KERSHAW.—On October 3rd, a meeting of the Local Board of Royton, in Lancashire, was held for the purpose of presenting an address to Dr. Kershaw, who has generously presented the town with a clock and bell for the town-hall, at an expense of nearly £300. The chairman, having expressed the thanks of the Board to Dr. and Mrs. Kershaw for their munificence, read the following address, to which were appended the signatures of the members of the Board and of several of the ex-members. "Respected Friends,—On behalf of the Local Board of Health for the Urban Sanitary District of Royton, permit us to tender to you our sincere thanks for the generosity and goodwill displayed by you in providing at your own expense, and presenting to the ratepayers of Royton, the handsome clock and bell made by Messrs. Gillett, Bland, and Co., of Croydon, London, and fixed in the tower of Royton Town Hall. We can assure you that your gift is highly valued and rightly appreciated by everyone."

SIR G. C. M. BIRDWOOD.—THE honour of knighthood has been, as we recently reported, conferred upon Mr. G. C. M. Birdwood, M.D., C.S.I., of the India Office. "If soldiers and statesmen", remarks the *St. James's Gazette*, "have built up the fabric of the Indian Empire, it was English doctors who laid the foundation; for the first grants from which the power of the East India Company grew into the lordship of Hindostan were obtained by English doctors, as a reward for the services they had done to native rulers. Dr. Birdwood has maintained the tradition, though his labours have been in a far different field. Captive India has captivated its conquerors by the beauty of its arts, and no one has done so much to make them known and to save them from extinction—or, worse, deterioration—as Sir George Birdwood. More than twenty years ago he established in Bombay the museum and gardens which are chief among the delights of the Athens of the East. Since then he has been an exponent of Indian art to Englishmen. The Indian Museum at Kensington—still too little known to the world of sightseers—owes him a great debt. Sometimes, perhaps, he may find cause to reproach himself for having so far popularised Indian art that, to supply the demands of undiscriminating Englishmen, the processes in India have become mechanical as those of Birmingham. But he must solace himself with the reflection that he has also fought against the deteriorating influences so far as anybody could fight. His controversy with the Panjab Government about the gaol manufacture of carpets will long be remembered, and has borne good fruit. But perhaps his best work is the effort he has made to make Englishmen sympathise with the patient and loving labour of the Indian craftsman."

VOLUNTEER SURGEONS-MAJOR.—The following surgeons have been gazetted as surgeons-major:—Francis P. Lansdowne, 1st Gloucestershire Artillery Volunteers; William C. Wise, M.D., 2nd Kent A.V.; William W. Coleman, 3rd Kent A.V.; Samuel Hodgson, 8th Lancashire A.V. (retired); Daniel W. Evans, 18th Lancashire Rifle Volunteers; Samuel F. Gosling, 2nd Staffordshire R.V.; Alfred Scotchburn, 2nd East Riding of Yorkshire R.V.; Robert M. Mann, 6th Lancashire R.V.; Robert Settle, M.D., 14th Lancashire R.V.; James Struthers, M.D., 1st Midlothian R.V.; John Henderson, M.D., 1st Midlothian R.V.; Thomas M. Dean, 16th Lancashire R.V.

TREATMENT OF ITCH BY BALSAM OF PERU.—C. Thestrup describes in the *Tidskrift i Militär Hälsovaard*, Band v, the results of treating eight cases of itch according to the plan for some time in use in the German army. This consisted in the simple but careful inunction of the whole body, except the face, with the balsam of Peru, especially on the parts most affected. The patients put on their clothes the next day, after having had a bath, and were then soon discharged. All the eight patients were cured. The process of inunction occupied in each case about half an hour.

MENINGOCELE IN THE ADULT.—At the meeting of the St. Louis Medical Society last November, Dr. John S. Moore, of Missouri Medical College, presented for examination a man thirty-three years old, from whom he had removed a large tumour from the left occipital region in his infancy (*St. Louis Medical and Surgical Journal*, July 1881). At birth, the tumour was one-third as large as the entire head, and was con-

stricted to about two inches in diameter as its junction with the skull. Convulsions supervening, by the assistance of Dr. Thomas Barbour, he ligated the neck, and in a few days the tumour sloughed, and cicatrix resembling cartilage closed the opening. As the great cholera epidemic of 1849 was raging, lack of time forbade sufficient examination of the tumour to decide whether it was a meningocele, an encephalocele, or a combination of the two. The patient's mind was said to be sufficiently clear to merit no criticism in commonplace affairs. His muscular power was excellent, and the tissues were well nourished. His locomotion was slightly impaired, and he suffered from a continued hiccough. Virility, always feeble, ceased at eighteen years of age. The case seems remarkable.

PUBLIC HEALTH.—The annual rate of mortality for the week ending the 1st of October, in twenty of the largest English towns, averaged 17.9 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Plymouth 13, Newcastle-on-Tyne 15, Sheffield 15, Portsmouth 15, Brighton 15, Leeds 16, Sunderland 16, London 16, Birmingham 17, Wolverhampton 17, Nottingham 18, Norwich 18, Bristol 18, Oldham 19, Leicester 20, Salford 21, Bradford 21, Manchester 22, Liverpool 22, and Hull 24. Scarlet fever showed the largest proportional fatality in Hull, Bradford, and Nottingham; no fewer than 225 fatal cases of this disease have been recorded in Hull during the past thirteen weeks, of which 28 were registered last week. The 18 deaths from diphtheria in the twenty towns included 12 in London, and 2 in Portsmouth. Fever, principally enteric, showed the highest death-rate in Leicester, Newcastle-upon-Tyne, and Leeds. Small-pox caused 16 more deaths in London and its outer ring of suburban districts, and one in Leeds. In London, 2,518 births and 1,217 deaths were registered. The deaths were 176 below the average. The annual death-rate from all causes, which had been equal to 15.7 and 17.4 per 1,000 in the two preceding weeks, declined again last week to 16.6. The 1,217 deaths included 15 from small-pox, 17 from measles, 55 from scarlet fever, 12 from diphtheria, 27 from whooping-cough, 4 from typhus fever, 48 from enteric fever, 34 from diarrhœa, 2 from simple cholera, and not one from dysentery; thus, 215 deaths were referred to these diseases, being 40 below the average. The fatal cases of small-pox, which had been 26 in each of the two preceding weeks, declined to 15 last week, but exceeded the average by 4. The Metropolitan Asylum Fever Hospitals at Homerton and Stockwell contained 56 enteric fever patients and 31 typhus fever patients on Saturday last. The deaths referred to diseases of the respiratory organs, which had steadily increased from 115 to 164 in the four preceding weeks, further rose to 186 last week, but were 12 below the average; 104 were attributed to bronchitis and 55 to pneumonia. Different forms of violence caused 43 deaths; 32 were the result of negligence or accident, among which were 13 from fractures and contusions, 3 from burns and scalds, 3 from drowning, and 8 of infants under one year of age from suffocation. Seven cases of suicide were registered. At Greenwich, the mean temperature of the air was 53.2°, and 2.1° below the average. The mean degree of humidity of the air was 90, complete saturation being represented by 100; the air was, therefore, damp. The direction of the wind was variable, and the horizontal movement of the air averaged 6.7 miles per hour, which was 3.9 below the average. Rain fell on Sunday, to the amount of 0.36 of an inch. The duration of registered bright sunshine in the week was equal to 42 per cent. of its possible duration. The amount of ozone exceeded the average on Sunday, whereas none was recorded on any of the other days of the week.—The annual rate of mortality last week, being the fortieth week of the year, in twenty of the largest English towns, averaged 18.8 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bristol 12, Norwich 13, Oldham 16, Brighton 16, Plymouth 16, Birmingham 17, Leicester 17, Sunderland 17, Nottingham 17, Bradford 17, Portsmouth 17, Sheffield 18, London 18, Leeds 18, Wolverhampton 19, Salford 20, Manchester 21, Hull 21, Liverpool 22, and Newcastle-on-Tyne 24. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, Brighton, and Leicester; during the past fourteen weeks, no fewer than 253 fatal cases of this disease have been recorded in Hull, the 28 last week corresponding with the number in the previous week. The 28 deaths from diphtheria in the twenty towns included 12 in London, 8 in Portsmouth, and 3 in Birmingham. The highest death-rate from "fever" occurred in Leeds and Newcastle-upon-Tyne. The fatality of measles, whooping-cough, and diarrhœa was considerably below the average. Small-pox caused 15 more deaths in London and its outer ring of suburban districts, one in Salford, and one in Oldham; no fatal case of this disease was recorded in any of the seventeen other large provincial towns. In London, 2,468 births and 1,362 deaths were registered. The deaths were 73 below the average. The annual death-rate from all causes was 18.6. The 1,362 deaths included 13 from small-pox, 21 from measles, 55 from scarlet fever, 12 from diphtheria, 24 from whooping-cough, 46 from enteric fever, 4 from ill-defined forms of continued fever, 38 from diarrhœa, 2 from dysentery, one from simple cholera, and not one from typhus; thus, 216 deaths were referred to these diseases, being 21 below the average. The deaths from diseases of the respiratory organs, which had steadily increased from 115 to 186 in the five preceding weeks, further rose to 227 last week, but were 13 below the average; 124 were attributed to bronchitis and 70 to pneumonia. Different forms of violence caused 58 deaths; 53 were the result of negligence or accident, among which were 21 from fractures and contusions, 4 from burns and scalds, 6 from drowning, 4 from poison, and 12 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 47.1°, and 6.3° below the average. The mean was considerably below the average on each of the days in the week. The mean degree of humidity of the air was 87, complete saturation being represented by 100. The general direction of the wind was N.E., and the horizontal movement of the air averaged 10.4 miles per hour, which was 0.1 above the average. Rain fell on three days of the week, to the aggregate amount of 0.69 of an inch. The duration of registered bright sunshine in the week was equal to 28 per cent. of its possible duration. No ozone was recorded on any day of the week except on Saturday, when the amount was below the average.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts, which may be accepted as trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the annual death-rate averaged 30.5 per 1,000; it was equal to 25.2 in Calcutta, 26.0 in Bombay, and 35.5 in Madras. Cholera caused 23 deaths in Calcutta and 12 in Bombay, and small-pox 25 in Madras. The fatality of "fevers" was proportionally large in each of these three Indian cities. The rate in Alexandria was equal to 43.8, showing a decline from that which prevailed in recent weeks, although 13 fatal cases of enteric fever were reported. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 24.3 per 1,000 of their aggregate population, whereas the average rate in twenty of the largest English towns did not exceed 18.8 during last week. The rate in St. Petersburg was equal to 41.1, but was lower than the rates in recent weeks; 34 deaths from typhus and enteric fevers, and 16 from scarlet fever were recorded. In three other northern cities—Copenhagen, Stockholm, and Christiania—the death-rate did not average more than 18.4, the highest rate being 20.4 in Copenhagen, where 3 fatal cases of diphtheria occurred. The Paris death-rate was equal to 23.1, against 18.6 in London, and the deaths included 27 from enteric fever, 14 from small-pox, and 31 from diphtheria and croup. The deaths in Brussels were equal to a rate of 20.6, and included 5 from typhus and enteric fevers. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate did not average more than 20.3, the highest rate being 21.2 in the Hague, where diarrhœal diseases caused 7 of the 48 deaths. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 24.0, and ranged from 20.0 and 21.0 in Hamburg and Dresden, to 27.1 and 30.0 in Munich and Buda-Pesth. Small-pox caused 10 deaths in Vienna and 5 in Buda-Pesth, and 21 of the 174 deaths in Hamburg were due to diarrhœal diseases. The death-rate was equal to 29.4 in Rome during the first week in August, when malarial fever caused 23 deaths and enteric fever 3; the rate in Turin did not exceed 22.3, but 5 of the 103 deaths resulted from enteric fever. In Baltimore, the death-rate was 26.9, and included 19 fatal cases of diphtheria. In Philadelphia, the 345 deaths included 10 from small-pox, 20 from enteric fever, and 26 from infantile cholera.

A LARGE BRAIN.—Dr. Barksdale, of the Virginia Lunatic Asylum, reported at the last meeting of the Association of Insane Asylum Superintendents, the case of a negro criminal lunatic whose brain weighed seventy ounces, perhaps the largest brain on record, except that of Oliver Cromwell. The brain of an imbecile but two ounces less than this in weight, observed at the New York City Asylum for the Insane, presented, on microscopic examination, a disproportionate amount of ependyma formation, and this condition probably also existed in the case of this negro.

[illegible] Dr. W[illegible] H. [illegible] [illegible] [illegible]

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th...; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 2; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Address by the President (Dr. Broadbent). Mr. Thomas Bryant: A Case of Amputation for Knee-Joint Disease in a Man with Phthisis. Mr. Jonathan Hutchinson: On Ulcers of the Tongue.

TUESDAY. Pathological Society of London, 8.30 P.M. [illegible] Dr. R. E. Carrington: Fracture of the Base of the Skull and Cervical Spine. Dr. Stephen Mackenzie: Hæmato-Chyluria (living specimen); Filariæ Sanguinis Hominis shown in fresh, drawn Blood. Mr. Gray: Mammary Tumour, with recurrence. Dr. Fowler: 1. Primary Cancer of Liver (card specimen); 2. Aneurysm and Rupture of the Aorta; 3. Membranous Band in Left Auricle. Mr. Bryant: Cyst containing Oil, removed from the Parotid Region of a Girl.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. Fothergill: The Emulsionising of Fat.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

[illegible]

state of disease. Someone must take the initiative in the application of a remedy. [illegible]

of reform by hospital managers who have too long been accustomed to have things all their own way, among whom are men who revel in having big numbers of [illegible]

mitted; which, in their eyes, constitutes the best title to public support. They are, however, "beginning to be found out", both by the profession and their friends the working classes, who are now, I am glad to find, heartily ashamed of the degradation they undergo to partake of the perfunctory advice to be obtained in [illegible]

point, will do well to consult Sir Charles Trevelyan's pamphlet on the Evils of Hospital Administration.

That those who have no title whatever to gratuitous hospital [illegible] of society should attempt to take what [illegible] [illegible] that [illegible] immunity from the penalties, often of their own imprudence, to all persons alike; thus freeing a fourth of the population of London from the necessity of providing for the incidence of sickness, for themselves, their wives, and children. I have naturally enough excited the ire of your hospital managers, because, forsooth, they believe I am [illegible] the living and the dead, and prevent the spread of the plague which stalks by day-light in our midst.

My plan is, as you know, to extend the provident dispensary system, upon which I have wished to engraft my speciality; and having failed in my endeavour to do this, I have been induced by friends to try to start an independent hospital, founded solely upon the provident principle. This, I need scarcely say, has not yet been accomplished. My chief difficulty has been in getting at the working classes, or those among them who, I am informed upon the best authority, loathe the hospital system of relief, and who think it worth only just what it costs. The [illegible] their newspapers. All of them read certain newspapers; and in this way, and in [illegible] willing to enter into competition with the hospitals, and upon their own terms; that is, I give them advice and a prescription, which they take to the chemist, and for which they gladly pay his price. I have already succeeded in weaning away a goodly number of artisans from the overcrowded rooms of hospitals, and they have felt amply rewarded, as they obtain advice without paying the penalty of losing [illegible]

This, then, I [illegible] step in the right direction; but I [illegible] will meet the views of "A Hospital Manager", as hitherto he and his class have reaped a rich harvest from advertisements, both in patients and money. I am told that it pays to spend a third or fourth of the hospital subscriptions in advertising. There is, however, much less excuse for this extravagance in the management of hospitals, as by the efforts of hardworkers (and in which I have had no small share), the Metropolitan Hospital Sunday has been a complete success, and the Council now annually undertake the expense and trouble of bringing the real necessities of London hospitals thoroughly before the public, and throughout the length and breadth of the land.

I [illegible] hospital management, at present I see no other way out of the difficulty.

I have now endeavoured to place in a clear light before you my reasons for acting as I am doing. Come what may, I have fully made up my mind to persevere in [illegible] to every legitimate means open to me to stem the torrent of indiscriminate charitable relief as at present administered, since it has inflicted a grave injustice upon the profession, and pauperises and demoralises the working classes.—I remain, sir, your most obedient servant,

JABEZ HOGG.

VACCINATOR (Dublin).—There are many sources of calf-lymph now available; among them may be mentioned: (1) Dr. Warlomont's agency, care of Mr. Darke, Hemming's Row, London; (2) Dr. Renner, 228, Marylebone Road, London; (3) Mr. Faulkner, 16, Endell Street, London; (4) Dr. Braidwood, Birkenhead; (5) Dr. J. W. Cook, Manningtree, Essex.

HYPODERMIC INJECTION OF QUININE.

SIR,—In your JOURNAL of October 1st, 1881, as well as in other medical periodicals of that date, Mr. W. J. Moore, writing from Bombay, states that he was the first to introduce this method of administering quinine. A reference to the *Medical Digest*, section 402-4, will, at a glance, show that Dr. James McCraith of Smyrna anticipated Mr. Moore's report. Dr. McCraith, in two able papers published in [illegible] or what is tantamount thereto", for his friend and *confrère* Dr. Chasseaud.—I am, etc.,

RICHARD NEALE, M.D.Lond.

60, Boundary Road, South Hampstead, N.W.

TREATMENT OF DIPHTHERIA.

SIR,—The most beneficial local application in diphtheria I have found to be a solution of tannic acid. Tannic acid, two drachms; spirits of wine, two drachms; water, six drachms. This is to be applied to the diphtheritic membrane every hour until all has peeled off. Parents or nurses may apply it, *vide* Obstetrical [illegible], vol. i.—I am, etc.,

A. WILLIS WILLIAMS, M.D.

1, Montagu Square, October 11th, 1881.

"ODD FELLOWS."

SIR,—Can you, or any of my professional brethren, furnish me with the origin and meaning of the term "Odd Fellow", as applied to members of the "Manchester Unity of Odd Fellows".—Yours, etc.

A MEMBER.

*** The order originated in the amalgamation of several small benefit clubs; and, being made up in this manner out of scattered or "odd" institutions, the above term was applied to its members.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

UNQUALIFIED PRACTITIONERS.

SIR,—"X. Y. Z." and "Truthful James", in their letters upon the above-named subject, have made two or three statements which require refuting, for the reason that they are false. "X. Y. Z." asserts that "a private society" (he alludes to the Alliance) "prosecutes a few poor fellows who manage branch establishments in the slums of London on behalf of their employers, whilst great offenders who drive their carriages and pair go unpunished". Now, this is untrue. Of the thirty-three prosecutions instituted by the Alliance (including two cases now in the hands of Mr. Freeman) only one such person was proceeded against; the others comprised leading London venereal quacks, registered medical men in good practice, men practising with bogus diplomas from America, Jena, and Giessen, and registered chemists and druggists. All these defendants had ample means for fighting, they all fought well, and some so well that they dragged us into the Court of Appeal. The costs on the side of the Alliance of the prosecutions they instituted in the superior courts ranged from £50 to £[illegible]. All these costs were paid by the defendants, and they had their own costs to pay in addition, so that it will be seen that our prosecutions were amongst a class of men the very reverse of that alleged, in his recklessness and ignorance, by "X. Y. Z.".

"Truthful James" says, "that it may be interesting to the members of the profession to know what assistance they may expect from bodies who profess to prosecute illegal practitioners": and then he adds, that he "was a member of one association who would not prosecute at all, whilst another association mulcted him in [illegible] in a case they [illegible] evidence in a case they subsequently refused to prosecute unless he paid them from £[illegible] to £[illegible]". Now, I know of only two Defence Associations—the Medical Defence and the Medical Defence. With the Alliance "Truthful James" has never been connected, so that he could not have withdrawn from it; and as regards his paying a fee of £10 for the "sifting" of some evidence, no such transaction ever occurred with the Alliance, for the simple reason that in all their prosecutions the evidence has been "got up", and "sifted", and completed, by myself, before the cases were placed in the hands of our solicitors; and in this way a saving of time and trouble to them, and of expense to the Alliance, was effected. It may be well to state, also, that at the formation of the Alliance I guaranteed to all the members thereof that not one of them should be responsible for a single shilling in payment of law or other costs beyond their yearly subscriptions of ten shillings and sixpence each. The whole of our prosecutions in the police-courts were instituted in my name, so that I alone became liable for costs; and those in the superior courts were instituted in the name of the Master, Wardens, and Society of Apothecaries, after an assurance to them that they should not be liable for costs in cases of defeat; and, by a special arrangement between our solicitors and myself, even in that event, the members of our Association would have been absolutely safe; yet so many of them, forgetting all this, have neglected to pay their subscriptions, in some cases after their own ends have been served, that a sum of about £120 is now due from them to the Association; and as our "lawyers" do not, in point of fact, give us their services altogether "free, gratis, and for nothing", we should be very glad if these gentlemen would deem themselves in honour bound to forward their subscriptions, which are much wanted for prosecution purposes, to our treasurer, C. Chaple, Esq., M.D.St.And., 230, Burdett Road, E.

"Truthful James" proposes that a general appeal should be made to the profession for small yearly subscriptions, with the view of forming an association for the purpose of suppressing illegal practice. At the cost of about £70 in postage and printing, the Alliance at various times made such an appeal in England, Ireland, and Scotland, but with barren results as regards the increase of their members, though complaints of illegal practice came to them in profusion. I fear, therefore, that "Truthful James's" suggestion, if resorted to, would end in failure and expense; but that proposed by you, that every Branch of the British Medical Association should have a Defence Committee, is admirable and practicable; and, seeing that the organisation of that Association is complete, a yearly subscription of two shillings and sixpence per member would be sufficient to cover the expenses of all prosecutions, provided they were conducted upon some such principle as that adopted by the Alliance.

Every man has a right to his own opinion, and I ask you to permit me to record my opinion of the quacks we have prosecuted. It is this: I respect them more, and esteem them more, than I respect or esteem some of those registered medical men who write to me, sometimes anonymously, sometimes imploringly, asking me to institute legal proceedings in cases where their own individual interests are concerned, yet will not join the Alliance, will not have their names mixed up with the prosecution, will not even help to get up the necessary evidence to secure a conviction. They are ready enough to stab unto death if they can, but it must be by stealth, and in the back, and in the dark, and at our cost.—I am, sir, your obedient [illegible]

R. W. S. [illegible]

SIR,—The letter published in the JOURNAL of the 1st instant, signed "Truthful [illegible]" [illegible] the world and its belongings were created for their special use and enjoyment. The position they assume is unreasonable. Why, then, should they feel surprise at their occasional disappointment? During the six years I have acted as Honorary Secretary of the Medical Defence Association, I have met with many persons who evidently were under the impression that the Association and its officials have sprung into existence simply to minister to their wants and desires. It frequently occurs that I receive a letter from a provincial practitioner, offering to join the Association and pay his half-guinea subscription, on condition that we send our solicitor down—may be into Wales, Durham, or Lancashire—and prosecute some [illegible] [illegible] [illegible]

fession. If we cannot maintain discipline in our own ranks, we must not be surprised to see the enemy's ranks strengthened. I am not in practice, and am not, therefore, a personal sufferer, but others are. I think it is simply a case that they should be protected. I am, etc., A MEMBER B. M. A.

North Wales, September 12th, 1881.

*** The only notice which we have had of the alleged exercise of practitioners is from the newspaper paragraph to which our correspondent refers, and which appeared also in the *Times* and other papers. On communicating with Mr. Hewitt of Lancaster Gate, he states that no meeting of the sort has been held at his house, and he knows nothing of the.

DR. S. J. HUBBARD (New Haven, Connecticut) is thanked for his kind and prompt communication, of which we avail ourselves.

CHANGE OF NAME.

OUR contemporary the *New Moon*, a lunatic asylum monthly, which has appeared for upwards of forty years under that very appropriate title, is now to be issued under the inane superscription of *Crichton Royal Institution Literary Register*. Commercial considerations can scarcely, in the case of such a periodical, have dictated this change of name, which must, therefore, be attributed to the triumph of sheer imbecility over the more sprightly and interesting varieties of mental aberration. The *New Moon* was the first of those lunatic asylum journals of which several are now published in this country and in America; and its foundation marked a distinct advance in the moral treatment of the insane. It was edited and printed by lunatics; and the contributions which filled its colums, and which included tales, essays, poems, and conundrums, were all the work of lunatics or of patient convalescing after attacks of insanity. It thus afforded, what has always been a desideratum and a difficulty in high-class asylums, suitable and agreeable occupation to the educated insane; while it was also the official record of the scientific observations, lectures, and entertainments carried on in the establishment, and of all important events in its history. In the palmy days of the Crichton Institution, when it was the leading hospital for the care of the insane in Scotland, and was largely resorted to from England, the *New Moon* contained contributions from the pens of several men of great literary eminence, who were prostrated for a time by that melancholy which, since the time of Aristotle, has been recognised as in close alliance with genius. On one occasion, the editor of the *New Moon* received complaints from several subscribers that the contents of the journal, although well enough in their way, were lacking in distinctive flavour, and did not betray their origin; so, in the next number, he gave free play to his refractory contributors. There appeared astounding political revelations; a paper on evolution, with woodcut illustrations of the shape of the human soul at different ages; the design of a machine to facilitate bodily ascension into heaven in the manner of Elijah; and the first canto of an epic, which, when not utterly incoherent, was anticipatory of *Alice in Wonderland*. One number of this character was sufficient. The discontented subscribers expressed themselves satisfied, and begged that they might have no more of Bedlam broke loose in prose and verse. The motto of the *New Moon* was aptly chosen. It consisted of six lines from the Essay on Criticism slightly altered.

"'Tis with our judgments as our watches; none
Go just alike, yet each believes his own.
In poets, as true genius is but rare,
True taste as seldom is the critic's share;
Both must alike from Cynthia borrow light,
Those born to judge, as well as those to write."

We cannot but express our regret that the *New Moon* should have dipped her horn.

MEDICAL OFFICERS TO BENEFIT SOCIETIES.

SIR,—I want to know through the medium of your columns what are the usual fees received by medical gentlemen for acting in the capacity of medical officers to benefit societies, what are the duties, etc., and everything bearing on the subject. My reason for troubling you is, that I am asked to become medical officer to a court of "Foresters", and do not know upon what terms to do so.—I am, etc.,

SURGEON.

F.G.H.—Cheselden, the celebrated lithotomist, had considerable taste in matters of art. The plan of Fulham Bridge was drawn by him. He was a very charitable man, and when the Foundling Hospital was first proposed, he sent a donation, with the following lines from Pope.

"'Tis what the happy to the unhappy owe;
For what man gives, the gods by him bestow."

A GRIEVANCE.

SIR,—I wish to draw your attention to what I think you will agree with me in terming a grievance. In the JOURNAL of September 17th, there appeared an advertisement from the guardians of the poor of St. Marylebone parish, requesting applications for the post of Visiting Medical Officer to the Workhouse. In common with, I daresay, several other medical men (having a belief in the good faith of guardians), I went to considerable trouble, and some expense, in sending in an application for this post, with testimonials, etc., and in obtaining interest to carry my election. While engaged in this latter work, I learnt what I now wish to bring before you, viz., that the whole affair was a "job"; that one of the parochial medical officers had resigned his appointment, and that a committee of three guardians had been appointed by the board to appoint this gentleman to the vacant post. Now I ask you, sir, if this is in accordance with the intentions of the Local Government Board, and receives their sanction? And also, if delusive advertisements such as this are to be paraded before the profession, in order that medical men may be put to trouble and inconvenience in running after "bogus" appointments?—I am, sir, faithfully yours, A HOODWINKED CANDIDATE.

P.S.—I may add that I was encouraged to apply by officials of the board. I enclose my card.

*** Assuming that our correspondent has been correctly informed, that an advertisement was issued inviting applications from candidates when it had been well understood, among a majority of the guardians, to whom the appointment would be given, there can be but one opinion as to the injustice which has been perpetrated upon all such applicants. We believe that our correspondent's case is by no means a singular instance, and it would be very desirable if some plan could be adopted whereby it could be stopped; reference to the Local Government Board would be of no service, as the clerk to the guardians would be instructed to reply that no such understanding had been come to. There is no alternative but to pocket the affront.

JUSTICE.—Your inquiry involves a legal question, which we are unable to answer.

STERILITY OF PROSTITUTES.

SIR,—In a debate upon sterility in women, in the Obstetrical Section at Ryde, I see it stated that Dr. Henry Bennet threw out the idea that one prevalent cause of the sterility of prostitutes is, that the class is largely recruited from those women who are naturally sterile. That these women are extremely numerous is well known to me, as I have for some years, as physician to the Rescue Society of London, had opportunities to make myself acquainted with the facts of the case. Several of the matrons of the Rescue Society have informed me that they have never known of any case where a woman, who had been a prostitute for some years, had a child by a subsequent marriage.

Thus, according to this information, prostitution continued for a certain period renders a woman permanently and hopelessly unfruitful. A few months of the life does not do so. Most of the women who enter the Rescue Society's Homes are quite young—I am fourteen to twenty—and yet very few indeed of them have had either a child or a miscarriage. The life they lead seems to make them sterile from the first. I do not think that 5 per cent. of my hospital cases among that class have had a child or miscarriage.

These are the facts; and now for the theory. I cannot admit that any of the cases I have seen would come under the category spoken of by Dr. Bennet, because the women were too young, and their fruitfulness or sterility quite uncertain. The real causes, I hold, of sterility in prostitutes are, first, great excesses in the exercise of the function; and, secondly, and much less prominently, inflammatory lesions of the organs. That the first of these causes should be constantly followed by sterility in the female, is a never-failing source of wonder to me.—Yours obediently, C. R. DRYSDALE, M.D.

17, Woburn Place, W.C., September 15th, 1881.

LUMINOUS NIGHT BELLS.

SIR,—It is stated in the papers that the Post Office authorities have, in our large towns, directed the openings to the letter boxes to be coated with luminous paint, in order that they might be readily found at night. In the country, it would often save a good deal of trouble if our "night-bell" plates were treated in the same way. Will any member be kind enough to inform me where this luminous paint can be obtained, that I may experimentally try it?—Your obedient servant,

Stourport. G. F. M.

CURE FOR SNORING.

SIR,—I am told, though I cannot vouch for the fact, that I am a "nuisance prejudicial to health", from being an inveterate snorer. I shall, therefore, esteem it a favour if any of your numerous readers can suggest a remedy.—I am, etc.,

STERTOR.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. Roberts, Manchester; Dr. S. J. Hubbard, Newhaven; Mr. R. A. Douglas-Lithgow, London; Rev. E. Milner Barry, Tunbridge Wells; Dr. J. Bland More, Manchester; Dr. Beddoes, Clifton; Dr. W. A. Brailey, London; Mr. J. Startin, Dublin; Mr. W. Stringfield, Lowestoft; Dr. W. R. Tolerton, Sherston Magna; Dr. J. Walter Wilson, Plymouth; Dr. A. T. Roberts, Brighton; Mr. T. Mansell, London; Dr. J. A. Austin, Tongue; Mr. G. Harrison Younge, Aldershot; Dr. Ward Cousins, Southsea; Dr. Cran, Great Horwood; Mr. H. Brown, Northallerton; Dr. Warren, Hoylake; Mr. R. Pollock, Glagsow; Dr. Richard Neale, London; Mr. E. Noble Smith, London; Our Glasgow Correspondent; Mr. Vincent Jackson, Wolverhampton; Mr. J. Strangman Grubb, Waterbeach; Our Aberdeen Correspondent; Mr. T. Wells Hubbard, Tunbridge Wells; Dr. E. P. Philpots, Bournemouth; Mr. H. Meymott, Ludlow; Dr. Paterson, Bridge of Allan; Mr. G. P. Field, London; Dr. D. McCalman, Ballachulish; Mr. F. H. Butler, London; Dr. Kendall, Sandygate; Dr. Fairlie Clarke, Southborough; Dr. Masterman, Stourport; Mr. Stanley Boyd, London; Mr. G. Eastes, London; Mr. J. H. Parry, Bristol; Dr. S. Rees Philipps, Exeter; Dr. Thin, London; F. G.; Mr. D'Esterre Parker, Cork; Dr. McCraith, Melton Mowbray; Mr. A. W. M. Robson, Leeds; Professor G. D. Thane, London; Mr. J. Black, London; Dr. Hensman, London; Dr. Carrington, London; Mr. Margerison, London; Mr. Cantlie, London; Mr. Munro Scott, London; Mr. George Terry, Mells; Mr. J. A. Stacey, London; Dr. Thorne Thorne, London; Mr. F. Wallace, London; Dr. Wynn Williams, London; Mr. F. B. Shepherd, London; Mr. W. R. A. Stewart, London; Mr. Garraway, Faversham; Mr. Lambert H. Ormsby, Dublin; Dr. E. Hartley, London; Mr. E. Williams, Aberayron; Mr. Thomas Jackman, Coggeshall; Dr. Corfield, London; Mr. P. H. Bird, London; Mr. A. Lloyd Jones, London; Dr. James Barr, Liverpool; Mr. Edward Thompson, Omagh; Alvus Durus; Dr. William Moore, Dublin; Dr. John Haddon, Eccles; Dr. de Chaumont, Netley; Mr. Ed. Ledwich, Dublin; Mr. G. Gould, London; Dr. R. Bruce Low, Helmsley; Dr. Lush, Weymouth; Dr. Needham, Gloucester; Dr. Stephen Mackenzie, London; Mr. Rushton Parker, Liverpool; Sir E. Lechmere, London; Mr. W. Whitehead, Manchester; Mr. T. Amyot, Diss.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,, ...	20 ,,
,, 26 ,, ,, ...	25 ,,
,, 52 ,, ,, ...	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

A RECORD

OF THE

POST MORTEM EXAMINATION OF THE BODY OF PRESIDENT J. A. GARFIELD.

Made September 20th, 1881, commencing at 4.30 p.m., Eighteen Hours after Death, at Franklyn Cottage, Elberon, New Jersey.

THE following statement has been published in the *American Journal of the Medical Sciences* for October 1881.

Present and assisting, Dr. D. W. Bliss; Surgeon-General J. K. Barnes, U.S. Army; Surgeon J. J. Woodward, U.S. Army; Dr. Robert Reyburn; Dr. Frank H. Hamilton; Dr. D. Hayes Agnew; Dr. Andrew H. Smith, of Elberon (and New York); and Acting Assistant-Surgeon D. S. Lamb, of the Army Medical Museum, Washington, D.C.

Before commencing the examination, a consultation was held by these physicians, in a room adjoining that in which the body lay, and it was unanimously agreed that the dissection should be made by Dr. Lamb, and that Surgeon Woodward should record the observations made. It was further unanimously agreed that the cranium should not be opened. Surgeon Woodward then proposed that the examination should be conducted as follows.

That the body should be viewed externally, and any morbid appearances existing recorded. That a catheter should then be passed into the wound, as was done during life to wash it out, for the purpose of assisting to find the position of the bullet. That a long incision should next be made from the superior extremity of the sternum to the pubis, and this crossed by a transverse one just below the umbilicus. That the abdominal flaps thus made should then be turned back, and the abdominal viscera examined. That, after the abdominal cavity was opened, the position of the bullet should be ascertained, if possible, before making any further incision; and that, finally, the thoracic viscera should be examined.

This order of procedure was unanimously agreed to.

The examination was then proceeded with, and the following external appearances were observed.

The body was considerably emaciated, but the face was much less wasted than the limbs. A preservative fluid had been injected by the embalmer, a few hours before, into the left femoral artery; the pipes used for the purpose were still in position. The anterior surface of the body presented no abnormal appearances, and there was no ecchymosis or other discoloration of any part of the front of the abdomen.

Just below the right ear, and a little behind it, there was an oval ulcerated opening, about half an inch in long diameter, from which some sanious pus was escaping; but no tumefaction could be observed in the parotid region.

A considerable number of purpura-like spots were scattered thickly over the left scapula, and thence forwards as far as the axilla. They ranged from one-eighth to one-fourth of an inch in diameter, were slightly elevated and furfuraceous on the surface, and many of them were confluent in groups of two to four or more. A similar but much less abundant eruption was observed sparsely scattered over the corresponding region on the right side.

An oval excavated ulcer about an inch long, the result of a small carbuncle, was seated over the spinous process of the tenth dorsal vertebra. Over the sacrum, there were four small bed-sores, the largest about half an inch in diameter. A few acne pustules and a number of irregular spots of *post mortem* hypostatic congestion were scattered over the shoulders, back, and buttocks. The inferior part of the scrotum was much discoloured by hypostatic congestion. A group of hæmorrhoidal tumours, rather larger than a walnut, protruded from the anus.

The depressed cicatrix of the wound made by the pistol-bullet was recognised over the tenth intercostal space, three inches and a half to the right of the vertebral spines. A deep linear incision (made in part by the operation of July 24th, and extended by that of August 8th) occupied a position closely corresponding to the upper border of the right twelfth rib. It commenced posteriorly about two inches from the vertebral spines, and extended forwards a little more than three inches. At the anterior extremity of this incision, there was a deep, nearly square, abraded surface about an inch across.

A well oiled flexible catheter, fourteen inches long, was then passed into this wound, as had been done to wash it out during life. More resistance was at first encountered than had usually been the case; but, after several trials, the catheter entered, without any violence, to its full length. It was then left in position, and the body disposed supinely for the examination of the viscera.

The cranium was not opened.

A long incision was made from the superior extremity of the sternum to the pubis, followed by a transverse incision crossing the abdomen just below the umbilicus. The four flaps thus formed were turned back, and the abdominal viscera exposed. The subcutaneous adipose tissue divided by the incisions was little more than one-eighth of an inch thick over the thorax, but was thicker over the abdomen, being about a quarter of an inch thick along the linea alba, and as much as half an inch thick towards the outer extremity of the transverse incision.

On inspection of the abdominal viscera, *in situ*, the transverse colon was observed to lie a little above the line of the umbilicus. It was firmly adherent to the anterior edge of the liver. The greater omentum covered the intestines pretty thoroughly from the transverse colon almost to the pubis. It was still quite fat, and was very much blackened by venous congestion. On both sides, its lateral margins were adherent to the abdominal parietes opposite the eleventh and twelfth ribs. On the left side, the adhesions were numerous, firm, well organised, and probably old;* on the right side, there were a few similar adhesions, and a number of more delicate and probably recent ones.

A mass of black, coagulated blood covered and concealed the spleen and the left margin of the great omentum. On raising the omentum, it was found that this blood-mass extended through the left lumbar and iliac regions, and dipped down into the pelvis, in which there was some clotted blood and rather more than a pint of bloody fluid.† The blood-coagula, having been turned out and collected, measured very nearly a pint. It was now evident that secondary hæmorrhage had been the immediate cause of death, but the point from which the blood had escaped was not at once apparent.

The omentum was not adherent to the intestines, which were moderately distended with gas. No intestinal adhesions were found other than those between the transverse colon and the liver, already mentioned.

The abdominal cavity being now washed out as thoroughly as possible, a fruitless attempt was made to obtain some indication of the position of the bullet before making any further incision. By pushing the intestines aside, the extremity of the catheter, which had been passed into the wound, could be felt between the peritoneum and the right iliac fascia; but it had evidently doubled upon itself, and, although a prolonged search was made, nothing could be seen or felt to indicate the presence of the bullet, either in that region or elsewhere.

The abdominal viscera were then carefully removed from the body, placed in suitable vessels, and examined *seriatim*, with the following result.

The adhesions between the liver and the transverse colon proved to bound an abscess-cavity between the under surface of the liver, the transverse colon, and the transverse meso-colon, which involved the gall-bladder and extended to about the same distance on each side of it, measuring six inches transversely, and four inches from before backward. This cavity was lined by a thick pyogenic membrane, which completely replaced the capsule of that part of the under surface of the liver occupied by the abscess. It contained about two ounces of greenish-yellow fluid—a mixture of pus and biliary matter. This abscess did not involve any portion of the substance of the liver except the surface with which it was in contact, and no communication could be detected between it and any part of the wound.

Some recent peritoneal adhesions existed between the upper surface of the right lobe of the liver and the diaphragm. The liver was larger than normal, weighing eighty-four ounces; its substance was firm, but of a pale yellowish colour on its surface and throughout the interior of the organ, from fatty degeneration. No evidence that it had been penetrated by the bullet could be found, nor were there any abscesses or infarctions in any part of its tissue.

The spleen was connected to the diaphragm by firm, probably old peritoneal adhesions. There were several rather deep congenital fissures in its margins, giving it a lobulated appearance. It was abnormally large, weighing eighteen ounces; of a very dark, lake-red colour, both on the surface and on section. Its parenchyma was soft and flabby, but contained no abscesses or infarctions.

* [illegible]

† A [illegible] the embalmer.

There were some recent peritoneal adhesions between the posterior wall of the stomach and the posterior abdominal parietes. With this exception, no abnormalities were discovered in the stomach or intestines, nor were any other evidences of general or local peritonitis found besides those already specified.

The right kidney weighed six ounces, the left kidney seven. Just beneath the capsule of the left kidney, at about the middle of its convex border, there was a little abscess one-third of an inch in diameter; there were three small serous cysts on the convex border of the right kidney just beneath its capsule; in other respects, the tissue of both kidneys was normal in appearance and in texture.

The urinary bladder was empty.

Behind the right kidney, after the removal of that organ from the body, the dilated track of the bullet was dissected into. It was found that, from the point at which it had fractured the right eleventh rib (three inches and a half to the right of the vertebral spines), the missile had gone to the left, obliquely forwards, passing through the body of the first lumbar vertebra, and lodging in the adipose connective tissue immediately below the lower border of the pancreas, about two inches and a half to the left of the spinal column, and behind the peritoneum. It had become completely encysted.

The track of the bullet between the point at which it had fractured the eleventh rib and that at which it entered the first lumbar vertebra was considerably dilated, and the pus had burrowed downwards through the adipose tissue behind the right kidney, and thence had found its way between the peritoneum and the right iliac fascia, making a descending channel which extended almost to the groin. The adipose tissue behind the kidney in the vicinity of this descending channel, was much thickened and condensed by inflammation. In the channel, which was found almost free from pus, lay the flexible catheter introduced into the wound at the commencement of the necropsy; its extremity was found, doubled upon itself, immediately beneath the peritoneum, reposing upon the iliac fascia, where the channel was dilated into a pouch of considerable size. This long-descending channel, now clearly seen to have been caused by the burrowing of pus from the wound, was supposed during life to have been the track of the bullet.

The last dorsal, together with the first and second lumbar vertebræ and the twelfth rib, were then removed from the body, for more thorough examination.

When this examination was made, it was found that the bullet had penetrated the first lumbar vertebra in the upper part of the right side of its body. The aperture by which it entered involved the intervertebral cartilage next above, and was situated just below and anterior to the intervertebral foramen, from which its upper margin was about one-quarter of an inch distant. Passing obliquely to the left and forwards through the upper part of the body of the first lumbar vertebra, the bullet emerged by an aperture, the centre of which was about half an inch to the left of the median line, and which also involved the intervertebral cartilage next above. The cancellated tissue of the body of the first lumbar vertebra was very much comminuted, and the fragments somewhat displaced. Several deep fissures extended from the track of the bullet into the lower part of the body of the twelfth dorsal vertebra. Others extended through the first lumbar vertebra into the intervertebral cartilage between it and the second lumbar vertebra. Both this cartilage and that next above were partly destroyed by ulceration. A number of minute fragments from the fractured lumbar vertebra had been driven into the adjacent soft parts.

It was further found that the right twelfth rib also was fractured at a point one inch and a quarter to the right of the transverse process of the twelfth dorsal vertebra; this injury had not been recognised during life.

On sawing through the vertebra, a little to the right of the median line, it was found that the spinal canal was not involved by the track of the ball. The spinal cord and other contents of this portion of the spinal canal presented no abnormal appearances. The rest of the spinal cord was not examined.

Beyond the first lumbar vertebra, the bullet continued to go to the left, passing behind the pancreas to the point where it was found. Here it was enveloped in a firm cyst of connective tissue, which contained, besides the ball, a minute quantity of inspissated, somewhat cheesy pus, which formed a thin layer over a portion of the surface of the lead. There was also a black shred adherent to a part of the cyst-wall, which proved on microscopical examination to be the remains of a blood-clot. For about an inch from this cyst, the track of the ball behind the pancreas was completely obliterated by the healing process. Thence, as far backward as the body of the first lumbar vertebra, the track was filled with coagulated blood, which extended on the left into an irregular space rent in the adjoining adipose tissue behind the peritoneum and above the pancreas. The blood had worked its way to the left, bursting finally through the peritoneum behind the spleen into the abdominal cavity. The rending of the tissues by the extravasation of this blood was undoubtedly the cause of the paroxysms of pain which occurred a short time before death.

This mass of coagulated blood was of irregular form, and nearly as large as a man's fist. It could be distinctly seen from in front, through the peritoneum, after its site behind the greater curvature of the stomach had been exposed by the dissection of the greater omentum from the stomach, and especially after some delicate adhesions between the stomach and the part of the peritoneum covering the blood-mass had been broken down by the fingers. From the relations of the mass as thus seen, it was believed that the hæmorrhage had proceeded from one of the mesenteric arteries; but, as it was clear that a minute dissection would be required to determine the particular branch involved, it was agreed that the infiltrated tissues and the adjoining soft parts should be preserved for subsequent study.

On the examination and dissection made in accordance with this agreement, it was found that the fatal hæmorrhage proceeded from a rent, nearly four-tenths of an inch long, in the main trunk of the splenic artery, two inches and a half to the left of the cœliac axis. This rent must have occurred at least several days before death, since the everted edges in the slit in the vessel were united by firm adhesions to the surrounding connective tissue, thus forming an almost continuous wall bounding the adjoining portion of the blood-clot. Moreover, the peripheral portion of the clot in this vicinity was disposed in pretty firm concentric layers. It was further found that the cyst below the lower margin of the pancreas, in which the bullet was found, was situated three inches and a half to the left of the cœliac axis.

Besides the mass of coagulated blood just described, another, about the size of a walnut, was found in the greater omentum near the splenic extremity of the stomach. The communication, if any, between this and the larger hæmorrhagic mass could not be made out.

The examination of the thoracic viscera resulted as follows.

The heart weighed eleven ounces. All the cavities were entirely empty except the right ventricle, in which a few shreds of soft, reddish, coagulated blood, adhered to the internal surface. On the surface of the mitral valve, there were several spots of fatty degeneration; with this exception, the cardiac valves were normal. The muscular tissue of the heart was soft, and tore easily. A few spots of fatty degeneration existed in the lining membrane of the aorta, just above the semilunar valves, and a slender clot of fibrin was found in the aorta, where it was divided, about two inches from these valves, for the removal of the heart.

On the right side, slight pleuritic adhesions existed between the convex surface of the lower lobe of the lung and the costal pleura, and firm adhesions between the anterior edge of the lower lobe, the pericardium, and the diaphragm. The right lung weighed thirty-two ounces. The posterior part of the fissure, between its upper and lower lobes, was congenitally incomplete. The lower lobe of the right lung was hypostatically congested, and considerable portions, especially towards its base, were the seat of broncho-pneumonia. The bronchial tubes contained a considerable quantity of stringy muco-pus; their mucous surface was reddened by catarrhal bronchitis. The lung-tissue was œdematous,* but contained no abscesses or infarctions.

On the left side, the lower lobe of the lung was bound, behind to the costal pleura, above to the upper lobe, and below to the diaphragm by pretty firm pleuritic adhesions. The left lung weighed twenty-seven ounces. The condition of its bronchial tubes and of the lung-tissue was very nearly the same as on the right side, the chief difference being that the area of broncho-pneumonia in the lower lobe was much less extensive in the left lung than in the right. In the lateral part of the lower lobe of the left lung, and about an inch from its pleural surface, there was a group of four minute areas of grey hepatisation, each about one-eighth of an inch in diameter. There were no infarctions, and no abscesses in any part of the lung-tissue.

The surgeons assisting at the necropsy were unanimously of the opinion that, on reviewing the history of the case in connection with the necropsy, it is quite evident that the different suppurating surfaces, and especially the fractured spongy tissue of the vertebra, furnish a sufficient explanation of the septic conditions which existed during life.

About an hour after the *post mortem* examination was completed, the physicians named at the commencement of this report assembled for further consultation in an adjoining cottage; a brief outline of the results of the *post mortem* examination was drawn up, signed by all the physicians, and handed to Private Secretary J. Stanley Brown, who was requested to furnish copies to the newspaper press.—(Signed)

* A part at least of this condition was, doubtless, due to the extravasation of the injecting fluid used by the embalmer.

D. W. Bliss, J. K. Barnes, J. J. Woodward, Robert Reyburn, D. S. Lamb.

As the above report contains paragraphs detailing the observations made at Washington on the pathological specimens preserved for that purpose, the names of Drs. F. H. Hamilton, D. Hayes Agnew, and A. H. Smith, are not appended to it. It has, however, been submitted to them, and they have given their assent to the other portions of the report.

THE WINTER CLIMATE OF SAN REMO.

By ARTHUR HILL HASSALL, M.D.Lond.,

Late Senior Physician to the Royal Free Hospital; Founder of, and Consulting Physician to, the Royal National Hospital for Consumption and Diseases of the Chest.

AT the annual meeting of the British Medical Association in 1880, I presented to the Section of Medicine a paper on the Winter Climate of San Remo, which was afterwards published in the JOURNAL of the Association for the 2nd October. I have since continued my observations on this subject, and the principal results arrived at I now beg to submit to the Association.

The instruments employed were Negretti and Zambra's, corrected at the Royal Kew Observatory; some of these were suspended in a box, with a double roof, and louvred on all sides; this box was placed in the shade, to the north, forty-eight feet above sea-level, thirty from the ground, and about five hundred feet from the sea.

The mean day range of temperature, for the six months constituting the winter season 1880-81; the mean monthly range; the mean maxima and minima temperatures; the mean temperature for the whole season, as well as some other particulars, are shown in the following table.

TABLE I.—*Mean Monthly North-Shade Temperature.*

Month.	Mean.	Mean.	Mean.	Mean Monthly.	Highest Daily (either 9 A.M. or 3 P.M.)	Lowest Temperature (either 9 A.M. or 3 P.M.)	Mean Daily Range.	Greatest Day Difference.	Mean Night Minima.	Mean Minima on Ground.	Mean Day Maxima.	Mean of Minima and Maxima.
November ..	[illegible]	61.5	[illegible]	57.7	[illegible]	[illegible]	[illegible]	11.3	51.4	[illegible]	[illegible]	[illegible]
December ..	[illegible]	59.2	51.6	[illegible]	[illegible]	[illegible]	6.9	13.7	49.0	44.6	[illegible]	[illegible]
January....	[illegible]	[illegible]	46.7	[illegible]	[illegible]	[illegible]	[illegible]	12.0	42.7	39.0	[illegible]	46.8
February ..	50.8	[illegible]	48.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
March.....	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.4	7	[illegible]	[illegible]	60.4	54.9
April	60.8	63.2	[illegible]	[illegible]	[illegible]	[illegible]	47.4	4.4	[illegible]	[illegible]	66.5	[illegible]
Mean of Season	53.5	[illegible]	51.4	54.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	44.8	[illegible]	[illegible]

From an examination of this table, it appears that January was the coldest month, with a mean temperature of 46.7° Fahr.; that February was the next coldest, with a mean of 51.5°; that the two warmest months were November and April, the means being 57.7° and 60.2° respectively. The mean of the maxima readings was 59.7°, and the mean temperature for the whole season, as deduced from the three daily readings, was 54.3°, or, taking the mean of the maxima and minima readings, 54.1°. The lowest temperature for the whole winter, namely, 33.0°, or one degree above the freezing-point, occurred in January. The mean of the night minima observations in the air was 48.6°, and on the ground 44.8°, showing a difference of 3.8°; the thermometer on the ground descended on three occasions below the freezing-point, the degrees indicated being 30.5°, 31.5°, and 31.0° Fahr.

Comparing these figures with those for the winter season of 1879-80, it appears that the two coldest months for that season were December and January, the mean for the former being 45.2°, and for the latter 47.5°. The two warmest months were March and April, the means being 55.0° and 56.5°; and the mean temperature for the whole season was 52.0°. The lowest temperature for the whole season was 27.9°, the thermometer having reached the freezing-point five times in December and once in January.

It appears, therefore, probable, during the severe and prolonged cold which prevailed in England and some other countries, that the winter season of 1880-81 was at San Remo an exceptionally mild one; the mean temperature, as already stated, being 54.3°, against 51.5°, the mean average winter season temperature of that place.

For some days in January snow was visible on the higher mountains around San Remo, which gave it a somewhat wintry appearance, and led to many adverse reports as to the severity of the season: but, as appears from the data already given, those persons might, indeed, be regarded as fortunate who were enabled to spend the past winter at San Remo.

The mean daily range of temperature for the six months varied between 4.4° and 6.9°, the mean being 5.7°. The greatest day difference was 14.0°, and the mean of each month's greatest variations was 11.8°. These figures correspond very closely with those for the season 1879-80, and they go far to establish the fact of the very considerable equability of the temperature of San Remo.

It will be seen that the mean of the 3 P.M. readings was 57.9°, and of the maxima readings 59.7°; and it is to these temperatures that invalids when out, as they usually are about the middle of the day, would be exposed, and this even in shade to the north; but invalids, of course, court the sun, with its much higher temperature; and we will, therefore, in the next place, give the particulars as to sun-heat and sunshine at San Remo during the past season.

TABLE II.—*Sun-heat and Sunshine.*

Month.	Mean Solar Radiation Thermometer, Vacuum.	Mean Solar Radiation Thermometer, Vacuum.	Mean Solar Radiation Thermometer, Air.	Mean Solar Radiation Thermometer, Air.	Mean Solar Radiation Thermometer, Air.	Total Hours of Sunshine.	Total Hours of Sunshine.	Total Hours of Sunshine.	Mean Daily Sunshine.	Mean Daily Sunshine.
	Mean.	Maxima.	Mean.	Maxima.	Maxima.	Mean.	Mean.	Maxima.	h. m.	h. m.
November ...	118.6	130.8	73.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.37
December ...	114.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
February	[illegible]	[illegible]	[illegible]	93.0	[illegible]	[illegible]	183.03	[illegible]	[illegible]	[illegible]
March.....	[illegible]	[illegible]	[illegible]	80.7	[illegible]	[illegible]	[illegible]	363.38	[illegible]	[illegible]
April	[illegible]	[illegible]	80.0	[illegible]	40.7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mean ...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	26.6	[illegible]	[illegible]	[illegible]	[illegible]

From an examination of the above table, it appears that the average sun-heat *in vacuo* for the season, omitting January and February, was 121.6°; that the mean maximum sun-heat *in vacuo*, omitting only January, was 134.8°; that the average sun-heat in air, including all months, was 73.0°, and the mean maximum sun-heat in air 84.1°; the mean excess of the maximum sun-heat *in vacuo* over the maximum sun-heat in air was, therefore, no less than 45.6°. Now, it should be clearly understood that the degree of heat denoted by the vacuum solar radiation thermometer is not one to which the human body, under ordinary circumstances, is exposed; since it cannot, like the bulb of a thermometer, be placed *in vacuo*, and be wholly protected from currents and moisture. Neither, indeed, does the ordinary sun-thermometer, with its blackened and naked bulb, indicate the true temperature to which the body is subject, since the latter is not naked but clothed; and hence protected to some extent from the action of currents of air. On these points, however, I have made some further observations in a paper treating of the climate of the Western Riviera generally.

TABLE III.—*Sun-heat and Sunshine.*

Month.	Mean Solar Radiation Thermometer, Vacuum. Mean.	Mean Solar Radiation Thermometer, Air. Mean Daily Maxima.	Total Hours of Sunshine.	Mean Daily Sunshine.
				h. m.
November	[illegible]	[illegible]	[illegible]	6.21
December	112.7	[illegible]	[illegible]	6.14
January	[illegible]	[illegible]	[illegible]	[illegible]
February ...	[illegible]	[illegible]	70.5	6.35
March ...	121.7	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mean ...	[illegible]	[illegible]	71.8	6.31

It appears, further, from the table of sun-heat and sunshine, that there were 160 days out of a total of 181 days, constituting the six months' winter season, on which the sun shone, the mean for each month being 26.6 days; that the number of hours during which the sun shone was 1,177.0, giving an average for each month of [illegible], as against a possible sunshine of 1,891 hours, with an average of 315.20 hours per month; that the mean daily sunshine amounted to 7 hours 18 minutes. These means include only the days on which the sun actually did shine; but spreading the sunshine over all the days, whether sunshiny or cloudy. The average sun-heat *in vacuo*, as shown in Table III, would be 118.0°, in air 71.8°, and the mean daily sunshine 6 hours and 30 minutes. The above figures are amply sufficient to show that San Remo has well sustained the reputation of the "Sunny South", even during the past exceptional winter season. Of the 181 days, there were but 21 on which the sun did not shine—some of these days even [illegible]

the actual sunshine was nearly two-thirds of the possible sunshine, and the average duration on the sunny days was considerably over seven hours per day.

Comparatively bright and sunshiny as was the past winter season, yet it was less so than the previous season of 1879-80, in which the days of sunshine amounted to 166, giving an average per month of 27.6 days; the sun shone for 1,330 hours, out of a possible sunshine of about 1,891 hours—equal to 8 hours per day, excluding the 16 cloudy days required to make up the 182 days of the winter season.

The facts respecting the Rain, Rainfall, and Relative Humidity of the Air, are set forth in Table IV.

TABLE IV.—*Rain and Rainfall.*

Month.	Days of Rain.	Hours of Rain.	Total Rainfall.	Mean Relative Humidity.	Highest Humidity.	Lowest Humidity.	
		h. m.	Inches.				
November	7	[illegible]	[illegible]	74.[illegible]	91.2	55.4	S., S.S.W., S.W., W. Wind.
December	9	[illegible]	0.28	72.[illegible]	92.3	49.0	
January	12	55.25	[illegible]	73.3	[illegible]	[illegible]	Strong N.E. Wind.
February ...	7	30.30	1.44	68.4	88.2	48.2	
March ...	5	[illegible]	1.25	7[illegible]	94.4	54.8	
April	10	[illegible]	[illegible]	70.7	86.4	[illegible]	Strong E. Wind.
Total.....	49	[illegible]	[illegible]	Mean 72.6	—		

Total days of rain, including the nights as well as the days, 49. In thirteen cases, the rainfall did not exceed 0.05 of an inch; and in four of these it only amounted to 0.01, or a hundredth part of an inch—the least measurable quantity.

It is shown in the above table that rain fell on 43 days, and, including the nights as well as the days, on 49 days of 24 hours each. This is a very high average for San Remo, seeing that the mean number of rainy days for the whole year amounts to only 48.0. But the rain was all needed to make up for previous deficiencies. The number of hours of *day* rain only for the six months was 161.0; the total rainfall, including the nights, amounted to 15.27 inches—the average for the whole year being 28.78 inches. The mean relative humidity of the air for the whole season was 72.6, this mean being deduced from three separate observations, taken each day at 9 A.M., 3 P.M., and 9 P.M.

With respect to the number of rainy days, it should be stated that on 13 of the 49 days and nights the rainfall did not exceed 0.05 of an inch, and in four instances it amounted to only 0.01, the least quantity measurable. Contrasting the above figures with the rainfall of the previous season 1879-80, some considerable differences will be observed. Thus, there were only 27 days of day rain; the rain fell for a period of but 117.18 hours; the rainfall amounted to only 10.26 inches; while the relative humidity was 67.8. It will thus be seen that there were fewer days of rain; that the rain fell for a shorter period; that the rainfall was one-third less, and the air much dryer, than during the past season.

It is well known that the water of the Mediterranean possesses a comparatively high temperature all the year round, due mainly to the absorption and storage of a portion of the great heat of the sun; and, to such an extent is this the case, that it becomes an important element in the climate of the Riviera generally. The more interesting facts in relation to the Temperature of the Mediterranean are exhibited in the next table.

TABLE V.—*Temperature of the Sea.*

	Mean Temperature of Sea.	Highest Temperature.	Lowest Temperature.	Mean Temperature of Air.	Sea warmer than Air.	Greatest Difference.
	9 A.M.	9 A.M.	9 A.M.	9 A.M.	9 A.M.	
November	[illegible]	[illegible]	[illegible]	[illegible]	5.3	11.[illegible]
December	5[illegible]	[illegible]	5[illegible]	52.2	7.6	9.9
January	5[illegible]	5[illegible]	5[illegible]	46.9	9.4	1[illegible]
February	[illegible]	55.7	52.6	[illegible]	3.3	5.1
March	5[illegible]	56.6	53.8	[illegible]	.2	7.5
April	58.6	[illegible]	[illegible]	62.0	3.5*	
Mean	57.7	—	—	53.9		

* The air was 3.5 warmer in this month than the sea.

From this table, it appears that the mean temperature of the sea, at 9 A.M., for the whole season, was 57.7°; that the highest point reached was 63.9° in the month of November, and the lowest 52.6° in February—showing a difference of 11.3 degrees between the highest and lowest points. The mean temperature of the air, at 9 A.M., for the six months, was 53.9—showing a difference of only 3.8 degrees on the whole season between the air and the sea. During the month of March, the temperature of the sea and air was almost identical, while in April there was a mean difference in favour of the air of 3.5°. Lastly, taking the first four months of the season, the difference in favour of the sea amounted to 6.4°. The greatest difference between the sea and air occurred in the first three months; and, on one occasion (in January), it was as much as 15.8°. It is during the colder winter months that the sea is warmest, just, in fact, when the warmth is most needed.

TABLE VI.—*Daily Variations of Temperature.*

Time. h. m.	Sky.	Temperature.	Difference of Dry and Wet Bulb.	Relative Humidity.	Time. h. m.	Sky.	Temperature.	Difference of Dry and Wet Bulb.	Relative Humidity.
	December 8th.								
[illegible]	Bright	[illegible]	4.[illegible]	7[illegible]	3.00	[illegible]	[illegible]	[illegible]	72.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	,,	[illegible]	[illegible]	[illegible]	5	Cloudy in east	56.8	[illegible]	70.0
4.	,,	[illegible]	[illegible]	[illegible]	(sunset)				
4.[illegible]	,,	[illegible]	2.6	[illegible]	[illegible]	Clear in west	[illegible]	[illegible]	75.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5.00	,,	[illegible]	2.1	[illegible]	[illegible]	Cloudy	54.6	[illegible]	77.[illegible]
[illegible]	,,	[illegible]	2.1	[illegible]	6.00	,,	53.3	3.0	80.0
[illegible]	,,	[illegible]	[illegible]	[illegible]	9.00	Clear	50.0	2.2	84.8
[illegible]	[illegible]	[illegible]	4.0	74.[illegible]					
	December 9th.					*December 14th.*			
3.00	Somewhat cloudy	[illegible]	5.2	7[illegible]		Bright	60.4	[illegible]	68.0
					4.00	,,	60.2	6.2	65.2
4.00	,,	[illegible]	3.8	76.4	[illegible]	,,	[illegible]	[illegible]	74.[illegible]
4.[illegible]	,,	[illegible]	2.5	83.0	(sunset)				
(sunset)					5.00	,,	52.2	2.9	[illegible]
[illegible]	Clear	[illegible]	2.2	[illegible]	5.30	,,	50.0	2.0	86.0
5.40	,,	[illegible]	2.2	84.8	[illegible]	,,	49.7	2.3	84.8
6.00	,,	49.8	2.0	[illegible]	9.00	,,	49.5	2.6	82.2
9.00	,,	[illegible]	[illegible]	86.7					
	December 10th.					*December 15th.*			
3.00	Bright	62.3	4.9	72.[illegible]	3.00	Sunny	60.8	6.3	6[illegible]
4.[illegible]	,,	[illegible]	4.2	[illegible]	4.00	Sun and cloud	[illegible]	5.8	75.2
4.[illegible]	,,	[illegible]	2.1	86.2	(sunset)				
(sunset)					4.36	Pretty clear	52.0	2.7	82.0
5.00	,,	52.5	[illegible]	79.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5.30	,,	52.3	4.8	70.0	[illegible]	Cloudy in west	51.0	2.5	83.0
6.00	,,	[illegible]	5.0	69.0	5[illegible]	,,	50.6	2.7	[illegible]
9.00	—	53.4	3.2	81.2	[illegible]	Bright	[illegible]	2.6	82.4
					[illegible]	,,	[illegible]	2.7	[illegible]
	December 11th.					*December 16th.*			
3.00	Bright	[illegible]	—	—	[illegible]	Sun partly obscured	60.8	4.9	71.[illegible]
4.00	,,	55.3	4.1	75.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4.34	,,	[illegible]	3.0	80.0	[illegible]	Sun obscured, overcast	57.7	[illegible]	68.1
(sunset)					[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	,,	52.8	2.9	[illegible]	[illegible]	,,	[illegible]	[illegible]	70.7
[illegible]	,,	51.0	2.5	83.0	(sunset)				
6.00		50.5	3.2	[illegible]					
9.00	—	52.4	3.8	75.6	[illegible]	Obscured, except in west	57.3	4.9	71.2
					[illegible]	Cloudy	57.4	4.0	75.0
					6.00	,,	[illegible]	4.0	75.6
					9.00	—	56.6	[illegible]	67.8
	December 12th.					*December 17th.*			
3.00	Sunshine and cloud	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	59.8	[illegible]	69.5
4.00	Rather cloudy	59.9	4.3	74.5	4.00	Overcast	56.7	4.5	72.9
					[illegible]	,,	54.8	[illegible]	79.4
4.34	,,	56.3	3.0	81.0	(sunset)				
(sunset)					[illegible]	,,	54.4	3.7	75.8
[illegible]	,,	[illegible]	[illegible]	[illegible]	[illegible]	,,	54.2	3.2	80.6
5.00	Cloudy	[illegible]	2.0	86.0	[illegible]	Clearing a little	53.0	3.0	79.4
5.30	,,	52.9	2.2	84.8	[illegible]	—	—	—	—
[illegible]	Moonlight	53.0	[illegible]	[illegible]					
[illegible]	,,	51.9	[illegible]	[illegible]					

Referring to the table of the Temperature of the Sea for the season 1879-80, we find that the mean for the six months was 55.5°; that the highest temperature, which also occurred in November, was 63.2°, and the lowest 51.6° in December. The mean temperature of the air, at 9 A.M., was 51.6°—showing a difference of 3.9° for the whole season; but in this season also, the mean temperature of the sea and air for the month of March was identical with that of the past season 1880-81. The air in the month of April was 2.5° warmer than the sea; the difference between the sea and air for the first four months of the season being 7.2°; the greatest difference occurred in the first three months, and in November it amounted to no less than 19.6°, and in December to 18.4°. Thus, the figures of the sea temperature for the two seasons approximate pretty closely; and it is obvious that the very considerable warmth of the Mediterranean must exercise a very marked effect in in-

creasing and equalising the temperature of the air, particularly during the colder winter months.

It thus appears that, during the winter season of 1880-81, notwithstanding the extreme cold in England and many other places, the temperature of San Remo was much above the usual average—in fact, it was a very warm season; the weather was also very bright and sunny, though less so than the previous season. There was, however, a greater number of rainy days than the average; the rainfall was greater, and the air less dry; but the rainfall was by no means excessive, being scarcely suffiicient to meet the wants of the country, and the relative humidity little more than enough to impart that degree of moisture to the air necessary to prevent its becoming somewhat irritating and exciting, as it not unfrequently does in the Riviera.

It is well known that a considerable fall of temperature takes place in the Riviera at sunset, and hence invalids are always enjoined to return to the house before that hour. The changes which take place before, at, and after sunset are well shown in Table VI.

This table amply demonstrates the necessity for a strict observance of this injunction. It will be noticed that the greatest fall of temperature takes place when the sky is clear and free from cloud; it is then also that the dew falls, and the air becomes most moist. On cloudy days the fall of temperature is much less, and the air much dryer. (See December 16th and 17th.)

THE CLIMATE OF THE UNDERCLIFF, ISLE OF WIGHT, AS A PLACE OF HEALTH-RESORT.*

By J. L. WHITEHEAD, M.D., Ventnor.

In the present brief paper which I propose to read, I am anxious to lay before your notice an uninterrupted series of meteorological observations, as regards the Undercliff of the Isle of Wight, during a period of forty years, and to offer a few remarks with respect to its climate, based on such observations and my own personal experience, which now reckons nearly twenty years.

For the statistics themselves, I am indebted to the labour of the late Dr. Martin, and his brother Mr. Martin, a Member of the Royal College of Surgeons, who has been resident at Ventnor since the year 1838, and to whom I owe much of the material I have to lay before you.

The meteorological observations which I propose to place before you extend over an unbroken space of forty years—viz., from 1840 to 1879 inclusive. They were commenced by the late Dr. Martin soon after his arrival at Ventnor, and his attention was the more particularly directed to such observations, as he was at that time engaged, on behalf of his friend, the late Sir James Clark, in calculating and arranging for him the tables which were subsequently published in his well-known work upon *Climate*. Dr. Martin procured the best instruments which were to be procured at that period, and eventually, with the kind counsel of his friend Mr. Glaisher, formed an observatory for the arrangement of his instruments, which has subsequently stood the test of comparison with other observations made at the Royal National Consumption Hospital, between Ventnor and St. Lawrence, as likewise with those of the Rev. Clifford Malden at St. Lawrence, at both of which places the Stevenson stand and verified instruments are employed. The result of the separate observations being so closely in accord, serves to demonstrate the reliability of the observations made at Ventnor, carried over so long a period as that previously mentioned.

The Undercliff of the Isle of Wight extends from Bonchurch to Blackgang, a distance of between six and seven miles, with an average breadth of a third of a mile. It has been formed by the subsidence of the land, at some remote period, from the upper-cliff, which rises between 400 and 500 feet above the level of the sea, and backs it for the most part as with a wall. In its descent, the land has fallen into natural terraces, which face the sea, and front nearly due south. The consequence of such an arrangement, with its insular position, has doubtless a marked influence with regard to its climate, obtaining for it a mildness during the winter, as also coolness during the summer, which it otherwise would not possess; the slanting and terraced condition of the land enabling the sun's rays to fall more directly on the surface than they otherwise could do during the winter, while the shade of the upper cliffs affords protection from the dwelling rays of a summer afternoon, and, with the aid of the sea-breeze shutting out the hot north summer winds, renders the atmosphere comparatively cool and pleasant during the warmest periods of the year, the result being a mild climate during the winter, and an equally cool climate during the summer. In proof of the foregoing observations, it is only necessary to point to the great equability of its temperature, as evidenced by the meteorological observations carried over the long period before alluded to.

Sudden transitions from great heat to cold, and extensive range of temperature, may be said to be unknown. The mean daily ranges for the respective seasons of winter, spring, summer, autumn, are as follows: winter, 7.10°; spring, 10.6°; summer, 10.24°; autumn, 8.80°.

While considering the climate of the Undercliff, reference may also be made to the difference of temperature and rainfall between Ventnor and Newport, the chief town in the island, placed near its centre. Mr. Aldridge, to whom this paper is indebted for the following observation, in a communication published by him in April 1872, says: "With regard to the mean daily maximum temperature, the two towns may be said to be fairly equal during the months of February and March, after which Newport has the superiority until October, when Ventnor takes the lead, and maintains it for the remainder of the twelve months. The Newport excess, in May, June, and July, averages about 2.75°, and is more than half a degree on the mean of the whole year. As to the mean daily minimum, Ventnor has the superiority over Newport throughout the entire year, the excess being 1.75°." "With regard to the amount of rain, Ventnor has the drier climate of the two. Taking the whole year, therefore, the climate of Ventnor is rather warmer, much more equable, and considerably drier than that of Newport. The latter fact may probably be accounted for by Newport being placed to the leeward of the range of down stretching from the Needles to Brading; while Ventnor is to the windward of the range of hills in its more immediate vicinity."

In a very recent paper, Mr. Aldridge makes also the following observation. "In illustration of the great superiority of Ventnor to Newport in times of severe nocturnal cold, it may be mentioned that, in October 1873, the minimum temperature was 37° at Ventnor, and 28.5° at Newport. The rise of mean temperature in August and comparative warmth of the autumn and early winter are also noticeable points in the climate of the Undercliff."

The temperature of Ventnor during the spring months, April and May, does not increase in the same proportion as that of Greenwich, and vegetation is never early; but the continuance of warmth into the autumn months is equally marked, a fact which is thus noticed by Mr. Aldridge, who says: "I find the same result (that is, the warmer autumn) revealed in the comparison with Newport; at Ventnor, October is considerably warmer than May; but at Newport and Greenwich, May is considerably warmer than October: a matter of importance to late visitors. Again, November at Newport is 1° warmer than March, but at Ventnor it is 2.5°."

The soil of the Undercliff is dry, being for the most part composed of chalk, with the upper greensand stone, intermingled at various points with the gault, but the whole mass is much disrupted and broken up. The result is, that the surface soon dries after rain.

While it has a temperature closely resembling, if not identical with, that of Torquay, Ventnor has the advantage of a much less humid atmosphere, and is consequently by no means so relaxing. Taking the rainfall of forty years, it shows a mean of 28.80 inches. But the gradual increase during the several decades is somewhat remarkable: from 1840 to 1849, the mean was 25.72 inches; 1850 to 1859, 28.44 inches; 1860 to 1869, 29.161 inches; 1870 to 1879, 31 inches. The rainfall of 1875-6-7-8-9 was greatly in excess of that usually recorded in previous years, and it is believed the same result was obtained in other localities, and that such excessive rainfall was a very material cause in producing the evil which tended so much to embarrass and distress the agricultural interests. From the nature of the soil before pointed out, the streets and roads soon become dry after rain, and it is a rare circumstance that the weather should be so continuously bad as totally to prevent out-door exercise during some part of the day. There is also another noticeable feature, which is as true now as it was at the period Dr. Martin alluded to the fact in his work on the Undercliff, "that more rain seems to fall during the night than in the day". The circumstance is frequently matter of common observation, and it has its advantages in affording for the most part greater facilities for out-door exercise.

The Undercliff is full of springs of the purest water, and the water-supply throughout the [illegible] hood by the water-company has every advantage of not only a very pure, but superabundant source.

The prevailing winds are westerly, and, taking the period of forty years, the northerly and easterly [illegible] and westerly, are 5.034 [illegible].

In certain [illegible] in mind that we are still [illegible]

* Read in the Section of Public Medicine at the Annual Meeting of the British Medical Association in Ryde, Isle of Wight, August 1881.

TABLE I. *Comparative View of Maxima and Minima Temperatures for July* 1881.

Maxima for July 1881.

1881 July.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	70.4	[illegible]	70.0	[illegible]	[illegible]	82.6	[illegible]
2	[illegible]	74.1	72.0	[illegible]	[illegible]	[illegible]	[illegible]	74
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	73	74.3	72.0	81.3	[illegible]	78	[illegible]	[illegible]
5	77	[illegible]	[illegible]	[illegible]	81	[illegible]	92.8	92
6	[illegible]	67.0	64.5	67.2	[illegible]	[illegible]	[illegible]	68
7	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	66.1	[illegible]
8	62	64.3	[illegible]	[illegible]	[illegible]	[illegible]	65.8	[illegible]
9	[illegible]	[illegible]	[illegible]	68.3	[illegible]	[illegible]	72.7	68
10	[illegible]	68.7	68.0	[illegible]	[illegible]	[illegible]	74.1	73
11	[illegible]	71.3	68.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	74	72.7	[illegible]	[illegible]	[illegible]	[illegible]	86.2	[illegible]
13	[illegible]	[illegible]	72.0	74.5	73	79	81.4	77
14	[illegible]	76.8	[illegible]	80.1	72	79	[illegible]	[illegible]
15	[illegible]	76.9	[illegible]	90.4	[illegible]	74	[illegible]	90
16	77	[illegible]	77.0	84.4	[illegible]	79	[illegible]	[illegible]
17	74	[illegible]	74.0	82.2	79	[illegible]	[illegible]	82
18	74	75.9	74.0	[illegible]	[illegible]	80	90.2	[illegible]
19	77	78.0	78.0	85.7	82	80	88.0	[illegible]
20	70	81.8	68.6	74.7	[illegible]	[illegible]	76.0	[illegible]
21	[illegible]	69.9	69.0	[illegible]	[illegible]	[illegible]	73.4	72
22	[illegible]	[illegible]	[illegible]	64.9	[illegible]	[illegible]	63.1	62
23	66	62.8	65.6	68.8	68	65	[illegible]	70
24	[illegible]	66.8	65.1	69.6	69	[illegible]	[illegible]	[illegible]
25	[illegible]	64.9	62.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	62.7	65.7	68.1	[illegible]	66	[illegible]	[illegible]
27	[illegible]	65.0	67.0	69.9	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	69.2	69	[illegible]	75.9	72
29	67	[illegible]	63.6	69.7	[illegible]	[illegible]	74.5	[illegible]
30	64	66.8	64.0	65.4	[illegible]	74	68.1	67
31	64	63.5	[illegible]	65.6	65	69	[illegible]	[illegible]
Mean	68.67	70.82	68.78	[illegible]	72.06	[illegible]	74.80	74.80

Minima for July 1881.

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	[illegible]	[illegible]	52.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	54	54.6	54.0	49.3	53	[illegible]	54.7	[illegible]
3	[illegible]	[illegible]	57.0	[illegible]	[illegible]	[illegible]	55.3	54
4	[illegible]	56.9	56.0	56.9	59	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	57.0	54.0	[illegible]	[illegible]	[illegible]	[illegible]
6	59	[illegible]	58.0	[illegible]	[illegible]	[illegible]	52.0	[illegible]
7	[illegible]	[illegible]	[illegible]	52.0	50.7	[illegible]	49.2	47
8	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	52.0	[illegible]
9	[illegible]	50.1	49.0	[illegible]	[illegible]	54	47.6	47
10	[illegible]	54.7	55.5	[illegible]	[illegible]	53	56.0	[illegible]
11	[illegible]	[illegible]	[illegible]	52.9	[illegible]	[illegible]	[illegible]	[illegible]
12	60	[illegible]	[illegible]	[illegible]	62	[illegible]	54.8	[illegible]
13	54	53.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	60	58.0	[illegible]	[illegible]	[illegible]	56	[illegible]	[illegible]
15	[illegible]	[illegible]	61.8	62.0	55.9	[illegible]	[illegible]	[illegible]
16	64	63.5	[illegible]	[illegible]	58.3	[illegible]	60	61.8
17	59	[illegible]	[illegible]	53.0	53.8	[illegible]	[illegible]	61.0
18	62	58.4	[illegible]	[illegible]	[illegible]	64	53	[illegible]
19	65	64.0	[illegible]	[illegible]	57.3	[illegible]	[illegible]	[illegible]
20	60	54.0	[illegible]	[illegible]	59.0	[illegible]	[illegible]	57.3
21	53	57.2	52.0	47.6	[illegible]	[illegible]	[illegible]	[illegible]
22	53	53.4	51.0	45.1	57	[illegible]	52.0	51
23	57	[illegible]	[illegible]	[illegible]	59	[illegible]	[illegible]	53
24	60	53.5	58.9	59.5	[illegible]	[illegible]	56.5	53
25	50	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	50.6	[illegible]	51.6	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	52.9	[illegible]	[illegible]	57	52	48.5	[illegible]
28	[illegible]	[illegible]	49.4	[illegible]	54	41	43.9	[illegible]
29	[illegible]	[illegible]	57.2	52.9	[illegible]	58	[illegible]	53
30	[illegible]	56.4	[illegible]	56.7	[illegible]	59	55.5	[illegible]
31	59	58.2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Mean	[illegible]	56.04	[illegible]	[illegible]	59.93	[illegible]	[illegible]	[illegible]

TABLE II. *Summary of the Maxima and Minima Temperatures.*

	Ventnor.	National Consumption Hospital.	St. Lawrence.	Newport.	Ryde.	Learmonth.	Greenwich.	Kew.	Leamington.
Mean Maximum	[illegible]	[illegible]	68.78	[illegible]	72.06	73.54	[illegible]	74.80	73.25
Mean Minimum	[illegible]	56.04	55.87	[illegible]	[illegible]	[illegible]	[illegible]	53.12	[illegible]
	2)125.83	2)126.86	2)124.65	[illegible]	[illegible]	2)131.09	2)127.24	[illegible]	[illegible]
Mean of Month	62.91	[illegible]	62.32	62.98	65.99	63.62	[illegible]	63.96	[illegible]
Maximum	77	81.9	[illegible]	[illegible]	[illegible]	83	[illegible]	92	[illegible]
Minimum	[illegible]	50.1	49	[illegible]	[illegible]	41	43.9	[illegible]	43
Range	[illegible]	31.8	[illegible]	[illegible]	[illegible]	42	53.2	50	[illegible]

Note.—It is to be noticed that the reading at the Consumption Hospital gives a higher maximum than Ventnor or St. Lawrence, and it is difficult to account for such discrepancy; the position of the hospital being midway between the other localities, about three miles from each. The readings at Ventnor and St. Lawrence are very closely in accord and corroborated by two other independent sources, namely, a table of temperature published in one of the local journals, as also from observations made by a private source; both of which give the maximum of the month as [illegible]. There is also this curious fact; that, while the readings at Ventnor, the Consumption Hospital, and St. Lawrence, are all but identical on the 19th and 21st, the maximum at the hospital on the 20th, the intermediate day, was 81.8° against 70° at Ventnor, and 68.6° at St. Lawrence, a difference of 11.8° as regards the former, and 13.2° as regards the latter; it is difficult to arrive at the source of so great a variation; but, under all circumstances, the impression must remain that the observations at Ventnor and St. Lawrence are the most reliable. The difference was attributed, in the first instance, to a clerical error; but, on inquiry, such did not appear to have been the case.

* There would appear to be some error in the minimum as returned from Newport. [illegible] at least [illegible].

TABLE III. *Temperatures at Ventnor, the Consumption Hospital, and St. Lawrence.*

	Ventnor.				National Consumption Hospital.				St. Lawrence.			
1880.	Maximum.	Minimum.	Mean Maximum.	Mean Minimum.	Maximum	Minimum	Mean Maximum.	Mean Minimum.	Maximum.	Minimum.	Mean Maximum.	Mean Minimum.
January	[illegible]	[illegible]	40.32	32.80	50.6	24.4	48.67	33.44	[illegible]	23.5	[illegible]	33.26
February	53	[illegible]	47.93	39.93	52.8	32.4	47.79	39.59	[illegible]	32.5	47.84	[illegible]
March	[illegible]	[illegible]	52.54	42.00	[illegible]	35.5	[illegible]	[illegible]	[illegible]	35.6	[illegible]	40.96
April	[illegible]	[illegible]	54.13	43.50	59.0	37.0	54.09	[illegible]	58.6	36.2	[illegible]	[illegible]
May	72	[illegible]	61.06	[illegible]	73.6	[illegible]	60.97	[illegible]	73.0	38.0	[illegible]	[illegible]
June	[illegible]	42	63.06	52.16	68.8	43.4	63.18	50.61	67.8	40.0	[illegible]	[illegible]
July	[illegible]	[illegible]	66.48	56.70	74.7	48.4	66.25	[illegible]	[illegible]	51.0	[illegible]	[illegible]
August	77	[illegible]	70.90	58.35	78.4	[illegible]	70.98	57.95	76.6	52.0	[illegible]	[illegible]
September	[illegible]	49	66.16	56.83	[illegible]	47.7	[illegible]	56.20	75.0	50.0	[illegible]	[illegible]
October	[illegible]	[illegible]	54.70	[illegible]	[illegible]	32.7	55.03	44.89	[illegible]	[illegible]	[illegible]	[illegible]
November	[illegible]	[illegible]	[illegible]	[illegible]	57.3	28.6	[illegible]	40.67	56.0	[illegible]	50.51	[illegible]
December	[illegible]	33	49.87	[illegible]	[illegible]	31.8	51.38	42.17	55.0	32.5	[illegible]	[illegible]
1881.												
January	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	40.69	29.60	51.8	15.5	[illegible]	29.06
February	49	[illegible]	43.85	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	49.6	30.5	[illegible]	36.67
March	[illegible]	[illegible]	49.74	39.83	[illegible]	[illegible]	50.96	[illegible]	61.1	[illegible]	[illegible]	[illegible]
April	64	[illegible]	[illegible]	[illegible]	[illegible]	29.9	53.42	[illegible]	[illegible]	31.0	[illegible]	[illegible]
May	72	39	60.45	47.77	74.4	38.2	60.88	[illegible]	[illegible]	[illegible]	59.85	[illegible]
June	74	39	[illegible]	[illegible]	74.6	39.3	[illegible]	[illegible]	[illegible]	39.0	[illegible]	[illegible]

of health-resort in the United Kingdom, namely, a British climate, subject to all the changes and vicissitudes of weather to which it is so liable. The changes, however, are felt relatively less at the Undercliff than probably elsewhere; and the weather for the most part, if bad on the mainland, seldom visits the back of the island save in a modified form. Snow during the forty years was the marked exception, not the rule; and, during the hardest winters, not only the thermometer, but the perfect preservation of the shrubs and evergreens, bore testimony to the comparative mildness of the atmosphere. Of course, it is not pretended, favoured though it would appear to be, that it can vie with the softer and sunnier clime of the south of Europe; though the instances are by no means few, in which patients who have been from circumstances debarred from returning to the south, have done better even at the Undercliff, amidst the comforts of home, an equable temperature, and more bracing atmosphere, than they did abroad.

Now, if there is one fact which is conclusively shown by the tables which I have presented to you, it is the remarkable equability of the temperature at the back of the Isle of Wight. The range from day to day is comparatively small, both during the winter as also during the summer months, and that to a degree which I am not aware occurs in any other locality, and is one of the most striking circumstances that renders the Undercliff a desirable place, in many instances, for health-resort. The late Sir James Clark was the first to call attention to the value of the southern portion of the Isle of Wight, which he does in the following terms: "The part of the island adapted as a winter residence is that denominated Undercliff, which comprehends a tract of country, extending from Dunnose to St. Catherine's Hill, six miles in length, and from a quarter to half a mile in breadth. This singular district consists of a series of terraces, formed by the upper strata, composed of chalk and greensand, which have slipped down from the cliffs and hills above, and been deposited in irregular masses on the substratum of blue marl. The whole of the Undercliff, which presents in many places scenery of the greatest beauty, is dry, and free from moist and impure exhalations, and is protected from the north, north-east, north-west, and west winds, by a range of lofty downs which rise boldly from the upper termination of these terraces, leaving the Undercliff open only in a direct line to the south-east and south-west winds, which rarely blow here with great force. The climate is remarkably equable, as well as mild and dry, and there are not many days during the winter on which an invalid cannot take some exercise in the open air. The mildness of the climate may be estimated in some degree by the circumstance of myrtles, geraniums, sweet-scented verbenas, heliotropes, and other tender plants, usually withstanding the winter in the open flower-border. I have certainly seen nothing along the south coast that will bear a comparison with it." And, in a foot-note, after expressing his obligations for the assistance rendered him, he concludes with the following words: "By continuing the series of minute and careful observations on which he has already been engaged for some years, Dr. Martin will soon be enabled to fix the character of the climate of the Undercliff." So much for Sir James Clark.

Dr. Madden, in his able work on *Health-Resorts of Europe and Africa*, published in 1876, bears likewise strong testimony to the value of the Undercliff. At page 8, speaking of climate adapted for phthisical patients, he states: "It has already been observed that these sedative climates (Torquay, Hastings, Worthing, Bournemouth) are by no means universally serviceable to phthisical patients, who more frequently require a somewhat dry, tonic, moderately warm, and bracing atmosphere. Of such climates, unfortunately, the number is extremely limited in these islands, being chiefly confined to a narrow strip, about six miles in length, situated on the south-east coast of the Isle of Wight; *i. e.*, the Undercliff, which undoubtedly possesses the best tonic winter climate for consumptive patients in the British Isles."

But it is to a passage in a paper published by Dr. W. Thornton Parker in the *New York Medical Journal* for May 1881, "On Ventnor, Isle of Wight, and its Peculiar Advantages for the Invalid", to which I would the more particularly direct your attention. After quoting the opinion of Dr. Simons, "That the pure air of the open sea acts in a very favourable manner, we have excellent authority; but it is not so clear that the air on sea-shores is, as a rule, salutary in its effects", he goes on to say: "Now, in the midst of all the conflicting testimony, I find that the majority seem to regard the pure air of the open sea beneficial; it is the mixture of land and sea air which is to be feared." "The climate at almost all seaside resorts is certainly affected more or less by the mixture of land and sea-air; but at Ventnor the air is almost, if not wholly, the pure air of the sea. No land breezes can be felt; no streams or ponds of fresh water exist, of any considerable size. The geographical situation, far out in the ocean, the southern exposure, and the tremendous 'downs', have given to Ventnor a climate which cannot be found elsewhere, and which, I believe, considering the accessories, is unsurpassed in the world for the treatment of pulmonary disease."

Now, gentlemen, it is to be borne in mind that this is the opinion of one in every way calculated to form a just conclusion. He is a gentleman in America totally unconnected with any local interest, an able member of the profession, and one who writes, not from mere hearsay or information gleaned from books, but from his own personal experience after residing at Ventnor; and I believe, in giving the expression he has done, he has struck the key-note of any advantages which the Undercliff of the Isle of Wight possesses over other localities which have been selected as places of health-resort; and that, while at Ventnor or any other locality which the Undercliff may contain, you are not by the seaside, but actually out at sea, where you combine most of the advantages of a cruise at sea without the discomforts of a sea-voyage. The distinction drawn by Sir James Clark, and the more noticeable statement of Dr. Madden with regard to the tonic effects of the climate of the Undercliff, are attributable to that fact; and, in order to place more clearly my meaning before you, I have had a rough tracing taken from one of the ordinary maps, which may at once convey to the eye what perhaps words would scarcely so well demonstrate. You will see there the general configuration of the island, with its relative position as regards the mainland. It is to that fact, with the shelter afforded by the high ground above, and its southern exposure, that the Undercliff is mainly indebted for its very remarkable and equable climate, its warmth in winter, and its coolness during the summer months.

In order to show the coolness of the Undercliff during the summer months, perhaps I could have had no better opportunity than that afforded by comparison with other places, during the month of July just passed. The maximum temperature, as shown by Mr. Martin at Ventnor, the Rev. Clifford Malden at St. Lawrence, with other local observers, did not exceed 78°.

The Undercliff is seldom, if ever, without a sea-breeze. On calm and sultry days, when there is probably hardly a breath of air on the Downs, you will generally find a light breeze eddying along the shore; and I was forcibly struck recently by the difference of temperature experienced during much of the warmer weather. On driving inland into the country, I found the heat more or less oppressive; but, directly I descended into the Undercliff, the effect of the sea breeze was immediately perceptible, and the air became comparatively cool and refreshing.

In conclusion, I cannot help referring to the very common, but somewhat vulgar error, that has deterred, and still continues to deter, many from visiting the back of the island during the summer season: it is that, as the Undercliff is comparatively warm in the winter, so it must be intensely hot during the summer; whereas the very reverse is the fact. I wish to dwell on this fact; for it is not only an injustice to the place itself, but also to those who may desire to visit it.

I have endeavoured to lay before you, as concisely as I could, some account—and, I trust, a fair and impartial account—of the climate of the Undercliff; the object, however, is, that the appended tables should speak for themselves, and the apology for producing them in the present form is the very long period over which they extend.

THE ISLE OF WIGHT AS A HEALTH-RESORT.*

By JOSEPH GROVES, B.A., M.B., Carisbrooke.

In speaking of the Isle of Wight as a health-resort, I shall endeavour to avoid, as far as possible, any extravagance of expression arising out of that peculiar home-affection which natives of islands share with those of mountainous districts; feeling assured I could not do the Isle of Wight a greater injustice than by exciting, by the language of exaggeration, undue expectation and consequent disappointment, or than by destroying its individuality in strained similitudes and comparisons. I shall not describe our island, therefore, as the British Madeira, or its Undercliff as the Riviera of the English Channel. We really have no Bay of Naples or Blue Grotto of Capri, though our coast is indented with several fine bays, and there are some interesting caves at Freshwater Gate. But, as a practical physician acquainted with many of the more celebrated health-resorts of the globe, I can claim for the Isle of Wight that it possesses advantages and peculiarities which account for its ancient renown and its present popularity.

The conditions which obtain in the island may be described as essentially marine on the coast, and semi-marine in the interior. Its most obvious peculiarity is, that it is an island, and the resulting general equability of temperature is its most striking possession. If I do not

* Read in the Section of Public Medicine at the annual meeting of the British Medical Association, held in Ryde, August 1881.

trouble you much with statistics, and if I appeal rather to common sense and scientific knowledge, it is right to say I shall make no statement which cannot be supported by figures. It is quite certain no amount of statistics will enable me to give any portion of the Isle of Wight, or any place in these latitudes, the blue skies and genial climate of Southern Europe and Northern Africa in winter, or their subtropical vegetation; for it is beyond my power to control the cold Arctic currents and Polar winds which sometimes visit us. But I do know that the Isle of Wight in winter is warmer than the mainland, because its narrow area is wrapped round by a mantle of salt water, the temperature of which is several degrees higher than that of the air, and which is renewed at every tide by streams from the ocean bearing a portion of the heat they have taken up in the tropics. It is cooler, too, in summer, because, as the land is heated in the early day, fresh breezes from the sea sweep it from all sides; and, as it cools towards evening, the land-breeze springs up in every direction. A seaside residence, however, has its disadvantages in autumn and spring because, in autumn, the heat of the water is relatively greater than that of the atmosphere, and in spring it is relatively colder. It follows, therefore, that localities removed from the coast are cooler in autumn and warmer in spring; and such localities are to be found in the interior of the island, where the temperature is more equable at those seasons.

Of only secondary importance to its insularity is its remarkable physical configuration, which has given it such unique scenery, the charm of which the passing tourist seldom fully appreciates, and which, for its extent, has endowed it with a considerable diversity of climate within certain limits. The mean temperature of different places in a given neighbourhood cannot vary greatly, and even 2° or 3 Fahr. cannot be said to have a high sanative value; the differences between them really consist of the degree of shelter afforded. The surface of the island is almost universally undulating and hilly; but its most prominent feature is the range of chalk downs which traverses it from east to west, giving off spurs and dividing into subsidiary ranges. On the east, and in the centre of the island, these downs form the northern boundary of the broad open greensand valley. South of this valley, and following the line of the south and south-east coasts, is another range of hills, of greensand for the most part, with the gault—or "blue slipper", as they call it in these parts—underlying it. As the gault has a dip to the south, portions of the superimposed strata have slipped seaward from time to time, and have formed the natural terrace known as the Undercliff. Thus, a greater portion of the island possesses a bulwark against the force of northerly winds; and many places in the interior are protected from the east as well; while the Undercliff lies at the foot of a perpendicular wall or escarpment, from forty to eighty feet high, which forms the sea-face of the more southerly chain of hills, and, from its south-easterly position, it is shut off in a measure from the prevalent south-west gales. But, although thus favoured, the proximity of the sea, the irregularities of the surface, the high downs, and the broad combes or valleys, promote the movement and circulation of the air, and render the Isle of Wight a decidedly breezy place.

The nature of the soil and the geological characteristics of the island are not the least interesting of the factors which determine the sanative properties of its climate. The strata of the chain of chalk downs are not horizontal, as the casual observer may suppose, but set up on end, so to speak, in obedience to the lines of an anticlinal curve. To the south, denudation has removed the chalk at the arch of the curve—outliers of it only remaining—down to the upper greensand; and even the lower greensand and the wealden are exposed in the west and east. To the north, lower tertiary strata are preserved in the synclinal hollow of the chalk as it dips beneath the Solent, to reappear as the South Downs. The eocene strata, as they rest against the northern face of the chalk, are also more or less perpendicular; and the clay-beds among them do not hold the water, therefore, as they would do were they horizontal. Even where more level beds of clay exist, as in the gault of the Undercliff and in the tertiary strata, which become more horizontal as they approach the northern coast, the undulations of the surface, and the dip of the beds, in one case to the south and in the other to the north, have the effect of running the water off rapidly. But over the greater portion of the island the soil is exceedingly porous—a fact admonitory to the medical health-officer in connection with the contamination of well-water and the disposal of sewage; for, where the upper secondary rocks in the southern and central districts are not immediately beneath the surface, there are beds of gravel accumulated during periods of submergence, especially during submergence beneath the glacial seas, and by the ancient rivers, before the features of the present physical geography were determined, and when the land stretched far away to the south; and, although the fluvio-marine and freshwater strata north of the chalk are in part of clay, they are also in great measure porous, containing beds of sand, sandstone, and marl, and are covered in many parts by the same post-tertiary gravels. The result is a dry soil and a rapid drying up after rain.

The rainfall is by no means excessive, ranging from 29 inches in some localities to 33 inches in others. Moreover, those places which have the greatest rainfall rather possess the advantage, inasmuch as the rain falls in heavier showers, whereas in the apparently drier districts it is more frequently of a drizzling character and of longer duration.

Coming direct from the sea—and there is no land in a south-westerly direction between the Isle of Wight and the north coast of South America—the air is very pure, while its briny character is often perceptible, especially near the coast.

It is scarcely possible for any district to have a purer or more abundant water-supply; indeed, the inhabitants themselves seem not to know how well off they are in this respect. At Carisbrooke, the reservoir of the chalk-marl, which is sufficient for the service of the whole island, has been tapped for the supply of Newport and its neighbourhood. Ryde is also supplied from the chalk; and at Ventnor, as you leave the station, you may observe thousands of gallons in a pellucid torrent constantly rushing in waste to the sea from the reservoir of the upper greensand.

As in other places, preventable disease, unfortunately, too frequently occurs; but the death-rate is low. During the year ending March 1881, the death-rate was 17.72 per 1,000, at the close of a severe winter. Many of the old island families are long-lived, and deaths between 70 and 100 seem very unusually numerous; but examples of long-lived families are common in many districts.

The idea prevails that the climate of the Isle of Wight is enervating—an error which has arisen from want of care in selecting places of residence in individual cases. There are very sheltered localities on the southern slopes of the downs in all parts of the island; and the wonder is that more farmhouses in the centre of the Wight are not occupied by invalids in the winter, and that lodging-houses have not been erected in particularly favoured spots; but on the northern slopes the climate is sufficiently, though mildly, bracing. Indeed, the westerly termination of the Undercliff itself is particularly bracing at Blackgang. Sheltered on the north and east by the lofty down of St. Catherine's, and at a considerable elevation above the sea, Blackgang, situated almost at the extreme southern part of the island, receives the full force of the southerly and south-westerly blasts as they come up from the ocean. The air seems always in motion there; and the climate, though mild, is particularly exhilarating. On the east, within a few minutes' ride by rail of Ventnor, is Shanklin; and just beyond it, in the centre of its beautiful bay, is Sandown; these are more bracing, because less protected than the Undercliff; and at the extreme west, easy of access from the mainland, is Freshwater, with its sheltered nooks and breezy downs. The climate of the Solent coast, which is fully exposed to the north, is colder; and Ryde and its suburbs, the higher ground above Wootton, Cowes, and Totland Bay, are decidedly bracing. But even in these places the temperature is considerably modified by the sea, as is evidenced by vegetation. At Osborne, plants remain unprotected during winter, which in the royal gardens elsewhere require the shelter of a house. Parkhurst Barracks, four miles inland from Cowes, is the station for troops returning from India and hot climates; and to Parkhurst Prison, close by, are drafted the more delicate prisoners from other convict establishments.

In the centre of the island, the highlands about Newport, the capital, are favourite health-resorts of the inhabitants and of visitors. The ancient metropolis, Carisbrooke, with its charming scenery, stands on the chalk to the west of the town, and has a climate softer and more gently bracing than that of Staplers to the east, which is capped with gravel, and is one of the driest and most invigorating spots on the island.

The natural humidity of the atmosphere of a sea-girt place with a mild climate would scarcely be considered a drawback to the Isle of Wight, save in winter; but in winter, as Mr. Aldridge, himself a native of the island, has shown, a marine climate is actually drier than one remote from the sea. As to the vexed question of sea-fogs—from which every seaside watering-place is of course free, save in the experience of visitors and in the knowledge of those who use their common sense—I think they may be less troublesome here, perhaps, on account of the elevation of the land. At any rate, I have often looked down upon a fog at Blackgang as one looks down upon a cloud on a Swiss mountain, when it was perfectly clear and bright about me. Sea-fogs rarely pass inland; and, considering its submarine character, the centre of the island is remarkably free from them.

We have seen, then, that the Isle of Wight, by its insularity, is endowed with a more equable climate than it would possess in the same latitude were it not an island; that the peculiar configuration of its surface affords positions sheltered in varying degrees from cold

winds, or provides bracing situations in the immediate neighbourhood of these, while it determines in great measure the features of its lovely scenery; that its geological structure gives it a dry soil and a magnificent water-supply; that the proximity of the sea causes it to have a humid though pure and breezy atmosphere; and that it has a moderate rainfall and a low death-rate.

If I were asked what place in the island is best suited to the invalid, I should say that all have their peculiarities, which render them suitable in different diseases, in different forms and complications of the same disease, and in constitutions of a different character.

The sanative influence of a given health-resort may be regarded under two aspects: first, as concerning cases of chronic disease, and of those who have hereditary tendency to special diseases; and, secondly, as concerning convalescents from acute disease, and those cases of debility, out of health, and general *malaise* which too speedily pass into actual disease, and who seek in what is called change a renewal of their vigour.

Speaking broadly, that climate in any latitude is best in which the greatest number of hours can be passed in the open air, and, for many cases of disease, that in which the functions of the skin can be kept active during out-of-doors exercise without hurrying the circulation. From what has been said, it would appear that the climate of the Isle of Wight is one in which an open-air life may be led, even to the extent of having the window of a sleeping apartment partly open at night, and which admits of gentle out-of-doors exercise being taken at all seasons without risk. And when we Englishmen who have visited other climes feel inclined to disparage the winter climate at home, we should remember there are few countries in the world in which so many days can be spent out of doors, taking the year round, as in our own.

It is, therefore, adapted for cases of scrofulous affections and of cardiac disease, for delicate children and young persons, and for those who have hereditary predisposition to struma. In the pretubercular stage of phthisis, if a more bracing and drier climate be not advisable, and certainly after lung-symptoms have appeared, a residence here, carefully selected in accordance with the stage of the disease and the condition of the patient, would be beneficial, provided always it be borne in mind that consumption is essentially a constitutional disease with local symptoms, and not merely a lung-affection.

Level stretches of ground are to be found in most neighbourhoods; and, as regards the hilly character of the roads, it must not be forgotten that, in going up and down hill, different sets of muscles are brought into play, and the general nutrition is, therefore, better maintained. Cases of bronchitic and of throat affections do better, perhaps, here than in most places in these latitudes. Of course, we have bad seasons, but bad seasons here usually mean worse seasons elsewhere. Many disorders of the digestive organs, and of those peculiar to women, seem to ameliorate quickly after arrival here; probably, however, as the result of change and rest simply, and of a more natural mode of life. The humidity of the climate would seem to contraindicate the residence here of rheumatic cases, but, if that residence be carefully selected, they do well, probably because, as Mr. Aldridge has proved, the atmosphere is drier by the sea in winter, and because, owing to the porosity of the soil in many districts, there is not much stagnant damp. One of the secretaries of this Section, Dr. Neal of Sandown, is a case in point, he having settled here, after trying health-resorts on the mainland without relief. In fact, almost all cases of chronic diseases do well here, provided the patients and their doctors bend their energies to improve the general health, instead of concentrating their attention upon the baneful fashion of specific treatment and new remedies. People imagine there is some special specific quality in climate quite apart from the laws of health, and that they have only to go to a place, and have their prescriptions made up, and they will necessarily get well. I can only say that those, of whatever school of medical practice, who allow their patients to cherish such a delusion, are charlatans or ignorant. Ordinary health-resorts are valuable mainly because they admit of the law[illegible] rightly [illegible], or because they possess favo[illegible] the treatment of particular diseases.

And, as to the [illegible], change is ordered to the convalescent, to the debilitated inhabitant of great cities, to the overworked business and professional man, to the man of middle life who is overtaxing his failing powers, to the bereaved, to him who is overtaken by care and anxiety, to the *roué* who has exhausted himself in the pursuit of pleasure, to the nervous hypochondriac and valetudinarian, that he may get away from his sick-room, from his surroundings, from his work, and from himself, [illegible] the [illegible] tion of some specific [illegible] such will here, in the pure air of the Isle of Wight, one which will not try, but which will invigorate, his feeble energies; and, in its scenery, if he will only take the trouble to move from place to place, he may find a constant charm and solace. And, if rest means change of occupation, he may find here never-ending distraction. He may visit the dwelling-places of the neolithic age men in the valleys, and their tombs on the downs. He may follow the Romans in their houses, their roads, and in the town which they planned, and find evidences of their worship in the names of the hills about it. He may discover, in the names of places and of natural objects, and in their cemeteries, traces of the Saxons. He may study Norman, Early English, and Elizabethan and Jacobean architecture, in its churches and farmhouses; and may inquire into the history of a district which has had many rulers, and whose fortunes have known many vicissitudes. If he be facile in the use of the pencil, he may find inspiration on every hand. If he have a taste for natural history, he may meet among the birds which visit it, and its insects, especially its beetles and hymenoptera and butterflies, rare forms which he may not previously have seen. If he be a botanist, he has here a field of the highest interest, due to the varied nature of the soil, and the endless variety of the landscape. He may collect the plants of rivers, and of estuaries, and seaside plants; plants of the tertiaries, the chalk, and the greensand. If he be fond of geology and palæontology, he may read, in the rocks of the Isle of Wight, more pages of the earth's history than can be found in the same area the wide world over; and he may trace the decline of old forms, and the dawn of the new life of the globe. And, if he be incapable of physical exertion, he may contemplate in imagination the scenes of the past in these latitudes, from the time when the wealden river, draining a vast continent to the north and west, where the North Atlantic now is, laid down the foundations of the Isle of Wight, until its final elevation above the glacial seas, when it was not an island, and when the land stretched far away to the south; when Freshwater Down was continuous with Nine Barrow Down above Swanage, and when the old river Solent pursued its placid course to the sea.

If he will allow his thoughts to be occupied by such pursuits, or his mind to be impressed by such pictures of what has been as these, to the exclusion of the phantom symptoms and real cares which assume such enormous magnitude as he dwells upon them, he may, perhaps, do more for himself by his change to the Isle of Wight than all the resources of the medical art, not directed to the improvement of the general health, can effect for him.

THERAPEUTIC MEMORANDA.

ANTISEPTIC TREATMENT OF LUNG-DISEASES.

I DO not know whether it is generally known, that the treatment of phthisis and other lung-diseases by the inhalation of antiseptic solutions is not confined to England. My attention was first called to this method of treatment last autumn by a patient of mine suffering from phthisis, who had found great relief from the inhalation of a solution of carbolic acid through an inhaler, recommended to him by Dr. von Messing of Meran, in the Southern Tyrol. The inhaler is made of German silver, and is shaped like an ordinary respirator, but has a cavity enclosed between the outer surface and an inner plate; both plates are perforated, and the outer one can be raised at pleasure for the purpose of placing in the cavity cotton-wool saturated with the drug required for inhalation. The instrument is called inhalations-respirator, and is made by W. von Pernwerth of Meran; it appears to resemble almost exactly the respirator recommended by Dr. Coghill, and figured in the JOURNAL of May 28th. My patient wrote, asking how these inhalers could be obtained, to Dr. von Messing, and he very kindly sent me one; and in his letter to me, dated September 6th, 1880, says, "I have heard of your desire to try the inhaler I am using for my patients, and I have ordered one to be sent to you. The value is a trifle, and I beg you to accept it from me. I have been using it for about five years, and I am perfectly satisfied with the results. I generally use a m[illegible] be well shaken, and twenty to thirty drops poured out on the cotton. I advise my patients to inhale through the apparatus, and exhale through the nose, three to four times a day, for ten minutes at first, and then for an hour; in this last case, wetting the cotton two or three [illegible] times. In [illegible] process; also in [illegible] fever, by [illegible] tarrh. In chr[illegible] the smell, and [illegible] have all [illegible] drops of chloroform.

Since receiving this letter, I have tried the inhaler, with very satisfactory results. In my last case, a case of phthisical consolidation involving a considerable portion of the left lung, and attended with hectic and purulent expectoration, the weight increased in one month from 7 st. 1 lb. to 8 st. 1 lb., during the use of the antiseptic inhalation; the fever entirely disappeared, and the cough and expectoration almost entirely. Now, unfortunately, a fresh patch of inflammation has occurred, which has brought back the fever and cough, but the temporary benefit was well worth having.

In one case, I substituted the oil of Pinus Sylvestris for the carbolic acid with very good result, and should be inclined to try it again in cases of obstinate chronic bronchitis.

GEORGE HENRY BATTERBURY, M.D.Lond.,
Wimborne Minster.

THE INHALATION OF TEREBENE IN PHTHISIS.

THE antiseptic treatment of phthisis has been so prominently brought before the profession of late, and is a subject of so much importance, that no excuse is necessary for the present brief communication.

For upwards of four years, antiseptic inhalation has been one of the principal remedies employed by me in the treatment of phthisis and certain other lung-diseases. The vapours of creasote, carbolic acid, iodine, and other antiseptics, have been used in more than four hundred cases, occurring both in hospital and in private practice. During the past two and a-half years I have adopted terebene as a remedy in preference to the antiseptics mentioned above. I have used it in upwards of two hundred cases of consumption, bronchiectasis, chronic bronchitis, and other pulmonary complaints characterised by profuse purulent expectoration. It is very valuable, and its vapour possesses antiseptic qualities equal to any of the others. It has also a sedative action, allaying the cough and irritation, and is almost invariably preferred by the patients themselves to any of the other antiseptic inhalations, on account of its agreeable and fragrant pine-wood odour. In cases where the expectoration is copious and fœtid it is advisable to administer it internally in addition to the inhalation of its vapour. Given in doses of five minims, either in emulsion or with carbonate of magnesia, it acts as an aromatic expectorant.

The researches of Cohnheim and others have shown how liable the lymph-follicles of the intestine are to tubercular infection during the progress of pulmonary consumption, in consequence of the sputa being swallowed by the patient. Administered internally, terebene destroys the virus and lessens the risk of intestinal infection.

Professor Maclean states that in dysentery terebene may be given internally several times in the day, without causing any irritation, as a corrective of the putrid secretion from the diseased intestine. In cases of tubercular ulceration of the bowels it sometimes lessens the diarrhœa, but I have found that a mixture containing bismuth and hypophosphite of lime gives greater relief in that complaint than any other remedy which I have employed.

ALEXANDER M. M'ALDOWIE, M.D., Stoke-on-Trent.

OBSTETRIC MEMORANDA.

TREATMENT OF *POST PARTUM* HÆMORRHAGE.

I WAS called to attend Mrs. G., aged 31, with her eighth child, on the morning of the 10th June, at 7.30. In her previous labours, three and five years ago, she flooded profusely; but the hæmorrhage was controlled by pressure and ergot. She was delivered after a labour of ten hours. A full dose of liquid extract of ergot was given previously to delivery, and firm pressure was kept up as the child was expelled, and continued without intermission afterwards. The placenta was removed five minutes after the birth of the child. The uterus contracted fairly, but not tightly; and as it showed a tendency to relax, I injected into the hypogastric region a subcutaneous injection of fifteen minims of ergotine, and anxiously waited the result, giving instructions meanwhile for the nurse to prepare the iron injection and get ready the syringe. Within ten minutes of giving the subcutaneous injection, suddenly, while I was still grasping the uterus by the hand, an appalling flow of blood occurred, deluging the bed, and streaming down to the floor. In a few minutes the patient became completely blanched; the pulse all but imperceptible; the respiration sighing and spasmodic, with general jactitation. Fortunately, the iron injection was at hand, and it took but a few seconds for me to introduce my hand and empty the vagina and uterus of a mass of clots; and then carrying the uterine pipe into the fundus I slowly pumped sixteen ounces of solution of perchloride of iron of the usual strength. In a few moments after the first injection I could feel the uterus gradually contracting on my hand, and the hæmorrhage lessening. Within five minutes the uterus had firmly contracted and all bleeding had ceased; not a drop more blood was lost. Nothing could be more rapid and satisfactory than the action of this remedy, and I honestly believe nothing else would have checked the flooding, or enabled me to save the patient's life. The patient vomited nourishment several times in the day, and complained much of "after-pains", which were controlled by opium given in grain doses every two hours for twelve consecutive hours. The temperature was high for several days, and she complained of tenderness in the abdomen, nevertheless she could bear a fair amount of pressure. The subsequent treatment consisted of injections of Condy's Fluid night and morning, and opium occasionally to relieve pain, with a liberal dietary. With careful nursing she made a good recovery, without a single bad symptom, though she long remained blanched and anæmic. I may say, that during the last five years I have carried in my obstetric bag, to every case, a Higginson's syringe and long uterine pipe, a four-ounce bottle of liquor ferri perchloridi fortior, enclosed in a boxwood box, with a screw top, ready for mixing with twelve ounces of water, and am persuaded that my patient owed her life to its use, and would have bled to death before I could have sent for some.

C. W. BELFIELD, L.R.C.P., M.R.C.S., L.M., Bristol.

CLINICAL MEMORANDA.

SPURIOUS DIPHTHERIA.

I MET, in the summer of 1880, with a case of diphtheria which differed from any I have seen described in medical literature. The patient was a flabby, very irritable old woman, of about 58, married, with no children. When I first saw her she had on the left tonsil an oval, elevated white patch, about as large as a sixpence, with difficulty in swallowing, weak pulse, and much prostration, no fever, and no albuminuria. I began treating her with the ordinary remedies for diphtheria—brushing the throat with a saturated solution of perchloride of iron in glycerine. The next morning I found I had spread the white deposit (which easily crumbled into little bits), over the palatine arches and opposite tonsil. Henceforward I confined myself to the assiduous local application of medicated sprays (using boracic acid, carbolic acid, lime-water, etc.), with chlorate of potash, acids and bark, etc., internally, and a generous diet. Two months of this treatment producing no effect, I recommended country air, which proved equally useless. The patient then went to the Throat Hospital, but derived no benefit. Ultimately, after a course of about four months, the disease subsided spontaneously.

The case was assuredly not one of ordinary diphtheria, and as certainly was of fungoid origin. I have since suspected, though without tangible grounds, that syphilis was at the root of the matter. The marked elevation and even protuberance of the patch, absence of redness around, and the inefficiency of all the ordinary methods of treatment, would seem to be diagnostic marks.

HERBERT L. SNOW, M.D. Lond., Bayswater.

LEGAL LIABILITIES OF HOSPITALS.—The New York *Medical Journal* states that the Rhode Island Hospital was sued by a paying patient, to recover damages for a dangerous hæmorrhage, which he attributed to unskilful treatment by a surgical interne, who assumed to treat a wound beyond his skill, instead of sending for the attending surgeon, as he should have done. The results were gangrene and amputation. The suit gave rise to a statement of the legal rules governing the responsibility of an incorporated hospital for its medical attendants. These two are declared. 1. A hospital is not exempt from liability for unskilfulness or neglect, but is responsible for the exercise of reasonable care by the governing authorities in selecting physicians, surgeons, and internes, and, if incompetent persons are appointed, is responsible for the results of their neglect or want of skill. 2. If the rules of the hospital require that in specified cases an interne shall summon an attending surgeon, and the interne fail to do so, the corporation may be liable for the consequences of his neglect.

EXTENDED MENSTRUATION.—Dr. E. W. Lane, Scarboro, Georgia (*Medical Summary*, July, 1881), reports a case of regular menstruation extending from the fourteenth to the sixty-ninth year, and irregularly till the seventieth. At the necropsy of the patient, she having died in her seventy-first year, nothing unusual was discovered in the genital organs. The case is unusually well authenticated, the patient having been under Dr. Lane's observation for twenty-five years, and its being supplemented by a necropsy adds much to its value.

REPORTS OF SOCIETIES.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, OCTOBER 13TH, 1881.

WILLIAM BOWMAN, F.R.S., President, in the Chair.

IN opening this, the second session of the Society, the PRESIDENT alluded to the great interest of the principal topics which had been discussed in the Ophthalmological Section of the International Medical Congress. He referred with especial gratulation to the two resolutions of the Section, and expressed the hope that its recommendations with regard to colour-blindness might be a guide to future legislation in all countries; and that the course which had been adopted in relation to the question of experiments on living animals might tend, if unhappily the removal of restrictions in this country could not be compassed, at least to encourage their fellow-workers abroad to resist vigorously any such legislation in other countries. In conclusion, he announced that the first volume of the Society's *Transactions* had been published that day, and congratulated the Secretaries on this fresh proof of their industry.

The Relation between the Apparent Movement of Objects and the Rotation of the Eyes.—At the invitation of the President, Dr. HUGHLINGS JACKSON read two notes which had been received from Professor DONDERS, of Utrecht, with reference to this subject. Dr. Jackson had published in *Brain* (April 1879) a case of auditory vertigo, in which each eye was partially and very slightly rotated to the right in frequent jerks. The patient said that objects seemed to move to the right—indicating the direction and the jerky character of the movement by jerking his hand from left to right. It had been suggested that the apparent movement of objects occurred, not during the jerk to the right, but during the more gradual return of the eyeballs to the state of rest; and it had been contended that it was theoretically impossible that the apparent movements could occur in the same sense as the movements of the eye-ball. Dr. Jackson, however, believed that the apparent movements coincided in time with the jerks; and, at his suggestion, Mr. Bowman submitted the question to Professor Donders. In the course of his reply, he observed that, in every rotation of the globe, the images glided on the retina in the same sense as the rotation, while the objects passed before the line of sight in the opposite sense, though there was no apparent movement, because the displacement corresponded exactly to the voluntary motor impulsion. It followed that, when rotation of the globe occurred without voluntary impulsion, as in passive movements and spasms, the apparent movement would be in the opposite sense to the rotation; in the converse condition, *i.e*, when, as in paresis of the muscles of the globe, the voluntary impulsion was not accompanied by the corresponding degree of rotation, the apparent movement was in the sense of the impulsion—that is, in the sense of the imperfect rotation. The vertigo in the case under discussion was analogous to that produced by turning rapidly round a few times while in the erect posture. After having turned round rapidly to the left, objects seemed to continue their movement to the right; and it would be found that the eyes tended to deviate slowly to the left, and then at short intervals to return, by a rapid jerk, to the right. No movement of objects was noticed during the jerks, but there was a corresponding momentary indistinctness. These sudden jerks were probably too small and too sudden to be taken note of by the brain; but, if remarked, the apparent movement should be, Professor Donders considered, in the opposite sense to the jerks. The experiment, however, did not precisely correspond with the phenomena as described by Dr. Hughlings Jackson's patient, inasmuch as it exemplified movements of the eyes by jerks to the right, induced in a secondary way by an apparent movement of the objects to the right, but not by jerks. After further illustrating the subject by a reference to an experiment with secondary images, Professor Donders concluded his note in the following words: "The propensity of the eyes to move (deviate) to the left in apparent movement of the objects to the right, under certain circumstances, is well demonstrated by these experiments; but it is difficult to account for it in a simple and satisfactory way."

Uniocular Diplopia.—Mr. J. E. ADAMS gave some particulars of the case of a young hysterical woman, who, a short time after an alleged injury to the head, complained of diplopia when one eye only was used. The condition of the two eyes was, so far as careful examination could reveal, absolutely normal. He asked the opinion of members as to the value of this symptom, for he had hitherto believed that the diplopia existed only in the imagination of the patient.—Dr. W. M. ORD read the notes of two cases of uniocular diplopia, which had been under his care. The first patient was a lad aged 13, who, after a hemiplegic convulsion, suffered from convergent strabismus; he had binocular diplopia as a constant symptom for a long time, and double optic neuritis. Unilocular diplopia was first noticed in relation to the left eye; later on, with relation to both; and, towards the termination of the case, there was some fluctuation. *Post mortem*, a large old clot was found in the lateral ventricle; the ventricle was distended, and the relation of the basal ganglia was disturbed. The second patient was a very intelligent Frenchman, aged 28. Following upon a severe fall, a series of epileptic fits occurred; and after this it was discovered that there was partial left hemiplegia and hemianæsthesia, with marked paralysis of the left external rectus, paresis of the right external rectus, but no affection of the muscles supplied by the facial nerves. It was found that he had double vision with each eye separately; and that, when both eyes were open, he saw four images of the object. The vision in the left eye gradually grew less acute until, in about six weeks, it amounted merely to perception of light; while in the right eye a progressive amblyopia was observed, with a high degree of concentric contraction of the field of vision, and some colour-blindness—a condition closely resembling that occurring in "hysterical amblyopia". About the middle of April he was seized with some anomalous nervous symptoms, and became subject to delusions, but gradually improved, some loss of power remaining however on the right side. His general symptoms improved greatly after the passage of a quantity of tape-worm; but vision in the left eye did not improve (perception of light), while in the right eye the field of vision was still contracted and V = $\frac{2}{3}\frac{0}{0}$, and from 2 to 4 Jäger, held close to the face; at no period of the case were any changes discoverable by ophthalmoscopic examination.—Dr. JOHN ABERCROMBIE contributed an account of another case, which occurred in the practice of Dr. Cheadle at Great Ormond Street Hospital. The patient was a girl aged 10, who complained of headache and slight loss of power on the right side. There were paralysis of the right external rectus, binocular diplopia, and also diplopia when the right eye only was open. There was double optic neuritis. Twelve days after admission, she became unconscious, had slight convulsive movements of the right arm, and died in a few hours. *Post mortem*, a large abscess was found in the temporo-sphenoidal and occipital lobes on the right side; the lateral ventricles were dilated, and the right communicated with the abscess cavity; the pia mater at the base was rendered opaque by recent greenish lymph. Dr. Abercrombie proceeded to point out that the abscess must have greatly interfered with the functions of the group of fibres which Gratiolet has described as the cerebral expansions of the optic nerves. He suggested that if, as was now believed, each optic nerve was connected with the cortex of both hemispheres, it was conceivable that, in such a case as this, the right hemisphere might not act in unison with the left.—Mr. NETTLESHIP, who had seen and examined Dr. Ord's cases, said that the first case of the kind that he had ever met with was that of a young man, sent to him by Dr. Gowers, in whom the diplopia was confined to the lower half of the right field of vision. The second case he had seen was that of the boy whose history had been narrated by Dr. Ord. At first, he had been inclined to think that the boy feigned the condition, but he was now inclined to alter his mind, as there could be no doubt that, in Dr. Ord's second case, the diplopia was genuine—because, with both eyes open, four images were seen. There were but few instances on record; but he thought it worthy of note, that all were cases of cerebral tumour.—The PRESIDENT said that he had never met with a case of uniocular diplopia of this kind. Diplopia from some affection of the media was not very uncommon, but he felt very sceptical of the existence of any other form.—Mr. BRUDENELL CARTER thought that a double prism would be of use in determining the genuineness of these cases. He thought that, where injury was an antecedent, it was very necessary to be extremely careful in eliminating the possibility of any consequent structural alterations in the lens.—Dr. KNAGGS (New South Wales) thought it possible that some difference in the degree of contraction of various parts of the ciliary muscle might lead to differences in density of various parts of the lens, and so to diplopia.

Pyæmic Ophthalmitis.—Mr. JAMES ADAMS read the notes of two cases of suppurative inflammation of both eyeballs from embolism, occurring during an attack of endocarditis, following on old valvular disease of rheumatic origin. In one case, the two eyes were almost simultaneously affected; in the other, there was an interval of about a week. In each case, there were loud cardiac murmurs, tumultuous action of the heart, and a high temperature. Both patients passed into a typhoid condition and died. In one case there were numerous other embolic infarctions; in the other none. The chief question he wished to raise was: Why do emboli, under these conditions, lead to suppurative panophthalmitis? Is the result due to the septic nature of the emboli, or is it brought about in a reflex manner? In the first case, a complete examination was made, but no [illegible] were

found: in the second [illegible] examination could be obtained.

Pa[illegible] Dr. [illegible] showed microscopical sections [illegible]. The [illegible] was that of a child aged 8, who died twenty-four hours after the occurrence of a fracture of the base of the skull, which did not involve the orbit nor the immediate neighbourhood of the optic nerve. The microscopic section of the nerve showed that the space between the two sheaths of the optic nerves was distended by inflammatory products; both sheaths were themselves involved in the inflammation, and there was evidence that the same process was extending into the substance of the nerve. The second specimen, which showed a similar condition, was from a case of abscess of the brain, which has been fully recorded in the *St. Thomas's Hospital Reports*.

Tubercular Disease of Iris.—Microscopic sections were exhibited by Drs. BRAILEY and EDMUNDS, from the eye of a child aged 3, the subject of a tuberculous infiltration of the iris. Scarcely any iris tissue could be recognised, either microscopically or during life; it seemed as if the entire aqueous chamber were filled with a mass of purulent lymph. The tuberculous nature of the mass was recognised by its structure. There was caseous degeneration at and near its posterior surface; in its central part were numerous giant-cells, and also between them many smaller cells in the meshes of a structureless reticulum; while its anterior part consisted entirely of cell-bodies, which stained well. It was inferred that the anterior part, being in the state of most perfect nutrition both as to its contained blood-vessels and the character of its cells, was the earliest stage of tubercle; that the giant-cells and the intercellular reticulum of the middle zone were degenerative changes, which were completed in the posterior zone by the formation of caseous matter. They recalled attention to specimens of tubercular inflammation of conjunctiva, exhibited by Hirschberg at the recent Congress, in which they observed the most superficial layer to be principally caseous; and the deepest, the best-nourished layer, to be made of well-staining cells. There also the giant-cells were principally found in the intermediate stratum.

[illegible].—Mr. S[illegible]N (Lincoln) exhibited the specimen, and stated the circumstances of the case. The patient was a child aged 7, who had suffered from albuminuria after scarlet fever, and had undergone an injury to the head twelve months before admission. On June 20th, he was suffering from headache, vomiting, and double optic neuritis; the neuritis gradually passed over into atrophy. At the necropsy, on October 11th, the ventricles contained about half a pint of clear fluid, and the cerebellum was infiltrated with tubercle.

PATHOLOGICAL SOCIETY OF LONDON.

[illegible] OCTOBER 18TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Fracture of Cervical Spine.—Dr. CARRINGTON read the notes of this case. The patient, a sailor, was said to have fallen down the hold of a ship; a little later, he vomited blood, and experienced some swelling of the neck. He was admitted into Guy's Hospital under the care of Dr. Wilks; there were then merely signs of laryngitis, dysphagia, and neuralgic pains about the shoulder. There was some pyrexia on admission, and it continued until death, which was preceded by coma. At the *post mortem* examination, it was found that the fifth cervical vertebra was fractured, but there was no laceration of ligaments nor compression of the spinal cord; on the left side, however, there was some pus and purulent lymph in connection with bare bone. At the base of the brain, there was some dirty puriform fluid, and the cerebellum was blackened. The pus in the spinal canal communicated with the connective tissue at the base of the tongue and with the pharynx. Dr. Carrington also showed another specimen, which had been preserved for many years at Guy's Hospital Museum; it showed a very similar form of injury.

Filaria Sanguinis Hominis.—Dr. STEPHEN MACKENZIE showed some very interesting specimens of this hæmatozoon in the freshly drawn blood; also specimens of the same parasite from the mosquito, and the chylous urine passed in this case. The patient, who was in attendance, was a bombardier, aged 26, born in India of European parents. He enjoyed good health in India, but, about a month after reaching England (six months ago), there was some incontinence of urine. A week later, the urine became milky, and, a short time afterwards, hæmaturia came on; this subsided in a week, and was again succeeded by chyluria. The urine was milky to the naked eye; the quantity passed was large, and it contained albumen and blood-cells; the milkiness disappeared when it was shaken up with ether. Microscopically, a number of fine molecules, blood-cells, small coagula, and the filariæ were discovered. The urine passed by night contained more blood, and probably more filariæ. At first, the urine coagulated slightly, and the filariæ were contained chiefly in the blood-clots, but, after standing a short time, the clot broke up. By night, a large quantity of filariæ was found; and, as a rule, the filariæ over a period of two months, during which the blood had been examined every three hours, were far more plentiful, or only found, at night. They usually appeared about 9 P.M.; at about midnight, the maximum was reached; at 6 A.M., they had almost disappeared; and at 9 A.M., none could be found. The systematic search had been conscientiously carried out by Mr. Cotes, the house-physician. At the suggestion of Dr. Vandyke Carter, experiments were made to see if this periodicity could be altered. The hours of the patient's meals were first changed, but this resulted in practically no alteration; by inverting his habits, however, making him stay up all night, the frequency of the presence of the filariæ was also inverted, *i.e.*, they were found in the blood in greatest numbers during the day. Sometimes as many as eight filariæ were found on one slide; in making the observations, the average of three slides was taken. It has been shown that the mosquito is an intermediate host. The filariæ measured from $\frac{1}{75}$ to $\frac{1}{150}$ inch in length, and $\frac{1}{3750}$ to $\frac{1}{3000}$ in breadth. The head was rounded, the tail pointed; there was an outer sheath, which could be well seen in stained specimens. When the blood was first drawn, the filariæ could be seen in active movement, and so remained for several days. Dr. Mackenzie exhibited some excellent micrographs made by Dr. Bellfield (Chicago), showing the hæmatozoa under varying conditions.—Dr. COBBOLD observed that these filarial discoveries, made chiefly through the labours of Bancroft, Manson, Lewis, and of several Brazilian observers, enabled us to draw most important deductions. The parasite was first found in the urine; Dr. Cobbold had himself seen numerous specimens of a filaria in urine, some years ago, in connection with Bilharzia hæmatobia. In 1872, the parasite was found in the blood by Lewis, who also saw them in various other tissues, even in a milky discharge from the eyes. Bancroft then discovered the sexually mature worm—three inches long—in a lymphatic abscess. Manson next discovered the intermediary host, in the mosquito; lastly, the same observer discovered the extraordinary fact of filarial periodicity; it was, he thought, a most remarkable fact that these hæmatozoa should swarm in the human being just at the time when the female mosquito visited the body of its victim. Dr. Manson of Amoy had satisfied himself that the proboscis of the mosquito was forced into the lumen of the capillaries; and that, in these circumstances, the filariæ coiled their long flexible tails round the proboscis, and were thus pulled out wholesale when the latter was withdrawn. Dr. Mackenzie's observation, that the period of the appearance of the filaria could be reversed by altering the patient's habits, was a new and most important discovery. Dr. Cobbold concluded by paying a high compliment to the careful and thorough nature of Dr. Manson's work.—Dr. GEORGE HARLEY observed that filariæ played an important part in the history of disease, especially in disorders among cattle. Dr. Evans of the Punjaub had found a filaria in the blood of horses which died during an epidemic. As to the periodicity, he thought it a remarkable fact that such a periodicity was to be noticed in many parasitic diseases; and it had recently been pointed out that, in the fermentation of rice, there were distinct periods during which the temperature of the fermenting mass was as much as sixty degrees higher than at other times.—Dr. VANDYKE CARTER said that it must not be supposed that the periodicity of the filaria was altogether an immutable fact. The parent worm was lodged in some part of the body, in the lymphatic system somewhere: it discharged, it might be supposed on analogy, its young, at regular intervals, into the circulation. Further, there was a periodicity over a longer period: at certain times of the year, he had found the chyluria disappear altogether, to return again with the returning seasons. It was important to notice that these filariæ might exist in the blood without causing any inconvenience at all, as he had often had the opportunity of observing; it was only when the parent became lodged in some particular spot that they gave rise to symptoms; in the case of chyluria, the worm was no doubt fixed in some part of the lymphatics of the urinary tract. In elephantoid fever, he had found the filariæ only during the pyrexial periods.—Mr. WALTER PYE bore testimony to the absolute identity between the filariæ shown by Dr. Mackenzie with those he had often examined with Dr. Manson in Amoy. He had always found that the coagulum at first formed in the chylous urine invariably broke down, as described by Dr. Mackenzie. He could not exaggerate the care and minute attention which Dr. Manson gave to the study of these hæmatozoa.—Dr. STEPHEN MACKENZIE, in reply, said that in another case of chyluria formerly under his care, where Dr. Lewis had found the filariæ in the blood in India, none could be found while the patient was in England, though search was made at all hours of the day and night.

Mammary Tumour, Seventh Recurrence.—Mr. GAY showed this specimen. When first seen (in 1862), the patient had a tumour in the neighbourhood of the mamma, which was found to be cystic, but to have in parts the characters of a fibro-recurrent tumour. Since then, seven tumours had been removed, each preserving precisely the same histological characters. The recovery had been quite perfect after each operation; the scars left were quite unaffected; but the recurrences had lately occurred rather more rapidly, and the growths had taken on an ulcerative tendency, though they had shown no tendency to extend deeply, or to involve other organs.

Aneurysm and Rupture of the Aorta.—Dr. FOWLER showed specimens from a patient who died suddenly of acute hæmoptysis, without any severe antecedent symptoms. *Post mortem*, an extensive dissecting aneurysm of the aorta was found, and a communication between the aorta and one of the bronchi.

Membranous Band in Left Auricle.—Dr. FOWLER also showed this specimen. There was no *bruit*, but the heart was enlarged; in the left auricle was a membranous band resembling a pulmonary cusp, which crossed the auricle, and was attached to the foramen ovale. In the latter there was a valve-like opening.

Cyst containing Oil removed from the Parotid Region of a Girl.—Mr. BRYANT had removed the cyst from a girl aged 9, who had had the growth from birth. The contents consisted only of an oily liquid. He was inclined to classify it as a dermoid cyst.—Mr. DORAN desired to know whether the epithelial cells of the lining membrane were columnar, or flattened; but Mr. BRYANT replied that he had not examined the cyst microscopically.—The PRESIDENT said that he had seen one case (referred to by Mr. Bryant in the course of his remarks) in which a large cyst in the pelvis was found, when tapped, to contain oil. Some years later, this same patient was cut for stone by Mr. Curling. The nucleus of the stone was a mass of hair. This afforded a strong presumption that the original cyst was dermoid.—Dr. COUPLAND suggested that the tumour shown by Mr. Bryant might be connected with the branchial clefts.—Mr. DAVIES COLLEY said that he had met with an almost exactly similar case; in his case, the oily fluid coagulated after a few minutes when exposed to the air.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 14TH, 1881.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

New Honorary Members.—The PRESIDENT announced that the Council had decided to recommend to the Society the election of Sir James Paget as a British honorary member, and of nine distinguished gentlemen, who lately attended the International Medical Congress from abroad, as foreign honorary members of the Clinical Society. The announcement was received with applause.

Case of Ruptured Ovarian Cyst.—Dr. WILTSHIRE read notes of this case. A lady, aged 28, just convalescent from typhoid fever, fell while in a hansom cab, struck her abdomen, and burst an ovarian cyst which she had had about three years. Severe shock and collapse ensued; but, under opium and restoratives, she slowly recovered; and, two years after the accident, remained quite well and free of her tumour, with the exception of a small mass, supposed to be the remains of the collapsed cyst and pedicle. Though an expectant plan of treatment was elected, in the belief that no hæmorrhage was going on, yet the propriety of immediate operative interference was discussed chiefly in relation to the question of rapid death from internal hæmorrhage, and its arrestment by means of abdominal section, accompanied, of course, by removal of the ovary. Operation in connection with ruptured dermoid purulent, infective, or strangulated (twisted) cysts, and peritonitis was also referred to; and allusion was made to the treatment of dangerous intra peritoneal hæmorrhages from ruptured ectopic gestation, varices of the broad ligament, ruptured uterus, etc. The prognosis in rupture of infective ovarian growths was adverted to, and the views of pathologists and surgeons thereon respectfully sought.—The PRESIDENT remarked that the case was one of great anxiety, as a decision respecting the treatment, whether that should be expectant or active, must be at once arrived at. Was the cyst single or multilocular? If multilocular, it would be well, perhaps, to rid the patient of the fluid lying within the peritoneal cavity, and of the other cysts, by one operation at once, whereas, if the cyst were single, the expectant treatment might with propriety be pursued. But the treatment would probably depend on the condition of the patient at the time of the surgeon's visit. The solid mass detected before the rupture afterwards dwindled away, was not that a [illegible] circumstance?—Dr. WILTSHIRE, in reply, stated that he had not seen the patient before the accident, but Dr. Oldham, who had previously been consulted, had thought she had a multilocular cyst. He would like to learn what was the prognosis of such cases, and had recorded the case in order to elicit opinions respecting the course of treatment that ought to be pursued.

Odontome of the Lower Jaw.—Mr. CHRISTOPHER HEATH contributed particulars of this case, in which he had removed a large odontome. It was one of the rare tumours described by Broca as *odontomes odonto-plastiques*, and consisted of a mass of dentine studded with nodules of enamel. The mass weighed 315 grains, and measured 1½ by 1¼ inches. The patient was a young lady aged 18, who had never been able to close the teeth properly, but otherwise was supposed to have gone through the first and second dentitions naturally. Last Christmas, she had some pain and uneasiness about the right angle of the lower jaw; and in April, her father, a dental surgeon, extracted the second bicuspid tooth, there being no molars then present. A dentist, who was subsequently consulted, thought he detected an encysted tooth, and tried to extract it with the elevator. The result was an acute attack of periostitis. Profuse suppuration ensued; and, on firm pressure near the angle, pus could be forced up from the interior of the bone. Under treatment, the inflammation subsided, and the patient went to the seaside; and, on her return, there was apparently some exposed bone, with greatly hypertrophied mucous membrane on each side. A month later, after imprudent bathing, sudden increase of pain and swelling took place; and she consulted Mr. Heath, who found great enlargement of the bone, with a fungus-like growth in the mouth, and apparently bare bone, the appearances closely resembling those ordinarily found in a case of sarcoma of the jaw. An operation involving removal of a portion of the jaw was declined, and the swelling slowly diminished again. In September, Mr. Heath undertook an operation for removal of the supposed sequestrum of bone, and, after considerable trouble, succeeded in elevating the mass described from its bed, since which the jaw had slowly contracted to its proper shape.—Mr. VASEY learnt, upon inquiry, that there was no history of a blow to the jaw.—The PRESIDENT considered the case to be one of great interest practically, beause a tumour of the lower jaw was got rid of by a process of simple extraction; pathologically, because of its rarity. Surgeons should be on guard, or they might remove a portion of the lower jaw instead of extracting the tumour.

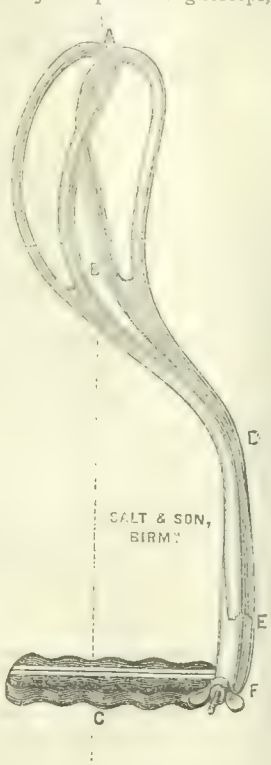
Case of Charcot's Joint-Disease.—Mr. C. B. KEETLEY read particulars respecting this case, and exhibited the patient. He was a shopkeeper, aged 34, married ten years, having three healthy children. Up to October 1880, no other symptoms than the following had been noticed: (1) slight "weakness on the legs", of twelve years' duration, and attributed by the patient to the lameness occasionally produced by a "corn" beneath the right great toe; (2) pains in the muscles, described as rheumatic; (3) attacks of diarrhœa, occurring fortnightly for long periods at a time. But, in October 1880, the "corn" ulcerated, and the corresponding great toe became greatly swollen. About a week afterwards, the hip, groin, and thigh of the same side (the right) swelled enormously, but were pale and comparatively free from pain; *i. e.*, such pain as did exist was not synchronous with the occurrence of the enormous swelling. A deep fluctuating point being opened towards the lower part of the front of the thigh, several ounces of synovia, or a synovial-like fluid, escaped. In two months, the patient was able to stand again, and move the joint freely; but there was then discovered an inch and a half of shortening, a tendency to eversion, and a peculiar "scrunching" or crepitus on manipulating the hip in a certain manner. The joint was also somewhat loose. Apparently, the head of the femur had disappeared. From this time, for nine months, the limb steadily increased in usefulness; the power of spontaneously rotating it both inwards and outwards seemed also to return. But then the left hip was attacked exactly like the right, though not so acutely. This attack came on whilst the patient was being severely purged by two pills and two black draughts, prescribed by a chemist on a theory that the patient looked "bilious". While the swelling of the left hip was subsiding, after the manner of that on the right side a year before, severe pains attacked the front and inner side of the left thigh, and the left knee also, but passed away after some hours. At present, the patient had only occasional slight pains in the left thigh, but great numbness on the front aspect above the knee. He could already get about on crutches, and even stand without them. There was now evidence of the left hip having undergone anatomical changes like those of the right. The right great toe joints had been also deformed since the swelling thereof twelve months ago. The corn was represented by a thin red scab. There were various [illegible] were loss of patellar tendon-reflex, of iris-reflex, of the power of standing with the heels together and the eyes shut, partial loss of sensation in the outer sides of both feet, perverted sensation in the right foot, slight

deafness of the left ear, and (?) an ataxic gait diagnosed by the joint-affections. And, though there were no gastric crises, there were what might be termed "intestinal crises", viz., the above-mentioned periodical attacks of diarrhœa. In the case of each hip, the subsidence of the general swelling left a marked enlargement of the inguinal glands, which persisted some time. The internal treatment had been iodide of potassium with salicylate of soda, five grains of each, three times a day. Was it justifiable to try nerve-stretching in this case? There were some grounds for entertaining such an idea. In most of the cases, now not few in number, in which nerve-stretching had been done for the lightning-pains, general, as well as local, benefit had accrued, not only by way of lessening the pain, but also by diminishing, or even removing, the inco-ordination. And the same general improvement, as regarded the whole neurosis, had been observed in leprosy, when the pains of that disease had been treated by nerve-stretching. Done antiseptically, it was by no means a very serious proceeding. Moreover, to do nothing in such a case as this did not secure for the patient a very good prognosis. If the speaker had any evidence to show that nerve-stretching had checked the visible changes in the skin in leprosy, he would be still more inclined to try it. Could any of his hearers speak as to that point?—Dr. DYCE DUCKWORTH thought the cases of this disease must be much more common in France than in this country. Sir James Paget, at the recent International Medical Congress, stated that he had not seen such a case in any museum, nor any living example of the affection; and he was invited to ask Professor Charcot to describe the cases in question. Dr. Benjamin Ball first described the ulceration of the feet. As regarded the question of nerve-stretching as a mode of treatment, some good observers were opposed to it.—Dr. BUZZARD remarked that a similar ulceration of the toe had occurred in a case reported to the society by Dr. Greenhow ten or eleven years ago. The ulceration was due to a trophic change connected with disease of the nervous system. The diarrhœa of this case, consisting of three or four liquid motions a day for two or three days, had for years come on every fortnight or so. He also had heartburn; but there was no vomiting. He (Dr. Buzzard) had suggested an association of tabetic arthropathy, with the "gastric crises" mentioned by Charcot; he had seen the latter six times in nine cases of the former in his own practice. He thought the gastric crises were due to sclerosis of the posterior cornua of the spinal cord, continued up to the medulla oblongata, there influencing the vagus, and that possibly in that part of the nervous system was a centre which presided over joints. Such a centre would explain the relationship of acute rheumatism and heart-disease. The muscles in the neighbourhood of the affected joints exhibited only normal excitability. In this patient, the periodical diarrhœa and heartburn might be taken as an equivalent of the gastric crises.—Dr. ALTHAUS considered the case a very rare one. The œdema present here from the commencement of the joint-affection was not usual. The early joint-swelling was generally hard, not œdematous. As regarded the union of gastric crises and joint-affections, the former he declared frequent, but the latter very rare; so that he did not think there was much connection between the two. As to the centre in the medulla oblongata supposed to preside over the joints, it was an ingenious supposition, but could not at present be proved. The pathology of the disease was mysterious, and it was difficult to see how the joint-affection came about. It had been suggested by Professor Volkmann that the joint-disease was due to injury received by ataxic patients. But he (Dr. Althaus) did not consider this correct, as it often occurred in the early stages of tabes, even when the ocular symptoms were the only ones that could be recognised. This patient had had no injury to his joint. As regarded the operation of nerve-stretching, it might perhaps be done advantageously in certain advanced cases.—Mr. H. PAGE said that, until quite lately, the museum of the Royal College of Surgeons had contained no specimen of the joint-disease in tabes. But, at the International Medical Congress, Mr. Macnamara had exhibited two specimens of hip-disease in ataxy; and a patient in St. Mary's Hospital was walking along when he had suddenly felt his hip "give way", and the limb suddenly become three or four inches shorter than the other. He was subsequently discovered to have ataxy. Mr. Page had exhibited, at the Congress, a patient having large joints of the foot, the bones of which moved freely on one another, and the movement gave no pain. He had such sores on the feet as were found in these other cases, and he had called them "gathered corns". They were not very painful, and he was examined and found to have well-marked tabes dorsalis. Whilst under observation, the other foot had become enlarged at the tarsal and ankle-joints, and the bones were freely movable upon one another, as if the foot were a bag containing loose bones. He (Mr. Page) had kept that second foot at rest, as the first had been so treated, and had been cured. The patient had left the hospital with the foot in plaster-of-Paris bandage, and was much improved. He had never had pain in the parts affected; but had gastric and intestinal crises, and profuse hæmaturia, for which no surgical cause could be discovered. Physicians and surgeons must have their eyes open to look out for these patients. The patients often had as yet no ataxic symptoms; they could still walk with their eyes shut.—The PRESIDENT remarked on the rarity of the affection. He had seen one case of the kind under one of the surgeons at King's College Hospital. Perhaps it was the very rarity and abnormality of the cases which kept them out of museums.—Mr. KEETLEY, in reply, stated that a patient might have ocular and other symptoms for years before he became ataxic. This patient had not his knees affected. The joint-disease was liable to be bilaterally symmetrical. The disease was not likely to be mistaken for any other disorder. This man's hip and thigh were much more swollen after being affected for one week, without there being any pain, than were any other hip or thigh he had ever seen affected with any other disease, and yet in two months the swelling was nearly all gone, the limb was shortened; and all this had occurred with scarcely any pain. The disease certainly had most distinct features, and was easily recognisable.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

AXIS-TRACTION FORCEPS.

I WISH to bring under the notice of the profession a modification of Sir J. Simpson's long forceps, which I think will be found to combine the advantages of ordinary long forceps and the axis-traction forceps, designed by Tarnier and others. The modifications are:—1. A curve four inches below the fenestrum (point D in accompanying diagram), which brings the shanks of the forceps parallel to the line A B C, which represents the axis of the sacral curve; 2. The handles of the forceps, which commence an inch-and-a-half below the lock (E)—which is the ordinary English lock—are bent at right angles to the shanks, and consequently cut the line A B C at right angles; 3. At the point F, the angle between shanks and handle, both blades are perforated; and when the forceps is locked, a steel pin with screw and nut is passed through them to keep the handles together, as shown in the diagram.



The advantages I claim for this forceps are these: 1. They are applicable in all cases, whether the head be at the brim, in the cavity, or at the outlet of the pelvis. 2. When the forceps are applied, the line A B C before mentioned represents the axis of the part of the pelvis where the fœtal head is; consequently if traction be made at right angles to the handles, the power will always act on the head in the pelvic axis. 3. The advantage of pulling in the pelvic axis is gained without any additional rods, whether fixed or movable; consequently the instrument is simpler, lighter, and easier to apply than Tarnier's or other forceps with those additions. 4. The cost is only slightly in excess of that of ordinary long forceps.

The instruments have been made for me by Messrs. Salt and Son, Birmingham, whose name is sufficient guarantee of the excellence of the workmanship.

VERE G. WEBB, L.K.Q.C.P.I. & L.M.

Coleshill, October 4th, 1881.

MR. W. H. TORBOCK, M.R.C.S.Eng., Polruan, Cornwall, has been awarded a Government grant of £7 12s., for proficiency in vaccination in two of the districts of the Liskeard Union.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 22ND, 1881.

THE MODERN HOUSE-SURGEON.

WE ventured lately on a slight sketch of the modern medical student as he is, not as he has been misrepresented, nor yet perhaps as he ought to be, could he be perfect. The house-surgeon is a medical type, like the student, much subject to the easy misrepresentation of writers of fiction and essay of the new sentimental type. The house-surgeon of to-day differs much in outward semblance and inward furnishing from his predecessors, in the same position, thirty years ago; he is a product of a later civilisation, a riper science, and a fuller training. The house-physician is a quite modern invention: he holds a position of great importance; but we are not about to discuss his duties at present. It is his colleague on the surgical side of the hospital, whose elder traditions and more common vogue in literature render him, for our purpose, the more interesting subject of study.

A typical student and a typical house-surgeon are two different models: the average "student" means the average young man, specially engaged in medical studies; the house-surgeon is nearly always more or less a picked man. Even in those hospitals where the house-surgeoncy is given year by year to qualified men who have, when students, entered their names in the visiting surgeon's book, the surgeon is sure to find several names entered for any one year; and he thus has the opportunity of choosing the best man on the list. The competition for the appointment is now greater than ever, and each student wishes to hold the office as soon after qualification as possible. Thus it happens that the typical London house-surgeon is apt to be a young gentleman about twenty-two years old, and well educated in point of professional knowledge. He must of necessity be over twenty-one; and, after qualification for practice as a surgeon by passing the examinations of the College of Surgeons, he, as a rule, spends some time in taking a medical diploma. If he aspire to an university degree, he generally takes a diploma first, and does not present himself as a candidate for the final degree examination till after his house-surgeoncy. In almost any case, he passes straight from the long course of study in dissecting-rooms and wards of his hospital to the house-surgeon's apartments; exceptionally, he has had some experience, by apprenticeship or otherwise, of private practice. It is rare that he has any knowledge of the practice of other London hospitals beside his own; for, according to the bad principle prevailing in our London schools, the student is tied to one hospital during his whole career, instead of passing from one to the other in perfection of his clinical study. Advanced students are, however, sometimes wise enough to go round the wards of other institutions, from the fact that they know that at Lincoln's Inn Fields they will not be examined by the surgeons of their own hospital school; so that they wish to see the practice of gentlemen who may actually examine them. There is no such thing as "walking the hospitals", an expression employed by the ignorant maligners of the medical student, and supposed to imply a vacant and idle habit of perambulation corresponding to the ceremony of "eating dinners", by which law students, until lately, advanced, by a purely gastronomic process, to the dignity of barristers. Hospital work is now very real and earnest for the student; and hospitals where the students merely pass through the wards are, where they exist at all, opprobria of medicine. There still remain in some schools a few surgeons and physicians who, to say the least, do not exert themselves to their utmost in the discharge of their daily duty as teachers, so that the students who accompany them really learn nothing. Such members of the staff are deservedly held in light repute by the students as by their colleagues, and it is others that the intending house-surgeon loves to follow during his student days.

The average house-surgeon, then, begins with authority over four or more dressers, students generally but two or three years younger than himself, and on the whole, by force of circumstances, more or less below his standard of professional excellence. One or more of these dressers may be as good a man as or better informed than himself, yet still will be technically inferior, and, being an educated man, will respect his superior. Indeed, the house-surgeon is popular in virtue of his office, and it is always his own fault if he be not individually popular as well. He is always among his dressers, who only see their surgeon for an hour or two daily. He knows well enough that he differs from his dressers by only a few extra years of study, experience, and standing, and by a little more knowledge of the very same subjects which they are studying; but he also feels he is a picked man, and has the advantage of qualification. He can teach practically, to his own great benefit, and to the edification and admiration of his dressers.

What can and what does he teach? He has cases of fractures and dislocations, bad wounds and burns under his care, and his dressers can see him manipulate, and he can teach them bandaging and minor surgery. He has sometimes cases of great emergency, demanding instant operative interference, so that his dressers can see him perform tracheotomy, or manage a case of ruptured urethra with extravasation of urine. Lastly, he has the care of rare and severe cases upon which his surgeon has operated. He can, with regard to these latter cases, show his dressers how the orders of a superior should be carried out, a very great thing to learn. In all these details, he is profiting and learning on his own account. Beyond the above responsibilities, he has to prescribe medicines, and his dressers can often gather from him in a few minutes knowledge far more valuable and lasting in their memories, than they could glean from hours of study of text-books on materia medica.

Right well does the average London house-surgeon discharge these duties, incurring all the while the worry of medico-legal matters, and the risk, never absent, of impairment of his health. He has seldom any difficulties with his dressers in questions of discipline; for his office, at the least, is respected by the least disciplined of the students engaged in clinical work. As to relations with his surgeon, putting aside any blame which he may incur from oversights or purely personal questions, the chief difficulty generally consists in the reluctance of his senior to allow him to operate on certain cases which are hardly "minor". He honestly hates to see his chief amputate a finger or divide a fistula; but he morally loses little by such an apparent want of liberality in this respect on the part of his chief. His greatest difficulty is the admission of cases. Towards the end of his week on duty, he has to be very sparing, and to endure some hard words from patients whom he is unable to admit. Perchance one rejected case is more dangerously ill than he thinks, and ends badly out of doors. There is an inquest, or an article in a daily paper; and then the young house-surgeon is placed in a most unenviable position, and is absolutely unable to defend himself against temporary public obloquy, though he has only done his duty to the best of his ability.

There remain, however, certain things which he cannot learn, and therefore cannot teach. The minor details and working of private practice are unknown to him; and yet his dressers will mostly require more of such knowledge than of any other kind, for by it they will have to earn a living. It is not his fault; it is inherent in the modern system of medical education. How can he [illegible] as possible, so that a [illegible] saying, after a year or two of practice, "I [illegible]

house-surgeon that was of any use to me; for he was a youth who just knew a little more of the text-books than I did, who attended cases or helped his senior surgeon in cases of a kind that I never see in practice, and knew nothing about how to make medicines palatable, external applications elegant and sightly, nor how to treat bad bruises and blisters"? He can do much to avoid such a taunt, which is not rarely levelled at him. He must insist that his dressers are particularly careful with minor cases in the surgery. He must prevent them from talking before patients about "very interesting cases" or "splendid operations", and remind them that such words are easily distorted and misunderstood; that they must never let the patient fall into the painful error of supposing that he is being treated as a scientific curiosity, rather than a sufferer who comes to them for cure. Thoughtless words and careless demeanour in the surgery do harm on every side; it is for the house-surgeon to repress them. The house-surgeon must also write prescriptions at length as much as possible, in spite of occasional complaints from the dispensers, who ever prefer to dole out the ready-made "haust. pro. tuss.' or "haust. aromat."; whilst the dressers are very apt to forget the normal dose even of squills and ipecacuanha, and to find themselves sadly at a loss in private practice if they confine themselves during their hospital work to prescriptions of this kind. Should the house-surgeon bear all this in mind, and inculcate a courteous, kindly, and considerate bearing to patients, and attention to the most trifling complaint—never to be spoken of as trifling before the patient—and insist upon careful prescribing, his dressers will most surely remember him with gratitude, and with good reason, for ever after. It is in such apparently small matters, and not in overtasking his energies, that any house-surgeon may making himself pre-eminent over colleagues who are, as a class, most meritorious young men, doing work of incalculable value to society.

EPITHELIAL NECROSIS AND DIABETIC COMA.

THE twenty-eighth volume of the *Deutsches Archiv für Klinische Medicin* contains an article by Professor Ebstein of Göttingen on necrosis of the epithelium of the glands in diabetes mellitus, considered with special reference to diabetic coma. He holds that there is not sufficient reason for regarding the presence of acetone in the blood as a *sine quâ non* condition of coma; although he admits its presence in a certain number of cases, and allows that there may be some connection between it and the symptoms observed.

Having already directed attention to the occurrence of necrosis of the renal epithelium in diabetes (von Ziemssen's *Pathologie und Therapie*, Band ix, 1878), he now expresses his conviction, founded on the observation of a considerable number of cases, that this degeneration plays a prominent part in the etiology of diabetic coma. It is analogous to the necrotic processes occurring in other organs in diabetes, and is met with in two different conditions: 1, in cases where the patient dies with symptoms of diabetic coma, but no coarse anatomical cause of death can be found; 2, in cases where other serious organic changes are found along with the epithelial necrosis. These organic changes—as in acute pneumonia, interstitial hepatitis, and nephritis—may be sufficient to account for death; but still the fatal result may, in the author's opinion, be attributed in some of the cases to the necrosis of the glandular epithelium. This necrosis occurs especially in the kidney, but is also met with in other glands.

In the kidney, the necrosis may affect greater or lesser portions of the organ. In one case, where the patient died of pneumonia, the whole of the epithelium of the cortical portion of the kidney was affected. The necrosis is generally accompanied by an advanced degree of fatty degeneration of the renal epithelium.

On minute examination, the protoplasm is seen to be separated in many places from the tunica propria of the urinary tubules, and to be heaped up in balls and lumps of various sizes, in which the epithelial cells can often be distinctly seen. The epithelium presents either very indistinct nuclei, or none, not even capable of being rendered visible by colouring matter. Along with the dead epithelium, the protoplasm is transferred into simple or fatty detritus. Dr. Ebstein calls the condition of the epithelium necrotic, because it corresponds perfectly to what is met with in other circumstances, where the epithelium is indisputably dead; such as the necrosis of the renal epithelium from ischæmia following infarction or ligature of the renal arteries, or that produced by some poisons, such as the salts of chromic acid.

The necrosis of the glandular epithelium in diabetes is due, in Dr. Ebstein's opinion, much less to anæmia or ischæmia of the organ affected, than to the influence of toxic materials. That the kidneys are most affected, is due to their being the principal emunctories of such matters. In diabetes, these substances are plainly various results of the interference with tissue-change. As far as our knowledge extends, we have to take the following factors into account: 1, the abnormal oscillations of the watery contents of the organism which is the subject of diabetes mellitus; 2, the abundance of sugar in the juices and organs (hyperglycæmia); 3, various substances which appear to be present in abnormal quantities in the blood of diabetic patients, such as acetone, acetic ether, alcohol, etc., as well as oxalic acid; 4, a number of imperfectly known nitrogenous products of decomposition.

The necrotic process in the renal epithelium is of especial importance, inasmuch as it may sometimes produce a sudden arrest of the elimination of toxic substances. Epithelial necrosis thus fills an important gap in the explanation of the sudden occurrence of comatose symptoms in diabetes.

A test of the presence of at least a portion of the products of retrogressive tissue-change, especially those allied to acetic acid, is afforded by the behaviour of diabetic urine with chloride of iron (Gerhardt's test), and by the odour of acetone which the patient exhales. It sometimes happens, in cases where, under the use of a diabetic diet, there is a diminution of the polyuria and glycosuria, that an outbreak of coma occurs, the urine giving the usual reaction with chloride of iron; while in other cases, where the same reaction occurs and the same diet is used, the diabetic symptoms subside, and the patients are better for a certain time. This apparent contradiction is explained by Dr. Ebstein in the following manner. In the cases of the first category, the kidneys retain the power, with the aid of a large amount of urinary water, of completely washing away the products of decomposition, although the necrosed epithelium is no longer capable, when the excretion of water is reduced, of eliminating the waste materials from the body. In such cases, indeed, the comatose symptoms are often seen to disappear when the patient returns to his ordinary diet and drinks abundantly of water, so as to cause a return of the polyuria and glycosuria. In cases of the second category, the renal epithelium is still capable of performing its function, even when the amount of water excreted is diminished.

Necrosis of the glandular epithelium is not confined to the kidneys. Dr. Ebstein has found an analogous change in the cells of the liver in two cases. In one case, there was no interstitial change; in the other, there was interstitial hepatitis, accompanying diabetes mellitus—a combination which he has also observed in two other cases.

CHOLERA and cattle-plague have broken out in the north of Java and the Sulu Archipelago.

THE executive committee for the erection of a national and international Garfield Memorial Hospital at Washington have issued an appeal for subscriptions for the purpose.

DURING the quarter ended the 30th September last, only nine deaths were registered in the Beeston Urban Sanitary District, equal to the remarkably low death-rate of 7.8 per thousand. None of the deaths were due to zymotic diseases.

SMALL-POX has broken out in New South Wales, and the outbreak is assuming an epidemic character, sixteen cases having already proved fatal. Great complaints have been made of the inefficient quarantine arrangements, and a Royal Commission has been appointed to investigate the matter.

THE New Malden Local Board have declined to join in the proposal of the Kingston Rural Sanitary Authority for the establishment of an infectious hospital for the joint use of the surrounding sanitary authorities. The Hampton Wick Local Board have come to the conclusion that, if the adjoining parishes considered it desirable to have such a hospital, the board would join them in obtaining one.

A VERY high rate of sickness is reported at Harwich, the rate, especially amongst children, being higher than has been known for some time. The principal infantile complaints are diphtheria and scarlet fever; while a few cases of typhoid are also reported. The cause of this outbreak is said to be attributable to defects in the drainage system, the escape of sewer-gas being very offensive in some parts of the town.

GUY'S HOSPITAL.

WE are glad to hear that, in accordance with our suggestion, a testimonial is being raised on behalf of Miss Grant, who was a sister in this hospital for a period of fourteen years—Sister Clinical for the last six years, and formerly Sister Stephen. We mentioned, two months since, the circumstances under which she has left the hospital, and we understand that her going is a matter of regret to all the staff and senior students. It is hoped that a substantial sum will be collected. All Guy's men who have known Sister Clinical, and others who may, for any reason, desire to contribute, are requested to communicate with the present house-physicians, Messrs. P. Warner and G. J. Wilson, who have consented to act as secretaries.

PRIZES OF THE SOCIETY OF APOTHECARIES.

AT the recent examination for the Prizes in Materia Medica and Pharmaceutical Chemistry, given annually to medical students by the Society of Apothecaries, the following were the successful candidates. 1. Joseph Walker, of the Liverpool School of Medicine, a gold medal. 2. Herbert Tanner, of St. Mary's Hospital, a silver medal and books.

THE PATHOLOGICAL SOCIETY OF LONDON.

THE first meeting for this session of the Pathological Society, held on Tuesday evening last, was remarkable for the very large number of members who attended, attracted, no doubt, by the desire to see, for the first time in this country, living specimens of the *Filaria sanguinis hominis*, and to hear from Dr. Stephen Mackenzie the result of his systematic observations and experiments on its habits. The microscopical demonstration was most successful. The blood drawn at the time of the meeting from the patient (who was in attendance) contained numerous hæmatozoa, whose ceaseless movements as, with their supple caudal extremities, they lashed the blood-corpuscles into whirlpools, or twisted their eel-like bodies in ever-changing contortions, excited feelings of the most lively interest and curiosity. After Dr. Mackenzie had given a short account of his own observations, and of the ingenious expedient by which he had succeeded in altering the period of filarial activity, Dr. Cobbold summarised, in a lucid speech, the history of the gradual steps by which our knowledge of the life-history of this filaria had reached its present almost complete stage. Dr. Vandyke Carter, speaking from an extensive clinical experience, insisted upon the importance of recognising that it was only under exceptional circumstances that the *Filaria sanguinis hominis* gave rise to any symptoms. The parasite as seen in the blood was in its sexually immature form; the mature female had its habitat in some part of the lymphatic system, and from that coign of vantage discharged its young into the system. If the parent worm had its local habitation in some part of the lymphatic system where obstruction of the lymph-canals did not lead to serious interference with the onward flow of lymph, then the patient presented no symptoms, though his blood might swarm with the parasite; it was only when the parent worm came to obstruct some important channel that these occurred, as a, so to speak, accidental consequence—such complications as chyluria or elephantiasis. Mr. Walter Pye, who had worked with Dr. Manson of Amoy at this subject, was able to give his testimony as to the absolute identity of these filariæ with those he had seen in China, and thus supplied the last link in the long chain of inferences which underlay the discussion.

CLINICAL SOCIETY OF LONDON.

THE first meeting of the Clinical Society after the autumn vacation took place on Friday, the 14th instant. There was a good attendance of members, and the chair was taken by the President of the Society, Mr. Lister. After the reading of the minutes of the preceding meeting, the President announced that the Council had decided to recommend the Society to commemorate the recent meeting in London of the International Medical Congress by the election of several honorary members of the Society. The names of the distinguished persons recommended for such election were the following: Sir James Paget, the President of the Congress, and the second President of the Clinical Society, the only British subject proposed for the honorary membership; Dr. H. J. Bigelow, Professor of Surgery in the Harvard University, and Dr. J. S. Billings, of the United States Army, representatives of America; Professor Esmarch, of Kiel, and Professor Volkmann, of Halle, representing Germany; Dr. Verneuil, Professor Ollier, and M. Pasteur, representing France; and Dr. Pantaleoni and Professor Mazzoni, representatives of Italy. In mentioning the name of M. Pasteur, the President remarked that he was not, strictly speaking, a medical man, but that his distinguished services to medicine would be held as more than ample to qualify him for the proposed honour. The mention of the above names received the cordial approval of the members present, but the election of the honorary members cannot take place until after the required interval. Three papers were then read: the first two were chiefly of interest to the surgical portion of the audience, but failed to elicit a discussion, whilst the third paper described a case of "Charcot's joint-disease," and was discussed at length by Drs. Duckworth, Buzzard, and Althaus, Mr. Page, the President, and Mr. Keetley, the author of the paper. Abstracts of the papers and the report of the remarks made thereon will be found at page 669.

COTTAGE HOSPITALS.

WE are glad to hear that a movement is on foot in the South-Eastern Branch for commemorating the services of Mr. Alfred Napper, of Cranleigh, in initiating the system of cottage hospitals in this country. To Mr. Napper belongs the credit, not only of initiating the idea, but of practically carrying it out, and of popularising the organisation which he so effectually employed. There are, we believe, about two hundred cottage hospitals now established in England, varying from cottage hospitals of two or three beds to others of more imposing dimensions, providing for as many as twenty inmates, together with a more or less extensive out-door department. We learn from the reports of the Diocesan Board of Massachusetts, that the system has been introduced into America, and is extending there. It is warmly recommended by the Diocesan Board for general imitation. One has already been started in Pittsfield, in Massachusetts, and another is in contemplation at Newton. There is a growing conviction that the old form of large hospitals, with permanent buildings, and accommodation for a hundred or more of patients, is not the best system. It is found that local hospitals in cheap wooden buildings, under the care of the neighbouring physicians, and managed by committees of ladies, provide most hopeful conditions for the care and the recovery of the sick. It is alleged that any place of ten thousand inhabitants needs, and can have, its own hospital. But people must dismiss utterly the idea of having a fine brick or stone structure, and put up a simple one-storey building of wood, with wings for as many wards as there may be a demand [illegible]. In a place where the [illegible] has been well considered, it is found that a group of four buildings, costing not more than six thousand dollars, would give all the room needed. The Pittsfield institution was built for about five thousand dollars, and costs about two thousand five hundred dollars per year [illegible] and a good number of dispensary patients. The advantages of these

cottage hospitals are not extended to the poor only, but they may be made to contain rooms for people who, when sickness comes to them in boarding-places and in crowded homes, cannot have the care and quiet they need, and would prefer paying a moderate sum per week where they will have medical treatment and nursing, and all the best appliances for a speedy recovery.

SCARLET FEVER AT WARRINGTON.

A CONSIDERABLE epidemic of scarlet fever is now raging at Warrington, where, thanks to the Local Act of 1879, providing for the compulsory notification of cases of infectious disease, the dimensions of the outbreak can be pretty accurately gauged. The number of cases in the borough, which was 12 in the month of June, rose to 15 in July, to 36 in August, and 62 in September. The Sanitary Committee are making strenuous efforts to limit the extension of the disease by isolation of the patients, under the special clause of the Local Act, which enables the authority to dispense with the necessity of a justice's order for compulsory removal, except in cases where definite refusal to consent to such removal has been made; and which also provides that any case may be compulsorily removed where the sufferer is "without proper lodging or accommodation, enabling the case to be properly isolated so as to prevent the spread of the disease, and to be properly treated." This, as Mr. Ernest Hart has pointed out, in his recent report on Local Legislation as to Infectious Diseases (vol. i, 1881, p. 380), sets at rest a point which the General Public Health Act leaves ambiguous, since the clause now applies without question to all cases where the patients cannot be properly treated at their own homes without danger to others. The Medical Officer of Health, in pursuance of his duty in securing the isolation of cases of this description, seems to have incurred the displeasure of a certain section of the Town Council, who took the opportunity of the Sanitary Committee's expenditure of a sum of money for two hospital tents (in supplement of the resources of the permanent hospital) being brought up for confirmation, to endeavour to pass a resolution virtually condemnatory of their action. Fortunately these efforts were not successful; but it says little for the wisdom of some of the town councillors that with an epidemic of scarlatina impending over them, they should raise an unseemly wrangle as to the propriety of what cannot but be considered as a most judicious and beneficial expenditure by the Sanitary Committee. There can be little doubt that, by the isolation which could be effected by the use of these tents, the town has been saved a vastly larger cost in the shape of suffering, misery, and death, which the unchecked presence of scarlet fever in its midst must inevitably have entailed.

VACCINATION FEES: IMPORTANT TO PUBLIC VACCINATORS.

A DISPUTE between Dr. Simpson and the Dover Board of Guardians has been decided in the County Court at Dover by the Judge, Mr. G. Russell, having been deferred since the last sitting for decision. It was a case in which Dr. Simpson formally brought an action against the guardians for £38 18s., for 137 cases of successful vaccination performed by him in a period of fourteen months, during which he acted as the house-surgeon to the workhouse. The guardians did not dispute the claim, but they were deterred from discharging it owing to an objection raised by the Local Government Board, on the ground that the appointment of medical officer had not been confirmed by them. The judge gave a verdict for the plaintiff for the full amount; and remarked that he had hoped that, in the meantime, the Local Government Board would have allowed the claim; as not only would the doctor have laid himself open to a very grave charge had he neglected, as public vaccinator, to perform his office, but there would have been very great risk of the spread of a malignant disease.

LONDON SANITARY PROTECTION ASSOCIATION.

WE have received the prospectus of this Association, of which Professor Huxley is chairman, and Sir William Gull, Dr. Acland, Dr. Bristowe, Dr. Andrew Clark, Dr. Burdon Sanderson, Mr. Holmes, and others, members of Council, with an intimation that their first general meeting is to be held in the Society of Arts' Room, Adelphi, on Tuesday, the 25th instant, at 8 P.M. All members of the medical profession will be admitted on presenting their cards at the door. This Association has not been established for purposes of profit, but has, we believe, been doing good work quietly in London for the last nine months, of which an account will be given at the meeting.

THE THRUSTON SPEECH.

AT Gonville and Caius College the Governing Body have issued an order as to the Thruston Speech, which up to the present time has been delivered annually on May 11th, the day of the commemoration of Dr. Caius, the orator being chosen from the medical graduates of the College in rotation. The subject of the speech was "The progress of Medicine from the time of Dr. Caius," the speaker receiving the sum of £18. In lieu of this annual speech, the Governing Body have decided that in future there shall be given triennially about £54 in money, or in any other form that may be thought best, to that member of the College who has published in the course of the preceding three years the best original investigation in physiology (including physiological chemistry), pathology, or practical medicine, the person to whom the prize is awarded being required to give an account of his investigation in the form of a lecture (or otherwise as the Governing Body may think best) in the College. If within the specified period no investigation of sufficient merit shall have been made, the money shall be carried forward to augment future prizes. The scheme is to come into operation immediately, and the prize will be first awarded in 1884.

INQUIRY INTO VACCINATION.

ON a former occasion, the Epidemiological Society rendered valuable service by an investigation which they conducted into the effects of vaccination and its value as a protective agent against small-pox. The statistics and information which they collected formed the basis of important evidence before the Committee of the House of Commons, to which reference has since been habitually and frequently made, the evidence being very ample in extent, and valuable in kind. The Society is, therefore, well advised at the present moment, when the antivaccination agitation has found many noisy and few prominent supporters, to renew the inquiry at the end of the quarter of a century which has elapsed since their former professional investigation. They have now issued schedules and a form of letter signed by Sir Joseph Fayrer, President, which will be extensively circulated throughout the profession. This letter announces that the Society has appointed a Special Committee, consisting of Dr. Robert Cory, Dr. John McCombie, and Mr. Shirley Murphy, to ascertain the evidence which the present state of medical knowledge supplies as to the conditions affecting the protection against small-pox afforded by vaccination. These are three very competent inquirers, all three having had very considerable exercise in the matter, and being at the present actually engaged in its study. The replies have to be addressed to Mr. Shirley Murphy, at 158, Camden Road, London, N.W.; and the inquiries bear upon the number of children under ten vaccinated in infancy of each person to whom the schedule is addressed, and any deaths which may have occurred among them from any causes. A further inquiry endeavours to ascertain what cases of small-pox, if any, have come under observation among children under ten years of age who have been vaccinated at any age under six months; and, of these, which, if any, have died. The further tables ask for information, in specified and detailed forms, as to the state of vaccination in vaccinated persons who have been attacked with small-pox after the age of ten. We earnestly hope that a very extended, and a very careful, accurate, and conscientious response will be made to this inquiry. The subject is one of which the importance is such that it cannot well be overrated; and it will at once be evident that, to be of its fullest value, the information given should be very accurate, very carefully verified, and as full and complete as possible. For this purpose, we would suggest that all who receive this schedule should consider it a matter of personal and professional duty, as well

as of public obligation, to respond with the utmost alacrity and earnestness to the inquiry which the Epidemiological Society has set on foot. The schedules are exceedingly well and carefully drawn; and the duty of examining and tabulating the replies could not have been entrusted to better hands than those who have now undertaken it. Their labour is altogether a labour of love and a work of public duty, and they heartily deserve the co-operation of their professional brethren.

ARTISANS' DWELLINGS.

THE report of the Select Committee appointed to consider the working of the Artisans' and Labourers' Dwellings Improvement Act, 1875, and the amending Act of 1879, has been issued. It states that, owing to the lateness of the session, all the witnesses were not examined; and the report therefore recommends that the Committee should be reappointed early next session. It suggests that, with the view of lessening the expense of carrying out the Act of 1875, the confirming authority might well consent to the basement and ground floor of any building being let as shops or workshops; and that, in considering the amount of accommodation to be provided for the working classes displaced by a scheme, the confirming authority would be justified in giving a liberal interpretation to the relaxing powers in the fourth section of the Amendment Act, and might take into account, as in part fulfilment of the obligations, to provide equally convenient accommodation, any suitable existing facilities of transport to a reasonable distance, and at reasonable prices, by water, tramways, or workmen's trains.

STATISTICAL SOCIETY.

THE Council have again decided to grant the sum of £20 to the writer who may gain the Howard Medal in November 1882. The essays must be sent in on or before 30th June, 1882. The subject is, "On the State of the Prisons of England and Wales in the Eighteenth Century, and its influence on the Severity and Spread of Small-pox among the English population at that period. The essays also to present a comparison of the mortality by Small-pox among the Prison population of England and Wales during the Eighteenth Century, with the Mortality from the same cause during the last twenty years". Each essay must bear a motto, and be accompanied by a sealed letter, marked with the like motto, and containing the name and address of the author; such letter is not to be opened, except in the case of the successful essay. No essay must exceed in length one hundred and fifty pages (8vo.) of the Journal of the Statistical Society. The Council shall, if they see fit, cause the successful essay, or an abridgment thereof, to be read at a meeting of the Statistical Society; and shall have the right of publishing the essay in their *Journal* one month before its appearance in any separate independent form; this right of publication continues till three months after the award of the Prize. The President will present the Medal to the successful candidate, at the conclusion of his annual address, at the ordinary meeting in November. Competition for this medal is not limited to the Fellows of the Statistical Society, but is open to any competitor, providing the essay be written in the English language. The prize will not be awarded except to the author of an essay of a sufficient standard of merit; no essay shall be deemed to be of sufficient merit that does not set forth the facts with which it deals, in part, at least, in figures and tables; and distinct references should be made to such authorities as may be quoted or referred to. Further particulars or explanations may be obtained from the Assistant Secretary, at the office of the Society, King's College entrance, Strand, London.

AN INCIDENT OF THE INTERNATIONAL CONGRESS: RECOVERY OF A CASE OF HYSTERICAL PARAPLEGIA.

ON July 26th, a woman aged about 48 was admitted into St. Mary's Hospital, under the care of Dr. Broadbent, suffering from paraplegia of five months' duration, attended with much pain. The lower limbs were remarkably rigid in the position of extension; but the foot was not arched and turned in, as is sometimes seen in hysterical paraplegia. Ankle-clonus was well marked. Knee-reflex could scarcely be elicited, on account of the extreme rigidity of the limbs. When, however, the knee was bent, and the tendon then struck, the reaction was exaggerated. Sensation and the functions of the bladder and rectum were normal. There was no distinct hysterical history, nor were there other hysterical phenomena. The catamenia had not returned since the birth of her last child, two-and-a-half years previously. It was suspected that the case was hysterical, but the diagnosis was not confidently made. The patient remained unaltered in condition until the time of the Congress arrived. During the week of its sitting, Dr. Broadbent visited the wards two or three times in company with foreign physicians. Among others, Professor Pierrot and Dr. Tripier of Lyons, and Dr. Hallopeau of Paris, saw the patient, and examined her carefully; and considerable discussion in French took place by her bedside concerning her. Two days after the last of these visits, Dr. Broadbent was informed that the patient had suddenly got up and begun to walk about. At first she moved rather stiffly, but she soon recovered fair use of her limbs. There was a threat of retention of urine, which was treated by a sinapism and not by catheter, and did not give much trouble. There can be little doubt that in this case the chief factor in the cure was the French spoken at the patient's bedside, which impressed her imagination, and had the effect of an incantation. The discussion of her condition in English would probably have been followed by no such result. The case, though not without many parallels, is of sufficient interest, especially in connection with the meeting of the Congress, to be worthy of record. Dr. Broadbent remarked that it seemed to him that, whereas in England we see very few cases of hemianæsthesia and hystero-epilepsy, which are frequently met with in France, the reverse holds good with respect to hysterical paralysis.

CONGRESS CORRESPONDENTS.

"A JOURNAL-READER" writes to us:—Most of the correspondents who have reported their notes on the recent Congress have done so in language of warm compliment and congratulation. Some of the French correspondents are a little dissatisfied that their own language was not more generally spoken, and that they could not understand any other. One or two of them complain that there were too many Germans; and one, that the Germans ate too much, and carried their wives' portraits about with them in lockets. The Germans are generally well pleased. The *Berliner Klinischer Wochenschrift* observes that the public and opening addresses were, with the exception of Pasteur's, somewhat unsubstantial. The American journals, especially the [illegible] and the [illegible], give excellent reports of the proceedings; so does the *Progrès Médical* in France. Some of the reporters are easily censorious; very few carefully critical. Dr. Rumbold has made quite a little collection of things which ought not to be, and of tales out of school, with which he regales his countrymen. At the Liverpool Infirmary, he was scandalised with the "young ward doctors"; "the most of them", he observes parenthetically, "[illegible]". He spoke to the young gentleman who thus incurred his wrath, of the nasal cavities and Eustachian tube, and reports his answer: "Oh, that nasty part of the head; we can learn enough of that in the [illegible]". "His contempt, his conceit, and his ignorance", says the amiable visitor, "were equal." Dr. Rumbold was then taken through the whole hospital. His comment is: "As I have said, I saw nothing that was striking, except the universal clumsyness of their splints for fractures of all kinds." Except for grammar and orthography, this leaves nothing to be desired. Coming on to London, he has a few sharp words of the bungling mistakes of brilliant operators. Thus he describes an operation in which the mastoid process was needlessly trephined and the lateral sinuses opened. He adds: "I am very certain that it was [illegible] American physicians to come over here and see such [illegible] made: [illegible] to see them too often make one feel ashamed." He adds: "At a meeting at which I was present [illegible] old hospital, I may record the statement [illegible] of ovariotomy performed there. [illegible]

sternum, and what appeared to me to be ovarian or ovario-uterine or uterine fibroid, by a persistent and persevering series of separating, tearing, ligating, and dividing, was taken out of the then apparently (at a casual look) eviscerated subject, and the extensive wound stitched up, just before the patient breathed her last." Further: "A gynæcologist of considerable experience a few days ago proposed to do ovariotomy; but, after opening the abdomen, he found the tumour to be uterine, when he declined to proceed further, and closed up the opening at once. Another prominent gentleman found a tumour in the upper portion of the vagina displacing the uterus somewhat; but it was found by a more careful diagnostician that the woman had pelvic cellulitis." Partly, however, our censorious friend relents. "Notwithstanding, in some instances, John Bull, with self-complacent dignity and a sullen icicle selfishness apparent, passes his American cousin, and even his European *confrères;* yet many London doctors show the true gentlemen that they are, and seem willing and anxious to interest and entertain strangers from every land; and I shall return to America glad that I came, and with many pleasant recollections connected closely with medical men of the great city of London." This will save some of us from being too much elated at the success of our efforts to entertain our visitors and show them what was best worth seeing. It may also interest our instrument-makers and more inventive surgeons, to know that M. Fochier of Lyons is of opinion that there was nothing new in the display of instruments, and that French models were largely copied and exhibited as English novelties. We fancy that, if M. Fochier had examined, for instance, the various appliances for fractures and injuries shown *in situ* in the room so ingeniously arranged by Dr. Steele, he would have found a great many appliances little known and not at all used in the French hospitals, some of which might be introduced with great advantage; and in the cases of Arnold, Salt, Hawksley, Wright, and Hilliard, he might have found a score of useful and beautiful instruments of purely British and quite recent origin; among them, Mayer and Meltzer's dial thermometer; Dudgeon's sphygmograph; Davy's compression-lever; Salt's aluminium pocket-cases; Arnold's stethoscopes and orthopædic instruments; Cocking's poroplastic jackets and splints; a novel and most perfect form of *post mortem* table; some very perfect and novel devices for electro-therapeutics by Thistleton; Allen's portable inhaler, bronchitis-kettle, and bedside vapour-baths—merely to mention a few at random out of many scores of admirable inventions which, from a very frequent and careful inspection of the hospitals and instrument-stores of France, we can say with confidence are either not known in France or are employed in much less convenient and perfected models. It is well to learn from criticism, and we shall look for such instruction. Merely superficial and inaccurate statements such as this of M. Fochier are not of much use to anyone.

CHARITABLE DISPENSARIES IN BENGAL.

ACTION has at length been taken by the Government of Bengal, towards checking the manifold abuses which have heretofore existed in the working of the charitable dispensaries of that province. The reports of inspecting officers and the researches of the Medical Committee have left no room for doubt that, on the one hand, the public usefulness of most of the outlying dispensaries had been greatly exaggerated; and, on the other, the assistance afforded by Government had been given on such a principle as to invite careless management, and a diversion of the public money from the charitable objects for which it was intended. Systematic inquiries were therefore made, to ascertain what was the actual amount of charitable relief afforded by each dispensary, what was its financial position apart from the Government aid, how far its resources were properly and economically employed, and what hope there was that local charity would maintain the dispensary efficiently with the aid which Government has undertaken to grant. The general result is thus stated by the Surgeon-General. "It has been found that, in some places, there has been accumulation of invested money, while the poor have been unrelieved; that, in others, promised subscriptions have remained unpaid; and, while Government has continued to support the medical officer, he has been rendering no public service worthy of mention; that subscribed funds have been devoted to the payment of servants who have been useless for any legitimate purpose, serving mainly to enable the native doctor to absent himself from his dispensary without causing complaints; that, apart from irregular fictitious entries, the attendance of patients has been multiplied designedly and on regular system, in order to present a plausible tale of work; that medicines have been issued confessedly to persons who had no right to them." In order to ensure some sort of supervision and some tangible responsibility for contributions, the dispensaries have, wherever this was possible, been transferred to the management of municipalities; and the supply of medicines from the Government stores on free indent has been absolutely stopped. Medicines have been given, as in other provinces, at cost price; and, in some cases, a money grant has been made in support of the dispensary funds. It has been distinctly laid down that Government aid can only be continued if it is shown that proper economy is exercised in the administration of the charitable funds of the dispensary. Inquiry has shown that great extravagance has been exercised in some dispensaries in the maintenance of establishment. Where the legitimate work of the dispensary was only sufficient to give employment to the hospital assistant and one menial, compounders and other servants were employed. The object of this was clear enough. The compounder looked after the dispensary, while the hospital assistant attended the richer subscribers at their homes, or sought private practice elsewhere. There can certainly be no justification for applying the public revenues to the support of a charity so long as the funds which they aid are diverted to other than charitable objects; and the Government have accordingly decided that they will only continue to pay a portion of the salary of the medical officer, and to contribute to the support of the dispensary, when the Managing Committee agrees to apply its funds to *bonâ fide* charitable objects.

PROGRESS OF THE GERMAN SANITARY EXHIBITION.

THIS exhibition will, it is now decided, remain open from June 1st to September 30th, 1882. A full account of the active preparations which were carried on during the past summer, and are still in progress, will be found at p. 570 of the present volume of the BRITISH MEDICAL JOURNAL. The work of the local committees is being continued with great energy. The practical manner in which the Rhine Provinces and Westphalia have shown their interest in the good cause has already been referred to; committees from other parts of Germany are now honourably rivalling them in pursuing their labours with enthusiasm. The Concordia Society for promoting the welfare of the labouring classes has offered two prizes: one for the best treatise on the building of artisans' and labourers' dwelling-houses; and another, of the value of 1,000 marks (£50), for the best popular treatise, occupying about four sheets, on the most rational method of feeding persons with limited means, especially the artisan class. In order to aid in maintaining an interest in the subject, the small periodical, devoted to the interests of the exhibition, is now issued weekly, and will continue to appear up to the close of the exhibition. Since so much energy is being shown in organising the exhibition, there can be no doubt that it will be a worthy successor of those which have preceded it in London, Paris, and Brussels.

THE HUNGARIAN SLEEPER.

JOHN GYUMBERE, the Hungarian who was in a trance continuously for one hundred and sixty-nine days in the Lehigh county poorhouse, has, the *Philadelphia Medical Reporter* says, for the first time sufficiently rallied to give the story of his life and experiences. He was first found insensible at a neighbouring inn, whence he was removed to the county almshouse. This was over six months ago. On the 22nd of April he opened his eyes for the first time and kept them open for four days. He did not speak, but remained in a dazed condition. On April 23rd,

he either fell or jumped out of the hospital window, falling a distance of twenty-five feet, but was not seriously injured. April 26th, he again closed his eyes, and did not open them until May 20th, when he spoke two words after a flower had been held to his nose. Six hours afterwards he closed his eyes and kept them shut until a few evenings ago, when, upon being hailed by a Pole, in Slavonic, he opened his eyes, raised himself up, and in the same tongue replied, stating that he arrived in America about two years ago and went to Virginia, where he was employed by a man named Porter, near Charlottesville. He complains that a negro woman there put red pepper in his coffee, and many rough jokes were played on him, wherefore he fled from that part of the country and went to Baltimore, and then wandered into Pennsylvania. He remembers nothing from the time he fell asleep, until about four weeks ago, when he began to realise that he existed. It was as if he had been sleeping very long. When he awoke partially, he thought he was in a jail. He now feels very weak, but wants to go to work again as soon as he is strong enough. During his trance, he was examined by a large number of physicians.

POISONING BY CARBOLIC ACID.

Two cases of poisoning by carbolic acid are reported in abstract in the last number of the *Nordiskt Medicinisk Arkiv*. One of them, described by Dr. J. A. Malmgren, is that of a child aged 5½ months, who had an eruption, followed by an ulcer, in his groin, which was ordered to be dressed with carbolised oil (8 per cent.). The next day, he had vomiting, which was repeated during the night. The urine was described by the mother as being "very dark and foul", and the child was very sleepy. The carbolised oil was removed on the third day; the urine was of a deep coffee-colour, and the child slept almost constantly; the pupils were somewhat contracted; the vomiting continued. On the fourth day, the patient's condition was about the same; but in the evening the somnolence had ceased, the vomiting was less frequent, and the urine had become much clearer. The child recovered; but the urine retained a dark colour for a fortnight. In the second case, related by Dr. Nordenström, a child one year old had a large fluctuating swelling in the left parotid and submaxillary regions; it was opened, and a large quantity of pus discharged. The part was dressed with cotton-wool saturated with carbolised oil (1 in 10), over which was placed dry cotton-wool and a bandage. The dressing was changed morning and evening. About an hour after the application of the dressing, the child had vomiting, which continued through the following day. The urine was of a dark green colour, and the evacuations were loose. On the third day, the condition was about the same, and the breathing was impeded. A mixture of equal parts of camphorated oil and olive oil was now substituted for the carbolised oil; but the child died the next morning.

THE ROYAL ACADEMY OF SCIENCES OF TURIN.

The Royal Academy of Sciences of Turin announces that a prize of 12,000 lire (£480), founded by the late Dr. C. A. Bressa, will be given to the competitor who shall, in the opinion of the Academy, have, during the four years 1879-82, made the most important and useful discovery, or produced the best work, in physical and experimental science, natural history, pure and applied mathematics, chemistry, physiology, or pathology, not excluding geology, history, geography, and statistics. Scientific men and inventors of all nations are invited to compete; the only persons excluded being the members of the Academy.

AN EPIDEMIC OF SMALL-POX IN CHRISTIANIA.

Dr. [illegible], in the [illegible], gives an account of an epidemic of small-pox which prevailed in Christiania from May 5th to August 10th, 1881. There were 127 cases, 101 in adults, and 26 in children under fifteen; of the latter, 18 had not been vaccinated. The deaths were 17; of which 6, or 5.25 per cent., occurred among the vaccinated, and 8, or 44.4 per cent., among the unvaccinated. The disease was first introduced into the city from Malmö, through which six persons were infected. Another outbreak occurred among the workmen in a paper-factory, to whom the infection was brought from Stettin. Between May 13th and 17th, eight persons in eight separate houses were attacked, and were taken into the Grönland Hospital, after having infected eight other persons. From June 2nd to 15th, twenty-four patients were admitted, who had apparently received their infection from the Grönland lazaretto; the whole of the patients were therefore removed to another lazaretto. Dr. Bidenkap describes in detail the manner in which the disease spread from the Grönland lazaretto. The front part of the house and the entrance are separated from the hospital buildings at the back by a high boarding, beyond which none of the patients or their attendants at any time passed. The hospital buildings and the surrounding garden are separated from a row of buildings four storeys high by a boarding a little more than three mètres (three yards and a quarter) high, the distance between the north end of the hospital and the buildings being about 3.6 mètres (four yards). Having ascertained that there had been no direct communication between the inhabitants of the hospital and the neighbours, Dr. Bidenkap was led to suppose that the contagium had been propagated by the air. The air had been for some time dry and warm, and a strong south wind blew from the hospital into the opposite houses, the windows both of the hospital and of the houses being generally open. The first patient attacked was a sucking infant, which had never been out of the room in the second storey where it lay, the windows being nearly twenty feet from the nearest window of the hospital. In this row of houses, which was nearest the hospital, twelve out of twenty-four cases occurred. The other twelve cases occurred in persons residing at a somewhat greater distance, who had visited the houses nearest the hospital, and had remained some time in the courtyard. Dr. Bidenkap gives several examples of the conveyance of the contagium of small-pox. Ten years ago, he ascertained that a person had become infected while passing the door of a room in which two small-pox patients lay. The Grönland Hospital was several years ago the means of spreading the infection, in consequence of some children coming into the hospital garden, two of whom were attacked. In 1866, small-pox is said to have spread from a house which was being used as hospital, to the neighbouring houses. Dr. Hoelstad, who was in charge of a district affected with small-pox in 1868, describes a case in which the contagium appeared to have been carried by the air for a considerable distance. The bedclothes which had been used by a small-pox patient were brought out and beaten, while the wind was blowing strongly in the direction of a house at the distance of one hundred ells (200 feet), the inmates of which had rigorously avoided all communication with the sick. Fourteen days later, small-pox broke out in the house.

THE TYPHOID FEVER CASES AT RUGBY COLONY.

Dr. James T. Whittaker gives a report, in the *Cincinnati Lancet and Clinic*, of the epidemic of typhoid fever which broke out not long ago in the English colony at Rugby, Tenn. He found in all twenty cases among the four hundred inhabitants of the village. The cause of the disease seemed without doubt to proceed from drinking the water that had stood in an old cistern and had there become filthy; or, in other cases, from drinking the water from a shallow well that stood not far from the cistern. The cause of the infection was speedily abolished, and it is expected that there will be no more trouble.

PENNIES OUT OF TIME.

There is a cynical old proverb, which says that [illegible] is a penny in his pocket; but a penny or any other coin in the pocket is not always a child's best friend, especially if it happen to be enclosed in a sweetmeat, as is now a foolish and prevalent custom. At the Coroner's Court, Clerkenwell, recently, Dr. Danford Thomas held an inquiry respecting the death of Kate Austin, aged three years, whose death was caused by swallowing a coin in some sweetmeats. From the evidence adduced, it appears that in the neighbourhood of Clerkenwell packets of sweets are sold in which coins are placed, being baked in the centre. The deceased child on Sunday, the 25th of September, got a farthing in the

centre of the sweet she purchased, and she swallowed it. On the following Wednesday morning she was taken with severe vomiting and diarrhœa, and on Mr. Smyth attending, he found her in a state of exhaustion, from which she never recovered. On making a *post mortem* examination, he found that death was caused by inflammation of the intestines and peritonitis, following the swallowing of the coin. In answer to the Coroner, Mr. Smyth said he had attended about a dozen cases of the same description, most of the children having swallowed coins. While the case was proceeding, the Coroner's officer went out and procured a packet, and, on the Coroner breaking the sweet, a penny was found in the middle. The jury returned a verdict of death from misadventure, and asked the Coroner to communicate with the Vestry, calling the attention of that body to the shops where these poisoned sweets are sold.

INFANT MORTALITY.

DR. NESTOR TIRARD, Assistant-Physician to the Evelina Hospital, has, in a letter to the Charity Organisation Society, drawn attention to an important subject. It not unfrequently happens that infants are brought to the out-patient rooms of our hospitals, suffering from symptoms which indicate improper or insufficient nourishment. The physician gives minute instructions as to the nature and quantity of the nourishment which the little patient requires. The mother, or foster-mother, promises to do all that she is told. But, week after week, the infant is brought to the hospital, and no improvement is apparent, but, on the contrary, the emaciation becomes worse and worse. At length, the mother calls alone: the baby has died; and she asks for a certificate of death. This is given, and "marasmus" is assigned as the cause of death. But the physician has a strong suspicion that his instructions have not been carried out; that the child has been slowly but surely killed by want of proper food; and that the case is, in fact, one of wilful and criminal neglect. What can the medical man do under these circumstances? Apparently very little. To use an American word, he is "cornered". The case is not one of destitution, so that the relieving officer would have no *locus standi*. Though suspicion is strong, there is no evidence that could be laid before a coroner and jury. Possibly a well selected case might be followed up by the Society for Protecting Infant Life. Thus a check might be put upon a most inhuman practice, and medical men might be saved from being made parties to a most nefarious transaction.

DEATHS FROM ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London, which had been 26, 15, and 13 in the three preceding weeks, rose again last week to 22, and exceeded by 10 the corrected average weekly number in the corresponding week of the last ten years. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had declined from 582 to 422 in the four preceding weeks, were 443 at the end of last week, including 139 in the "Atlas" Hospital Ship. The new cases of small-pox admitted to these hospitals were 62 during last week, against 84, 70, and 51 in the three previous weeks. The Highgate Small-pox Hospital contained 24 patients on Saturday last, 4 new cases having been admitted during the week. The fatal cases of measles, which had been 17 and 21 in the two previous weeks, further rose to 33 last week, and exceeded the average by 9; 18 were recorded in South London. The 66 deaths from scarlet fever showed a further increase upon recent weekly numbers, and exceeded the average by 2. The 13 deaths referred to diphtheria were 2 above the average, and included 2 in Hackney. The 32 fatal cases of whooping-cough showed an increase upon recent weekly numbers, and exceeded the corrected average by 4. The 26 deaths attributed to diarrhœa, of which 15 were of infants under one year of age, were 30 below the average. The deaths referred to enteric fever, which had been 48 and 46 in the two preceding weeks, further declined to 33 last week, and exceeded the average by 8. The Metropolitan Asylum Fever Hospitals at Homerton and Stockwell contained 106 enteric fever and 43 typhus fever patients on Saturday last; these numbers showed a further increase upon those reported at the end of the previous week.

ON THE USE OF CARBOLIC ACID IN THERAPEUTICS.

M. RAYMOND (*Journal de Médecine de Paris*, vol. v, p. 124) employs, in the treatment of typhoid fever, carbolic acid or carbolate of soda, in doses from fifteen to thirty grains a day. By the use of this drug, he says, a notable lowering of the temperature is obtained, which may last as long as six hours. At the same time, an increased secretion of sweat is noticed; which, however, has no direct relation to the lowering of the temperature. The duration of the typhoid fever is not shortened by this method; in fact, convalescence is sometimes even longer. M. Raymond has also obtained excellent effects from carbolic acid in acute erysipelas. He employs as a lotion a 50 per cent. solution, and gives carbolic acid internally, and carbolate of soda in injections. This medication gives no appreciable result in tuberculous patients. The inhalations of carbolic acid appear to be favourable in whooping-cough. A 20 per cent. injection of carbolic acid into the pleura in a case of empyema had no bad results. M. Hallopeau, in commenting on these facts, says that they show, in common with some communicated by himself, that carbolic acid does not lower the temperature by causing perspiration. Carbolate of soda in typhoid fever lowers the temperature for many days. He searched for carbolic acid in the fæcal matters, but did not find any. In contradistinction to M. Raymond, he thinks that this material does exercise an influence on the duration of the disease. In tuberculosis, it lowers the fever, but not in a constant way. M. Hanot, after administering carbolate of soda to a patient suffering from typhoid fever, noted the production of a special pustular confluent eruption. The fluid of these pustules contained an infinity of bacteria. The temperature became notably lowered from that time, and there was a veritable crisis. M. Hanot gave fifteen grains of carbolic acid a day, divided into two enemata.

SCOTLAND.

ONLY five deaths from small-pox were registered in Scotland last year.

ABERDEEN UNIVERSITY COURT.

A MEETING of this Court took place on the 14th instant. *Inter alia*, the following assessor examiners in medicine were appointed: W. J. Walsham, M.D., London (Anatomy); John Barclay, M.D., Banff (Materia Medica and Medical Jurisprudence); J. W. Miller, M.D., Dundee (Medicine and Pathology); James Anderson, M.A., M.D., London (Chemistry and Physiology); and J. Greg Smith, M.A., M.B., Clifton (Surgery and Midwifery). It was resolved, under the Universities Elections Amendment (Scotland) Act, 1881, sect. 16, to charge twenty shillings as the fee for enrolment on the General Council, to be paid immediately after the examination, and before graduation. Professor J. B. Haycraft, of Sir Josiah Mason's Science College, Birmingham, applied to the Court to have his lectures on physiology recognised for the purpose of graduation in the University of Aberdeen, which was agreed to, subject to the approval of the Chancellor. The Court approved of November 12th as the day for the election of the Lord Rector. Students are beginning to return to their studies; but still the chief business seems to be the question of the Rector. The medical preliminary examination takes place on the 24th and 25th instant, and the session opens on the 26th.

UNIVERSITY OF EDINBURGH AND MEDICAL SCHOOL.

THE winter session in the University of Edinburgh commences on Tuesday, October 25th. There is no general opening address, the customary address by the Principal having dropped into disuse some years ago. In the extramural School, the opening address will be delivered by Dr. Alexander G. Miller, on Monday, October 24th. At the preliminary examination in arts, held in the University a fortnight ago, nearly three hundred and fifty candidates presented themselves; of course, a considerable number of these presented themselves for the second or third time. At the first professional examination, at pre-

sent going on, about two hundred and seventy candidates appeared. At the University Court, at a meeting held on Monday, and presided over by Lord Rosebery, the Rector, Mr. D. J. Hamilton, M.B., was recognised as a lecturer whose course would qualify for graduation in the University. The appointments of various class assistants were approved, and the Court fixed the registration fee for the General Council at twenty shillings (in connection with the Scottish Universities Election Amendment Act, 1881), this fee to be payable when the candidate has passed his final examination and previous to graduation. The effect of the Act being to compel all graduates to be members of the General Council; previously, this was optional.

THE ABBEY ASYLUM AT PAISLEY.

THE annual report of the Commissioner in Lunacy on the above institution has just been issued, and is one very satisfactory to the management. It states that at the time of the annual inspection there were ninety-seven inmates, and that during the year which had just passed there had been three deaths. The way in which the patients were treated, and the plan of exercising them as much as possible in the open air, were highly approved of. Altogether, general satisfaction was expressed with the management and state of the asylum.

THE FIFE AND KINROSS ASYLUM APPOINTMENT.

ON Tuesday, a meeting of the Board of the Fife and Kinross District Lunatic Asylum was held at Cupar. A letter from Dr. John Fraser, Assistant Commissioner in Lunacy, was read, in which, while thanking the Board for the honour they had proposed to confer on him, by asking him to nominate a gentleman for the appointment of Medical Superintendent to the Asylum, he declined to make such a nomination, considering it inconsistent with his own official position. No one who knows Dr. Fraser will be surprised at his decision; nor can the action of the Board in the matter be considered so worthy of censure as it has been endeavoured to make it in a newspaper correspondence, seeing that Dr. Fraser himself had, as assistant, then as superintendent, served it so well; and, while it might be indiscreet of the Board to have put itself and Dr. Fraser in a questionable position, it must be remembered that the Board must have borne in mind that Dr. Fraser, from his official position, was a most likely person to know who would be an eligible candidate for the Asylum appointment. At the same meeting, it was resolved, on the motion of Dr. Cleghorn, to recommend to a special meeting of the Board, that Dr. A. R. Turnbull (at present senior assistant at Morningside Asylum) be appointed medical superintendent.

ARGYLL AND BUTE ASYLUM.

AT the quarterly meeting of the Argyll and Bute District Board of Lunacy, held on the 6th instant, it was resolved to at once proceed with an extension to the above asylum, so as to provide additional accommodation to the extent of 120 beds; the work to be completed as nearly as possible within twelve months. This step has, no doubt, been taken partly in consequence of a lengthened report from one of the Commissioners of Lunacy drawing attention to the crowded state by the asylum and the necessity for more room. The quarterly report of Dr. Cameron, the medical superintendent of the asylum, showed that there were at present in the institution 362 patients; and that there had been 30 admissions, 12 discharges, and 3 deaths, during the last quarter.

THE [illegible] CONVALESCENT HOMES.

THE twelfth annual general meeting of the supporters of the above institutions was held on the 3rd instant, when a most satisfactory report was read and approved. These homes, which were founded for the relief of persons recovering from serious illness, have been in active operation for twelve years, and have from the first been a success, both as regards the number of patients admitted and the yearly increasing liberality of the public in contributing to their support. The present report shows that, during the past year, 2,367 convalescents were admitted, of whom 2,054 were perfectly recovered on leaving the institution; and that, during the past twelve years, no fewer than 18,660 applicants have had its benefits. In addition to a new wing, with laundry and outhouses, there have been several reconstructions and improvements, involving a cost of £7,985, of which £4,043 has still to be paid. The total expenditure of the year was £3,613; and the ordinary revenue £4,217, of which it is gratifying to note that the industrial classes subscribed £1,452. It is to be hoped that the directors will in the future be generously supported by the public of Glasgow and the West of Scotland with increased subscriptions and donations for defraying the cost of the new wing, and for the annual maintenance and support of the homes themselves.

THE GLASGOW HEALTH LECTURES.

THE second of the series of health-lectures in connection with the Combe Trust was given on the evening of the 17th instant, when Professor Gairdner spoke on "The Care of the Body: a Private and a Public Duty". Dr. Cameron, M.P., presided. In his opening remarks, Professor Gairdner dwelt on the fact that, about twenty years ago, there was no such thing in any Scotch town as a medical officer of health, or any sanitary organisation for preserving the health of the community. Of the value of such, strong proof was afforded by what had occurred in Glasgow alone, where between the years 1876 and 1881 the death-rate had been diminished four per thousand as a result of their good sanitary system. Dwelling next on the subject of cleanliness, exercise, and the family life, reference was made to what recent researches had brought to light in connection with infectious diseases, and stress was laid on the necessity that existed for the practice of cleanliness in all respects. In concluding, Professor Gairdner addressed a word to the clergy of all denominations, in which he asked them to assist the sanitary authorities, as they did once in a critical period, when cholera was expected, by calling the attention of their congregations to the aspects of duty which he had mentioned in the lecture, as he thought such a course might be fruitful of good. There was a large attendance at the lecture, and a hearty vote of thanks was awarded to Professor Gairdner.

[illegible] ALEXANDER M. SIMPSON.

ON the forenoon of Thursday, the 13th instant, a sad and unexpected event occurred in the death of George Alexander Simpson, M.D., of Highgate. Dr. Simpson, who has been recently staying at Banchory, Kincardineshire, for the benefit of his health, after an illness of a few hours, expired, it has been ascertained, from disease of the heart. Feeling rather unwell in the course of the early forenoon, he was conveyed to bed, nothing serious at the time being anticipated; but, towards one o'clock, he grew rapidly worse, and died very shortly afterwards. Dr. Simpson was a native of Aberdeen, where he graduated with highest academical honours in 1868. After graduating, Dr. Simpson became resident assistant-physician in Middlesex Hospital, and he afterwards studied at several continental schools. He settled in Highgate, where he rapidly secured a large practice, and where he was highly esteemed for his professional skill and his genial and gentlemanly social qualities. Dr. Simpson was married to a daughter of the late Professor Macrobin of Aberdeen, and he leaves, besides his widow, a young family to mourn his loss. Dr. Simpson was only thirty-six years of age, but even already he had attained a well-merited position as an accomplished physician.

THE SCOTTISH [illegible] REFORM SOCIETY.

THE above Society, which has been in existence for about three years and has its head-quarters in Glasgow, is apparently making satisfactory progress in carrying out the object which it has in view. The task which it has set itself to accomplish is the establishment of a purer and healthier diet, especially among the working classes. It is thought that, were these latter better informed on the subject of diet, they would avail themselves to a greater extent of many economical articles of food that are at present too much neglected. With the view of

rendering successful this dietetic reform, meetings are held from time to time at which lectures bearing on the subject are delivered by properly qualified gentlemen, and practical illustrations of the subject under discussion are added. No doubt many who attended these meetings derived much benefit and information on the matter of health and diet; and the Society deserves every encouragement in the useful work it has undertaken.

THE REGISTRAR-GENERAL'S RETURN.

FROM the returns of the Registrar-General for the week ending October 8th, it appears that the death-rate in the eight principal towns was 18.8 per thousand of the estimated population. This rate is 0.8 below that of the corresponding week of last year, but 1.4 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 8.4 per thousand; and the highest in Perth—viz., 33.1 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.1 per thousand, being 0.6 below that for last week. Diphtheria caused four deaths in Greenock. Acute diseases of the chest caused 96 deaths, or 13 more than the number recorded for last week. The mean temperature was 49.2, being 5.3 below that of the week immediately preceding, but 3.5 above that of the corresponding week of last year.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending October 1st states that there were 350 deaths registered, representing a death-rate of 19 per 1,000. As compared with the corresponding fortnight of last year, the past fortnight was much wetter and a little warmer. There were 61 fewer deaths over all, and in zymotic diseases alone, 52 fewer, the number this year being only a little more than half that of last. The present fortnight also contains fewer deaths of aged people than any on record, there being only 34 deaths of persons aged sixty years and upwards. Pulmonary diseases show 117 deaths, representing a death-rate of 6 per 1,000 living, and constituting 48 per cent. of the total deaths. The number of deaths from fever was 14—viz., 10 from enteric fever, 3 from typhus, and 1 undefined; while from the infectious diseases of children there were 18 deaths—viz., 10 from scarlet fever, 4 from measles, and 4 from whooping-cough. The number of cases of fever registered was 52—viz., 38 of enteric fever, 10 of typhus, and 4 undefined. There are at present 282 cases in the hospital, as compared with 240 two weeks ago, or an increase of 42.

IRELAND.

DR. THOMAS JAMES RAWSON, of Barrowville, Carlow, died last week, aged 73 years. Deceased was a graduate in medicine of the University of Glasgow, and formerly held the posts of surgeon to the Carlow County Infirmary, and medical officer of the workhouse.

SMALL-POX appears to be spreading in Waterford, several cases of the disease having recently occurred, and one death having taken place. The fatal case was of the confluent type, and the clothes of the patient were burnt, the house he resided in thoroughly disinfected, and all necessary precautions taken to prevent the disease spreading.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

THE annual stated meeting of this College was held on Tuesday last, being St. Luke's day. Dr. George Johnston was re-elected President, and Professor Helmholtz, who visited Dublin last April and received the degree of LL.D., *honoris causa*, from the University of Dublin, and the Honorary Fellowship of the Royal College of Surgeons in Ireland, was elected by acclamation an Honorary Fellow of the College. Drs. J. W. Moore, Harvey, Macan, and Nixon were elected Censors; and Drs. Benson, Churchill, and Foot, additional Examiners to take the place of an absent Censor or Examiner. The additional examiners in the subjects of the first professional examination elected, were Dr. Duffey (in Materia Medica), Dr. Nixon (in Anatomy), Dr. Purser (in Physiology), and Dr. W. G. Smith (in Chemistry). Drs. Churchill and Kirkpatrick were elected Examiners in Midwifery. The outgoing Treasurer, Registrar, Librarian, King's Professor of Midwifery, Professor of Jurisprudence, and representative on the General Medical Council, were re-elected. The President appointed Dr. J. W. Moore Vice-President of the College. The Provost of Trinity College having attended and administered the statutory oath to the Fellows of the College present, they proceeded to elect by ballot to the vacant King's Professorship of Materia Medica and Pharmacy, and, *ex officio*, Physicianship to Sir Patrick Dun's Hospital. Dr. Walter George Smith, Physician to the Adelaide Hospital, was elected. Dr. Walter Smith succeeds his father, Dr. Aquilla Smith, in the chair which the latter has recently resigned. He is the author of the well known *Commentary on the British Pharmacopœia*, and of many valuable papers and reports on subjects relating to materia medica and pharmacy. We heartily congratulate him on his election, and anticipate that he will add *prestige* to the important chair and hospital to which he has been appointed.

THE DUBLIN UNIVERSITY DEGREES.

THE last meeting of the Senate of this University to confer degrees was held in St. Patrick's Hall, Dublin Castle, on Thursday week. There was a large attendance of members of the Senate and of graduates. His Grace the Duke of Leinster, Chancellor of the University, presided; and, in the course of an address which he delivered, gave an abstract of some of the work done by the University during the thirty-two years of its existence. In this time, he said, it educated 7,800 students, the great majority of them Irishmen, of whom 2,261 received its well-earned degrees. During the present year, upwards of 1,000 students have been instructed by the Queen's Colleges. In the Faculty of Medicine, there are two previous University examinations in addition to the degree examinations. At these examinations, 532 students of the University presented themselves, and two extern candidates. Of these, 72 passed for the degree of doctor in medicine, 53 for the degree of master in surgery, 34 for the diploma in midwifery, and 286 at one or other of the two previous examinations. Seven of the candidates for the degree of doctor in medicine, and 15 of the candidates at the previous examinations, have been awarded high University distinctions. Several honorary degrees were subsequently conferred on distinguished members of the University. Among these were the degree of Doctor in Science, *honoris causa*, on Dr. Cleland, F.R.S., who served the University for several years as one of its Professors of Anatomy and Physiology, and who is now one of the distinguished Professors of the University of Glasgow, where his University duties made it impossible for him to attend to receive the degree in person. The same distinction was conferred on Dr. Rowney, and on Dr. Letts, who are still engaged in the service of the University, as Professors of Chemistry; and the degree of Master in Arts, *honoris causa*, on Dr. Thomson, Surgeon to the Richmond Hospital, a distinguished graduate and examiner in Surgery in the University. Thus, the useful labours of an University, the graduates of which form a body that have risen into prominence in every learned profession, and in every occupation of life in which an instructed mind carries weight, are, from political reasons, brought to a conclusion, and that, too, at a time when the University is in a state of active and indeed vigorous growth. Year by year, the number of its students show an increase. In every direction, there is healthy development. This year its statistics show an advance upon last year, which in turn exceed those of the year before; and this creditable state of things has been repeated now for a long series of years.

SIR PATRICK DUN'S HOSPITAL.

DR. ALEXANDER MACALISTER, University Professor of Anatomy and Chirurgery in the School of Physic of Trinity College, Dublin, and, *ex officio*, Surgeon to Sir Patrick Dun's Hospital, has resigned the latter appointment, in order to devote himself to the more congenial

scientific duties of his chair. The Board of Trinity College have appointed Dr. Charles B. Ball, F.R.C.S.I., one of the demonstrators of anatomy in their school, and medical officer to the South City Dispensary, to the Surgeoncy of the Hospital, as *locum tenens* for Professor Macalister. Dr. Ball is a distinguished student of his university, being an ex-senior moderator and gold medalist in natural science, as well as an ex-medical scholar and senior medical exhibitioner. His appointment is an excellent one, and will, from the exceptional experience which Dr. Ball has had as a surgeon and as a teacher, be an important addition to the staff of the hospital.

THE COOMBE LYING-IN HOSPITAL.

THIS deserving charity, which has had its wide field of usefulness somewhat restricted lately by the incubus of debt, has just received from Mrs. Tighe of Dublin, by Dr. Banks, the munificent and timely donation of £1,500 as a memorial of Robert Tighe, Esq. The directors have resolved to name a ward in the hospital "The Robert Tighe Ward", in commemoration of the donation, and also to place a tablet in the hall recording the fact of the gift.

THE MEDICAL ACTS COMMISSION.

DR. FINNY, representing, as its Registrar, the King and Queen's College of Physicians; Dr. J. W. Moore, representing the Irish Medical Association; and Mr. William Stoker, representing the private teachers or "grinders" of Dublin, gave evidence before the Commission this week.

ST. JOHN'S AMBULANCE ASSOCIATION.

A COURSE of lectures in connection with the above Association was commenced for ladies last week, in the Nurses' Home, Frederick Street, Belfast. The lecturer, Dr. John W. Byers, gave a short sketch of the origin and objects of the Association, and illustrated his remarks by diagrams and anatomical preparations. The course will consist of five lectures, one being delivered each week.

"WAKING" THE DEAD.

THE Limerick Urban Sanitary Board last week ordered a summons to be issued against a man for holding a wake in the room where his mother lay dead from an infectious disease. A prohibitory notice had been previously served by the police, but the man refused to obey, and tore up the document he was served with. "Wakes" have been a most fruitful source of conveying infection; and the infliction of a fine of £5, which the magistrates can enforce, would be of service in preventing a repetition of the dangerous practice.

FEVER IN QUEENSTOWN.

TYPHUS fever appears to be rather prevalent in the western part of Queenstown, and has been attributed to the bad sanitary arrangements, defective ventilation, and overcrowding which exists in so many of the houses. Since the commencement of the year, 61 cases of typhus fever have been treated in the Queenstown Hospital, while, for the thirteen years previous, the cases only averaged 6 *per annum*. The lodging-houses in certain localities are very much overcrowded, and the Town Commissioners seem unwilling to put into force the Common Lodging House Act.

SANITARY CONDITION OF IRISH DISTRICTS.

THE registrars, in their reports for the quarter ending 30th June last, while in many instances speaking highly of the sanitary improvements which have recently taken place in their districts, yet too often refer to the great neglect in ventilation, cleanliness, etc., which still exists. The registrar of Docharry, in Glenties Union, states that cesspits, with manure heaps in close proximity to dwelling-houses, are the rule in his district; while cattle are kept in a great many houses. The town of Carndonagh is subject to frequent visits from both typhus and typhoid fevers, which is attributed to the fact of the water in use for drinking and other purposes being infected by leak. The supply is obtained from open wells, which are entirely unprotected from contamination. The water-supply of Collooney, in Sligo Union, appears to be unfit for use, having been condemned by Dr. Cameron of Dublin; but much opposition is shown by the residents, and it is feared that an epidemic of typhoid fever will be required before a better supply can be obtained. The medical officer of Swords dispensary district, in alluding to contagious and infectious disease, observes that, from an experience of many years as a Poor-law physician, he firmly believes that, if parents and relatives of persons suffering from contagion were bound by law to have their ailments notified to any central authority, disease would spread rather than be arrested thereby, because the medical practitioner would not be called on until, in fact, the patient was *in articulo mortis*, and when the disease had had sufficient time to extend itself further in the absence of any sanitary precautions. Scarlatina and typhus fever broke out in the parish of Kilrossanty, but great difficulty was experienced in inducing the parents to allow themselves or their children to be removed to hospital; so that it was necessary to ask the board of guardians to have the necessary legal steps taken for their compulsory removal. In the village of Mooncoin, the houses are small, ill constructed, and without proper sanitary arrangements. The registrar has often reported on this place before, and is forced, he states, to the conclusion that it is only in the distant future that any approach to sanitary reform in that village will be attempted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE quarterly autumn meeting of the Council of the Royal College of Surgeons of England was held on Thursday, the 20th instant. The minutes of last meeting were confirmed, and reports were received from the several annual committees. The vacancy occasioned by the resignation of Professor John Marshall, F.R.S., in the Court of Examiners was filled up by the election of Mr. John Croft, F.R.C.S., Lecturer on Clinical Surgery at, and Surgeon to, St. Thomas's Hospital, to the vacant seat.

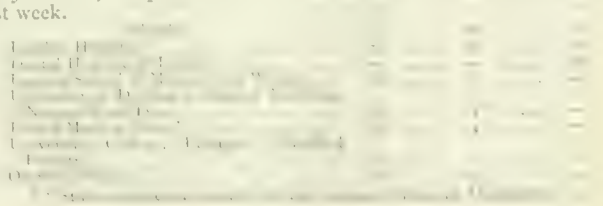
GRANTS FOR SCIENTIFIC RESEARCH.

THE Scientific Grants Committee of the British Medical Association desire to remind members of the profession engaged in researches for the advancement of medicine and the allied sciences, that they are empowered to receive applications for grants in aid of such research. Applications should be made without delay to the General Secretary, at the office of the Association, 161A, Strand W.C., and must include details of the precise character and objects of the research which is proposed.

THE ENTRIES AT THE MEDICAL SCHOOLS.

SINCE last week, we have received the following additional information concerning the number of students that have entered at different schools of medicine. From the warden of St. Bartholomew's Hospital, we learn that the number of students for the entire course that have entered since October 1st amounts now to 164, there being 9 occasional students as well. Candidates for London University examinations, attending classes at this hospital, are not included in the above returns. The total number of students entered for the whole course at University College is now 115. From St. Thomas's, we learn that 65 students have entered for the entire course; 5 have entered after spending their first, or their first and second years elsewhere; and 24 for hospital practice. King's College can now number 58 new students for the entire course.

The following list, arranged as in previous numbers (see page 646) of the JOURNAL, comprises schools whence returns had not been received last week.



PRIZES IN THE MEDICAL SCHOOLS.

THE following, continued from p. 646, are lists of the successful candidates for prizes in the Medical Schools during the session 1880-81.

[illegible] dence, R. G. Style; Chemistry, — Priestley.

[illegible] M. Mackenzie, G. W. O'Flaherty, L. J. Petricher, E. Portal, R. C. Rowan, J. [illegible] L. Gale, S. Herriot, H. C. Hughes, L. E. Portal, E. W. Reilley, W. V. Roberts, T. G. [illegible] W. L. Tidy; [illegible] T. G. Williamson, T. Monies, M. Sandison, F. T. Cumberbatch, T. Armstrong, C. J. Matthew, D. E. Carr, K. Wingvist, K. F. Brown Constable, D. R. Taylor, W. M. D. Reid, G. A. Thompson, F. Laird. Medical Jurisprudence: Gold Medal, W. Bain; Honourable Mention, L. Grant, W. W. B. Fry, F. R. Corser, D. Christie, J. B. Spence. Public Health: [illegible] (Mr. J. Bell): Prizes, 1. G. D. Mackintosh; 2. G. F. Gutheridge; 3. W. Gunn; 4. D. G. P. Thomson; Certificates, C. Swanston, E. S. Hart, E. F. Neve, W. Perrin (equal). Clinical Medicine: First, W. Douie, R. M. [illegible] J. [illegible] (equal); Competitive Examination for Resident Physicianship, [illegible] Douie, H. W. Pooley, and J. P. S[illegible] (equal). Midwifery and Diseases of Women and Children: 1. J. Spence; 2. F. T. Underhill. Surgery (Mr. Chiene): Senior Division, 1. A. B. Whitton; 2. J. T. Carter; 3. H. T. Legat; Junior Division, 1. A. P. Drummond; 2. A. Robinson; 3. T. E. Dyson; 4. A. T. Dochard; 5. J. W. Underhill; 6. J. E. Kelso; 7. P. J. Baily; 8. E. Baily; 9. T. W. Dewar; 10. L. D. Pétricher; 11. G. Mackay; 12. R. Vassie; 13. R. A. Brewis and D. K. Keith (equal); 15. J. Macdonald; 16. C. H. Jones; 17. J. S. Bolton and A. Younan (equal); 19. W. Petter; 20. F. J. Hall and J. B. Wilkinson (equal); 22. A. J. Styles, 23. T. B. Darling; 24. G. Irving and V. N. Koch (equal); 26. H. M. Woodhead; 27. S. A. Comber; 28. W. E. Porter; 29. A. J. Campbell; Prize for Best Notes, 1. J. Trawse Nisbet; 2. Edwin Baily and Walter Petter (equal). Practice of Physic (Dr. Wyllie): First Prize, W. Bain and W. Turner (equal); Second Prize, C. Swanston; Third Prize, F. T. Underhill. Materia Medica and Therapeutics (Dr. W. Craig): 1. Silver Medal, J. Allison; Certificates, 2. D. D. Main; 3. C. Swanston; 4. R. Paul; 5. R. W. M'Kinstry; 6. J. B. Edgar Joseph. Practical Materia Medica, including Practical Pharmacy; Certificate, C. M'Leod. Chemistry (Mr. Falconer King): Medal, W. Henderson; Second Prize, J. M'Farlane; Third Prize, A. S. Ramage; Certificates, W. R. Davis, M. P. Williams, T. J. Paton; F. U. Anderson, A. H. J. Bourne. Class of Diseases of the Ear: First Prize, W. W. Kerr; Second Prize, F. Mackinnon; Third Prize, W. Douie; For valuable assistance in Ear Dispensary and Class, Special Prize, J. F. Thomson. Diseases of Women (Dr. H. Croom): First Prize, J. Hewetson; Second Prize, M. B. Thomson, Certificates, 1. R. T. Sutherland; 2. B. L. Mills; 3. T. Ross. Institutes of Medicine or Physiology (Dr. A. James): 1. Medal, L. J. Pétricher; 2. Prize, J. Small; Certificates, 3. W. F. Clark; 4. C. W. Hemming; 5. L. G. Lawson and H. G. Haines (equal); 7. K. Wingvist. Chemistry (Dr. Drinkwater): Silver Medal, H. Jamieson; First Class Certificate, S. H. Wilson. Practical Chemistry: First Class Certificates, C. Ross, H. S. Lloyd. Anatomy (M. Symington): Lectures: Senior Division, F. U. Anderson, Silver Medal; Certificates, J. F. Thomson, T. A. Leishman and P. E. Perot (equal), E. Berryman. Junior Division, M. P. Williams, Silver Medal; Certificates, J. Mungle, T. J. Paton, J. Hugh M'Closky, F. Laird and G. Parry (equal), R. B. Graham, H. Purdie. Practical Anatomy: Senior Division, P. E. Bury, Silver Medal. Junior Division, R. H. Lucy, Silver Medal; Certificates, M. P. Williams, J. M. Balfour, F. Laird, T. J. Paton, J. R. Burns and Henry A. Thomson (equal). G. Porter, F. A. Neale, D. H. M'Crossky and John Kyle (equal). G. W. Haden, J. D. Black and George Parry (equal). R. E. Gubbins. Demonstrations on Anatomy: F. B. Hector, Silver Medal; Certificates, F. U. Anderson, G. F. Guthridge, J. R. Phillips, H. W. Pilgrim, T. A. Fraser, J. Miller, L. T. Archer, J. Orr, C. H. Bourne, A. E. Addinsell, J. A. Maclaine, H. Hartley, J. L. Godfray, J. E. Harris, J. Heath, J. Thomasson, M. W. Guthridge, George F. Shiels, J. Small. Practical Physic (Dr. Argyll): Senior Division, First Prize, E. W. Reilly; Second Prize, D. D. Main; Certificates, 1. J. H. Dean; 2. J. T. Dickie; 3. D. Christie; 4. W. Griffiths; 5. D. W. Johnston; 6. W. K. Aitken; 7. A. G. E. Naylor. Junior Division, Prize, G. Sinclair; Certificates, 1. T. Ross; 2. J. Stewart; D. R. Paul; 4. W. Benson. General Pathology: Silver Medal and First Class Certificate, 1. G. Sinclair; First Class Certificates, 2. W. Johnson; 3. W. Bain. Practice of Physic (Dr. Byrom Bramwell): Prizes, 1. H. D. Osborne and D. G. Crawford (equal); Certificates, 3. J. Houseman; 4. A. M. Westwater; 5. J. B. Joseph; 6. W. Morris; 7. W. Gunn; 8. J. P. A. Wilson. Institutes of Medicine (Mr. James Hunter): Class Medals, F. U. Anderson, J. F. Thomson; Certificates, P. E. Perot, H. W. Chambre. Diseases of the Eye: Silver Medal, P. B. Bury.—*Summer Session.* Midwifery and Diseases of Women and Children (Dr. Keiller): First Prize Medal, L. Gifford; Second Prize Medal, H. J. Fletcher; Certificates, H. G. Haines, L. J. Pétricher, A. C. Keep, M. M'Kenzie; Practical Certificates, E. W. Berryman, W. Browne, W. F. Clark, C. T. Dewar, H. J. Fletcher, L. Gifford, H. G. Haines, A. C. Keep, M. M'Kenzie, G. D. Mackintosh, L. J. Pétricher, E. W. Reilly, J. F. Thomson; Prizes for Best Notes of Lectures during Session, 1880, J. R. Suzor, W. Gibb. Practical Chemistry (Dr. Stevenson Macadam): Class Medals and Certificates, T. L. Ferrier, R. M. Fleming, H. C. Hughes, A. W. Mackenzie, R. M'Call, J. Mungle, G. Parry, A. Paterson, E. F. T. Price, M. P. Williams; Certificates, T. S. Fry, S. Herriot, F. A. Hemfray, F. Laird, S. S. Macfarlane, W. V. Roberts, H. G. Smith, E. F. Stewart, D. R. Taylor, T. G. Williamson, D. D. Hepburn, J. B. Malcolm. Medical Jurisprudence (Dr. Littlejohn): Gold Medal, D. R. M'Kinnon; 2. F. J. Hudson; 3. P. P. Le Franc and William Johnson (equal); Honourable Mention, W. Gunn, E. W. Reilly; Best Description of Museum Preparations, R. J. A. Moore. Public Health (Dr. Littlejohn): J. P. A. Wilson, J. R. Suzor, D. R. M'Kinnon (all equal); Best Essay on Public Abattoirs, 1. E. Neve; 2. R. G. Dempster and W. Gunn (equal); Highly Commended, P. B. Le Franc, Jean R. Suzor. Class of Materia Medica and Therapeutics (Dr. Moinet): First

[illegible] H. Croom): First Prize, D. Smart; Second Prize, J. Stapleton; Third Prize, D. N Paton; Certificates, H. M. Wilson, R. W. Philip, W. W. Hall, G. A. Van Soemerew G. C. Purves, H. E. Wardle, A. M. Weatherley, M. W. Gutteridge, J. I. Carter, E. F. Neve, E. G. Horder, W. H. Calvert, A. P. Hillier. Midwifery and Diseases of Women and Children (Dr. C. Bell): Silver Medal, J. P. Johnston; Second Prize, R. Davidson; Certificates, J. Tomlinson, S. T. Linklater. Practical Chemistry (Dr. Drinkwater): Silver Medal, [illegible] Certificates, [illegible] Anatomy and Physiology: [illegible] Medal; [illegible] Medal; [illegible] (equal); [illegible] (equal); [illegible] Medal; [illegible] Medal; [illegible] (equal); [illegible] (equal); [illegible] Medal; [illegible] Medal; [illegible] (equal); [illegible] Medal; [illegible] Medal; [illegible] (equal); [illegible] Medal; [illegible] Medal;

R. J. Purdon, A. A. G. Dickey, James Meek, Henry Massey, J. B. McKay. First Year, Robert English, J. S. Lyttle, J. Morrow, T. Grainger, J. P. P. Jamieson, and Hugh Lowry (equal). Medicine: Second Year, T. Sinclair; First Year, S. Connor, T. G. Bell, T. Cromie, J. McMurray, W. Nelson, D. White. Surgery: T. Sinclair, I. McMurray, W. R. Hamilton, T. Cromie, J. J. Austin, D. White. Materia Medica: T. Frizell, B.A., W. Waddell, and J. J. Brownlee (equal); E. L. Heather and J. Meek (equal); I. Crawford. *Summer Session.* Botany: Senior Division, D. Junk; Junior Division, J. S. Lyttle, T. Grainger, W. J. Cameron, G. Elliott, and J. Morrow (equal). Experimental Physics: J. Morrow, T. Grainger, J. S. Lyttle, J. P. R. Jamieson. Practical Chemistry: C. W. Reilly, C. W. J. Dunlop, J. E. Heather, S. H. Dunlop, W. A. Wheeler, I. Crawford, J. J. Brownlee. Medical Jurisprudence: T. G. Bell and D. White (equal), J. J. Austin, J. McMurray, W. Waddell, R. H. Mathews. Midwifery: T. G. Bell, J. McMurray, and W. Waddell (equal); J. S. Graham, J. J. Austin, and R. H. Mathews (equal).

Queen's College, Cork.—Experimental Physics, Zoology, and Botany. First Year, Prizes, 1. P. Blackall; 2. M. J. Whitty. Practical Chemistry, Second Year, Prizes, 1. E. Hodnett; 2. J. J. Lynch; S. F. Freyer, W. Barter, R. E. Kelly, J. Murphy (equal). Anatomy and Physiology, Second Year, Prizes, 1. W. Barter; 2. J. H. Swanton; 3. S. F. Freyer; Certificates, 1. F. G. Tooker. Third Year, Prizes, 1. T. J. Crowley; 2. W. E. Hadden; 3. F. E. Adams. Practical Anatomy, First Year, Prizes, 1. J. Kearney; 2. J. Brennan, P. G. Cotter (equal); 4. J. P. Magner; Certificate, 5. M. J. Whitty. Second Year, Prizes, 1. J. H. Swanton; 2. W. Barter; 3. J. Bolster; 4. S. F. Freyer; Certificate, 5. M. Connery. Third Year, Prizes, 1. T. J. Crowley; 2. W. Hadden; 3. G. A. Rountree. Materia Medica, Second Year, Prizes, 1. B. Mangan, W. O'Keeffe (equal); 3. R. E. Kelly; Certificate, 4. J. H. Swanton; 5. M. Connery; 6. W. Barter; 7. W. J. Moynahan. Surgery, Third Year, Prizes, 1. T. J. Crowley; 2. W. E. Hadden; Certificate, 3. F. E. Adams. Midwifery, Third Year, Prizes, 1. T. J. Crowley, W. E. Hadden (equal); 3. F. E. Adams. Practice of Medicine, Fourth Year, Prizes, 1. H. H. R. Charles, D. Lynch (equal); 3. P. F. Grimes, D. M. Saunders (equal). Medical Jurisprudence, Fourth Year, Prizes, 1. H. H. R. Charles; 2. P. F. Grimes; 3. T. Dilworth; Certificates, 4. D. Lynch; 5. J. Cahill; 6. C. J. Holmes, D. M. Saunders (equal). Junior and Assistant Demonstrators. H. H. R. Charles, E. J. H. Sullivan, W. E. Hadden, T. J. Crowley. Physiological Assistant, A. W. Sandford. Prosectors, J. H. Swanton, S. F. Freyer, W. Barter. Exhibition in Practical Medicine (divided), H. H. R. Charles, D. Lynch. Exhibition in Practical Surgery, H. H. R. Charles. Exhibition in Practical Midwifery, H. H. R. Charles.

Queen's College, Galway.—Natural Philosophy: First Rank, W. Bartley; Second Rank, G. A. Waters, C. O'Doherty. Practical Chemistry: First Rank, W. H. Thompson, R. W. Henderson; Second Rank, C. J. Gaghan, J. McGlynn. Natural History: First Rank, V. L. Donovan; Second Rank, C. O'Doherty, W. Bartley. Practical Anatomy: Senior Class: First Rank, W. W. Gibson, W. J. Mitchell; Second Rank, P. O'Gorman and T. Farrelly (equal). Junior Class: First Rank, W. H. Thompson and R. W. Henderson (equal), W. Bartley; Second Rank, W. A. Wadsworth, R. W. Forman, P. B. White. Physiology: Senior Class: First Rank, P. O'Gorman; Second Rank, M. Kelly, M.A., T. Farelly, and W. J. Mitchell (all equal). Junior Class: First Rank, R. W. Henderson; Second Rank, J. M'Glynn and W. H. Thompson (equal), T. J. P. Hartigan, A. E. Morris. Practice of Medicine: Senior Class: First Rank, W. W. Gibson, J. G. Black; Second Rank, D. V. O'Connell. Junior Class: First Rank, W. J. Mitchell, W. M. Fisher. Practice of Surgery: Senior Class: First Rank, D. V. O'Connell. Junior Class: First Rank, W. J. Mitchell; Second Rank, P. O'Gorman; Certificate, T. Farelly. Materia Medica: First Rank, W. H. Thompson, R. W. Henderson; Second Rank, J. M'Glynn, W. A. Wadsworth, T. J. P. Hartigan. Medical Jurisprudence: First Rank, W. M. Fisher; Second Rank, D. V. O'Connell. Midwifery, First Rank, D. V. O'Connell, P. O'Gorman. Clinical Medicine and Surgery: W. W. Gibson, D. V. O'Connell.

Adelaide Hospital and Surgical Hospital, Dublin.—Hudson Scholarship (£30) and a Gold Medal, E. G. Hall. Hudson Prize (£10) and a Silver Medal, F. W. Elsner. Knagg's Prize (£5 5s.), J. L. Beeston. Junior Medical Prize (£3 3s.), C. W. Wynne. Junior Surgical Prize (£3 3s.), F. Drury.

National Dental Hospital and College, Great Portland Street. Rymer Medal: F. Rose. Dental Anatomy: Prize, F. Rose; Certificate, J. J. Bailey. Dental Mechanics: Prize, F. Rose; Certificate, J. J. Bailey. Dental Surgery: Prize, F. Rose; Certificate, W. J. Pidgeon. Metallurgy: Prize, A. H. Mountford; Certificate, M. Hughes. Operative Dental Surgery: Prize, T. Mansell; Certificates, J. J. Bailey and W. J. Pidgeon. Mechanical Work: Prize, J. J. Bailey. Deformities of the Mouth: Certificate, J. S. Spain. Dental Surgery Notes: Prize, W. J. Pidgeon. *Summer Session.* Dental Mechanics: Prize, W. J. Pidgeon; Certificate, M. Hughes. Elements of Histology: Certificate, J. S. Spain.

Dental Hospital of London Medical School. Saunders Scholarship, W. Hern. Mr. Buchanan's Prize, for Essay on "Causes, Symptoms, and Treatment of Neuralgia [illegible] with Diseases of the Pulp": Amount divided between W. Hern, Mr. Mitchell, and Dennis; First Prize, W. Hern; Second Prize, J. O. Butler and W. Harrison; Certificate, J. M. Ackland. Metallurgy: First Prize, J. J. Andrew; Second Prize, S. C. Buckland; Certificate, J. O. Butler. *Summer Session, 1881.* Dental Surgery and Pathology: First Prize, W. Hern; Second Prize, W. A. Turner; Certificates, A. Alex. Matthews and S. C. Buckland. Dental Anatomy and Physiology: First Prize, W. Hern; Second Prize, A. Alex. Matthews; Certificates, S. C. Buckland, W. Harrison, and L. L. Vicanji. Student's Society Prize, for Paper on "The Development of the Mouth": A. Alex. Matthews.

Precocious Menstruation.—Dr. E. T. Keller, Beamsville, Ohio, reports (*New York Medical Record*) the facts of a case of precocious menstruation. At the time of the report the child was five months old, and began menstruating at the age of two months. It had menstruated three times at regular intervals of four weeks, the menses lasting from three to four days. The parents came to Dr. Keller for advice, but the child was very healthy. He says that Belfield, in his work on *Obstetrics*, relates a case where the child was as young as twelve months—reported by Dr. Rowlett, of Kentucky—but does not seem to place much faith in it.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

Metropolitan Counties Branch: Home Counties Section.—The first meeting of the Section for the session will be held on Thursday, October 20th, at [illegible] New Inn, Hatfield; Edwin Saunders, Esq., F.R.C.S., Surgeon to the Hertfordshire Infirmary, will deliver an Introductory Address. F. H. Daly, M.D., will read a paper on Contagious Pneumonia. Other [illegible] The times and places of meeting for the ensuing session will have to be arranged.—Frederick Wallace, Honorary Secretary, Cheshunt, Herts, 1881.

Thames Valley Branch.—The next ordinary meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, November 3rd, 1881, at 6 P.M. Members intending to bring forward any communications are requested to give early notice to Edward L. Fenn, M.D., Honorary Secretary, Twickenham.

West Somerset Branch.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, November 3rd, at 4 P.M. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dinner (5s. a head, exclusive of wine) at 5.30 punctually. The question as settled by the Council for the meeting to discuss is: The Advantages or otherwise of Vaginal Injections after Delivery. Members intending to make any communication, or to be present at the dinner, are requested to give notice to the Honorary Secretary.—W. M. Kelly, M.D., Honorary Secretary.

Bath and Bristol Branch.—The first meeting of the session will be held at the Grand Pump Room Hotel, Bath, on Thursday, October 27th, at 4.15 P.M. This hour has been chosen to suit the convenience of country members especially; and it is hoped they will attend, and favour the meeting with their experiences. David Davies, President.—R. S. Fowler, E. Markham Skerritt, Honorary Secretaries.—Bath, October 1st, 1881.

Border Counties Branch.—A meeting of this Branch will be held at the Keswick Hotel, on Friday, the 28th instant; Dr. Grierson, Melrose, in the chair, at 1 P.M. Dr. Barnes, Carlisle, will introduce a discussion on the Treatment of Scarlet Fever. Dr. Knight, Keswick, will give a Biographical Sketch of the late Dr. Leitch of Keswick. J. K. Burt will read a paper on A Short Umbilical Cord as an Obstruction to Delivery.—J. Smith, M.D., Dumfries; J. Kendall Burt, M.B., Kendal, Honorary Secretaries.

Staffordshire Branch.—The eighth annual general meeting of this Branch will be held at the Swan Hotel, Stafford, on Thursday, October 27th, 1881, at 3.30 P.M. An address will be delivered by the President, J. K. Wynne, Esq. Dinner at 5.15 P.M. Tickets (exclusive of wine), six shillings each.—Vincent Jackson, General Secretary.—Wolverhampton, October 9th, 1881.

South-Eastern Branch: East Kent District.—The next meeting of this District will take place at Canterbury, on Thursday, November 3rd; Mr. Holttum, F.R.C.S., in the chair. Members intending to read papers are requested to give immediate notice.—T. Whitehead Reid, Honorary Secretary.

Yorkshire Branch.—The autumnal meeting will be held at the Red Lion Hotel, Pontefract, on Wednesday, November 2nd, at 3 P.M. Members intending to read papers are requested to communicate at once with Arthur Jackson, Secretary.

Southern Branch: South-East Hants District.—An ordinary meeting will be held at the George Hotel, Portsmouth, on Wednesday, October 26th, 1881. The chair will be taken by the President, Dr. J. Manley, at 4.15 P.M. Agenda—Pathological Specimens: G. H. Snowden, Esq. Remarks on a Case in which some Stones and Broken Glass passed through the Alimentary Canal: Dr. J. Manley. Cerebral Syphilis: Deputy Inspector-General J. J. Haran, M.D., R.N. A New Ear-Protector for preventing the injurious effects of cold and noise: Dr. Ward Cousins. Subject proposed for discussion—The Treatment of Disease of the Hip-Joint. Gentlemen who are desirous of introducing Patients, exhibiting Pathological Specimens, or making communications, are requested to signify their intention at once to the Honorary Secretary. Dinner will be provided at 6.30 P.M. Charge 5s., exclusive of wine, etc.—J. Ward Cousins, Honorary Secretary.

SOUTH MIDLAND BRANCH: AUTUMNAL MEETING.

The autumnal meeting of this Branch was held at the residence of Dr. Lawford, Leighton Buzzard, on Tuesday, September 27th, at 2 P.M. Dr. Lawford kindly entertained the members, seventeen in number, to luncheon, at his house, at 1.15 P.M. Unfortunately, the President, H. C. Rogers, Esq., was not able to be present, his wife having died rather suddenly the previous evening. Dr. Buszard was, therefore, voted to the chair.

Consultation with Homœopaths.—The following resolution was proposed and carried: "That under no circumstances do we consider it right to meet in consultation any practitioner of homœopathy; and that this Branch very much regrets the remarks on the subject of homœopathy made by the readers of addresses at the last annual general meeting at Ryde."

Papers.—The following papers were read.

1. Dr. Bryan (Northampton): Notes on New Remedies. He exhibited about thirty various preparations; amongst others, iodoform, eserine, hypophosphites, croton-chloral, amyl-nitrite, solution of nitroglycerine, chrysophanic acid, extract of malt, various preparations of pepsine, lacto-peptine, oleates, caffeine, citrate, muscarine, thymol,

adipisine, ethyl-bromide, damiana, hydrastine, ozokerine, etc., and gave descriptions of many of them, with their alleged virtues.

2. Mr. Veasey (Woburn): Notes of Cases of Intestinal Obstruction. A discussion followed.

3. Mr. Evans (Northampton): Remarks on some Common but Obstinate Affections, as Pertussis, Chorea, etc. Remarks were made by Dr. Bryan and others.

4. Mr. Hedges (Leighton Buzzard): A Case of Contracted Knee-Joint treated successfully by Subcutaneous Tenotomy. The subject was present.

A Vote of Condolence to Mr. H. Rogers, President, was passed.

New Member.—Mr. Thurnham of Yardley-Hastings was elected.

Treasurer's Report.—The report stated that the Branch now contained 105 members, and the balance in hand was £10 5s. Dr. Bryan stated that twenty-three subscriptions remained unpaid, and suggested that annual subscriptions should be paid within the first three months of the year, thereby saving much unnecessary trouble of writing. Prepayment was expected by the authorities of the Association.

Coffee was then served, and the members separated at 4.45, having passed a vote of thanks to Dr. Lawford for his very kind hospitality and entertainment.

The Next Annual Meeting will be held at Northampton in June 1882, under the presidency of Mr. C. J. Evans.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Mermaid Hotel, Mumbles, on September 29th; present, PEARSON R. CRESSWELL, Esq., President, in the chair, and about twenty-five members.

New Member.—W. C. Evans, M.B. (Saundersfoot) was declared a member of the Association and Branch.

Medical Benevolent Fund.—Dr. SHEEN reported that a canvass of the members on a resolution unanimously passed at the previous meeting, to the effect that each member should subscribe five shillings a year, through the Branch, towards the Medical Benevolent Fund, had so far resulted in an almost unanimously favourable reply. It was resolved: "That it be an instruction to the Honorary Secretaries to direct the attention of the other Branches of the Association to what we are doing, and invite their co-operation."

Papers.—The following papers and cases were brought forward.

1. Mr. Evan Jones (Aberdare) read notes of a case of Compound Comminuted Fracture of the Lower Third of the Leg, treated antiseptically, with continued high temperature; no suppuration; rigors on the eleventh day, with vomiting and diarrhœa and acute pain in the stomach. On the fourteenth day, the patient vomited a piece of blue paper about four inches square, since which there had been no vomiting nor diarrhœa; but the temperature had ranged from 101° to 103°. The case was still under treatment. It was suggested, in discussion, that the man might have swallowed some irritant wrapped in the paper which he vomited.

2. Dr. T. D. Griffith (Swansea) read notes of a case of Acute Ascending Paralysis in a Child aged five, ending in death on the sixth day. The tendency of the discussion was to consider it a case of acute myelitis.

3. Dr. Griffiths also showed a specimen of Dilatation of the Arch of the Aorta, with degeneration and sudden death, accompanied by notes of the case.

4. Mr. D. Arthur Davies, M.B. (Swansea) showed an interesting specimen of Apoplexy of the Ovum, and gave notes of the case.

5. Mr. D. J. Williams (Llanelly) read notes of cases of Empyema treated by Aspiration.

6. Mr. William Morgan (Clydach) related a case of Right Scrotal Hernia, in which the circumference of the tumour was four inches and a half. The hernia was reduced until it measured fifteen inches, since which time the patient had not suffered from symptoms of obstruction. The patient was shown.

7. Mr. J. Milward (Cardiff) read a paper on Ptomaines, or Substances derived from Dead Bodies.

Dinner.—The members afterwards dined together at the Mermaid Hotel.

SOUTH-WESTERN BRANCH: QUARTERLY MEETING.

THE quarterly meeting was held at the Devon and Exeter Hospital, Exeter, on Wednesday, October 5th; Mr. A. J. CUMMING, Consulting Surgeon to the Hospital, Vice-President, in the chair. Twenty-one members were present.

New Member.—H. G. Deverell, M.B., Redruth, was elected a member of the Branch.

By-law 12.—A letter from Dr. Milner Fothergill, requesting the attention of the members to an amendment to By-law 12, which he proposed to move at the next annual meeting of the Association, having been read, it was resolved that Dr. Fothergill's letter be referred to the Council for consideration.

Communications.—The following were read.

1. Dr. J. Thompson (Bideford) read notes of a case of Gangræna Senilis ending in natural amputation, the patient still surviving. The specimen was shown.

2. Surgeon-Major O'Brien, A.M.D., read a paper on a case of Pleuritis with Effusion.

3. Mr. F. A. Gray (Ottery St. Mary) read notes of a case of Extra-uterine Pregnancy; and showed the specimen.

4. Dr. Davy (Exeter) read a paper on Empyema in Children.

5. Mr. L. H. Tosswill (Exeter) showed a patient in whom he had successfully treated a severe Ectropion, the result of a burn, by the transplantation of skin from the arm. The case was a very interesting one, and attracted much attention.

6. Mr. J. D. Harris (Exeter) read notes on a recent case of Lithotomy.

7. Mr. A. Blomfield (Exeter) and Mr. J. Harris (Exeter) showed specimens under the microscope of Colloid Cancer, Cirrhosis, Cancer, and Miliary Tubercle of the Liver.

8. Mr. J. Bankart (Exeter) showed an interesting case of Primary Venereal Sore.

9. Mr. A. J. Cumming (Exeter) communicated a case of Stone in the Bladder. The patient had been treated for bladder-disease. At the necropsy, a large stone was found in the bladder, the nucleus of which was a pin. This pin had evidently lodged in the vermiform appendage, set up inflammatory adhesion between the vermiform appendage and the bladder, ending in a fistulous communication through which the pin had passed, and acted as the nucleus of a stone, and enabled worms to crawl into the bladder.

10. Dr. Stephenson (Bradninch) read a paper on Vaccination Reform.

NORTH WALES BRANCH: ANNUAL MEETING.

The thirty-second annual meeting of this Branch was held at the Pwll-y-crochon Hotel, Colwyn Bay, on Thursday, September 22nd, under the presidency of Dr. SAMUEL GRIFFITH, of Portmadoc. Twenty-eight members with nine guests attended the meeting.

New Members. — Two gentlemen were elected members of the Association and of the Branch, and one member of the Association was affiliated.

Report of Council.—The report of the District Council showed that at the close of the past session there were seventy-nine members of the Branch, who were all active members; and that the work of the past and previous sessions had received a marked stimulus by arranging and advertising discussions, which were opened by prominent members of the profession. A resolution was proposed by the Council and unanimously accepted by the meeting, to the effect that consultations between homœopaths and allopaths could in no way be justified, and that such consultations could not be attended by any benefit to a patient under treatment.

President-elect; Places of Meeting.—Dr. John Roberts, of Chester, was chosen President-elect for 1882-3; Rhyl as the place for the next annual meeting; and Portmadoc for the next intermediate meeting.

Members of Council.—The following were elected members of the Branch Council:—Mr. R. A. Prichard, Conway; Dr. A. E. Turnour, Denbigh; Mr. W. T. Girdlestone, Rhyl; Dr. E. J. Lloyd, Bangor; Mr. James Williams, Holywell; Dr. William Williams, Mold. The following were elected representatives of the Branch in the General Council of the Association:—Mr. Richards, Bangor; Mr. Hunter Hughes, Pwllheli; Mr. Roberts, Portmadoc; Dr. J. E. Jones, Dolgelley. Mr. Davis Hughes (Menai Bridge) was re-elected to the Parliamentary Bills Committee of the Association.

Secretary and Treasurer.—Mr. Lloyd Roberts (Denbigh) and Mr. Wm. Williams (Denbigh) were respectively re-elected honorary secretary and honorary treasurer of the Branch; and Dr. Eyton Jones (Wrexham) was elected an honorary secretary for the special purpose of attending the meetings of the Council of the Association.

Dr. EYTON JONES withdrew the proposal, of which he had previously given notice, to form a new Branch of the Association at Chester.

Vivisection.—The following resolutions on vivisection were unanimously carried:—"That this meeting of the members of the North Wales Branch of the British Medical Association records its conviction that experiments on living animals have proved of immense benefit in the prevention and treatment of disease, both in mankind and animals, and expresses its desire that opportunities for their more general

adoption by competent scientific persons should be afforded by the Legislature, and that the existing restrictions should be removed or greatly relaxed." "That copies of the above be sent to all members of the Legislature connected with North Wales."

President's Address.—The PRESIDENT delivered an inaugural address on Medical Men in their Respective Relations. He said, as to their relation to each other, it was infinitely better than it had ever been before. Still, there was more to be done, especially in the rural districts. Was it not too true that too often the older practitioner looked upon a new comer as an interloper, was jealous of his labours and any success to which he might attain, misconstrued his good deeds, and ascribed bad motives to them? It was equally true that often a new comer, or perhaps the junior practitioner of a neighbourhood, was over-sensitive as to the dealings of his senior towards him, was impatient and dissatisfied with his own progress, and complained that his quota of reward and success was unduly withheld from him, and in very many cases attributed this to some improper influence or artful trickery on the part of his older brethren. Such feelings ought not to exist. Fair competition was both desirable and indispensable, both for the practitioner and for the patient. But competition in the profession should not breed jealousy, and one of their chief aims should be the extermination of professional jealousy. For this purpose nothing could be so efficient as bringing them into closer and more constant contact with each other. Much of the bitterness among medical men was due entirely to an imperfect knowledge of each other, and this must be removed by frequent consultations carried out loyally, and more frequent assemblings of the members of the association. He believed the time would come when consultations would be a matter of daily occurrence. Consultations were, however, capable of doing grievous harm; the consultant did not treat the ordinary attendant with courtesy and deference. But, when consultations were loyally carried out, grateful recollections of the consultant were left on the mind of the regular attendant, of the kind and considerate way in which he had acted towards him, of the gracious manner in which he sustained him in the confidence of his patient, and of the delicate manner in which he insisted that whatever he advised was the result of their joint consideration and concurrence. Meetings of such a kind, in such a spirit, must of necessity produce beneficial effects. Such meetings as the present one further improved the relations between medical men, as affording opportunities for uniting in friendly intercourse, exchanging the results of professional labour, vanquished jealousy, and engendered a spirit of brotherly feeling. In North Wales there were hundreds of medical men, but few of whom gathered at the meetings of the Branch to give each other the heartfelt "Godspeed" which they all so specially required. Surely one day might be spared for the interchange of ideas and the acquisition of goodwill, peace, and charity towards each other. As regarded the relation of medical men to their patients, it was their duty to gain their esteem and confidence. This was achieved by one of two methods. On the one hand, there was the practitioner whose claims to the confidence of his patients were based more on his own assertions than on any real knowledge of his profession. On the other hand, there was the conscientious, scientific, and practical practitioner, who, by hard and honest work, gained the esteem and confidence of his patients; who gleaned information from every source, was acquainted with the most recent advances in his profession, but never assumed to medical infallibility. That was the type all should endeavour to follow.

Communications.—The following papers were read.

1. William Roberts, M.D., F.R.S. (Manchester): Micro-organisms in the Urine.

2. Dr. Eyton Jones (Wrexham): Aneurysm of the Aorta.

3. Mr. Roberts (Festiniog): An Enormous Kidney (weighing 21 ounces) which was found filled with Calculi.

4. Mr. Roberts (Portmadoc): A Case of very Manifest Extra-Uterine Fœtation. The patient was exhibited.

5. Mr. J. Richards (Bangor): Broken Catheter in the Bladder. He also exhibited new surgical instruments.

6. Dr. Richard Williams (Liverpool): Trichiasis and Entropion. He detailed the principles of his operation on the mucous membrane to obtain cure, and exhibited two patients.

7. Mr. Lawson Tait (Birmingham): The Diagnosis and Treatment of Chronic Inflammation of the Ovary.

8. Mr. Jones Morris (Portmadoc): Epithelioma of the Uterus.

Dinner.—In the evening, forty-two members and guests sat down to a sumptuous *à la Russe* dinner, during which the Colwyn Bay String Band discoursed sweet music, and after which the usual loyal and Association toasts were duly honoured.

EAST ANGLIAN BRANCH: AUTUMNAL MEETING.

THE autumnal meeting was held at the Town Hall, Southwold, on Friday, September 30th; CHARLES PALMER, Esq. (President) in the Chair.

Discussion on Syphilis.—The PRESIDENT opened a discussion upon Syphilis with an elaborate paper upon its Effects upon the Civil Population of Great Yarmouth, and an Inquiry into the Working of the Contagious Diseases Prevention Act. Eventually, it was unanimously resolved:

1. "That, in the opinion of the meeting, it is desirable that steps should be taken at once to investigate thoroughly the subject of syphilis, and its effects upon the civil population of Great Britain, and more particularly of the great maritime and mercantile centres."

2. "That the British Medical Association, representing so large a body of the guardians of the public health, is at the present time the only organisation capable of carrying out this investigation thoroughly and successfully."

3. "That a copy of these resolutions be forwarded to the President and members of the Committee of Council of the Association, with a request that they would take into consideration the expediency of forming a central Committee of Investigation, with power to appoint local committees in such places as they may think desirable; such sub-committees to consist, not only of members of the Association, but of all medical men living in the place or neighbourhood who are willing to assist in the work; to lay down the lines upon which these sub-committees are to work, and to receive and digest their reports."

Papers.—The following papers were also read.

Mr. L. E. Amyot, F.R.C.S. (Diss): On Special Organisms and their Teachings.

H. J. Benham, M.D. (Ipswich): The Diagnosis and Treatment of Intestinal Obstruction.

W. M. Crowfoot, M.B. (Beccles): On a Specimen of Sarcomatous Tumour of the Thorax.

Peter Eade, M.D. (Norwich): Case of Spinal Hæmorrhage.

W. A. Elliston, M.D. (Ipswich): On a Case of Traumatic Abscess of the Brain.

The members, about thirty in number, adjourned to a *dejeuner* at the Swan Hotel, at 4 P.M.

VICTORIA BRANCH: ANNUAL MEETING.

THE second annual meeting of the Victoria Branch of the British Medical Association took place on Friday evening, July 15th, in the hall of the Royal Society, Melbourne. Dr. CUTTS, the President for the past year, occupied the chair; and there was a large attendance of members. Amongst the correspondence submitted was a letter announcing the formation of a sub-branch at Ballarat.

Report of Council.—Dr. LOUIS HENRY, the Honorary Secretary, read the report of the Council. It congratulated the members on the progress of the Branch and the success that had throughout attended it. The number of members had increased from sixty-two to eighty-five, and the reports received from time to time from the other Branches in the sister colonies were equally reassuring. The establishment of a journal for the combined Australasian Branches, of which mention was made in the last report, had been finally decided on; and negotiations had been carried on between this Branch, the New South Wales, and the South Australian Branches, for some time. The final arrangements were all but complete, and the first number of the *Australasian Medical Gazette* might be expected to appear in a few weeks. The Council had appointed Drs. Neild and Jamieson as the local editors, and arrangements had been made to secure contributors from all parts of Australasia. The *Australasian Medical Gazette* would appear monthly, resembling in form, size, and contents, the BRITISH MEDICAL JOURNAL and the *Lancet*. The yearly subscription to members would be 12s. Arrangements had been made so that contributors might demand a number of printed copies of their papers without extra charge. The Branches had further arranged with the publishers that they should incur no responsibility whatever in connection with the journal. The Council believed that more satisfactory arrangements would be shortly entered into with the home Association, so that extra copies of the BRITISH MEDICAL JOURNAL might always be on hand to supply new members of the Branch. The Council had taken up the question of the adulteration of milk and other food, in order to overcome the difficulty of proceeding to obtain a conviction against the sellers of adulterated food. The Council had further moved, with success, to prevent the indiscriminate admission of persons who, when they had met with an accident, sought admission to the public hospitals. A com-

munication from the secretary of the Melbourne Hospital contained a promise that the visiting committee of the Melbourne Hospital would give this matter every consideration; and a similar letter from the chief commissioner of police informed the Branch that, in accordance with the request of the Council, the police had been instructed to inquire of persons who had met with an accident whether they preferred being taken to their own homes or to the hospital. The antivaccination movement had been under consideration, and preparations had been made to take steps to oppose this movement. Attention had also been drawn to the inadequate remuneration of professional experts attending the supreme courts. By-laws had been passed, providing that at the end of the year three members of Council should retire, who should not be eligible for re-election; and that it should be in the power of the Branch, on the recommendation of the Council, to elect honorary members, who need not be necessarily members of the medical profession, on a vote of three-fourths. The subjects of public health and sanitation had received consideration; and, in consequence of the uneasiness existing in the public mind in reference to the impurities of the Yan Yean water, a subcommittee had been appointed for the purpose of collecting information in all cases of disease which might be considered due to the drinking-water. The Council had pleasure in reporting the formation of a subbranch in Ballarat. The occasion of Mr. Rudall's departure for Europe was made use of to present that gentleman with an address, as an expression of the respect and admiration for his scientific attainments. The Council regretted to record the loss of Dr. Day, to whose widow a letter was forwarded, expressing the deep respect entertained by the Association for the memory of her late husband. There had been four ordinary meetings during the year, and twelve papers read. A large number of exhibits were demonstrated at each meeting.

The Treasurer's Report was submitted. It showed receipts amounting to £109 6s. 1d., and expenses to £98 16s. 9d., leaving a balance in hand of £10 9s. 4d.

These reports were adopted without discussion.

Officers and Council.—The election of officers for the ensuing year was proceeded with, the following being the result:—*President:* J. E. Neild, M.D. *Vice-President:* J. Jamieson, M.D. *Treasurer:* W. H. Cutts, M.D. *Honorary Secretary:* L. Henry, M.D. *Ordinary Members of Council:* G. R. W. Adam, M.D.; B. Fyffe, Esq.; W. Gillbee, Esq.; G. Graham, M.D.; A. Morrison, Esq.; A. Shields, M.D. *Auditors:* Dr. Haig and Mr. W. Barker.

Address of Retiring President.—The newly elected President, Dr. NEILD, having taken the chair, the retiring President, Dr. CUTTS, delivered an address. He congratulated the members of the Branch on its prosperity, and on the extension of professional intercourse in Australia through the formation of the Victoria and other Branches. Such a federation would bring the profession throughout Australia closer together in sympathy, interest, and action. It would be the medium for the discussion of local professional matters proper to the several colonies, and such as had a common interest for the whole. The field was large, extending from Queensland to New Zealand; and it would be the business of the Association to cultivate it; to bring together, through its Branches and journal, the observations and experience of this vast area, with its various conditions of climate and vegetation, that would otherwise be scattered and fragmentary, so as to make them the common property of the profession. He proceeded to speak at length of hospital reform, and of the best means of dealing with the sick poor. He recommended strongly the cultivation of provident habits, and advised that every poor man in the colony should join a sick club, so as to entitle him to medical relief. This should be done by means of free dispensaries, under the management of a committee; the patients being admitted after an investigation of their cases by a relieving officer, and not by the recommendations of subscribers. Speaking of public education, he said that a Bill had passed making changes in the University, and opening it to women, who were, however, still excluded from the medical school. He saw no objection to women being attended in labour, as was already often done, by others of their own sex; but he considered it unadvisable that women should become members of the medical profession. Having alluded to proposed changes in the system of education and examination, and to the state of sanitary legislation in Victoria, he concluded with offering a caution against the tendency of scientific thought in the direction of materialism.

Vote of Thanks.—On the motion of Mr. R. ROBERTSON, seconded by Mr. GILLBEE, a vote of thanks was given to the retiring President for his address, and for the great interest he had shown in the Association during the year of his presidency.

CORRESPONDENCE.

DR. RUSSELL REYNOLDS AND SPECIALISM.

SIR,—When Royal and consulting physicians assume oratorical functions, and, as president of one society or another, deliver themselves to the profession in set orations, their utterances are naturally read with much attention, and have an effect which is due in part to whatever intrinsic merit they may possess, and in part to the dignities and authorities with which the speaker has been, by the favour of his Sovereign and the grace of his profession, publicly invested. Such an address as you published last week from the consulting physician to the University College Hospital, and a physician to the Royal household, will naturally, therefore, be read by many thousands of others among your readers, who, like myself, would attach less importance to the words of a common man. Specialism is a subject which has had the unhappy privilege of exciting so many unwise, shallow, and prejudiced declamations, that such a heading is not now-a-days very promising or attractive; but after the excellent address of Sir James Paget, and the authoritative example unanimously set by the Executive Committee of the International Congress in formally recognising all the known specialties, it seemed improbable that any responsible person would again approach the subject in the spirit in which Dr. Reynolds has treated it. I am, as you see, a specialist, and I may therefore be unduly sensitive. The remarks which, with your permission, I think I may claim to make shall therefore be limited, not to a reply to the almost personal insults which Dr. Reynolds seems to level at members of the profession whom he as nearly as possible identifies by name, but to the endeavour to extract from this very interesting lecture some one or two out of the very contradictory meanings which he seems to suggest, and to compare the wiser thoughts of the speaker himself with his less measured and thoughtful periods of vituperation. I happen to be particularly interested in the obstetrical specialty, and the analyses of Dr. Reynolds's observations on this subject leave us in such a mood of amazement that I must ask to be allowed to point out some things in his address which, it seems to me, he will do well to explain or clear up. I pass over the generally abusive statement that "physicians have coined names for trifling maladies—if they have not invented them"—and have "set fashions of disease," although he points these observations further on by remarking that "some years ago *ulceratio uteri* was the fashion, and applications of various sorts were made two and three times a week in order to cure a malady which some eminent men, in special practice too, said did not exist." "The disease," he says, "has died a natural death, or has met with a violent end." Dr. Reynolds generally observes that physicians "have treated or maltreated their patients by endless examinations, speculations, applications, and the like, and this sometimes for months, sometimes for years; and then, when by some so-called accident the patient has been removed from their care, she has become quite well, and then there has been no more need for caustic, speculum, or pessary." Such a stigma, generally hurled at the heads of physicians, and particularly, it is presumed, at obstetric physicians, refutes itself. It is true that there was once great ignorance on the subject of local affections of the womb, and that when Dr. Henry Bennet first introduced the speculum to this country, and showed the untold benefits which were to be derived from its use, and the enormous value of local applications, that he was met with some of the ungenerous abuse which Dr. Russell Reynolds now still more ingeniously disentombs, in the face of the fact that in introducing the speculum, and in teaching the British physicians the value of local treatment of uterine disorders, the greatest boon was conferred upon womenkind which this gentleman has seen, and an advance made in the treatment of uterine disease at least contemporaneous with the advance made by the introduction of the stethoscope in the treatment of thoracic disease; and in spite of the vile insinuation here made that those are best off whom accident removes from treatment. It is perfectly well known, what Dr. Reynolds will hardly deny, that to discard the use of the speculum in the treatment of uterine disease would be to go back to the dark ages of treatment. This, however, is, it seems, not a particular and special fault in the present day. Now, according to Dr. Reynolds, "there is scarcely any woman living whose uterus is where it ought to be. It is anteflexed or retroflexed, or verted this way or that way, so that all kinds of contrivances have to be adjusted or readjusted in order to cure backache, vesical irritation, albuminuria, hysteria, and I know not what besides." He describes in the following words the consulting-rooms of "some doctors" as being "soothed by a 'dim (can I say?) religious light' into which the patients are ushered, and in the dim silence of which all this kind of 'treatment' goes on; and not only so, but in their own homes, patients are sometimes treated

ly—or shall I say to?—a vaginal injection of warm water which the physician himself must administer." It seems to me that the sense here is on a par with the grammar. The conception of a room "soothed by a dim light," and of a treatment conducted in a "dim silence", is original with the author, and its application can only be explained by himself. Why should he suggest, in language so grotesque, that the consulting-rooms of obstetric physicians are at all more dim than they require to be, or what idea of impropriety does he connect with the idea of a dim silence? He certainly ought to explain; and why he puts this picture before the students of University College. It is perfectly well known that the great advocate of mechanical treatment of uterine disorders is a colleague of Dr. Russell Reynolds, and he seems to have felt some sort of saving clause necessary, since he writes, "All kinds of contrivances have to be adjusted or readjusted in order to cure backache, vesical irritation, albuminuria, hysteria, and I know not what besides. Now, when this is all done by some one who knows with what he is dealing, and honestly deals with it, as many do, much good may be accomplished"; but he adds, with an inconsistency which must have been still more confusing to his auditors and to his readers, "but when imitators of the good works take such cases in their hands, nothing but harm can follow." Now, to speak quite plainly, is not this the utmost possible nonsense? If it is right for his colleague to teach the extensive applicability of mechanical contrivances for anteflexion and retroflexion, which no doubt this is what he means, how can it be true that those whom he has taught to imitate the works of the good workers can do "nothing but harm"?

His strange suggestion, that obstetric physicians are such "conspicuous adepts" (such are his words) in the use of "soft words and compliments", that "it would be of advantage to them if they could occasionally have men for their patients", is, I would venture to say, rude and uncalled for; for it needs very little acquaintance with the most eminent obstetricians, and their personal peculiarities, to remind us of the utter futility and absolute incorrectness of the observation, that eminent obstetricians are especially or necessarily such "conspicuous adepts in soft words and compliments", that their manners need either private correction or public reproof. I think every one could name a half-a-dozen in London alone who could be selected as types of the exactly opposite school of manners. Dr. Reynolds appears to me, however, to have mistaken the title of his lecture; it should have been, not "specialism", but scoundrelism; for he has succeeded in collecting a larger number of types of a low kind of villainy than I ever remember to have seen described in so short a space. His venereal specialist is a person "who degrades the consulting-room (to use his own words) to the lowest depths of degradation", by "using or abusing it as the engine of terror or extortion". "The surgeon", he says, "has the power in his hand, and he knows it, and wields it, often with a cruelty that no words of mine can utter or efficiently condemn". This used to be true of a certain number of vile quacks and pretenders, most of whom possessed no diploma at all, and of whom the profession has been purged. But, to hold this up as a type of any number of any class of specialists, is wildly unjust. His obstetric physicians are men who coin names for trifling maladies, who have "set fashions" of disease, and whose patients are most happy when they are relieved from their care by accident. His "learned and distinguished" head, heart, lung, and digestion-doctors are all chiefly remarkable for their utter ignorance of medicine generally, as a science and practice, and for their ludicrous blunders.

Scoundrelism, then, and not specialism, should, I repeat, have been the heading, as it is the theme, of Dr. Russell Reynolds's lecture. His imputations, however, are not confined to specialists; but he seems to have the happiness of being acquainted with many "eminent" men, not specialists, who, according to his account, were either numskulls or unscrupulous charlatans. Thus he says: "I have known distinguished surgeons go down into the country to say whether or no a patient with rheumatic fever had endo- or pericarditis, when neither of them would know which end of the stethoscope to use." It only remains for him to explain for what these surgeons were distinguished besides the ignorance and moral unscrupulousness which he describes. He has known eminent physicians who were quite incompetent of [illegible] of "an eminent surgeon" who declared that he had never seen a case of hemiplegia where ptosis, strabismus, and dilated pupil did not co-[illegible] incompetency and want of conscience of those eminent gentlemen, it [illegible] the [illegible]

The [illegible] "unpardonable", and declines to take part in them. On the whole, it [illegible] unscrupulous conduct, base motives, and low estimate of duty, than Dr. Reynolds has taken the opportunity of describing as typical cases of what occurs within his professional experience among eminent men generally, but especially among specialists. No one will deny his right to search into the depths of human vileness, and to hold up its types to reprobation; but surely such types should be properly labelled, and they should neither be spoken of as eminent physicians, as distinguished surgeons, or typical specialists, but as degraded and unscrupulous individuals, who deserve to be branded with a very different designation than that of specialists, which Dr. Reynolds has dishonoured in applying to them. To take a well-known term, which has a well-known meaning, to apply it to a description of the dregs of humanity, is hardly a permissible proceeding. At any rate, it is one for which Dr. Reynolds owes much apology to the great class of reputable medical men who do not disdain the title or practice of the varied specialisms of which he speaks so slightingly.—I am, faithfully yours,

SPECIALIST.

INDUCTION OF PREMATURE LABOUR AT THE EIGHTH MONTH.

SIR,—Dr. Joyce, in the Clinical Memoranda of this week, asks three questions, to which it is almost impossible to reply *ad rem* without asking three other questions.

1. Was there any deformity or contraction of pelvis? and, if so, what, and how much?

2. Assuming the patient had gone her full time, or even to the eighth month, and delivery impeded, what reason was there that would have contraindicated the use of forceps? Dr. Joyce does not say that labour was induced on account of, or even that he then knew that the elbow was presenting; and it appears that instruments had never been used in her former labours, although her first was a prolonged labour.

3. Was there any evidence of syphilis either in the woman, or in her husband or children?

That *moderate* traction on the trunk with the fingers over the shoulders should have caused the cervical spine to give way is an interesting fact for which I am obliged to Dr. Joyce for recording; for I should not have thought such moderate force would have produced so serious, and in some cases such a regrettable, result, unless there were some previous maceration from the fœtus having been dead some time, or from some other cause.

The following case, taken from my obstetric case-book, proves the usefulness of the long forceps as an alternative to inducing premature labour. On October 22nd, 1874, I attended Mrs. H., of Shepherd's Bush, in her eighth labour, at full term, and delivered her by the aid of long forceps of a living female child. Mrs. H. had never before had a living child, if I except one which lived for two hours after its birth, which had been induced prematurely at the seventh month. The short forceps had been used in all her other labours except, I think, the first, when the breech presented, and the labour very prolonged.

If Dr. Joyce's patient be syphilitic, and to me there are signs why she may be, the future treatment is of course at once indicated.

I am, sir, your obedient servant,

Hammersmith, Oct. 15th, 1881. FRED. H. ALDERSON, M.D.

P.S.—Dr. Priestley, in his lectures, used to give the measurement of two and a quarter to three and a half inches in the conjugate diameter as the amount of contraction indicating the induction of premature labour; but Dr. Joyce gives no reason why labour should have been induced in this case.

LACERATIONS OF THE CERVIX UTERI AND DR. COGHILL.

SIR,—I have just read the address of Dr. J. G. Sinclair Coghill to the Section of Obstetric Medicine of the British Medical Association. The subject is learnedly treated upon, and gives one a marvellous idea of the erudition of the orator; but the would-be-satirical vein in which he advises the treatment for laceration of the cervix uteri, "as one would treat a rectal or other fissure", requires an unqualified denial [illegible] evidently is prejudiced against the operation for the cure of lacerated cervix. Were he not occupying the exalted position of reader of the address [illegible] two hundred of which, however, was there interference with the genera-

tive functions or other symptoms produced". The truth is, I never uttered one word of so ridiculous or untruthful a proposition.

My paper on the "Etiology and Treatment of Lacerations of the Cervix Uteri" was read and discussed at Cambridge, in August, 1880; it was afterwards published in the issues of the BRITISH MEDICAL JOURNAL of the 14th and 21st of May, 1881. If Dr. Coghill will turn to page 801 (May 21st, 1881) of the JOURNAL, he will find out exactly what I did say; and, for the benefit of those gentlemen who have read his address, and who might have therefrom believed that I was very wild in my statements, and was one of those whom Dr. Coghill stigmatises as having made too "exclusive study of objective symptoms", thereby contributing towards making "a most injurious effect on the dignity, character, and progress of gynæcology", I will quote the facts of the case. "An extended study of the plastic surgery of the cervix, vagina, and perinæum, and the performance of very many operations for their restoration after injury from parturition, has given me an experience which warrants somewhat of positive statement. In the clinic at the university, I have closed at least fifty lacerated cervices during the past six years, and very many more in private practice, which, added to the total number performed since 1866, gives a very large field from which to draw deductions and rules for operating."

Surely, I cannot see how Dr. Coghill could have made nine hundred operations from this quotation. From 1866 to 1880 is fourteen years; and, as I did not state how many cases had been subjected to the operation during this period of time, I am at a loss to comprehend why I should be made to perform nine hundred operations in six years, seven hundred presenting no symptoms requiring any sort of treatment. If Dr. Coghill had heard the discussion of Dr. Henry Bennet's paper on Lacerations of the Cervix Uteri, in the Obstetric Section of the International Congress, he might acknowledge, as did that venerable and distinguished pioneer in gynæcology, that there were some improvements in the methods of diagnosis, pathology, and treatment of cervical lesion, which had escaped his observation during the past twenty years; and that the "objective" school of that period might possibly have found out, that free "scarification" of a cervical fissure would not cure it; and that there is no analogy whatever between the rectum and the cervix uteri.—Yours, very respectfully,

MONTROSE A. PALLEN.

118, Madison Avenue, New York, September 14th, 1881.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY MEDICAL DEPARTMENT IN INDIA.

SIR,—I wish to bring to your notice, and to the notice of intending candidates for the department, a hardship under which we are labouring at present. When the new warrant of 1879 came out, giving us increased rank and allowances, the Indian Government carefully ignored the whole affair as regards the pay, but gave us the step in rank, which cost them nothing, and, in fact, put money in their pockets; and our position at present amounts to this: We have the rank of captain, but get less by one hundred rupees a month than a captain does. We have quite as much expense, and have absolutely no allowances, as our 317 rupees a month is supposed to cover mess, quarters, tentage, servants, and, in fact, everything. Now, sir, I maintain that it is a manifest injustice to us to make us serve five years at a stretch in a climate like India, on 2s. 2d. a day more than we should get were we quartered at Brighton or Dover. We have to pay captain's rates for messing, etc., on board the Indian transports, although, as I have before said, our pay is not that of a captain. Compare our positions with the Indian Service, where, after a five years' tour, an officer is allowed a year's leave on Indian pay; whilst we, on the other hand, are on duty, even on the voyage out and home. Instead of Indian pay being better for a young surgeon, I consider a man very much better off at home in a healthy climate on English pay and allowances, than to be stationed in India for five years on £30 *per annum* more than he would get in England, and with everything very much dearer. Hoping that the subject may be taken up through the aid of your powerful pen, I have the honour to be, sir, your obedient servant,

A MEMBER R. M. A.

MILITARY TITLES FOR ARMY MEDICAL OFFICERS.

SIR,—I do not intend to give an opinion as to the advisability or otherwise of giving military titles to the above officers, but if they are given, do let them be real, not honorary. Let surgeons be substantive majors and lieutenant-colonels in their own corps, not honorary majors and honorary lieutenant-colonels, etc.—Yours faithfully,

DELTA.

BEARER COMPANIES.

SIR,—As I am anxious to raise a "bearer company" for service with my battalion, I shall be glad if some experienced volunteer medical officer will kindly supply a few hints for starting the same. I have two strong companies only at headquarters; the others would only be available for instruction during camp time. I desire to know: 1. The central authority, or where to apply for enrolment and the necessary recognition; 2. The articles of furniture, instruments, etc., indispensable or advisable for a battalion of about seven hundred men; 3. The expenses. Are the instructions contained in the *Army Hospital Corps Manual*, and also in the *Manual for Stretchers and Bearer Companies*, sufficient for the drill and technicalities of the company?—I remain, sir, yours faithfully,

BATTALION SURGEON.

PUBLIC HEALTH

POOR-LAW MEDICAL SERVICES.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

A MEETING of the members of this Association was held in Manchester on October 14th; Dr. G. Kenyon (Chester) in the chair. A paper was read by Mr. Francis Vacher, Medical Officer for Birkenhead, on Milk-Inspection and the Control of the Milk-Supply. After summing up the regulations which obtained in respect to the sale of milk and the powers vested in local authorities for ensuring a pure supply, Mr. Vacher pointed out some of the causes which tended to make the control of the authority less efficient and thorough than it should be. Amongst other reasons were the facts that properly qualified inspectors were not appointed; that the responsible duties of deciding on the fitness or otherwise of dairy premises were handed over to irresponsible subcommittees; and that the regular storing and selling of milk was allowed in all sorts of general shops, samples being rarely taken for analysis except owing to specific complaints. It appeared to him that additional powers were wanted to enable a local authority to veto the sale of milk by vendors coming from without such authority's district, to require all licensed milk-sellers to notify cases of infectious disease appearing in their premises, with ability to close such premises till the removal of the infected animal and disinfection of the premises. He might also add that were the supervision of the important work of milk inspection committed to one responsible officer under the Local Government Board, local authorities would be encouraged to do their utmost to give effect to the Privy Council's regulations, and any other powers possessed by them in this respect; and any amendment of the law which might be necessary would be pointed out and brought under the attention of those able to undertake it. A discussion followed the reading of the paper, and some other business having been transacted, the meeting adjourned.

A MISCHIEVOUS PROVISION.

At the half-yearly meeting of the joint committee of the Carnarvonshire United Sanitary District held at the Pwllheli Town Hall, it was unanimously resolved, to reappoint Dr. Rees for the next ten years at the annual salary of £800, subject to a proportionate deduction on account of any authority who had or might disconnect itself from the United Sanitary District. This is a very mischievous proviso, and one that we trust the Local Government Board will reject. It is of the essence of these combined districts that they should not be liable to constant disintegration by the defection of the local authorities composing them; and Carnarvonshire having been the first county combination established after much trouble and delay, and then only on compulsion, it would be a very bad precedent if the local proposal were assented to by the central authority.

MORTUARIES: SUGGESTIONS FOR THEIR CONSTRUCTION.

DURING the extremely hot weather which prevailed in July a plethoric woman dropped down dead in a house in St. Ann's, Soho. It was on a Friday evening. It had been arranged that on the following morning the beadle should go away on his customary annual holiday, and his duty was consequently undertaken by a similar official from an adjacent parish. Either from this cause, or from the fact that it did not suit the convenience of the coroner, the inquiry was delayed until the following Thursday, 14 days after the death. By this time decomposition had proceeded so far as to become a most serious annoyance to the neighbourhood, and letters complaining of the delay were forwarded to Mr. C. St. Clair Bedford, the Coroner for Westminster, from the Strand Board of Works, and also from the Vestry of St. Ann's, Soho.

The public interest, excited by this occurrence, has led an Italian gentleman by the name of Tremeschi, residing at 52, Old Compton Street, to devise such a modification of existing mortuary arrangements as shall diminish, if not entirely obviate, the sanitary difficulties which arise where delay is unavoidable, in holding coroners' inquiries, or where it is desirable to keep the body as long as practicable for the purpose of identification. In the model before us there are three inclined tables, which may be constructed of marble or slate, each table has a deep groove down the middle, and several lateral grooves which lead into it, the central groove terminates in a pipe which conveys all fluids,

etc., away into a trapped pipe-drain. Round the sides of the table is a copper tube perforated by small holes, which, on the principle of Smeaton's Imperial Needle Bath, admits of a fine spray of water which may be mixed with carbolic acid, or other disinfectant, playing on the corpse at the head of the table; there is a tap which, on turning, causes the water to flow, and which communicates with the cistern situated on the roof of the mortuary. The advantages of this arrangement are so obvious that we confidently recommend its adoption by all sanitary authorities engaged in constructing mortuaries; whilst the plan is so simple and inexpensive that it may readily be adapted to existing houses.

INFECTIOUS DISEASES.

SIR, Can you tell me the names of any sanitary authorities who pay medical men for sending notice of the occurrence of infectious disease amongst their private patients to the local medical officer of health, and also the amounts of the fees the respective authorities pay for each certificate? Do any sanitary authorities request and pay for these certificates, without having a local Act of Parliament justifying them in doing these things?

I should be glad to have your opinion as to whether there would be any impropriety in divulging, for reward or otherwise, to a sanitary authority the existence of infectious disease in a private patient, who, owing to there being no local (or general) Act, one would be under no legal obligation to do so; and whether one would not be committing a breach of confidence in sending notice of disease in a private house to a public authority or anyone else, without being compelled by law; for I suppose there is no general legal obligation at present.

I should be glad of a reply in your next issue, if possible. I am, etc.,

A MEMBER.

*** There are a number of places in various parts of the country, such as Coventry, Evesham, and several of the districts in the East Surrey (Mr. E. L. Jacob's) combination, where arrangements have been made by the sanitary authorities with local medical men for voluntary information as to the existence of infectious disease. Usually, half-a-crown is paid for each such notification. We do not think there would be any impropriety in the medical man giving such information to the sanitary authority; but that, on the contrary, it would be a distinct gain to the public health. There is no general legal obligation on the subject at present, but public opinion tends strongly in the direction of imposing such obligation. It would in such cases, however, be improper, we think, to give any such information without the knowledge of the patient.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 15th, 1881.

Deane, Herbert Edward, Saint Leonard Gardens, St. Peter's Park.
Donald, James, St. Leonard's Place, Kingston.

MEDICAL VACANCIES.

THE following vacancies are announced :—

ABERYSTWITH UNION—Medical Officer for the Workhouse and Poor Hospital. Salary, £[illegible] per annum. Election on the 25th inst.

BIRMINGHAM GENERAL DISPENSARY—Five Resident Surgeons. Salary, £[illegible] per annum. Applications by November 12th.

BRISTOL GENERAL HOSPITAL—House Surgeon. Salary, £120 per annum. Applications to the Clerk by November 5th.

DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon. Applications to the Honorary Secretary, [illegible].

DISPENSARY OF THE GENERAL HOSPITAL FOR SICK CHILDREN, Gartside Street, Manchester.—Visiting and Medical Officer. Salary, £180 per annum. Applications by October 29th.

EASTERN DISPENSARY, Bath—Resident Medical Officer. Salary, £[illegible] per annum, with [illegible]. Applications to [illegible], by November 1st.

FRENCH HOSPITAL AND DISPENSARY, Leicester Square—Resident Medical Officer. Applications to Assistant Secretary.

GLASGOW MATERNITY HOSPITAL—Assistant Obstetric Physician. Applications by November 4th.

ISLE OF WIGHT UNION—Medical Officer. Salary, £[illegible] per annum. Applications to Clerk to the Guardians, Newport, [illegible].

RATHDRUM UNION—Medical Officer for Annamore Dispensary District. Salary, £[illegible] per annum, and fees for [illegible]. Election on the 22nd instant.

RICHMOND HOSPITAL, [illegible]—House Surgeon. Salary, £[illegible] per annum. Applications by October 29th.

ROYAL ALBERT EDWARD INFIRMARY, Wigan—Junior House-Surgeon. Salary, £80 per annum, with apartments and rations. Applications to the Secretary by the 27th instant.

ST. THOMAS'S HOSPITAL, [illegible]—Applications in writing to A. Latham, by November 2nd.

WORKHOUSE AND INFIRMARY, [illegible] Road, Upper Holloway—Resident Assistant Medical Officer. Applications by November 1st.

MEDICAL APPOINTMENTS.

BEDFORD, Mr. H. M. F. C.—Appointed Resident Dispensary Surgeon to the Royal Alexandra Hospital, Deal.

GODLEE, R. J., F.R.C.S., appointed Surgeon to the North-Eastern Hospital for Children, Hackney Road, E.

HAWKINS, A. F., M.R.C.S., appointed Second Casualty Surgeon to the Queen's Hospital, Birmingham.

LEES, F. A., M.R.C.S., appointed Medical Officer to the Warrington Amalgamated Friendly Societies, *vice* J. Huson-More, L.R.C.P., resigned.

MURPHY, James, B.A., M.D., appointed Consulting-Surgeon to the Monkwearmouth and Southwick Dispensary.

PAUL, E. W., M.K.Q.C.P.I., appointed Surgeon to the Provident Dispensary of the Royal Albert Hospital, Devonport.

ROLSTON, J. R., M.R.C.S.E., appointed Provident Dispensary Surgeon to the Royal Albert Hospital, Devonport.

RUMALLS, H. Boyle, appointed Assistant Medical Officer for the Leavesden Asylum, *vice* J. W. Stirling Christie, resigned.

WILLIAMS, W. Michael, M.B., appointed Medical Officer to the Penmachno Slate Quarries, near Bettws-y-coed, *vice* W. H. Price, M.R.C.S., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

WICKHAM.—On the 14th inst., at [illegible], Hertfordshire, the wife of Henry Wickham, M.R.C.S.E., L.S.A.L., of a son.

DEATH.

BARNARD.—On the 17th inst., at Birkdale Park, Southport, Lucille Frances, beloved wife of Dr. F. A. Barnard, aged [illegible] years.

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—Mr. A. R. S. Anderson has obtained the scholarship in natural science, tenable for three years: £75 first year, £50 second year, and £25 third year; and Mr. W. Williams that of £60 first year, £25 second year, and £15 third year.

MESSRS. ROBERT BOYLE & SON have recently applied their complete system of ventilation and sanitation to the Brompton Oratory, South Kensington, which has proved highly successful, the rev. fathers having presented Messrs. Boyle with a valuable testimonial to that effect. The new extension to the Devonshire Hospital, Buxton, opened last week by His Grace the Duke of Devonshire, is also fitted throughout with Messrs. Boyle's Air Pump Ventilators, which are at present being applied for the ventilation of Lambeth Infirmary.

HOSPITAL FOR SICK CHILDREN AT BRISTOL.—Designs for the erection of a children's hospital at Bristol were invited by advertisement in the local papers, and a number of architects responded. After consideration of the designs by the committee and medical staff, those prepared by Mr. Robert Curwin, of London and Liverpool, were adopted. The hospital is intended to accommodate seventy-seven patients.

SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—The quarterly court of directors of this Society was held on Wednesday, October 12th, in the rooms of the Medical and Chirurgical Society. The chair was taken by the President, Sir George Burrows, Bart. The court was unusually well attended. The deaths of two of the oldest members of the Society—Dr. Billing, V.P., and Mr. R. C. Griffiths—were announced. Two new members were elected. The deaths of two widows were reported. One had been in receipt of grants since 1833, receiving for herself and children the large sum of £2,272, the husband having been a member for only nine years, and having paid but eighteen guineas. Applications were read from sixty widows, nine children, and three recipients from the Copeland Fund; and a sum of £1,250 10s. was recommended to be paid them at the next court. The expenses of the quarter were £37 15s. The treasurer reporting favourably of the state of the funds, the directors resolved to give the same present this Christmas as last to the widows and orphans receiving grants. An application was approved of from one widow, and a grant of £30 was given to an orphan towards his self-maintenance.

GUILD OF ST. LUKE.—The seventeenth anniversary of this Society was held on Tuesday last. The members assembled for Communion at All Saints', Margaret Street, at 8 A.M., after which they were entertained to breakfast by the Provost. At the annual meeting, Dr. Alfred Meadows was elected provost; Mr. George Cowell, vice-provost; Dr. Wm. Holman, treasurer; and Mr. Morton Smale, secretary. The Guild has during the year sent to the Bishop of Bombay £100 for the support of a medical missionary in his diocese, and hope as time goes on to increase their work in that direction. In the evening a service was held in St. Paul's Cathedral, and an admirable sermon preached by the Rev. H. M. Villiers, on the Mystery of Suffering, from the text St. John v, verses 3 and 4. The Guild is anxious that students and practitioners, members of the Church of England, should join its ranks; it already numbers 180 members. Mr. A. [illegible], who left

at Majaba Hill while in the exercise of his duty of healing, was a member of the Guild. His death, the only one during the year, was touchingly referred to by the Provost at the meeting. Any of the officers of the Guild will be glad to give information as to the objects and work of the Society.

PRESENTATION TO DR. E. HOGGAN.—Dr. F. Hoggan's removal from Thornhill, where he has been in practice for the last fourteen years, to Liverpool, was recently the occasion of a farewell dinner, given by his many and warmly-attached friends in Nithsdale, desirous of showing him some substantial token of their regard. A numerous company was present, and the healths of Dr. and Mrs. Hoggan were enthusiastically honoured. The testimonial consisted of a purse and 200 sovereigns, a salver of solid silver, and a gold bracelet presented to Mrs. Hoggan. The salver, which was chased and of beautiful design, bore the following inscription: "Presented to Edward Hoggan, Esquire, M.D., along with a purse of two hundred sovereigns, by his friends in Nithsdale, as a mark of esteem for his personal character, and as a recognition of the valuable professional and other services rendered by him to the district. Thornhill, Dumfriesshire, 16th September, 1881."

PUBLIC HEALTH.—The annual rate of mortality last week, being the forty-first week of the year, in twenty of the largest English towns, averaged 20.5 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Leicester 14, Bristol 15, Portsmouth 16, Norwich 16, Plymouth 16, Leeds 17, Sheffield 17, Newcastle-on-Tyne 19, Salford 19, London 19, Oldham 20, Sunderland 20, Bradford 21, Brighton 21, Wolverhampton 21, Manchester 21, Birmingham 22, Nottingham 25, Hull 26, and Liverpool 27. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, Sunderland, and Leicester; in Hull, no fewer than 33 fatal cases of this disease were recorded, making 286 that have occurred since the beginning of July. The 29 deaths from diphtheria in the twenty towns included 13 in London, 5 in Portsmouth, and 5 in Birmingham. The highest death-rate from fever occurred in Oldham and Salford. The fatality both of measles and whooping-cough was below the average. Small-pox caused 25 more deaths in London and its outer ring of suburban districts, and one in Bradford; no fatal case of this disease was recorded in any of the eighteen other large provincial towns. In London, 2,550 births and 1,460 deaths were registered. The deaths exceeded the average by 11. The annual death-rate from all causes, which had been equal to 16.6 and 18.6 per 1,000 in the two preceding weeks, further rose last week to 19.9. During the thirteen weeks which ended on the 1st instant, the metropolitan death-rate averaged 20.5 per 1,000, against 20.3 in the corresponding periods of the five years 1876-80. The 1,460 deaths included 22 from small-pox, 33 from measles, 66 from scarlet fever, 13 from diphtheria, 32 from whooping-cough, 33 from enteric fever, 3 from ill-defined forms of continued fever, 26 from diarrhœa, and 3 from dysentery; thus, 231 deaths were referred to these diseases, being 4 below the average. The deaths from diseases of the respiratory organs, which had steadily increased from 115 to 227 in the six preceding weeks, further rose to 279 last week, and exceeded the average by 25; 172 were attributed to bronchitis and 77 to pneumonia. Different forms of violence caused 40 deaths; 33 were the result of negligence or accident, among which were 18 from fractures and contusions, 3 from burns and scalds, 2 from drowning, and 6 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 49.0°, and 2.8° below the average. The mean degree of humidity of the air was 84, complete saturation being represented by 100. The general direction of the wind was W.S.W., and the horizontal movement of the air averaged 19.5 miles per hour, which was 9.1 above the average in the corresponding week of sixteen years. Rain fell on five days of the week, to the aggregate amount of 0.51 of an inch. The duration of registered bright sunshine in the week was equal to 19 per cent. of its possible duration. The recorded amount of ozone showed an excess on Tuesday and Friday, whereas it was below the average on each of the other days of the week.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following facts and rates of mortality, derived from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the death-rate averaged 31.2 per 1,000; it was equal to 26.2 in Bombay, 27.8 in Calcutta, and 34.1 in Madras. Cholera caused 22 deaths in Calcutta and 16 in Bombay, while 20 fatal cases of small-pox occurred in Madras. The death-rate in Alexandria was equal to 47.7; the deaths included 20 from enteric fever and 8 from whooping-cough. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 26.1 per 1,000 of their aggregate population, whereas the rate in the twenty large English towns did not average more than 20.5 last week. The rate in St. Petersburg showed an increase upon that prevailing in recent weeks, and was equal to 44.1; 33 deaths were referred to typhus and typhoid fevers, and 15 to scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the average rate did not exceed 15.6, the highest rate being 17.7 in Copenhagen; diphtheria caused 2 deaths in Stockholm and 3 in Christiania. The Paris death-rate further rose last week to 26.2, and the deaths included 35 from diphtheria and croup, 30 from enteric fever, and 7 from small-pox. The deaths in Brussels, of which 8 resulted from whooping-cough, were equal to a rate of 22.6. In Geneva, the death-rate was 23.3, and 3 deaths from typhus and enteric fevers were recorded. In three of the largest Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 18.9, the highest rate being 20.2 in Amsterdam; scarlet fever caused 3 deaths in the Hague, and 2 deaths from "fevers" occurred in Amsterdam. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 24.9, and ranged from 18.6 and 23.5 in Hamburg and Berlin, to 28.8 and 30.5 in Munich and Buda-Pesth. Small-pox caused 18 deaths in Vienna, while 41 deaths from diphtheria occurred in Berlin, 17 in Dresden, and 10 in Buda-Pesth. The rate in three Italian cities averaged 29.1, the principal excess occurring in Naples, the returns for which city relate to the first two weeks in June, when both measles and typhoid fever were fatally prevalent. The 124 deaths in Rome, in the second week of August, included 18 fatal cases of malarial fever. In four of the principal American cities, the death-rate averaged 25.0; it was equal to 20.4 in Philadelphia, 21.6 in Brooklyn, 24.5 in Baltimore, and 28.8 in New York. Small-pox caused 12 more deaths in Philadelphia, while diphtheria showed a fatal prevalence in New York, Brooklyn, and Baltimore.

MIDDLESEX AND HERTFORDSHIRE COMBINATION.—The reports which Dr. Saunders issues on the public health of this district are quite among the best of their kind. The preliminary remarks with which he customarily prefaces his reports on the separate districts in the combination are always worth reading, and this year they are of peculiar interest. Dr. Saunders again urges with much insistance the need for some hospital accommodation for infectious cases, and observes that he has no hesitation in saying that, in two districts at least, extensive epidemics of scarlet fever last year would not have occurred if a hospital had been in existence, as he had early intimation of the first cases, and they might have been isolated. Amongst the whole population (97,383 persons) living in the district, there were, during 1880, 1,545 deaths, giving a death-rate of 15.8 per 1,000. The number of deaths of children under one year was excessive, being no less than 30.4 per cent. of the total deaths. In the Tring Urban District, the proportion of these deaths to the total was as high as 44 per cent.; and in the St. Alban's Rural Sanitary District, 30 per cent. In the latter district, the excess was due to diarrhœa and whooping-cough, both of which were generally prevalent throughout the district. Indeed, in almost all the districts of the combination, the infantile death-rate was excessive. The fatal prevalence of summer diarrhœa must be held responsible in the main for this fatality; for, of the total deaths from this disease, 76.7 per cent. were of infants under one year of age, and 14.6 of children under five. Diarrhœa was most prevalent in the Hemel Hempstead, St. Albans', and Watford Rural Sanitary Districts, and at Tring. The zymotic rate (exclusive of diarrhœa) was 7.3 per cent. of the total deaths. Diseases of the respiratory organs caused by far the largest number of deaths; and, as Dr. Saunders states, "in a climate so changeable as ours, this is not to be wondered at". Scarlet fever was somewhat prevalent in some parts of the district during the year, and notably in the Watford Rural District, where an extensive epidemic raged unabated, owing to the absence of any means of isolation. This disease was also epidemic in the Welwyn Rural District, and at Edgware, where also whooping-cough was prevalent. In the Watford Rural District, four cases of typhoid fever occurred, one of which "had been drinking water which was little better than sewage, and absolutely stank". Dr. Saunders notes an interesting case of small-pox, where the patient was a rag-sorter who had not slept out of his village for several months, and where the only possible way of accounting for the attack was by ascribing it to the dust shaken out of the rags during the sorting.

CATHETERISATION IN MEMBRANOUS CROUP.—Dr. Thomas Sanctury (*Maryland Medical Journal*, August 15th, 1881) reports a case of croup successfully treated by catheterisation of the larynx. The procedure was followed by convulsive efforts of coughing, during which a considerable amount of mucus, etc., was expectorated through the catheter. The catheter was tied in with a tape and removed twenty hours after insertion.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M. London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M. National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M. Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 2; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Thomas Bryant: A Case of Amputation of the Thigh for Knee-Joint Disease in a Man the subject of Phthisis. Dr. Radcliffe Crocker: A Case of Congenital Syphilis with enlarged Spleen and Enlargement of the Cervical [illegible]

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Jonathan Hutchinson: [illegible] in connection with Children's [illegible] Association. Mr. Clement Dukes: A Case of Health Child [illegible] by a Mother [illegible] with Syphilis [illegible] to the Birth.

WEDNESDAY. Harveian Society, [illegible] Mr. Steven will read a Paper on Tumours of the Brain. Mr. J. E. Adams will read a paper on Injuries to the Arteries of the Lower Extremity.

FRIDAY. Clinical Society of London, 8.30 P.M. Mr. C. J. Dent: A Case of Strangulated Hernia (Littre's) or Partial Enterocele. Dr. Churton (Leeds): A Case of Epileptiform Convulsions [illegible] Pleurisy. Mr. Bruce: A Case of Stricture [illegible] Operation with Observations on Castration. Dr. Stocker: A Case of Chronic Intussusception. Mr. Ormerod: A Case of Excision of High Lumbar [illegible] Mr. [illegible] Ordinary meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

[illegible] DIPHTHERIA.

SIR,—In reply to your correspondent respecting local applications in diphtheria, without wishing in any degree to disparage any other remedial means, I would [illegible] which occurred in the Ludlow Union Workhouse School, in the spring of last year. Let the ulcerated surfaces be sprinkled with common brimstone in fine powder, by the aid of a camel's hair brush, or mixed with a little treacle, applied as a paste, four or five times a day. The *rationale* of this treatment is grounded on the assumption that a poisonous secretion exudes from the abraded surfaces, which is of an erysipelatous or spreading character. That being the case, the action of this poison is stopped by the neutralisation effected by the disinfectant properties of the sulphur, which thus destroys the germs of the disease, and prevents it from spreading. At the same time, its stimulating properties forwards the elimination of the bloodless, and therefore lifeless, membrane which has been formed. Should [illegible] expect that sulphur fumigations would arrest the progress of the disease when prevailing in schools or families. The benefit thus obtained locally may be aided by the internal administration of sulphur as an assistant purifier of the morbid condition of the [illegible]

[illegible] Ludlow, October 8th, 1881.

SIR, I [illegible] that [illegible] and [illegible] found of most use is a solution of hyposulphite of soda in glycerine, one drachm to the [illegible] with the spray. I apply the glycerine-solution every four hours; the spray three times a day, one or two minutes each time, giving time to the patient for a few breaths during the operation.

I have found all energetic treatment of throat symptoms useless; they are but symptoms of a general poisoning. If "J. P." raises a blister on any part of the body of a diphtheritic patient, and removes the cuticle, he will find that the raw surface will throw out a diphtheritic membrane. The treatment of this artificial [illegible]

Melton Mowbray. [illegible] M.D.

A MEMBER.—Essays for the [illegible] Prize must be [illegible] on Saturday, the 31st of December. The following is the subject for the ensuing year: "Wounds and other Injuries of Nerves; their Symptoms, Pathology, and Treatment."

[illegible]

SIR,—I [illegible] of an inquest held last Friday morning, touching the death of a poor lady, a patient of mine, from accidentally taking an overdose of chloral. The following are the facts of the case, and they seem to me such as require very serious consideration, and energetic action to boot, if it can be brought to bear upon the cause of mischief.

The lady in question was of nervous temperament, and suffered much at times from gout in its various forms, for the relief of which she had for many years, but in direct opposition to my advice and earnest protestation, secretly taken chloral. On two former occasions, she had nearly lost her life from overdoses of this drug, and lately had been more or less constantly under its effects. I had directly charged her with this, but she would never admit it. Happening to call on her in the forenoon of last Thursday, I found her dead in her bed, with three empty bottles, each of which had contained twelve doses of "Hunter's solution of chloral", close to her bed-side. She was reported as well as usual at about eight o'clock on the previous evening, and had wound up both her watches at that time, but must have died early in the night, for when I found her she was cold and stiff. Stored away in a secret closet in her bedroom I found nine other bottles filled with the same dangerous drug, still enclosed in their wrappers, and on none of them is the word "Poison" [illegible] forced; [illegible] the [illegible] obligation shall not "extend to or interfere with the making or dealing in patent medicines") exempts the makers or dealers from the necessity of so marking their dangerous wares. And they gladly avail themselves of the privilege, for the [illegible] the sale of such drugs as are marked with it, to the great safety of the public, but [illegible] rich and influential, and will not hesitate to use their riches and influence in defence of their so-called rights.

But there is another matter connected with the sale of these poisons which re[illegible] this town; but the difficulty is easily got over, for it was from one of the London [illegible] during the last week of September.

[illegible] stances of [illegible] description would have [illegible] glad to [illegible] be [illegible] am, sir, [illegible]

[illegible] Nottingham, October 11th.

F. G. H.—Dr. Hunter, Physician to the Farringdon [illegible] solemnly pledged [illegible] together with [illegible] Dr. Hunter only [illegible] regretted "Seventy-six." [illegible] he had used throughout. "Congratulate yourself, sir, that this is an occasion which your executors will never be put to.

THE MEDAL OF THE INTERNATIONAL MEDICAL CONGRESS.

We are asked to state that a few copies of the commemorative medals of the International Medical Congress still remain, which may be obtained on application to the honorary secretary, Sir Wm. Mac Cormac, 13, Harley Street. Applications should be accompanied by Post Office Order. The cost to members is 10s. 6d., or 11s. to cover postage; to non-members 21s., or 21s. 6d. to cover postage.

DR. DUKES.—Marked for early publication.

CHEMISTS' ASSISTANTS.

SIR,—An anonymous donation having reached this Association from "Chemists' Assistants", together with a letter detailing their grievances, I beg the favour of stating, through your columns, that those grievances have never been overlooked by our board of management. Some years ago, the society conducted a special campaign in their behalf, and published a pamphlet showing the hard treatment endured by many of them. Various improvements followed. Four years ago, the society again took up their case, and after canvassing a large number of firms, convened meetings at the West End and at the Pharmaceutical Institute. From these meetings, a "Chemists' Early Closing Association" was formed, and effected many improvements.

The society is aware that large numbers of chemists' assistants are still greatly overworked; that they are occupied in business from an early hour in the morning till a late hour at night; and that, in addition, they perform Sunday duty, and are liable to be called out of bed to supply the wants of their customers. Although the society is at present overwhelmed with other work, owing to its inadequate resources, it hopes yet to effect great improvements in behalf of the much-enduring chemists' assistants.—I am, sir, yours faithfully, J. A. STACEY, Secretary.

Early Closing Association, 100, Fleet Street, London, E.C.,
October 11th, 1881.

DR. JENNER.—There is no special honorarium attached to the office. A few years ago, the Presidents of the Royal Colleges of Physicians and Surgeons respectively, as members of the Vaccine Board, received one hundred guineas annually for their attendance.

TOBACCO.

SIR,—I shall supplement your note to "H A." by referring him to a most excellent little treatise on the subject of *Smoking: when Injurious, when Innocuous, when Beneficial*, by Dr. John C. Murray. Publishers, Simpkin, Marshall, and Co., London; and Wilson, Newcastle-upon-Tyne. Christison and Taylor on Poisons may be also noticed. The pamphlet by Lizars of Edinburgh, on the *Use and Abuse of Tobacco*, may be recommended to "H. A." as about the best of all treatises on the subject, in moderat ecompass.

I can only say of the custom of smoking what King James said in 1616, that it is "A custom loathsome to the eye, hateful to the nose, harmful to the brain, dangerous to the lungs, and, in the black stinking fume thereof, nearest resembling the horrible Stygian smoke of the pit that is bottomless". I have for years rebuked every boy-smoker who has come within my influence. As to the statement "that, after a while, it does no harm", I distinctly deny it. Snuffing, quidding, and smoking all do harm, but especially to the young. Of all who smoke, not one in a thousand commence after twenty-one years of age. The injury is done in youth, and those injured carry it on their shoulders, and become premature examples of decay. In this respect, I am referring to over-indulgence; but at best it is in any case a useless, lazy, and pernicious habit, in old or young.—I am, etc.,

Northallerton. HENRY BROWN.

J. G.—Messrs. T. Spencer Wells and John Marshall are the Vice-Presidents of the College of Surgeons.

MEDICAL ETIQUETTE.

SIR,—Kindly give me your opinion upon the following case. A. and B. are practitioners residing in a town next door to each other. A. takes in a partner, moves four miles off, leaving his partner to reside in his (A.'s) house. C., a patient of A.'s, bespeaks A. to attend his (C.'s) wife, stating at the time that as A. had attended the family for ten years, he preferred A.'s services, notwithstanding that A. resides four miles off. Moreover, C. agrees to send a carriage for A. if the case comes off in the night, or A. happens to be at home when it does so. The labour commences; C. changes his mind about his doctor, and sends for B. to attend his wife. B. attends the case and continues the attendance, and writes to A. to tell him that as he (A.) does not reside in the town, he (B.) means to keep on the patient as though it was his own case. Does B. act fairly to A.? You will greatly oblige me by giving your ideas upon this (what I am pleased to call)

"HARD CASE."

*** If it were the spontaneously expressed desire of C. that B. should attend the case, B. was justified in doing so; and a courteous intimation from C. to A., that, in consequence of the removal of the latter, he preferred the attendance of B., would have been quite in order. But, if B. wrote in the tone described by our correspondent, we think that he went in a very unnecessary way beyond the bounds of professional, or indeed of common, courtesy.

SOLUTION OF PILOCARPIN.

SIR,—Can any of our members favour me with a formula for making a solution of pilocarpin which will retain its properties for a length of time? I got, from a well known firm of scientific chemists, a solution of pilocarpin six months ago, but, although I have used it freely in uræmic convulsions and asthma, I have never yet seen the slightest effect produced. An eminent pharmaceutist whom I consulted on the subject informed me that my experience was not unfrequent, the ordinary solution only retaining its virtues for about a week. It is not easy in rural parts to get fresh supplies when we require them. Any help will, therefore, be gratefully received by yours, etc., RUSTICUS.

YEAST.—"A Member" asks: "What is the difference in the preparation and therapeutic action of brewers' yeast, German yeast, and the so-called teetotal yeast?"

FACTORY SURGEONS.

SIR,—Forgive me for correcting your reply to "A. Y. Z." in the JOURNAL of October 1st. By Sec. 72 of the Factory and Workshop Act, 1878 (41 Vict., chap. 16), it is provided that, "subject to such regulations as may be from time to time made by a Secretary of State, *an inspector* may from time to time appoint a sufficient number of duly registered medical practitioners to be certifying surgeons for the purposes of this Act, and may from time to time revoke any such appointment". Her Majesty's Inspector of Factories, in fact, makes the appointment; and to him application should be made by an aspirant to this, one of the worst paid and least satisfactory of the public appointments held by medical men. —Your obedient servant, CERTIFYING SURGEON.

THE OBLIGATION OF MEDICAL SECRECY.

SIR,—I observe a paragraph in last week's JOURNAL under the above heading, in which you say that "The duty of secrecy which is incumbent upon a medical man in respect to circumstances which have become known to him, in virtue of his professional functions, is regarded by medical men in all countries as involving sacred obligations, of which it is necessary to preserve the principle intact, and to defend, if necessary, even against the law itself". The paragraph being in reference to a medical man who has recently come before the Belgian courts, and was fined in £4 and costs for refusing to answer questions as to "whether he accompanied three other persons, accused of being concerned in the duel, to the spot at which it was alleged to have been fought, and whether he was present at the duel; and he alleged, as his reasons for refusing to answer the questions put, that such knowledge as he possessed was in virtue and by reason of his profession of medicine and under the seal of secrecy which was demanded of him"; you conclude it by saying, "However, similar circumstances are not likely to occur in this country", etc. Probably not. But I fear that every parochial medical officer in Scotland is obliged to violate this sacred obligation at least once a month, or resign his appointment. The Board of Supervision supplies schedules for "return of sick poor", which are to be filled up by the medical officers, and returned to their respective boards once a week, or at least once a month. Among other questions, he is asked to state "the nature of the disease" from which the sick pauper is suffering. Now, this may not appear very objectionable in a large town where the members of the board do not know the paupers personally; but it is quite a different thing in a country parish where many, if not all, of the members of the board know the paupers intimately; and where such members are not wholly devoid of that weakness inherent to humanity—morbid curiosity. It may not appear a very glaring breach of this sacred obligation to state that a pauper is suffering from bronchitis, febricula, etc.; but I think it decidedly objectionable, to put it in a mild form, to have to state, as I have seen done, that a pauper—perhaps a next-door neighbour to a member of the parochial board, perhaps one of his tenants—is suffering from vulvitis, prolapsus uteri, etc. I cannot conceive what object such information serves. It is useless for any scientific purpose; and as for it being a check on the medical officer, if he be sufficiently lost to all sense of honour as to make a false return, he can easily name a disease.

Another instance in which the law of the land calls on us to violate this sacred obligation: I was asked, a few weeks ago, by a patient who was summoned to attend as a juror at a sheriff's court at some distance, to give him a certificate as to his inability to attend. I did so; and, in a few days, received a letter from the sheriff's clerk, stating that my "certificate was insufficient, in so far as it was not given on soul and conscience, and did not state the nature of the disease; and that, unless I sent a certificate by return of post containing these essentials (!), my patient would not be exempted from attending to his duty as a juror." I bluntly refused to supply the information, and heard nothing more about it. I also refused to fill up the column in the "returns of sick poor" which asked "the nature of the disease"; and the parochial board, respecting my conscientious scruples, would accept the returns filled up in such a manner; but the Board of Supervision would not, and wrote the local board that they must dismiss me immediately unless I filled up the schedule as asked. It then occurred to me that possibly I took a wrong view of the matter; and I wrote to a friend—one of my former teachers—whose opinion I hold in the highest respect, and asked his view of the matter in reference to my academic declaration. He, after consulting with the professor of moral philosophy, wrote me that I was perfectly right in resisting, but did not think I should carry it further; "that, if the law of the land or the power that be demanded such information, he, speaking for himself, would consider himself in the same position as if he were in a court of justice, and the judge demanded information from him which, as a medical man, he might consider wrong to divulge. He would state his objection: but, if the judge insisted, he would speak out freely, and would consider the guilt, if guilt there were, attached to those who forced him to divulge the secrets, and not to him." Since then, I filled up the schedule—with very vague terms, I acknowledge—but I can scarcely say with a perfectly easy conscience. Your paragraph revived my former feeling—it has never been quite eradicated; and I should like to submit to the opinion of other members of the profession whether the answering of such questions is, or is not, a violation of the academic declaration which I, in common with all medical graduates, had to subscribe before obtaining my degree, as well as this "sacred obligation" based on the interests of the public at large.—I am, etc.,

A PAROCHIAL MEDICAL OFFICER.

DOCTORS TO PILGRIM SHIPS.

SIR,—As doctors will soon be in request for steamers intended to call at Yembo and Jeddah, ports in the Red Sea, for pilgrims returning home after performing their "hadj" at Mecca, I think it would be well if attention were drawn, from time to time during the next few weeks, to the fact that cholera has this year broken out among these pilgrims; and also to the fact that quarantine is therefore now enforced against all ships carrying them home. Medical men intending to go out as doctors to pilgrim ships would also do well to remember—

1. That steamers carrying pilgrims to or from a port under British rule would only be allowed to take about two-thirds as many pilgrims as she could, and almost surely would, take to any other port. Pilgrim ships are so crowded with pilgrims, and encumbered with their bulky belongings, that this is a very important point to be remembered.

2. That, unless the steamer is taking pilgrims to or from a port under British rule, no place is set apart for the sick; and the law does not require (or, at all events, did not last season) any drugs, medical comforts, or surgical instruments or appliances, to be carried for the pilgrims. On this point I would remark that I was told on all sides, even up to Jeddah itself, and without a dissenting voice, that the pilgrims would take no medicine; but I found, with few exceptions, that it was quite the reverse.

3. That, as cargo steamers only are employed in the pilgrim trade, doctors will find the living, as a rule, very rough; and probably there will be no congenial society on board.

Previous to last season, only those pilgrim ships which went to or from British India ports had to carry doctors; but now all carrying over one hundred pilgrims have to take a doctor of some sort or another.

The most repulsive feature in a pilgrim ship, to my mind, is the almost universal lousiness—I refer to *Pediculi corporis*, not *P. capitis*—of the pilgrims. I could never look round at any time of the day, during any period of the voyage, without seeing many of them overhauling their garments searching for their tormentors.—Your obedient servant, THOS. COMFIELD, L.R.C.P.

14, Caistor Villas, Stoke Newington, N., October 15th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

DOMESTIC FIRE-GRATES.

SIR,—Can you kindly inform me how to arrive at some conclusion as to the economy and heat-radiating powers of the best domestic fire grates. The International Sanitary Exhibition in August gave us a great choice of grates; but, so far as I could see, gave us no means of comparing their different merits. It is quite impossible for anyone to try them all, but probably some one exists who could point out their relative defects, which are often much more conspicuous than their merits.—Your obedient servant,

ARTHUR R. GRAHAM.

Holmwood, Weybridge, October 17th, 1881.

*** At the approaching Exhibition arranged by the Smoke Abatement Committee of the National Health Society and Kyrle Society, careful tests will be made by highly competent judges. A committee of experts has been appointed, of which Mr. Ernest Hart is chairman, and Dr. Siemens, Captain Galton, Professor Abel, and Professor Frankland, are members; and the trials will be conducted, under conditions approved by the committee of experts, by Mr. Napier, C.E. Testing-houses have been provided, and valuable prizes are offered. All the leading houses, makers, and inventors, are among the intending exhibitors.

RUSTICUS.—1. Wilson's *Manual* (Churchill). 2. Hart's *Manual* (Smith, Elder, and Co.).

HOSPITALS IN NEW YORK.

SIR,—Perhaps some of your readers might be interested by a short notice of some of the principal hospitals in New York, written from a sort of semi-outsider's point of view. I have been for some years a student at one of our own hospitals in London, though, for reasons best known to myself, I have never cared to qualify, or to fit myself for regular professional practice. Of London hospitals I have had a very large experience, as I have, from time to time, visited and gone over not less than from twenty to thirty of the fifty-one hospitals in and about the metropolis.

During my late stay of three weeks in New York, I made it my business to visit and be shown over the principal hospitals in the city itself, and the wonderful establishments of the Convalescent Home and the Incurables' Hospital, which, with the very large Charity Hospital, are situated in Blackwell Island, in the East River. With these last, of course, we have nothing whatever to match in London. Their unrivalled position on an island, perhaps a mile or a mile and a quarter in length, lying opposite the upper and most thinly inhabited part of the town, yet separated from it by, perhaps, two or three hundred yards of clear and comparatively clean river-water, with an absolutely pure atmosphere, leaves everything of the kind that we have here, in the way of convalescent homes, whether in the town or the suburbs, at an immeasurable distance behind. The great American-built steam ferry-boats, with their two or three decks, ply at fixed hours or intervals, say three or four times a day, between the foot of East Forty-Six Street, close to the great Baltimore Hospital, near to Blackwell Island, calling at the three landing piers there, according as one's errand lies to the Charity Hospital, the Convalescent Home, and the Incurable, or to the great House of Correction, or Penitentiary, also situated there, but apart from the other buildings on the island. By these steam ferry-boats, those sent from the hospitals in the town to the Convalescent Home, the visitors and friends of the patients already there, as well as casual visitors, such as myself—furnished previously, of course, with a permit from the office of the Commissioners of the New York Charities—are taken over to the island. At an interval of two, or, if they prefer to stay so long, of four hours, the steamer calls to take them back to the city. A little later on, I will speak of my visit to Blackwell, as I did not go there till after I had seen nearly all I cared to see of the hospitals in the city itself.

By the kindness of one of the very first surgeons in London, himself consulting surgeon to the second largest of our hospitals here, I had been furnished with a letter of introduction to Dr. Van Buren of New York, well known both in the United States and in Europe for his works on venereal diseases. No introduction, however, of any kind, I found, was at all necessary to procure admission to an American hospital. What one so often hears in the States, "We are a free people, sir, and our public institutions are open to every one," was more than an empty boast with regard to the admission, without formality, of every respectably dressed and well behaved person who might present himself or herself, at the stated hours, at any of the New York hospitals, during a space, if I remember rightly, of about two hours every day, except Sunday. I, anyway, found that nothing more was necessary than to present my card to the secretary, stating that I belonged to one London hospital, was honorary life-governor of another, and that I was the bearer of a letter of introduction from one of the most eminent surgeons in London to Dr. Van Buren, to be admitted at once, and obligingly shown over the hospital by either the house-surgeon or house-physician, or, if they were engaged in the wards, then by one of the "dressers"; and, in one case, failing all these resident officers, from their being engaged, then by one of the surgery or the out-patients' porters. I everywhere met with great civility, and an obliging desire to show me everything, point out the most interesting cases, and to communicate themselves, and receive from me, all the information that was in my power to give as to English hospitals, and the practice of medicine and surgery in London.

In three or four very important points, it struck me that there was a vast difference between the hospitals I visited in New York and, with one or two conspicuous exceptions, those of our metropolis. First, there was the immense expense that had been incurred in the buildings themselves, the fittings, the furniture, so to say, not only of the wards, but of the [illegible] the operating theatre, the *post-mortem* room, [illegible] of the nursery, the nurses' apartments, and the dispensaries. Every [illegible] seemed to be provided with the best and most hard-worked and, among us, generally most ill-paid class of officers, in the shape of charmingly airy, clean, well built, well ventilated, and neatly furnished rooms. Anything more unlike the [illegible] dark, dingy, and dismal attics, rooms and bed-rooms of the house-surgeon and house-physician that one sees in many [illegible] within many of our hospitals, can hardly be imagined. Something, of course, must be put down to the beauty of the New York atmosphere in June and July, but, even when all allowance is made for that, the difference I have mentioned, as well as the [illegible] and the contrivance for warming the rooms by hot-water pipes in winter, struck me as very great. On two, or, I expected, all the hospitals I went to, viz., one New York hospital in Sixteen Street, and the "Roosevelt," in the upper and newest part of the town, near the back of the Hudson river and commanding a lovely view of the wooded heights of Wiehawken, across the broad stream, a lavish outlay of money must have been incurred. It was the same thing nearly everywhere. The same answer, too, was nearly always given, when I expressed my admiration at the [illegible] of labour, ingenuity, and expense that the builders and founders of the different hospitals had been at: "There is no lack among us of funds whatever", or "We have only to ask, doctor, for as many thousand dollars as we want, and we get them directly". That more than one of our London hospitals has had to close some of its wards, simply from want of funds, is, of course, well known to most of your readers.

Secondly, as far as I could learn, at all, or nearly all of the hospitals in New York, some weekly payment—more or less, according to the station, circumstances, and means of the inmate—is required from every in-patient. By this excellent regulation, the imposition, so very often practised among us, of persons obtaining admission as in-patients, who could well afford to pay for a doctor at home, is entirely avoided. For those who are absolutely unable to afford any payment whatever, there is the great Charity Hospital, in Blackwell Island, which is entirely free.

Thirdly, every regular practitioner in the State of New York—whether it be so in the other States of the Union I do not know, and neglected (I am sorry to say) to inquire—must be doubly qualified, and have passed his final examination, both in medicine and surgery, before he is allowed to practise.

Fourthly, though I conceive that the bulk of hospital students with them is not drawn, generally speaking, from so highly educated a class as amongst us—sons of clergyman, officers in the army, merchants, medical men, and so forth, for example—yet, from what I could see and learn, a far more quiet and gentlemanly demeanour and bearing, at least when in the hospitals, while attending lectures, or in the dissecting-room, or going through the wards with the physician and the surgeon, distinguished the American students, in comparison with very many of those at the largest London hospitals.—I am, etc.,

X.

LUMINOUS PAINT.—Referring to a note in your issue of the 15th, I desire to inform "G. F. M." that the "luminous paint" is to be obtained of Ihlee and Horne, Aldermanbury.—ROBERT BARKER.

THE CLIMATE OF BRIDGE OF ALLAN.

SIR,—As showing the mildness of the climate here, I may state that, although the weather all through the summer has been very ungenial, the tomato, figs, and grapes have ripened in my garden in the open air; the passion-flower also has bloomed freely in the open for some months past. An authority on climate, Dr. Burslem of Bournemouth, when visiting here some years ago, remarked that no better proof of the mild climate was wanting than to see the plants and flowers growing so luxuriantly in my garden.

Bridge of Allan is now becoming a great resort during the winter and spring months for invalids suffering from chest-complaints; and many English physicians are now sending their patients to Bridge of Allan, in preference to many other health-resorts in the south of England or south of Europe.—I am, yours truly,

Fernfield, Bridge of Allan, October 5th, 1881. ALEXR. PATERSON, M.D.

PRACTICAL DISPENSING.

SIR,—Some letters in the JOURNAL, with reference to the strength of various solutions, induce me to state that I have found it an useful practice to keep such salts as magnesia sulphate and soda carbonate in drawers, each drawer containing a drachm measure, a chip box being used for the purpose. This plan simplifies the dispensing, and practically allows sufficient accuracy.—Yours faithfully,

W. I.

CONSTIPATION FROM DRINKING HARD WATER.

SIR,—A patient of mine is much troubled with habitual constipation, the result of drinking the company's water here, which is very hard, and contains a large quantity of sulphate of lime. That the water is the cause of this ailment is certain, as persons who have been subject to diarrhœa have been cured by residing in Clifton. Can any of your readers suggest remedies for this kind of constipation, such as can be taken daily without impairing the quality of the blood or injuring the system? A diet of wheat-bread, oatmeal, baked apples, etc., and medicines containing nux vomica, aloes, quina, podophyllin, and the Hunyadi János water, have been taken in vain.—Your obedient servant,

ALVUS DURUS.

Clifton, October 10th, 1881.

FRENCH JOKES FOR GERMAN PROFESSORS.

La France Médicale tells a story of Skoda, who [illegible] and which is amusing, and not without instruction. It may not be true, but it is certainly [illegible] typical to [illegible]. It was [illegible] twenty-three years of age, of sickly aspect, came to consult him. Skoda examined [illegible] with care, and [illegible] with attention; and then, suddenly addressing his patient, said: "Have you any fortune?" Taken aback at first, the young man replied with a timid "Yes". "Well", replied Skoda, "if you have a fortune, profit by it for the next year, which is all that you have to live." The young man followed the advice vigorously; but his fortune happily [illegible] at a great pace, when he met a young physician, to whom he told this adventure and who, notwithstanding the sentence of condemnation pronounced by the illustrious master, did not hesitate to try to cure the patient, and with good result, for the condemned man regained vigour, and his general health and appearance rapidly ameliorated. Two years later, he was in flourishing health. He met Skoda in the street, and after some hesitation went up to him. "Excuse me, Professor", he said, "you [illegible] me. [illegible] To whom have I the honour of speaking?" "I am the young man whom you [illegible] only a few months to live." "Ah!" [illegible] Skoda, [illegible]

The same writer [illegible] Vienna, a [illegible] examination, sent him to the [illegible] lady there. A few years [illegible] Opposite, who was in the [illegible] and [illegible] "and [illegible] what treatment [illegible] the waters of Pyrmont [illegible] sent you there [illegible] Next year Opposite [illegible] also.

The stories are both [illegible] of [illegible] that the [illegible]

[illegible] Home.

Sir,—[illegible] friends can afford to pay about £1 a week for him. He was once in an asylum for a short time, but was [illegible] have read of such an institution been built by Professor Holloway, but cannot find the paper. Any information on the subject will be thankfully received by, yours faithfully, L.K.Q.C.P.

*** A [illegible] would, we think, be received at Earlswood, or Essex Hall, Colchester. Failing these, [illegible] asylum, [illegible] when he has failed at Earlswood and Essex Hall. Holloway's institution, to which our correspondent refers, is an institution for lunatics, and is not yet open.

A [illegible] Medical Assistant to Medical Officer.

Sir,—[illegible] and, on May 1st, [illegible] 9 to 10.30 A.M., and from 6 to 7.30 P.M.; to visit patients unable to attend dispensary; and to attend midwifery, "as far as practicable with the discharge of the duties of the dispensary". A dispenser was provided by the Society. Previous to my election, the secretary led me to believe that the total number of members was three thousand, including wives and children. I afterwards found that the wives and children were in addition to the three thousand, thereby raising the total to between nine and ten thousand.

The average [illegible] at dispensary each day was forty, and the number of patients on the visiting list per week, for the first month, averaged fifty-six. No conveyance was found, nor was there any allowance made for hiring, so the visiting had to be done on foot. The extent of the district was a radius of three miles from the dispensary, which was situated as near as possible in the centre of the town, and the patients who required visiting lay scattered all over the district. Being a stranger to the place, I had the greatest difficulty in finding out the residence of each.

After one month's hard work, I was surprised by complaints of negligence being brought forward against me at a weekly meeting of the committee, none of which were true, neither did they originate from the patients. In consequence of them, however, I wrote a letter to the committee, denying the charges made against me by their "sick visitors", expressing my dissatisfaction with the manner in which the dispensary was managed, and complaining of the misconduct and gross carelessness of the dispenser. I also told them that the work was too much for one medical officer, and requested them to supply me with a qualified assistant, so that the duties could be performed with more satisfaction to the members and benefit to the Society.

The answer I received was, one month's notice that my services would not be required after August 12th. During my three months of office, I prescribed for over 3,000 at dispensary, visited upwards of 700, and attended 12 cases of midwifery. Shortly after I commenced, I had occasion to find fault with the dispenser for giving medicines to one of the patients which I had not prescribed, also for his irregularity in attendance; and, later on, I was obliged to complain of his negligence in dispensing; so I requested the committee to dismiss him, and supply me with a "duly qualified dispenser", according to our agreement. I also objected to his undertaking my duty at dispensary, and prescribing for patients during my absence, he being unqualified, and therefore in my opinion totally unfit to do so. However, the committee thought differently; and, on every occasion that I was absent, he was made by them to take my place, and prescribe for a roomful of patients, which I need not say gave great dissatisfaction to all who required advice.

He was a member of one of the lodges, and a "coal agent" by trade, in which capacity he was also employed by the committee. For this reason, they got his services as dispenser at a very low rate, and, that being a great consideration, they deemed it better to keep him, and dismiss me.

From the commencement, the treatment I met with from the committee was characteristic of the men who composed it, the secretary being the most officious and insulting of the lot. On the other hand, I experienced great kindness and consideration from the patients, and it was with feelings of regret on my part that my connection with them as medical officer terminated so soon.—I am, sir, yours truly, GEORGE H. ORMSBY, L.R.C.S.I., etc.

2, High Street, Wood Green, N., September 20th, 1881.

PERPLEXITY (Hemel Hempstead) must state his requirements a little more exactly, and in detail.

Atmospheric Disinfection.

SIR,—In this week's JOURNAL there was a short account of a small apparatus, very artistic in its design, for the purpose of diffusing one of the products of the distillation of coal in the atmosphere. We have long been acquainted with the fact that much benefit is derived from the diffusion of carbolic acid in the treatment of whooping-cough; and I believe this method of treating the malady has become very general. The principle, too, is very ancient; for if we may credit history in such a matter, the plague of Athens was arrested by Acron of Agrigentum, who lighted large fires in different parts of the city and burned various volatile substances by which the air was purified.

The object of this letter is to point out the difference between burning a substance and diffusing it in the atmosphere. For example, a strong solution of carbolic acid and water will burn with a smoky flame, but the carbolic acid will be consumed, and not diffused, so that practically there is no benefit whatever from igniting the disinfectant. The question naturally suggests itself, What is the best plan to adopt for obtaining the most perfect diffusion of a disinfectant, assuming that noxious germs may be destroyed in the atmosphere in this way? Carbolic acid has an advantage over the other products of coal-distillation in one important particular. If a solution of, say, one of acid to forty of water be evaporated at boiling-point, the vapour will not vary in its percentage of contained acid, but will continue of the same strength during the process of evaporation, and there will be no residue if pure acid be used. Some of the fragrant gum resins and turpentines may be treated in the same way, and their volatile constituents diffused in the air; but owing to the fact that they are volatilised unequally, and some at lower temperatures than boiling water, the same equal diffusion does not obtain.

In order to show the practical value of treating this subject scientifically, I may mention that directions for inhaling carbolic acid are sometimes given which would not be of the use intended, as, for example, when a patient is told to add thirty grains of carbolic acid to half a pint of hot water. The actual amount of carbolic acid inhaled or diffused into the air by this method would be infinitesimally small, for the amount of acid evolved would bear the same proportion to the amount of aqueous vapour as the thirty grains bear to the half-pint of water. These remarks, I hope, will indicate the principle on which atmospheric disinfection depends.—I am [illegible] ROBERT LEE.

[illegible], Savile Row, September 1st, 1881.

Gall-[illegible].

Sir,—I have [illegible] with much pleasure [illegible] communication [illegible] by Dr. [illegible] at the Ryde meeting [illegible] in the [illegible] September 13th. [illegible] to the treatment for the prevention of gall-stones interested me especially. For some years, I was in the habit of using in this complaint a method of treatment suggested to me by the late Dr. Warburton Begbie of Edinburgh, and from which I have seen benefit. The treatment consisted in administering a course of pills composed of the green iodide of mercury, manna, and soap. A useful point in diagnosis was, at the same time, told me by Dr. Begbie. He considered, when gall-stones were present, there was pain, jaundice, and vomiting; when only inspissated bile was passing, there was no vomiting, only pain and jaundice.

Since Professor Rutherford read the result of his valuable researches on the action of remedies on the liver, before the Edinburgh Medico-Chirurgical Society, it struck me that iridin, from its action on the liver, might prevent the formation of gall-stones. I accordingly tried it in the first case I met, and found the result most encouraging. Since then, I have used it in many cases, two or three of which I may mention. I give the iridin in pills consisting of iridin gr. i; pil. rhei co. gr. iv; one to be taken every night at bedtime, till twelve are taken. If necessary, some saline mineral water may be given in the morning. A course of these pills should be taken, say, once in two months.

About two years ago, a lady had a very severe attack of gall-stones; and, being treated on this method, has had no more attacks. Another lady, who frequently suffered from this complaint, and went to many medical men without obtaining relief, consulted me eighteen months ago. Iridin was ordered; and, last week, I received a letter from her husband, thanking me for my prescription, and informing me that, since I had prescribed for his wife, she had not had an attack of her formerly frequently-recurring and troublesome complaint. A legal gentleman, who was a martyr to this malady, which returned with great frequency, and caused much prostration by the severity of the attacks, on trying my treatment, recommended to him twelve months ago, has escaped during that time a return of the [illegible].

I have written [illegible] letter with the hope that other [illegible] a trial, and record their experience.—I am, yours, etc., P. A. YOUNG, M.D.

Portobello, Midlothian, September 21st, 1881.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. J. H. Palmer, Birmingham; Mr. T. Holmes, London; Mr. J. W. Wilson, Plymouth; Mr. A. Jackson, Sheffield; A Member, South Wales; Syphax; Dr. Richard Neale, London; Dr. Heywood Smith, London; Dr. J. A. Irwin, Manchester; Dr. C. Creighton, London; Mr. C. Gibson, Stafford; Dr. Joseph Groves, Carisbrooke; Mr. H. Lewis Jones, London; Mr. F. Churchward, South Norwood; Mr. C. de Figueirdo, Longsight, Manchester; Dr. J. C. Uhthoff, Brighton; Sir W. Mac Cormac, London; Dr. Broadbent, London; Dr. Alderson, Hammersmith; Dr. T. Sandiford, Castlemartyr; Mr. J. P. Postage, Cambridge; Dr. C. Hicks, London; Dr. Gillespie, London; Our Glasgow Correspondent; Mr. A. Graham, Weybridge; Dr. C. Glascott, Manchester; Mr. J. E. Ingpen, London; Mr. G. E. Wilson, London; Mr. W. H. Anderson, Newcastle-on-Tyne; Messrs. E. Chapman and Co., London; Mr. J. L. Nevin, Chesterfield; Dr. H. E. Armstrong, Newcastle-on-Tyne; Mr. Robert Barker, London; Dr. Gerald E. Barrow, Caterham Valley; Dr. W. Jeffrey, Glasgow; Rusticus; Mr. W. Berry, Wigan; Our Aberdeen Correspondent; Dr. C. B. Kelsey, New York; Mr. C. R. Illingworth, Clayton-le-Moors; One Interested in Asylum Matters; Dr. Clement Dukes, Rugby; Mr. T. Comfield, London; Our Dublin Correspondent; Mr. G. Eastes, London; Mr. Shirley Murphy, London; Battalion Surgeon; etc.

BOOKS, ETC., RECEIVED.

A Treatise on Chemistry. Vol. III; Part I. By H. E. Roscoe. London: Macmillan and Co. 1881.

Transactions of the American Gynecological Society for the Year 1880. Vol. V. Boston: Houghton and Co. 1881.

Medical Electricity, with Ninety-six Illustrations. By R. Bartholow, A.M., M.D. London: H. Kimpton. 1881.

Dramatic Singing. By Walter Hayle Walshe, M.D. London: Kegan Paul and Co. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

AN INAUGURAL ADDRESS
ON
PATHOLOGY, PAST AND PRESENT.

Delivered in the Course of General Pathology in the University of Edinburgh.

By W. S. GREENFIELD, M.D., F.R.C.P.,
Professor of General Pathology, University of Edinburgh.

GENTLEMEN,—Coming before you to-day for the first time as the formal occupant of the Chair of Pathology in this University, it is fitting that I should, in accordance with precedent, address to you some statement of the past history of the chair, and of the present relations of my subject to the study of medicine.

Just fifty years ago, the first separate course of general pathology in this University was commenced. Previously, indeed, it had formed a part of the course of the Institutes of Medicine, in its three branches of Physiology, Pathology, and Therapeutics, just as there was but one chair of Anatomy and Surgery. The growing importance and extended knowledge of physiology would soon have rendered such a separation inevitable, had not the prerogative of the Crown somewhat rudely and forcibly intervened, and, without consultation with any of the medical faculty, or, indeed, with anyone, appointed Dr. John Thomson professor of general pathology, and made attendance upon his lectures imperative upon all candidates for graduation.* No wonder that the medical faculty viewed such a course with disfavour, and that such eminent pathologists as Alison, Syme, and Christison were strongly opposed to the foundation of the chair in such a manner. It is not worth while to follow the course of the disputes and difficulties which ensued, or to revive long-buried controversies. The founders of the chair have at least the credit of foresight in seeing what must in a few years have come to pass, and profiting by it; and Professor Thomson was, as his *Lectures on Inflammation* (published in 1813) show, no mean pathologist in his earlier days. During his tenure of the professorship, pathology did not suffer in the school; but it was by the labours of his colleagues, rather than his own, that it was enriched. On his death in 1841, he was succeeded by Dr. Henderson, who retained the chair till 1869. I know not what influence may have been exerted by it during his long tenure of office, but it cannot have been marked in the hands of one who, whatever his genius and accomplishments, presented the strange spectacle of professing a subject whose methods are practical, and whose principles are the basis of scientific medicine, whilst he practised a system of therapeutics† grounded on the wildest theories, and uncontrolled by scientific observation. Thus, for thirty-eight years after its foundation, the chair, instead of advancing on the lines of observation and research which should have made it a distinguished aid to science, remained practically useless for that purpose.

It would ill become me to attempt any worthy record of my distinguished predecessor, Dr. Sanders. What he was as a man, as a physician, and as a pathologist, is better known to you. His character and life-work are fresh in the memories of all; and we this day mourn his loss. This only will I say with regard to what he did for this chair: recognising the great importance of pathology as a branch of practical medical education, convinced that to be of real value it must be grounded on observation rather than on theory, and that morbid anatomy in its fullest development must be one of its main supports, he set himself to work to build up, step by step, a full and thorough teaching of pathology in all its branches. And he thus accomplished, not merely a complete course of systematic teaching, but he so organised and arranged the means and appliances for practical study as to be prepared for any future developments of the science. What he has done in this respect will yet, I trust, bear fruit for many future years, though he did not live to see and enjoy its full fruition. Let us remember that it is to him we owe the establishment of laboratories for the practical study and teaching of pathological anatomy, histology, and chemistry; and that whatever future researches may be carried out in the new laboratories will be in a measure due to his influence.

But it is time that I should define to you the scope of the subject taught from this chair.

Pathology has been defined as the science of disease, as distinguished from physiology, the science of health, bearing a similar relation to the morbid structure and functions of the body to that which physiology does to its healthy condition. The name *General Pathology*, as given to this chair, was, I believe, intended to distinguish the subject from that special pathology which is to be learnt in the study of surgery and medicine, and to include all those general facts and laws relating to disease which can be advantageously studied apart from the special diseases of which they form an element.

So long as disease was regarded as a sort of morbid entity, as the working of a spirit or evil humour which entered into the body and settled down upon and deranged the action of various organs, so long only could pathology be studied apart from morbid anatomy. We have gradually come to see that the derangement of functions which we call disease is inseparably connected with an altered physical or chemical condition, which in many cases becomes obvious as a structural change; and that, if we would understand the nature and course of disease, we must investigate the conditions of structure which underlie the outward phenomena.

It is in this way that morbid anatomy, in its widest sense, has come to be inseparably linked with general pathology.

Pathology, then, includes in its scope—

Morbid or Pathological Anatomy, that is, the study of all the altered conditions of diseased organs, in their characters physical and chemical, and their relations to one another, whether revealed by the naked eye, the microscope, or in other ways. It investigates, too, the conditions of their occurrence, and seeks to elucidate the mode in which the visible changes have been brought about.

Grouping together those changes which are alike in the several organs or tissues, and eliminating that which is peculiar to the individual organs, it establishes certain groups or orders of morbid changes which form the subject of *General Morbid Anatomy*.

But it goes yet further; and, by investigating the mode in which the altered constitution of the organ affects its function, and gives rise to symptoms, it forms a great part of the basis of the subjects of *Pathogenesis* and *Pathological Physiology*.

But pathology, as including the science of disease, is not content with registering its effects; it traces them back to their origin, and, under *General Ætiology*, it endeavours to study the general causes of disease, whether external to the body or within it, and to investigate their mode of action.

And, lastly, finding that there are processes of deranged action, morbid modes of motion, so to speak, which, grouped in various ways, enter into a multitude of diverse diseases, but which have fixed laws which govern their course, we group these together for study under the heading of what is strictly defined as *General Pathology*.

I have emphasised this connection between general pathology and morbid anatomy, or, to put it in a wider form, between disease and its physical basis, because in the history of medicine we find that, in proportion as this connection has been recognised, has been the advance in its exact knowledge. Yet we must ever bear in mind that the study of the forms and reactions of dead matter can only guide us to a certain point; that it is living matter with which we have to do; and that it is by the exact study of the phenomena of life that we must bridge over the chasm between dead morbid anatomy and living pathology. If we start with the study of phenomena without the guide afforded by the knowledge of their physical conditions, we shall never reach solid ground, but wander in the quagmires of speculation; whilst, if we omit to recognise the properties of life, we shall equally fail. It is thus that physiology, biology, and experimental pathology, together with clinical medicine, are the inseparable adjuncts of morbid anatomy in working out scientific pathology. It is thus that the study of living matter in all its forms, and of the influences which act upon it, is of vital importance to the pathologist.

I would now ask you to look back at the history of morbid anatomy, in order to realise how it has grown and acquired its present position as the groundwork of pathology. For, until morbid anatomy had successfully asserted this position, pathology had no scientific existence, and the theories and doctrines evolved by a combined observation of symptoms and a rise of the imagination have passed into the region of historical curiosities.

Morbid anatomy was studied at a very early period of the history of medicine. Hippocrates (400 B.C.) is usually spoken of as the earliest to pay attention to it, but there can be little doubt that in India, long before Hippocrates, there was some knowledge and use of it. Erasi-

* The Chair of General Pathology in the University of Paris was founded by Louis Philippe in 1832, in a somewhat similar way, after the Revolution, and Broussais was appointed first professor.

† Dr. Henderson became a homœopathist.

stratus and Herophilus are said of Pliny to have studied it. Aretæus* seems far to have excelled his predecessors in his acquaintance with it. But Celsus, who probably lived in the time of Tiberius, and whose work, *De Re Medica*, is still in use as a subject of examination by some medical bodies, appears to have attached no importance to it as a part of the study of disease. Galen,† in the second century, studied morbid anatomy both practically and historically, and recognised more fully than his predecessors how often structural change was associated with functional derangement.

But, just as the Mohammedan conquest of India was to destroy Indian medicine, so did the overthrow of the Roman Empire arrest all progress in science in Europe; and medical science, during the Middle Ages, became obscured, and lost, instead of gaining, knowledge. The history of morbid anatomy is practically a blank until the seventeenth century, although here and there isolated observations were recorded of anatomists and surgeons. With the revival of science came the revival of medicine.

Nearly 1,500 years elapsed before the next work of value on morbid anatomy, when the *Sepulchretum*‡ of Bonetus appeared, a work in which some systematic attempt was made to connect the appearances in the dead body with disease in the living.

Eighty years later, the first great systematic work on morbid anatomy, that of Morgagni,§ was published. Morgagni was a pupil of the illustrious Valsalva at Bologna, and was professor of anatomy at Padua from 1715 to 1771. In his work he brings together an enormous amount of accurate observation upon morbid anatomy, both from his own personal work and from other sources, and attempts to show how the changes found were related to the production of symptoms.

Morgagni, therefore, took the first step towards the establishment of a scientific pathology by attempting to localise disease. But it needed the discoveries of structure and function to complete the connection between morbid anatomy and pathology.

The next work of importance‖ was that of Matthew Baillie,¶ who in 1799 began to publish the first illustrated work on morbid anatomy. But it was to John Hunter that Baillie was indebted both for inspiration and for the material from which most of his drawings were made; and it is, I believe, to the influence of John Hunter, renowned alike as anatomist, physiologist, and pathologist, that we may in a great measure trace the revival of pathology which followed.

With the beginning of the present century began the real and thorough study of morbid anatomy. It seems strange that so simple and obvious a method of studying disease should have been little practised for so many hundred years, and that, within the lifetime of some here to-day, it has grown to its present vast proportions.

We owe to great anatomists, who in most cases were also surgeons, the commencement of this movement of revival. They had most to do with the dissection of dead bodies, and the deeper and more attentive study of anatomy was a guide to altered as well as to healthy structure. The systematic application of these studies to medicine was yet to come, and it was in France that the first great movements took place.** The names of Bichat, Laennec, Andral, and Cruveilhier, are pre-eminent amongst the many active writers. Of Bichat I shall have to speak later. Laennec,* during his earlier years, devoted himself ardently to pathological research, but his labours, after his discovery of mediate auscultation, were mainly directed to that subject, although his influence greatly assisted in the work.

In the earlier years of this century, the French medical world was under the domination of the ideas of Broussais, who, in 1816,† promulgated his doctrine of so-called "physiological medicine", in which the stomach became the centre and source of all diseases, and varying degrees of inflammation of the stomach and intestines the starting-point of all pathological changes. Against such theories, the school of pathological anatomy of Bayle and Laennec, Cruveilhier and Andral, asserted itself, and gradually made good the cause of the "medium of observation", grounded on chemical study joined to morbid anatomy.

Cruveilhier, the great anatomist, supported the cause by his extensive observations,‡ subsequently embodied in his great work on morbid anatomy. But to Andral§ must be given the credit of fighting, step by step, the detail of the battle against the almost overwhelming opposition of Broussais and his followers, who included a great part of the medical world. In 1823, he published the first volume of his *Clinique Médicale*, in which were arranged, in opposition to Broussais, a great series of clinical and *post mortem* observations, which demonstrated the falsity of the speculations of Broussais. It was the first great move in the conflict of scientific pathology founded on observation against mere speculation, which ended in the complete overthrow of Broussais's system; so that, when Andral succeeded Broussais in the chair of General Pathology in 1839, Broussais's system had already become extinct. That Andral was a diligent morbid anatomist, as well as a brilliant physician and pathologist, is shown by a fact which we casually mention—that he had examined the thoracic duct and principal lymphatic vessels in more than six hundred subjects.‖ It was Andral's especial merit that he was not content merely to record morbid appearances, but in every case sought to trace their causes,¶ and to discover how they were related to each other, their order of causation and succession, and the part they played in the production of disease. From this time morbid anatomy has become not merely an observing and recording, but an interpreting science.

Nor must I omit the names of Louis, Bouillaud, Gendrin, Regnaud, and Chomel, who in more special ways advanced pathological anatomy and clinical medicine together.

In England, during the same period, partly from the same causes and partly through the direct influence of the French school, great attention was being paid to morbid anatomy, especially in relation to diseases of particular organs; and the results were becoming apparent about the time when this chair was founded.

In London, three men, all of whom were students and graduates of this University—Hope, Carswell, and Bright—were especially pre-eminent in this direction. Hope, who had studied under Laennec and Andral, was, I believe, one of the first to introduce and teach the method of auscultation in this country. To him we owe the first correct explanation of the mode of production and localisation of cardiac murmurs;** and his first work in this direction was done when

* Aretæus of Cappadocia, who lived in the time of Vespasian, goes even so far as to mention the production of hemiplegia of one side by disease of the opposite cerebral hemisphere, and of paralysis of the same side in disease of the spinal cord. He described, too, intestinal ulcers, and speaks of jaundice as caused by obstruction of the bile-ducts by scirrhus, or by inflammation.

† Galen (130-200 A.D.) left on record a large amount of pathological lore, but how much originated with himself is doubtful. It is to him that we owe the introduction of pathological experiments upon living animals.

‡ Theophile Bonet's *Sepulchretum* was published in 1679. There is an attempt to trace diseases to their anatomical seats, but much that is fabulous, and too little personal observation.

§ J. B. Morgagni, born in 1682, studied under Valsalva at Bologna, became Professor of Anatomy in Padua University in 1715, and held that post till his death in 1771. He was a great friend of Santorini. His great work, *De Causis et Sedibus Morborum per Anatomen Indagatis*, was arranged mainly on the basis of symptoms and orders of symptoms, cases being taken in which like symptoms were observed, and the symptoms discussed in the light of *post mortem* examination. This method was the only one possible in his day, when the seats of various functions had been but very imperfectly determined; and it was in accordance with the semeiological system of medicine of his day. It was a first step to the localisation of disease to localise the cause of the most prominent symptoms. The aphorisms of Hippocrates had still a remarkably strong hold even upon so independent an observer as Morgagni, and he hardly ventured to question them in the face of the strongest evidence.

‖ Those of Lieutaud in 1767, and Ludwig in 1785, may also be mentioned.

¶ *On the Morbid Anatomy of the Most Important Parts of the Human Body*, illustrated by engravings, London, 1799. Nearly half of the drawings are from "specimens in Mr. Hunter's collection", and many others "from Mr. Heaviside's collection", which was given thirty years later to the Hunterian Museum. We must remember that John Hunter's museum was practically the first museum containing specimens of pathological anatomy. Other museums were founded at Amsterdam in 1789, at Leyden in 1793, Berlin in 1796; and later, those of Vienna, Florence, and Paris did much to aid in fixing observations.

** Text-books of Pathological Anatomy began to appear towards the early part of the century—that of Conradi in 1796, Voigtel in 1824, Meckel in 1811, Otto in 1814, all of German origin.

* Laennec was born in 1781, came to Paris in 1800, and studied under Corvisart and Bichat. His work on pathological anatomy was mainly done between 1804 and 1812. For three years, he lectured on morbid anatomy as successor to Bichat. In 1815, he discovered mediate auscultation, and his subsequent labours, till his death from phthisis in 1826, were almost entirely on this subject.

† *Examen de la Doctrine Médicale généralement adoptée.*

‡ Cruveilhier published his first paper on pathological anatomy in 1816 (*Essai sur l'Anatomie Pathologique*). In 1825, he was appointed Professor of Anatomy in the University of Paris, and, in 1829, commenced the publication of his great illustrated work on pathological anatomy (*Anatomie Pathologique du Corps Humain*, vol. 1). In 1835, he was transferred to the chair of Pathological Anatomy.

§ Andral lectured on pathological anatomy in Paris before 1825, in the Extramural School (*Enseignement libre*). In 1826, he was appointed Professor of Hygiene in the University of Paris, and, in 1830, transferred to the chair of Internal Pathology. His *Précis d'Anatomie Pathologique*, the complement of his *Clinique Médicale*, was published in 1829. He died in 1876, at the age of seventy-nine. He was the pupil of Laennec and Lerminier. To the latter he owed his opportunities for acquiring material for his *Clinique Médicale*.

‖ *Précis d'Anatomie Pathologique.*

¶ How far Andral was in advance even of some of the distinguished pathologists of his day may be judged from these words of Bayle: "The end of morbid anatomy is to bring new light to nosology; its utility is limited to supplying a new means of comparing those organic diseases which are of the same nature, and distinguishing those which, in spite of similarity of symptoms, are of entirely different nature, and belong to another order of disease." And he adds: "One would have a very false idea of pathological anatomy if one imagined that it could throw any light upon the essence of organic diseases, on their immediate cause, or on the mechanism of their production. Pathological anatomy only gives us the knowledge of organic lesions."

** The fully detailed evidence, confirmed by numerous experiments on animals, was published in his work on *Diseases of the Heart*, in 1832, when he was physician to St. George's Hospital.

he was resident physician and surgeon in the Royal Infirmary of Edinburgh in 1824 and 1825. In 1833, he published a valuable *Atlas of Morbid Anatomy.** But his work was eclipsed by that of Robert Carswell, which appeared in 1838. Carswell's immense industry and artistic ability enabled him to produce a very large number of admirable drawings in addition to those published in his work on pathological anatomy, many of which, purchased and presented to this University by his friend Professor Thomson, we have still in daily use for purposes of illustration.†

But of the three men who, at the time of the foundation of this chair, were conferring the greatest services on morbid anatomy and medicine, Richard Bright must take by far the highest rank. He was then lecturer on the Practice of Medicine at Guy's Hospital, and had just completed the publication of those *Reports of Medical Cases* (1827 to 1831) by which his name will be handed down to all succeeding generations; for they contain in the foremost place those observations on kidney-disease with which his name is indissolubly connected; and they show that the same method by which he arrived at his great discovery—acute and careful chemical observation, combined with exactly recorded and delineated *post mortem* examination, and the whole informed by careful inductive reasoning—was applied to every part of his work. In the same work are contained an accurate description of a series of cases of enteric fever, and drawings and descriptions of the condition of the intestines, which have not, I think, been since surpassed. Indeed, he may be said to have worked out the clinical history and pathology of the disease as far as was then possible.

We have thus reached the period of the foundation of this chair, and it is interesting to consider who were then the active leaders in pathological advance. The period was one of the epochs of great activity and of rapid strides in the advance of science. It was in the same year that the British Association for the Advancement of Science was founded, and amongst its earliest members were many of the leaders in medical science of the day. And it was a period of great pathological revival and creation, whether we regard the men who were foremost in the medical world, the discoveries which were made, the works which were published, or the increased foundation of chairs for teaching the subject. In France, Cruveilhier and Andral at Paris, and Lobstein at Strasburg, were the recognised leaders. Louis, who had published his great work on *Phthisis* in 1825, his *Anatomo-Pathological Researches* in 1826, and that on *Gastro-Enteritis* in 1829, was living and active; and Rayer, known by his work on *Diseases of the Skin* (1827), was preparing for his more important work on *Renal Disease*, published in 1839,

In Germany, there was less obvious activity; but Glüge and Fick were doubtless working at those micro-pathological problems which were brought out in 1838; Rokitansky was amassing those stores of knowledge which, ten years later (1841-1846), he gave to the world; and Johannes Müller was making those researches on the structure of tumours which were to supplement his physiological studies.

In London, too, besides the men I have named, there were others who greatly contributed to the advance of pathology. Addison had just published his first work;‡ and Hodgkin, who had begun to lecture on morbid anatomy in 1827 (published in 1836-41), had just completed a catalogue of the Museum of Guy's Hospital (1830).

In Edinburgh, there were great men and great pathologists. Alison published the outlines of his lectures on physiology and pathology in 1831, and the pathology separately in 1833. Christison, who had for nine years been a professor in the University, and was already distinguished both in toxicology and pathology, had published his great work on *Poisons* (1829) two years before, and in the same year his first paper on *Dropsy in Relation to Diseased Kidney*, a subject in which he afterwards did much valuable work.§ Abercrombie, Monro, and Gregory were still in active practice.

I have thus briefly traced the outward history of morbid anatomy to the time of the foundation of this chair, when it had successfully asserted its position as an essential basis of pathology. Everywhere attention was being devoted to it, and no case was considered complete in which the morbid appearances were not noted. But naked-eye morbid anatomy had its limits as an interpreter. The functions even of some important organs were but little understood, and the way in which visible changes were brought about, or how they were related to disease, could not, owing to imperfect means of research, be fully appreciated. We are apt to smile at the notion entertained by Laennec, that the yellow masses in cirrhosis of the liver, from which he gave it its present name, were a morbid deposit, and the belief that the morbid "granules" described by Bright in diseased kidneys were some material whose nature could be solved by chemical analysis. But it was only by the use of the microscope, and the discoveries of physiology on the structure and functions of organs, that more enlightened views became possible. This was to be the next step in advance.

The dawn of the new era may be traced to the beginning of the present century, and may be said to have begun with new ideas of structural anatomy preceding the fuller knowledge of function. For, until the primary analysis of the structure of the body had been made, until the minuter elements had been grouped into classes, and their individual functions and powers determined, it was impossible to reduce to any general expression the derangements to which they were subject. The first step to this was the rearrangement and classification of the tissues, due partly to Haller, but mainly to the genius of Bichat, who must be regarded as the founder of general morbid anatomy as well as of general anatomy. He not only classified the tissues and organic systems, but he entered into their pathology, and asserted that "each tissue has its own diseases". Apart from his own work in this direction, he rendered possible the subsequent advances in the study of diseases of systems and tissues, in which Laennec and Gendrin were the pioneers.

The general application of the microscope to vegetable and animal histology was the means of the next great advance. It is true that, so early as the middle of the seventeenth century, the microscope had been employed in histological and pathological research, by Hooke, Leuwenhoeck, and Malpighi (1686), and that early in the present century many discoveries had been made in normal histology; but it is none the less true that, until after 1830, it had not been possible to apply it systematically to pathological histology. Nor was it till 1841 that the work of Schleiden on *Vegetable Histology*, and later of Schwann on the *Comparison of the Cellular Structure of Vegetables and Animals*, laid the foundation of our modern histology. Johannes Müller was the first to systematise pathological histology as applied to tumours, and was followed by Henle, Glüge, and Vogel. Nor must we omit the names of Kölliker, Bowman, Goodsir, and Sharpey, who did much good work in normal histology.

It is unquestionably to Virchow that we owe the great advance by which histology came to take a first rank as an aid to pathology; and from the date of his great work on *Cellular Pathology* (1858), we may reckon the era of modern pathology. His work, dedicated to Professor Goodsir "as one of the earliest and most acute observers of cell-life, both physiological and pathological", put a new life into pathology. Starting from the discoveries of Schleiden and Schwann on the cellular structure of vegetable and animal tissues, he showed how in the cell is the vital unit of all organised structures, how intimately its changes are associated with all the processes of organic life, both in health and in disease, with the development and maintenance of the tissues, and in all their functional reactions, whether normal or abnormal. He showed, moreover, how cell-changes are concerned in all morbid growths, and in a vast number of diseases, and how in cell-systems and cell-territories disease processes may often be localised. It would be impossible for me to do justice to the many side lights which he threw upon diseases. I do not think that all Virchow's most absolute dicta can be accepted at the present day, or that we can reduce all pathology to the simplicity of cell-reaction. But apart from this, and its great value as a study in histology and physiology, Virchow's work did incalculable service to pathology in sweeping away old fallacies, in compelling attention to the most minute changes which lie at the root of disease, and in showing how in these minute changes are to be sought both the evidence and the explanation of functional disorder. Nor must we overlook the great value of his cellular pathology as a system, taking the place to a large extent of the humoral, solidistic, and other pathological systems which had preceded him.

Had we lived in the days of Brown and Broussais, we should have better appreciated the revolution which Virchow's doctrines effected, and what solid ground was substituted for previous speculation. What the

---

* Hope grouped together the diseases of each organ in his illustration, but in the text followed Andral's classification of the numerous morbid changes into lesions of (1) circulation, (2) nutrition, (3) secretion, (4) the blood, and (5) innervation. Hope's great ability and faithfulness as an artist, and his mastery of clinical medicine, as shown in his work on *Diseases of the Heart*, makes his Atlas of especial value. I ought also to mention in this connection Richard Hooper, who for nearly thirty years was engaged in collecting materials for an Atlas of morbid anatomy, to illustrate the diseases of all the principal internal organs. Only two parts of his work, those on the uterus and on the brain, in 1831, ever saw the light, but I have had the good fortune to obtain possession of more than two hundred water-colour drawings, made for this purpose, dating from 1797 to 1834, many of which were made by such men as Howship, Hope, and others equally capable.

† Carswell's published work cannot be said to have done justice to his powers, and the arrangement which he adopted for illustrating the various processes of inflammation, analogous tissues, atrophy, hypertrophy, and so on, by examples of each in various organs, though valuable at the time, has produced much confusion, for he was often in error as to the nature of the process.

‡ On the *Disorders of Females connected with Uterine Irritation*, 1830.

§ On *Granular Degeneration of the Kidneys*, Edinburgh, 1839.

atomic theory has been to chemistry, and the wave theory to physics, that the cell theory has been to pathology.

And I would especially notice that it is not in any mere knowledge of cellular structure and arrangement, or in the relations of cells to development, that the value of Virchow's system consists. Nothing could have been farther from the central idea of his teaching than the mere mechanical application of cellular structure to the elucidation of the phenomena of life and of disease. It is the living cell, endowed with vitality and with function, governed by laws of existence capable of self-multiplication and propagation, and arranged in organic systems, which he studies. It is the cell as the living active agent in the production of disease, or the arrest of perversion of its action by disease-producing causes, which has the highest place in his thoughts. It is by this work that the study of histology is connected with pathology, and that in turn this is joined to evolution and development—the work by which all other biological studies come to have an intimate bearing on pathology. However far we may transcend cellular pathology, we cannot neglect it in any future study.

We have thus reached a point at which the era of modern pathology may be said to begin. In the first thirty years of the century we have the awakening, the new impulse to the study of morbid anatomy both in its relations to normal anatomy and to clinical medicine, and side by side with this, though as yet separate, the renewed study of general anatomy. In the next thirty years we have the more general application of morbid anatomy to clinical medicine as an expounder of the phenomena of disease, and at the same time the fuller knowledge of structure and function of the several organs, and the working out of detached normal and pathological histology rendered possible by the improvement of the microscope. We may reckon the end of the thirty years, 1860, when Virchow's work had had time to be known, as the culminating point of this period, and the entrance of our present epoch.

During the twenty years which have passed since Virchow's great work, pathology has made immense progress. Morbid anatomy has discovered lesions and diseases before unknown, and has connected them with the symptoms and functional derangements with which they are associated. New processes of disease have been discovered, and old ones explained. Such discoveries as those of Virchow in embolism, and of Cohnheim in inflammation, and the work done on the subject of microscopic parasites, have revolutionised whole fields of pathology. Our knowledge of minute structural changes has become encyclopædic. Look which way we will, the array of facts and discoveries seems almost overwhelming, and every day new ones are added to the store.

But, gentlemen, this is not the time for me to speak to you in detail of modern pathology. These it will be my duty to unfold to you in due course. I would rather try to impress upon you the spirit in which the subject of pathology is to be approached, and how it stands related to your past and future studies.

[*To be concluded.*]

RECTAL EXPLORATION AND DIAGNOSIS.—Dr. Charles B. Kelsey, of New York, (*New York Medical Journal and Obstetrical Review* for October 1881), after referring to many errors which arise in this department of surgery from the lack of care and proper examination, goes on to answer the question of how to make a rectal examination which shall be at the same time thorough and as free from pain as possible. In his own practice he uses an artificial light of his own arrangement and a forehead mirror, which enable him at all times to illuminate the rectum thoroughly, while by the side of the examining table stands an instrument-case fitted with all necessary appliances. In addition to these things, he insists strongly on the necessity of having a water-closet communicating with the office, so that injections may be administered and the bowels moved at the time of the examination. In the matter of specula, he confines himself almost exclusively to Sims's, finding this the best of all after the sphincter has been stretched, and not finding any that give a fair view of the parts until this has been done. He relies, however, much more upon the finger for a diagnosis than upon any artificial helps, and claims that with it, after the necessary skill has been acquired, the slightest pathological changes may be detected. In the matter of bougies he also has his own preference, and recommends a soft-rubber instrument, similar to that of Wales, only more flexible. For detecting strictures high up in the rectum or in the sigmoid flexure little confidence is to be placed in a bougie of any sort, and the writer relies almost entirely upon manual examination, either through the abdominal wall or by passing the hand into the rectal pouch. The latter method he holds to be free from danger, and certain in its conclusions.

ABSTRACT OF A CLINICAL LECTURE

ON

RESECTION OF THE TARSAL ARCH FOR THE PERMANENT RELIEF OF INTRACTABLE CLUB-FOOT.

BY RICHARD DAVY, M.B., F.R.C.S.,

Surgeon-in-Charge of the Orthopædic Department, Westminster Hospital.

GENTLEMEN,—During the last few weeks, you have seen me operate on four cases of intractable club-foot, by the method which I have worked out in the wards of this hospital; and each case has an interest, not only in showing progress in operative detail, but also in adding confirmation to the beneficent results gained by the patients. In my own experience of hospital applicants for relief (notably amongst out-patients), no class of cases can better illustrate "love's labour lost" than those of club-foot. The careful surgeon exhausts his skill and patience by oft-repeated manipulations; effects a temporary improvement; then loses sight of the case, until it reappears as a relapsed deformity; the last state of the patient being worse than the first.

CASE I. *Talipes Varus: Double Congenital.*—R. H., aged 4, Belvidere, Kent, was admitted into Percy Ward on June 6th, 1881. When eighteen months old, he was taken by his mother to the Evelina Hospital, and there subjected to severe operation (apparently on the bones at the outer side of both feet). After some months' treatment, but little improvement ensued. Since then, tenotomy and bandages had been ineffectually employed, and the deformity had symmetrically increased. He was sent to the Westminster Hospital by Dr. Howard Cave, to be placed under my care for operation.

On admission, a large cicatrix was seen on the outer side of each foot, not far from the outer malleolus. The varus form was present in each foot (especially the left), and both soles faced each other towards the median line; and very broad, flat soles they were. The boy was spirited, and in fairly good health.

June 7th, 1881. Under the influence of chloroform, a wedge-shaped piece of the left tarsal arch was cut out by the chisel and knife, including the cuboid, fifth metatarsal, and part of the scaphoid bones; the foot was placed in position by eversion and rotation, and maintained so by a gum and chalk bandage on my talipes splint.

June 14th. Two silver sutures were removed; a firm blood-clot existed over the wound on the outer side of the foot; the child's foot was essentially in a plantigrade position.

July 4th. The child sat up to-day; the wound had healed; and in every respect he had made a good recovery, with a somewhat shortened foot.

July 22nd. He left the hospital; and his mother wished his right foot to be also operated on in the fall of the year.

CASE II. *Talipes Equino-Varus: Paralytic.*—G. H., aged 10, Alresford, Hants, was admitted into Mark Ward on June 10th, 1881. This boy was originally seen by me in Devon, and his parents were anxious that an attempt should be made for the permanent relief of his deformity, as he had submitted to various operations and worn instruments all his lifetime. His mother states that, a few hours after birth, he had a severe fit, which left his right arm and leg weak. His lameness was more noticeable at five years old, after a fall from a hay-loft. Presentation was natural.

On admission, the boy was pale, but well nourished. There was slight paralysis on the whole of the right side; and some hesitation in his speech, scarcely amounting to a stammer. He could pick up a pin from the table with his right hand with difficulty; and the temperature of the right side was two and a half degrees below that of the left. The cast shows well the deformity of the foot. The boy hobbled on the outer edge of his little toe, with the aid of a steel instrument and a stick. His sensation was equally good on both sides.

June 14th, 1881. I removed from the outer side, with a small counter-opening on the inner, a wedge of the right tarsal arch, and of such a mechanical shape as to permit reduction of the equino-varus deformity: *i.e.*, the thickest portions of bone were chiselled off from the dorsum and outer surfaces, the thinnest ends being at the inner and plantar aspects; this wedge embraced portions of the os calcis, the head of the astragalus (dislocated forwards), the greater part of the cuboid, and the whole of the scaphoid bones. The foot was set

up on the usual splint, with a gum and chalk bandage. Very little oozing of blood followed; but much pain was complained of for twelve hours after the operation.

June 22d. The boy's foot was in excellent position; the sole resting on the splint, and blocked immovably by an adjusted piece of felt-sheeting.

July 9th. The boy was convalescent.

August 15th. All mechanical appliances were removed, and some thickened tissue was encouraged to diminish on the outer side of his foot, by laying the foot gently on its outer side. The foot was essentially in a flat position, but there still existed about a quarter of an inch of elevation of the heel, due to rigidity of the tendo Achillis. I did not deem it advisable to divide the tendon, because the case was due to a paralytic cause.

August 23rd. He is now practising and learning to walk on his newly adjusted balance.

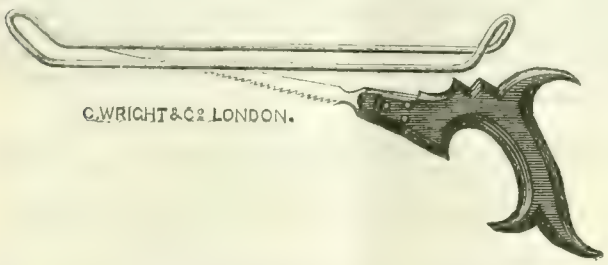
CASE III. *Talipes Equinus, Left Foot.*—J. B., aged 10, was admitted into Mark Ward, on June 22nd, 1881.

I met with this boy in St. James's Park, on June 20th, 1881; my attention was drawn to his crutch, and his progression on the dorsum of his left foot. The boy gave me his correct address; and his mother readily sanctioned her son's admission into Westminster Hospital.

At three years and a half old, his mother noticed that the child walked lame; but there was no history of a fit; if any happened, it must have been nocturnal. At four years old, he had measles in the Highgate Convalescent Home, and lost the sight of his left eye. His left foot had steadily become worse; there was wasting of the leg, and gradual shortening. He had been treated twice in the Great Ormond Street Hospital, twice in the Westminster, and twice in the Victoria Hospital for Children. He had been freely tenotomised, and galvanised.

On admission, it was seen to be an extreme case of left talipes equinus; the boy hobbled on a crutch, and supported partially his weight on the dorsum of the foot, over the summits of the metatarsal bones. The phalanges were all rigidly flexed. There were three large indurated corns, and general thickening over the dorsum of the foot. The leg and foot were wasted, and there was shortening of the left leg to the extent of one inch. He had some old rubeolous scars over his trunk, arms, and legs. There was opacity of the lower segment of the left cornea; the sight of the left eye was lost, but the globe was of natural size.

On June 25th, I resected this boy's transverse tarsal arch, by means of the saw and director here shown.



I dissected out a wedge-shaped piece of skin from the inner and outer sides of his left foot. With a blunt periosteal curved knife, I freed the tendons, artery, vein, and nerves, so that the director could be freely passed between the bones of the tarsus and the important soft structures over the dorsum. The director was then held by Mr. Butler as a retractor; the probe-ended saw was slid along the groove on the under aspect of the director; and an accurate wedge of bone was sliced out and readily removed by a pair of bone-forceps. The wedge included slices of the astragalus, os calcis, scaphoid, and cuboid bones. The base of the wedge was, of course, at the dorsum; apex toward the sole. Natural contour was gained, and the foot was put up in a splint, and gum-and-chalk bandage applied over it. No dressings were used, but a daily wash of carbolised water.

August 11th. The boy's convalescence had been absolutely perfect; his foot and toes were at right angles to his leg. He left his bed today, and was measured for a pair of ordinary boots; the sole of the left boot to be one inch higher than that of the right. A small granulating wound existed over the outer side of the foot.

August 23rd. He put on his new pair of boots, and walked up and down the ward, assisted by holding one hand of the nurse. It was the first time that he had walked on the sole of his left foot for six years. This case was exhibited to the surgical visitors at the International Medical Congress, and all were much struck at the result.

CASE IV. *Right Talipes Equino-Varus.* S. W., aged 11, was admitted into Mark Ward on July 28th, 1881. During dentition, at fifteen months old, he was very ill, and had a fit during the night; and subsequent paralysis of his right leg resulted, so far as his hip. There was no family disposition to deformity. He had measles in infancy. There was no disparity in the length of his legs.

On admission, the boy presented a well-marked case of talipes equino-varus of the right foot; the muscular development of the right leg was retarded. The tendo Achillis was very tense; the os astragali and scaphoid were dislocated forwards and outwards. He walked with difficulty and pain on his external malleolus, os calcis, cuboid, and outer metatarsal bones. There was a huge bursa over the right cuboid surface.

On August 4th, in the presence of many visitors to the International Medical Congress, I excised a wedge-shaped piece of bone, as in the previous case. The foot was placed in natural position, and fixed with a gum-and-chalk bandage.

August 6th. His foot had slipped out of place during his sleep, by undue strain of the tendo Achillis; therefore, on readjusting the splint, I divided the tendon from a posterior point.

August 24th. The boy is going on in all respects well, and remains still under treatment.

October 21st, 1881. I saw all three of the boys (Cases ii, iii, and iv) this day, walking freely, without the aid of any mechanism, excepting that of a cork sole to each shortened leg.

I cannot but acknowledge, with much gratitude, the earnest care and attention that has been paid to these boys by the resident surgeon, dressers, and nurses of the hospital. Were not our hospital in good sanitary order, and scrupulous cleanliness enforced, it would be impossible to carry out the complete absence of all dressings to the wound. I wish forcibly to insist that the pain caused by dressings is injurious; that the mental apprehensions of children are not to be ignored; and the further that a surgeon prevents mental or bodily suffering, the nearer does he approach the *beau idéal* of perfect surgery.

HYDROPERITONEUM, TRACED TO CHRONIC OVARITIS: OÖPHORECTOMY: RECOVERY.

By ALBAN DORAN, F.R.C.S.,

Surgeon to Out-Patients, Samaritan Free Hospital.

E. M., AGED 23, single, was admitted into the Samaritan Free Hospital in November 1879, under the care of Dr. G. G. Bantock. Nine weeks previous to admission, her abdomen began to enlarge, with slight œdema of the lower extremities; in the course of a month, the abdominal distension had increased so as to cause dyspnœa. Mr. Case of Fareham, finding that the enlargement was evidently due to a collection of free fluid in the peritoneal cavity, tapped the abdomen, and removed four and a half gallons of fluid. The patient rested in bed for four days, and the abdomen began to enlarge once more, a week later. When she was admitted into the hospital, her thorax was carefully examined, but no sign of cardiac nor pulmonary disease could be detected; she had neither been subject to cough nor to any form of rheumatism. Her appetite was very good, nor was there any pain nor sickness after food; her tongue was clean; and the bowels acted regularly without the aid of drugs. When she was at rest in the ward, the excretion of urine amounted to about a pint and a half daily—that fluid being, in this case, of a pale sherry colour, with a slight cloudy deposit of mucus; it was acid; its specific gravity was 1025, without albumen or excess of phosphates.

On inspection, the abdomen, which measured thirty-eight and a half inches in circumference at the umbilicus, was found to appear flattened anteriorly as the patient lay on her back, and there was a clear percussion note over any part of the abdomen that lay uppermost. Fluctuation was free in every direction; but no enlargement of the liver or of any other organ, nor any tumour, could be felt. The fluid in the peritoneum—for there was no doubt of the nature of the abdominal swelling—pressed into Douglas's pouch to such an extent as to push down the posterior wall of the vagina, simulating a rectocele. The patient looked healthy, excepting slight blueness of the lips and the tips of the fingers, which could be accounted for by the dyspnœa due to the distension of the abdomen.

The case being so obscure, Dr. Bantock determined to make an exploratory incision—the more especially, since previous paracentesis had proved of no permanent benefit. On December 17th, 1879, this operation was undertaken. A very weak solution of phenol (1 in 5[illegible]) was employed in the form of spray. On making the incision, two [illegible] pints of ascitic fluid escaped. Dr. Bantock found the liver quite healthy to the eye and touch; he could not detect any enlargement of the kidneys, nor any tumour either in the abdomen or the pelvis. It must here be noted that, for [illegible] apparent reason, menstruation, which had

commenced at fifteen and continued with perfect regularity for two years, had ceased entirely for six years. This had led to a suspicion of some form of ovarian disease existing as the cause of the ascites. At the operation, to quote Dr. Bantock's notes: "Both ovaries were in their natural position, and not enlarged; or, if so, very little. But their peculiar condition arrested my attention. Their surface was very irregular, hard, and warty. On bringing them into view, they were much paler than natural, and, on palpation, presented a semi-cystic character. Could this be the cause of the ascites? There could be little doubt that this condition was connected with the absence of menstruation. I determined to remove the ovaries. The pedicle was rather short, and, on drawing the right ovary into view, the outer edge, consisting of the two layers of peritoneum, was very tense. I first secured this by means of a fine ligature (No. 1 silk), I then transfixed and tied in two with No. 3 silk, the outer transfixing silk being brought round the pedicle after the ovary was cut away. The left ovary was treated in the same manner; but, owing to its close connection with the sigmoid flexure, its removal was attended with greater difficulty." The uterus was found to be drawn somewhat backwards; and, owing to some change in its ligaments, partly due to the ligatures on the very short ovarian pedicles, was so tense that it was very difficult to introduce even a small sponge into Douglas's pouch. Owing to the difficulty in getting the peritoneum dry by attempting to remove thoroughly the blood-stained serum, which oozed freely from it in the pelvic region, a drainage-tube was introduced. The operation, performed by Dr. Bantock, with the assistance of Mr. Meredith and myself, lasted one hour; after three-quarters of that time had elapsed, the spray failed, and was not replaced for five minutes, the operation being continued in the interval.

I examined both ovaries immediately after their removal. The right measured one inch and five-eighths; the left, one inch and three-quarters. In both, the external and internal appearances were similar. The tunica albuginea was pinkish; it had not its normal shiny white appearance, and had lost its smooth polished feeling when touched with the fingers. It was puckered in several places; but no new cicatrix, nor any prominence of a cyst or corpus luteum, remained. On section, the whole of the central portion of the stroma was found to have broken down, apparently by mucoid degeneration, leaving a cavity in which, in the right ovary, about a dozen Graafian follicles (from one-twentieth to one-eighth of an inch in diameter) projected, like a row of pearls. They were readily detached from the very soft stroma around their outer part, and all that were opened contained perfect ova, with the germinal spot and vesicle well-marked. In the left ovary, there were very few such follicles; the central softening was less marked. In both, the stroma immediately under the albuginea was unusually tough.

For several days after the operation, much serum escaped from the drainage-tube, saturating the dressings; and what remained in the tube became less and less blood-stained. The temperature never rose above 100.6°. On the sixth day, only two ounces of straw-coloured serum were drawn from the tube, which was removed, and two inches of narrow India-rubber tubing substituted; this was taken away within twelve hours. On the seventh day, the drainage-tube aperture had almost closed; the first stitches were taken out of the abdominal wound on the ninth day. A fortnight later, the patient returned home.

The ascites never returned, as, indeed, has been the case after the mere opening of the abdominal cavity without removal of any organ; and, seventeen months after the operation, Mr. Case kindly wrote to me the following account of the patient's condition: "She is looking very well, and says she is able to do her work without trouble; and the only thing she complains of is a little weakness of the legs and slight leucorrhœal discharge. She has had no menstrual discharge since her return."

There can be little doubt that, in this case, ascites was due to inflammation of the pelvic peritoneum, and there is strong evidence leading us to believe that the morbid process commenced in the ovaries. Pathologists are very chary about admitting the possibility of ascites from primary inflammation of the peritoneum; and few would admit that such inflammation could give rise to effusion filling the peritoneal cavity to the extent seen in cases of cardiac disease, in cirrhosis, and in this instance now under our consideration. Considering the distinctly morbid state of the ovaries, we are not justified in dismissing this case as an example of "idiopathic ascites". Let it be remembered that the interior of the ovaries contained normal Graafian follicles, yet ovulation had been arrested for years, for not only was there suppression of the closely related phenomenon of menstruation, but also total absence of corpora lutea, and not a sign of any follicular cicatrix on the surface of the ovary. It is clear that some change in the tunica albuginea and subjacent stroma had prevented the rupture of the follicles, for these little cavities all appeared healthy, whilst the morbid thickening and roughness of the superficial part of the ovary was evident. A very slight change in the surface of the ovary may produce irritation of the adjacent peritoneum; and, if continued for a prolonged period, may in this way give rise to considerable effusion into the peritoneal cavity. It is not to the point to question whether the morbid changes in the ovaries were primary, or due to uterine disease; that the ovaries were diseased we know, and it is presumably through them that the peritoneum became affected. They showed every sign of a very chronic state of inflammation. Now, a large smooth-walled ovarian cyst seldom sets up peritonitis with ascites; but, let some solid vegetations protrude from a rent in the cyst wall, then the peritoneum is very likely to become distended with serum, through irritation. Many will say that the irritation is due to morbid cells from the vegetations; but we must not be too ready to ascribe malignancy to these cells. Let us rather look upon them as simple irritants—such as would be inflammatory effusions thrown from the surface of an ovary. In a case under the care of Mr. Spencer Wells, described by myself in the last volume of the *Transactions* of the Pathological Society (vol. xxxi, page 174), not only ascites, but pleuritic effusion, was set up from the irritation (prolonged for over a year) of a discharge from papillomatous growths in the Fallopian tube. Cells certainly escaped into the peritoneum; but it is most significant that ascites never recurred after the operation in April 1879, and the patient is now quite well. In fact, the discharge, and the cells it contained, irritated and inflamed the peritoneum, causing ascitic effusion. Had the disturbance of the serous membrane been due to malignant action on the part of the cells, the patient would hardly be to this day free from abdominal disease. Dr. Bantock's case bears a strong resemblance to this one, as far as the ascites is concerned; and it must be remembered that both commenced with symptoms of disease in the region to which the cause of peritoneal irritation was traced.

Dr. Matthews Duncan has recently turned attention to "hydroperitoneum" (*Medical Times and Gazette*, vol. ii, 1879, page 547); and, in his valuable paper on this subject, he shows that passive peritoneal effusions have, in all well-described cases, a definite cause—such as cancer of the peritoneum; but as to the disease, as an idiopathic affection, he states most definitely: "I am not aware that it" (referring to a *large* collection of fluid in the peritoneum) "spontaneously and rapidly disappears; but many cases were recorded, which were *probably* of simple hydroperitoneum, and where spontaneous cures, or cures after repeated tappings, took place; and I have seen such cases." Dr. Duncan then gives a supposed case, occurring in a girl aged 19: she was tapped; six months later, she was *slowly refilling*. In short, the "idiopathic" form of hydroperitoneum must be extremely rare; and, considering the condition of the ovaries, Dr. Bantock's case cannot fairly be considered as a primary peritoneal effusion.

NOTES ON A CONJOINT EPIDEMIC OF FACIAL ERYSIPELAS AND ENTERIC FEVER

AT THE SOMERSET AND BATH LUNATIC ASYLUM IN 1879, AND REAPPEARANCE OF ERYSIPELAS IN 1881.

By C. W. C. MADDEN-MEDLICOTT, M.D.

SOME particulars on the above-mentioned epidemics may be of interest to all engaged in sanitary investigations; and, therefore, a condensed account is herewith given.

The outbreak of facial erysipelas involved, from its commencement, no fewer than forty-six cases, with five deaths—namely, thirteen males and thirty-three females, and ranged over a period of six months. The first case occurred in December 1878, on the female side of the Somerset and Bath Lunatic Asylum; and it raged continuously from this date to the 18th February 1879—no fewer than nineteen cases occurring in this period, of whom nineteen inhabited the most recently erected part of the asylum, namely, the infirmary and east wing. These two buildings join each other at right angles, and had been occupied about three and a half years. The majority of these cases were of a very severe type, and were ushered in by previous sickness and rigors. The face and forehead had the peculiar "butterfly-shaped" stamp of redness characteristic of facial erysipelas, and there was also brawniness of the cheeks; while the thermometer registered a temperature varying from 103 to 105 degrees in the axilla, and the pulse ranged from 130 to 140. In some cases, sharp diarrhœa occurred; in others, the face became much disfigured and inflamed; while severe multiple abscesses formed in the eyelids, neck, and scalp—in fact, in some cases, suppuration was most profuse.

On the first outbreak, the following measures were adopted for treatment and precaution. The patients were at once placed in single rooms,

the structural arrangements of the asylum admitting of their ready but perfect isolation. Styptic colloid was painted over the face and forehead, and five grains of quinine were given every four hours, in addition to concentrated beef-tea, eggs, milk, wine, and brandy. All rags used for the discharges from the abscesses were immediately burned. The floor was washed with carbolic soap at first, but dry rubbing was afterwards adopted; and, in fact, no floors were washed at all, unless imperatively demanded. Chloride of lime was also placed in these single rooms, and all clothes (previously disinfected) were sent to the laundry by themselves, with strict orders to be washed separately in the foul wash-house. The drains were ordered to be flushed every week, and were disinfected, as well as the water-closets, with carbolic acid and Sir W. Burnett's disinfecting fluid. Lastly: the single rooms and corridors all over the asylum were disinfected from time to time; the ceilings were scraped and whitewashed, the sides of the walls repainted, and all paper stripped off. Further: the floors of the single rooms were all thoroughly planed over, and washed out with carbolic acid, before being occupied; while the drains were opened and examined, and, on January 27th, were found clear, but afterwards were ventilated (on the outside) by one-and-a-quarter-inch iron pipes running up beyond the roof.

In spite, however, of all these measures, erysipelas went on appearing; but apparently, after February 18th, with some diminution, both in the severity and the frequency of the attacks, though a few cases now appeared on the male side of the asylum.

After this lull in the outbreak of erysipelas, the wife of the assistant-clerk of the asylum was taken seriously ill on April 22nd. Suspicion was directed to the drains, and orders were given at once to ventilate the closet by a pipe running above the roof of the cottage, which was detached, though on the grounds of the asylum. Meantime, the fever increased; severe delirium set in; temperature persistently registering in the morning 104 degrees, with great prostration. Defective sanitary arrangements were feared, and closer examination was made. The drain of the scullery sink was then opened, and found in direct communication with the main drain of the asylum, but untrapped—thus conclusively proving that the disease was not imported. Here, again, the most stringent precautions were taken. The chances of infection or contagion were met by the enforcement of complete isolation. The excreta were immediately disinfected by the use of chloride of lime and dry earth, with subsequent burial in the earth, nothing being allowed to be thrown down the water-closets; and all soiled linen was soaked in Condy's fluid before being washed separately at the foul laundry. The buildings adjacent to this cottage were also minutely examined with reference to their drainage. Thus, the dairy and larder were ventilated at that time by up-pipes between the trap and the main drain. In addition, the high-pressure reservoir was emptied and thoroughly cleaned out, as was also the tank in the upper garden; and a sample of the drinking-water supplied to the asylum was sent to Mr. Stoddart of Bristol for analysis, who reported: "It contains nothing that can be prejudicial to health. The total solids in solution only amount to twelve grains per gallon, and there is no free ammonia, nitrates, or chlorine, or animal matter—so that there can be no sewage-contamination."

The untrapped condition of the scullery sink in this isolated cottage suggested further examinations elsewhere; and the next place was the kitchen of the assistant medical superintendent, Mr. Sheldon. Here, too, the scullery sink opened directly into the main drain, and the water-closet in the basement was found unventilated. It was a rather curious coincidence that, when Mr. Woods entered on his duties as assistant medical officer, and occupied the same rooms as Mr. Sheldon, he was attacked with severe diarrhœa a few hours after his arrival, although perfectly well before.

Facial erysipelas meantime showed itself again, and once more in the female infirmary. Orders were now given by myself to the resident engineer to take the water-closets in these new buildings completely to pieces. On taking out the pan and syphon of the water-closet in the east wing, he found a very bad smell; and, on further examination, discovered a large hole in the lead soil-pipe (this lead-pipe was thirteen inches long, and connected the syphon and the nine-inch earthenware soil-pipe which led into the main-drain), the lead having been eaten away by rats to an extent admitting more than one's fist—consequently allowing sewer-air to escape right beneath the boards of the water-closet, and thus enter into the ward. Further: the S-bend attached to the water-closet in the basement of the east wing, when examined by a mason, was found uncemented, even unmortared—thus, not only showing scamped work, but a source of sewer-air coming into the buildings. A coroner's inquest was held on the fourth fatal case; and here it was elicited that the overflow pipe, in the cistern attached to the water-closet in the female infirmary, was particularly at fault, as it was immediately connected with the soil-pipe; and, whenever the water in the S-bend evaporated, it would act as an extraction shaft, delivering the sewer-gas into the ward.

Before closing these notes upon the first outbreak of facial erysipelas (forty-six cases and five deaths), it is proper to state that a great deal of sickness of another kind took place at the same time, appearing as severe diarrhœa in some patients, and in others exhibiting itself in the form of headache and general *malaise*. It is also somewhat remarkable that, at the height of this outbreak, snow was on the ground.

The last case of facial erysipelas occurred in June 1879; and, on August 15th, 1879, a very severe case of enteric fever occurred on the female side of the asylum, the morning temperature registering between 104° and 104.6°, even in the third week of the disease, while the pulse was 140 and upwards, with intense abdominal tenderness, pea-soup-like stools, delirium, and prostration. From this date to December 26th, not fewer than fifty-eight cases of illness occurred, namely, twenty of enteric fever (in seven attendants and thirteen patients, with four deaths among the latter), the remainder being diarrhœa (also among attendants and patients), in various degrees of severity, from mild to sharp and very severe, but all on the female side of the asylum.

Very careful thermometric observations were taken in all these cases, always twice, and in many cases four times a day during each day of the disease in each week. There is nothing special to comment upon regarding these cases of enteric fever. Among some of the patients, no previous history of shivering could be elicited, a few being so lost and demented as to be unable to give any account of themselves or their feelings. In others, again, a very clear account could be given of the date of the first approach of rigors or diarrhœa. The clinical thermometer generally gave the first clue to their being seriously ill, together with the report from the attendant of the ward that they did not seem so well, and immediate isolation was enforced. In some patients, the characteristic eruption on the abdomen showed itself, but not in all, though in the majority of cases the abdomen was found tumid, with well marked gurgling in the right iliac region, and frequent light-coloured stools, combined, however, in others with profuse diarrhœa and vomiting. The body-temperature registered very high in some instances, and rose as high as 107.8° in one of the fatal cases.

During the outbreak of these two epidemics, the following particulars were especially looked into: 1. The analysis of the water used for drinking; 2. The chances of further infection or contagion; 3. The possibility of overcrowding; 4. The personal cleanliness of the patients.

As some of these subjects have already been mentioned (in reference to the precautions instituted on the outbreak of these diseases), it is sufficient to add that, in October 1879, a further analysis of the water used for drinking was made by Dr. Thudichum, taken from the wards where the cases of enteric fever and diarrhœa occurred. Three samples were forwarded, and he reported thus on the result of chemical and microscopic analysis: "On the whole, the waters are unusually good, and show no sign of sewage-contamination; and the deposits of all these, very small in amount, contain great numbers of vegetable formations, mainly diatoms, infusoria, and some ferric oxyde." Yet no case of enteric fever occurred on the male side of the asylum.

The possibility of overcrowding was also specially considered, and, although not the cause of either facial erysipelas or enteric fever, was regarded as a possible factor in keeping up an unwholesome, if not an unhealthy, state of the atmosphere, peculiarly conducive, therefore, to general *malaise*. At an early period of the year, however, arrangements were made for utilising temporarily every available space; and, by fitting up the chapel approaches and female workroom, room was thus obtained for forty-six beds.

The personal cleanliness of the patients, it need scarcely be stated, had always been looked after, inasmuch as each patient was bathed twice a week, had a complete change of linen twice a week, and the water was changed for each patient. It is specially worthy of remark, however, that in wards (emptied for the time being of patients, in some cases for several weeks), there yet would be found an overpoweringly bad smell, proved to be coming up from the gratings in foul air attraction-shafts.

The effect of such an amount of illness in the asylum (especially among the attendants themselves), was such as to seriously embarrass for a time the proper working of the asylum, and there was great difficulty in replacing the charge attendants who were ill.

The details of these two epidemic outbreaks have been given to form a trustworthy basis for further inquiry, for only thus can sufficient importance be attached to such vexed terms as "contagion" or "infection". Thus naturally the first and most anxious question arises, "Is the above-mentioned facial erysipelas infectious or contagious?" Yet

another and apparently an antagonistic one immediately complicates it, as follows: "Was not the person supposed to be infected poisoned by the same source as the original patient?" It is a significant circumstance that, when facial erysipelas was raging, an enormous amount of sewer-air seems to have been pent up in the drains, actually having been seen bubbling up through the water in the pans of the water-closets on both sides of the asylum.

The medical staff were unanimous in their opinion that sewer-air was the cause of the outbreak of facial erysipelas; for, since tapping the inside as well as the outside of all the water-closets, a lull in the severity of the symptoms occurred, and the rush of sewer-air up the pipes was inappreciable as compared with the rush prior to ventilating the water-closets. Although the committee were divided in their individual opinions upon the precise cause and source of the outbreak of facial erysipelas, I consider they should have followed my suggestion of the imperative necessity of calling in a first-rate sanitary adviser, locally independent, from the first time when I suggested a sanitary inspection of the asylum. Some of the drains were badly laid, as leakages were found in different parts, both in the asylum and in the airing court. The committee, indeed, themselves had ocular demonstration of what was wrong in the state of the drains when those underneath the single rooms in the new buildings were examined, for they saw the water being baled out, which stank horribly of fæculent matter, whilst others saw the black sewage-matter which had exuded from the joints of the drains in the airing court.

The outbreak of enteric fever, following so closely on that of facial erysipelas, confirmed the suspicions of the medical staff, that the sanitary arrangements of the asylum in 1879 were imperfect, dangerous to the inmates, and the cause of both epidemics.

To conclude, however, the following facts are worth recording. In the epidemic of facial erysipelas, no attendants or servants were attacked, and the last case occurred in June 1879. The first case of enteric fever occurred in August 1879; the epidemic was confined to the female division of the asylum, but attendants, as well as patients, were attacked. The coincidence is curious that enteric fever attacked two patients within twenty-four hours of each other, although living in totally different wards, one of these having had facial erysipelas in the summer, although mildly. Lastly, the occurrence of two such severe epidemics in one year is surely unique in the history of county lunatic asylums.

Re-appearance of Facial Erysipelas in 1881.—The re-appearance of this unwelcome visitor, together with the continued presence of febrile diarrhœa, led to the suspicion that the sanitary arrangements of the asylum were still defective and dangerous. Anyhow, the number of cases amounted to twenty-nine, and two deaths, all on the female side. Further comment seems unnecessary; but when seventy-five cases of facial erysipelas, with seven deaths, and twenty cases of enteric fever, and four deaths, occur in twenty-four months' time, the observation of the chairman of the committee to quarter sessions, last June, seems startling: "Regarding the outbreak of disease, it is quite true I have never been satisfied with the sanitary difficulties dwelt upon by the Commissioners in Lunacy, and made much of by Dr. Medlicott".

ALLEGED ILL-TREATMENT OF A LUNATIC.—An inquest, extending over two days, was opened at Birmingham on Monday on the body of David Pullam, an operative painter, who died in the Birmingham Lunatic Asylum on the 13th inst. Deceased was admitted on the 10th inst, and, on being visited by his wife on the following day, he was found to be severely bruised about the body and to be unconscious. In this state he remained until the 13th inst., when he died. Several inmates of the asylum were called, who stated that the deceased had been grossly ill-used by an attendant named Hughes, but this official denied having ill-treated him. The medical evidence showed that death was due to inflammation of the bowels and shock from a rupture of the bladder, which had possibly been caursed by a fall. The inquiry was resumed on Tuesday, when the coroner said the evidence already given was of such a nature that he thought it desirable, in the interests of the medical officers of the institution, that they should be afforded an apportunity of contradicting it; and an application was then made on behalf of Dr. Dodds, who attended the deceased, for an adjournment for a month. The jury also presented, though the foreman, a requisition to the coroner supporting this application, and asking that the coroner would lay the whole facts before the lunacy Commissioners and the Home Secretary, as they desired, if possible, in the interests of the governing body of the institution, not to return a verdict of a criminal nature. At present, they thought that great negligence was displayed by the medical men as the evidence of the relatives clearly showed brutality on the part of the attendant Hughes. The coroner said that he would adjourn the case for a month, and see that the wish of the jury was forwarded to the proper authority.

ON OPHTHALMIA NEONATORUM, AND ITS PREVENTION.*

By KARL GROSSMANN, M.D.,
Ophthalmic Surgeon to the Stanley Hospital, Liverpool.

AN eye-disease which, in the first state of its development, almost always comes under the observation of the general practitioner before undergoing the treatment of a specialist, and which, as it seems, can be reduced to a minimum of exceptional cases by taking the appropriate measures against it in time, does not require any apology for being brought before you, here, in this place and at this opportunity.

If we go through any large blind asylum, we are surprised to find that the percentage of those whose blindness is caused by ophthalmia neonatorum amounts to the enormous figure of 60 per cent. to 75 per cent. These poor individuals, when asked, tell us regularly that they were born blind; but one look at their eyes is sufficient to show that the cause of their blindness dates from the beginning of extra-uterine life. And if you consider that in the blind asylums only those patients are admitted whose blindness is double-sided, you may easily make a conclusion as to the true number of eyes destroyed by ophthalmia neonatorum. It is a very common occurrence, in every eye hospital, to see a mother bringing in a blind, but otherwise healthy-looking, child of one or two years old. When the child's lids are opened, you see the white opaque cicatrised cornea, often enough bulged out so much by the dilatation of the corneal scars that the lids do not suffice to cover the protruded and distended eye. Or you find a small atrophied stump, the result of a more general destructive inflammation; in short, a great variety of mutilations, which have all the one feature, that scarcely any help can be afforded, or only very little improvement to the sight be effected—a fact sad enough by itself, but rendered more melancholy still by the idea that the greater, nay, the overwhelming majority of these eyes could have been saved by an appropriate treatment, applied at the proper time. But how is the occurrence of this pernicious disease to be prevented? Let us, in order to answer this question, inquire for its causes.

There can be no doubt, at the present time, that the real and only cause is the infection from the secretions of the maternal passage during, or shortly after, birth. The secretions of the vagina need not exactly be of a purulent character, such as fluor albus or gonorrhœa; for it seems that, before and during birth, these secretions acquire often a character quite as infectious as that of gonorrhœal discharge, though appearing in no way different from the physiological discharge of the mucous membrane. At least, the only one trustworthy statistic which we have of this kind speaks for this fact; it is the one which Mackenzie published of the Maternité Hospital of Stockholm in 1832. Of 328 women confined, there were 137 with fluor albus, 20 children of whom were affected with ophthalmia, and 181 without fluor albus, 10 children of whom were equally affected; thus showing that, whereas of the women with leucorrhœa every seventh child became infected, of the other women only every eighteenth child was suffering. In what way the normal-looking secretions of the pregnant woman are changed, we do not know, but the fact speaks for the infectiousness. And if we consider how intimately—nay, how inevitably, the secretions of the mother are brought into contact with the infantile conjunctiva, it is astonishing enough that we do not see the above statistic much more unfavourable. At any rate, we do well not to set our mind at ease with the much liked and used explanation that "a cold" is the cause, and that it will pass away by itself or by continued poultices. Many an eye destroyed in this way has fallen in my way during the two years that I have been in Liverpool. The period of incubation, after infection, is three or four days. I have never seen it less, often longer. For the latter, we can easily account by the near contact between mother and child after birth, the infectiousness of the secretions being so great that the contact with the linen or the fingers of the mother explains well enough the later appearance of the inflammation.

I do not need to give you a long description of the disease itself; it is known to you all. Nor do I need to dwell upon the great danger which arises for the eye by even the slightest implication of the cornea. You know that this makes the prognosis at once "pessima", as we cannot, with the greatest care, control the ulceration nor prevent entire keratomalacia.

If we consider what trouble the well developed ophthalmia gives in its treatment, and how little we can do when the cornea has once partaken in the affection, we must be highly satisfied by the fact that the

* Read before the annual meeting of the Lancashire and Cheshire Branch.

idea of preventing its outbreak by prophylactic measures has been crowned, as far as is known till now, by a splendid success. In order to seize the evil at its root, Crédé in Leipzig carefully treated the least trace of vaginal catarrh of the pregnant women, so that, at the time of the confinement, the fluor had quite vanished. He had some success; but in a comparatively great percentage the outbreak of ophthalmia could not be prevented. The local treatment of the maternal passages, however valuable, did not prove sufficient; and this result led to the experiment* of disinfecting the eyes of all new-born children, without exception, as soon after birth as possible. In some cases, where a fluor albus existed, the disinfection of the eyes of the child was performed immediately after the birth of the head, before the body was born completely; and from the statistics obtained thus, you will judge yourselves with what success.

The method, which varies a little in the composition and strength of the lotions applied, is the following. Every child, without exception, whether of a healthy mother or of a mother suffering from leucorrhœa, must be subject to it as soon after birth as possible. The closed eyelids are washed and cleaned outside with a lotion of 2 per cent. carbolic acid.† This having been done most carefully, the eyelids have to be turned round, so that they form a complete ectropion, with the conjunctiva tarsi entirely exposed. Then, after carefully removing every trace of flaky secretion which may be found there, the conjunctiva has to be inundated with the 2 per cent. carbolic lotion for one to two minutes, care being taken that the lotion reaches every part of the conjunctival sac. This manipulation ought to be repeated three times daily during the first two days of life. Should the mother have had a very strong catarrh of the vagina, it will be valuable to pad the child's eyes, between the three times of cleaning, with a cotton-wool pad dipped in the same lotion, and renewed every half-hour during daytime.

You will object that this treatment, applied to every case of birth, is a great trouble and inconvenience for the practitioner, who is already hampered enough by his other duties; but let me now show to you the statistics obtained by this method.

In Leipzig, at the Obstetric Clinique, the percentage of ophthalmia came down from 13.6 per cent. to 7.6 per cent. at first; and in the following half-year, there was, out of two hundred births, only one child subject to ophthalmia; and in this one case the application of the lotions had, by neglect, been forgotten. In Halle, the percentage gradually came down from 12.5 per cent. to 6 per cent., and then to 3.6 per cent. It is obvious that in the beginning, when the nurses were not yet so well instructed, the percentage was yet comparatively great, and then decreased continually. My own statistics are yet small; the results of the experience, gathered by me in two of the Liverpool workhouses, are not yet numerous enough to be of a great weight, though, during the last four months, while the method was carried out, not a single case of ophthalmia neonatorum occurred. Those cases which I have treated privately, under my own personal care, are only five, but all of them were successful. In each of these cases, the mothers brought to me a child which had lost the sight by ophthalmia neonatorum, and consulted me about this child's eyes. All these mothers being pregnant and suffering from fluor albus, I advised them to have the necessary measures taken, that the expected child might be saved from the sad fate of the previous one. They were only too glad to have all necessary precautions taken, and the result was a complete success.

It is true that, in the majority of cases, this proceeding may be superfluous; but in the poorer classes, where not so much care can be afforded to the newborn, and where every disease has a more fertile ground, it is our duty to carry the possibility of fighting successfully against so destructive an inflammation, especially as it has been noticed that, even if the affection set in at all, it is much milder and less injurious than if left to itself. It will therefore be obvious of what great value this method is, if applied generally, both from the standpoint of humanity and of national economy. And, therefore, I hope you will support the specialist, who almost only sees the destructions made by this insidious disease, and who can but seldom do anything for its prevention; I hope that you, whose work is already overloaded with many a hard duty, will not decline to try in your practice the method which I have brought here before you.

* This had been recommended before by Weikert, Hegar, but no experience had been gathered.

† The lotion of 2 per cent. carbolic acid in water answers perfectly well, and does not produce such strong reaction as the lotion of nitrate of silver applied to a normal conjunctiva.

QUADRUPLE BIRTH.—A woman in Berlin was delivered a short time ago of four living children. One of them lived a day; another four days; and the other two a week.

CALABAR BEAN IN TETANUS, WITH CASES.

By J. THOMPSON HAGUE, L.R.C.P. and S.Edin., L.S.A.Lond.,
Late Medical Officer to H.H. the Sultan, Zanzibar.

THE patients, of whom the subjoined is an account, were all negroes, treated in the Zanzibar Military Hospital during 1879 and 1880.

CASE I.—Mohammed bin Sali was brought into the hospital on the morning of November 30th, in an exhausted and apparently moribund condition, having suffered from tetanus for fourteen days previously. When he arrived at the hospital, the spasms were so frequent as to be almost continuous. He was bent nearly double, and had bitten his tongue so that the end was almost dropping off. In order to allay the spasms caused by his removal upstairs into the ward, I administered chloroform. During the inhalation the spasms ceased; but as soon as the effect of the anæsthetic began to pass off, they returned with all their former violence. One-sixth of a grain of extractum physostigmatis was then given by subcutaneous injection. Two sharp spasms followed, but in eight minutes these had ceased, and the patient fell into a deep sleep, which lasted three hours. When he awoke, the patient was in all respects much better. He drank half-a-pint of beef-tea, and bore an enema without a spasm. Afterwards he took beef-tea and milk at intervals, and slept most of the day. Next morning, as the spasms had commenced again, I administered the Calabar bean as before, with the result of checking the spasms entirely. Nourishment was taken eagerly during the day, and the patient seemed convalescent.

On the following morning, the patient was sitting looking through the window, when he was seized with a spasm; his breathing was stopped, and he died almost instantly. I was not present; but from the account given by two of the hospital assistants, I think death was doubtless caused by spasmodic closure of the glottis.

CASE II.—Simba was admitted into hospital on February 8th, 1880, having been stabbed in three places. The bowels protruded from a wound of the abdomen, and there were incised wounds of the scalp and of the left forearm. All the wounds were treated with silver sutures, and a dressing of carbolic lotion, and until the third day all went well. On that day there was pricking pain in the scalp-wound, which was seen to be dry, gaping, and inflamed. The sutures were removed, and water-dressing applied. During the night tetanic symptoms were observed; and when I saw the patient in the morning, he had very frequent violent spasms. All the sutures were removed, and one-sixth of a grain of extract of physostigma was injected into the calf of the leg, under chloroform. On the withdrawal of the anæsthetic, the spasms were much less violent than before; but as they had not entirely ceased, the injection was repeated at the end of an hour, and with such good effect that there were no tetanic symptoms until evening. I then repeated the injection. After this there were no symptoms of tetanus; but the Calabar bean was given once a day for the next three days, as a precautionary measure. The patient was discharged cured at the end of twelve days.

CASE III.—Abdallah was admitted May 4th, 1880, suffering from frequent and severe tetanic spasms, which were judged to be excited by a nearly healed incised scalp-wound, which had been treated by a native medicine-man with powdered bluestone and incantation. One-sixth of a grain of extract of physostigma was given, under chloroform. The spasms returned in twenty minutes; and in an hour the injection was repeated, but the severity of the spasms increased. Twenty-five grains of chloral were given, but met with no more success than the Calabar bean. In the evening I made an elliptical incision on each side of the cicatrix, and repeated the injection. There were several spasms during the night; but each was less severe than its predecessor. In the morning the usual injection was given; and after this there was no more sign of tetanus than occasional twitchings of the muscles, and once or twice spasm of the glottis in swallowing. At the suggestion of one of the surgeons of H.M.S. *London*, I removed the cicatrix, lest, when it became again united to the rest of the scalp, it should give rise to the same symptoms as before. The wound granulated, and the patient was discharged.

As these three cases form the sum total of my experience of the treatment of tetanus, I have no claim to be didactic, or to dogmatise as to the course to be pursued by others who may have charge of similar cases; but there are two or three points of interest which induce me to publish these notes.

In the first case, emprosthotonos was one of the symptoms which, is uncommon an occurrence, that Mr. H[illegible]ay in his recent [illegible] ken to anyone who has seen an example of it.

In Case III, no remedy that was tried seemed to be of use, until the

irritating cicatrix was is lated by incisions. In Case II, the scalp-wound appeared to become unhealthy before the commencement of the spasms. In each case, the action of the Calabar bean in subduing the spasms was beyond dispute. The preparation used was in the form of gelatine discs, each containing one-sixth of a grain of eserine, and was supplied by Messrs. Savory and Moore.

THERAPEUTIC MEMORANDA.

ANTISEPTIC TREATMENT OF LUNG-DISEASES.

DR. BATTERBURY'S ingenuous communication on the antiseptic treatment of lung-diseases, in last week's JOURNAL, calls for some remarks from me, as my name is there used in a somewhat ambiguous connection. Dr. Batterbury states that "his attention was first called to this method of treatment last autumn by a patient suffering from phthisis who had found great relief from the inhalation of a solution of carbolic acid through an inhaler recommended to him by Dr. von Messing of Meran in the Southern Tyrol". He next describes the inhalation-respirator, sent him from Meran, and which he very truthfully says "appears to resemble almost exactly the respirator recommended by Dr. Sinclair Coghill, and figured in the JOURNAL of May 28th". He then quotes Dr. Messing's directions for the use of the instrument, who also says, "I have been using it for about five years". In the first place, I can assure Dr. Batterbury that it is generally known to those who are keeping themselves abreast of the subject, that the treatment of lung-diseases by the inhalation of antiseptic solutions has long since ceased to be a therapeutic novelty in England, and is by no means confined to this country, as the foreign and colonial medical journals of the last five years or so have borne ample testimony. Dr. Batterbury has, therefore, been singularly unfortunate in only deriving his first knowledge of this mode of treatment so late as last October, and then from so remote a source as the Southern Tyrol. After conducting an extensive series of experiments both in hospital and private practice for more than a year, I published my first communication on Antiseptic Inhalation in Pulmonary Disease in the *Lancet* of October 20th, 1877, coinciding singularly as regards date with Dr. von Messing's "about five years'" experience of this mode of treatment. The coincidence is still more remarkable, as Dr. Batterbury's description of the inhalations-respirator is absolutely identical with the description of my own instrument given in the above paper. And, still further, Dr. von Messing's instructions as to the mode of using it, especially the importance of inhaling through the apparatus and exhaling through the nose, are exactly the same as I then laid down.

I regard with great satisfaction that I was the first to make the antiseptic treatment of lung-disease the subject of systematic experiment, and to publish the results of my observations. I am therefore, not unnaturally, jealous of any attempt to attribute to others any merit that may belong to me. I am convinced the antiseptic treatment of internal diseases, especially lung-affections—still in its infancy—has a great and immediate future; and now that it has been taken up so widely and enthusiastically, and is yielding such good results in able hands, I am sure its further development will be rapid and satisfactory.

I hope I have only to invite Dr. Batterbury's attention to these remarks to be at once absolved by that gentleman from the insinuation, I am sure unintentional, that I derived any inspiration on the subject of pulmonary antiseptics from Dr. von Messing; and that I may fairly call upon him to ask his friend at Meran whence he derived the idea of the inhalation-respirator about five years ago.

J. G. SINCLAIR COGHILL, St. Catherine's House, Ventnor.

SKELETON RESPIRATOR FOR ANTISEPTICS.

THE local antiseptic treatment of phthisis has now become so well established in favour, that it is important to discover the best method of carrying it out. At present there are several different forms of antiseptic respirators in use, differing indeed in detail, but agreeing in the common fault of retaining too much of the character of the ordinary respirator.

The evil of this is apparent. A respirator, pure and simple, is used to filter and warm the air before it is breathed, and with these advantages it has counterbalancing disadvantages, such as sometimes overheating the air, and retaining respired air in the vicinity of the mouth, causing it to be again drawn into the lungs.

In order to overcome this latter difficulty, patients are often desired to inspire through the mouth and expire through the nose; and this would no doubt be efficacious if it could be carried out, but it is difficult to do, and apt, at best, not to be done continuously. It is of course impossible to do it during sleep.

The respirator I have found best for antiseptic purposes may be called a "skeleton respirator". It is made simply and cheaply. It consists of an oval of wire measuring four inches and a half in its long diameter, and one and three-quarter inches in its short diameter. This is bowed up one and a quarter inches in the middle, and fits round the mouth, one wire going over the upper lip, the other under the lower lip; the ends of the oval rest on the cheeks. From the wires of the oval as they pass the corners of the mouth four wires spring out, two at each side of the mouth, one being above and the other below. These wires are an inch long, and support a shallow cage capable of holding a double fold of lint measuring two and a half inches by one inch. The cage is formed of two light wire screens closing with a spring, the wires of the front screen being perpendicular, and those of the posterior screen horizontal.

The advantages of this respirator are, that it does not cause the inhalation of rebreathed air (which if not a cause of phthisis is certainly an accelerator). It does not heat the air. The lint seldom requires renewing or charging. It can be worn day and night without causing any oppression of breathing. It allows of the inhalation of pure air charged to any desired extent with the vapour of carbolic acid. The lint can be dipped at first in carbolic acid solution 1-30; afterwards in a more dilute solution 1-50. Or, carbolic acid and collodion may be mixed in equal portions, and two or three drops of the mixture be placed on the lint. Other antiseptics can of course be also used.

E. MACDOWEL COSGRAVE, M.D.

CLINICAL MEMORANDA.

A SOURCE OF INFECTION.

ON September 17th, 1880, I was telegraphed for by Mrs. W., residing in Chelsea. I found her exceedingly weak, suffering from intense mental depression, and from illusions; and pregnant for the first time, though she had been married for several years. She mistook her cat for the devil, and conceived a violent dislike and disgust for her husband. Under treatment, she rapidly improved, though her natural affection for her husband did not return until after her child was born. On December 8th I delivered her, with forceps, of a large female child, after a rather severe labour, owing to the great size of the head. The mother and child did well until the third day, when the temperature of the former rose to 103.3°, and was followed by severe headache, pain in the abdomen, and delirium. A profuse eruption broke out on the eighth day, and the temperature advanced to above 105°. On the eleventh day, she was apparently sinking; unconsciousness, and rigidity of the masseter muscles, being present for a few hours. On the fourteenth day, there was a decided improvement; and from this time she gradually, though interruptedly, improved, and eventually made a good recovery. During her illness, quinine in large doses, opium, digitalis, and ammonia, were freely administered; cutaneous injections of morphia, vaginal and uterine injections of permanganate of potass, nourishing and stimulating enemata (during unconsciousness), and poultices, were also resorted to.

I was naturally anxious to discover the source of the infection, as that appeared to be a matter of great importance. I felt satisfied that I was not the cause, having taken every precaution to ensure perfect cleanliness, and having been exposed to no poison. Antiseptics were freely used about the house. No case of fever had occurred in the immediate neighbourhood, and no person convalescent from any zymotic disease had visited the patient. After much trouble, it was discovered that her laundress lived in a hot-bed of scarlatina; and that she had washed the linen, including the diapers, worn by the patient during and after her confinement.

There are two points of interest in this case:

1. The condition of the patient prior to her confinement, which seems to support the views expressed by Mr. Blenkarne (in the BRITISH MEDICAL JOURNAL, February 1st, 1879), who considers that the primary cause of puerperal fever exists within the patient;
2. The fact of being able to trace it to its immediate origin.

I think the above history certainly suggests the wisdom of Government inspection of all premises used as laundries.

W. CULVER JAMES, M.D., Kensington.

THE celebrated chemist, Professor Bunsen of Heidelberg, celebrated the fiftieth anniversary of his doctorate on October 17th. On the occasion, the title of "Effic'ent Privy Counsellor", with the prefix of "Excellency", was conferred on him by the Grand Duke of Baden.

A CENTENARIAN.—It is reported from Charkow, that a woman named Ssansparoff has recently died there at the age of 137.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

TWO CASES IN WHICH A BLOW ON THE HEAD WAS FOLLOWED BY APHASIA.

FOR the notes of these cases we are indebted to Mr. STANLEY BOYD, F.R.C.S., Surgical Registrar.

CASE I. *Injury to the Head in a Child: Paresis and Convulsions on the Right Side, with Aphasia: Recovery.* (Under the care of Mr. CHRISTOPHER HEATH.)—Mary J., aged 11, was brought to the hospital on August 5th, 1880, in a condition of insensibility. She had, shortly before, been knocked down by a carriage. The surface of the body was pale and cold, but there was no discoverable paralysis. She presently vomited, and the surface then grew warmer. Five grains of calomel were administered. On the following day, she was very irritable, lying on the right side, with most of the joints flexed. She noticed nothing about her, and, when addressed, stared vacantly. At noon on August 7th, the right side of the body was found to be slightly weakened, and the temperature was 101.8°. In other respects, she seemed better, and paid more attention when spoken to. At 6 P.M., the temperature had risea to 103.2°; and during the night she had an attack of clonic spasm involving the right side of the face only. During the fit, both eyes were turned towards the right. On the next day, she had one or two fits; slight facial paralysis was noticed; she tried to speak, but failed. The temperature on this evening was 100.8°, and on the following morning (August 9th) it was the same. The facial paralysis was then marked, and the paresis of the limbs on the right side was also more evident. She seemed to understand, and to endeavour to speak, but with no success. She had some pain in the head.

On August 10th, she sat up and fed herself with milk on one occasion. The optic discs, especially the left, were congested; but there was no neuritis. The temperature in the morning was 99.8°; in the evening, 101°. The pulse was 96 and regular. She had been having one or two fits daily; in one of them, on this day, the tongue was bitten. Each fit lasted from five to twenty minutes. The muscles involved were those of the right side of the face (often including the left occipito-frontalis, orbicularis palpebrarum, and corrugator supercilii) and the right arm. The eyes either worked in concert, squinted, or were kept fixed to the right. The urine was often voided in a fit.

On August 11th, she had four fits before 9 P.M. From that hour to 9 A.M. the following morning, she had six fits, each lasting from fifteen to twenty minutes. At 9.30, she had another fit, and again at 1.45 another, which lasted thirty minutes; in this fit, the muscles of the right side of the face, the right arm and leg (for the first and only time), and the left forehead and eyelid, were affected with clonic spasms; the muscles of both eyeballs were also affected, causing to-and-fro movements; the saliva was frothed at the mouth; but the tongue was preserved, by the use of a gag, from injury by the teeth. Urine was passed during the fit. After this fit, there occurred a series up to 5.30 P.M.; and in one of them the diaphragm twitched rapidly. During the short intervals of repose, she was unconscious. For some days past her general state had been as follows. She noticed nothing around her; she cried out frequently, sometimes raising her left hand to the head. There was no persistent squint; she kept her eyes closed, and resisted efforts to raise the lids; the pupils were equal, of moderate size, and active. There was paresis of the limbs and face on the right side; there was no difficulty in swallowing fluids, which were taken readily; the motions were passed under her. The pulse was irregular in time, 86 in the minute, moderately full, and compressible. The temperature had all along been above normal, apparently with an evening exacerbation; but it was not taken very regularly.

After this date, no fits occurred, and the general condition was rapidly ameliorated. On August 14th, she had quite regained power in the limbs on the right, the affected side; but the facial paresis remained. She was irritable, but appeared to understand some part of what was said to her, though she could not be induced to speak. The pulse was but slightly irregular; and on the following day it had become regular, and 68 in the minute. The temperature was now normal. She seemed much brighter, but still passed her motions under her unless anticipated by the attention of the nurse. On the next day (August 16th), she had improved in this respect, and made signs that she needed the bed-pan. She also began to notice what was going on. On August 17th, she was told to write her name. "Nary" appeared for "Mary"; but the surname she entirely failed to produce. The optic discs were normal. On August 21st, she was quite lively, understood most of what was said to her, but seemed to be rather deaf on both sides. She wrote her name with a little help, and also wrote from a printed copy fairly well. She tried to read a phrase, but some of the words were quite unrecognisable. She still made signs for all she wanted. Three weeks after the accident, her articulation had begun to improve greatly; she could read a passage from a book, making mistakes only in long words; and afterwards could give an account of what she had read. The facial paralysis had now disappeared. She improved from day to day in power of speech; her last conquest being the letter "w", which had been a great difficulty.

On September 7th, she was discharged. Articulation was occasionally a little imperfect; and there was a slight lisp—a defect not noticed before the accident. She was able to do sums in "addition", "subtraction", and "division", though she boggled at "multiplication"—perhaps, even in these days, hardly a pathological condition in a girl of eleven years.

No irregularity of the skull or bruising of the scalp was ever detected. Neither albumen nor sugar was ever found in the urine.

Mr. Boyd saw her again on June 23rd, 1881. There was occasionally slight indistinctness in utterance; her memory was very good. Her health was excellent; she appeared bright, and played and ran about like other children of her age.

CASE II. *Injury to the Head: Aphasia: Right Facial Convulsions: Recovery.* (Under the care of Mr. BECK.)—Charles Mills, a barman aged 20, was admitted on the evening of April 10th. On the previous afternoon, he was up two rungs of a movable set of steps cleaning a window; he fell, and the steps fell on him, striking him on the head and shoulder. Possibly, he was insensible for two or three minutes. When seen by his friends, at the end of this time, his mental state was exactly as on admission, and it continued unchanged until 2 P.M. on the 11th, when his "present state" was taken. There is some doubt as to the mode of occurrence of the accident, for no one saw it; the patient, on admission, gave the above account, replying by nods to questions. He was then carefully examined by the house-surgeon, Mr. Horsley, who is sure that no paralysis existed then. He was a strong healthy-looking young man. When examined at 2 P.M. on April 11th, he was drowsy, but easily roused; closing his eyes and seeming to sleep directly he was left alone. He frequently changed his position, and there was nothing noteworthy in his attitude. There was no paralysis of the muscles of the eye, tongue, or limb; but paresis of the lower right facial muscles was distinct. The pupils were of moderate size, equal, and reacting quickly. Sight and hearing were normal; as also was general sensibility. His intellect was fairly clear, and he understood nearly all that was said to him. But he could only say "Yes", and occasionally "No", in reply to questions. When told to say "Yes", he generally succeeded; but he could not say "No" under these conditions. Nor could he repeat other words. He could not read a word, nor give the name of a single letter; he scarcely seemed to recognise the right name when it was mentioned among several. He recognised objects—such as a pencil, a watch—but could not give their names. He knew when the right name was given. When told to write his name, he produced Cha-cha-ches Milles. The only mistake in the surname is the insertion of an *e*; but the Christian name illustrates what was frequently noticed afterwards, viz., that in a word of any length he seemed to lose his place; and, if he once stopped, he generally had to begin at the beginning again. An attempt to write from dictation gave this result: "Tha struvv wb", for "The storm of". His mind was easily tired; and after this, he lay back quite fatigued, and complaining of frontal headache. There was a bruise in the left temporal fossa, the effused blood causing distinct fulness anteriorly, and bogginess above the parietal eminence; there were no signs of fractured base. The mouth was excessively foul, and the tongue was coated with a thick dry, brown scale. The bowels were open, after aolocynth and mercury pill. He took the urinal from his locker, when he needed it. On the evening of the 10th, the temperature was 101 in the left, 101.3 in the right axilla; on the 11th, it was 101° to 101.5°, the pulse being 68, full, soft, and slightly irregular. The surface-temperature of the left parietal region was 5° higher than that of the right.

April 12th. He had passed a good night, and was quite bright in the morning, and had no pain. Temperature just over 99°; the pulse was 70, not quite regular in time. The urine contained a trace of albumen, but no sugar. It yielded a large deposit of star- and needle-crystals of phosphate of lime, with a few granular and hyaline casts. At night, the temperature rose to 100.2°; and frontal headache, severe enough to make the patient groan, set in. He slept badly. On the

morning of the 13th, his temperature was 99.4 ; the pulse, 52, full and regular. He copied a little, converting Roman into Italian letters. The main difficulty was obviously that he lost his place; for, when the letters were uncovered one at a time, he copied quite correctly. In other respects no change had occurred. At 6.25 P.M., convulsions of the face occurred. Mr. Horsley saw the patient at once, and made the following notes. At first, the muscles supplied by the lower division of the right facial, but soon all those on the right side of the face, twitched rapidly—60 to 100 times per minute ; and the convulsions spread across to the lower left facial muscles. The right pinna moved up and down. The jaw was depressed by the platysma, and replaced by the masseter; the latter movement was apparently a "stretch-contraction", a finger placed between the teeth being slightly pressed on. The tongue was not bitten. There was slight salivation. The pupils were equal and widely dilated, reacting to light. At first, the patient seemed totally unconscious; but, after a quarter of an hour, he raised his eyelids when spoken to—without, however, seeming to recognise the speaker. Half an hour later, consciousness was almost completely regained, and the convulsions passed off, leaving the lower division of the right facial last. There was no headache after the attack. The temperature was 100°, and the pulse 60. His optic discs were examined during the evening, and, with the exception of marked fulness of the vessels, nothing abnormal was seen. He slept very well.

On April 14th, the temperature was 99° and 99.6° on the left and right sides respectively. He had no headache, and there was a distinct improvement in his writing and copying. He also did some simple addition and multiplication, but these soon brought on pain and fatigue. Speech remained as before. In the afternoon, two leeches were placed on the anterior part of the left temporal fossa; and from this time on to the morning of the 15th, he became more stupid and drowsy. Early on this morning he complained of headache for some hours. At 11 A.M. there was increased difficulty in writing his name, and it was wrongly spelt; copying was more faulty ; he failed utterly at arithmetic ; and mental fatigue was obviously greater. The temperature was 99° and 99.8°. The pulse was 68, full and regular. The mouth was less foul; the bowels were open after calomel. The facial paresis was less marked. The dynamometer showed the right grasp to be 80, the left 65. He slept well at night ; and on the 16th, steady improvement began. On this day he wrote better, and did "division" with a little assistance. After some excitement, he said "How long?"—he was anxious to know how long he would be in hospital. He named "orange", "gold", "silver", and "copper". The facial paresis remained only about the angle of the mouth.

On April 17th, there was still further general improvement ; and on the 18th he could talk very well. He read a passage containing words of three and four syllables without mistakes, but articulation was hesitating and not always clear. He defined the "inhabitants of an island" as "the people who lived on it"; but he could not remember the substance of what he had just read. He wrote from dictation: "A very fine day. I should like to go out". He stopped after *o* in should, unable to remember the next letter ; he was told to write *u*, and then went on without difficulty. Addition was done easily; subtraction with considerable assistance ; multiplication, easily; division, with help. Some sense of fatigue followed these exertions, but no pain. Facial paresis had now disappeared. The blood in the left temporal fossa had partly disappeared ; and a soft spot with sharp firm edges now became evident just below the temporal ridge, and one inch in front of a vertical line through the auditory meatus. Its area was rather larger than that of a shilling, and it was prolonged into a narrow process running downwards for some distance. It was markedly tender ; whereas pain had disappeared on pressure over other parts of the bruised area.

Four days later (April 22nd), the fluid was gone, and the edges could scarcely be felt, but the spot was still tender. At this time he could repeat the alphabet quickly ; he had had difficulty in saying *p* and *t*, but had conquered this also. He read a passage from the newspaper, and was able afterwards to give the substance of it fully. He knew such things as the day of the week and month and date of the year ; and could accomplish a little mental arithmetic. He wrote from dictation quite as well as could be expected from one of his station.

After this the patient remained quite well until his discharge. His temperature was normal after April 15th, with the exception of a rise to 102.4° on the 19th, when he caught cold and was complaining of a stiff neck and pains in the joints.

REMARKS BY MR. BOYD.—Apart from the relative rarity of affections of speech as results of injuries of the head, the above cases are interesting because the symptoms which they presented point clearly to the seats of lesion, and they seem to be in complete accordance with Dr. Ferrier's teachings.

In Case No. 1, there was no external sign of injury; but the right-sided symptoms show that, either from direct injury or *contrecoup*, the voluntary centres on the left side of the brain had suffered. The injury to them was apparently but slight ; for though, owing to the state of the patient, paresis may at first have escaped notice, there was certainly no paralysis. With return of consciousness, right-sided weakness was noted ; and it increased for a day or two. Convulsions followed quickly on the paresis, commencing in the face, soon spreading to the arm, and finally involving the leg ; at the same time, there were fever, and many symptoms of meningitis. It would therefore seem probable that superficial encephalitis and meningitis arose over the area of brain which was primarily injured, and spread but little superficially ; it is doubtful whether the inflammation reached the leg-centre, for this limb was convulsed but once in a strong fit. Its movements may therefore have been due simply to increase in the intensity of the stimulation at a neighbouring centre.

For some days, the inflammation was mild, only one or two fits occurring in twenty-four hours; but on the sixth and seventh days it seemed, from the number and severity of the convulsions, to have become more active. The sudden absolute cessation of fits immediately after the child had been convulsed, off and on, for a whole afternoon is very remarkable.

From the facts that the paresis of the face was greater than that of the limbs, and that convulsions began in the face, we may fairly conclude that the face-centre was more deeply injured than the arm ; or, in other words, that the intensity of the lesion, and subsequent inflammation, increased as the base of the third frontal convolution was approached. The twitching of the diaphragm in one of the fits is worthy of special notice, as it was perhaps due to irritation of a centre through which voluntary control over the muscle is exercised.

In the second case, a very similar line of argument may be followed. The patient had obviously received a heavy blow on the left temporal fossa ; and the persistence of a small fluid collection with sharp edges, and of tenderness, along a nearly vertical line one inch in front of the ear, show that this was the point struck, if they do not suggest the existence of actual fissure running towards the base in such a direction as to cross the posterior end of the third frontal.

With regard to the injury to the brain, this was evidently left-sided, contrary to the general rule "that the most acute injury to the cerebral substance occurs at a point opposite that struck". There was no evidence of right-sided lesion.

In this case, too, we can say positively that the injury to the facial centre was too slight to produce symptoms until aided by damage due to inflammation. Had the right facial paresis and convulsions not occurred, a sceptic might have argued that the aphasia was quite as probably due to injury of the right third frontal as to lesion of Broca's convolution. But the right facial symptoms lead us at once to the lower part of the left ascending frontal, and show that damage had occurred in the immediate neighbourhood of Broca's convolution ; and the existence of aphasia from the first would seem to show that the seat of most intense lesion was the base of the left third frontal.

The manner in which the facial paresis and speech-affection passed off, the former leading the way as it were, was very interesting. Just as it was natural to conclude that Broca's convolution was injured, when evidence of damage to its next-door neighbour appeared, so signs of improvement in condition of the face-centre gave ground for hope that the third frontal was also doing well.

YORK COUNTY HOSPITAL.

COMPOUND FRACTURE OF SKULL : ELEVATION OF BONE : PARTIAL APHASIA : RECOVERY.

(Under the care of Mr. JALLAND.)

FOR the notes of this case we are indebted to Mr. F. H. WEEKES, House-Surgeon.

Patrick McQ. was admitted on February 23rd, 1881, having been found, half an hour before, in a stable, behind a horse, unconscious and bleeding from the side of his head.

On admission, at 11 A.M., the patient was found to have a wound, about four inches long, between and a little above the left ear and temple. The bone at the bottom of the wound could be felt depressed and broken. The patient was completely unconscious, and breathed stertorously. There was also a little bleeding from the left auditory meatus. At 2 P.M., under carbolic spray, Mr. Jalland enlarged the wound and removed, with the forceps, several pieces of bone lying loose upon the dura mater. This membrane did not appear to be injured; and, after all the spicules had been removed and the de-

pressed portion elevated, the wound was washed out and dressed with gauze.

February 24th. There had been no appreciative change in the patient since the operation; he lay in a state of coma, and took no food; he was ordered a calomel purge.

On February 25th, he was still unconscious, but swallowed a little milk.

On February 26th, the state of stupor continued, but he could be roused a little by violent stimuli.

February 27th. When roused, he would take visual notice of things, but was still very sleepy. He took plenty of milk. The bowels were opened involuntarily on this day. The urine had to be drawn off twice a day by a catheter.

On February 28th, he passed urine voluntarily; and, on March 2nd, the patient perceived and acted on visual impressions. He could not speak, and was apparently deaf. There was slight facial paralysis on the left side. The wound was dressed, and found nearly well.

On March 7th, it was noted that, since the last note, the patient had been gradually becoming brighter and less sleepy. He would shake hands, and would perform small acts if asked—*e. g.*, show his tongue. The deafness appeared to have ceased, as also the facial paralysis, but he had not yet spoken. He could, however, write down short single things that he wanted—*e. g.*, "meat", "milk"; and could indicate by gestures that he understood what was going on around him.

On March 14th, the wound in the head was practically healed, and there was no pulsation visible. The patient could read correctly words of one or two syllables, but failed to pronounce longer ones; as a rule, these were omitted, but often some such word as "if" was substituted for them. The patient was able to perform simple arithmetical acts—such as addition and subtraction; but was utterly unable to repeat any simple thing from memory: for instance, he broke down at the fifth letter of the alphabet, and at the fourth word in the Lord's prayer; also he was unable to repeat a poem, all of which he once could say from memory. He was also unable to write from dictation.

On April 16th, the patient was able to read even polysyllabic words with ease; to write from dictation correctly; to repeat the alphabet and Lord's prayer without a mistake; and, moreover, to say from memory the short poem that he failed to repeat previously. He said that he remembered nothing that occurred to him on the morning of the accident; the last thing he could think of was going to bed on the previous night. He left the hospital on this day, well.

REMARKS.—Unfortunately, the record of the temperature in this case has been lost; suffice it to say that his temperature never went above 99° during the whole time he was in the hospital. The interesting point in this case is the occurrence of aphasia. From his first recovering consciousness, he was able to write down what he wanted, although he was quite unable to utter an intelligible sound.

NEW FORM OF HOSPITAL.—The Chicago correspondent of the *Rocky Mountain Review*, August 1881, writes—We are soon to have a new hospital added to our present supply; one which will eclipse, except in point of size, everything west of the seacoast. It is erected by the Hebrew Relief Association, and will be called the "Michael Reese Hospital," after a wealthy Californian who left a large sum of money for this purpose, provided the institution should be non-sectarian. As at present built it will not accommodate more than eighty patients. Elegant private rooms will be arranged. The site is on the lake shore, and the plans are such that an unusual amount of sunlight will be admitted. All the appointments are to be of the most elegant character. Excellent facilities are provided for *post mortem* study. And the armamentarium is to be, perhaps, the most complete in the country, 7,000 dollars having been set aside for this purpose alone. A large proportion of this is to be imported, and the whole will include almost every instrument known to medical and surgical science. The gentlemen composing the staff may consider themselves fortunate indeed.

LOCAL ANÆSTHESIA.—Mr. Thomas Taylor, of the Agricultural Department at Washington, has devised a new freezing microtome, and upon the same principle a new method of applying a freezing mixture to the skin for the purpose of inducing local anæsthesia. The apparatus in both instances consists of a hollow metal cylinder, through which runs a spiral tube. The latter is connected by a tube with a vessel containing a freezing mixture of ice and salt, and bears at its opposite extremity an escape-pipe of smaller calibre. As the freezing mixture enters the cylinder, the fluid which results from the melting escapes through the escape-pipe, so that, while in use, the apparatus will always be a cylinder filled with a solid freezing mixture. According to Mr. Taylor, the tongue will cling to the apparatus and become anæsthetised in a few seconds.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 25TH.

A. W. BARCLAY, M.D., President, in the Chair.

ON GANGRENOUS ERUPTIONS IN CONNECTION WITH CHICKEN-POX AND VACCINATION. BY JONATHAN HUTCHINSON, F.R.C.S.

THE paper commenced with a narration of the details of a case which had been briefly brought before the Society two years ago. A child in perfect health was vaccinated with several others from the arm of a healthy infant. None of the other children suffered. In this child, nothing unusual happened to the vaccination-vesicles, which ran their course naturally. On the eighth day after vaccination, however, an eruption came out on the body and limbs, which three days later was diagnosed by the vaccinator as variola. Some of the spots had at this time become dusky, and threatened to slough; and afterwards gangrene attacked large numbers of them. Between the eleventh and the twenty-first days, no surgeon saw the child. It died on the latter date; and, an inquest having been held, the coroner requested Mr. Hutchinson to examine the body, and to report on the nature of the disease. The body, which on a former occasion was shown to the Society, and of which drawings were again produced, was that of a well-grown healthy child. It was covered with gangrenous sores; the sloughs being black, and in many instances extending into the subcutaneous cellular tissue. Some of them were as large as shillings. There were numerous smaller sores on which no gangrene had occurred. The sores were arranged with tolerable symmetry over the scalp, face, trunk, and limbs; but the hands and feet were exempt. A *post mortem* examination by Dr. Barlow showed no disease of internal organs. The child had died from exhaustion in connection with the extensive affection of the skin. The author stated that, so far as he knew, this was the first example of a gangrenous eruption following immediately upon vaccination; and that he was inclined to regard it as an instance of the vaccinia exanthem running, in connection with idiosyncrasy, an unusual course. Since the case was first brought before the Society in November 1879, another almost similar one had occurred in Dublin, and had been carefully recorded by Mr. William Stokes. By the kindness of Mr. Stokes, drawings representing the condition of his patient were presented to the meeting. In this instance, the patches of gangrene, although larger, were fewer in number and more superficial; and the infant, although for a time in great danger, eventually recovered. The two cases were almost exactly parallel, excepting that in Mr. Stokes's case a much shorter interval between the vaccination and the appearance of the eruption was assigned by the mother. There were, however, great doubts as to her accuracy and truthfulness, since the medical man whom she asserted to have vaccinated the baby said that he certainly had not done it on the day that she alleged. The eruptions affected the same parts in the two children. In both, the hands and feet were exempt; and in neither did the vaccination-spots themselves become gangrenous. The author next proceeded to another part of the subject—the attempt to demonstrate that chicken-pox does occasionally assume a gangrenous form, and present conditions very similar to those just described in connection with the vaccinia exanthem. He had, he said, for ten years or more been in the habit of recognising a gangrenous form of varicella, and several patients suffering from it had come under his care at the Moorfields Hospital with suppurative iritis. In some cases the disease had proved fatal; but in the majority the patient recovered, with deep scars, and sometimes with great damage to the eyes. In the worst cases, the eruption involved the whole thickness of the skin, and left an abruptly margined, punched-out ulcer. The author quoted from a paper published by Dr. Whitley Stokes of Dublin in 1807, in which this malady was, he thought, clearly described. Dr. Whitley Stokes said that it was well known in many parts of Ireland under the names of "the white blisters", "the eating hive", and "the burnt holes". Dr. Whitley Stokes had noticed the resemblance of the disease to chicken-pox, but had attempted to diagnose between them, alleging that, in chicken-pox, the fever always preceded the eruption; and that the vesicles always dried quickly. The author of the present paper contended that neither of these distinctions would hold good, and drew attention to the fact that Dr. Whitley Stokes had, like himself, observed that the eruption usually occurred in very healthy children; that at its first stage it was like chicken-pox; that severe inflammation of the eyes sometimes occurred; and that the worst cases ended fatally. The final proof

upon which the author relied that the eruption was no other than a modification of varicella was, that he had seen it repeatedly occur to one child in a family whilst several others were going through varicella in its ordinary form. For two examples of this, he had recently been indebted to the kindness of his friends Dr. Barlow and Dr. David Lees of the Children's Hospital. Of one of these cases a drawing was shown. The author referred to some wax casts in the Guy's Hospital Museum which, he said, well illustrated the condition which he had been describing. They had been named rupia escharotica; but he could have no hesitation in believing them to be examples of gangrenous varicella. In conclusion, he urged that if the proof were accepted that, in connection with idiosyncrasy in perfectly healthy children, the eruption of varicella might occasionally assume a severely gangrenous type, there could be but little difficulty in admitting the same possibility as regards the vaccinia exanthem. By the term vaccinia exanthem he intended to designate a general eruption, sometimes erythematous, sometimes lichenoid, and sometimes vesicular, which, although unfrequent, was admitted by all experienced vaccinators to be occasionally seen. It had been especially described by Mr. Ceely, and was referred to by Hebra and others. It was, of course, the analogue of the skin-eruption in variola.

Dr. RADCLIFFE CROCKER had seen a case like Mr. Hutchinson's. A child aged fifteen months was admitted to University College Hospital. At the age of six months, it was vaccinated; nine days later, a papular eruption appeared over the whole body, and, after lasting three weeks, passed off. Some time later, a few papules appeared on the right leg; and two weeks after this there were papules on the legs and buttocks, with pustules. The latter dried, and left ulcers, which spread, varying in size from one-eighth of an inch to a shilling, and appearing as if they had been punched out. He had shown the case to Mr. Hutchinson, who regarded it as one of varicella gangrænosa. The child died. The father was consumptive, and the mother's health was impaired. He would scarcely call this a case of varicella gangrænosa. Possibly other eruptions might take on a gangrenous character. In one case, the eruption which became gangrenous was like pemphigus. He had noticed that, in such cases, greasy applications generally did harm, while watery applications seemed to relieve.—Dr. BARLOW had for several years observed cases of the kind described as varicella gangrænosa; but he had not found that any light had been thrown on them except by Mr. Hutchinson. He thought that, where the eruption was general, the condition would be varicella gangrænosa; but in other cases it was local, and he would scarcely use the term unless the eruption were tolerably general. In the cases which he had noted, the eruption began as a vesicle, which collapsed and separated, leaving a punched-out ulcer, which sometimes even reached down to the bone. He differed from Mr. Hutchinson as to idiosyncrasy. In the fourteen or fifteen cases which he had observed, none of the children were healthy. Six had died; and, after death, he had found tubercle in all.—Mr. R. W. PARKER had seen a case of sloughing of herpes in a child.—Dr. HILTON FAGGE thought that, in using the term rupia escharotica, he had adopted a traditional name. He had no personal experience of the class of cases described by Mr. Hutchinson; but he thought that they could not all be regarded as varicella.—Dr. HABERSHON objected to the use of the term idiosyncrasy, which was, he thought, only an indication of our ignorance. He asked if there was any history of congenital syphilis, or any previous exanthem, such as measles or scarlet fever, in the cases observed; or if there was any peculiarity as to the seat of the gangrene. The simultaneous appearance of the eruption in one of Mr. Hutchinson's cases was rather opposed to the idea of varicella.—Dr. DREWITT had seen at the Children's Hospital a case of varicella gangrænosa, in which other members of the same family had ordinary varicella. The gangrene was purely local. The child recovered under the use of Peruvian balsam and compound tincture of benzoin.—Mr. HUTCHINSON said that he was rather disappointed that there had been no discussion on the gangrene following vaccination. He had not intended to say that all gangrenous eruptions in young children were varicella; but that varicella was capable of becoming gangrenous. In all the cases which he had observed, the eruption was general. The occurrence of the gangrene in patches might be due to certain local conditions of the skin, such as tenderness, friction, pressure, exposure to irritation, etc. He defended the use of the term idiosyncrasy. The gangrene occurred in healthy children; tubercle, he thought, was an adjunct or accident, and might end in producing a fatal result. Referring to Dr. Habershon's objection, he said that where ignorance existed it was better to confess it.

A Healthy Child nursed by a Syphilitic Mother.—Mr. CLEMENT LUCAS showed a child whose mother became syphilitic after its birth, and continued to suckle it without communicating the disease to it. She had done this for three months before any treatment was adopted. Mr. Lucas regarded the case as proving that the syphilitic poison was not conveyed by the milk; or that, if it were, it was not absorbed by the cutaneous or mucous membranes.—Mr. FRANCIS MASON had seen similar cases.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 5TH, 1881.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

Specimens, etc., exhibited.—Mr. F. WALLACE showed an Anencephalous Fœtus, with Spina Bifida.

Dr. HERMAN showed a Translucent Sac, 1⅜ by ¾ of an inch, which had been passed by a woman who supposed herself three and a half months pregnant; and was followed, after some hours, by a placenta with a rudimentary cord. Within it, attached to its walls, was a solid body as large as a pin's head. He regarded the specimen as the dropsical membranes of a blighted embryo.

Dr. EDIS exhibited two Polypi Uteri. The first was of the size of a walnut, and intra-uterine. It was removed by torsion with ovum-forceps from a woman aged 46, who had suffered from severe periodical hæmorrhages for twelve months. The second was a Fibroid Polypus, as large as a goose's egg, and was removed from the vagina by an *écraseur*.

Dr. WILTSHIRE exhibited two Pendulous Cysts from the Labia Minora. They were removed from different patients, and contained translucent fluid. Such cases were extremely rare, and were mentioned by no author except Schroeder.

Dr. BRUNTON showed plaster casts of a Fœtal Head which he had delivered for a neighbouring practitioner. Forceps above the brim, and version, had been tried in vain. He applied his modification of Assalini's forceps, then, failing with it, retained it upon the head, amputated the body to gain room, and perforated between the blades.

Dr. GALABIN showed Microscopic Sections of a Membrane, which was periodically discharged in the middle of the intermenstrual interval, in a case of cervical endometritis. It consisted of an exudation made up of fibrin and cells, some of which showed a tendency to grow into processes. At the edge was a border of inverted cervical epithelium, which had been brought away with the exudation.—Dr. WILTSHIRE thought the fortnightly exacerbations explicable on the hypothesis of hebdomadal periodicity which pervaded the menstrual function. He knew many cases of fortnightly menorrhagia. Did the specimen show any tendency toward the commencement of epithelial cancer?

On the Relation of Anteflexion of the Uterus to Dysmenorrhœa.—Dr. HERMAN read a paper, the object of which was to inquire as to the correctness of the widely accepted theory, than anteflexion caused dysmenorrhœa, by leading to narrowing or temporary occlusion of the uterine canal at the point of bending. The evidence required to prove this was of two kinds, anatomical and clinical. The anatomical was first considered. First, it had to be shown that, in anteflexion, the canal was bent at an angle, and that a spur of tissue projected inward and blocked up the canal, as figured diagrammatically in many works. But, in four specimens of anteflexion in London museums, the curve was quite gradual; there was no angle, nor dilatation of the uterine cavity. Next, the author had searched in vain for any case of retention of the menstrual blood and dilatation of the uterine cavity, for which no other cause than an anteflexion existed; or of a pelvic hæmatocele, dependent upon stenosis of the uterine canal from anteflexion. The clinical evidence was then discussed. The arguments in favour of the theory fell into four groups: 1. That drawn from the patient's sensations; 2. That drawn from the afferent hindrance to the passage of the uterine sound. (The author gave reasons for thinking these arguments inconclusive); 3. That drawn from the frequent associations of anteflexion with dysmenorrhœa. The author pointed out that, before concluding from this association that the anteflexion was the cause of the dysmenorrhœa, it was necessary to know how often anteflexion occurred without functional disorder of the uterus. He quoted summarised statistics from various other observers, which showed that, out of 431 women, anteflexion was present in 185, and the uterus was straight and in the axis of the pelvis only in 153. He had himself examined 102 women, who applied for treatment, not for functional disorders of the uterus, but for local contagious disorders, and, in 49 of these, he found the uterus markedly anteflexed. Of the 53 in whom the uterus was slightly or not at all bent, in 38 there was little or no pain at the menstrual period, and in 15 severe pain; but, of the 49 in whom there was pronounced anteflexion, in 33 there was little or no pain at the menstrual period, and in 16 severe pain. So slight a dif-

ference, the author thought, was practically none. As to the effect of treatment, the author pointed out that dysmenorrhœa with anteflexion was often curable, by rest, by vaginal pessaries, by depletion, by incision, or by dilatation of the cervix, remedies which did not straighten the uterus. Benefit following the use of intra-uterine stems might be due to their effect in dilating the canal, in stimulating the uterus, or to the preparatory treatment. In cases in which the first-mentioned kind of treatment had failed, there was no evidence that intra-uterine stems succeeded. The purport of the paper was summarised in the following propositions. 1. There is no anatomical evidence that anteflexion causes any hindrance to the escape of menstrual fluid. 2. There is reason to think that well-marked anteflexion is present in nearly half of all women who have not borne children. 3. Therefore, it is to be expected that anteflexion and dysmenorrhœa would frequently coincide. 4. Dysmenorrhœa is, practically, as common when the uterus is straight as when it is anteflexed. 5. Painless menstruation is, practically, as common when the uterus is anteflexed as when it is not. 6. When dysmenorrhœa and flexion go together, the severity of the pain bears no relation to the degree of the bending. 7. Dysmenorrhœa, associated with anteflexion, is frequently cured without straightening the uterus. 8. There is no evidence that straightening the uterus invariably or even frequently removes dysmenorrhœa which is associated with anteflexion, and in which other methods of cure have been ineffectual. 9. These facts show that the relation between anteflexion and dysmenorrhœa is not that of cause and effect, but merely that of coincidence.—Dr. GERVIS doubted whether Dr. Herman's deductions were valid, even if his facts remained unchallenged. He believed it to be quite possible for even a flexion of the uterus to exist, and yet no obstruction to be produced, provided the calibre of the cervical canal was not intruded upon by the bend. In one of the specimens cited, there was no obstruction in the canal, though a very marked curvature was present. It was a question whether it would not be well to recognise a class of cases of antecurvature, as distinct from sharp flexion; and Dr. Herman's cases of anteflexion without symptoms would mostly belong to these. He still believed that, if there were obstruction to the cervical canal, there would be the symptoms characterising obstructive dysmenorrhœa.—Dr. AVELING asked Dr. Herman what method he had adopted in discovering the amount of displacement, and in distinguishing between anteflexion and anteversion; also whether the condition of the bladder had been considered in each case. Dr. Aveling thought anteflexion was the cause of obstruction, resulting not only in dysmenorrhœa, but in sterility.—Dr. HERMAN explained that he estimated the anteversion by bimanual examination.—Dr. GALABIN thought great credit was due to Dr. Herman for his paper. But, unfortunately, statistical inquiries always came out in support of the previous opinions of the authors. Dr. Graily Hewitt's recent statistics on the causation of hysteria would, if free from any influence of unconscious bias, demonstrate the extreme importance of anteflexion as completely as Dr. Herman's would, on a similar hypothesis, now demonstrate the contrary. Again, Dr. Emmet had published statistics of many hundred cases, from which he inferred that flexion of the body of the uterus was invariably associated with pain during the menstrual flow. Dr. Herman had made no distinction between the symptoms of congestive and obstructed dysmenorrhœa. If it were true, as held by Schultze, that permanent straightness of the nulliparous uterus was itself a proof of induration from chronic metritis, Dr. Herman's figures would be quite consistent with obstructive dysmenorrhœa being commoner among anteflexed uteri, for congestive dysmenorrhœa might be commoner among the straight. It was contrary to all physiological analogy to expect permanent distension of the uterus from partial obstruction of the canal; for in stricture of the urethra there was, not a distended bladder, but a contracted bladder with hypertrophied walls. It was a drawback that the statistics were taken from prostitutes, amongst whom congestive dysmenorrhœa might well so preponderate over obstructive, that all trace of the causation of the latter would be lost, when no distinction was made between the symptoms. He thought the four preserved uteri cited, which might be cases of congenital anteflexion, insufficient to prove that anteflexion never caused obstruction. This should be decided by the fresh uterus. If it were suspended in a bottle by the fundus, gravity would diminish the flexion a little, and obliterate any flattening of the canal, even if it existed. It was contrary to his own experience that strongly marked anteflexion existed in nearly 50 per cent. of nulliparous women; but, as Dr. Herman examined only by the bimanual method, his statistics perhaps applied rather to uteri which could be brought into anteflexion by pressure from above.—Dr. HEYWOOD SMITH thought that Dr. Herman had rather exaggerated the description of the uterine canal in anteflexion, in saying that there existed a spur of tissue projecting backwards into the canal. The antecurve of the fœtal uterus was shown in a section of the pelvis in the museum of the hospital for women. Marion Sims' operation was not intended to straighten the uterus, but to cut a new and straight canal. His explanation of sterility with anteflexion was that the os was tilted forwards and lifted above the pond of semen that gravitated into the posterior *cul-de-sac*. In many cases, frequent reposition of the uterus and the passing of a thick sound relieved the dysmenorrhœa. Patients with anteflexion described the pains as preceding the flow, and pains of a forcing character felt in the hypogastrium.—The PRESIDENT complimented Dr. Herman on the excellence of the method which he had pursued in the study of this subject. It was a great point in his demonstration that the dilated uterus and the spur-like obstruction at the internal os, so frequently depicted, were never seen. No such specimen was described except from imagination, and none was found in museums. Specimens well described showed no dilatation of the uterine cavity and no spur, and he believed there was no obstruction. By statistics, and by a mass of other evidence, Dr. Herman had brought his opinions far nearer to proof than those had done who held other views. Much had been made of the condition of supposed obstruction. A specimen of anteflexion with complete atresia or closure of the cervical canal was shown lately to the Society, and in it there was no spur and no dilatation of the uterine cavity. If there was only a small, or very contracted passage, there was still room enough for blood to pass freely, not only for the few ounces in a few days of a menstrual period, but so much as to let the woman bleed to death in a short time. Along with Dr. Gamgee, he had some years ago published a paper in the *Journal of Anatomy and Physiology* showing the facility of the passage of blood through capillary canals; and there was much clinical evidence to the same effect. —Dr. HERMAN, in reply, said that he had not disputed the existence of obstructive dysmenorrhœa; but it did not follow that the obstruction was due to flexion. He had stated in his paper the precautions he had taken to prevent any bias due to preconceived opinion in his own mind from affecting the result. Dr. Hewitt's paper only showed that a number of invalids recovered under the influence of rest and good diet. Dr. Emmet's statistics did not bear on the question, because he only examined patients who consulted him for some uterine trouble. It was possible that some of those he had himself examined might have dysmenorrhœa induced by their mode of life. Still, if anteflexion caused dysmenorrhœa, there ought to have been a decided preponderance in the frequency of dysmenorrhœa among those whose uteri were anteflexed. In saying that stenosis of the canal should lead to dilatation of the uterine cavity, he had only quoted what was stated and shown diagrammatically in many books: and the words "spur" or "promontory" were not his own, but were used in works of high repute. Theoretically, fluid would flow a little more readily along a straight tube than a curved one; but in the case of the uterus, the difference would be infinitesimal. It was very rarely possible to distinguish congenital from acquired anteflexion. He did not know any way of diagnosing anteflexion so certain as bimanual examination. He did not think that in his cases anteflexion had been produced by the method of examination; if it were so, it was remarkable that his figures agreed so nearly with those of other observers.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, OCTOBER 5TH, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Extirpation of the Kidney.—Mr. WALTER WHITEHEAD mentioned a case in which he had extirpated the kidney, and showed the specimen.

Successful Gastrostomy.—Mr. JONES exhibited a patient upon whom he had performed gastrostomy. The girl, aged 21, two years previously, accidentally swallowed nitric acid. This was immediately followed by symptoms of œsophagitis; and, three months subsequently, difficulty of swallowing commenced. She was admitted into the Manchester Royal Infirmary at the beginning of 1880, under the care of the late Mr. Bradley, who introduced a small bougie. This was followed by temporary relief. The patient thought the improvement so decided, that she refused further treatment, and returned home. She was not seen again for twelve months. During the interval, her power of swallowing had steadily diminished, so that, when admitted in March of this year, deglutition was scarcely possible. Frequent and persevering attempts to introduce a bougie were made. These were generally futile; on one or two occasions, however, a small instrument passed through the constriction. At the end of March, her weight was 6 st. 10½ lbs. During April, she lost 8 lbs. in weight, and, between the 4th and 14th of May, she again decreased 6 lbs. It now became evident that, unless relief could be afforded early, death by starvation

was inevitable. The dangers of the operation were explained to the patient, who at once consented to its performance. The operation was performed at two different periods, thus carrying out the plan first suggested by Mr. Howse. A slightly curvilinear incision, four inches in length, was made below the margin of the left false ribs, commencing at the anterior extremity of the seventh intercostal space. The structures in the anterior abdominal wall were divided, and the peritoneum exposed. All bleeding points were now arrested, and the peritoneum opened. A small portion of the lower border of the stomach with its attached omentum, together with the left lobe of the liver, at once came into view. The anterior surface of the stomach was gently pulled forwards into the wound, and two loops of carbolised silk passed through the peritoneal and muscular coats, at a distance of about three-fourths of an inch from each other. While the stomach was held by these silk-loops, its peritoneal covering was brought into apposition with the skin by nine fine chromised catgut sutures. Neither the parietal peritoneum nor the other structures in the anterior abdominal wall (with the exception of the skin) were included. The portion of stomach now exposed was elliptical in shape, with the long-diameter (one inch) corresponding in direction with the skin-wound. The tissues at the upper and lower end of the incision were then brought together by catgut sutures. Antiseptic precautions were observed during the operation, and the wound was covered with the usual dressings. Five days afterwards (*i.e.*, on May 19th), the dressings were removed, and an union of the opposing surfaces had taken place. The second part of the operation was proceeded with. The stomach was steadied by the carbolised loops, and the exposed anterior wall punctured with a tenotomy-knife, and, after some difficulty, a soft catheter was introduced through the opening. No anæsthetic was employed while this procedure was carried out. On the former occasion, however, a mixture of alcohol, chloroform, and ether was administered. Fortunately, between the first and second operations, the patient had been free from any untoward symptoms. Nutriment was entirely administered by enemata, which principally consisted of peptonised milk and beef-tea. A small quantity of milk was poured into the stomach immediately after the cathether was introduced. This was repeated, and in a few days the quantity of nutriment thus conveyed was increased to two pints in the twenty-four hours. Since the establishment of the fistula, the progress of the case had been most satisfactory. The patient soon began to put on flesh; and, by August 8th, the day when she left the infirmary, she had gained 2 st. 4 lbs. in weight. The girl was exhibited to the meeting. She appeared to feed herself entirely through the fistulous opening into the stomach, and had further increased her weight by 8 lbs.

Bone-Lesions in Hereditary Syphilis.—Dr. JUDSON BURY showed a man, aged 22, affected with severe bone-disease. He was quite well till ten years old; then "a skin formed over his eyes". He had now symmetrical interstitial keratitis. A little later, his mouth and throat became sore; there was now a hole in the right arch of the palate. At the age of eighteen, he noticed that his legs were swollen; the tibiæ were now greatly thickened, and pieces of bone had come away from the right tibia. There was a large gap in the right side of the frontal bone from which a sequestrum separated a few months since. Two sinuses near the middle of the forehead also led down to dead bone. The lower fourth of the left femur and the back of the right ulna were thickened. The left upper incisor was absent; the edge of the right upper was ground down.—Dr. GLASCOTT said that both teeth were notched when the patient visited the Eye Hospital twelve years ago. His general health was good.—Dr. BURY remarked on the severity of the bone-lesions as compared with those now met with in the acquired disease, on the productive nature of the osteitis, on its exceedingly chronic course—sclerosis usually preceding and causing necrosis. He also showed a child, aged 2 years, with a disappearing condyloma at the anus, and osteophytic growths on the tibiæ.

Diabetic Coma.—Dr. DRESCHFELD read a paper on diabetic coma, taking as a basis an analysis of about fifty published cases, together with some unpublished ones which had occurred in his own practice and that of his colleagues. Diabetic coma chiefly occurred in young persons. It might come on a few months after the first appearance of diabetic symptoms, or within the first or second year, rarely later than that. According to the most prominent symptoms, three forms might be distinguished; one form, which resembled, and possibly was, an acute alcoholic intoxication; a second form, chiefly characterised by drowsiness, soon passing into coma; and a third form, by far the most common, and in which the coma was preceded by dyspnœa, sickness, epigastric pain, and often delirium; and, in some rare cases, by convulsions. Important aids in foretelling the possible advent of the coma in diabetes were the peculiar odour of the breath, and the presence in the urine of aceto-acetic ether, by giving a peculiar claret-red colour on the addition of perchloride of iron. Amongst the chief *post mortem* changes found, were the presence in the blood of large amounts of fat, and traces of aceto-acetic ether, and of the two bodies into which it split up (aceton and alcohol). The kidneys, which might appear normal to the naked eye, often showed changes when microscopically examined; the most noteworthy change was a peculiar necrotic condition of the epithelium of the convoluted tubes, seen in three cases examined by Dr. Dreschfeld, and in two cases recently reported by Ebstein. The pathology of diabetic coma was considered at length, and none of the existing theories were found to account for all the cases. Against the acetonæmia theory might be urged the following. 1. Experimental researches on animals showed that only very large doses both of aceton and of aceto-acetic ether produced toxic symptoms. 2. In man also, both these bodies produced no effects, even if given in large doses (five grammes). 3. In some cases of diabetic coma, these bodies were absent both from the urine and the blood. 4. Aceto-acetic ether occur in the urine in other cases than diabetes, without producing the combination of symptoms seen in diabetic coma. Against the view pronounced by the late Dr. Sanders and Dr. Hamilton, according to which fat-emboli were the cause of the symptoms, the following objections might be urged. 1. Experimental facts showed that, unless large quantities of fat were injected, the fat was again eliminated, without producing any effect. Something similar seemed to obtain for man according to Bergmann's observations. 2. Fat-embolism was often found after death, though, during life, no symptoms pointing to it existed (Moulin). 3. In four cases of diabetic coma, Dr. Dreschfeld carefully examined *post mortem* the lungs, liver, and kidneys, and found no fat-emboli, though, in two out of these four cases, Dr. Gamgee detected a large amount of fat in the blood. Diabetic coma might be looked upon as somewhat analogous to uræmia, and as consisting of some acute intoxication, caused by the presence in the blood of a toxic agent (possibly an oxydation-product of sugar), the elimination of which was interfered with by one or other of the organs (chiefly the kidney) having their functions impaired. As it was highly probable that these oxydation-products were due to the action of a ferment on the sugar, a rational treatment for such cases would be, the administration of large doses of an antiseptic or antiferment. So far, however, such treatment had had no more success than any other treatment (injection of solution of salt, transfusion of blood, inhalation of ozone, etc.), which had been attempted.

REVIEWS AND NOTICES.

THE CAUSE OF COLOUR AMONG THE RACES, AND THE EVOLUTION OF PHYSICAL BEAUTY. By W. SHARPE, M.D., late surgeon British Army, etc. New edition, revised and enlarged. New York: G. P. Putnam's Sons. 1881.

THIS work, notwithstanding one adjective in its title, is metaphysical rather than physical; but, as it only consists of thirty-six pages of large print, it is free from one of the chief objections common in philosophical publications. Dr. SHARPE endeavours to prove that inferior grades of humanity are distinguished by out-door life, involving exposure to the sun and the air, by pigmentation of the skin, ill proportion of figure, and ugliness of feature. The more civilised a tribe becomes, the more the reverse of all these conditions will be attained. No doubt the author is correct in believing that moral elevation has a great effect in improving race; and "the voluntary abandonment and sacrifice of the nobler principles of humanity to the sordid dictates of selfishness, and the vile pursuits of unrestrained animal inclination", as he expresses it, involve in many cases a brutalisation of countenance, when once chronic and well established in a nation. Still generalisations on the effects of culture and degradation on the human face and body must always teem with sources of fallacy; many sages have been ugly, and, among the worst rabbles in great cities, the artist often finds an apostolic head on the body of an Adonis. One source of error is given, with a different intent, by the author. He objects to the large consumption of lager beer in America, as tending to make men bloated and pursy. In other words, it is the instrument of the vice, and the conditions which vice involves, that react unfavourably on personal appearance. Beer and hot taverns, not the abstract state of mind leading to intemperance, cause the toper to grow uncomely. When we come to more complicated vices—the toleration of despotism or slavery, disregard of art, indifference to patriotic questions—their direct influence on the features can never be accurately calculated.

When Dr. Sharpe deals with facts and not theories, he becomes in-

structive as well as interesting; and we earnestly hope that, in future, he will drop amateur metaphysics, and continue his ethnological researches, in which he is an adept. If not entirely original, there is great conciseness in his remarks on the influence of caste upon the colour of the skin among the Hindoos. The extra civilisation imported with British rule appears to have made the higher castes still paler than they have been for countless generations; and the decline of the priesthood in power and social position causes members of many inferior castes to be as light-coloured as, or even more nearly white than, the Brahmins. Dr. Sharpe would do well to pursue his inquiries among many interesting communities, not at present well known, except as being remarkable for primitive goodness or badness; the Sand-hill men of the highlands of North Carolina are an amiable example of the first, and the sea-island negroes of South Carolina represent the second condition. He might profitably study in America the appearance of the sons of emigrants, expatriated from Europe under the worst conditions, but prosperous in the new world. As to the progeny of those who have failed in the United States, their moral unloveliness is already well known. Dr. Sharpe has decidedly initiated questions which might be discussed on a far larger scale, and in a yet more practical manner, than in his pages.

A MANUAL ON DISEASES OF THE EYE AND EAR. By W. F. MITTENDORF, M.D. New York: G. P. Putnam's Sons. 1881.

THE arrangement of this manual is clear; the type is good, and the illustrations are numerous and well executed. These remarks apply to Part II as well as to Part I. The association of the eye with the ear, however, is not so much in accordance with the customs of practice here, as on the other side of the Atlantic.

The author's teaching is generally sound and good. He thinks neurotomy decidedly of less value than enucleation in the prevention of sympathetic disease. He lays it down clearly that, when this disease is once established, the first-affected eye should not be excised, so long as there is the possibility of its ultimately possessing any vision.

But we cannot agree with him in his estimate of the value and mode of action of sclerotomy in glaucoma. He appears to think it preferable to iridectomy, simply because it leaves the eye free from the disfigurement of a coloboma, and that it cures by the establishment of leakage through the cicatrix.

Many recent authorities also will disagree with his account of the pathology of chalazion. His account of colour-blindness is decidedly meagre.

The tables of differential diagnosis constitute a valuable feature of the work. More might have been said, however, in this respect, upon the very important subject of the diagnosis of glioma.

Though the book is not free from minor blemishes, such as, for example, misspelling of the names of authors, our verdict must, upon the whole, be decidedly in its favour.

NOTES ON BOOKS.

Guide du Vaccinateur: les deux Vaccins: Vaccin d'Enfant, Vaccin de Genisse. Paris: 1881.—This guide has been compiled and published by Dr. DE PIETRA SANTA on behalf of the Société Française d'Hygiène, and is, as stated in the preface, of a purely practical nature. Its aim is to give exact details with regard to the cultivation and employment of human and animal lymph. The first part is devoted to a description of vaccination with human lymph. The course of the vaccination, from the performance of the operation to the formation of the scar, is minutely described. It is recommended that vaccination should be performed in three places on each arm, and during the first six months after birth. Vaccination by puncture is stated to be the classical procedure; but it is often preferable to make small incisions of two or three millimètres in length. Careful directions are given as to the performance of the operation, and a few hints as to the treatment of the child during the course of the vaccinia. The methods of preserving lymph, on lancets, between two pieces of glass, on ivory points, or in tubes, are then described. The second part treats of animal vaccination. Lymph is procured from the calf inoculated with either cow-pox or horse-pox. The animal to be inoculated should be healthy, and about three or four months old; sex is immaterial. Details are given as to inoculation of the calf and the precautions to be taken during the development of the cow-pox. On the fourth or fifth day after the operation, the best lymph is obtained; but good lymph may be had on the sixth or seventh day. Calf-lymph may be preserved on lancets between plates of glass, or on ivory points; but the only reliable method is in capillary tubes.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, OCTOBER 29TH, 1881.

CASE OF THE LATE PRESIDENT GARFIELD.

WE published in the JOURNAL, on the 15th instant, a review of the late President Garfield's case by Dr. Hamilton, Surgeon to the New York Hospital, and one of the surgeons in occasional attendance as a consultant on the distinguished patient throughout the course of his protracted sufferings. Dr. Hamilton did not see the President until the morning of the 4th of July, about forty-eight hours after the wound had been inflicted. He refused to make any further exploration, acting, as he has stated, upon the testimony which was brought forward at the consultation respecting the course which the bullet had been found to have taken, and on the further testimony that it had passed beyond reach; besides, Dr. Hamilton found, upon personal examination and inspection, that the track of the wound was completely closed by a firm clot. It is thus rendered evident that any attempt to explain, on the one hand, the great uncertainty in the minds of the medical attendants regarding the actual path of the bullet, and the general conviction which prevailed that the projectile had taken its course on the right side of the body, and had lodged in or near the right iliac fossa; and, on the other, the fact revealed at the *post mortem* inspection that the bullet had taken a direction nearly at right angles to the supposed course, had traversed the spine, and had lodged on the left side of the trunk—must, in an important degree, be based on the exploration of the wound which took place prior to the time at which Dr. Hamilton saw the patient. It was during this interval that the diagnosis was really established; and the conclusions then arrived at manifestly influenced the views which were taken of the symptoms presented, and of many of the circumstances which occurred in the subsequent progress of the case. The questions arising out of the error in diagnosis at the early examination of the President's wound were at one time threatened to be dwelt upon by the counsel who has undertaken the defence of the man to whose hand the death of the President is due, but, as has since been reported, the attempt to show malapraxis in the treatment of the case as part of the defence has now been abandoned. It is still, however, a matter of special interest to ascertain how the original diagnosis regarding the nature of the injury was arrived at; and also to determine whether, had a more accurate diagnosis been obtained, any reasonable ground would exist for a belief that the ultimate fatal issue of the case might have been averted. We are no longer left in doubt on these two points. Since we published the report by Dr. Hamilton, we have received the history of the case and its treatment, which has been furnished by Dr. D. W. Bliss, the surgeon in charge, to the *New York Medical Record* of the 8th instant. Dr. Bliss was summoned by the Secretary of War to attend upon the President immediately after he had been shot, and he remained in direct charge of the case from that time to its fatal termination. We have also received the full text of the result of the *post mortem* examination of the body, of which only a short abstract has previously appeared in print: this report appeared in the JOURNAL of the 22nd instant.

From the first of these two documents, we learn that Dr. Bliss saw the President without delay, after he had been [illegible] the case, in an upper room of the building where the assassin was confined. It was here that the first, and what appears to have been the principal,

exploration of the wound was conducted. The examination was made with a Nélaton's probe, with a long silver probe, and with the finger. The President was lying upon a mattress, in a semiprone position, on the left side, and was greatly collapsed. It will be better to give the account of the exploration of the wound as Dr. Bliss himself reports it. "With a view", he writes, "of exploring the wound to ascertain the course of the ball and the organs involved in its passage, I introduced a Nélaton's probe, which took a direction downward and forward, on a line which would represent a point of exit four inches to the right, and nearly directly opposite to the umbilicus. The point of entrance of the ball, which was oval and sharply cut, was on the right side, four inches from the median line of the spine, and on a line with the eleventh rib. A slight discharge of blood was oozing from this orifice, and had soiled the clothing. I passed the probe in the direction previously indicated, through the tenth intercostal space, for a distance of three and one-half inches from the surface of the body, to what appeared to be a cavity; and I was unable to detect any foreign substance beyond the rib to indicate the presence of fragments of bone or the missile. In attempting to withdraw the probe, it became engaged between the fractured fragments and the end of the rib, and could not be liberated until pressure was made upon the sternal end of the rib, so as to slightly elevate its fractured extremity. I then passed the little finger of my left hand to its full extent into the wound, which developed the character and extent of the fracture of the rib, and was only able to reach a point on a line with the inner surface of the rib, where it came into contact with what appeared to be lacerated tissue or comparatively firm coagula, probably the latter. After withdrawing my finger, I made an exploration with a long, flexible, silver probe, which I suitably curved before entering, and gently passed it downward and forward, and downward and backward in several directions, with a view of indicating the course of the ball, if it had been deflected by contact with the rib; and, meeting with resistance from soft parts, I desisted, and excluded the probability of deflection, being inclined to the opinion that the ball had entered the liver, which, if true, would not warrant further exploration in that direction." No other exploration is alluded to by Dr. Bliss, excepting one by Surgeon-General Wales, of the Navy, who, on the evening of the same day, inserted his finger into the wound, but found it impossible to successfully explore beyond the inner border of the fractured rib. The subsequent record of the case by Dr. Bliss shows that the explorations of the wound made on these occasions were regarded as conclusive regarding the general direction which the missile had taken, although its particular anatomical path could not be determined after it had passed the eleventh rib; and hence, probably, less attention was given to the possibility of it having turned in a direction toward the spine. Had the impression regarding the course of the bullet being towards the front of the abdomen, on the right side, not been so fixed as it was, it is not unlikely that an exploratory incision might have been made through the superficial and relatively unimportant tissues from the aperture of entrance of the pistol bullet over the tenth intercostal space down to the fractured eleventh rib, on the arrival of the eminent surgeons Dr. Frank Hamilton and Dr. Hayes Agnew, at the first consultation on the morning of the 4th of July; when, starting from that point, the deflection of the projectile towards the spine would have been probably determined without any difficulty. To have pursued the track of the missile, under any circumstances, beyond its entrance into the body of the vertebra, would have been, of course, most unwise, and probably impracticable. The account furnished by Dr. Bliss of the primary exploration of the wound sufficiently shows the great difficulties which were met with in trying to ascertain the true track of the projectile, when the examination was commenced by introducing the finger or probe at the opening of entrance in the skin over the tenth intercostal space; but the course taken by the bullet, as shown *post mortem*, sufficiently proves that these impediments would no longer have been encountered, had it been made practicable to commence the exploration from the point where the projectile had struck and broken the rib by which, and from which, its forward progress was turned aside. The *débridement* of the wound down to this spot, while in no appreciable way aggravating the injuries already existing, might also have been attended with some further advantage in affording a better opportunity of removing some of the detached and displaced fragments of rib, and so averting some of the later complications.

It is professionally satisfactory, however, to find that, even if the track of the bullet had been accurately traced to the spot where it entered the first lumbar vertebra, the knowledge could not have influenced the ultimate issue of the case. The laceration of the splenic artery by the projectile, and the consequences of this accident, must almost inevitably, sooner or later, have led to a fatal termination. If the penetration of the lumbar vertebra had occurred without this fatal complication, it would have been a matter of regret that the spinal injury had not been discovered; for, had the fact of penetration of the vertebra been known, and had it been unattended with the arterial lesion which was the immediate cause of death, mechanical means might, perhaps, have been adopted to insure perfect rest in the wounded part of the spine; and, under such a state of complete repose, there might have been a possibility, though a very remote one, of recovery, as the canal and medulla had entirely escaped penetration. But, with the wound of the splenic artery added to the other injuries, ultimate recovery was out of the question. Indeed, when this and the other grave complications of the case are taken into account, it becomes a matter of wonder that the President's life was prolonged to so late a period as it was; and the fact that it was so prolonged is in itself a sufficient proof of the unceasing care and great skill with which the treatment throughout must have been conducted. The detailed account of the necropsy, which was published in our last week's issue, is a very carefully prepared document, and must have been read with the greatest interest by every member of the profession who had thoroughly studied the history of the memorable wound of the late universally regretted President Garfield.

PARANGI.

ALTHOUGH the existence of an obstinate chronic epidemic disease has been known in Ceylon for centuries, it is only within the last few years that the subject attracted the serious attention of Government, and that attempts have been made to arrive at a correct opinion of its origin, nature, and treatment. In consequence of some remarks, in 1866, by a Committee of the Legislative Council, Dr. James Loos was instructed to report upon "Parangi", which is the local name for the disease in question. His report led to several hospitals being established; but little else seems to have been done towards investigating the disease, until the term in use attracted the attention of Dr. Gavin Milroy in 1872. In 1879, instructions were issued for the systematic investigation of the history, nature, and affinities of the disease; and every medical officer in the department was required to keep a register of all cases of it coming under his notice. These reports have been examined by Mr. W. R. Kynsey, the Principal Civil Medical Officer of Ceylon, who gives, in a recent report, a very interesting account of the disease.

Parangi is defined by Mr. Kynsey as a specific disease, produced by a variety of causes, all contributing to debility of the general system, and traceable to poverty, innutritious food, impure water, and residence in unsanitary dwellings in malarious localities: propagated by contagion generally, through an abrasion or sore, but sometimes by simple contact, without any solution of continuity being present or recognisable; marked by an ill-defined period of incubation, by certain premonitory symptoms referable to the general system, by the evolution of successive crops of a characteristic eruption, passing on in severe cases and in weakly subjects into unhealthy and spreading ulcers, whose cicatrices are very prone to contraction; running a definite course; attacking all persons, irrespectively of age; and amenable to appropriate treatment.

The etiology of the disease is still obscure. The cause, whatever it is, has not been ascertained; but little doubt exists as to its existence

in the discharges coming from the eruptions and ulcers. It seems exceedingly doubtful if it exists in the natural secretions. It does not exist in the milk; for healthy children of a diseased person, and nursed by her, have frequently not developed the disease.

The geographical distribution of the disease is that of deficient water-supply, and the use of artificial tanks for the storage of water. This seems to be of considerable etiological significance, as pointing to the water as faulty, and probably causative of the disease. The tanks, as a rule, furnish all the water needed for the various uses to which man subjects it; and the character of the water is so equivocal as to have arrested the attention of all engaged in the study of parangi. Climatic influences are also not without import in the causation of the disease. It has been noticed that the setting in of the wet weather is generally the prelude to a fresh outburst, and to an aggravation of the pre-existing disease. Whether this be connected with disturbance of the tank-water during the downpour, or the setting free of malarial poisons, or both, has not been settled. As somewhat to the point, it may be mentioned that the increase in malarial fever is also contemporaneous with the advent of wet weather. The habitations of the afflicted are such as seem peculiarly adapted to the fostering of disease, and perhaps to generating it. Ventilation is an unknown art. The salutary influences of light and air are not heeded. The habits and customs of the people are filthy in the extreme, and personal cleanliness is seldom attended to. The food is innutritious and deficient, especially in nitrogenous elements. Whether any disease in the grain eaten (*Elusine corocana*) is accountable for parangi, is not settled; but there is nothing in its appearance to justify such a suspicion. Marriages of consanguinity, undertaken at very early ages, and frequently when both are diseased, must also have some causative influence, if not in the production, at least in the propagation of the disease.

The symptoms which characterise parangi may be referred to four stages. The first stage comprises the period of incubation, which is unmarked by any peculiar phenomena, and varies in duration from two weeks to as many months. The second stage comprises the premonitory fever, which generally terminates with the evolution of the eruption—viz., in a period varying from two to seven or eight days. The third stage commences with the eruption, and terminates with a complete resolution of the disease, or its passage into the fourth stage, that of sequelæ. The last two stages together cover a considerable period, in some cases as many as six or eight years. Passing over its first stage, which, for obvious reasons, is seldom noted, there are certain symptoms which invariably accompany the second stage, and have been noted and recorded by all observers. These symptoms point to the general system, and consist of slight pyrexia, accompanied by a feeling of *ennui* or *malaise*, and pain in the majority of the joints of the body. The character of the pain has been variously described, but usually as of a dull running or shooting kind. It may be mentioned that the disease is nearly always preceded by an ulcer, generally situated above some bony prominence, and caused by scratching. It is shortly before, or in the healing of this initial sore, that the symptoms of the second stage declare themselves. In the third stage the characteristic eruption appears, and passes through its various phases. The evolution of the eruption is in successive crops; the first appearing generally on the face, the next on the body, and the last on the extremities. There is, however, really no order in the evolution, and the positions are frequently reversed. It is frequently noticed that the first eruptions appear around the cicatrix of the initial sore, and thence extend to the different parts of the trunk and extremities. The disease, however generated or acquired, usually runs a definite course, *i.e.*, to the conclusion of the third stage. Unskilful interference only prolongs it; and, there is reason to believe, produces horrible sequelæ. The average duration of ordinary cases of parangi, unaffected by treatment, is about six months, though it sometimes is shorter and frequently longer. If the fourth stage be included, the duration is very great, and varies with the nature and severity of the local manifestation from two to eight years or more.

The disease attacks all people alike, though, as a general rule, the well-fed and comfortable are affected only slightly, or by the milder forms, and shake off the disease sooner than the ill-fed, ill-clad, indigent, and dirty. It is a matter of doubt whether a person once attacked enjoys an immunity from the disease. Cases occur from time to time with what appear to be fresh attacks; but, upon careful examination, it is ascertained that the first attack was really not totally eradicated, and that one or two eruptions existed when treatment was discontinued. A proper cure once effected would seem to render a recurrence at least doubtful. The disease, although appearing formidable, seems to exercise very little influence upon the general health, unless it be maltreated and pass on into various sequelæ. The people suffering from it appear to live to a ripe old age, and instances of long life are not wanting among them. Mr. Kynsey adds that the diseases which parangi resembles are, syphilis in its varied manifestations, lupus, leprosy, and frambœsia or yaws, its most striking resemblance being to the last. The history of both is identical, and the minor points of dissimilarity may be easily accounted for by ascribing to the climate and surroundings generally some modifying influence.

THE last news received from Mecca indicates that the epidemic of cholera, which has broken out in the holy city among the pilgrims recently arrived there, is dying out. Only five deaths were recorded on the 21st September. The news from Aden is equally satisfactory.

THE ROYAL UNITED HOSPITAL, BATH.

THE recent election of a surgeon to this institution has called forth various comments and suggestions in the local press. It is said that, to elect a medical officer by a general canvas of the subscribers, is a very unsuitable method of filling up vacancies on the staff. This is perfectly true, and yet it is no easy matter to suggest a better plan. Again, it is said that, as regards the medical profession, the Royal United Hospital is exclusive, and that the experience which it affords is confined to the three physicians and the three surgeons who form the staff. It is suggested that it would be well if three assistant-physicians and three assistant-surgeons were added to their number. The exclusiveness which is complained of would, however remain, even if the staff consisted of twelve instead of six medical men; while the appointment of six assistant-physicians and surgeons would inevitably lead to the development of a greatly increased out-patient department. This assuredly would not be a boon, either to the medical profession or to the public at large. An effort is now being made to obtain a Royal Commission of Inquiry into the London hospitals; and there can be little doubt that, if such a commission were granted, and if it succeeded in eliciting the general opinion of the medical profession, it would not report in favour of the extension of out-patient departments. The *Bath Herald* seems to think the United Hospital "has omitted to bring itself into harmony with the ideas of the present day". If such be the case, the remedy is not to be found by increasing the facilities for out-patient relief. Bath is, we believe, amply supplied with medical charities, and the opinion is daily gaining ground, that gratuitous medical service should be carefully guarded, or confined within strict limits.

THE SWANSEA HOSPITAL.

DURING the recent royal visit to Swansea, the Prince and Princess of Wales paid a visit to the hospital, where they were received by Dr. T. D. Griffiths, one of the physicians, and Mr. Humphreys, house-surgeon. Their Royal Highnesses displayed the graceful interest in the institution and in the patients for which they have always been distinguished. Dr. Griffiths pointed out that a plan was prepared for providing hot and cold sea-water baths on a large scale, so as to render the hospital useful in a large class of cases which could not be so successfully treated by other means. The committee had made extensive preparations to receive accidents that might arise during the rush and crowding attending the ceremonials of the royal visit. It might reasonably have been

apprehended that at some of the numerous stages, arches, and other temporary structures that had been erected, accidents would occur; but so well had everything been done, and so orderly was the crowd, that not a single misfortune happened.

PORRO'S OPERATION IN ENGLAND.

On Friday, October 21st, Mr. Spencer Wells performed Porro's operation, or a combination of the operations of Freund and Porro, on a patient aged 37, between five and six months advanced in pregnancy, and suffering from epithelioma of the cervix uteri. This is the first case where the operation in question has been performed in England, and the first instance where malignant disease of the uterus has been the indication for operative interference. The statistics and history of Porro's operation have been discussed at length by Dr. A. R. Simpson, in the last volume of the JOURNAL (vol. i, 1881, pp. 910, 956). That operation is a supra-vaginal amputation of the uterus, in addition to the Cæsarean section. Freund's operation is total excision of a cancerous uterus by abdominal section. Mr. Wells has combined the two operations. In this case, strict antiseptic precautions were used. The urine was first drawn off, and the catheter left in the bladder. The vagina was plugged with wet phenolised cotton-wool, then the abdominal incision, about eight inches long, was made; the uterus was thus exposed. The fœtal movements were active. The uterus was brought out of the wound, the upper half of which was temporarily closed by several silk sutures. By this means, the edges of the wound were kept as near together as possible; the intestines, which gave no trouble during the operation, being guarded with sponges. The left broad ligament was next transfixed by a stout silk ligature external to the ovary and below the Fallopian tube. The same proceeding was repeated on the right side. The bladder was then dissected off the uterus, the walls of which were very thin. A small rent was made into the uterine cavity during the process of separation of the bladder, the liquor amnii escaped, and the fœtus, which measured ten inches and three-quarters and weighed fourteen ounces, was extracted, and the umbilical cord divided, the placenta being left in the uterus; the fœtus only made three or four respiratory efforts. The ureters were invisible throughout the operation. After the separation of the bladder, the cancerous mass close around the os uteri was exposed. The uterus was separated by cutting through the vaginal wall around and quite close to the uterine wall; all bleeding surfaces, as they were divided, being secured by pressure-forceps. These forceps were afterwards removed, and all bleeding vessels secured by ligatures of phenolised silk. The opening from the peritoneal cavity into the vagina was closed by silk sutures, after removing the vaginal plugs of cotton-wool. The operation, from the first incision through the abdominal integuments to the tying of the last suture in the abdominal wound, lasted sixty-five minutes. Very little blood was lost. The growth around the os uteri was examined microscopically when fresh, and proved, as expected, to be an epithelioma; it formed a nodular, exuberant mass, not yet in a state of ulceration. The uterus and its appendages weighed fourteen ounces and a half, precisely half an ounce more than the fœtus. The patient suffered chiefly from sickness during the two first days after operation, but, she said, not more than after some of her previous labours. On the third day, it was observed that many women after a perfectly natural labour had more fever, and appeared to suffer more from after-pains, and presented an aspect of more severe illness, than this patient. When last heard of, on Thursday morning, October 27th, she was progressing favourably.

DEATHS FROM ZYMOTIC DISEASES IN LONDON.

The fatal cases of small-pox in London, which had been 13 and 22 in the two preceding weeks, declined again last week to 14, which, however, exceeded the average by 2. The new cases of small-pox admitted to the Metropolitan Asylums Hospitals during last week were 196, showing a marked increase upon the admissions in the two previous weeks, which were 51 and 62. The fatal cases of measles, which had been 21 and 33 in the two previous weeks, were 30 last week, and exceeded the average by 2; 5 occurred in Pancras, and 5 in Islington. The 48 deaths from scarlet fever showed a decline of 18 from those returned in the previous week, and were 19 below the average; they included 7 in Hammersmith. The 21 deaths referred to diphtheria considerably exceeded the numbers returned in recent weeks, and were 11 above the average; 2 occurred in Islington, 3 in Hackney, and 2 in Whitechapel. The 39 fatal cases of whooping-cough showed a further increase upon recent weekly numbers, and exceeded the average by 11; they were proportionally most numerous in East London. The 18 deaths attributed to diarrhœa were 21 below the average, and included 13 of children under five years of age. The deaths referred to enteric fever, which had been 48, 46, and 33 in the three previous weeks, rose to 53 last week, and exceeded the average by 30; 6 of the fatal cases belonged to Lambeth, 3 to Camberwell, 4 to Hackney, 3 to Islington, 3 to Poplar, and 2 to the City. The Metropolitan Asylums Fever Hospitals at Homerton and Stockwell contained 110 enteric fever and 42 typhus fever patients on Saturday last, showing but slight variation from the numbers reported at the end of the previous week.

LONDON SANITARY PROTECTION.

Household dangers from defective sanitation are well known to medical men; while they know also, by their own personal experience, no less than by that of their patients, how often dangerous conditions exist in their houses, especially in houses of the older class, which are unsuspected, and which lurk beneath the soil, giving no indications of their presence until some accidental circumstances, or growing aggravation of the original evil, leads to misfortune. The systematic investigation of such households by a skilled sanitary inspector would be one of the most potent elements in the health of the home, and therefore in the health of the nation; and, towards this end, a great step will have been made, if the various sanitary protection associations, recently started, should become popular, and receive general support. Public opinion in such a matter must always be in advance of legislation, and there are no persons better able or more likely to influence public opinion favourably and intelligently in this direction than medical men. Our readers will, therefore, be interested to notice the statement made at the first general meeting of the London Sanitary Protection Association, which was held on Tuesday evening at the Society of Arts, Adelphi, Professor Huxley, the President, in the chair. The chairman explained that the meeting was a general, not an annual, meeting, as the Association had not yet been a year in existence; it was one which they were obliged to hold by their articles of association. Mr. Holmes, the treasurer, stated that the Association had been in operation only for a few months, and for a certain portion of that time its action had been suspended by legal difficulties. The number of members enrolled up to the 15th of this month was 126; the total contributions, together with a loan of £100 from Professor Jenkin, for the purpose of advertising and starting the Association, was £391 11s., and the total expenditure £346 3s. 6d. Professor Huxley said that the Association was a co-operative store for the supply of good advice, and the modest success which had hitherto attended it was very likely due to the antipathy inherent in human nature to the reception of good advice. His interest in this Association came from the remote connection he once had with medicine and hygiene. Whatever suspicion of knowledge he ever possessed had led him to the conviction, strengthened by every day's experience of life, that, when close upon four millions of people were aggregated on something less than fifty square miles, if care were not taken we should be desolated, not by the Plague or Black Death, but by those other forms of disease, as fatal in their way, which have the terrible peculiarity of being easily disseminated by the means taken to get rid of them, unless those means were perfect. Disagreeable as the old cesspool system was, it was attended with very little danger compared with that which waited upon the water sewage system, if that system were imperfect; for then it was an admirably contrived arrangement for distributing disease and death in our own houses and in the houses of people who lived adjacent. There were two ways of

meeting the danger. One was by the action of Government in some shape or other; but, in England, no one would tolerate the intrusion of Government officials for the purpose of knocking about and looking into everything; besides, the expense and difficulty of working such a system would put it out of the range of the practicable. The other way was to meet the danger by means of those who supplied a good report, such as that Association would do. Therefore, it was for the public good that the Association should become a great one, and its work be carried out as widely as possible.

SMOKE IN THE MANUFACTURING DISTRICTS.

REFERRING to Mr. Bousfield's letter on this subject in the *Times*, a Lancashire landlord writes to the same paper indorsing Mr. Bousfield's statements as to the injurious effects of this terrible pest, and says that trees which he had planted more than twenty years ago, after struggling through a sickly youth, began to decay before they had reached anything like maturity, and flowers and shrubs were blackened, blighted, and diseased, though tended with the greatest care. Scarcely anyone in the village in which he lived, and few in the neighbouring towns, made any attempts at horticultural experiments, knowing, he supposed, their inutility; but he could not think it was from want of appreciation of the beauties of nature, since he heard every spring of many persons coming from a considerable distance merely to see a few rhododendrons he had with infinite pains succeeded in rearing. But his own petty grievances were nothing compared to the scenes of unsightliness and desolation to be met with all around. Discoloured cottages, dwarfed blackened trunks of trees, polluted streams, and blighted vegetation meet the view on every side, and yet he believed, with Mr. Bousfield, that a very little care and trouble on the part of manufacturers would remedy much of this evil. He had frequently spoken to millowners on the subject, and they acknowledged that changes could be easily effected by which their chimneys might be made to consume their own smoke; and, though such alterations would, in the first instance, entail some expense, the result would ultimately be profitable in decreasing the consumption of coal; but they had as an excuse for doing nothing, that their firemen might, and often did, object to depart from the present system, as the new would entail rather more trouble, and factory hands were hard to manage. The difficulty, in many instances, of bringing such nuisances within the reach of the law might be imagined when, as with regard to one of the towns near which he sometimes resided, all or almost all the borough magistrates were themselves manufacturers. The injury to health from the pall of smoke, which prevents the access of sunlight alike to animal and plant, is not easily to be estimated in words. Certain it is, however, that in London, at the present moment, the last conifer is expiring in Kensington Gardens; that roses, which most of the present generation will remember as flourishing in the gardens of Kensington and the West End of London, can now no longer be grown; that wax-bleaching, which was formerly carried on successfully at Paddington, is now removed beyond Richmond; and that the whole of the inhabitants of the urban districts of the metropolis are living under a deprivation of radiant sunlight and actinic influence, which must act by etiolation of the tissues and lessening of the chemical changes of the body necessary to active health. There can be no doubt that the state of many of the manufacturing districts is still worse; nor is there any reason to believe but that the remedy, especially in the latter, is easily within the hands of the inhabitants, and within the reach of legal enactments adequately carried out. Early in the course of next month will be held at South Kensington an exhibition and competitive testings of smoke-consuming apparatus, of which there are many which are applicable to industrial establishments, which are not only thoroughly effective in preventing smoke, but effect a saving of money at the same time. The manager of Messrs. Hanbury's brewery testified, at the Mansion House meeting on the subject of smoke-abatement, that not only did their chimney produce no smoke, owing to the use of Jukes' fire-bars, but that, in the course of the last twenty-four years, a saving had been effected of nearly £30,000 by the addition of this smoke-consuming apparatus to the furnaces. The problem, as it affects domestic fire-grates, is of course more complex and more difficult; and there is every reason to believe that in this respect also the means will be shown by which, with much good-will and a little self-denial on the part of the well-affected and intelligent inhabitants of London who desire to see the atmosphere clear, a very great improvement may be effected with little difficulty and small individual outlay.

MEDICAL REGISTRATION.

A DECISION given by Mr. Lushington this week in the police court on the subject of registration will materially alter the arrangements of the General Medical Council for keeping the register, if it should be maintained. Mr. Lushington refused to adjudicate on a charge of illegal practice brought against the manager of a local dispensary by the Medical Alliance on the ground, that although the gentleman in question was not registered, and was signing certificates where registration was necessary, nevertheless, he had been registered at a previous time, and it was the business of the General Medical Council, and not of the individual, to see that his name was maintained on the *Register*. This decision appears to be contrary to the provisions of the Medical Act, as it is certainly contrary to the regulations of the Medical Council as to registration, and the matter cannot rest in this position. It has not yet, we believe, been decided whether the Medical Council will take steps to procure a reconsideration of the decision by appeal or otherwise. It is obvious that it must either do so, or take for itself a duty which it has hitherto cast upon the practitioners, and which it would be very difficult for it to carry out. There are many persons who have an interest in seeing the *Register* incomplete, and in keeping their names off the *Register*, for various reasons; and, if this decision be maintained, it will not only be extremely difficult for the Medical Council to keep a perfect *Register*, but it will make future proceedings in respect to unregistered persons very difficult in many cases.

THE COMMISSION ON THE MEDICAL ACTS.

THE Medical Acts Commission met at 2, Victoria Street, Westminster, on Tuesday, October 18th, and four following days: present—The Earl of Camperdown (Chairman), the Bishop of Peterborough, Mr. W. H. F. Cogan, Mr. G. Sclater-Booth, M.P., Mr. Simon, C.B., Professor Huxley, Dr. Robert M'Donnell, Professor Turner, and Mr. John White (Secretary). The following witnesses were examined: Dr. John K. Barton, of Dublin; Mr. William Stoker, of Dublin; Dr. J. Magee Finny, of Dublin; Dr. J. W. Moore, Irish Medical Association; Dr. B. W. Richardson, Medical Defence Association; Mr. Thos. Collins, Apothecaries' Hall, Ireland; Professor Struthers, Aberdeen University; Professor P. Redfern, Queen's University; Professor T. R. Fraser, Edinburgh University; Mr. John Tomes, British Dental Association; Mr. Thos. Edgelow, Association of Surgeons Practising Dental Surgery; Rev. Samuel Haughton, M.D., Dublin University; Professor Young, Glasgow University; and Dr. J. G. Greenwood, Victoria University. We believe that the Medical Acts Commission have now taken all the evidence they propose to take, and will shortly proceed to consider their report.

PUBLIC MORTUARIES.

THE importance of the provision of mortuaries, for the sake of public decency, if not for that of the public health, has recently received a forcible exemplification in some occurrences at Wednesbury. At a meeting of the sanitary authority of that place, complaints were made that the body of a sergeant of police had been gnawed at by rats whilst lying in a public-house awaiting an inquest. The members were indignant that such "a revolting occurrence", which "was a disgrace to any civilised country", should have occurred; and resolved to petition "the county authorities to make alterations in the regulations respecting the removal of dead bodies" (whatever this may mean). But it does not seem to have occurred to any of them that the remedy lay in their own hands; and that, if they had chosen to exercise the power conferred upon them by Section 141 of the Public Health Act in pro-

viding a public mortuary, the scandal would not have occurred. It is, indeed, lamentable to think how many towns, even the largest, are without this most necessary and important provision. The mortuary need not be large or expensive in construction; but it is essential that some such building should be available in every town for the reception of corpses that cannot be kept at home with decent seclusion or without danger to the health of the living. Moreover, there are numerous cases of sudden death of persons unknown, or cases of drowning, in which it is essential that the body should be kept for identification; and a mortuary would be most useful for this purpose, to say nothing of its value in judicial cases. In some of the districts in the metropolis, notably in the City of London, the Coroner's Court has a mortuary and *post mortem* attached to it; and it would be a great boon if such a structure could find a place in all large centres of population.

THE FEES OF PRESIDENT GARFIELD'S MEDICAL ATTENDANTS.

THE local medical attendants upon the late lamented President of the United States are said, according to newspaper reports, to have charged the Government 100 dollars a day, and Drs. Hamilton and Agnew each 1000 dollars a day. These seem large fees, but not more, the *Canada Lancet* thinks, than would have been charged by any leading lawyer in some important suit in which the Government might be concerned. It trusts that no medical man in the United States will be found mean enough to carp at the above fees paid to his medical brethren, but rather that he will congratulate himself and his *confrères* on the fact that the claims of the profession in the matter of fees have, for once at all events, had a proper recognition.

THE OPIUM HABIT.

THE *New York Medical Journal and Obstetrical Review* for October, 1881, contains an article by Dr. Edward C. Mann, of New York, on the nature and treatment of the opium habit. After giving an account of the extent to which the practice of opium-eating is indulged in, and attempting an explanation of the ways in which the drug enslaves its victims, the author states that the opium or morphia habit is a curable disease, as other diseases are, and that he only desires to know that an opium-sufferer honestly desires a cure, to assure him that this result can be accomplished. If the opium habit be not eradicated, provided the physician has the moral support of the patient in desiring a cure, it is because the treatment is at fault in some respect. Primarily, the patient must put himself under the necessary control. The nervous system of most of the modern Americans is too delicate, Dr. Mann thinks, to bear the shock of a total deprivation of the opium at once. Grave nervous disorders follow such a course. In his own plan of treatment he employs a reductionary course, keeping the patient's nervous system quiet with a combination of the bromides, gradually increasing the bromides as he decreases the morphia, until, on the tenth day after admission, the patient is taking no opium or morphia, and has escaped all suffering and nervous prostration. He generally combines the bromides of ammonium and sodium, and eliminates them from the system, after stopping the opium, by warm baths, sweet spirits of nitre, and digitalis. The reflex action of the spinal cord, which has purposely been kept depressed by the bromides during the reductionary treatment, is now excited by strychnia, and the central nervous system is stimulated and invigorated by the daily use of the induced or faradaic current of electricity, employed as general faradisation. Nerve tonics are also employed, and an emaciated patient generally gains in a month's time from twenty-five to thirty pounds of flesh; his shattered constitution is built up, and in from four to six weeks he is generally well enough to be discharged, and to resume his position in society, entirely free from all craving for opium or morphia. Nothing but a thorough systematic course of treatment can restore such patients to health, as there is no greater delusion than the belief in any specific to counteract the effect of opium or morphia in the human system and to eradicate the craving for the narcotic; and with such thorough systematic treatment success is certain and invariable. An interesting case is given of an army officer who had been addicted to the use of opium for thirty-five years. He was fifty-three years of age. At the age of thirteen he went to China, and thence to India, where he discovered by experiment the fascination of the drug when eaten, and commenced the habit as a luxury. He was in the British army in India for twelve years, during which time he continued the habit until, in the year 1856, he had reached the amount of 200 grains daily. Previously to this time he had repeatedly endeavoured to break off the habit, but each time succumbed to the intolerable suffering which he experienced. He applied at this time for treatment to a physician, who failed to eradicate the habit or even to quiet the craving for opium. He therefore continued to take the dose of 200 grains of opium daily, although he felt convinced that it was impairing his mental faculties very markedly. The will-power had become so enfeebled that the morbid impulse or craving impelled him irresistibly, regardless of all consequences. He served through the Mexican war, and also through the late civil war. During the progress of the war, feeling that his memory was failing rapidly, and that his physical health was being undermined, he reduced his daily allowance to 125 grains of opium. He was so fearful of being taken prisoner, and thus losing his opium, that he carried about his person a small pistol, determined in the event of his capture to commit suicide rather than undergo the torture which the sudden deprivation of his stimulus would cause. At the close of the war, he commenced to take chloral as soon as he heard of its effect, hoping that he would be enabled to leave off opium. This, however, he did not do, but, continuing the opium habit, and the chloral in addition, soon reached the amount of half an ounce, or 240 grains daily. Upon his admission to Sunnyside he was on the verge of insanity, emaciated, feeble, pale, and anæmic, with a feeble gait, no appreciation of his condition or surroundings, hallucinations of sight and hearing, and delusions of fear and persecutions. As he was much excited, several doses of a combination of sodium bromide and cannabis Indica were administered, also chloral and hyoscyamus, and toward morning he became quiet. The next morning he was partially aware of his condition, but excited, with rapidly changing delusions and hallucinations; he was given beef-tea and milk in small quantities at short intervals. A current from four cells of the galvanic battery was applied to each temple for some minutes twice in the day, with the effect of calming the excitement, and the same medicines were continued internally. The following night he slept a few hours; on the third day of treatment there was marked improvement. The bowels, which had been obstinately constipated for a long time, were opened by enemata containing turpentine, and the intense restlessness and the delusions disappeared. From this time he was totally deprived of his chloral, and the morphia was gradually withdrawn; and after the withdrawal of the morphia the stimulating and tonic effects of electricity applied to the central nervous system, and the use of phosphorus, strychnia, and cod-liver oil as nerve-tonics and nutrients, soon accomplished a complete cure.

SIMULATED DISEASE IN A CHILD.

A BRIEF account of a case of simulated disease in a child, described by Herr J. A. Malmgren, is given in the *Nordiskt Medicinisk Arkiv*. A girl seven years old, daughter of a labouring man, complained of pain in the knees and tendons of the legs, and lay in bed more than two months with her thighs drawn close up to the abdomen. After this, the child, who lived at a distance, was seen for the first time by Herr Malmgren, and examined, with the result that no disease could be detected. The legs were now forcibly extended, and a bandage was applied. The next day, the child, being tired of this, declared that she could lie without being bent up. The parents took off the bandage; she lay straight, but said that she could neither walk nor stand on her legs. In this state her parents allowed her to lie six or seven weeks, in the belief that she was paralysed. She now, however, conceived the idea of counterfeiting dumbness; she could no longer be induced to speak. Herr Malmgren endeavoured, by means of pinching and pricking and the induction-apparatus, to make her utter a sound; but in

vain, although a copious flow of tears showed that she felt pain. When, however, she was told that it was necessary for her to go to live in Herr Malmgren's house, and thus to be separated from her parents, the power of speech returned, and permanent recovery followed.

SCOTLAND.

WE notice that, at the next meeting of the General Council of Glasgow University, it is intended to move that application be made to Government for a grant to meet the charges of maintaining the buildings of the University in proper repair. Glasgow is the only University in Scotland that does not receive aid from Government for the support of its buildings.

DR. M'NAUGHTAN, in his report to the General Prison Board for Scotland for the past year, instances a case of a prisoner suffering from farcy, a disease extremely rare in the human subject. The patient had, at the time of the report, been for upwards of six months in the sick hospital, but was gradually growing weaker. The disease was, doubtless, communicated to him through a horse infected with glanders, which he was working previously to committal.

OPENING OF THE GLASGOW MEDICAL SCHOOLS.

THE 25th instant was the opening day in the case of the different medical schools in Glasgow, and at all of them introductory addresses were given; that in the University being by Professor Charteris, in Anderson's College by Dr. Gemmell, and in the Royal Infirmary School of Medicine by Dr. Dougall. It is too early yet to form any opinion as to the prospects of the winter session in the matter of the number of students likely to be enrolled in the classes; but, judging from the entries for the medical preliminary examination, this session should not be behind any of its predecessors.

OPENING OF THE WINTER SESSION, EDINBURGH.

THE winter session in the extramural school in Edinburgh was inaugurated by Dr. Alexander G. Miller in the lecture-hall of the College of Surgeons. Mr. Imlach, President of the Royal College of Surgeons, occupied the chair, and there was a good attendance of students and of the other lecturers. In the course of his address, Dr. Miller advised his hearers to try the experiment of total abstinence from alcoholics, and see how well they could succeed without such stimulants. In the University, important changes had occurred since last session; the three senior classes, Practice of Physic, Midwifery, and Surgery, have now been transferred to their new class-rooms in the new University buildings, physic and surgery each having its own class-room, while Midwifery, for the present, meets in the physic class-room until its own be completed. An alteration of the hour of attendance in practice of physic has also been made, that class now meeting at 9 A.M. instead of 3 P.M. This change will have the effect of making the work of the seniors continuous from 9 till about 2, after which they will, however, be free; thus Practice of Physic is 9, Surgery 10, Midwifery 11, and Clinical Medicine 12. The opening lecture in each of the three classes was delivered by the respective professors; that at 9 A.M., in Practice of Physic, by Professor Grainger Stewart, was presided over by Principal Sir Alexander Grant, and was attended by Emeritus Professors Sir Robert Christison and Balfour, several of the other professors, a good number of the profession, and a large number of students. In the address, Dr. Stewart gave a *résumé* of the leading types of thought and methods that had at different periods directed the study of medicine from its earliest times to the present, including a notice of homœopathy; he also directed attention to the important part played by preventive medicine in recent times; gave statistics which showed how much it had influenced the mortality; and expressed his belief that, among the possibilities of the future, the beneficent protection afforded by vaccination might be repeated in the case of other epidemics, by some other suitable means of protection yet to be discovered. On Wednesday, October 26th, Dr. Greenfield, the recently appointed Professor of Pathology, delivered his inaugural lecture in the chemistry class-room; he was accompanied by most of his colleagues in the Faculty of Medicine, by Sir Robert Christison, and by the Presidents of the Colleges of Physicians and Surgeons, etc.; while the lecture-room, the largest in the University, was crowded in every part. Dr. Greenfield's address was on "Pathology Past and Present"; and in it he pointed out how the subject of pathology had, in the University, been separated from the Institutes and from the Practice of Medicine, and constituted an independent chair; he referred in eloquent terms to the good work done by his predecessor, Dr. Sanders, in organising and perfecting a system by which pathology could be taught and studied systematically by lectures, by practical classes, and by research. He then gave an account of pathology as a science from its commencement, until, by the labours of Virchow and others, it had become an established and recognised branch of medicine. Dr. Greenfield insisted most strongly on the benefits to be derived from experiments on the lower animals, not only to science, but also to animal and human life; and gave examples of such in the study of inoculable diseases, and their capability of modification, by himself and Pasteur. The first part of this address will be found at the beginning of this number of the JOURNAL.

EPIDEMIC OF SCARLET FEVER AT GREENOCK.

SCARLET fever has assumed something like epidemic proportions in Greenock, about one hundred cases being at present known to be under treatment by the sanitary authorities. In the hospital, the cases under treatment number eighty; and, as the ordinary fever ward was found insufficient for the accommodation of patients, an additional ward has been opened for their reception. At first, the disease was confined to the working-classes, but it has since broken out among the upper classes resident in the west-end of the town. On an investigation taking place to ascertain the cause of the epidemic, it seems that nearly all the families whose members have been attacked have been served with milk by a farmer in the neighbourhood, one of whose household was recently suffering from scarlet fever. The authorities, with commendable promptitude, at once took steps to stop the spread of the disease; and an interdict was issued by the sheriff forbidding the milk from the affected farm to be brought into Greenock and sold there.

VACCINATION IN SCOTLAND.

IT appears from the just published report of the Registrar-General for Scotland that, of the total number of 125,782 births registered in Scotland during 1879, 111,469, or 88.621 per cent. were successfully vaccinated in the terms of the Scotch Vaccination Act; and on 349, or 0.277 per cent., vaccination had been successfully performed, though not by persons legally qualified to grant a valid vaccination certificate. In 1,290 instances, or 1.026 per cent. of the whole births, postponement of vaccination was allowed on production of medical authority. One hundred and eighty children, or 0.143 per cent. of the total births, were pronounced insusceptible, in consequence of having some undefined constitutional peculiarity; and three others from having had small-pox. The remaining 2,492, or 1.981 per cent. of all born, were lost sight of by the registrars in consequence of their having been removed from the districts in which they were born; and, of these children, there seems little doubt, a considerable number are yet unvaccinated.

LUNACY IN SCOTLAND.

THE total number of lunatics in Scotland on January 1st, 1881, was 10,012; the whole increase of registered lunatics during 1880 being 378, consisting of 29 private and 349 pauper patients. Allowing for the increase of population, the number of private lunatics in asylums has increased 15 per cent. since 1858, and the number of pauper lunatics in asylums and similar institutions has increased 87 per cent. The comparison shows that, while pauper lunacy has greatly increased, pauperism in general has sensibly diminished. The number of pauper lunatics, which in 1858 was only 157 per 100,000 of the population,

amounted on the 1st January of this year to 225 per 100,000, although, during the same period, the whole number of registered paupers has decreased from 2,630 per 100,000 to 1,721 per 100,000. Since the establishment, in 1858, of the Scottish Lunacy Board, the Commissioners report that, since there has been a net increase of 4,189 in the number of lunatics under the jurisdiction of the board, or 72 per cent., the increase of the population during the same period has been only 22 per cent. The Commissioners point out that this does not necessarily indicate an increasing amount of mental disease; but that it is probably due, in a large measure, to what is only an increasing readiness to place persons as lunatics in establishments.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending October 15th, states there were 443 deaths registered, representing a death-rate of 23 per thousand living. In the corresponding fortnight of last year, there was no rainfall, and it was probably much colder at night; but there was an absence of wind, which has been present in the past fortnight, and tells severely on the body, though it makes a very slight fall in temperature. There were only 8 fewer deaths this year in the aggregate than last; but, while there were 36 fewer from zymotic diseases, there were 37 more from diseases of the lungs. The number of deaths from pulmonary disease was 169, representing a death-rate of 8½ per 1,000 living, and constituting 38 per cent. of the total deaths. There were 11 deaths from fever, viz., 10 from enteric and 1 from typhus. The number of deaths from infectious diseases of children was 26. More than one-half of the increase in the death-rate occurred from diseases of the lungs. The remainder arose from causes which affected children chiefly, especially those vague diseases classified as atrophy and debility. Of the total increase in the deaths from pulmonary diseases, no less than 61 per cent. fell upon children below five years of age, showing conditions specially unfriendly to child-life.

THE REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending October 15th, it appears that the death-rate in the eight principal towns during the week was 21.7 per thousand of estimated population. This rate is 0.7 below that for the corresponding week of last year, but 2.9 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 14.7 per thousand; and the highest in Greenock—viz., 29.3 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.7 per thousand, being 1.6 above that for last week. Twenty-three deaths were tabulated as having been caused by diphtheria; but it may be again observed that, under this heading, are included croup and certain other diseases of the larynx. Acute diseases of the chest caused 114 deaths, or 18 more than the number recorded for last week. The mean temperature was 45.9, being 3.3 below that of the week immediately preceding, and 0.6 below that of the corresponding week of last year.

IRELAND.

A DEATH from small-pox was recorded last week in Belfast in a person who had not been vaccinated.

A BAZAAR in aid of the funds of the Hospital for Women and Children, Pope's Quay, Cork, will be held on the 23rd November and following day.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Council of this College, held on the 20th instant, the following gentlemen were elected examiners for the ensuing year to examine candidates for the diploma in Dental Surgery: B. Wills Richardson, Edward A. Stoker, Edward S. O'Grady, Henry Gregg Sherlock, John Henry Longford, and Frederick St. Barbe Taylor, Esqs.

DEATH OF DR. M'CLINTOCK.

IT is with feelings of most sincere regret that we announce the death, on his sixtieth birthday, of this distinguished member of the profession. Recovering to such a point as he did after the serious illness with which he was recently attacked, it was hoped, as expressed in this JOURNAL three weeks ago, that he would soon be restored to comparative health. However, unfavourable symptoms set in in the beginning of last week. Dyspnœa and suppression of urine supervened, and he died on the night of the 21st instant. We publish elsewhere an obituary notice of this polished and cultivated gentleman and erudite obstetrician. He was the president-elect and one of the founders of the Dublin Branch of the Association; and his death leaves a gap in that, as well as in all the other bodies with which he was connected, which it will be hard indeed to fill with an equally gifted man.

CORPORATION HOSPITAL GRANTS IN DUBLIN.

THE annual presentments for hospitals came before the Corporation of Dublin this week. The sum granted amounted to £4,245. It was proposed to increase the vote granted to two hospitals from £300 to £400 each; but, after a discussion, the motion was withdrawn. A motion to reduce the grant to the National Orthopædic Hospital from £100 to £50, on the ground that it should be amalgamated with the Dublin Orthopædic Hospital, and did not deserve the grant by the work done, was lost. But a motion to omit the £25 recommended for the Throat and Ear Hospital was carried. Mr. Gray, M.P., spoke against multiplying small hospitals. The hospitals of Dublin, he said, would not stand a favourable comparison with the hospitals of London or the Continent in cleanliness, or in the proportion between the expenses of management and the maintenance of patients. He subsequently proposed a resolution, which was adopted, that it should be referred to the General Purposes Committee to report within six months generally on the system of grants to hospitals, and particularly on the following points: The proportion of official expenses to that of food, clothing, and medicine in the several hospitals in Dublin, and how that compared with London and Continental hospitals; whether it would not be for the public interest to encourage a concentration of hospital accommodation in a smaller number of larger institutions; whether the grants should not in future bear a fixed proportion to the amount of voluntary contributions, or be in accordance with some other fixed system; whether the Corporation should not insist on some voice in the management of hospitals to which grants were made; whether an uniform return should not be supplied by each hospital giving all details.

ARREST OF A MEDICAL MAN UNDER THE COERCION ACT.

MR. JOSEPH E. KENNY, of Middle Gardiner Street, Dublin, was arrested last Monday, under the Act for the Better Protection of Person and Property in Ireland—commonly known as the Coercion Act—and lodged in Kilmainham Prison. Mr. Kenny is one of the medical officers of the North Dublin Union Workhouse, and was, we believe, one of the honorary treasurers of the Land League. As private medical attendant of the prominent members of the League at present imprisoned, he used to visit them daily; but no special reason beyond that stated in the warrant in the customary language, as being reasonably suspected of having been guilty of a crime punishable by law, etc., is given for his arrest. Since his arrest, Mr. Kenny has been dismissed from the post of workhouse medical officer, by a sealed order of the Local Government Board.

CORK DISPENSARY COMMITTEE.

WE recently alluded to a dispute which had occurred in reference to the election of a medical officer to the Cork Dispensary in the room of the late Dr. Budds. Drs. Townsend and Rearden both claimed the post; and a fresh election taking place, Dr. Rearden entered a protest and withdrew, and Dr. Townsend was appointed. The Local Government Board having been communicated with, a letter was received last week from them by the Cork Dispensary Committee,

which stated, as the result of their decision, that Dr. Rearden should be elected, inasmuch as of the votes which gave a majority to Dr. Townsend at the first election two were not valid, which left Dr. Rearden successful by a majority of one vote.

ACCIDENT TO MR. BUTCHER OF DUBLIN.

THIS gentleman received some rather severe injuries last week by a cab, in which he was driving, coming into collision with a tram-car, and being overturned. He is, however, we are glad to hear, progressing favourably.

SPECIAL FEES FOR OPHTHALMIC CERTIFICATES.

A MEETING of the physicians and surgeons of the Dublin clinical hospitals was held in the College of Physicians last Saturday to consider the above question. Dr. Gordon occupied the chair, and the meeting was largely attended. In July 1877, an uniform scale of fees for certificates of general hospital practice was agreed to. Special certificates for ophthalmic surgery have since been required by some of the licensing bodies. To meet such requirements, some of the general hospitals in Dublin instituted special ophthalmic departments, appointed special ophthalmic surgeons to take charge of them, and charged a fee of three guineas for a special certificate. Other hospitals gave instruction in ophthalmic surgery—more or less complete—within their walls, and gave a special certificate, of more or less value, as the case might be, without charging a special fee. Again, other hospitals, which were unable to give *bonâ fide* instruction in ophthalmic surgery within their walls, conceived the idea of sending their students to one or other of the two special ophthalmic hospitals, and proposed to pay for the certificates thereby issued out of their fees for general hospital practice. In this way, the spirit of the agreement of July 1877 was broken, and the uniformity previously existing among the Dublin hospitals on the delicate subject of fees undone by the action of a small, but by no means unimportant, minority. Under these circumstances, the general meeting above referred to was convened; and, after much discussion, the following resolution was adopted by a large majority:

That the fee for general hospital practice having been fixed in July 1877, by unanimous consent, at twelve guineas for nine months, eight guineas for six months, and five guineas for three months, and no alteration having been made in the requirements of students in general clinical teaching, we are of opinion that no alteration should be made in this fee, and that pupils requiring a special certificate for ophthalmic surgery should pay the additional fee for it. This rule not to apply to students who under previous regulations have completed their hospital attendance before November 1880.

Some of the members of the staff of two hospitals declined to vote, on the ground that the minority might refuse to be bound by the resolution. We trust, however, that a spirit of unanimity will prevail, and that the rivalry between the Dublin hospitals will be, which of them can give their students the best clinical instruction, not the cheapest. An adjourned meeting is summoned for to-day (Saturday), a copy of the above resolution having been, in the meantime, sent to the medical board of each hospital for its signature agreeing to comply with the resolution or not, as each may decide.

HEALTH OF DUBLIN.

IN his report on the state of the public health in Dublin during September, Dr. Cameron, the Superintending Medical Officer of Health, gives a table which shows the steady improvement that has taken place within the municipal or city districts of the metropolitan registration area since February last. The death-rate per 1,000 persons from all causes in that month was 44.25. It gradually declined to 20.27 in August, and last month was 21.24. The death-rate from the seven principal zymotic diseases shows a similar decline. As compared with September 1880, last month's death-rate exhibits a very satisfactory contrast. That from all causes per 1,000 persons living in September twelvemonth was 38.50, and the zymotic death-rate was 11.87; the corresponding figures for last month being 21.24 and 1.96 respectively. Dr. Cameron trusts that this most satisfactory improvement in the state of the public health in Dublin is, in some measure at least, due to the important sanitary works carried out in the city during the last two years. We fully recognise the value of the hygienic measures referred to by Dr. Cameron; but would hesitate laying too much to their credit as regards their bearing, at present, on the public health, especially as the death-rate of most large cities in the United Kingdom has been below the average during the last six months, owing, probably, to the exceptionally cold and wet summer. Besides, sanitary improvements in Dublin have had a very recent commencement, and are yet far from being general or perfected; so that it would be unwise, while acknowledging their importance and the necessity of what has been done, to lead the citizens to have—what might prove to be—an erroneous idea of security, by a mistaken confidence in the present favourable state of the public health in their city. There has been a large increase in the number of cases of scarlet fever admitted into hospitals last month as compared with August, and typhus fever continues about the same.

HEALTH OF CORK.

DURING the four weeks ending October 8th, the deaths registered in Cork amounted to 133 (including 23 in the workhouse, and therefore outside the borough, who formerly had resided in the city). Of these, 11 were due to infectious maladies, and 19 were infants under one year. During the same period, 197 births took place, being equal to a birth-rate of 32.68 per 1,000 of the population. The annual death-rate gave a total ratio of mortality of 22.06; but if the deaths occurring in the workhouse be deducted, the urban mortality would then only amount to 18.24; from infectious diseases, 1.8; and an infant mortality of 3.1. These figures contrast favourably with those of the corresponding period last year, when the urban death-rate stood at 24.96 from diseases of every description, and 2.81 from infectious diseases. There is also a decided, though gradual, diminution in the amount of typhus fever in the city.

HEALTH OF DUBLIN: QUARTERLY REPORT.

DURING the quarter ending October 1st, there were registered in the Dublin Registration District 2,539 births, being equal to an annual ratio of 1 in 34.3, or 29.1 in every 1,000 of the population; and 1,743 deaths, affording an annual ratio of 1 in 50.0, or 20.0 per 1,000. Omitting the deaths (58) of persons admitted into public institutions from localities outside the district, the rate was 19.3 per 1,000. The deaths registered in the Dublin District have been lower than in the third quarter of any year since 1871, when the death-rate was 20.0 per 1,000, at which time, however, there were some defects in registration. In the city proper, the deaths (2,009) in the September quarter have not been so low since 1876; and, compared with the corresponding quarter of 1880, the number of registered deaths is 41.0 per cent. less in the city, and 29.1 per cent. less in the suburbs. The deaths from zymotic diseases amounted to 232, or 3 less than those recorded the previous quarter, and 245, or 49 per cent. below the average for the third quarter of the last ten years. The deaths from these diseases were equal to an annual rate of 2.7 per 1,000 of the population. Measles caused 9 deaths; croup, 17; scarlatina, 22; whooping-cough, 5; diarrhœa, 52; and diphtheria, 6. To fever 79 deaths were ascribed—viz., typhus 36, typhoid 31, and simple continued fever 12; the deaths from typhus being double the average number for the corresponding quarter of the past ten years. It is satisfactory to learn that there were no deaths recorded from small-pox during the quarter. There were 175 deaths of children ascribed to convulsions, being 11 over the average; while phthisis caused 232 deaths, and diseases of the respiratory organs proved fatal in 228 instances, being 239 under the number for the previous quarter. Bronchitis caused 154 deaths, pneumonia 40, and lung-disease unspecified 23. Forty-three deaths were due to apoplexy, 49 to paralysis, 27 to cephalitis, and 119 to diseases of the heart and circulatory organs. The mean of the mean weekly temperature for the quarter was 56°, and the rainfall measured 8.087 inches.

ROYAL COLLEGE OF PHYSICIANS.

An ordinary meeting of the College was held on Monday, the 27th instant; Sir Wm. Jenner, K.C.B., in the chair.

After several communications had been read, among which was a letter from the secretary of the International Medical Congress thanking the College for the use of its rooms, the Treasurer produced his Annual Report, which was received.

It was decided that a *conversazione* should be held next year.

Dr. Wilks gave notice that at a subsequent meeting of the College he would propose some resolution regulating the conduct of those holding the diploma of the college, to the effect that they should not hold professional communication with any who assume or accept special designations or profess to adopt special methods of treatment. Dr. Wilks said that this was only an indication of the ground of the resolution to be proposed.

SECRETARY TO THE COLLECTIVE INVESTIGATION COMMITTEE.

The first duty of the Committee, in accordance with the resolutions passed at Ryde (Journal, August 13th, page 297), is to nominate a Secretary, whose annual stipend is, for the present, to be £200, with £100 allowed for travelling and other expenses; and the Committee invite members of the profession who may be desirous of holding the appointment to send applications and testimonials to the General Secretary, F. Fowke, Esq., at the office of the Association, 161A, Strand, before November 20th. The work is an important one, involving a good deal of labour and perseverance; and success must in great measure depend upon the ability, energy, and good judgment of the Secretary, whose duties will bring him into communication with a large number of members of the profession, and whose active personal influence will be necessary in order to "combine a number of men in the systematic and careful observation and record of facts". To any one who will throw himself heartily and effectively into the work, it will prove, we need not say, a highly interesting as well as useful and profitable employment.

THE ROYAL UNIVERSITY OF IRELAND.

As the Royal University of Ireland is to hold its first examination in December, and as the medical degrees of this University are open to candidates from all parts who have completed the necessary curriculum, it is highly desirable that the profession generally, and especially the students in our metropolitan and provincial schools, should be made acquainted with such regulations as have already been decided on.

The University is empowered to grant degrees, to males and females, in arts, science, engineering, music, medicine, and law. The curriculum for the degree of B.A. extends over a period of three years, and consists in testing the proficiency of the candidate at four examinations, viz.: the matriculation examination, the first and second University examinations, and the degree examination. One year must elapse between each two successive examinations; but the mode and place of study is left altogether to the option of the student. At the matriculation examination the candidate is required to answer in five subjects, viz.: 1. Latin; 2. In one of the following: Greek, French, German, Italian, Spanish, Celtic, Sanskrit, Hebrew, or Arabic; 3. The English language; 4. Elementary mathematics; 5. Experimental physics. This done, the student is required to devote his first year to the further study of these subjects, and consequently the first University examination is similar to, but more advanced than, the matriculation.

Except as hereinafter mentioned, candidates for all degrees are required to pass the matriculation and the first University examinations.

The degrees in medicine to be granted by the University are three, viz., M.B., M.Ch., and M.D. There are also diplomas in obstetrics and sanitary science.

The course for the degree of M.B. extends over four years, and is divided into two periods of two years each. Each period comprises a definite course of study, which must be undertaken at an institution recognised by the Senate. No certificate of attendance will be accepted which does not vouch for the fact that the student attended two-thirds of the lectures. During the first period the following courses must be attended: 1. Chemistry; 2. Practical chemistry; 3. Botany (with herborisation for practical study) and zoology; 4. Anatomy and physiology; 5. Practical anatomy; 6. Materia medica; together with six months' attendance at a medico-chirurgical hospital.

The first period includes also two examinations, termed the "first professional" and "second professional", which may be passed at the end of the first and second year's study respectively. As students are permitted to commence their medical studies immediately on passing the matriculation examination, they are allowed to pass the "first professional" examination at the same time that they pass the "first University."

At the first professional examination the candidate is required to produce the necessary certificate in botany and zoology, as well as to answer in these subjects. He is furthermore required to answer in a modern Continental language, unless he has done so in the first University examination.

The second professional examination may be passed at any time after the course of study for the first period has been completed. The subjects for examination are anatomy, physiology, chemistry, and materia medica.

No candidate will be admitted to the M.B. degree examination until after the expiration of four years from his passing the matriculation examination. He must have paseed the second professional examination, and completed the following course of study prescribed for the second period. It is, however, optional to attend any of the second period courses before passing the second professional examination:—1. Anatomy and physiology (including histology); 2. Practical anatomy; 3. Theory and practice of surgery; 4. Midwifery and diseases of women (six months); 5. Theory and practice of medicine; 6. Medical jurisprudence; together with eighteen months' attendance at a medico-chirurgical hospital, six months' practical midwifery, and certificates of—1. Personal attendance on fever-cases; 2. Three months' compounding; 3. Practical instruction in vaccination; 4. Lectures and clinical instruction in mental diseases. The examination comprises the subjects recommended for the second period, including clinical examinations in medicine and surgery.

The examination for the degree of M.Ch. is open only to medical graduates of the University. It is altogether surgical, including operative and clinical surgery.

The degree of M.D. is conferred only on M.B.s of two years' standing, who shall satisfy the examiners of their fitness to receive the same by a thesis on some medical subject.

The diplomas in obstetrics and sanitary science are also conferred only on graduates of the University.

With a view of meeting the case of those who are already advanced in their medical studies (or actually in practice, the following regulation has been adopted. "For three years it shall be in the power of the Senate, in the case of medical students who, previously to their matriculation in the University, have received a medical and arts education in places and institutions approved by the Senate, to give such students credit for their education in arts which they have received in such institutions, if they shall be satisfied from the report of the medical examiners of their proficiency in the subjects of the medical course of the University."

The following are the fees: Matriculation, 10s.; First University, £1; First Professional, £1; Second Professional, £1; M.B., £3; in all, £6 10s. M.Ch., £5; M.D., £5; Diploma in Obstetrics, £2; Diploma in Sanitary Science, £2.

At all the various examinations there will be an "honour" as well as a "pass" examination. It is intended to award exhibitions to the successful candidates at the honour examinations; but, as the grant allowed by Parliament is much less than was anticipated, the scheme originally sketched out will have to be modified.

Cambridge.—The interest of Dr. Anningson's last report on the public health of Cambridge chiefly centres on his discussion of the causes of the serious amount of infant mortality that prevails in the town, especially from diarrhœa. He does not seem quite to have made up his mind about it, but he finds that the mortality is heaviest along the line of sewers of low rate of inclination in poor neighbourhoods, where less heed is paid to traps. So slight, indeed, is the inclination in some of these sewers, that the sewage is practically stagnant, and ferments, producing gases which press with great force upon the traps in some of the scullery sinks. This evil would doubtless be palliated by freer ventilation of the sewers; but some more drastic remedy is evidently wanted. Dr. Anningson comments on the careless habit of sending children back to school too early in the convalescence of scarlatina and measles, as a fertile means of propagating those diseases, and he quite rightly urges that, in all cases of the kind, a medical certificate should be required before readmission to school. Of the other zymotic diseases, whooping-cough destroyed 28 lives, a number above the average. There was a decrease in the deaths from consumption, but a slight advance in the mortality from inflammatory diseases of the respiratory organs. Dr. Anningson does not speak very hopefully as to sanitary improvement, and it is evident that a revision of the local by-laws is a matter of the first necessity.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

THAMES VALLEY BRANCH. The next ordinary meeting of this Branch will be held at the Griffin Hotel, Kingston, on Thursday, November 3rd, 1881, at 6 P.M. Members intending to bring forward any communications are requested to give early notice to EDWARD L. FENN, M.D., Honorary Secretary, Richmond.

WEST SOMERSET BRANCH.—The autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, November 3rd, at 4 P.M. The ordinary business and papers or cases will be taken before, and the question after, dinner. Dinner (5s. a head, exclusive of wine) at 5.30 punctually. The question as settled by the Council for the meeting to discuss is: The Advantages or otherwise of Vaginal Injections after Delivery. Members intending to make any communication, or to be present at the dinner, are requested to give notice to the Honorary Secretary.—W. M. KELLY, M.D., Honorary Secretary.

BORDER COUNTIES BRANCH.—A meeting of this Branch will be held at the Keswick Hotel, on Friday, the 28th instant; Dr. Grierson, Melrose, in the chair, at 1 P.M. Dr. Barnes, Carlisle, will introduce a discussion on the Treatment of Scarlet Fever. Dr. Knight, Keswick, will give a Biographical Sketch of the late Dr. Leitch of Keswick. J. K. Burt will read a paper on A Short Umbilical Cord as an Obstruction to Delivery.—J. SMITH, M.D., Dumfries; J. KENDALL BURT, M.B., Kendal, Honorary Secretaries.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.—The next meeting of this District will be held at the Kent and Canterbury Hospital, on Thursday, November 3rd, at 3 P.M.; Charles Holttum, F.R.C.S., in the chair. The chairman invites members to luncheon at The Friars, from 1 to 2.30 P.M. Dinner at the Fleur de Lis Hotel at 5 P.M. Messrs. Mayer and Meltzer of London will exhibit instruments in the board room of the hospital from 2 to 3 P.M. The following communications have been promised. 1. Mr. Woodman: The Dinner Question. 2. Mr. Bishop: Large Tumour removed from Occipital Region. 3. Mr. Wacher: Tumour of Testis; and Congenital Amputation of Forearm. 4. Dr. Bowles: Case of Intussusception, probable Reduction. 5. Mr. Whitehead Reid: Further Remarks on Cherry-stone in Appendix Cæci; and a Colotomy Case.—T. WHITEHEAD REID, Honorary Secretary.

YORKSHIRE BRANCH.—The autumnal meeting will be held at the Red Lion Hotel, Pontefract, on Wednesday, November 2nd, at 3 P.M., when the following papers will be read. The Secretary will read a letter from Dr. Milner Fothergill, relative to the management of the JOURNAL. 1. Mr. T. W. Harropp Garstang: Puerperal Septicæmia; notes in five cases. 2. Dr. Myrtle: Cases of Diphtheria. 3. Dr. Rabagliati: Some Alterations in the National Death-rate in Recent Years. 4. Mr. McGill: Chloral Bougies in the Treatment of Gonorrhœa. 5. Mr. E. Atkinson: Short note on Gastrostomy. 6. Mr. R. B. Cooke: Observations on the Temperature of the Sea, and its Influence on the Climate of Scarborough. The members will dine together at 5 P.M.; tickets (exclusive of wine) 6s. 6d. each; and those intending to dine are requested to send notice at once to the Secretary.—ARTHUR JACKSON, Secretary, Wilkinson Street, Sheffield.—October 25th, 1881.

WORCESTERSHIRE AND HEREFORDSHIRE BRANCH.—The first meeting of the session will be held at the Medical Library, Pierpoint Street, Worcester, on Wednesday, November 2nd, at 5 P.M. Business: To elect Local Subcommittees and to transact other business relating to the Annual Meeting of 1882. To read letter from South Wales and Monmouthshire Branch, suggesting that the members of all Branches shall subscribe 5s. *per annum* each to the Medical Benevolent Fund. To elect members.—GEO. W. CROWE, Honorary Secretary.

LANCASHIRE AND CHESHIRE BRANCH: ORDINARY MEETING.

AN ordinary meeting of this Branch was held at the Town Hall, Bolton, on Thursday, October 13th. The President, Dr. R. C. BROWN, of Preston, was in the chair, and one hundred members were present.

Papers.—The following papers were read:

1. Dr. Rothwell (Bolton): Medical Reminiscences of Bolton. In the latter part of the paper, he particularly referred to the labours of Dr. Mallett, Dr. Chadwick, and Dr. Fergus Ferguson in the direction of sanitary improvement of the town. In concluding, Dr. Rothwell referred to the untiring efforts of Dr. de Vere Hunt, who had raised the membership of the Association in Bolton from twenty to thirty-seven within the last few months.

2. Mr. E. Sergeant (Medical Officer of Health for Bolton): The Sanitary Measures necessary for the Suppression of Infectious Disease, specially referring to the Bolton Act for the compulsory registration of infectious disease, and the beneficial effect of its operation in the town. This paper gave rise to considerable discussion, and very great disapproval was expressed by many of the duty of reporting fever being laid on the medical attendant.

3. Mr. Vacher (Medical Officer of Health for Birkenhead): The Transmission of Various Diseases by Milk.

4. Dr. Shuttleworth (Lancaster) showed photographs and read a paper on a case of Multiple Exostosis.

5. Dr. Walter (Manchester): A Successful Case of Transfusion of Defibrinated Blood by Macdonnell's Apparatus in *Post Partum* Hæmorrhage.

6. Mr. W. M. Banks (Liverpool) showed an Enormous Cystic Tumour of the Breast.

7. Mr. Robert Hamilton (Liverpool): On Modified Listerism.

8. Mr. E. Sunderland (Bolton): On Cataract and Myopia.

9. Mr. Rushton Parker (Liverpool) showed drawings of the Steps in Plastic Operation for Extroversion of the Bladder: three cases.

10. Dr. Wallace (Liverpool): Two Successful Cases illustrating Antiseptic Abdominal Surgery: (*a*) Removal of a large portion of whole thickness of abdominal wall for fibro-sarcoma; (*b*) Removal of hydatid cyst implicating bladder and involving wound of that organ.

One of the rooms contained a good collection of optical and surgical instruments. Many members visited the new Infirmary buildings, at present containing a very fine loan collection of paintings, to which they had free admission.

Dinner.—About sixty members dined together at the Swan Hotel in the evening.

PROCEEDINGS OF COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Offices of the Association, 161a, Strand, London, W.C., on Wednesday, October 12th, 1881: Present, Mr. C. G. WHEELHOUSE, President of the Council, in the Chair; Mr. B. Barrow, President; Dr. W. Strange, President-elect; Dr. W. F. Wade, Treasurer; Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. T. H. Bartleet, Surgeon-Major Boileau, Dr. L. Borchardt, Dr. A. Carpenter, Dr. C. Chadwick, Dr. J. Ward Cousins, Dr. G. W. Crowe, Dr. A. Davidson, Dr. Charles Drage, Dr. G. F. Duffey, Dr. W. A. Elliston, Dr. E. L. Fenn, Dr. B. Foster, Dr. E. Long Fox, Dr. J. H. Gibson, Dr. W. C. Grigg, Mr. A. J. Harrison, Dr. C. Holman, Professor G. M. Humphry, Mr. W. D. Husband, Mr. A. Jackson, Dr. Leslie H. Jones, Dr. D. J. Leech, Mr. C. Macnamara, Dr. E. Malins, Mr. F. E. Manby, Mr. F. Mason, Mr. R. H. B. Nicholson, Dr. C. Parsons, Mr. H. Power, Dr. R. C. Shettle, Mr. S. W. Sibley, Dr. E. M. Skerritt, Mr. H. Stear, Dr. A. P. Stewart, Dr. E. Waters.

The minutes of the last meeting were read and found correct.

Read communication from the Otological Subsection with resolution passed at the annual meeting held at Ryde in August last, of which the following is a copy:

> That a committee be appointed to consider, and report on, at the next annual meeting of the Association, the best means of promoting the study of aural surgery, especially in regard to compulsory examination in this subject by the various examining bodies.
>
> That the committee consist of the Chairman and Honorary Secretaries of this Subsection; and, with their consent, of all the teachers of otology in the United Kingdom, with power to add to their number. (Signed) URBAN PRITCHARD, M.D., F.R.C.S., Chairman of the Subsection; DOUGLAS HEMMING, F.R.C.S.Ed., E. CRESSWELL BABER, M.B., Honorary Secretaries.

Resolved: That the application of the Section of Otology be adopted, and the committee, as asked for, be appointed, to report to the Committee of Council.

The President of Council placed before the Committee the question of the relations of the Association to homœopathists.

Resolved unanimously: That the thanks of the Committee of Council be given to the President of Council for his prompt action in obtaining an unequivocal refutation of the charge made against the Committee of Council, that it had suggested to the readers of Addresses in Medicine and Surgery at Ryde the subject of those Addresses; and that it sympathised with the views on consultation with homœopathists therein propounded.

It was moved: That resolutions expressing the views of the Association on the question having been adopted at three meetings of the Association, such resolutions must be binding on the Committee of Council until rescinded by an annual meeting. The Committee of Council, however, does not interpret such views as calling upon it to expel any member of the Association on account of his opinions.

Whereupon an amendment was moved: That By-law 3 be put into force.

> By-law 3. Any member may be expelled from the Association by a resolution of the Committee of Council, if carried by three fourths of the members present, and confirmed at the next annual meeting, and he shall thereupon cease to be a member, and shall not be eligible for re-election. One month's notice of the intention to propose such resolution shall be given to any member affected thereby.

The amendment having been put from the chair, the same was declared to be lost.

The original motion was then put, and declared to be carried *nem. con.*

Read communication from the Glasgow and West of Scotland Branch.

Resolved: That the matter be referred to the Medical Reform Committee.

Read communication from New South Wales Branch, asking for the

confirmation of the Committee of Council to certain alterations of the Branch By-laws.

Resolved: That the alteration of By-laws of the New South Wales Branch 3, 7, and the omission of By-law 8, be approved.

Read letter from a candidate for election, asking to have his name withdrawn from the list of candidates for election, and to be referred to the Council of the Lancashire and Cheshire Branch.

Resolved: That the fifty remaining candidates be and they are hereby elected members of the Association.

Read report of the Subcommittee appointed to consider and report upon the election of members as follows, viz. :

At a meeting of the Subcommittee appointed to consider the election of members, held at the office of the Association, on Tuesday, October 11th, 1881, the following proposed regulations as to the election of members were recommended to be made.

1. That there shall be a standing notice in the Journal every week of the meetings of the Committee of Council throughout the year; and stating that gentlemen wishing to be elected members of the Association must send in their names *twenty-one days* before the meeting of the Committee of Council at which they wish to be elected.
2. That a list of applicants be in the hands of the Committee of Council *fourteen days* before such meeting of the Committee of Council, and that the Branch Secretaries be supplied with several copies of the list.
3. That no member be elected by a Branch, unless his name has been inserted in the circular summoning the meeting at which he seeks election.

Resolved: That the report of the Subcommittee appointed to consider the election of members be approved, and the recommendations carried into effect.

Resolved: That the minutes of the Journal and Finance Committee of to-day's date be approved, and the recommendations carried into effect.

The minutes of the Journal and Finance Committee contain report on quarterly accounts amounting to £[illegible] 12s. 2d., and auditors' report for quarter, and recommendations for the payment of amounts unpaid amounting to £[illegible] 10s. 9d.

Resolved: That Messrs. Price, Waterhouse, and Co. be appointed auditors for the ensuing twelve months, in accordance with By-law 34.

Resolved: That the annual meeting of 1882 be held on the 8th, 9th, 10th, and 11th days of August.

Resolved: That the addresses at the annual meeting for 1882 be Medicine and Surgery.

Resolved: That Dr. Wade be asked to give the address in Medicine.

Resolved: That Dr. William Stokes be requested to give the address in Surgery.

Resolved: That the minutes of the Arrangement Committee of to-day's date be approved and adopted, and the recommendations carried into effect.

The minutes of the Arrangement Committee contain the arrangements and programme of annual meeting, which will be duly published.

Resolved: That the minutes of the meeting of the Scientific Grants Committee of the 11th instant be approved and adopted, and the recommendations carried into effect.

The minutes of the Scientific Grants Committee contain recommendations for further grants to the amount of £50.

Resolved: That the minutes of the Trust Funds Subcommittee be received and adopted, and the recommendations carried into effect.

The minutes of the Trust Funds Committee contain report of appointment of three adjudicators on Stewart Fund Prize.

Resolved: That the President of Council, Dr. Carpenter, Mr. Husband, Dr. Sieveking, Dr. Allbutt, Dr. B. Foster, Professor Humphry, and Dr. Ransome, be the Collective Investigation Committee to carry out the objects in the report on the subject adopted at the last annual meeting.

Resolved: That the resolution proposed at Ryde, on Professor Humphry's speech on vivisection, be left to the President of Council and Professor Humphry to carry out.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE

EXAMINATION FOR THE DEGREE OF M.B. AND M.C.: MICHAELMAS TERM, 1881.—The above examination will begin on Tuesday, December 13th. Candidates for the Degree of M.B., are requested to send their names to the Prælectors of their several Colleges on or before Saturday, November 26th. The certificates of candidates for the Degree of M.B. are to be sent to the secretary: and the names and certficates of candidates for the Degree of M.C., to the Regius Professor of Physic, Dr. Paget, Cambridge, on or before December 3rd.

CORRESPONDENCE.

A CORRECTION.

SIR,—Will you kindly permit me to correct an error which the reviewer of my work on *Diseases of Women* unwittingly fell into, I fear through my inadvertency?

In treating of extra-uterine gestation, the statement occurs: "this subject belongs, strictly speaking, to obstetrics, and is rarely more than even alluded to in works on gynæcology". I regret much that, when this was written, I did not give Dr. Robert Barnes credit for the instructive chapter upon the subject, occupying over thirty-five pages, contained in the second edition of his *Diseases of Women*. It forms a notable exception to the omission by most other authors, and contains much original research. I think it only fair to Dr. Barnes to make this statement public, as otherwise an injustice appears to have been done. This was far from my intention. I have, in my preface, acknowledged my indebtedness to him for much valuable information.

Since the chapter in my work was written, Dr. Thomas, in his fifth edition, has added a chapter on the subject. Mr. Lawson Tait, in his work, also refers to it; but, with these exceptions, my original remark still holds good.—Yours faithfully, ARTHUR W. EDIS.

Wimpole Street, October 25th, 1881.

OBITUARY.

ALFRED H. McCLINTOCK, M.D., F.R.C.S.P., LL.D.EDIN., AND M.A.O.DUB., HONORIS CAUSÂ, ETC.

ALFRED HENRY MCCLINTOCK, born October 21st, 1821, was the third son of Henry McClintock, Esq., of Dundalk, who was the youngest son of John McClintock, Esq., of Drumcar, in the county of Louth, whose family was in the succeeding generation ennobled under the title of Rathdonnell; Henry's own family havin g also been distinguished in the person of the second son, Alfred's elder brother, Sir Leopold McClintock, the celebrated Arctic explorer.

Intended for the medical profession, Alfred McClintock was bound apprentice to Dr. E. G. Brunker, at that time surgeon to the Louth Infirmary, but who has now retired from practice and lives to mourn the death of his distinguished pupil.

Coming to Dublin, McClintock studied at the Park Street School of Medicine, an institution which stood where St. Mark's Ophthalmic Hospital now is, and in which very many of the teachers who conferred its eminence on the Dublin school commenced their career, such as Marsh, Stokes, Cusack, Montgomery, and many others, some of whom are still with us—alas too few—a band of workers, to be associated with whom would in itself confer honour and stimulate to exertion; and in this band the student of that day came not long afterwards to take a place, entering it as lecturer on midwifery in the school in which he had studied.

In 1842 he became a Licentiate of the Royal College of Surgeons in Ireland, and in 1844 a Fellow of the same College, with which he maintained a close connection for the remainder of his life. In 1873 he was elected to a seat on its council, and in 1879 Vice-President, and in the following year President—an office which he held for the usual term of one year, till June last, when he was again elected to the council.

During his year of office many subjects of importance and difficulty came under consideration, some of them involving prolonged and anxious debates. Over these he presided with such skill and firmness as to greatly facilitate the transaction of business, and also to command the respect and admiration of the council. In the proposed plans for improving the system of education and examination in the college he took a warm interest, attending many of the meetings of the Education Committee, and rendering much assistance in the drawing up of the scheme. In all the other business of the college also he took an active part, even down to details, seeming to regard it as a duty imposed on him by his position of President. This painstaking devotion to college affairs tried his strength very seriously, so much so that at one time, acting on the advice of his medical attendants, he tendered his resignation of the Presidency, but, in compliance with the unanimous request of the council, withdrew his letter; and, though they offered to relieve him of the work, he continued to do it with the same increasing zeal and attention which he had hitherto devoted to its performance.

After obtaining the Licence of the College in 1842, he resorted to Paris, where he spent six months pursuing his studies. At this time

he had not decided on the adoption of any special career, but on his return he was advised by Dr. Charles Johnson, then Master of the Rotunda Lying-in Hospital, whose pupil he had been and who had formed a very high opinion of his character and abilities, to devote himself to midwifery; so in the following year he went to reside in the hospital as assistant to Dr. Johnson. The intimacy thus commenced soon ripened into warm friendship, which endured till Dr. Johnson's death, and influenced his whole after-life.

Dr. Charles Johnson could not fail to exercise a moulding influence over the mind of a younger man brought into close contact with him. A man of strong opinions and self reliance, of great sagacity and penetration, of clear judgment, an earnest student, an acute observer, with habits of careful reflection which enabled him to thoroughly utilise his large clinical expererience, and a most successful practitioner, he gained the enthusiastic admiration of most of those who came into close relation with him.

The influence he exercised over McClintock is perhaps most clearly seen in his teaching as to the treatment of tedious labour. In a memoir of Johnson, read to the Dublin Obstetrical Society when resigning the chair as President of that body on the 10th November 1866, McClintock says of him, "He held in reverence the maxim that 'meddlesome midwifery is bad'; and certainly he was much opposed to the early employment of instruments. Though entertaining a somewhat exaggerated idea of the danger of the midwifery forceps, still he was otherwise free from any prejudice against the instrument; and this, it must be admitted, showed no small independence of mind, considering his early training, and the obstetric teacher under whom he was brought up. He was wont to say that 'it was one thing to be able *quoad* the case to use the forceps, but quite another thing to have justification for its use.' What to consider as justification for its employment in tedious labour is a question which has divided the obstetric body into two great sections. The more modern and larger party hold that the instrument should be used in anticipation of the ill effects to which delay may give rise; the other great section—which includes the names of Collins and Robert Lee—consider that we should not resort to the use of the 'iron hand' (as the forceps has been well called) till the failure of the natural powers is unequivocally demonstrated. This latter view was held by Johnson, but in a very qualified manner only; for he sanctioned (as Dr. Hardy's and my report amply proves) a much more frequent employment of the forceps than would accord with the principles of either of the two great authorities I have named. Though myself an advocate", McClintock proceeds to say, "of 'this noble instrument' (to use Chapman's designation of it) as a prophylactic measure, still my experience of a clinical obstetric school would incline me to put up this motto conspicuously in every ward of a lying-in hospital frequented by pupils, 'Meddlesome midwifery is bad', and those who have had a little experience will, I doubt not, see the reason for this, and admit its necessity."

Ten years later, we find McClintock again asking what is to be considered as justification for the use of the forceps in his annotations to *Smellie's Midwifery*, which he edited for the New Sydenham Society; and it is interesting to observe how the tone of thought derived from Johnson's teaching runs through the reply. "What, I should like to know, he says, are we to consider as the highest rate of frequency of the forceps coincident with the lowest rate of mortality to mother and child? As long as the mortality diminishes *pari passu* with the more and more frequent use of the forceps, we are justified in going on. But surely there must be some limit to this—some line beyond which the mortality will gradually begin to rise in a certain ratio with the increasing frequency of the operation." This limit has not yet, Dr. McClintock says, been determined, though an approach to it can be made by comparing the results of the practice of five of the masters of the Dublin Lying-in Hospital; and, after referring to the tables published by Dr. Kidd as demonstrating that the increasing employment of the forceps was followed by a diminishing mortality up to the mastership of Dr. Shekleton, when the forceps was resorted to in 32.69 times per cent. in tedious and difficult labours, and when the mortality among cases of this class reached its minimum—viz., 6.03 per cent., in place of 20.21 per cent. under Clark, who only used the forceps in 1.77 in the hundred of such cases, he proceeds to say, "I can well understand that, provided this powerful agent be employed by skilful hands, under the direction of experienced heads, it may be employed at the rate of one in ten with perfect safety to mother and child, and with a great saving of pain to the former and of time to the operator. But I maintain that more than two-thirds of the patients so delivered would have fared just as well had no instrumental assistance whatever been given. .....Moreover, we should never forget that the practicability of using or applying the instrument is totally different and distinct from the advisability of doing so."

As assistant in the hospital McClintock had for colleague the late Dr. S. L. Hardy, and in conjunction with him he published a Report of the Hospital under Charles Johnson's Mastership. This, as might be expected, is a reflex of Johnson's opinions and teachings rather than an expression of those of the authors themselves; but the faithfulness, accuracy, and clearness with which it is written make it a most valuable compendium of clinical and practical teachings; and for those characteristics we are indebted, we believe, to McClintock, the text being almost altogether from his pen, while the statistical tables were compiled and arranged by Hardy.

At this time he began to contribute papers to the Dublin Obstetrical Society, a practice he continued to the very last. Even the very earliest of these papers give evidence of the careful clinical observation and research that give so much value and interest to all that he wrote in his maturer years. To this Society he read, with scarcely an exception, all his essays in the first instance. One paper, indeed, he read to the London Obstetrical Society, of which he was an honorary Fellow, but we only remember the one. His papers were all written clearly and elegantly, and he read them, as he spoke in extemporaneous debate, with well-marked and appropriate emphasis, always carrying his audience along with him.

Having held the office of assistant-master of the hospital for the usual period of three years, his connection with it ceased for nine years, when he was, in 1854, elected master—an office he held for seven years. Of the practice of the hospital during this period no record has, we regret to say, been published; but that he was not idle is amply proved by his most important work, which is entitled *Clinical Memoirs on Diseases of Women*, published in 1863, the materials for which were collected while in the hospital. Of the value of this work it is not necessary to speak here. As a series of clinical memoirs it is unrivalled, and its merits are recognised by all who make gynæcology a study.

We have already alluded to his having edited, with annotations and comments, *Smellie's Midwifery* for the New Sydenham Society at their request. Two eminent obstetricians had previously undertaken the task, but given it up, so that it was natural that McClintock should have some hesitation as to accepting the trust. Of the notes introduced he says, "Some are critical, some explanatory, some historical, but by far the greater number are practical." Of these latter we have already given a specimen: they all exhibit the same characteristics—sound judgment, prudence, and caution. In the memoir of Smellie, with which the work is introduced, a great amount of critical and historical research is exhibited, as well as a familiarity with the early writers on midwifery that is still further evidenced in the very learned, exhaustive, and most interesting address he delivered on taking the chair as President of the Obstetric Section of the International Medical Congress, held in London in last August.

In addition to taking the licence in surgery of the Irish College of Surgeons in 1842, he graduated in medicine at Glasgow in 1844, and in 1851 he became a Licentiate of the King and Queen's College of Physicians. The University of Edinburgh conferred on him the degree of LL.D. (*honoris causâ*) on the occasion of the meeting of the British Medical Association in Edinburgh, when he presided over the Obstetric Section; and afterwards the Dublin University, when they established the degree of Master of the Obstetric Art, conferred the degree of M.A.O. on him for the same cause. The London and Edinburgh Obstetrical Societies made him an honorary Fellow of their bodies, as did many other societies both at home and abroad. On the death of Dr. Hudson, he was appointed Queen's Representative on the General Medical Council for Ireland; but his last appearance in public was as President of the Obstetric Section of the International Congress at the London meeting, when he delivered the address which we have already mentioned.

Dr. McClintock held office twice in the Section of Obstetric Medicine at annual meetings of the British Medical Association; at Manchester in 1877, when he was one of the Vice-Presidents; and at Bath in 1878, when he ably filled the office of President of the Section.

Naturally of a delicate constitution, and with a frame not robust, he was a man of a somewhat reserved manner (we have been told he was a seven months' child), and perhaps subject to some of that nervousness and timidity that is so constantly taken for reserve and coldness, yet he could unbend when the occasion served, and, fond of music, he could himself raise the voice of song when moved thereto by the contagion of example. In early life, he suffered from rheumatic fever; and in later years his medical advisers knew that he had disease of the mitral orifice of the heart. Soon after his return from the International Medical Congress, on going to visit a patient not far from his own house, he felt unwell, and went home, but returned after a short time; and, when sitting beside the patient, began to rub his right hand

as if he felt it numb. His speech now became so indistinct that he could not be understood; and he was helped down to his carriage, and driven home. He passed rapidly into a state of profound collapse; was unable to swallow or to speak, apparently from paralysis of the nerves of the tongue and pharynx—his condition differing in this respect from the true aphasia, but resembling it in there being complete paralysis of the right side. Notwithstanding the overwhelming symptoms with which the attack set in, he improved after some time to such an extent as to inspire his friends with hope. He was able to move about with slight assistance, recovered his power of speaking so as to be understood, and was moved to the country. After a few days, however, the kidneys, which had hitherto been healthy, almost ceased to perform their functions, and what fluid was secreted was loaded with blood. He now suffered sadly from frequent paroxysms of difficult breathing, and finally passed away almost unperceived on Friday, October 21st, the sixtieth anniversary of his birth, leaving a place both in the profession and in society that it will not be easy to fill.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

The Opening of the Queen's College.—Mason's College.—The Midland Medical Society.—The Medical Institute.—Dr. Hinds.—The Queen's Hospital.

THE opening of the winter session at Queen's College has been already noticed in your JOURNAL, and an abstract of Mr. Oliver Pemberton's address has appeared in your columns. The full text was published in the October number of the *Birmingham Medical Review*.

The point of greatest interest in the address was, of course, the place occupied by Mason's College in relation to medical education in this town. We can now congratulate ourselves that our students can obtain first-class opportunities of instruction in science in laboratories which are probably unequalled in the kingdom, from professors of the highest special attainments, who devote their whole time to education. It is the intention of the trustees, and the desire of the whole town, that the standard of education at Mason's College shall be that of the best courses in the best equipped universities, either in this country or abroad; and there can be no doubt that, with this sincere intention, backed by ample means and an able and energetic professional staff, this high standard will be reached and maintained.

The annual meeting of the Midland Medical Society was held at the Grand Hotel on the evening of Wednesday, October 19th, Mr. John Manley in the chair, when Dr. T. Clifford Allbutt of Leeds delivered an address on Surgical Aids to Medicine, which will appear in the January number of the *Birmingham Medical Review*. The meeting was very well attended. Before the address, there was an exhibition of drugs and instruments, and some scientific novelties were shown and explained by Professors Tilden, Poynting, and Haycraft. The evening concluded with supper, to which a large number of visitors and members sat down. This meeting of the Midland Medical Society is always popular, and draws members from great distances to meet some notability of the profession.

The half-yearly general meeting of the Medical Institute was held in the Library at the Institute on Thursday, October 20th; Mr. Crompton, Vice-President, in the chair. The business was not of very general interest, and there was only a scanty attendance. The library of the Institute now consists of 7,462 volumes, exclusive of duplicates. Forty-two British and foreign periodicals are placed upon the tables of the reading-room. The subscription is one guinea, and all duly qualified medical practitioners are entitled to become members on presenting a properly signed application, forms of which may be obtained from the secretaries. The library is also open, without subscription, on simple conditions, to students of medicine, medical visitors to the town, and non-medical residents. It is desired, as soon as the state of its funds permit, to make the Institute practically free to all members of the medical profession.

I regret to say that Dr. Hinds, who has been for many years identified with Queen's College as Professor of Botany and Secretary to the Professors' Committee, is now lying in an apoplectic condition, to the very serious distress and grief of his friends and family. Dr. Hinds has always earned and retained the sincere respect and goodwill of the students, and this has been due to the absolute unselfishness of his character, and his hearty desire to do his very best for them, without any thought or care for his own interests. I can only give expression to the unanimous feeling of regret at his illness, and desire that he may be restored to his friends and pupils.

The Queen's Hospital has recently strengthened its surgical staff by the appointment of two casualty-surgeons, a proceeding preliminary to the reduction of the number of full surgeons from four to three. The new appointments have been conferred upon Mr. G. Jordan Lloyd, an old house-surgeon of the Queen's Hospital, and Mr. A. F. Hawkins, who was for four years house-surgeon to the General Hospital. Both these gentlemen have had large experience, and the hospital authorities may be congratulated on the excellence of their choice.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

IN Accrington, 52 deaths were registered last month, giving a death-rate of 19.9 per 1,000, as compared with 11.12 last month, and 28.8 in September of last year. There were 15 deaths of children under one year, and 10 of persons over sixty years of age. Five deaths were registered from zymotic causes. The births numbered 96, equal to a birth-rate of 36.7 per 1,000.

THE SANITARY ASSURANCE ASSOCIATION.

AT the ordinary meeting of the Council of the Sanitary Assurance Association, held at the Offices, 5, Argyll Place, Regent Street, on Wednesday, October 26th—Professor Hayter Lewis, F.S.A., in the chair—certificates were issued, under the corporate seal of the association, to those subscribers who had carried out the recommendations of the association with regard to the sanitary arrangements of their houses. These certificates, which are as yet a new feature in connection with provident householding, are not of less importance than fire insurance policies. The certificates are signed by the chief sanitary officer of the association, Professor Corfield, and the surveyor, Mr. Mark H. Judge, and they guarantee the satisfactory condition of the houses to which they refer; the inspection, report, and supervision of the work, where alterations are necessary, being made personally by both officers. The certificates are issued subject to an annual inspection of the property, for which the members are charged a small fee, according to the rateable value of the houses. For instance: for a house rated at £80, the fee is half a guinea for each annual inspection; while, for a house rated at £200, the fee is two guineas. Detailed reports of works in progress were made; and correspondence, thanking the council for the thoroughness of the reports and supervision of work, was read. It is just twelve months since the first meeting of the association was convened, under the presidency of Sir Joseph Fayrer: to form an organisation which should apply the combined sanitary knowledge and experience of medical men, architects, and others, by means of specially qualified officers, who should yearly inspect the houses of members, and report upon their drainage, water-supply, and ventilation. The association was soon after incorporated by special licence of the Board of Trade, by which it is bound to apply the whole of the income and property of the association solely towards the promotion of its objects; and no dividend or profit can be paid, directly or indirectly, to the members. The work of the association is very simple in plan. Application is made for the inspection of a house; and the inspection is made personally by both the chief sanitary officer and the surveyor, who supply a detailed report on the sanitary condition of the property, together with a specification of the work necessary to put it into a condition satisfactory to the association. While this work is in progress, it is supervised by these officers; and, on its completion, the council grant a certificate guaranteeing the sanitary condition of the property, subject to an annual inspection by the officers of the association.

THE COMMISSIONERS IN LUNACY AND THE CERTIFIERS THEREOF.

HAVING had a tolerably lengthened experience of the annual reports of the Local Government Board, and of their analogue the Commissioners in Lunacy, we have long since arrived at the conclusion that anything that appears in either has less effect than might be expected in controlling or developing public opinion; and, the constant appearance of their respective Blue-books on stalls in by-streets, or in the catalogues of sales of waste-paper, confirms our opinion. Still there are times and occasions when statements are made to which it is necessary to call attention, if only to traverse the conclusions at which the writer arrives. Such appears to be the case in the last report of the Commissioners in Lunacy, where, at page 121, may be found the following criticism. "With every respect to these gentlemen" (the Poor-law medical officers), "it cannot be said that they are, merely as Poor-law medical officers, better judges of insanity than their fellow-practitioners; or, that the fact of appointment to a poorly paid office by a board of guardians affords any guarantee for responsibility or respectability exceeding that of other

medical men with similar educational qualifications." Further on, the writer again refers to the same point, in similar terms of depreciation. Thus: "That his official position, such as it is, would not necessarily imply any particular acquaintance with mental disease; and who, by the very nature of the case, would often be the youngest practitioner and the least experienced in the whole neighbourhood." Having thus exhibited his complete ignorance of what generally holds good in the vast majority of these appointments, the writer thus proceeds to qualify his observations. "There are, no doubt, many local practitioners of the highest repute who happen to hold a Poor-law appointment. They would continue, as at present, to be called in to most cases of insanity arising in their district; but, supposing them to be persons of skill, experience, and high moral character, they would owe none of these qualifications to the accident that they were also medical officers of the Poor-law Board."

It must be evident to all who are in the least degree conversant with the administration of Poor-law medical relief, whether it be in towns or in rural districts, that the writer of the above quotations has but a very imperfect acquaintance with that which holds good in reference to the certification of lunatics. If the Poor-law medical officer is the certifier of the great bulk of the lunatics confined in our private and county asylums, it is because the very character of his position, and the exceptional opportunities afforded him for seeing and examining lunatics, give him that knowledge which is requisite; indeed, so much is this the case that, writing from our own experience, we are in a position to assert that the ordinary physician, or general practitioner, so seldom encounters a case of lunacy that, when he does, the requirements of the Lunacy Acts, and the verbiage of the forms, are very bewildering; whilst, on the contrary, the Poor-law medical officer, continuously called on to see insanity in all its miserable and multiform developments, frequently becomes the recognised and most intelligent authority on all such matters in the district in which he resides.

Let our Poor-law medical brethren take heart. It is not by anything that may appear in the annual reports of the Lunacy Commissioners that their position will be assailed. The Lunacy Commission itself has been tried, and found wanting; and, although we have the largest amount of respect for its greatly venerated and venerable chief, yet we hope that the time may not be far distant when some very considerable modification of its functions and obligations will be carried out. If the Poor-law Medical Service were only true to itself, this gratuitously insulting reference to the arduous obligations and position of Poor-law medical officers would materially add to the rapidity of its downfall.

MIDLETON UNION.

DR. RYAN, Medical Officer of Midleton No. 2 Dispensary District, having been removed, on August 18th, by a sealed order of the Local Government Board, for some irregularity, the dispensary committee, when an election took place, re-elected Dr. Ryan as the medical officer. The Local Government Board, however, refused to sanction the appointment; and another election took place, with the same result. The board hereupon informed the committee that, unless a proper medical officer was appointed within a month, they would select one themselves; and, as a result of this threat, the committee, at a meeting held last Saturday, received a sealed order appointing Dr. James Barry as a successor to Dr. Ryan. The committee, on receipt of this, passed a resolution, requesting the board to withdraw the sealed order; and passed a vote of thanks to Dr. Ryan for his services as medical officer during the past twelve years.

DISTRICT MEDICAL OFFICERS AS MEDICAL OFFICERS OF HEALTH.

SIR,—As we cannot expect any alteration in the laws affecting the health of the people in Ireland until the law in England is so arranged that the officials will be able to do their duty without injury to themselves, I am induced to offer the following remarks on the question of the appointment of district medical officers as medical officers of health, referred to by you in your issue of the 1st instant, showing the fatal error in such an appointment.

In Ireland, the present Public Health Act compels all the dispensary medical officers to be made ex-officio officers of health, whether they like it or not, the board of guardians, corporations, and town commissioners being the local sanitary authority, and the Irish Local Government Board the central authority. The dispensary doctors are generally the private physicians of members of the local boards, those members being generally owners of property in their respective districts.

Sanitary works, as you are aware, cost money. Although the outlay will invariably save both life and money, nevertheless a number of persons look in the first instance to the outlay, and, not seeing the benefit likely to arise by any proposed expenditure, refuse to allow the work to be executed; and, although the medical officer of health has reported on the necessity of its being done, the parties concerned oppose it; and, in consequence, the neglect continues, fever arises, the disease spreads, death ensues. No inquest is held, no inquiry is made, and after a while the fever subsides, until a fresh outbreak arises, and a repetition of loss of life and loss of money follows; and then we are told, "that typhus has shown a somewhat increased prevalence for the past few months, not only in the city of Cork, but throughout the country at large, but by no means to such an extent as to give rise to public uneasiness". (*See* your remarks in your issue of the 1st instant, under "The Health of Cork.")

To return to the first question: when the medical officer of health discovers that there is not proper sewerage in parts of his district, or that there is no proper supply of water, or that nuisances exist which are dangerous to health, he reports the fact to the sanitary authority; and, in nine cases out of ten, the party who causes the nuisance, or whose property is liable to be taxed for the cost of constructing sewers or supplying water, is a member of the sanitary authority, and himself and family employ the medical officer as their private physician. He objects to the outlay of a penny on his property, and actually reproves the medical officer for attempting to report on the sanitary neglect of his property. What is the result? The medical officer, seeing the effect produced on the mind of his wealthy and well-paying patient, makes no more reports, and the neglect continues.

Thus the Public Health Act in Ireland has in many instances become, in more than one sense, a dead letter. It was unfair, in the first instance, to compel any dispensary doctor to act as an "informer" on sanitary neglect. It places him in a most invidious position with his principal patients. The remedy which I would suggest is this. Let the Public Health Act be placed in the hands of a public health department, somewhat similar to the Military and Naval departments, independent of all local boards and of the Local Government Board; and, instead of the dispensary doctors being made officers of health, let the several Unions be placed under the especial charge of medical officers responsible to the Public Health Department, whose salaries will make them independent of private practice. And, on every outbreak of fever or other preventable disease, let an inquiry be then held, with the view of ascertaining the cause, and providing a remedy.—I am, sir, your obedient servant,

WILLIAM D'ESTERRE PARKER.

Passage West, Cork, October 10th, 1881.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, October 20th, 1881.

Cheyne, Robert, Nottingham Place, W.
Coles, William James, George Street, Croydon.
Marshall, John Grissell, Wallingford, Berks.
Neligan, James Charles, Ballina, co. Mayo, Ireland.

The following gentlemen also on the same day passed their Primary Professional Examination.

Greenway, John Henry, Guy's Hospital.
Pryce, Thomas Davies, St. Bartholomew's Hospital.
Sarzana, Ettore, St. Bartholomew's Hospital.

UNIVERSITY OF DURHAM.—First M.B. Examination, October, 1881. The following candidates have satisfied the Examiners.

Frederick E. Abbot, Charles S. Blair, Howard A. Bredin, William M. Buxton, Ambrose E. Charpentier, Arthur W. Dawson, H Gardiner Hill, M.R.C.S., George D. Johnston, H. P. Keatinge, John I. Parsons, Septimus T. Pruen, George H. Rodman, Daniel Thurston, William D. Travis, Robert W. Watson.

Thirty-four candidates entered. One failed in Chemistry, and one in Botany. Each of these is admissible for examination in the subject alone in which he failed.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—**At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, October 10th, 11th, 12th, and 13th, the following candidates were successful.**

First Professional Examination.—Letitia H. Andrew, Alfred A. D. McCabe.

The Licences to practise Medicine and Midwifery.—George Abbott, Francis G. Bonynge, Walter W. S. Jones, Charles L. Lumley, Vincent J. Magrane, Lyster A. Nolan, Charles Parsons, John A. C. Penny, John Tuthill.

The Licence to practise Medicine.—Mark A. Brennan, Patrick J. Dempsey, Francis E. McFarland, Daniel M. O'Connor.

The Licence to practise Midwifery.—Nicholas Hall.

The following Licentiates in Medicine of the College, having complied with the by-laws under the Supplemental Charter of December 12th, 1878, have been duly admitted to the Membership.

George C. Chesnaye, 1866, Surgeon-Major, Indian Army; John N. Cooper, 1874, London; George Westby, 1872, Liverpool; Richard B. Smith, 1872, London; Thomas O'D. Russell, 1877, Limerick; James C. Cameron, 1878, Montreal.

QUEEN'S UNIVERSITY IN IRELAND.—**At a meeting of the Senate, held on Thursday, October 13th, in St. Patrick's Hall, Dublin Castle, the following Degrees in Medicine and Surgery and Diplomas in Midwifery, were conferred by His Grace the Duke of Leinster, Chancellor of the University.**

Degree of Bachelor in Medicine. First Honour Class: Hamilton H. R. Charles, Cork; Thomas Sinclair, Belfast. Second Honour Class: George L. Galpin, Cork; William H. Lendrum, Belfast; Francis M'Laughlin, Galway; James Pinkerton, Belfast; David Semple, Belfast. Upper Pass Division: Warwick L. Child, Belfast; Timothy Dilworth, Cork; William W. Gibson, Galway; Patrick F. Goodman, Cork; Isaac W. E. Hodges, Belfast; John Kennedy, Belfast; William J. R. Kennedy, Galway and Belfast; John S. Lyon, Belfast; Robert W. S. Lyons, Belfast; Samuel Macaulay, Belfast; William O. Mahon, Cork; Edward J. Parry, Cork. Lower Pass Division: Robert Anderson, Belfast; William G. K. Barry, Cork; John G. Park, Belfast; John Parr, Cork; Samuel Connor, Belfast; James Craig, Belfast; Charles Daly, Cork;

John Dodd, Belfast; Charles Dundee, Belfast; Alexander J. Fleming, Belfast; David Forsyth, Belfast; Robert Henry, Belfast; John L. Jaquet, Cork; Samuel W. Johnson, Galway and Belfast; Edward M'Connell, Belfast and Galway; Thomas S. M'Connell, Belfast and Galway; Robert J. M'Cormack, Belfast; Beattie M'Farland, Belfast; Wahab M'Murray, Belfast; John R. M'Neil, Belfast; William N. M'William, Belfast; William A. Moynan, Galway; William Nelson, Belfast; David V. O'Connell, Galway; Arthur O'Keeffe, Cork; Richard M. Ralph, Belfast; Robert Stewart, Belfast; Jeremiah Sugrue, Cork; Edward J. H. Sullivan, Cork; George M. Thompson, Belfast; Felix C. Vinrace, Galway; Charles Wiseman, Cork.

Degree of Master in Surgery.—David Taylor Monteath, M.D., Belfast; David J. O'Malley, M.D., Galway; William Smyth, M.D., Belfast; W. G. K. Barnes, Cork; J. Blair, Cork; H. H. R. Charles, Cork; T. Dilworth, Cork; J. Dodd, Belfast; A. J. Fleming, Belfast; G. L. Galpin, Cork; P. F. Graham, Cork; R. Henry, Belfast; J. W. B. Hodsdon, Belfast; J. Kennedy, Belfast; W. H. Lendrum, Belfast; J. S. Logan, Belfast; R. W. S. Lyons, Belfast; S. Macaulay, Belfast; R. J. M'Cormick, Belfast; W. M'Murray, Belfast; J. R. M'Neill, Galway; W. O. Maher, Cork; W. A. Moynan, Galway; W. Nelson, Belfast; A. O'Keeffe, Cork; J. Pinkerton, Belfast; D. Semple, Belfast; T. Sinclair, Belfast; R. Stewart, Belfast; J. Sugrue, Cork; E. J. H. Sullivan, Cork; G. M. Thompson, Belfast; F. C. Vinrace, Galway.

Diploma in Midwifery.—James Minnice, M.D., Belfast; James Mullin, M.D., Galway; James F. White, M.D., Galway; David Taylor, M.D., Belfast; J. Green Black, Galway; John Blair, Cork; H. H. R. Charles, Cork; W. L. Child, Belfast; Samuel Connor, Belfast; Charles Daly, Cork; T. Dilworth, Cork; P. F. Graham, Cork; J. Kennedy, Belfast; W. H. Lendrum, Belfast; J. S. Logan, Belfast; R. J. MacCormack, Belfast; W. O. Maher, Cork; D. V. O'Connell, Galway; A. O'Keeffe, Cork; J. Pinkerton, Belfast; R. M. Ralph, Belfast; D. Semple, Belfast; T. Sinclair, Belfast; E. J. H. Sullivan, Cork; G. M. Thompson, Belfast.

Honorary Degrees.—John Cleland, M.D., F.R.S., the degree of D.Sc. *honoris causâ*; William Thomson, B.A., M.D., M.Ch., the degree of M.A. *honoris causâ*.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BIRMINGHAM GENERAL DISPENSARIES — Resident Surgeon. Salary, £150 per annum. Applications by November 16th.

BRISTOL GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to the Clerk by November 5th.

CARMARTHEN AND JOINT COUNTIES ASYLUM—Medical Officer. Salary, £100 per annum. Applications to Medical Superintendent.

CLAPHAM UNION—Assistant Medical Officer and Dispenser for the Infirmary and Workhouse. Applications, by November 1st, to the Clerk, Union Offices, New Wandsworth.

DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon. Applications to the Honorary Secretary by November 14th.

DROGHEDA UNION—Medical Officer for Termonfeckin Dispensary District. Salary, £110 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 8th November.

DURHAM COUNTY HOSPITAL — Pupil wanted to dispense medicines and assist house-surgeon; board and lodging in hospital, for £30 per annum. Applications to James Oliver, M.B.

EASTERN DISPENSARY, Bath—Resident Medical Officer. Salary, £100 per annum, with furnished apartments, coal, gas, and domestic attendants. Applications to Francis Savage, Esq., by November 1st.

EAST SUSSEX, HASTINGS, AND ST. LEONARD'S INFIRMARY—Assistant Surgeon. Applications to Secretary by November 14th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Physician to Out-patients. Applications by November 23rd.

FRENCH HOSPITAL AND DISPENSARY, Leicester Square—Resident Medical Officer. Applications to Assistant Secretary.

GLASGOW MATERNITY HOSPITAL—Assistant Obstetric Physician. Applications by November 4th.

ISLE OF WIGHT UNION—Medical Officer. Salary, £80 per annum. Applications to Clerk's Office, Newport, by 10th November.

MIDDLESEX HOSPITAL—Surgical Registrar. Applications to Secretary-Superintendent by November 12th.

MONMOUTH UNION—Medical Officer for District. Salary, £40 per annum. Applications by November 4th.

RICHMOND HOSPITAL, Surrey—House-Surgeon. Salary, £80 per annum. Applications by October 29th.

ROYAL PIMLICO DISPENSARY, 104, Buckingham Palace Road—Attending Medical Officer. Applications by November 7th.

ST. THOMAS'S HOSPITAL—Assistant Physician. Applications in writing to A. Tritton by November 16th.

SOUTH DEVON AND EAST CORNWALL HOSPITAL — House-Surgeon. Applications to Honorary Secretary by November 7th.

WORKHOUSE AND INFIRMARY, St. John's Road, Upper Holloway—Resident Assistant Medical Officer. Applications by November 1st.

MEDICAL APPOINTMENTS.

ARMSTRONG, James, L.R.C.P., appointed Dispenser and Assistant Medical Officer to the Bury St. Edmund's Medical Association, *vice* John Stevenson, M.B., resigned.

BIRD, Ashley, M.R.C.S.E., appointed Assistant Medical Officer to the City of London Infirmary, *vice* G. E. Miles, M.R.C.S., resigned.

BOOBYER, Philip, M.R.C.S., appointed Assistant House-Accoucheur to King's College Hospital.

CROOKSHANK, Edgar M., M.R.C.S., appointed Assistant House-Surgeon to King's College Hospital.

FREEMAN, H. W., M.R.C.S.E., appointed Surgeon to the Royal United Hospital, Bath.

FLY, J. B., L.R.C.P.Lond., appointed Medical Officer of Health to the Swindon Urban and Rural Sanitary Districts.

GRANT, E. Leith, M.B., appointed Medical Officer for the Riccartsbar Asylum, Paisley, *vice* L. Love, L.S.A., resigned.

GROOM, H. T., M.R.C.S., appointed House-Surgeon of the Clinical Hospital and Dispensary for Children, Manchester, *vice* S. McMillan Chadwick, L.R.C.P., resigned.

HALEY, W. H., L.R.C.P.Ed., appointed Medical Officer for the Wakefield District of the Wakefield Union.

HAMILTON, D. J., F.R.C.S.Ed., appointed Pathologist to the Royal Hospital for Sick Children, Edinburgh.

HILLOCAN, David, L.D.S.Eng., appointed Dental Surgeon to the Dental Hospital Leicester Square, *vice* C. J. Fox, L.D.S., resigned.

HEWITSON, J., M.B., appointed House-Surgeon to the Royal Maternity and Simpson Memorial Hospital.

HILL, J. Higham, M.D., F.R.C.S.Ed., appointed by the Government of New South Wales as a special Medical Inspector in connection with the epidemic of small-pox in Sydney.

HOAR, C., M.B., appointed Medical Officer for the Fifth District of the Battle Union.

HODGES, James, L.S.A., appointed House-Accoucheur to King's College Hospital.

HOLTHOUSE, Edwin H., B.A., M.R.C.S., appointed House-Surgeon to King's College Hospital.

KELLY, H. J., M.R.C.S., appointed Medical Officer for the Castle Bromwich District of the Aston Union.

KIDD, P. H., M.B., appointed House-Surgeon to Great Yarmouth Hospital.

KNAGGS, H. Valentine, M.R.C.S., appointed Resident House-Surgeon of the Boscombe Provident Infirmary.

MADDISON, W. T., M.R.C.S., appointed House-Physician to King's College Hospital.

MILLER, R. S., F.R.C.S.E., appointed Surgeon to the Western Ophthalmic Hospital *vice* T. B. Archer, M.R.C.S., resigned.

MURPHY, J., M.D., appointed Consulting-Surgeon to the Monkwearmouth and Southwick Dispensary.

OGILVY, G., M.B., appointed Physician to the Hospital for Epilepsy and Paralysis Portland Terrace, *vice* T. Stretch Dowse, M.D., resigned.

OZANNE, F. N., M.R.C.S., appointed House-Surgeon to the Weston-super-Mare Hospital and Dispensary.

POWELL, T. W., M.D., appointed Medical Officer for Toonwara Dispensary District, Nenagh Union, *vice* T. McMahon, L.R.C.P., resigned.

RABBETH, Samuel, L.S.A., appointed Assistant House-Physician to King's College Hospital.

SCOTT, Bernard, M.R.C.S., appointed House-Surgeon to the Sussex County Hospital, *vice* J. C. Uhthoff, M.D., resigned.

WALPHY, John J., M.D., appointed Medical Officer to the Bandon Union, *vice* Ed. Toole, M.R.C.S., resigned.

WEBBER, E. S., appointed Resident House-Surgeon to the Dreadnought Hospital, Greenwich.

WEST, John A., M.R.C.S., appointed House-Surgeon to King's College Hospital.

WILLIAMS, T. H., L.R.C.P., appointed Medical Officer to the Towns Hospital and Asylum, Glasgow.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

DAVIDSON.—On October 14th, at Coventry, the wife of Charles Davidson, M.D., of a daughter.

DUKE.—On the 24th instant, at Rugby, the wife of Thomas Duke, M.A., M.R.C.S., of a daughter.

MCDOWALL.—At Cottingwood, Morpeth, on the 25th inst., the wife of Dr. T. W. McDowall, of a son.

PARSONS.—On October 26th, at Paddock House, Wimbledon, the wife of T. E. Parsons, of a daughter.

THOMSON.—At 9, Burnbank Gardens, Glasgow, on the 20th inst., the wife of A. Tinling Thomson, M.D.[a] of a daughter.

MARRIAGE.

BROOMHEAD—HODGSON.—At the Union Street Congregational Chapel, Oldham, on the 19th inst., by the Rev. A. Stroyan, uncle of the bride, Charles Broomhead, M.D., to Mary Edith, younger daughter of the Rev. John Hodgson.

DEATHS.

DAVIDSON.—At Coventry, on the 23rd instant, Ellen Deane, wife of Charles Davidson, M.D., in her 30th year.

HAMILTON.—On September 30th, at his residence, Hamilton House, Londonderry, W. J. Hamilton, Esq., M.D., L.R.C.S.Edin., Deputy Inspector-General of Hospitals and Fleets, deeply regretted by all who knew him.

HARMER.—On October 19th, 1881, William Harmer, for more than forty years proprietor and resident superintendent of the North Grove House Asylum, at Hawkhurst, in his 74th year. Friends will kindly accept this intimation.

PROFESSOR VIRCHOW, who has recently visited Odessa, has been made a honorary member of the University and of the Medical Society of that city.

THE LONDON HOSPITAL MEDICAL COLLEGE.—The Buxton Scholarship of £30 has been awarded to Mr. S. R. Hodge, and that of £20 to Mr. J. W. Pugh.

PRESENTATION TO MR. CANTLIE.—The students of Charing Cross Hospital held their annual dinner at the Holborn Restaurant, on Tuesday, the 18th October. The most of the staff were present as guests, and altogether over a hundred sat down to dinner. During the evening Mr. Taylor, the house-surgeon, in the name of the students, presented the chairman, Mr. Cantlie, with a gold watch, a purse of sovereigns, and a documentary address. On the watch was inscribed "Presented to James Cantlie, M.A., M.B., F.R.C.S., by numerous students of Charing Cross Hospital." The good feeling which ought to bind students and teachers together exists nowhere more strongly than at Charing Cross Hospital, and the present testimonial is the best evidence of the same.

PRESENTATION TO DR. J. G. JEFFERSON.—An address, accompanied by a valuable gold watch and chain, have recently been presented to Dr. James G. Jefferson, on the occasion of his leaving Aghalee, as a mark of esteem, and as a souvenir of his connection with the neighbourhood. The address further stated that, although Dr. Jefferson had come among them as a perfect stranger a few years ago, yet in a short time, by his abilities, integrity of character, and considerate kindness, he had succeeded in winning the confidence, respect, and esteem of the whole community. His friends would always take a deep interest in his welfare, and be pleased to learn that his merits and worth had been rewarded by an equal measure of prosperity and happiness.

MORTALITY IN THE NETHERLANDS.—In 1865, the Dutch Association for the Advancement of Medical Science published an *Atlas of Mortality in the Netherlands*. The society now announces that it has completed and published, in conjunction with the editors of the *Nederlandsch Tijdschrift voor Geneeskunde*, a second edition of that atlas, in which the tables are calculated for the years 1860-75. Copies may be obtained from Dr. Guye of Amsterdam, at the price of two florins (about 3s. 6d. in English money).

POISONING BY NICOTINE.—Six boys and one girl, inmates of reformatory schools in Ireland, died during the year 1880. The girl and four of the boys were carried off by consumption, one boy died of congestion of the lungs, and the other was accidentally poisoned by nicotine. The evidence taken at the inquest on this boy showed that he was given a quantity of tobacco by his mother when she visited him, and that he was poisoned by the excessive use of the narcotic acting on a weak heart. No death occurred in any of the schools from zymotic diseases during the year.

PUBLIC HEALTH.—The annual rate of mortality last week, being the forty-second week of this year, in twenty of the largest English towns, averaged 21.2 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Bristol 15, Norwich 16, Birmingham 16, Leeds 16, Plymouth 16, Wolverhampton 17, Nottingham 17, Bradford 17, Newcastle-on-Tyne 17, Sheffield 20, Sunderland 20, Manchester 20, Brighton 20, Leicester 21, Portsmouth 21, London 21, Oldham 25, Salford 25, Liverpool 28, and Hull 29. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, Sunderland, and Leicester; 32 more fatal cases were recorded in Hull, making 318 that have occurred since the beginning of July. The 31 deaths from diphtheria in the twenty towns included 21 in London, 5 in Liverpool, and 4 in Portsmouth. The highest death-rate from "fever" occurred in Brighton, Hull, London, and Salford. The fatality of measles showed an increase in Birmingham. Small-pox caused 16 more deaths in London and its outer ring of suburban districts; no fatal case of this disease was recorded in any of the nineteen large provincial towns. In London, 2,681 births and 1,586 deaths were registered. The deaths exceeded the average by 80. The annual death-rate was 21.6. During the past three weeks of the current quarter, the metropolitan death-rate averaged 20.0 per 1,000, against 20.1 and 20.5 in the corresponding periods of 1879 and 1880. The 1,586 deaths included 14 from small-pox, 30 from measles, 48 from scarlet fever, 21 from diphtheria, 39 from whooping-cough, 5 from typhus fever, 53 from enteric fever, 9 from ill-defined forms of continued fever, and 18 from diarrhœa; thus, 237 deaths were referred to these diseases, being 16 above the average. The deaths from diseases of the respiratory organs, which had steadily increased from 115 to 279 in the seven preceding weeks, further rose to 319 last week, and exceeded the average by 17; 182 were attributed to bronchitis and 96 to pneumonia. Different forms of violence caused 66 deaths; 62 were the result of negligence or accident, among which were 26 from fractures and contusions, 7 from burns and scalds, 2 from drowning, and 13 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 43.7°, and 7.1° below the average. The mean degree of humidity of the air was 86, complete saturation being represented by 100. The general direction of the wind was E., and the horizontal movement of the air averaged 11.1 miles per hour, which was 0.1 above the average. Rain fell on Friday and Saturday, to the aggregate amount of 0.52 of an inch. The duration of registered bright sunshine in the week was equal to 46 per cent. of its possible duration. The recorded amount of ozone was above the average on each of the last four days of the week.

HEALTH OF FOREIGN CITIES.—The following facts, derived from a table in the Registrar-General's last weekly return, afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate averaged 34.0 per 1,000; it was equal to 28.4 in Calcutta, 21.9 in Bombay, and 38.3 in Madras. Cholera caused 21 deaths in Calcutta and 13 in Bombay, while 15 fatal cases of small-pox occurred in Madras. The usual excessive fatality of "fevers" was recorded in each of these three Indian cities. The death-rate in Alexandria was equal to 35.7, showing a considerable decline from the rates in previous weeks; 10 fatal cases of typhoid fever and 8 of whooping-cough were, however, reported. According to the most recent weekly returns, the average annual death-rate in twenty-two European cities was equal to 25.2 per 1,000 of their aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 21.2. The rate in St. Petersburg was equal to 40.1, and showed a further decline from the rates in recent weeks; typhus and enteric fevers caused 21, and scarlet fever 14, deaths within the city. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 17.3, the highest rate being 19.3 in Copenhagen; fatal cases of diphtheria were recorded in each of these three cities. The Paris death-rate was equal to 24.0, and the deaths included 44 from diphtheria and croup, 28 from enteric fever, and 10 from small-pox. The deaths in Brussels were equal to a rate of 20.2, one fatal case of small-pox being recorded. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate did not average more than 20.5, the highest rate being 21.4 in Amsterdam, where whooping-cough caused 4 deaths; 2 fatal cases of "fevers" were recorded both in Rotterdam and the Hague. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.1, and ranged from 22.0 and 23.5 in Hamburg and Vienna, to 27.7 and 30.5 in Breslau and Munich. Small-pox caused 10 deaths in Vienna and 9 in Buda-Pesth; and diphtheria showed fatal prevalence in Hamburg, Munich, and Dresden. The death-rate in the four Italian cities averaged 26.9, the highest rate occurring in Naples and Rome, where "fevers" showed fatal prevalence. The high rate in Naples was also partly due to the excessive fatality of measles. In four large American cities, the death-rate averaged 28.1, and was equal to 24.3 in Philadelphia, 27.6 in Baltimore, 28.4 in Brooklyn, and 29.3 in New York. Diarrhœal diseases again showed fatal prevalence in New York; enteric fever caused 28, and small-pox 11 deaths in Philadelphia.

CHLORAL IN LABOUR.—Dr. Kane recommends that the administration be *per enema* when practicable, and the first dose be thirty grains, followed by fifteen grains every hour. He formulates the following propositions. 1. Chloral may be employed in normal labour for the purpose of blunting sensibility, quieting nervous and hysterical manifestations, shortening labour, and destroying pains. 2. In complicated labour it has three uses—*i.e.* (*a*) to relieve pains; (*b*) to hasten dilatation of the os uteri; and (*c*) to increase the force of the uterine contractions. 3. Even when pushed to the production of anæsthesia it does not destroy the force of the uterine contractions. 4. The alleged danger of *post partum* hæmorrhage has no foundation in fact. 5. In moderate doses it is never dangerous. 6. The slight delirium that sometimes occurs is ordinarily removed by the second dose, and need cause no alarm. 7. It is rarely necessary to use more than one drachm in any one confinement. 8. It is best given by the rectum, in the form of enemata or suppositories. Almost all the practitioners who have communicated with Dr. Kane, favour the use of chloral in labour, for relief of suffering. A few failed to derive any benefit and do not use it.—*Detroit Lancet*.

STEWART ON COTO-BARK IN THE SWEATING OF PHTHISIS.—In the July number of the Canada *Lancet*, Dr. J. Stewart, of Brucefield, Ontario, recommends coto-bark very highly for this purpose, having made the observation while using the agent to control the diarrhœa in a case of phthisis a year ago. Since that time, he has used it in twenty-two cases of night-sweating, with beneficial results in all but two of them, and in sixteen cases the arrest of the sweating was prompt and long-continued. In one of the two cases of failure, atropin was [illegible] cacious after long-continued use. In the other, atropin, strychnia, and oxide of zinc, all failed.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The President (Dr. Broadbent) will exhibit a case of Paralysis of the Seventh, Eighth, and Ninth Nerves, with Atrophy of the Muscles affected. Dr. Churton (Leeds) will give the details of two cases of Aneurysm of the Left Ventricle; Notes of a case of Primary Dilatation of Tricuspid Orifice; also a case of Shedding of the Epidermis of the Sole of the Foot following a Quinine Roseola occurring three times.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens to be shown. The President: 1. Ear of Corn discharged through the Chest; 2. Drawing of Muscæ Volitantes. Mr. Hutchinson: Lupus Lymphaticus. Mr. Eve: Cases: Striped Muscle Tumours connected with the Kidney. Mr. Morris: Longitudinal Fracture of Shaft of Femur. Dr. Dawson Williams: Tumour of Kidney chiefly composed of Muscular Fibre. Dr. Isambard Owen: Necrosis of Skull-cap after a Burn. Mr. Pearce Gould: 1. Absence of one-half of Cerebellum; 2. Abscess in Head of Tibia. Dr. Norman Moore: Malignant Disease of Kidney following Renal Calculus. Dr. Broadbent: Remarkable Thickening of Pericardium. Dr. Samuel West: Extra-uterine Fœtation.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Dr. J. Matthews Duncan: On Shortness of the Cord as a Cause of Obstruction to the Natural Progress of Labour. N. W. Jastreban (St. Petersburg): On the Normal and Pathological Anatomy of the Ganglion Cervicale Uteri.

THURSDAY.—Harveian Society of London, 8.30 P.M. Mr. Edmund Owen: On the Treatment of Joint-Affections in Childhood.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

A MEDICAL HERO.

THE following subscriptions have been received to the Memorial Brass to be placed in the church of St. Bartholomew-the-Less, to Surgeon Landon, Army Medical Department. Howard Marsh, Esq., £1 1s. E. L. Archer, Esq., Newcastle-on-Tyne; W. G. Archer, Esq., Birmingham; H. F. Baker, Esq., London; S. Bastow, Esq., London; F. H. Carter, Esq., Tooting; W. Bruce Clarke, Esq., M.B., London; W. A. Dingle, Esq., London; A. H. G. Doran, Esq., London; Rev. W. Earle, Harlow; C. B. Gabb, Esq., Hastings; W. S. A. Griffith, Esq., London; E. W. Haines, Esq., London; F. A. Hall, Esq., Lewes; B. L. Hawkins, Esq., Woburn; J. T. Lyons, Esq., London; W. Odell, Esq., Hertford; T. W. Reid, Esq., Canterbury; F. H. Spooner, Esq., M.B., Reigate; J. H. Stowers, Esq., M.D., London; G. A. S. Waylen, Esq., Devizes; P. A. Woodforde, Esq., London; each 10s. 6d. J. K. Barton, Esq., London, and G. B. Ferguson, Esq., M.B., Cheltenham, each 10s. T. H. Sawtell, Esq., London, 5s. E. Jepson, Esq., Durham, 2s. 6d.

THE SANITARY CONDITION OF LONDON.

SIR,—It is admitted by competent authorities that the sanitary condition of this great metropolis is far from being perfect; nay, that it is seriously imperfect. It can scarcely be doubted that the burial of the dead amongst the living has much to do with this unsatisfactory condition of affairs. Indeed, the entire surface of London more or less reeks with putrescent animal matter; while, within the narrow and inefficient area of about three hundred acres, no less than fifty thousand bodies are being buried every year. Hence, in a generation of thirty years, this would give a million and a half of decomposing corpses in the surface-soil of Greater London.

The pollution of the soil by interments in our London cemeteries, long since "choked", is a matter so serious as to be a standing menace to the public health. One medical journal has gone so far as to urge the immediate intervention of the Government. Assuredly there can be no urgency pleaded for continuing a practice prejudicial to the community, inasmuch—as Mr. Seymour Haden points out in his final letter to the *Times*—as there exists an extensive cemetery at Woking, known as the London Necropolis, "which is capable of effecting one hundred thousand interments *per annum* for ever. The Act of Incorporation (continues Mr. Haden) allows also a separate grave for each body, and with the certainty that the same will not be disturbed."

If we have a great evil in our midst, the public has the power of ameliorating it until such time as the Home Secretary may take action in the matter.—I am, sir, yours,

SANITAS.

LAWYERS AND DOCTORS.

SIR,—Knowing the interest you take in medico-legal ethics, and the assistance you give in the protection of medical interests, I should feel obliged by your advice in the following instance.

During last winter, in the capacity of doubly qualified and registered assistant to the surgeon of a suburban dispensary, I attended a case of illness from accident. The patient's case was taken up by the Cab-drivers' Society for prosecution, and I was called upon by their solicitor's representative for my statement of injuries and prognosis. In the early spring of this year, I was in attendance, by the solicitor's appointment, at the residence of a West-end practitioner, where, after being kept waiting most part of an afternoon, the solicitor himself appeared for a preliminary consultation with myself and the surgeon who had seen the case for the plaintiffs. Later, arrived the medical referee of the defendants, who immediately departed after physical examination for the sequelæ of fracture of rib and laceration of lung. The would-be civil suit was afterwards settled by arbitration for compensation. Hearing nothing, after the lapse of some time I wrote to the solicitor pressing my claim, but was answered that the secretary to the above society "would see me with reference to my expenses, etc". This functionary now writes that he had no cognisance of such an arrangement, and refers me back to the solicitor.

Without expressing comment, may I ask if this treatment of a medical witness is legally professional? If not, what mode of procedure can I adopt to secure my right, without the contingent expense of setting lawyer after lawyer? Lastly, would a fee of two guineas be too exorbitant for me to ask? and is the dispensary surgeon entitled to anything?—I am, sir, yours truly,

A MEMBER.

New Cross, October 11th, 1881.

COEFFICIENT OR COINCIDENT?

SIR,—I have at present under treatment some cases regarding which I should be glad to have the opinion of some of your correspondents as to whether certain symptoms are part of the disease, or merely a curious coincidence. Three children, a boy aged about 13, and two girls respectively about 11 and 9 years of age, brother and sisters, came from the North of England, the boy by steamer, the girls by rail, and not on the same day. All three were attacked upon arrival in London with torticollis; the boy not apparently otherwise ill, and is now in his usual health; the girls have both developed sharp attacks of typhoid fever. Was the torticollis in all three merely an extraordinary coincidence? or had the fever-poison anything to do with it, the fever "aborting" in the boy?—Yours truly,

GERALD E. BARRON, M.B.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

WHAT NEXT?

SIR,—I think the liberal minded members of the profession should thank Mr. Jabez Hogg for his bold and able rejoinder to the strictures of "A Hospital Manager", under the above questionable heading. All those who really understand this question—and medical men must know more about it than mere hospital managers—viz., the real need of so large a section of the community, must have borne in upon them the absolute necessity that exists of affording to that class that intervenes between the well-to-do and the poor a means of obtaining medical advice, while at the same time of retaining their self-respect; and this can only be done by giving them the opportunity of attending at some hospital or dispensary, where they can pay a small sum in proportion to their means, and so feel that they are not recipients of charity.

Our whole profession is not to be limited to a lucrative practice on the one hand, nor to pure eleemosynary work on the other; and all praise is due to those who venture out of the beaten track in order to benefit their fellow-creatures.

If "A Hospital Manager" had only kept himself *au courant* with all that has been done during the past twelve years in this direction, commencing with the meeting held under the presidency of Sir William Fergusson, which I had the honour of convening, and which has been followed up by Sir Charles Trevelyan, Mr. Holmes, and others, he would have known that we have been striving to establish on a proper footing, and to recommend to the profession, provident dispensaries, where advice such as we have referred to could be procurable for a small payment by the artisan class; and I would suggest, with the view of carrying out the principle to its widest extent, that the general hospitals, and especially in their special departments, should set apart some time on two days of the week—say two evenings—when artisans could come and get advice for a small payment, not exceeding one shilling per visit, including medicine. If this plan were inaugurated and carried on by the large hospitals, which would be above reproach, it would go a great way towards maintaining an independent and provident spirit among that class, and would merit their deserved thanks. The funds accruing from such work should, of course, be divided among the medical officers seeing such patients. Under the present hospital arrangements, applicants for relief are obliged to receive advice and medicine gratuitously, which eventually tends to pauperise them; or, on the other hand, persons who ought to know better swallow the charity, and defraud both the hospital and medical men.—I am, yours faithfully,

HEYWOOD SMITH.

18, Harley Street, Cavendish Square, W., October 15th, 1881.

UNQUALIFIED PRACTITIONERS.

SIR,—I have been much pleased to see so much notice taken of late in the JOURNAL of the employment of unqualified assistants by members of the profession. It leads one to hope that the time is not far distant when a stop will be put to such a practice. It is a practice degrading to the profession, and an injury to and imposition on the public. But it is not those unqualified men who are to blame, so much as the medical men who employ them. The latter do so for the sake of gain; but I cannot conceive an honest medical man lending himself to fraud, imposture, falsehood, and injury. If a man be not able to obtain a diploma, he is surely not fit to treat his fellow creatures in illness. The examinations are not difficult, and a man of ordinary ability and diligence is able to pass them. In my neighbourhood there are three unqualified men, practising as if they were regularly qualified members of the profession. One qualified man employs one of them; and another the other two. They live in houses with their employer's plate on the door, so that the ignorant are under the impression that they are properly qualified men, and they are called Dr. So-and-so by them. One of these men has never attended a medical class. They all go to all cases, trifling and serious, and give death-certificates signed by their master, who in many cases has not even seen the patient. Can you imagine any conduct more cruel and more unprincipled than this? Surely something should be done to put a stop to it. An unordained person is not allowed to preach in the pulpits of the Church; an unqualified solicitor is not allowed to plead in our courts; our merchant ships and steaming steamers are not permitted to go to sea unless officered by men who have certificates from the Board of Trade; but we [illegible] are allowed to play with the health and lives of the people. Why is there not some medical board to prevent this? We have a Medical Council, a British Medical Association, and even a Medical Reform Committee of the British Medical Association; and yet a practice is allowed in our profession which is not allowed in any other. I shall be obliged to you if you will kindly inform me what reform the Reform Committee has effected.

I beg, in conclusion, to suggest that the influence of the Association, or of the Council, be exerted with the medical members of Parliament to obtain legislation making it not only illegal for unregistered men to practise, but also illegal for a registered medical man to employ more than [illegible] an unregistered, or at best an unqualified assistant. I may add that I shall willingly become a member of a Medical Defence Association.—I am, yours, etc., M.B., C.M.

*** The Medical Reform Committee of the British Medical Association has no power to prevent [illegible] practitioners practising. It [illegible] with authority, [illegible] to obtain from Parliament an amendment of the law regulating medical practice, the suppression, so far as possible, of illegal practice being included therein.

SIR,—Now that the Apothecaries' Society of London which is the only authority empowered to [illegible] and to grant certificates, [illegible] six [illegible] and drawn up [illegible] such that our legal rights should be more clearly defined, and to [illegible] central and general authority, [illegible] to this [illegible] Council [illegible] and the [illegible] constituted.

[illegible] Medical Act [illegible] the public to [illegible] the [illegible] [illegible] their [illegible] [illegible] Association, and [illegible] with quacks and druggists! It is a painful fact that we have, especially in the large towns, a large, and I am afraid increasing, class whose professional conduct is calculated to bring the whole profession into contempt. I do not expect that this class will diminish as long as unqualified assistants and druggists do the work which ought to be done by our junior qualified men. Why is not the *bonâ fide* student in his third year, say, made to be by law the only assistant allowed, when, with a near prospect of qualification, he could act in that capacity with benefit to himself and the public? We should not then have men who have been promoted from the doctor's kitchen to the consulting-room seeking permanencies as unqualified assistants.

Those who take an interest in the welfare of the profession and the suppression of irregular practice will have their hands tied, until the question of the relation of medical men to unqualified partners and assistants is settled by law.

The claims and pretensions of druggists are also not to be looked over. The educated pharmaceutical chemist, who signs himself [illegible] M.P.S. after it, thinks he has a perfect right to prescribe for his customers, and does so, and often visits until the patient is threatened with death, when Dr. So-and-so is recommended to be called in. If the law allows them, then we cannot help it; but surely we are idle to sit disgraced by members of our own profession. Hoping this subject will receive the attention it deserves, I am, etc., J. S.

SIR,—I was very glad to see your strictures on unqualified assistants in the JOURNAL of October 1st. This is, I believe, one of the greatest causes of the degradation of a profession which one is continually reminded is the noblest a man can devote his life to. Unqualified men are employed very much; they prevent young qualified men from obtaining remunerative work of a kind especially useful to the young practitioner; and by the employment of this cheaper article the unprincipled principal is able to undersell his brother practitioners, and so lower the noble profession to a mere trade competition.

We all know that it is illegal; but what is anybody's business is, proverbially, no one's; for medical men cannot afford to expose their brothers' shortcomings, or they are immediately accused of envious motives; the result is, that the unscrupulous medical man employs this cheaper labour with impunity. Why have we no society to prevent this, in the same way as the barristers have?

The nobility of the profession is, I fear, becoming more and more a by-word; a great number of its members are the reverse of noble. I was never more disgusted than when seeking an assistantship a few years ago, in the suburbs of London, where the man—he was anything but a gentleman—said to me: "I want a man who can extract money from the pockets of the British public; a Benjamin Brodie and William Gull, rolled into one, would be of no use to me; the public have the money, and I want it." This, sir, is a specimen of what one may find in this truly noble profession of ours. Surely those of us with right motives can band ourselves together to abolish the curse, both to the profession and public, of unqualified assistants.—I am, sir, yours very truly, WM. W. MILLARD, M.B.

Dunbar, October 3rd, 1881.

TREATMENT OF DIPHTHERIA.

SIR,—In answer to the inquiry of "An Interested Party", in your issue of the 8th instant, I would strongly recommend the local application of a solution of nitrate of silver (five grains to the fluid-drachm), thoroughly made with a swab of cotton-wool, once a day in ordinary cases, twice a day if the case be very severe; and to give internally a mixture of chlorate of potash and liquor of perchloride of iron. This mode of treatment has been so highly satisfactory in my hands, that I can confidently suggest it as an excellent one for the treatment of diphtheria.—I am, yours truly, WM. THOS. JACKMAN, M.R.C.S., etc.

Coggeshall, Essex, October 11th, 1881.

SIR,—"An interested party" asks for the best local application in diphtheria. It will be interesting to note the diversity of replies. Everyone has his pet remedy. Here is mine. Premising that the case is seen within a few hours of the discovery of the deposit—for, after two or three days' poisoning, treatment goes for so little—there is nothing equal to a good painting with a solution of nitrate of silver (two drachms to the ounce). One application, with perhaps a second in twenty-four hours, has repeatedly sufficed to destroy the membrane, and at once start the patient on the road to recovery. To-day, you perceive a patch as of white leather on the tonsil, uvula, or adjacent mucous surfaces; you paint it; to-morrow it is [illegible] shrivelled, and separating [illegible] instead of [illegible]. If no fresh development have arisen, this may be left, and probably it will drop off in another four-and-twenty hours.

The nitrate is equally applicable in both forms of diphtheria which we encounter, namely, the one with grave constitutional disturbance, the other with almost none. In one family, several members of which were attacked day by day, the pulse in a few hours became running, up to 140; temperature [illegible] with profuse sweating and prostration. Again, in a school, five or six boys had enormous patches about the fauces, which, when separated, were laid out on paper, and the constitutional disturbance was almost *nil*.

Everything depends upon seeing these cases early. Fifteen years ago, I entertained a perfect horror of the disease. Diphtheria meant death; but then I was not sent for until the day after to-morrow. At length, the public became horribly alarmed, and now I was summoned within six hours, with the happy result of witnessing rapid recovery. Chlorate of potash, muriatic acid, and perchloride of iron were the medicines prescribed.

I dare to differ from those high authorities who regard croup and diphtheria as the same. The treatment applicable to the one is not appropriate to the other. Notably, emetics, our sheet-anchor in croup, would destroy the little vital power remaining in a sudden and furious onslaught of diphtheria. At the same time, one [illegible] at the commencement is beneficial. But this is [illegible] before a [illegible]

[illegible] servant, [illegible] GARRAWAY.

[illegible]ham.

THE FREE DISTRICT ASSURANCE.

SIR, I was much pleased with [illegible]

[illegible]

[illegible]

[illegible]

matter formally brought before the not[illegible]

Medical Etiquette.

SIR,—I thank you for your favourable opinion, in my behalf, expressed in your issue of October 22nd, in reply to a letter on the above subject, and signed by "Hard Case". "Hard Case" omits to mention that A. and B. formerly practised in partnership; that B. attended A.'s wife during her first labour; that B. has since the dissolution of A. and B. partnership, always acted fairly towards A.; that B.'s letter was not unfriendly in tone, but simply stated that as he (B.) had been requested to attend C.'s wife, and to continue his attendance, he purposed doing so; that he had not so acted from any hostile spirit; and that as he (A.) had ceased to be a fellow-resident practitioner, (B.) could not continue to attend his (A.'s) midwifery cases on their previous arrangement, viz., to halve the fees (half fees, by the way, which B. has only received in one case out of six). C. had been married five years and seven months, not ten years as "Hard Case" wishes you to infer. The labour in question was Mrs. C.'s third. The labour was complicated with puerperal eclampsia. A.'s present house is very much nearer five than four miles from his former one.

With your permission, I will give you the other side of the case. C. met B. in the street a few days before the labour came off, and asked him (B.) to attend his (C.'s) wife. B. declined to do so, as A. had been engaged. C. stated that he had engaged with A. before he (C.) knew that A. was going to remove from the town. B. then advised C. to call in A.'s partner should A.'s services not be available; C. most decidedly declined to do so, at the same time saying that he (C.) wished him (B.) to attend his (C.'s) wife, as he (B.) had attended her before. B. consented, on the understanding that A. should be informed of the change, and also that A. should receive his fee. On the day on which the labour came off, when C. came urgently for B., B. most distinctly asked if A. had been called for at his partner's residence. C. assured him (B.) that he had so called, and had been told that it was uncertain when A. would come into the town. B. then attended the case, and wrote the letter mentioned. I may add that C. most strongly denies the truth of "Hard Case's" statement as to sending a carriage, etc.

In conclusion, I would remind "Hard Case" of the proverb, that "people who live in glass houses should not throw stones"; and ask him if he considers it professional etiquette for A. to send a circular, stating that he (A.) has taken a partner and is going to remove to a fashionable health-resort five miles off, to patients of B.'s—patients, by the way, who were attended by B. prior to the dissolution of partnership between A. and B.?—I am, sir, yours, etc., B.

J. B. (Glasgow).—Mr. Noble Smith's *Atlas of Human Anatomy* would, we think, be quite suitable. It does not give surgical dissections, but it gives a very complete series of figures of the various structures and parts of the body in detail, and on an adequate scale. It is a very good and marvellously cheap Atlas.

Marriage: Idiocy.

SIR,—I have been applied to for an opinion in the following case, on which depends the happiness of two persons, at least; and as I hardly feel competent to advise on the subject, I shall be glad of the advice of yourself, or some of your numerous readers.

A. B., a healthy man with a first-class family history, wishes to marry C. D., a fairly healthy girl of nervous temperament. Her parents are also of a highly nervous organisation, especially her mother, who at times appears to lose control of her nerve power, and is highly excitable. C. D.'s eldest brother is more of an idiot than a lunatic, having that peculiar form of idiocy associated with cowardice, and a very retentive memory, but deficient of any logical power. C. D.'s other brothers and sisters are of fair mental capacity, but are all of a nervous type. Presuming they are married, and there is issue, what are the probabilities of idiocy or lunacy being developed in them? There is no history of lunacy or idiocy in the ancestors as far as I can learn.—I am, sir, faithfully yours,

A PERPLEXED MEMBER.

Sale of Practice.

SIR,—Having disposed of my practice on a six months' introduction arrangement, receipts and expenses to be divided, I shall be obliged if any member, who has acted similarly, will kindly let me know what expenses should be divided. A man and two horses are kept.—I am, etc., A MEMBER.

Treatment of Sea-Sickness.

SIR,—Twelve months as a surgeon on shipboard, first to a vessel plying between Liverpool and Bombay, then to an emigrant vessel, carrying from 1,200 to 1,700 emigrants each voyage, from Liverpool to New York, have given me some experience in treating sea-sickness. In practice, two cases of the same description, treated by the same medical man, are not invariably treated alike; the individual traits in the patient are to be considered; yet some advocate for sea-sickness this nostrum, some that, allowing in no way for the different phases the complaint assumes. There is also to be considered the various kinds of sea-voyage; the short passage across the channel; the ten days' run across the Atlantic, with its perpetual swell; the twenty-six days' run out to India, during even which calm voyage some patients are sick the whole way. It will be convenient to class the unfortunate victims of this disagreeable complaint under three heads.

The first, and by far the largest class, are those who are ill, and actually vomit for a few hours, and subsequently feel nauseated, for perhaps the rest of the twenty-four hours. The second class may be considered to consist of those who, instead of recovering from this state, continue to vomit and retch for two or three days. And, thirdly, there are those unfortunates who seem to have no natural tendency to recover, whose stomach and system generally seem devoid of tone, and who continue hopelessly prostrated, till, perchance, the weather becomes absolutely calm, or happily they arrive at the end of their sea-voyage.

What can the doctor do for these poor people? Every voyage he hears the same exclamations: "Oh, doctor! can't you give me something to stop this sickness? Why does not some medical man find out a cure for sea-sickness? If a man were to find out a remedy for sea-sickness, he would make his fortune"; and many other such sayings. Though no infallible remedy has as yet been discovered, a medical man can do much to mitigate the sufferings which this complaint inflicts.

The individuals who come under the first heading generally require no treatment, though a certain proportion are much benefited by a saline aperient, with a mixture of infusion of gentian and aromatic spirit of ammonia, at the same time advising them to take some food in small quantities frequently, and to keep on their feet on deck as much as possible. Those under the second heading find counterirritation, in the form of a mustard-leaf over the epigastrium, keeping themselves in the reclining posture, warmly clad, with a mixture of half-drachm doses of bromide of potassium, combined with fifteen minims of tincture of capsicum every four hours, along with light nutritious digestible food, a very comforting and efficacious line of treatment. Lastly, the third class, of whom there are sure to be one or two among a considerable number of passengers, sometimes delicate ladies, but often men, who at the time of embarking looked robust, and not the least like prospective patients; for these, the same remedies may be used as for the second class, supplemented by ice to suck, iced champagne to sip, the hypodermic injection of morphia, or tincture of hydrate of chloral hourly; the patient, whenever practicable, in fine weather, lying on deck in the open air, well wrapped up, with a hot bottle to his or her feet. These measures will rarely fail to afford relief, though there are a certain number of cases that seem to be remediable by no treatment.

It is, doubtless, satisfactory to be able to alleviate the suffering from sea-sickness, by the foregoing measures; but there is a prophylactic measure, so to speak, which I believe will mitigate all sea-sickness, and prevent most. I mean the use of bromide of sodium, in large doses, for some time previous to embarkation. I say sodium bromide, as I think it, in several ways, preferable to potassium bromide; it is more readily soluble, and, being in the form of a dry powder, can be carried about, and measured more readily than the irregular-shaped crystals of bromide of potassium. Patients also say it is the more agreeable of the two to take; some also complain that bromide of potassium acts too much on the kidneys, while bromide of potassium seems to affect the urinary secretion very little.

The traveller should take a drachm of this salt thrice daily, for at least two days previous to sailing, the dose being reduced by half when on board. I have on many occasions recommended this drug; and, whenever it has been taken as I directed, it has given most satisfactory results. One patient, a lady, who could not cross Brooklyn Ferry without feeling seasick, crossed the Atlantic in rough weather without feeling in the least sick; many others, who were usually very seasick, were affected but little at all; and the least favourable opinion of its efficacy that I heard was, "Well, I am not half so bad as I expected to be".

The specifics for sea-sickness, amyl-nitrite and "navigantine", do not seem to be more than occasionally beneficial; the latter is, perhaps, most suitable for the short passage across the Channel. I have several times been told, by people going overland to India, that they took a dose before embarking at Dover, retired to their berths, and went to sleep, not awaking till the boat reached the French side; but, on getting aboard the ocean-going steamer at Malta, they took the same preparation again, but found it quite ineffectual.

For the surgeon of a crowded emigrant ship, the hypodermic injection of morphia is one of the most convenient and efficacious of remedies, especially in the rough transatlantic passage, where the number of emigrants is so great, that medical comforts and drugs would have to be used in very large quantities, and take much time to dispense; and where, besides those suffering purely from sea-sickness, there are usually a number of people, of excitable temperament, also ill, and so noisy and trouble some as to annoy their neighbours; besides which there are generally one or two whose minds become temporarily affected by the unaccustomed suffering. I have tried oxalate of cerium, atropia hypodermically, citrate of caffein in grain hourly doses, without any noticeable benefit. As far as my experience goes, bromide of sodium, taken in large doses for some time previous to embarkation, is the "best thing for sea-sickness". I have not read the medical papers with sufficient regularity to know whether I have all through only reiterated what has been already communicated to the JOURNAL; but, should such be the case, it may afford some one satisfaction to hear his views corroborated.—I am, etc.,

CHARLES GIBSON, M.B.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. G. F. Hodgson, Brighton; Mr. R. Barker, London; Dr. J. Irwin, Manchester; Mr. Ernest Trimmick, Salop; Mr. W. D. Husband, Burmemouth; Mr. G. Eastes, London; M.D., F.R.C.S.; Mr. G. S. Johnson, London; Mr. T. Bradford, London; E. T. T., Coventry; Dr. E. Rickards, Birmingham; Dr. Edward Malins, Birmingham; Mr. W. H. Platt, London; Dr. J. R. Wolfe, Glasgow; Mr. T. H. Pinder, Manchester; W. B. M.; Mr. J. M. Wilson, Doncaster; K.; Imperitus; Mr. W. Martindale, London; William; Dr. J. Rogers, London; Dr. J. Patterson Cassells, Glasgow; Mr. T. A. Mitchell, Catford; Dr. A. Waters, Liverpool; Dr. J. Taylor, Liverpool; Dr. T. Barr, Glasgow; Dr. W. Stirling, Aberdeen; Dr. P. Eade, Norwich; Mr. W. Perry, London; Dr. Saundby, Birmingham; Mr. Ashley Bird, Bristol; Sanitas; Our Birmingham Correspondent; L.R.C.P.; Dr. A. Edis, London; A Country Practitioner; Mr. J. Smith, Bridlington; Dr. Bushell Anningson, Cambridge; Dr. W. T. Low, Hastings; Mr. T. Whitehead Reid, Canterbury; Mr. A. Forrest, Birmingham; Mr. A. H. Bampton, Plymouth; Mr. J. Osgood, Boston; A Certifying Surgeon; Dr. W. S. Greenfield, Edinburgh; Mr. H. Lewis Jones, London; Dr. E. D. Mapother, Dublin; Dr. C. Creighton, London; Mr. Henry Meymott, Ludlow; Dr. W. O'Neill, Mitchelstown; A Member; Dr. J. G. Sinclair Coghill, Ventnor; Mr. W. Parker, Bath; Mr. G. H. Maskelyne, Faringdon; Mr. J. R. Morison, Hartlepool; Dr. J. W. T. Anderson, London; Dr. V. Jagielski, London; Mr. Henry Meymott, Ludlow; Mr. C. J. Harris, London; Our Dublin Correspondent; Dr. G. Hunter Mackenzie, Edinburgh; Dr. H. E. Langford, Kidderminster; Dr. T. F. Chavasse, Birmingham; Honeydew; Dr. H. Cullimore, London; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,,	20 ,,
,, 26 ,,	25 ,,
,, 52 ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

AN INAUGURAL ADDRESS
ON
PATHOLOGY, PAST AND PRESENT.

Delivered in the Course of General Pathology in the University of Edinburgh.

By W. S. GREENFIELD, M.D., F.R.C.P.,
Professor of General Pathology, University of Edinburgh.

[*Concluded from page 695 of last number.*]

GOING back to the standpoint, that pathology is the investigation of deranged *life*, of abnormal *living* processes, it will be obvious to you that morbid anatomy alone, even combined with histology and chemistry, cannot be our guide beyond a certain point, that knowledge limited to structure cannot serve to show us fully how function and living action are affected. In some cases, indeed, our present morbid anatomy fails us entirely, as in the case of epilepsy or of typhus fever; though we hope, with better methods, to discover their organic cause. But even in the simplest cases, where our induction seems to be a direct one from anatomical changes, we find that we are in reality presupposing a knowledge of function. Take, for example, the simple case of impaction of a calculus in the ureter. By simple mechanical pressure of the pent-up urine, the pelvis and calyces dilate, the kidney-substance gives way, and gradually atrophies, and at last remains as a sort of shell of tissue, which for all intents and purposes of renal function is effete. Surely, you will say, morbid anatomy shows us all this at a glance. But you have assumed a knowledge of the function of the kidney in secreting urine, and the possibility of its partially continuing its functions for a time, even when the outflow of urine is checked. And if you go more deeply, and inquire what are the subsequent intimate changes in the structure of the organ, and what the effects upon the system, you will find that you are involved in a multitude of complicated pathological problems. And if you would trace back the disease to its source, you must determine what constitutional causes led to the formation of the calculus, by what physical or chemical processes it came to be formed, and why and how it found its present lodgment.

Thus it is that to make morbid anatomy and histology worthy of the name of *pathological* anatomy, we require the knowledge of function and its mechanism. We must know where and how altered structure is connected with perverted function whether as cause or effect, and this we owe to physiology and to comparative and experimental pathology.

There has been too great a tendency to overlook this vital fact, and to regard the investigation of structure as the be-all and end-all of pathology. It has unfortunately by many been thought enough that we should know the naked eye and microscopic appearances of diseased organs, without any intelligent idea of how they are brought about, or in what relation they stand to the phenomena of disease. We have sought rather to find in structure the characteristics of disease, than to make it a guide to the understanding of disease. We have been passing through what we may call the slough of histology. For example, the tubercle-corpuscle of Lebert, the cancer-cell, the giant-cell, the microcyte, all have had their day as absolute criteria of particular diseases. But I will go further and say that, in a great part of our microscopical work on diseased organs, we have been too apt merely to observe visible changes, without paying attention to the more important processes which underlie them. Yet surely this should not be. We must and ought to study structure and chemical composition as thoroughly and deeply as possible, by all the means in our power, but we must not rest there. It is the great merit of Virchow's great work, that, passing by the mere study of structure for structure's sake, he sought to show how the morbid change had been developed, what was its bearing upon living action, and in what way it stood related to normal processes of evolution, growth, and function.

I have said that in great measure we owe this further connecting link between morbid anatomy and pathology to physiology, comparative pathology, and experimental pathology.

Physiology is the first great guide. Normal development and normal life in all its departments have their imitations in abnormal growth and abnormal life, whether excessive, perverted, or deficient. Transfer some morbid growths to the embryo, and what is disease becomes healthy development. Magnify and transfer the normal secretion of milk and you shall have, under different conditions, a fatty degeneration. Even inflammation—that great bone of contention—seems to be ranging itself by degrees as a greatly exaggerated physiological process. Indeed, it is by our knowledge of the normal structure, composition, and function of every minutest part that we gain our knowledge of what is disease, and in part of how it is brought about.

Hence it is that every physiological discovery, however minute, becomes of vital importance for the advance of pathology. Many discoveries, which seem of small importance in their physiological aspects, become of great value in the field of pathology.

Pathology, in its turn, enlightens and advances physiology. The subtle processes of disease often reveal normal structure far more fully than the most skilful manipulations of the histologist upon healthy tissues, and follow out the tract of dissections which no scalpel could trace. Waxy degeneration of the liver, and the course of secondary degenerations in the spinal cord, afford striking examples. So, too, the reactions of disease, aided by simple micro-chemical reagents, serve to distinguish varieties of chemical composition too minute for analysis. Pathology, too, often corrects physiological theory as regards function. It has been well said, that the value of an hypothesis consists, not in explaining the instances which have preceded it, but in standing the test of subsequent instances. Pathological observation has thus often served to demolish hypotheses which had stood the test of instances specially designed to try their strength.

If I were asked what is the present standpoint of pathology, I should unhesitatingly say that it is the physiological, or if you will, the biological standpoint. In other words, pathology is governed by no theory, and limited by no methods, other than those which equally govern and limit physiology. If a cellular physiology could suffice to explain all the phenomena of healthy life, a cellular pathology might equally serve for disease life. And whatever method or instrument of research is requisite for the full investigation of the phenomena of healthy life in all its manifestations, is equally or still more requisite for studying the phenomena of disease life.

It is from this point of view that the study of clinical medicine and pathological experiment are, in my opinion, the inseparable adjuncts of pathological study. That would be a strange physiology which should conduct its study on dead animals alone, and no less strange a pathology studied only on dead subjects.

The history and course of each particular case, the hereditary antecedents, the physiognomy and conformation, the symptoms and their order and mode of death or recovery, are so many phenomena of disease life, which we must minutely study in order truly to understand the pathology of each particular case, and rightly to connect structure with function. If we could, after opening the body-case, set the body-machine going again like a watch and observe how the wheels interlock, or where the obstruction is, or, separating one part, set that in action, and so piece by piece discover where and how its stoppage came about, we might rest content with morbid anatomy. But the human machine, once run down or stopped, can only be set in action again by the hand of the Creator. We can and must imitate the action by study upon inferior machines; but, precious as such results are, they will not and cannot fulfil all the conditions of the diseased human body.

I have shown how physiology and pathology must go hand in hand, and that the discoveries of physiology are essential to pathology; and this leads me to say a word on the subject of experiments on animals, both physiological and pathological. No one who knows anything of the history of physiology can for a moment question that it is by this means that a large part of our most important knowledge has been gained, and that it could have been gained in no other way. And no one can study or teach pathology, without constantly referring to and making use of the knowledge thus gained. He is worse than a coward, who, knowing this, and making use of his knowledge, would claim for himself, whether directly or by implication, any higher moral ground, because he is not personally engaged in such investigations.

We cannot, if we would, do without the knowledge acquired for us in this way by physiologists. If we could pull out all that has been built upon this knowledge, our fabric of pathological science would totter and fall, just as would the whole of modern medical science if it could eliminate all that physiologists and surgeons and pharmacologists have gained for the benefit of humanity by experiments on animals.

But pathological experiment has its [illegible] In this country, for the time, it is so seriously hampered, that research by its means has become almost impossible. Scientific work [illegible] in fetters, even if adjusted with the sanction and co-operation of its votaries. It has indeed been objected that we cannot induce in animals

the natural processes of disease, and that the results of experiments on animals are fallacious when applied to man. In a certain sense this is true, for, of course, as in all other experiments, we require the use of judgment and discretion. But the statement is very largely grounded on a sort of belief that, as man is mentally so far superior to the lower animals, he must likewise be widely removed from them in general organisation and structure.

It is by the study of Comparative Pathology that we have come to learn how intimately the processes of disease in the lower animals may resemble those in man, and it is by experiments upon the diseases which they have in common with man that we have come to appreciate those differences in constitution, and in reaction to disease, which enable us in a great measure to control the results of experiments.

Comparative pathology, that is, the study of the diseases of the several classes of animals, and the study of the same disease in its reactions upon different classes of animals, is to a very large extent a growth of late years. Just as I have remarked that the growth of human morbid anatomy followed in the wake of the progress of normal anatomy, so has the study of comparative pathology followed the development of comparative anatomy, comparative physiology, and comparative embryology.

It is true that a study of diseases of animals has been to some extent conjoined with the study of comparative anatomy and physiology, and that Harvey, Hunter, and Jenner were well aware of the valuable information to be derived from a comparison of human with animal pathology. It was well known that some of the lower animals were subject to certain morbid growths and parasites analogous to those which afflict man, such as warts, cancers, and hydatids; and that some animal diseases, such as hydrophobia, could be communicated by inoculation to man. And, long before Edward Jenner discovered that cow-pox could be transferred to man, it was suspected that small-pox was primarily an animal disease.

But we have only recently come to understand the full bearing of those endemics and pestilences which have in all ages desolated the animal world, and to see that we stand on common ground with the brute creation in being subject to the same or to analogous plagues, and that by the study of these, under their simpler conditions, we may hope to throw light upon the forms affecting man. It is in this branch of comparative pathology—that relating to infectious and contagious diseases—that we see best the value and importance of experimental pathology, in the direct benefits which it confers on the whole brute creation, as well as upon man. And it is in this field that have been gained some of the most remarkable triumphs of modern pathology, which bid fair to revolutionise the science and treatment of infectious disease.

Gentlemen, I have no idea of giving you now any description, however summary, of the past and present state of what has recently been called "bacterial pathology". But, as it is to myself a subject of intense interest, and one upon which attention and expectation are now largely centred, I may venture in a few words to indicate its importance to you as a subject of study, and to point out its bearings on the pathology of the future.

We find the germs of the discoveries on this subject in three different sets of observations. Common observation on epidemic and malarial diseases had brought the conviction that the *materies morbi*, the contagium or seed of these diseases, must be something infinitely small, light, and portable, capable of floating in the air, of remaining long dormant, and, on finding a suitable soil in the human body, of producing a certain definite series of symptoms, occurring often with great regularity in the time of appearance and order of development. In the case of some of these diseases, the virus, whatever its nature, was not exhausted in the body, but multiplied ten thousandfold, and, as in the case of small-pox, one might inoculate a certain definite minute quantity and produce a local disease, which, by contagion* to other healthy persons, might cause hundreds of cases, in each of which the poison was reproduced. Clearly, then, it was also capable of indefinite self-multiplication under suitable conditions, and must be something more than a mere chemical poison.

This, then, was the starting-point of the germ-theory as applied both to zymotic diseases, such as measles and scarlet fever, and to certain wound-infections, such as erysipelas. But microscopic research failed to detect these germs, and, though the theory was discussed and maintained, it could not yet assume a definite scientific form.

Then came the great discoveries of Pasteur† on fermentation, and the recognition of bacteria as the accompaniments and apparent agents of putrefaction. The idea that each infectious disease might be a sort of fermentation produced by a fungus, now grew into a more definite shape, and the germ-theory received expansion upon this basis. You may some day read the history of the many germs and fungi which were discovered and lost again, and I will not detain you with the many marvels which were seen, or believed to be seen, under the microscope. But, all the time, the true was being worked out with the false, though the erroneous observations of some, and their contradiction by others, have tended to make many scientific men disbelieve both true and false.

The first accurate light upon the question came in the investigations upon anthrax or splenic fever; and, out of the multitude of results of research on this and other contagious diseases, I shall venture to select by way of illustration one in which I am especially interested. In 1850, the presence of a minute foreign organism of a rod shape in the blood of animals dying of this disease was discovered by* Rayer and Davaine. Davaine gave to these bodies, which he showed to be of vegetable nature, the name of bacteridia,† to distinguish them from bacterium termo, which they resembled except in being devoid of movement. Then came the discovery that they could be cultivated artificially in fluids outside the body, and the demonstration by Koch that they formed seed-spores which could remain a long time dormant, but under suitable conditions grow and multiply. With this also came the perfecting of the proof, afforded mainly by experiment with the artificially grown fungus, that the fungus or bacillus was the essential virus of the disease.

Here, then, was one instance—but a solitary one—in which a disease, having many characters of a contagious disease, was proved to be due to a fungus, which, when inoculated, gave rise to the disease, and was reproduced in the blood. But, long before this proof had become complete, the researches of Klebs, Panum, Bergmann, Sanderson, and many others, had shown that the bacteria of decomposition were apparently the active agents in what we know as blood-poisoning following wounds, and that similar organisms were to be found in some of the allied diseases, such as diphtheria and erysipelas. Now, so far as we are acquainted with the history of these diseases, they have this sharp distinction from the zymotic diseases, that they do not give any protection from a future attack, and that they are essentially allied to putrefaction, both in their causes and phenomena. The admirable scientific and practical experiments which Lister worked out when a professor in this university, and the investigations of Koch on wound-infections, have established with certainty the fact that these blood-poisonings are effected through the agency of bacteria. Might it not then be that splenic fever was merely one of these common blood-poisonings, and that its study could throw no light on the zymotic diseases? In animals, it appeared to be communicable by ordinary ways of infection or contagion, but to man only by inoculation; and it was seriously questioned whether, even in the lower animals, it could be produced except by inoculation.

The question was in this state until about three years ago, when it was discovered by Dr. Sanderson and Mr. Duguid that a cow might be inoculated with splenic fever from a guinea-pig, and, though suffering severely, not die of the disease. In continuing these experiments, I found that a cow once so inoculated resisted the results of further inoculation to a very remarkable degree; in other words, that, practically, it could thus be rendered insusceptible to future attack of the disease. This fact at once showed that splenic fever followed the same rule with regard to protection as the ordinary zymotic diseases, and did away with one of the barriers to the acceptance of the bacterial germ-theory.

In making a series of experiments with a view of obtaining, in a suitable form for inoculation, this virus modified by transmission through the guinea-pig, I found that, if one cultivated the bacillus under particular conditions, it gradually lost its activity, and at last became practically inert. It at once occurred to me that, by making use of this fact, I might obtain a virus so far modified as to be sufficient, when inoculated, to ensure protection, and yet not to endanger the life or safety of the animal inoculated. And this, I found, could be done with success.‡

M. Pasteur has recently published the results of a very large series of experiments made by a precisely similar method, and with results fully confirming those which I published more than a year ago. And, although I venture to claim for England whatever merit may be due to

* This, I need hardly say, was the reason why inoculation of small-pox was made penal.

† Published 1857 to 1861.

* The discovery is usually attributed to Pollender, but his independent discovery was not made till 1855.

† The name *Bacillus Anthracis*, given by Cohn the botanist, is that by which this organism is now usually known.

‡ *Journal of the Royal Agricultural Society*, vol. xvi, part i, April 1880, and vol. xvii, part i: *Proc. Roy. Soc.*, June 17th, 1880; *Lancet*, December 18th, 1880, and January 1st, 1881; BRITISH MEDICAL JOURNAL, December and January 1880-81.

priority of the discovery, I none the less rejoice that the facts should have been so fully established in France. My experiments were made with a small and inadequate sum of money furnished by the generosity of a private society, and in the face of all the difficulties interposed by law; whilst M. Pasteur is encouraged and abundantly supplied with means by the liberality of the French Government.

But I must not now dwell upon the many points of interest opened up by recent discoveries on bacterial contagion. What I wish to emphasise is the immense field of research which is opened by these discoveries, and the hopeful anticipation of the possible prevention and remedy of a multitude of the most deadly scourges of our race. And all this, indeed all the certain progress in this field of research, which, bear in mind, promises as much for the animal world as for man, has been the outcome of experiment on animals. Every step in these inquiries is necessarily made by inoculation of living animals, and every result must be checked by the same means. If experiments on animals were stopped, or even if, in other countries, they were subjected to the same restrictions as in England, I can honestly say, speaking from experience, that I believe these inquiries, which may save hundreds of thousands of lives of both cattle and men, would be practically arrested, or would at least take many years for their development. And it is not only in this more direct manner that such discoveries are of interest; for they promise, I need hardly tell you, to throw great light upon the whole question of contagion. Much has yet to be learnt, much to be made certain, many conflicting testimonies to be reconciled, before we can fully accept the bacterial hypothesis of zymotic infection; but we may yet look hopefully forward to its establishment.

I have thus briefly referred to some of the main branches of pathological investigation; and I have incidentally referred to the relations of physiology to pathology. But there is one subject which must not pass unnoticed—viz., What is the relation of pathology to therapeutics? I think it is true to say, that it is by the intimate study of pathology that we must hope for advance in the scientific application of remedies. Up to the present time, pharmacology is mainly chemical and physiological, whilst treatment is mainly empirical; in other words, most of our acquaintance with the mode of action of drugs is based on experiments on healthy animals, whilst most of our actual use of them in disease is based on experience or on theory. That there are notable instances in which knowledge of physiological action has led to correct application in disease everyone knows—such, for example, as the use of nitrite of amyl, of digitalis, of jaborandi, and of salicylic acid. But these triumphs have been based either on a knowledge of the intimate nature of the morbid process, or on a happy combination of knowledge of physiological action with a speculation on the pathology of the disease which turned out to be correct. In the latter case, the experiment has solved the pathology of the disease as well as its remedy, just as we may open a box and solve the structure of its lock by trying, out of a number of keys, one which we think to look about the right size and shape.

But how shall we hope for scientific advance in therapeutics? Pathological experiment is exceptionally possible; the pharmacologist does his best in discovering all he can of the physiological properties of drugs; the therapeutist exerts his knowledge, ingenuity, and experience in practical application. But he who can say, "Here lies the centre and source of the disease, and this is its precise mode of development and the way in which function is affected; this is the point which you must touch, and in such a way must you touch it"; it is only he who can say this who bridges the gulf which separates empirical from rational therapeutics.

And, lastly, I come to inquire what is the present position of pathology in relation to medical education and practice.

I have shown that the separation of pathology from physiology became essential, partly in consequence of the growth of both subjects, and partly from a divergence of their methods. The "Institutes of Medicine" arrived at a practical exclusion of pathology and therapeutics by the mere force of growth of its primary subject, physiology, and the requirements of its teaching. But other causes were at work. So long as pathology was regarded as a subject to be studied mainly on the basis of physiology, normal and experimental, aided by instances drawn from bedside experience and speculations upon them, so long only could they conveniently be studied together. But with the growth of the study of morbid anatomy and histology as the basis of rational pathology, showing as they did conditions inexplicable by, and unknown to, any physiological law, a temporary separation became inevitable; and pathology, following its own path through the dead-house and laboratory, has but recently emerged upon the same open plain to which the more direct path of physiology had already led, and the two again walk side by side, mutually supporting and assisting each other, and in their turn aided by and aiding all the other branches of biology.

In a somewhat similar way, the teaching of pathology has become separated from that of systematic medicine. Not that it can be or should be excluded from it, but that its complete study requires a more extensive treatment. In most cases, the study of pathological anatomy was the first to receive special separate attention, and it is still so in many foreign and most English schools. In proportion to the increased attention to morbid anatomy as a subject worthy of special scientific study, apart from its obvious utility as a corrective to diagnosis and a guide to the course of individual cases, so did the difficulty of fully treating it in lectures on the symptoms and history of special diseases increase. Morbid anatomy in its turn threw light upon medicine, and by its means diseases formerly regarded as identical came to be separated; and their symptoms and course had to be discussed in greater detail and with increased care, and so the possibility of considering even all common diseases in one course of lectures became much diminished. The special training and methods of study increased the need of separation, and the development of pathological histology has made the necessity for division still more absolute.

In many English schools, the subject of general pathology is not specially treated, but retains its place as a part of systematic medicine and surgery. The separation and union with other branches of pathology is, I believe, more scientific and more beneficial. That this is so I make bold to maintain on these grounds. First, what we understand by general pathology is very largely based upon the study of pathological anatomy in its widest sense. Some have gone so far as to make the term general pathology almost synonymous with general pathological anatomy, an undoubted error. But, beyond question, the foundation of pathology must be largely laid in pathological anatomy, from which, moreover, it draws many of its illustrations.

In its study, too, general pathology has methods which are widely different from those of systematic medicine and surgery. It aims at the establishment of general as distinguished from special laws; it studies processes underlying widely divergent maladies; it seeks its proofs in all regions of life, whether in human physiology, in experimental and comparative pathology, in the processes of growth and degeneration in plants, and in the rare and costly experiments by which nature sometimes solves pathological problems at the expense of human suffering and life.

And if I may add a practical and utilitarian reason, a separate course of general pathology saves the double teaching of its subjects in special medicine and surgery. General pathology, like actual life, knows no distinction into the corresponding external and internal pathology. Its illustrations are equally drawn from both, and it teaches the changes and processes which are common to the whole system and to its several structures. Hypertrophy and atrophy, degeneration and repair, inflammation and morbid growths, know no separation into external and internal. General pathology is thus the common meeting ground of medicine and surgery, uniting the isolated discoveries of each into one harmonious whole. And it does more; for, introducing those arguments and discoveries afforded by general biology and by comparative pathology, it elucidates that which could not be explained by study on man alone.

Of the importance of morbid anatomy as a branch of medical education, I need not say more than I have already said. The history of pathology, and the immediate benefits to be gained from its study, as well as the requirements of examining bodies, have made it one of the ordinary branches of medical education. But whilst, in England, gross naked-eye morbid anatomy has been well worked at, especially in relation to clinical medicine and surgery, we have somewhat fallen behind in pathological histology and pathological chemistry. Perhaps the notion that we excel in clinical discovery, fostered by the great results attained by Bright, Addison, W. Jenner, Hughes Bennett, Murchison, Wilks, and many others, has led to some disregard of those improved methods of research afforded to us by science. And it must be added that these means have but recently arrived at such perfection as to enable teaching to be carried on with facility on a large scale. But certain it is that both in France and Germany the general knowledge of microscopic pathology has hitherto been far in advance, and the teaching much more thorough, than in England. That this has been so, is not to be attributed to any want of [illegible] by example of the great discoverers of former or recent times. Going over the names of those in England who have been eminent as clinical surgeons and physicians of late years, I find very few who have not in their earlier and less occupied years been largely addicted to microscopic pathology, unless engaged in [illegible]

scientific investigation of disease. Jenner, Paget, Bowman, Gull, Lister, Wilks, Hutchinson, Bristowe, Quain, Hughes Bennett, Sanders, Grainger Stewart, and a host of others, might be adduced as instances. These men, following the example of Bright and others, have used the best and most recent means to study thoroughly and record completely all the phenomena of disease falling under their observation, and have proved in the warfare of practice that disease may be overcome by science better than by rude assault.

Nor has it been due to any want of enthusiasm on the part of students or of the younger generation of medical men, as is abundantly proved by the work done for pathological societies, and by the large number who for this very purpose have sought foreign schools to complete their studies. It is, I believe, entirely due to the neglect of teaching and examining bodies. This University, which is unique in having a professorship of pathology, also stands, I believe, almost, if not quite, alone in requiring any special examination in pathology, including morbid histology, for a medical degree. And this fact has reacted upon the teaching, which, in many schools, has been allowed to remain incomplete and inefficient. Attendance upon lectures on pathological anatomy is now required by many examining bodies; but I say, with some confidence, that, with one or two exceptions, there has scarcely existed, if there do now exist, in the London medical schools any course in which pathological histology is systematically taught so as to comprehend a practical study of the principal changes in all the important organs.

I speak thus distinctly upon the subject, because I am convinced of its importance, and desire to draw attention to it. It is to the honour of this University that pathology occupies so important a place in its curriculum.

We have thus glanced at the condition of teaching in relation to general pathology, morbid anatomy, and histology. There is, however, one subject upon which I must say a word, viz., pathological chemistry.

Much has been expected of pathological chemistry, yet hitherto it has made but small advances. It was expected that mere ultimate analysis would solve many pathological problems. When Bright gave the account of granular disease of the kidneys, it was thought that chemical analysis would decide what was the nature of the morbid granules, and thus settle the pathology of the disease. So, too, at a later period, it was thought that the discovery of some particular chemical product was distinctive of a particular disease, *e.g.*, leucine and tyrosine in the urine as pathognomonic of acute yellow atrophy of the liver. Pathological chemistry has thus passed through the same phases of faith as pathological histology. It is becoming gradually recognised that pathological chemistry must stand on similar ground with morbid histology in its relation to physiology; that it must be by comparison with the normal chemical processes and chemical reactions in the body that the chemistry of disease must be investigated, rather than by means of ultimate analysis or of discovery of organic compounds peculiar to disease. Both of the latter have, of course, their own proper value.

Pathological chemistry thus waits for the advance of physiological chemistry, and the great difficulty and complexity of this subject make advance necessarily slow.

But perhaps you will ask what influence the study of pathology has upon the actual practice of surgery and medicine. Not uncommonly it is alleged that the special study of pathology is a waste of time, nay, positively injurious to the development of acquaintance with practical work. There is, in truth, a limit of time and energy both to students and practitioners; and, in the case of both, time and energy may be ill-apportioned for the practical object in view—the treatment of disease—especially when so many subjects must be crowded into so short a time.

But the rare facilities offered for the study of pathology during the student career, and the far greater difficulty in acquiring opportunities in after-life than is the case with many other subjects, render its thorough study at this time especially important, if it is worth studying at all.

No one, I suppose, questions the importance of carrying the studies of the bedside in fatal cases to the test of the *post mortem* room, or the advantage of gaining that acquaintance with the different appearances presented by diseased organs which will enable them to be recognised in after-life. These, and the supposed power of stating at a glance whether a microscopic scraping of a tumour is malignant or non-malignant, have been gravely asserted to me by a hospital surgeon as being "all that a student wants to know of pathology."

If there were no science of pathological anatomy, if all its multitudinous incidents were connected by no general laws, if there were no intimate connection between symptoms and structure, and no possibility of tracing the processes of disease and connecting them with the changes in the organs, we might perhaps allow this. And if it were possible without any practical demonstration to teach what we know of the alterations of minute structure in disease, their origin and course, and the way in which these affect function, the study of pathological histology by students might be to a large extent given up. But, since we have eyes to see and hands to work, and the microscope enables us to apply both to the ready investigation and recognition of these processes, we prefer the practical method of study, as both easier and more effective, as well as more interesting, and of daily increasing value in after-life.

And will not that man who is acquainted with what has hitherto been learnt of the causes and processes of disease in its more widely distributed forms, of the laws which condition its occurrence, and the general course which it takes, be far more likely to take a rational view of the symptoms, and of the effect of remedies? Will he not see in each case, however trivial, the application of general laws? and, conversely, will he not often be able, in some exceptional occurrence, to extend those laws by fresh observation?

Thus, knowing the gross forms and results of disease, intimately acquainted with the conditions which give rise to them, the interactions of the several organs, the changes of minute structure which lead to impairment of function, guided by general pathology, his views corrected and enlarged by knowledge of the results of experimental and comparative pathology, the surgeon or physician will, in his every-day round of work, take rank as a scientific observer. No case, no symptom, will be trivial to him; each, unimportant though it may appear in itself, will serve as a guide to some more general or deeper seated cause; and, whilst he will be delivered from the tedium of routine, he will also be saved from its dangers.

Gentlemen, I have endeavoured to trace out to you something of the history of the chair during the fifty years of its existence, and to show you in brief outline how the subject of pathology has come to assume its present condition as a great and all-important branch of medical science. I have endeavoured to impress upon you the fact that it has intimate relations with all the other branches of your medical studies, between which, indeed, it forms the connecting link. The exact studies of anatomy, physiology, chemistry, and biology, have prepared you to enter upon this study, and in proportion to the extent and practical accuracy of your knowledge of these subjects will be the possibility of your advance in pathology. I have given you some faint idea of the importance of this study in its bearings on your future work, when you will have to do with the immediate study and treatment of disease.

Enter then upon your work, with the conviction that what you now learn is to form the groundwork of a study which will last you a life-time, and lay the foundations as deeply and broadly as possible. Make it your object to advance the science of pathology by diligent and careful observation, in which everyone may assist, and avoid as far as you may all barren theoretical discussions.

If, in what I have said, I have in any way awakened an interest and quickened your curiosity by what may now seem in a measure obscure, no effort on my part shall be wanting to make clear to you, step by step, the science of pathology in all its branches.

Carry with you into your work, whether at the bedside, in the *post mortem* room, the laboratory, or the lecture-theatre, the belief that pathology is a living, not a dead study; let this belief make the routine of its drier bones instinct with life and action, and you shall find that the reality of its interest and its value immeasurably transcend what I have endeavoured faintly to depict.

COMMUNICABILITY OF SYPHILIS BY SUCKING.—In the *Giornale Italiano di Soresina* (1880, p. 15), Professor Scarenzio relates a case which, if free from error in observation, is of much importance. A healthy young woman, aged 19, married, in December 1874, a vigorous young man lately returned from his regiment. In September 1875, she gave birth to a weakly infant, which developed symptoms characteristic of inherited syphilis. When seven months old, its lips became the seat of erosions and ulceration at the commissures. At the same time, the mother, who had exclusively suckled the child, saw a chancre, accompanied with enlarged glands, develop on the right nipple, shortly followed by a characteristic syphilitic eruption. She gave birth to another syphilitic child in July 1877. The author infers, from this case, that a woman may bear a syphilitic child to a syphilitic father, and remain herself uninfected; and, further, that it is imprudent to cause a syphilitic infant to be nursed by its mother unless the latter should previously have exhibited symptoms of syphilis.

THE NOTIFICATION OF INFECTIOUS DISEASES.*

By J. W. MOORE, M.D.Univ.Dub., F.R.C.S.I.,
Fellow of the Medical Hospitals and Lecturer on Clinical Medicine in the Dublin Schools.

In an instructive and amusing address on "Our Medical Literature", delivered before the International Medical Congress at the recent meeting in London, Dr. John S. Billings, Surgeon in the United States Army, laid down four rules for the preparation of a paper like the present. They are these: "1. Have something to say; 2. Say it; 3. Stop as soon as you have said it; 4. Give the paper a title." I will endeavour to follow the first three of these excellent rules; but the fourth is not applicable, as a title has already been given to my paper. Had I selected one myself, I would have omitted the third part of the printed title, as it is my intention to devote the short time at my disposal to the consideration of compulsory notification of infectious diseases; and this, not because I fail to recognise the importance of compulsory isolation of those ill of infectious disorders, but simply because the subject is too wide to be dealt with in a short paper.

a. Is it desirable that there should be a system of Compulsory Notification of Infectious Diseases?—Before answering this question, a definition of notification is called for. Two things would seem to be necessary in the case of outbreaks of epidemic infectious diseases: first, the immediate compulsory notification of such outbreaks to the sanitary authorities; secondly, the early registration of all cases of these affections, and the publication of the tabulated results at frequent intervals by the General Registration Office of each division of the United Kingdom.

Now it happens that, in the literature of the subject, "notification" and "registration" have been used almost as synonymous terms, whereas they really mean very different things. If "notification" is to be of any use in preventing the spread of epidemic disease, it must be timely—given without a moment's delay on the detection of the earliest cases of the outbreak; also it must be given to that body which is directly responsible for the public health—the sanitary authority; or to its representative—the medical officer of health. "Registration" is quite another thing; it can be carried out more leisurely, and by an altogether different machinery. The units with which both notification and registration will deal are indeed the same; but in the case of notification they will be used singly and at once, with a view of isolating disease; whereas in registration they will be grouped and classified, with a view to publication, and as a contribution to statistical medicine, or rather "vital statistics".

Registration of infectious diseases is a corollary to notification, and must sooner or later follow the establishment of any system of the latter.

It was lately my good fortune to hear Mr. John Simon summing up the views of many speakers in an important debate in the State Medicine Section of the International Medical Congress, of which Section he was the distinguished President. The subject for discussion was Home Contagia. Much had been said about the notification and registration of infectious diseases; but more had been said about disinfection and isolation. Mr. Simon recalled the Section to the paramount importance of the former topic by quoting from Mrs. Glass's Cookery Book (dating from the last century) that lady's quaint but apocryphal receipt for making hare-soup: "First *catch your hare*, and then skin it!" He justly observed that, for disinfection and isolation to be of effect, we must obtain early information of the outbreak, whereabouts, and nature of the disease; and this can be effected only through an efficient system of notification.

At the present day, it appears almost waste of time to question the desirability of possessing such a system. Instances are constantly coming under the notice of hospital physicians in which scarlatina, small-pox, measles, and fever have spread far and wide because the first case of illness, either through wanton neglect or in ignorance, was not isolated in due time. Two years ago, several cases of scarlatina were admitted into Cork Street Hospital in this city, from a tenement house in which a child had died of the disease and was waked. No medical practitioner had been called in to see the patient, nor was any report made to the sanitary authority until other children in the house had been attacked. At least two lives were lost in this instance, which is only one out of many which might be adduced.

Last August, within half an hour after entering a hotel at Ryde, Isle of Wight, my ears caught the well-known whoop of whooping-cough; and a little investigation proved that a child suffering from this most catching complaint had been brought for change of air to the hotel, which was crowded, and in which the children of the landlord were resident. Would this have been tolerated, had a general Act for compulsory notification been in force? Advisedly I use the words "general Act"; for nothing can be more impolitic than the present system of piecemeal legislation, which is granting widely differing powers to various local sanitary authorities. If it were only to put a stop to this state of things, the time has fully come when an universal and uniform system of notification is called for. When discussing the second part of the question, I shall have more to say on this point.

On September 13th, 1879, the Leicester Corporation Improvement Act came into force. This measure included provisions for the compulsory notification of infectious diseases by what is now known as the "dual method"; that is, by the medical attendant as well as by the head of the family or occupier of the infected house. And, by the way, the clauses in the Bill seeking for such powers evoked a strong opposition on the part of the members of the medical profession in the town; and they petitioned Parliament against them, on the ground that the provisions "imposed upon them new and onerous and unnecessary obligations"; and that "these obligations were inquisitorial in character, uncalled for, and likely to lead to endless mischief and complication". Notwithstanding, the Bill passed, and, as I have said, came into force on September 13th, 1879. Scarlet fever was at the time rife in Leicester, and the sanitary authority at once used their new powers in the attempt to check the epidemic. The number of certificates of scarlet fever cases sent in during the last fifteen weeks of 1879 was 496; and Dr. William Johnston, the able medical officer of health for the borough, remarks that the acme of the epidemic occurred a week after the fresh powers for notification came into operation, much earlier than on previous occasions; while the deaths afterwards recorded afford, by their very uniformity, an unmistakable sign of a successful interference with the future spread and development of the disease. Dr. Johnston believes that in the last fifteen weeks of 1879 no fewer than 41 lives were saved to the town, and 287 homesteads were preserved from an invasion of scarlet fever, through notification.

But, as an incontestable proof that the time has now arrived when notification is to be considered not only desirable, but essential, let me refer to the published account of the proceedings which took place at the office of the Local Government Board for England on Tuesday, May 3rd, 1881. On that day, a large deputation waited upon Mr. Dodson, M.P., the President of the Board, to urge that the Government should give effect, by legislation, to resolutions passed in the interests of public health, by various bodies in London and the country, for the amendment of the Public Health Act, and especially for the compulsory notification of cases of infectious diseases. The British Medical Association was represented by Dr. A. Carpenter of Croydon, President of the Council; Dr. Farquharson, M.P.; Mr. Ernest Hart, the editor of the BRITISH MEDICAL JOURNAL; and Mr. Francis Fowke, the General Secretary. The Society of Medical Officers of Health was represented by Dr. Bristowe, the President, and six other gentlemen. The Vestries and District Boards of London were represented by General Boileau, Mr. Watherston, and forty other gentlemen. The Social Science Association was represented by Mr. Michael, Q.C.; while Mr. Ernest Hart also attended as Chairman of the National Health Society.

After several gentlemen had spoken, Mr. Ernest Hart said that Mr. Dodson could now see, from the representations which had been made by that conjoint deputation, that there was a general agreement between the medical profession and the public as to the necessity of a compulsory notification of infectious diseases in private families. Mr. Hart had had the honour, some time ago, of addressing Mr. Dodson's predecessor (Mr. Sclater-Booth) on the same subject; and Mr. Sclater-Booth held that, though it was important, at that time it had not entered into the "realm of practical politics", or of "practical statesmanship", and he told the deputation which waited upon him that, before anything could be proposed by the Government, or carried by Parliament, the public must be educated in the ideas which Mr. Hart then put forward in support of his "model clause" for the notification of infectious diseases. Mr. Hart thought that it must be apparent to Mr. Dodson, and to "practical statesmen", that that step had been surmounted—that the public mind had been sufficiently educated on the question to render the matter ripe for the "realm of practical politics". He pointed out that there were present the representatives of the local governing powers of the vast population of London, and they had unanimously agreed [illegible] education of the public on the matter had advanced; so that the neces-

* Read in the Health Department of the [illegible] Association, at Dublin.

sary preliminary, in the opinion of Mr. Sclater-Booth, to proposed legislation had already been reached.

Viewed as a problem in political economy, there can be no doubt as to the paramount importance of ascertaining the actual sanitary state of a population at any given time. Can this be done satisfactorily, save by an effective system of notification and registration of disease? Difficulties, no doubt, stand in the way of carrying out this great work, but they are not insurmountable; and the fact that several European Governments have long since inaugurated and prosecuted such a system, should encourage us in essaying to follow their example. In the vanguard of progress in this direction, the Scandinavian nations occupy the place of honour. Nor should it be forgotten that, even in the United Kingdom, the notification and registration of epizootic infectious diseases is already in force—a fact which cannot but be regarded as a strong argument in support of the necessity for, and the practicability of, notifying the infectious diseases which assail mankind.

But these are all considerations of State policy, and affect not so much the individual as the community at large. What shall we say as to the bearing of notification of infectious diseases upon the home-life? With all reverence, let us speak of such affections as "preventable"; and, if they are preventable, how can they best be warded off? Surely, by timely warning of the threatening danger. My heart bleeds as day after day I see, in the wards of our epidemic hospitals, the fever-stricken victims of sanitary neglect, and in our general hospitals the still more miserable survivors of the pestilence, dying a lingering death from one or other of the dread sequelæ of scarlatina, measles, or typhoid fever. Yes, it is fully time for the State to insist that the presence of scarlet fever in a dairy shall be made known to the sanitary authority and the medical officer of health at the earliest opportunity; that the occurrence of a case of typhoid fever shall at once attract attention to the drainage of a dwelling-house; that a child suffering from whooping-cough shall not be brought to a hotel for change of air; that parents shall not send their children "peeling" after scarlet fever or measles to a public school; that, in a word, early and accurate information as to the origin and whereabouts of disease shall be obtained in order to protect the healthy from its attack. Let light—the light of knowledge—be thus thrown upon the paths of the "pestilence that walketh in darkness"; and who will venture to estimate the gain to the health, and, therefore, the happiness and welfare, of mankind?

1. What is the Best Method of carrying into effect a System of Compulsory Notification of Infectious Diseases?—On all grounds it is most desirable that, whatever system of notification is finally adopted, it shall apply uniformly to the whole country. Nothing can be more detrimental to the success of notification than to have it carried out by different methods in different places. And it is just because so many local authorities are at present obtaining powers for notification—powers differing in nearly every case, and intended to be put in force by very different machinery—that national or imperial legislation on the subject can no longer with safety be postponed.

Let us consider what methods of notification have hitherto been suggested or adopted. It is quite clear that, in any given case, the only persons who can be looked to for accurate information as to the occurrence and nature of disease are, first, the medical attendant; secondly, the person in charge of the patient, or the head of the family, or the occupier of the house in which the sick person lies.

Notification by the medical attendant may be direct or indirect. Under the former plan, a medical practitioner, called in to see a patient, is bound, as soon as he recognises the disease to be infectious, to notify the fact to the sanitary authority; according to the second plan, under similar circumstances it becomes his duty to inform the person in charge of the patient, or the head of the family, verbally, or by written certificate, what the disease is, and that it is infectious; and the person so informed is then bound to forward the information with as little delay as possible to the sanitary authority.

Notification by the person in charge of the patient, or the head of the family, or the householder, may be made independently of the attendance of a medical practitioner.

There is another method of reporting which is called the "dual method", namely, notification by the occupier of the infected house to the sanitary authority, an independent certificate being sent to that authority by the medical attendant.

All these various methods, more or less modified, are now in force. I will not, however, delay to enumerate the towns which have sought powers to compel notification according to one method or another, but will hasten on to consider in some detail the merits and demerits of each system.

1. *Notification by the Medical Attendant Directly.*—This would seem to be the best and simplest plan of all. A medical practitioner is called to see a patient, whom he finds suffering under fever, measles, scarlatina, small-pox, or diphtheria. Having satisfied himself as to the correctness of his diagnosis, he fills up a certificate, and an accompanying block to be retained in his own possession; and, with the least possible delay, transmits said certificate by hand or post to the sanitary authority, from which body it is proposed that he should receive a fee.

Now, what has been or can be said against this plan? In the first place, it is alleged that any such proceeding on the part of a medical attendant would be a direct violation of the confidential relations existing between a patient and his physician, and a gross breach of medical etiquette. This is a somewhat illogical objection. Surely it is for the client and not for the physician to pronounce what is a violation of confidence, and this question is not raised at all if the medical attendant notify merely in compliance with the provisions of an Act of Parliament. Before such an Act is passed, it is reasonable to suppose that the sense of the constituencies of the members of the House of Commons on the subject of compulsory notification by the medical attendant will have been pretty accurately gauged, and it is for the heads of families composing those constituencies, and for the peers who sit in the hereditary chamber, to declare if any violation of confidence is implied in the notification of infectious diseases by the medical attendant, by withholding their assent to the principle of the proposed measure.

There is, however, a more rational, and consequently a far weightier, objection to direct notification by the medical attendant. If there be no obligation on the householder to notify, he may—knowing that the medical attendant must notify—delay to call in a trustworthy man, or resort to some quack or irregular practitioner, who will find a way to evade the law. This is not unlikely to happen among dwellers in tenement-houses, the very people we wish to reach by notification, and in the lighter forms of infectious diseases, which are well known to be the most dangerous of all to the community. This objection cannot fail to carry weight when the whole question comes to be publicly discussed; but it may be met by the introduction of a clause into the Act of Parliament, as suggested by the King and Queen's College of Physicians, providing that, if no medical practitioner be attending on, or have been called in to visit, a patient suffering from an infectious disease, the occupier shall procure the certificate of a registered medical practitioner as to the nature of such disease.

2. *Notification by the Medical Attendant Indirectly.*—This is the plan which has received the sanction of the British Medical Association. It is proposed that the medical attendant, on becoming aware of the infectious nature of the case, shall inform the person in charge, or the householder, who shall at once communicate with the sanitary authority.

Even with this modified plan, the medical profession is apparently not satisfied, unless the information be given only verbally to the person in charge of the patient, or the householder. And yet, can we believe that the system would work, unless a written certificate be filled up by the medical attendant and formally handed to the proper person, who shall then forward the information, again in writing, to the sanitary authority?

The great objection to this plan, is loss of time. In a case where every moment is of value, hours or even days may elapse before the person in charge of the patient, or the anxious fretted head of the family, may recollect that it is his duty to inform the sanitary authority. Should this method be finally adopted, there is, however, a plan by which this objection can be to a great extent surmounted. This I shall presently mention.

3. *Notification by the Person in Charge of the Patient, or the Householder*, so far as I can ascertain, has not been adopted exclusively in any town. At Birkenhead and Reading, it is proposed to have direct notification by the medical attendant; but, if no duly qualified practitioner have been called in, the duty of notifying devolves upon the occupier or other responsible person having the control of a house. This plan, as has been pointed out by Mr. Ernest Hart,* is open to the objection that, if a person know that by calling in no medical assistance he can better conceal the existence of infectious disease in his house, he is likely to neglect or delay procuring such advice.

Some of those who feel so keenly for the tender susceptibilities of the medical profession, and who are so jealous of its supposed "rights" and "privileges", are in favour of notification by the householder alone. They maintain that the physician's duty should begin and end with a simple declaration to the householder or person in charge of the patient as to the nature of the malady; in fact, the

* Report on "Local Legislation as to Infectious Diseases", British Medical Journal, March 12th, 1881, p. 375 *et seq.*

medical attendant need not open his mouth unless he is asked the question, "Is the disease infectious?" How worthless such a system would be, those can best judge who are accustomed to attend the sick among the labouring and artisan classes, in tenement-houses in the lanes and alleys of large cities.

4. There remains the *dual system of notification*, according to which both medical attendant and occupier are obliged to give notice to the sanitary authority, independently of each other and in all cases. There are two grave objections to this plan. First, the system is unnecessarily complex, and will probably lead to confusion at the office of the sanitary authority, for the information will not reach the office from both sources simultaneously. Secondly, I know of no method which is more calculated to bring the medical attendant into unpleasant relations and even conflict with his patient or his patient's family; for, should the householder omit, through negligence or design, to notify, the medical attendant's certificate will be used to convict him—a proceeding which can hardly fail to provoke bad feeling.

These, then, are the proposed methods of notifying the occurrence of infectious disease. It is now necessary for me to state which plan I consider would be most feasible and most efficient. I have already said that direct notification by the medical attendant is the best and simplest plan. It has been tested in the case of Edinburgh; and Dr. Littlejohn, the medical officer of health of that city, assures me that so far it has worked admirably. There has been no protest from the medical profession, and no householder has felt aggrieved. Still, in face of the opposition of the profession, and because there is a tangible objection to it, I am prepared to give up this plan in favour of a modified system of indirect notification by the medical attendant through the householder (Method 2). For the modification, I am indebted to my friend, Dr. G. Purcell Atkins, the resident medical officer of Cork Street Hospital.

Let the medical attendant, on recognising that a case is infectious, fill up, in writing, a certificate, stating the name of the patient, his residence, and the nature of his malady, and let him hand this certificate to the responsible person in charge of the patient, who shall then forward the information contained in the medical certificate to the sanitary authority. At the foot of the certificate the words, "No immediate attention is required" may be printed, so that when the certificate goes forward the sanitary authority need not send their inspector to a private dwelling-house, for instance, unless the word "No" have been erased. This plan is adopted in Edinburgh, and has given complete satisfaction. So far this is indirect notification by the medical attendant; but how do we ensure that the responsible person will at once forward the requisite information? In this way. Immediately on receiving the message, let the clerk of the sanitary authority or the medical officer of health acknowledge its receipt to the attendant physician. Should the last named not get the acknowledgment within twenty-four, thirty-six, or, say, forty-eight hours, let it be his duty to forward a duplicate certificate to the sanitary authority. No doubt, delay will occur when the householder neglects to forward the information, but no system can be regarded as perfect, and the instances of neglect of duty on the part of the householder will probably be comparatively few, because he knows that, should he omit to send the notice, the medical attendant will have to notify—a contingency which is to be avoided if possible, as there will be a substantial penalty to which the housekeeper will render himself liable by his neglect. Also, he can have no grievance against the medical attendant, who, in the first instance, does not move in the matter at all.

Only two or three points now remain for consideration. And, first, it is fitting and just that the medical profession should be adequately recompensed for the great service rendered to the State by any system of compulsory notification of infectious diseases. To offer a member of a learned profession one shilling in return for an important public service, is an injustice and an insult. If the information obtained by compulsory notification is worth having, it is worth paying for; nor is there any reason in law or equity why a physician should not receive a guinea fee for his certificate of notification, as he does for a certificate of lunacy, or for a certificate of death handed in to an insurance office. This question of fee is, I hold, the great and only grievance of the medical profession in connection with compulsory notification. It should not be left only in the hands of a local sanitary authority, but should be met by an annual Treasury grant in aid of the expenses incurred by the local authorities.

Secondly, what diseases should be notified? Small-pox, scarlet fever or scarlatina, measles, among the exanthemata; typhus, typhoid, and relapsing fever, among the continued fevers; puerperal fever, erysipelas, diphtheria, whooping-cough, and cholera (including cholerine, or English cholera), should certainly be included in the schedule to the Act of Parliament. Moreover, the Local Government Board of each division of the United Kingdom (called the "Board of Supervision" in Scotland) should be empowered to add to the list "any contagious or infectious disease represented to be dangerous by one or another of the three Colleges of Physicians".

And here, *en parenthèse*, I would refer to the absurdity of mentioning "scarlatina *and* scarlet fever", as if there were two different diseases known under these names. In England, indeed, there is a prevalent idea that scarlatina is a mild and harmless affection, quite different from scarlet fever. But this is a misleading and most mischievous popular error, not to be countenanced for a moment. Practical physicians know that it is the very mildest cases of scarlet fever (the so-called "scarlatina") which are most dangerous to the public health. The phrase should run "scarlatina or scarlet fever".

In conclusion, I would earnestly commend the topics with which this paper deals to the thoughtful consideration of all who desire to aid in that humane and Christian work which it is the province of preventive medicine not only to undertake, but to fulfil.

THE NOTIFICATION OF INFECTIOUS DISEASES.*

By W. H. MICHAEL, Q.C., M.R.C.S.Eng., F.C.S.

The President of the Council of this Association, Mr. Hastings, M.P., at the close of last session, introduced into Parliament "A Bill for the better Notification of Infectious Diseases", which Bill was ordered by the House of Commons to be printed on July 27th last; and a Bill of a similar character, but applicable only to Ireland, had also, in the earlier part of the session, been framed and brought in by Mr. Edward Gray, and ordered by the House to be printed on January 7th. These Bills recite that it is desirable to provide for early notification to sanitary authorities of the occurrence of infectious diseases within their districts, and contain provisions rendering it incumbent on the medical practitioner, when there is one in attendance on the case of illness, to fill up and forward, by post or otherwise, to the sanitary authority of the district in which the house is situate containing the sick person, a certificate in a given form furnishing the requisite information. Where there is no medical attendant, then it is proposed that the duty should be cast on the occupier of the house, or the person in charge of the inmate, to forward the certificate; and a penalty is to be imposed for default, while a payment of half-a-crown is proposed to be paid to the medical attendant by the sanitary authority, who are, without cost, to furnish in the district blank forms of certificates. It is also intended by the British Medical Association to cause a Bill to be introduced into Parliament in the forthcoming session with a like object, but with this difference of provision, that, in lieu of the medical attendant filling up and forwarding the certificate directly to the sanitary authority, it will be his duty, after so filling it up, to direct the occupier or person in charge to forward the certificate to its destination. It is hoped that the matter may be referred in the next session of Parliament to a Select Committee of the House of Commons, and that the whole subject may be thus fully investigated, and the best means devised for accomplishing an object which a continually growing public opinion has shown to be eminently necessary. The diseases which it is thus proposed to be caused to be notified, subject from time to time to alteration at the instance of the Local Government Board, comprise small-pox, cholera, typhus, typhoid, scarlet, relapsing, and puerperal fever, diphtheria, measles, and erysipelas. There is no power to require such notification in any existing sanitary statute. The Public Health Act, 1875, does, indeed, deal with the subject in Section 84, but that only requires that the keeper of any common lodging-house shall give immediate notice to the medical officer of health, and also to the Poor-law relieving officer of the parish or union in which the common lodging-house is situated, if any person be ill of fever or of any infectious disease. Beyond this, the 80th Section of the same Act gives power to the sanitary authority to make by-laws for giving notices and taking precautions in the case of any infectious disease in common lodging-houses; and, further, there is a power lodged in the Local Government Board by the 90th Section, to declare [illegible] respect to houses let in lodgings, that that section of the Public Health Act is to be in force within any district, or any part of a district of any local authority; and, on and after the publication of such notice, the local authority is to [illegible] In the Canal Boats Act, 1877, [illegible] further developed [illegible] Section of that Act [illegible]

[illegible]

[illegible] as may be necessary to prevent the spreading of such disease, when it occurs in a canal boat, and for that purpose to exercise the power of removing any person suffering; and they may, further, detain the boat in which such disease has occurred; but no provision exists in the Act rendering it in any way compulsory on the person in charge of the boat to notify to the sanitary authority that such disease exists. The power of removal here referred to is contained in Section 124 of the Public Health Act, 1875, which provides that a person suffering from dangerous infectious diseases, without proper lodging or accommodation, or lodged in a room occupied by more than one family, or on board any ship or vessel, or who is an inmate of any common lodging-house, may by order of a justice be removed at the instance and cost of the local authority to any hospital or place provided by such local authority for the reception of persons suffering from such dis[illegible].

These are the entire general enactments bearing on the subject of notification of infectious diseases, and their isolation; but several private statutes have been obtained by various sanitary authorities throughout the country having application only to their proper districts. In these private improvement Acts, local authorities may require from the medical attendant, or the person in charge of the case, a certificate of the presence of infectious disease. It is strange that provisions of such a character should make their appearance in private Acts of Parliament outside and beyond the general law. What are the conditions in Bolton or in Leicester more urgently requiring the notification of the presence of infectious disease, other than those existing in Bristol, Manchester, or Dublin? Why should they apply up to the boundary of a borough, running through the middle of a street, and be operative on the one side, powerless on the other? If it be necessary for public protection that such knowledge as is here proposed to be given should be in the hands of a local authority, there can be no other limit than the whole kingdom; for whatever artificial boundaries we may choose to place between districts and authorities, it is certain that infectious diseases have not yet learned to respect them; and the good we may acquire by sweeping and garnishing our own houses, will not prevent the evil spirits from stepping out of their own abodes to occupy ours. But we are, in our laws and institutions, eminently conservative; and it requires that we should, by experience acquired at great cost, learn the necessity of either change or progress before we can hope to impose it on the community.

It has been, therefore, necessary that individual towns should try the experiment for us, and that isolated examples should be forthcoming before we can hope that the legislature will pass any general measure.

Even such enactments as the Lands Clauses' Acts, and the Gas and Waterworks Clauses' Acts, were prefaced in a similar manner, and had a like origin. Thus we find in the recitals to these Acts these sentences: "That whereas it is expedient to comprise in one general Act sundry provisions usually introduced into Acts of Parliament (that is, private Acts), therefore be it enacted," etc., and so the general Act is passed into law. We may without hesitation in this case use the same formula, and express in the strongest manner our opinion, whatever may be the weight attachable to it: That it is desirable, in the best interests of humanity, to pass without delay a general Act, for compulsory notification of infectious diseases, in order that local sanitary authorities may at least be made acquainted with the fact that these dreaded visitors are in their midst, and that the responsibility may be thrown upon them to use the best means at their disposal to prevent the disastrous consequences of neglect and delay.

If it is true that the spread of infectious diseases may, by timely measures of precaution, be prevented—and ample experience has shown that they may in any locality be thus stamped out—it is clearly desirable that the earliest notice of their presence should be in the possession of the local sanitary authority. They are communicable from person to person by contact, and through the medium of the earth, air, and water. Isolation of the sick person becomes, therefore, not only desirable, but a duty—to prevent transmission of what may extend the disease, be it germ-particle or whatever else is the source of the mischief, whether from the body of the sufferer directly, or through the medium of the dejections, or articles of clothing or bedding which have become infected. It may be that each of the diseases enumerated has a specific contagium; they may hereafter be proved to be capable of self-origination, or it may be that it is absolutely essential to the presence of the particular disease that it should, through one of the media before noted, be communicated directly or indirectly from person to person; but these are questions which, being beyond the scope of the present paper, it is neither necessary nor desirable at present to discuss. But if children are allowed to go through the stages of virulent small-pox in a room used for the keeping of pledges, and in which two thousand or more of the garments of the poorer class of people are stored, we cannot wonder at a sudden irruption of small-pox in a locality where such a state of things occurred entirely beyond the knowledge of the sanitary authority. If, without let or hindrance, the whole population of a village gratify their curiosity by visiting the son of the beer-shop keeper, suffering from small-pox, and removed from a neighbouring town to be nursed at home, we are fully prepared for the recorded results of such contempt of ordinary sanitary precautions. The inevitable result must be a large increase of illness, suffering, and mortality. The sanitary authority, if informed of such cases as these, might have taken steps to prevent access to the sick; might have ensured the safety of others, by causing, through its officers, the careful disinfection of all that had been in contact with the sick person. But it must of necessity be acknowledged that there is no virtue in notification in itself; it can only be valuable as means to an end. It would give timely information to the sanitary authority and its officers skilled in the best modes of preventing extension of preventable disease; it would direct attention to the house and its surroundings; would enable the medical officer of health to afford welcome advice and assistance, now happily, to a great extent, freed from the jealousy of interference on the part of the medical attendant. Sanitary defects in streets and dwellings would thus be detected and removed, and a sure means provided for disclosing weak places in our fancied armour of security; and thus enabling remedies to be provided, and real safety attained.

Not less valuable would be the means thus placed at the disposal of the scientific officers, to trace out the history and the causes, and learn the value of various measures as efficacious in stopping the progress of epidemics. How often in water, in milk, or some other medium, only discovered when much of the mischief had been done, do we subsequently trace the source of the contagion. At present, our very ignorance of danger lulls us into a fancied security, where even a little knowledge would conduce to real safety.

These considerations, therefore, make it desirable that there should be, at the earliest moment, a notification to the sanitary authority of the presence of infectious diseases in their district. To be logical, we should go further; and, if we are assured that, by the application of stringent measures, we can prevent the spread of infectious diseases amongst a community helpless to protect itself, we should, in the public interest, overstep private considerations and provide for the compulsory isolation of such cases of disease. But we are not and dare not be strictly logical in sanitary legislation, especially when it proposes to curtail and interfere with the personal liberty of the subject. We must not attempt to make our advances under cover of a syllogism. In this direction every step must be most cautiously taken. It is not sufficient that we ourselves are convinced that the enlarged power sought to be given to sanitary authorities is urgently demanded in order to protect the helpless from suffering. We must first have proved this to the public by teaching and experience brought home to them. The fuller demonstration must precede action—otherwise, in our anxiety to arrest preventable disease, we shall overshoot our mark, and create such a storm of public disapproval as seriously to delay the good work of progress. We must, by slow and painful steps, impress our thoughts and our teachings, and their probable beneficent results, on the minds of the people before they can with safety be transferred to the pages of our statute books. And the public are not yet prepared to admit the desirability of giving to sanitary authorities the power to remove their children and friends to hospitals compulsorily in order to ensure isolation. We shall at present in vain urge that this is the true solution of the question. We must depend on persuasion and example rather than on force. If sanitary authorities, with the proposed improved information of the presence of infectious disease in their districts, use judiciously, but firmly, the powers they already possess, we shall at no distant period secure public opinion as our friend, instead of our foe, in advocating further methods of repression. Our present means may be well supplemented by the establishment of paying hospitals, or rather homes for convalescents; and by increased power to sanitary authorities to employ and pay nurses, in order, as much as possible, to isolate the healthy members of families from the sick.

But there are still some objectors both to the matter and to the manner of the proposed measure. It is said, that keepers of schools, proprietors of large establishments, hotel-keepers, and others, will be unwilling to employ medical attendants for persons suffering from infectious diseases, if certificates of the presence of such diseases are to be furnished to the sanitary authority; that medical men will object to the secrets of their practice being disclosed; that the medical attendant ought not to be called on to transmit his certificate directly to the sanitary authority, but that his duty should end when he has filled up the certificate, and handed it to the occupier of the house where the disease exists for transmission to the sanitary authority; that it would be a breach of confidence between the patient and the medical attendant, if the

latter disclosed the nature of the complaint from which the sick person was suffering; that the carrying out of the proposal would injure medical practice, especially that of conscientious practitioners, and lead to the employment of persons ready to evade their legal responsibilities, in the hope of securing an extended practice; that it would lead to deception as to the character of the disease; that it is not always possible to determine that a case is one of sickness of an infectious character. It might almost be sufficient to meet all these objections by the rejoinder that, where the system has been in operation, none of these fancied grievances have been practically found to exist, or to eventuate from the exercise of the powers granted to the sanitary authority of the district. It must be obvious from these and similar statements—they can hardly be called arguments—supposing them to have any foundation in fact, that it is desirable, in order to secure the carrying out of the law, that it should be made in its operation as simple and direct as possible, and that the fewer the hands through which the certificate has to travel, the more likely is it to reach its destination.

With respect to the questions raised on the score of medical etiquette, it is worthy of remark, that much the same objections were raised when it was first proposed to require from the medical attendant a certificate of the cause of death for registration. It was then said that it would be a breach of confidence to betray the secrets of home-life in cases such as puerperal fever in unmarried females, and that the most serious injury might accrue from the knowledge of the presence of epilepsy in families; that medical men would be tempted to conceal the real cause of death; and that the registry would be valueless. At the present time, we see the futility of these cavillings; and it would be now hard to find a single person to repeat these and a host of others of a similar character, which were at the time fully relied on as unanswerable obstacles to the proposed law. A little consideration will show that any supposed hardship to be inflicted on the medical profession is illusory: they are to be paid for filling up and forwarding the certificate a sum which is considered to be an adequate fee. Instead of betraying any confidence reposed in them by their patients, they will be only carrying out the obligation of the law, which, when passed, would form part of the contract between medical attendant and patients. Moreover, if any injury whatever is to be apprehended by the doctor, or any unpleasantness in relation to the certificate, it must surely be less when it is silently transmitted to the sanitary authority, without the intervention of the person in charge of the sick, rather than when, as is proposed by the objectors, it should be filled up and handed to such person, its contents explained, and an injunction given to forward it for dreaded publicity. It is believed that general, like particular, experience will demonstrate that all these fears and objections have really no solid ground on which to rest.

As to declining to call in medical assistance, it must be remembered that in such a case the duty still remains charged on the occupier to forward on his own account the certificate; and if medical assistance were declined on this ground and fatal consequences ensued, the person so offending would be liable to a criminal indictment for neglect. There are many other answers of a minor character that might be replied to these carping objectors, but they are hardly worthy to be discussed by this Congress.

It may well be that some possible private injury might be done by directing the attention of the sanitary authority to the fact that infectious disease existed in some particular locality. But private interest must give way before public necessity. It is a hardship when, in the public interest, we by our laws interfere with labour or with trade, or take land compulsorily from private persons for public undertakings. But if the plea of private hardship were to be or had been considered a bar, we should have had no railways or canals; we could not in many cases sewer our towns, or provide supplies of gas and water, or carry on any public enterprise.

Are those we love best—innocent children, delicate women, those whose resistile power is the least, and who the most require our defence—to continue to fall victims to small-pox, scarlet fever, and the whole array of these scourges of humanity, and products of dirt and neglect, that we may continue to allow our garments to be manufactured, and our clothes to be cleansed, in company with virulent cases of infectious disease? That these should remain not only unchecked, but their presence absolutely unknown in our midst, is a disgrace to our boasted civilisation. Let this Association lend its most strenuous assistance to make impossible in the future the disastrous apathy of the past.

A Bill for the better Notification of Infectious Disease, 1881.

Whereas it is desirable to provide for early notification to sanitary authorities of the occurrence of infectious diseases within their districts:

Be it enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same as follows (that is to say):

1. *Short title.*—This Act may be cited for all purposes as the Infectious Diseases Notification Act, 1881.

2. *Construction of Act.* This Act shall be read as one with the Public Health Act, 1875, 38 and 39 Vict., c. 55.

3. *Certificate of infectious disease to be sent by medical attendant to sanitary authority.*—Any medical practitioner attending or requested to visit and attend any inmate of any building in the district of any sanitary authority suffering from small-pox, cholera, typhus, typhoid, scarlet, relapsing, or puerperal fever, diphtheria, measles, or erysipelas (or other acute infectious diseases, when included within the scope of this Act by order of the Local Government Board), shall, immediately on becoming aware of the nature of the disease from which such inmate is suffering, forthwith fill up, sign, and transmit, either personally or by post, to the office of the sanitary authority of the district a certificate in accordance with the form of notice contained in the schedule to this Act.

4. *If no medical practitioner, notice to be sent by occupier, &c.*—If no medical practitioner be attending on such inmate, then the occupier of such building, or if the occupier be incapacitated by illness, the person in charge of such inmate, shall, as soon as he becomes aware that any such inmate is suffering from any infectious disease, forthwith transmit a notice by post to the sanitary authority of the district at their office as nearly as possible in the form contained in the schedule to this Act.

5. *Sanitary authority to supply forms for certificate.*—The sanitary authority shall supply gratuitously to every registered medical practitioner resident or practising in the district, and to every inhabitant, upon application, forms for the certificate by such medical practitioner or inhabitant, as the case may be, of the occurrence of infectious disease. *Fee.*—The sanitary authority shall pay to every registered medical practitioner who shall, in accordance with this Act, transmit any such certificate a fee of two shillings and sixpence in respect of the same; provided that not more than one fee shall become payable to the same medical practitioner for any certificate given by him in respect of any infectious disease occurring in the same building within thirty days of the date of the said certificate: Provided also, that no fees under this Act shall be payable for the notification of infectious diseases occurring in workhouses, gaols, or public hospitals.

6. *Penalty for neglect.*—Any person neglecting to transmit any notice required by this Act shall be liable to a penalty not exceeding five pounds, to be recovered in the same manner as penalties under the Public Health Act, 1875.

7. *Sanitary authority to cause enactment to be known.* The sanitary authority shall take means to make this enactment generally known by affixing notices of the contents thereof in all public places where such notices are usually affixed within the district of such authority.

8. *Act not to apply to Ireland.* This Act shall not apply to Ireland.

Schedule.

Form of Notice. Notification of Infectious Disease Act, 1881.

"I hereby certify and declare, in pursuance of the above-named Act, that* , living at No.† Street, is suffering from infectious disease, viz. . Dated this day of , 188 . Registered medical practitioner or householder, or person in charge, as the case may be. To the sanitary authority of the district of ."

The Relations of Salary to Skill. The [illegible] pays a pilot of the [illegible] Sound [illegible] assistant physician [illegible] *Medical Record*, commenting on this, says that, judging the capabilities of those employes by their salaries, a man sick on shipboard does about as well to get a prescription from the quarantine fireman as from the pilot. The real cause of this difference in salaries is not far to seek. It takes a man with clear head and sound judgment about seven years of constant training to become a pilot, while a [illegible] doctor by attending two courses of lectures of four months each (missing three fourths of these), a period far too short to even [illegible] fireman.

CLINICAL MEMORANDA.

A CASE OF HERPES SCIATICUS.

M., aged 48, a widow, poor, spare, and somewhat dyspeptic, was startled and "unnerved" by a hurried summons in the middle of the night to the aid of a friend stricken with apoplexy. The air was very cold (January); she was scantily clad and felt a sharp chill. Next day, she had severe pain in the course of the right sciatic nerve. This having lasted a week, herpes appeared, and the pain then became even worse than before. The rash, about an inch and a half in breadth, extended from the sacrum to the tip of the outer toe. It passed nearly half an inch across the middle line of the sacrum to the opposite side. It was continuous in its whole course, but at certain points there were patches of much greater breadth—namely, over the sacrum itself; over the lower edge of the gluteus maximus; at the junction of the upper and middle thirds of the thigh, and over the popliteal space. At this last named point, the rash turned outwards, taking its course along the outer half of the back of the leg to the heel, and thence along the outer edge of the sole of the foot to the tip of the toe. At the end of the fourth week (third of the rash) when she first came under my own observation, the rash was drying up. In the seventh week, its former site was marked by brown spots, and she felt decided numbness in the course of it. In the ninth week, having taken quinine and steel for a fortnight, the patient was much better in health, but the foot remained very numb where the rash had been. Even after seven months, she felt a slight numbness, and brown stains were still visible where the rash had been thickest.

T. CHURTON, M.D.

Leeds.

THE TREATMENT OF THE VERTIGO OF BRIGHT'S DISEASE.

EVEN where we cannot hope to effect a cure of the disease itself, it is often of the greatest moment to be able to relieve a symptom which is rendering life worthless. Vertigo is not a very common symptom in chronic Bright's disease; but, though it does not receive much attention from text-book writers, when it is present, it is a very serious matter to the sufferer, and often assumes a pre-eminent position in his own account of himself. After trying various remedies, I have found the greatest benefit from caffeine or theine in doses of one, two, or three grains in pill three times a day. The following cases are examples. S. K., aged 69, complained of severe giddiness, but proved to be a typical case of granular kidney; after taking without benefit chloride of ammonium, iodide and bromide of potassium, he was entirely relieved by caffeine in grain doses three times a day. J. W., aged 63, complained of giddiness, pain in the head, and loss of memory. The ophthalmoscopic signs were negative. The urine was of specific gravity 1001; it contained a trace of albumen. She had frequent nocturnal micturition. She was ordered at first chloride of ammonium and digitalis; then theine in doses gradually rising to three grains three times a day, when the vertigo was completely cured. I have notes before me of two other cases equally satisfactory.

ROBERT SAUNDBY, M.D., Birmingham.

OPHTHALMIA NEONATORUM.

DR. KARL GROSSMAN states, in the JOURNAL for October 29th, that "there can be no doubt at the present time that the real and only cause (of ophthalmia neonatorum) is the infection from the secretions of the maternal passage during or shortly after birth". This proposition involves so many and serious, social, pathological, and legal questions, that I may be pardoned one or two remarks upon it. Some little time ago, I attended the wife of a friend (a physician); the child was born in the unbroken membranes; the amniotic sac was ruptured, after expulsion by my friend, who did nothing else in connection with the labour. On the second day, the child had ophthalmia. It never came in contact with the mother's discharges or passages at all. Dr. Veit relates a case of Cæsarean section: the child, of course, never traversed the mother's vagina. It became affected by blenorrhœal ophthalmia.

In my friend's case, I am in a position to affirm that there was absolute freedom from any unhealthy discharge on both sides. These, and other cases, prove beyond question that infection from the secretions of the mother's passages is not the only source of ophthalmia in the newborn infant. The true cause is not, however, a mystery. Dirty sponges, contaminated diapers, towels used in washing the child, would account for a good many cases. Such things will cause erysipelas of the umbilicus, and may be the means of infecting the mother.

7, Queen Anne Street, W. FANCOURT BARNES.

SURGICAL MEMORANDA.

DISLOCATIONS OF THE HUMERUS.

IN reply to Mr. Illingworth in his note on manipulation of the scapula in dislocations of the shoulder joint, I would state that I have never found the following method to fail in procuring reduction—a method which I learnt, and first pursued, when in office at the Westminster Hospital. An assistant places one hand on the acromion and presses inwards and downwards, and with the other hand hauls on a towel—encircling the shoulder joint—in an upward and outward direction, whilst the principal is at the same time carrying out the heel in the axilla method, a point in which method to be observed is, to endeavour to get the heel between the head of the humerus and the chest wall, so as to wedge the head outwards. Of course, this refers more especially to sub-coracoid or sub-clavicular dislocations. I had but little difficulty in reducing two sub-clavicular luxations only yesterday, though one, occurring in a shipwrecked seaman, was of three days' duration, and these without the administration of an anæsthetic with its concomitant danger. Although the manipulation of the scapula is a great help in all luxations of the head of the humerus, I think the heel in the axilla is an absolute necessity in muscular subjects or in dislocations of long standing.

Whilst writing the above, I have been called away to see a typical subglenoid dislocation of twelve hours' standing. The reduction I effected in the orthodox manner—viz., by forcibly extending the arm in a position at right angles to the body, whilst an assistant endeavoured to rotate the body of the scapula by hauling on a runner passed round the thorax and lower half of the scapula; this movement was assisted materially by my placing a foot on the angle of the scapula whilst I extended the arm, and thus brought the glenoid cavity inside of the head of the humerus, which then slipped into its place.

Plymouth. AUGUSTUS H. BAMPTON, M.D., M.CH.

BRYANT says, "The use of anæsthetics has completely revolutionised the treatment of dislocations, and at the present day nothing can usually be simpler than the reduction of a dislocation of the shoulder, and what was formerly called reduction by stratagem is now the rule" (*Practice of Surgery*, 2nd Edition, p. 328). Then he describes a method of manipulation known as Smith's, of Philadelphia, and further on he says, "When these means fail, or when chloroform is not at hand, reduction by means of extension with the heel in the axilla should be employed." Now, to my mind the latter clause or quotation settles the whole matter. During the last two years I have had, as an ordinary general practitioner, a good few examples of this dislocation, and have tried all the manipulative methods I have seen described; and now, to save my patient a chance of failure, I always resort to reduction by means of my heel in the axilla, which I find to be less "tedious or trying either to patient or to surgeon."

Since the outcry against the use of chloroform—and in general practice, where we have to fall back on our own resources, I do not think we are justified in administering an anæsthetic if we can effect reduction without—out of a good number of cases I have only failed twice, in which, even after chloroform, manipulation failed; and the heel in the axilla was again resorted to, when the muscles were at once overpowered, and reduction made easy. In both cases my patients were very muscular men, and some hours had elapsed before reduction was attempted. My opinion, though perhaps retrograde, is that, in a dislocation of the shoulder, if seen directly after injury and before the deltoid and scapular muscles have had time to recover themselves, reduction by means of the heel in the axilla is sure, safe, and expeditious, which for the patient is of the greatest importance. I have had no mishaps, nor have I seen any, by this method.

The independence of the surgeon in having no extraneous help from assistants, being able often to dispense with chloroform, the sure and equable force which the operator can regulate to a nicety are, to my mind, sufficient to continue in use "this relic of barbarous surgery", as it has been named by some.

The operator should always remember, in using this method, that in extension his object is chiefly to tire out the muscles; therefore he should extend the arm with a steady, equable, and well-regulated force.

WM. BERRY, M.R.C.S., L.R.C.P.Ed.,
Surgeon to Royal Albert Edward Infirmary, Wigan.

A BAZAAR will be held, in aid of the funds of the Ulster Hospital for Sick Children, at the Queen's Arcade, Belfast, on November 10th and following day.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

MANCHESTER ROYAL INFIRMARY.

EXTIRPATION OF THE KIDNEY: DEATH: NECROPSY.

(Under the care of Mr. WALTER WHITEHEAD, F.R.C.S.E., F.R.S.Ed.)

THE notes of the patient's condition, previously to his coming under Mr. WHITEHEAD's charge, have been supplied by Dr. DRESCHFELD.

A. L., aged 46, single, came to the out-patients' department for the first time on April 4th, 1881, complaining of the occasional passage of blood in his urine. He stated that he had always enjoyed good health; he had suffered from gonorrhœa, followed by gleet, but not from syphilis. He was following his employment at this time. He was a well-built, but spare, man, of very dark complexion; he had a slightly atheromatous pulse, and beginning arcus senilis. On the right side of the abdomen a small, firm, freely movable, globular tumour could be felt; its upper border was about one inch below and separate from the liver; its lower border was in a line with and about two inches to the right of the umbilicus. Percussion gave a dull sound, and no bowel could be detected over the tumour. It was perfectly painless. The patient had been aware of its presence for some short time, but felt no inconvenience from it. Percussion of the lumbar regions behind gave a duller sound on the right than on the left side, but no fulness could be detected on that side. The urine, which was examined at the time, was uniformly dark red, containing a considerable amount of blood intimately mixed with it. Microscopically examined it showed, besides blood-corpuscles, some large round cells with large nuclei, filling up nearly the whole of the cell. There were no renal casts seen. From these symptoms the diagnosis of tumour of the right kidney, probably of a sarcomatous nature, was made by Mr. R. Maguire, then clinical clerk, who examined the patient and reported the case. The examination of the rest of the organs showed nothing but normal relation.

In the further progress of the case, the only noteworthy symptom for a time was the increase in the size of the tumour; still remaining painless, it extended downwards and to the side, so that it could be easily grasped by one hand being applied to the right lumbar region behind and the other over the tumour in front; it could thus be moved both laterally and vertically; the surface of the tumour felt smooth and inelastic. The general condition of the patient had undergone no change; the urine presented the same appearance as on the first examination.

With the beginning of August the patient complained of feeling weaker, and of suffering from flatulence and occasional vomiting; he was obliged to give up his work, and was anxious to have the tumour removed, if possible. The case being one where an operation seemed indicated, the patient was then transferred to the wards of the hospital. The diagnosis of the case was easy from the first. The tumour, not being connected with the liver, could only have been either a growth connected with the pyloric end of the stomach, or with the omentum, or with the kidney. The absence of any gastric symptoms at first, and the persistent presence of blood, intimately mixed with the urine, negatived the first two alternatives. The growth of the tumour, its extension downwards and backwards, and its consistence, made it evident that the case was one of a solid tumour, and not either a movable kidney, or surgical kidney, or a nephritic or perinephritic abscess; against which latter assumption must be cited also the absence of pain and fever. As there was no evidence of any other tumour anywhere else, the renal tumour was looked upon as primary.

The rapid growth of the tumour, and the commencement of failure of the general health of the patient, made it evident that, if an operation were practicable, it should be undertaken soon. The free mobility of the tumour, the absence of peritonitis and of any evidence of secondary deposits, were strong points in favour of operative interference.

The operation was performed, under chloroform, on September 5th, 1881, after the following manner. An incision was made from an inch above the umbilicus downwards along the linea alba for about four inches, and the subjacent tissues were successively divided until the cavity of the abdomen was entered. A careful exploration of the surroundings and connections of the tumour was then made, and the correctness of the diagnosis verified. The examination further showed that the incision made was altogether inadequate, it being evident, from the size of the tumour, its deep attachments, and the large friable superficial vessels ramifying on its surface, that the greatest caution would be required to effect a successful removal; consequently a transverse incision was made from the centre of the first incision through the loin.

The omentum investing the front aspect of the tumour was divided in a longitudinal direction, principally by scratching with the finger-nail, and also by gently tearing. The ureter next coming into view, was divided between two ligatures. The renal vessels were, notwithstanding their immense size, found with considerable difficulty; they were tied with a double silk ligature, and divided. One ligature was, in fact, imbedded in the substance of the tumour, the distance between the growth and the vena cava leaving no alternative. The kidney was then found to be attached by a firm tough band to the diaphragm; and, when this was divided by scissors, the whole growth could be removed from the abdomen. A number of vessels required torsion and ligature during the operation, but, at its completion, no danger was apprehended from further hæmorrhage. The edges of the incisions were brought together by silver sutures, a large drainage-tube was placed in the cavity previously occupied by the tumour, with the orifice protruding through the most dependent part of the wound in the loin, and the end of the ligature attached to the renal vessels was also brought through the same opening. The operation was conducted under the carbolic spray, and the wound was dressed antiseptically after the operation, which occupied an hour and twenty minutes. Slight vomiting occurred once.

The following account of the after-treatment is from the notes of the house-surgeon, Mr. Dale.

"On removal from the operating-table, the pulse was very feeble and intermittent, being about 60 per minute. During the evening, a discharge having appeared through the dressings, everything was renewed antiseptically. Pulse 100.

"September 6th. Rather restless night; looking much better. Pulse 96; temperature 98.6°. Wound dressed. Fair amount of blood-serum on the dressings. The dressings required changing again in the evening, when there was about the same amount of discharge. There were symptoms of localised peritonitis, but not much pain. Ordered liq. opii sed. m. xv. Pulse 138, wiry. Tongue clean, dry. Urine during day, ℥viij; acid, 1019; trace of albumen; slight flocculent deposit; microscopically, it showed granulated *débris* and blood-cells.

"September 7th. Restless during night. Vomited at 4 A.M. On changing the dressing, the discharge was the same as yesterday. Pulse 120; respirations normal; temperature 98°. Amount of urine, ℥viij; specific gravity 1017; a trace of albumen. At 11 A.M., he vomited a grumous fluid, but complained of no pain. The abdomen was rather distended and tympanitic. The discharge was rather more abundant and more hæmorrhagic when the dressings were changed, at 9 P.M. Pulse 130; respirations 28; temperature 100°.

"September 8th. Much better night. Pulse 120; respirations 28; temperature 98°. A considerable discharge of blood and serum. The urine was copious, much clearer, and contained a trace of albumen; specific gravity 1015; a faint deposit of granular matter and epithelium. The dressings were renewed at 8 P.M., when the discharge was abundant, but sweet. Pulse 120; respirations 24. The tongue was clear and moist, and the patient tranquil and hopeful.

"September 9th. Rather restless night. Pulse 120, weak; respirations 30; temperature 97.6°. He was perspiring freely; the extremities were rather cold. The wound was dressed at 10 A.M., and the discharge of blood and serum was still very considerable. Urine, ℥xj, 1015, acid, clear; deposit as before.

"He died suddenly at 5.15 P.M., quite conscious to the moment of death."

A post-mortem examination was made on September 10th by Mr. A. H. Young, Pathological Registrar to the Hospital, who furnishes the following report.

The arcus senilis was well marked. The costal cartilages were partially ossified. No union had taken place in the wound. The peritoneum contained about a pint of blood-stained serous fluid. The intestinal coils were feebly adherent to one another, and here and there thick layers of yellowish tenacious lymph were observed. The small vessels of the intestinal walls were congested. The right kidney and the corresponding suprarenal capsule were removed. In the region formerly occupied by these bodies was a considerable quantity of firm blood-clot, of a dark, almost black colour. On removing this, the root of the right kidney—with ligatures (catgut) placed around the artery and vein—was found [illegible] connective tissue [illegible] The ligature round the renal vein was found [illegible] cava. No [illegible] was found in the [illegible] cava.

examination of the body generally yielded no evidence of embolism. The left kidney was removed along with the aorta and vena cava; it was somewhat enlarged, but its substance presented no morbid changes whatever. The remaining abdominal viscera were quite free from secondary growths. The spleen weighed 6½ ounces, and was of firm consistence; its capsule was thickened, and presented numerous gummous-like opaque masses of small size. The liver weighed 3 lbs. 6 oz.; the capsule was slightly thickened and opaque, and in parts cicatricial; The alimentary canal from mouth to anus was free from coarse lesions. The heart weighed 10½ oz.; it was slightly hypertrophied on the left side; the valves and orifices were normal; the aorta was slightly atheromatous. The lungs were voluminous, hypostatically congested, and œdematous. No secondary growths, either subpleural or in the substance, existed. The kidney removed weighed 1 lb. 4 oz., and measured six inches by four. The renal vein on the right side measured half an inch in length; that on the left, three inches and a half.

REMARKS BY MR. WHITEHEAD.—The cause of death in this case must be regarded as somewhat obscure. The shock of the operation had never been very marked, the lowest temperature recorded after the operation being 98°. Peritonitis, through present, was of a subdued character, having produced neither marked pain nor prominent distension. The possibility of septic poisoning was not supported by any rigors or rise of temperature, nor was it indicated by signs of putrescence in the discharges. Pulmonary embolism was not confirmed by investigations specially directed to ascertain the possibility of this contingency. The loss of blood during and after the operation was certainly considerable, but not in the aggregate sufficient to account for death. The supposition of uræmic poisoning could not be entertained in the absence of suppression or coma; so that the cause of death in this case, as in some others after removal of the kidney, must for the present be left open, in the absence of evidence of a more definite character. Since it has been established that there are conditions of kidney fatal to life which are amenable to surgical treatment, extirpation has come to occupy a prominent position in surgical thought; and, as the loss of one kidney has been proved not to entail any apparent physiological incapacity, the question has resolved itself into the consideration of the special circumstances which may be regarded to warrant an operation attended by so many dangers. Mr. Barker considers that there is nothing intrinsically dangerous in the removal of the kidney, apart from the ordinary risks of ventral and lumbar section. This opinion may be sound when applied to floating kidneys and kidneys capable of enucleation from their capsules; but it cannot be considered to give due prominence to the risks if it refer to kidneys enlarged by disease, adherent to other viscera, or to cases in which the operation is complicated by a pedicle so short that barely any interval exists between the growth and the vena cava: a condition, however, only likely to be encountered on the right side.

CHARING CROSS HOSPITAL.

A SUCCESSFUL CASE OF LUMBAR NEPHRECTOMY FOR NEPHROLITHIASIS.

By RICHARD BARWELL, F.R.C.S., Senior Surgeon to the Hospital.

I HAVE twice performed nephrectomy; the first time on a girl, aged 16, for pyonephrosis, which turned out to be tuberculous. At first, she appeared benefited by the operation; but, after sixty hours, the process of sinking, which had set in before the operation, continued; she died on the sixth day. The other kidney was found to be also tuberculous.

My second operation, the subject of this communication, was performed for nephrolithiasis. The patient presented the symptoms which appear to me those that will be found, not merely to justify, but to call for the operation. Moreover, when such symptoms arise, I believe that nephrolithotomy, the mere removal of the stone, unless it be very small, will be useless or merely of temporary benefit. These symptoms are: pain, nausea, hectic temperature, progressive emaciation, remittent hæmaturia, and persistent pyelitis.

Dennis F., aged 18, came under my care in the Charing Cross Hospital on October 12th, 1880, suffering from severe pain and a fluctuating swelling in the left lumbar region; this latter he had only observed six weeks previously. The lad was of healthy parentage, and had been well up to the end of July, when pain first commenced. The urine was cloudy, containing muco-pus, therefore (or also) some albumen. The lumbar swelling was a general enlargement, pointing a little just outside the erector spinæ. The chest behind was dull up to the sixth rib. During the night of the 14th, and previously to my seeing him, the abscess burst, discharging a little watery pus.

On October 18th, having diagnosed perinephritic abscess, I made an incision as for lumbar colotomy, and felt the lower half of the kidney, which was entire, but appeared to contain a hard substance, diagnosed as, in all probability, a stone. At this time, no permission for further procedures could be obtained. Rest and good diet produced some benefit. He was discharged, but was kept under watch.

On March 29th, 1881, moving about and less careful diet having very soon aggravated all the symptoms, he was re-admitted; and at length leave for further operation was obtained. The boy was greatly emaciated, with a very uneven hectic temperature. There was a large quantity of pus in the urine, and some was discharged by an open sinus. I had, on sounding the fistula, detected a stone.

May 5th. The difficulties foreseen were the peculiar proximity of the twelfth rib to the ilium and the conversion of parts into a dense cicatrix. The former of these was, as far as possible, eliminated by placing him, when etherised, upon a firm thick bag of sand, so as to bend the spine forward and to the right.

I made an oblique incision from the eleventh rib to the crest of the ilium, and endeavoured to recognise the edge of the erector spinæ. Nothing but scar-tissue could be found; the guide to the kidney was lost. The mouth of the sinus was dissected off, and along the track I pressed my finger, felt the stone, and, passing the knife along the digit, enlarged my cut to the size of the outer wound; but, owing to the small space between the crest of the ilium and the rib, the room obtained was quite insufficient; the scalpel was therefore run along the border of the rib, so as to make an angular flap, which, being held aside, afforded more space. Up to this time, a barely appreciable amount of blood had been lost; but an attempt to extract the stone, which broke in the forceps, produced very considerable hæmorrhage from the kidney. Dreading for so anæmic a patient any loss of blood, I pressed on the gland a piece of sponge, upon which Mr. Morgan kept up firm pressure, while I, deeming in the pressing circumstance boldness to be the best discretion, very quickly partly enucleated, partly broke down, the gland sufficiently far to permit me to pass a ligature over it, and tie the vessels near their entrance. This completely checked all bleeding, and I could now more leisurely peel away the organ. I thus separated it entirely, save a small portion of its upper extremity, which I could not sunder save by incurring risks that I deemed unjustifiable. Another ligature was now thrown over the gland, and the pedicle, vein, artery, and ureter were tied *en masse* with a strong piece of carbolised silk. But the kidney was far too large to be extracted entire between the rib and the ilium; therefore, a pair of large curved scissors were introduced, the gland was divided from without inwards, and, bloodlessness being verified, each half was separately cut away and removed from the wound. The great cavity remaining was then filled with carbolised sponges and bandage. The operation and subsequent dressings were managed on antiseptic principles. During the night of the operation, the temperature was 101.8°, that is, two-tenths of a degree higher than it had been four nights previously. There was no shock. On the next morning, the urine contained a large amount of pink (blood-stained) albumen. Its quantity was thirty-two ounces; specific gravity 1013. Further there is little to record. Regulation of diet mitigated, and then eliminated, the albuminuria. The temperature became on the third day, and has since remained, normal. A small sinus-mouth, furnishing very slight discharge, remains. The boy is fat and strong.

Nephrectomy has been performed for stone in the kidney ten times; the case just recorded is the third successful one.

[The whole subject of Extirpation of the Kidney—"nephrectomy", as it has been called—by abdominal section has been very fully dealt with in a paper by Mr. Arthur E. Barker, read last year before the Royal Medical and Chirurgical Society (*Transactions*, vol. lxiii). He was then able to collect twenty-seven cases, in which the operation had been completed; these cases showed a mortality of thirteen, or about 48 per cent.—figures which, however little favourable they may be when compared with other statistics of abdominal surgery, at least demonstrate very forcibly the feasibility and the justifiable nature of the operation. "It is a striking fact", he adds, "that only in one case were any symptoms exclusively referable to the intrinsic nature of the operation observed, such as drowsiness, rigors, etc., setting in at once;" and it will be noticed that, in the interesting and carefully recorded cases described above, no such symptoms were at any time present. There are two distinct methods by which the operation may be performed: the organ may be reached by an incision in the loin, in the space between the thoracic margin and the iliac crest (this was the method adopted by Mr. Barwell); or, the section may be made in the middle line of the abdomen, and the operation conducted upon the lines established for the performance of ovariotomy. From a study of the cases at that time available, Mr. Barker was led to conclude that the lumbar operation,

which leaves the peritoneum intact, was "best suited for the removal of healthy or comparatively healthy kidneys, if this be ever justifiable; also in those cases where there has been much perinephritic inflammation, and also for pyo- and hydro-nephrosis. The ventral incision, on the other hand, seems best suited for taking away movable kidneys, whether healthy or containing neoplasms, especially if the latter be large". He was only able to collect six cases where the operation was for new growth; two of these were desperate, and the operation could not be completed; but, of the remaining four, three recovered and one died of septic peritonitis. To this number, Mr. Barker added one other case of the ventral operation for new growth, which also terminated fatally; and Mr. Whitehead now puts on record another very similar case, and writes: "To this list I may add another of a similar nature, which has recently come within my knowledge, and, so far as I am aware, unpublished." As to the dangers attending the operation, we may say with some confidence that they do not lie in the direction of uræmia; nor, though here we must speak with some reservation, in that of shock. The operator, in endeavouring to enucleate the tumour, may tear into the mass, as happened to Professor Czerny of Heidelberg, and thus entirely fail to complete the operation; or he may wound the enlarged renal vein, or one of the large veins ramifying over the tumour—either accident being almost necessarily fatal. The renal veins are both short trunks, that on the right being the shorter; there is, therefore, a very small length of vessel between the vena cava and the tumour upon which to place the ligature; this is a real source of danger, as was proved by one case in which the ligature slipped off the vessels after division of the pedicle.]

ROYAL FREE HOSPITAL.

NECROSIS OF THE LEFT ISCHIAL TUBEROSITY.

(Under the care of Mr. WILLIAM ROSE.)

[FOR the following notes, we are indebted to Miss HITCHCOCK, Dresser.]

C. J., a girl aged 7, was admitted on March 29th, 1881. She walked lame, and the following history was obtained from her mother. Nearly two years ago, after sitting for some time in wet clothes, she complained of such severe pain in the left thigh and leg as to necessitate her remaining in bed. The case was treated as of a rheumatic character; but, after a time, an abscess formed and burst at the back of the left thigh, and there had been a continual discharge ever since. The child was greatly relieved by the discharge of the abscess, and was able to walk and run, with some lameness and slight pain. On examination, three sinuses were seen at the back of the left hip, about the level of the gluteal fold; and, on introducing a probe, the existence of carious, and probably loose bone, was ascertained in the neighbourhood of the tuberosity of the ischium.

Under chloroform, on April 6th, Mr. Rose enlarged one of the openings and withdrew, in the blades of the forceps, a sequestrum, which turned out to be the entire left ischial tuberosity. The wound was then carefully examined with the finger; the whole cavity was lined with granulation, and no more loose or diseased bone could be felt. There was considerable thickening about the neighbourhood of the tuberosity, which seemed to have been entirely replaced. In this case, the sequestrum was cast off from the rest of the bone, and was being slowly pushed towards the cutaneous surface of the ham by the growth of granulations beneath.

The subsequent progress of the case was very satisfactory, the wound and sinuses healed up in less than a fortnight, and the patient left the hospital on May 5th, the movements of the left thigh being normal.

MR. ARCHIBALD M'ARTHUR, said to be the oldest man in Scotland, has died in a cottage at Dunoon. He was born in the parish of Kilmorick, Argyleshire, on September 5th, 1777, and was thus in his 105th year. His faculties remained unclouded. When he reached his centenary in 1877, he was presented with a sum of money subscribed publicly for him. For many years he carried on Evangelistic work amongst the Gaelic population.

BEQUESTS AND DONATIONS. Mrs. Anne Ramsay Manfield, of Brunswick Place, Hove, bequeathed £1000 each to the Sussex County Hospital, the Royal Hospital for Incurables, and the Brighton Hospital for Sick Children.—Mr. William Miller, of Portland Place, bequeathed £1000 each to the German Hospital, and the Royal Hospital for Incurables.—Miss Charlotte Elizabeth Barr, of Alexander Square, Brompton, bequeathed £1000 Consols each to the Royal Free Hospital, and the Charing Cross Hospital.—Mr. Edward Medley, of York, and of Bow, bequeathed £500 each to the York County Hospital, and the Surrey County Hospital.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 1ST, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Ear of Corn Discharged through the Chest.—The [illegible] particulars of this case. The patient was a little girl, aged 10. When he first saw her, he found, over the suprascapular region, a boggy swelling. The pulmonary physical signs were normal. A grooved needle was introduced, and a little air and pus escaped. After poulticing for some time, an ear of corn escaped. The only symptoms had been a little cough. There were but few such cases on record; Sir Thomas Watson mentioned several, which were all fatal. A somewhat similar case had been recently recorded in America, which terminated in recovery.—Dr. GOODHART had made a *post mortem* examination on two cases of gangrene of the lungs, in which he had found a piece of bone in one of the bronchi; in neither case were there any symptoms pointing to the occurrence of such an accident. He thought it an important point to note that such an event could occur without producing at the time violent symptoms of dyspnœa.—Dr. NORMAN MOORE pointed out that the ears of some species of grass had a power of rotatory motion, and suggested that this might account for the transference of the ear of corn in this case.—Mr. EVE mentioned a case in which the ferule of an umbrella entered the bronchus, and was followed by phthisis.

Drawings of Muscæ Volitantes.—Dr. WILKS showed a [illegible] muscæ volitantes, observed by himself; they consisted chiefly of bead-like bodies arranged in chains, but there were also some bodies resembling nucleated fibres. He inquired whether the bodies producing these appearances were parts of the natural structure of the vitreous body, or were pathological products.—Mr. JONATHAN HUTCHINSON said that, on several occasions, such drawings had been brought to him by patients, and they always presented appearances resembling those shown in the drawing by Dr. Wilks. He had no doubt that they were produced by some pathological changes in the normal structure of the vitreous body.

Two Cases of Tumours [illegible] connected with the Kidneys.—Mr. FREDERIC S. EVE related these cases. The first case occurred in the practice of Mr. Brickwell. A child, aged 13 months, came under treatment for a swelling in the right flank, soft, apparently fluctuating, and about the size of a hen's egg. There was no disturbance of the general health. The tumour grew rapidly, and its increase in size was attended with loss of strength, and disturbance of the digestive organs, until at last the respiratory apparatus was encroached upon. Death took place from collapse. The tumour occupied the right lumbar region, extending from the margins of the right ribs to the pelvis, and inwards as far as the umbilicus. The right kidney presented on its anterior surface a concavity, over which the parenchyma was exposed, produced apparently by the pressure of the tumour; but the organ was otherwise normal. The left kidney was also normal. The tumour was seven inches and a half long by four inches and a half wide, and [illegible] in thickness; of uniform firm consistence and yellowish-white colour: its section was traversed by bands of interlacing fibres. It was composed microscopically, for the most part, of striped muscle-fibres, scattered, or arranged in fasciculi, and surrounded by fibrillar tissue; and nodules of round-celled sarcoma-tissue were scattered throughout the tumour. The individual muscular fibres were long, very narrow, and distinctly striated, but the sarcolemma could not be distinguished. A Hunterian specimen in the Museum of the Royal College of Surgeons—described as medullary disease of the kidneys of a child, etc.—proved, on microscopic examination, to be a similar tumour. A rounded tumour, of fibrous appearance, and one inch in diameter, was attached to the hilus of the left kidney, which was otherwise healthy. The tumour was distinctly separated from the kidney-substance by fibrous tissue. A tumour, exactly resembling, to the naked eye, the specimens first described, was connected with the right kidney, which was small, ill-developed, atrophied, and connected loosely at the hilus with the surface of the tumour. These tumours resembled in microscopic characters that first described, except that the muscular fibres were [illegible] growth. No similar specimens were recorded in the *Transactions* of the Pathological Society, nor had the author been able to ascertain that these growths had been before described in England. In Germany, Eberth first described a case of striped myosarcoma of the kidney in 1872 (Virchow's *Archiv*, vol. 55: and, a few years later

Cohnheim recorded another (*op. cit.*, Band 65). Subsequently, cases were published by Landsberger and F. Marchand (*op. cit.*, Vol. 73). A comparison of these four cases with those described above, making six in all, showed that they presented a remarkable resemblance, clinical and pathological. All the children died before reaching the age of eighteen months; the ages varying from seven to seventeen months. In four out of the six cases, the new growth was bilateral; and, in all but one case, both tumours contained striped muscular fibres. Metastasis occurred in two, and in one of these the secondary growth contained muscle. In one case, a third tumour was loosely connected as an appendage to one of the kidney-tumours. In every case, the histological characters of the muscular tissue resembled those described, and sarcoma-tissue was uniformly present. Lastly, a general characteristic of all the specimens was the sharp limitation of the kidney-substance from the tumour, which lay within the capsule on the surface of the kidney, in the hilus, or separated the kidney into two parts; yet in no case was its substance infiltrated—a fact tending to show that the new growths did not develop from the kidney-substance proper, but from some structure in its immediate neighbourhood, or included within it, and producing absorption and arrest of development of the organ. It was in this respect especially that Cohnheim's theory of the development of these growths appeared exactly to explain the conditions observed. He suggested that, perhaps, by a faulty segmentation of the protovertebræ, some of the germinal muscle-cells might be mixed from the first with the rudiments of the urogenital organs; and that these germinal cells afterwards developed into a pathological new growth. This hypothesis was supported by the early age of the subjects of this disease, its usually bilateral character, and also its relation to the kidney above-mentioned. Dr. Klein recently observed striped muscular tissue between the medullary and cortical portions of the kidneys of a child. This observation might offer a simpler explanation, but there was an objection to the assumption that the tumours originated from these muscular fibres, in the fact that they did not, as a rule, grow within the kidney, but external to it.

Tumour of the Kidney composed of Sarcoma-Tissue and Striated Muscular Fibre.—Dr. DAWSON WILLIAMS showed a tumour of the kidney removed from the body of a male child aged 13 months, who died in the Victoria Hospital for Children. The child had been under the care of Mr. Walter Pye, but was moribund when admitted, and died of exhaustion. *Post mortem*, a tumour, weighing 1 lb. 13½ oz. (equivalent to about one-sixth of the total body-weight), was found taking the place of the right kidney; it was completely encapsuled, and the ureter could be traced into its inner aspect. Microscopically, it was found to have a fibrillated structure; the fibres were arranged in bundles, which crossed and interlaced in every plane; some of these fibres were slightly spindle-shaped, and gave an indication of a nucleus; others, however, were elongated, in some cases branched, and in most cases showing transverse situation, as in voluntary muscular fibres; in those fibres which were largest and best developed, this striation was very definite and unmistakable. In some parts of the tumour, tracts of small round-celled growth occurred, intermingled with muscular bands; and every gradation in size and form could be traced between the well-developed muscular fibres and these round or slightly spindle-shaped cells. In all parts of the tumour, sections of the kidney-tubules, and circular tracts of nucleated tissue which were believed to be altered Malpighian bodies, were encountered. The growth was, therefore, distinctly to be described as a tumour of the kidney itself, inasmuch as the muscular tissue occupied an interstitial position.—The PRESIDENT remarked that the subject was to him quite a novel one.—Mr. WALTER PYE said that there could be no doubt at all that the fibres in the latter case were really muscular fibres; in that case, too, it was worthy of note that the growth was really a tumour of the kidney, and not merely a tumour connected with the kidney. In some of the fibres, he thought that there were traces of colloid degeneration.

Longitudinal Fracture of Femur.—Mr. MORRIS showed photographs of a case of longitudinal fracture of the femur dividing the bone into two nearly equal parts. As this form of fracture of the thigh had been denied, he thought it well to put it on record. The specimen was in the Museum at Lyons.

Fatty Degeneration of One Lower Extremity.—MR. RICHARDSON CROSS (Clifton) showed the amputated limb. He stated that the patient was a young man, who, ten years earlier, had suffered from caries, first of the left ankle, and then of the right ankle; later on, an abscess formed about the knee, and he had since become, for the last two or three years, bedridden. He had thus for nearly eleven years suffered from a discharge from one or more joints. When he came under observation, the urine was highly albuminous, and contained some blood. Both lower extremities were of the same length, and the bulk of the bones appeared to be about equal; but the right leg was swollen and œdematous, and the knee was ankylosed in flexion. Mr. Cross amputated the fatty and hypertrophied right lower limb. When a section was made, it was seen that the limb had generally undergone extensive fatty degeneration, so that it appeared to the naked eye to be merely a mass of fat traversed by spicula of bone, representing the outlines of the fibula and tibia. Microscopically, there was typical fatty degeneration of the muscles; and, in the bones also, there was extensive fatty degeneration, leading to destruction of the Haversian canals and fatty degeneration of the bone. In the other limb, Mr. Cross believed there was merely atrophy of the bones, while, in the amputated limb, there was, in addition to the atrophy, this peculiar form of fatty degeneration.

Necrosed Parietal Bone.—Dr. [illegible] showed this specimen, which was taken from a man who, some years before death, had fallen in an epileptic fit, and had received a severe burn of the scalp. A good deal of the necrosed bone was removed in St. George's Hospital before his death. A large piece of bone was, at the *post mortem* examination, found lying loose, and resting upon granulation-tissue bathed in pus. The dura mater was much thickened and decomposing.

Congenital Absence of One-half of the Cerebellum.—Mr. PEARCE GOULD showed the occipital bone of a man whose cerebellum consisted of the left hemisphere only. The man was aged 80 when he died, and, three months previously, had been an inmate of the Lambeth Workhouse Infirmary. All that was known of his history was, that he had been a gardener in the same situation for sixty years. While in the infirmary, he was confined to his bed, but was able to sit up in bed, and, with assistance, walked to the lavatory. He was very quiet, but quite rational, and no evidence of nerve-lesion was observed. The deformity was only discovered some weeks after death, in the dissecting-room of the Westminster Hospital; and the brain was so soft, that it was found impossible to preserve it. The left hemisphere of the cerebellum appeared normal, but the right hemisphere was entirely absent. The spinal cord appeared to be symmetrical. The occipital bone showed a large cerebellar fossa on the left side, and only a very small and shallow one on the right. The groove for the superior longitudinal sinus continued across this fossa to the jugular foramen, where it was joined by the superior petrosal sinus which grooved the mastoid bone. There was thus no groove in the usual situation of the right lateral sinus. The malformation was evidently congenital. A drawing of the brain, by Mr. Black, was shown.—Mr. TREVES pointed out that, in this case, there was some hypertrophy of the skull, corresponding to the undeveloped cerebellar fossa; he suggested that the case was one of atrophy of the cerebellum, with subsequent bony thickening.—Mr. EVE and Mr. JONATHAN HUTCHINSON referred to similar cases.—Dr. BARLOW desired information as to the condition of the other half of the cerebrum. In Schröder van der Kolk's classical case, there was very marked atrophy of the opposite side.—Mr. GOULD thought it was a case of congenital absence, because the bone was flattened as well as thickened, and because the position of the sinus was distorted. It was difficult to speak with any certainty as to the condition of the cerebrum, owing to the fact that the specimen was removed from a dissecting-room subject; but, as far as could be seen, there was no difference between the two sides.

Abscess in the Head of the Tibia.—Mr. PEARCE GOULD showed this specimen, taken from a man aged 27. Fourteen years ago, without any injury, a swelling appeared over the inner side of the left knee-joint; it gradually increased; and, ten years ago, he was admitted into the Homœopathic Hospital, where the swelling or abscess was opened. After some months, he left the hospital with the opening still discharging, no other surgical interference having been deemed necessary. He continued at his employment as a clerk, walking till the beginning of May 1881, when the upper part of the knee-joint became swollen and very painful. He was quite unable to walk. The joint became flexed; and he was admitted into the Westminster Hospital on July 15th of this year. There was acute suppurative inflammation of the knee-joint. In the inner tuberosity of the tibia was a cavity, one inch and a quarter long, large enough to admit the end of the little finger; this was loosely packed with small fragments of bone. The walls of the cavity were of condensed bone. The disease had spread into the joint through the articular cartilage over the inner condyle, where a piece of cartilage, as large as a grain of rice, was entirely destroyed. Also, just in front of the spine of the tibia, and close to the inner condyle, there was a small spot of necrosed bone. Growing from the front of the bone, to the inner side of the tubercle, was an exostosis.

Primary Cancer of the Kidney.—Dr. NORMAN MOORE showed a large cancer of the kidney. The cortex and pyramids were infiltrated with new growth. The pelvis contained a large calculus and a quantity of pus; there was also a calculus in the ureter, but no new growth

of the ureter or bladder. No secondary growths were found. The microscopical examination showed that the growth had originated in the epithelium of the renal tubules. Twenty-two years before death, the patient had a fall, and passed a quantity of blood in the urine soon afterwards; from that date, his urine invariably contained pus. Dr. Moore suggested that the constant irritation of the calculus had been the cause of the new growth.—The PRESIDENT remarked that he had seen several cases in which cancer of the gall-bladder had followed upon a blow in a person already suffering from gall-stones.

Remarkable Thickening of the Pericardium.—Dr. BROADBENT exhibited this specimen. The patient, who was a young man, suffered severely from dyspnœa, and, when first seen, some considerable quantity of fluid was found in one pleura; in addition, there appeared to be evidence of effusion into the pericardium. Under treatment, the effusion into the pleural cavity disappeared; but the signs of pericardial effusion and the attacks of dyspnœa continued. As these latter were very severe, Mr. Savory entered a trocar in the fifth space, but could withdraw no fluid, and a probe passed down the cannula encountered some firm body. At the *post mortem* examination, it was found that the pericardium was of enormous size, measuring as much as an inch and a half in thickness about the roots of the great vessels. The heart lay free in a cavity, small relatively to the size of the pericardium, in the centre of the mass. Dr. Broadbent believed that the growth was really of a sarcomatous nature, founding his opinion chiefly upon the encroachment on the lung which at one point was being made by the growth.

Specimens exhibited by Card:

Dr. S. COUPLAND: Medullary Cancer of Kidney associated with Calculi.

Mr. SHATTOCK: Sacculi of the Small Intestine.

The Society then adjourned.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 28TH, 1881.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

A Case of Strangulated Hernia (Littré's) or Partial Enterocele.—Mr. C. T. DENT contributed this paper. After remarking that the term "Littré's hernia" had now acquired rather a loose significance, and that several varieties had been described since M. Littré's original article, the author narrated the case of W. G., aged 37, a phthisical, emaciated man, of intemperate habits, who was admitted into St. George's Hospital in February 1881. The patient had never noticed any rupture till the day before admission, when he observed a tender swelling in the left groin. Two days previously, he had vomited after taking food. The day after admission, he vomited again after taking some milk, and the bowels acted several times. The swelling was of the size of a small Tangerine orange, and slightly tender. It gave no impulse during coughing. The tongue was dry and red. There was marked distress. The diarrhœa continued, and while he was being put under ether he passed a quantity of fluid fæces. The hernial sac was greatly inflamed and thickened, and the parts were so matted together that careful dissection was necessary. On dividing a slight constriction, the hernia was felt to go back; the sac was not opened. The tissues were so lax, that the entire sac was readily displaced beneath Poupart's ligament. The symptoms were relieved for the first two or three days; but persistent diarrhœa then set in, and proved fatal on the sixth day. *Post mortem*, extensive disease of the lungs was found. The hernia proved to have consisted of a portion only of the circumference of the jejunum; a dark semigangrenous ring corresponding to the constricted part was seen on the gut. Extensive enteritis of the ileum was found, which may have accounted for the diarrhœa. The case resembled those described by M. Littré, in that there was no intestinal obstruction, fæces passing freely; and in that hiccough was absent, the vomiting not persistent or stercoraceous, whilst the abdomen was not distended. It was peculiar in the following points. 1. It occurred in a man; 2. The jejunum was involved; 3. The hernia must have existed for some time without being noticed; 4. There was no diverticulum or sacculation of the gut, which, at the *post mortem* examination, was found at a considerable distance from the sac. In conclusion, the author advocated the removal of a great part of the hernial sac when, as in this case, it was thickened, inflamed, and ulcerated; and the closure of the neck of the sac by deep sutures.—The PRESIDENT remarked that it was said that here there was no constipation, as there was was no complete obstruction. But constipation was often found in a purely omental hernia. He remembered a case where there was a purely fatty femoral hernia, yet all the ordinary symptoms were present. At the *post mortem* examination, a mass of fat was found constricted by Gimbernat's ligament.—Mr. ROYES BELL suggested that it would have been better to open the sac. The author suggested that it would not be wise to sew up the sac; he had seen this done, and the case go on remarkably well.—Mr. WARRINGTON HAWARD said that, if the orifice of the sac were to be left open for the escape of inflammatory products, this was certainly an argument for opening the sac. He thought it a good plan to sew together the neck of the sac; but then the lower portion should be cut away or opened.—Mr. HOWARD MARSH thought that it was a common belief that there was no peritonitis except the contents of the sac escaped.—Mr. DENT replied.

A Case of Double Hydrothorax [illegible] Cholesterin.—Dr. T. CHURTON (Leeds) reported the following case. A man, aged 38, of originally good constitution, always temperate, not syphilitic, had, in 1876, a wide-spreading axillary abscess, the discharge from which lasted six months, as a result of a wound on the left hand. His health was never perfect after this time, and in 1878 he became positively ailing, was short of breath, and lost flesh. He had no cough, no hæmoptysis, and scarcely any pain in the chest. He gradually grew worse until 1880, when he was admitted into the Leeds Infirmary. He then complained of loss of appetite, wasting to the extent of 20 lbs. in twelve months; occasional vomiting, pain in the right side and between the shoulders. Complete dulness on percussion was found in both axillary regions; respiratory sounds, fremitus, and resonance, were greatly diminished or absent. The dulness was of irregular outline, but sharply defined. On exploratory puncture in the left axilla, a brown greasy fluid (exhibited) was obtained. It was composed of red blood-cells, disintegrated, and frayed at their edges, and scales of cholesterin in great abundance in a highly albuminous but not spontaneously coagulating plasma. There appeared at this time to be only a very small quantity of fluid on this side, but on aspirating the right side in the fourth space, after failing to get anything in the fifth space, two ounces of a dark red fluid were withdrawn. This also contained cholesterin crystals in abundance; the patient's temperature was normal. There was no disease of other organs. For the next twelve months the left side gave very little trouble; it was aspirated once (August 10th, 1881) during that time, 1 oz. of the same kind of fluid as before, but lighter in colour, being obtained. The right cyst, however, refilled again and again, and the fluid was more deeply reddened than at first. Aspirations were performed on July 4th (4 oz.); August 10th (16 oz.); November 22nd (12 oz.); December 23rd (quantity not recorded); March 3rd, 1881 (18 oz.); May 4th (quantity not recorded). Up to this date his general health had improved, he ate and digested food well, could walk about and do light work easily, especially after each operation; but now, remaining in hospital with a view to the abolition of the pleural cyst by any possible means, he became involved in a quarrel with a nurse, and while in a nervous and agitated state drank some cold water, which caused immediately a feeling of chilliness throughout his whole body. He became feverish and slightly delirious. On June 23rd, 30 ounces of fluid, now containing pus-cells though still glittering with cholesterin, were withdrawn from the right side. On July 2nd, 40 ounces were removed; and on July 10th, as the fluid had again accumulated, and the temperature reached 103 deg., an incision was made, at Dr. Churton's request, by Mr. W. H. Brown, the house-surgeon, in the right chest, seventh space, posterior axillary line. Thirty-eight ounces of similar fluid (specimen shown) escaped; the temperature fell to 99 deg. within three days, but then again rose to 103 deg. Dr. Churton then discovered that there was a recent accumulation of fluid upon the left side, and 20 ounces of clear, but cholesterin-bearing, fluid were thereupon withdrawn. The patient did not, however, improve. Pulse, 120; respiration, 28; [illegible]. He [illegible] poison was being given to him by [illegible], and left the hospital on July 19th. At home, the large drainage-tube in his right chest fell out, and he then considerably improved. He continued to take quinine and steel. On September 10th he had pulse 110, respiration 24, temperature 99 deg. (evening). He was still unable to walk across the room. There was a little clear fluid on the left side (explored): no cholesterin in the pus from the right side. The wound was fistulous and valvular; there were signs of gradual expansion of the lung on both sides; a probe passed through the fistula seemed to reach the [illegible]. He [illegible] month; then he [illegible] proved so greatly that he could walk a mile. He returned on October 17th. Unfortunately, the narrow pus-channel became blocked, and he lost ground. On October 27th the following note was made: Pulse 120, respiration 27, temperature 102 deg.; the discharge of pus was re-established; he was [illegible] axilla had [illegible] dullest spot above the seventh [illegible]

chest did not in him move in respiration; for this reason, apparently, there was little respiratory murmur in the lower axilla; fremitus and resonance were found there, but were not nearly so distinct as on the front of the chest, where also the breath-sounds were, as they always had been, intensified. The right side was resonant throughout; the respiratory sounds, though feeble, were unmistakably heard in the axilla and elsewhere; fremitus and resonance were distinctly present. Two or three ounces of inoffensive pus (without cholesterin) flowed from this side daily. There were no râles. He had some phlegm, and occasional expulsive cough. While at rest he had no subjective discomfort. He was going to Scarborough for a month. The author believed that chronic pleurisy had caused the formation of a thick false membrane over a part of the lung (on each side); that blood-cells had escaped by diapedesis into the cyst thus formed; that the false membrane had at length undergone fatty degeneration, having as one of its final products cholesterin. Dr. M. Hu (*Archives Générales de Médecine*, September 1881) had asserted (p. 277), as the outcome of very numerous observations, that cholesterin in crystals was never met with in fluids which had not been encysted at least six months. In this case it was once found in fluid from the left pleura, which had almost certainly not been there many days; moreover, a shred of membrane derived from the left pulmonary pleura which blocked up the aspirating needle, was found to consist of small cells and cholesterin-crystals in almost equal quantity. Although Fraentzel had stated (Ziemssen's *Cyclopædia*, vol. iv, p. 670) that when pleurisy appeared simultaneously on both sides, it was commonly of tubercular nature, and moreover (p. 614), that relapsing hæmorrhagic pleurisy generally stood in more or less close connection with the eruption of tubercles, yet having regard to the facts that the patient had continued in fair health and with a normal temperature for a whole year, while frequent aspirations were being practised; that the left chest had become almost normal; that an apparently accidental empyema on the right side had not been fatal; that the part of the right lung formerly compressed had, probably from the suppuration and disintegration of its thick false membrane, been able at length to re-expand to a great extent; and that since the empyema the patient had in every way greatly improved at the seaside once (and might therefore reasonably be expected to do so again), Dr. Churton did not despair of his ultimate recovery.—Dr. S. MACKENZIE said that he thought that bloody fluid in such cases was usually referred to a cancerous origin.—Dr. POWELL asked if the corpuscles were greatly disintegrated, and whether the cholesterin was due to changes in the wall of the sac, or to disintegration of the corpuscles. He did not think blood-staining so very important.—Dr. C. T. WILLIAMS thought it curious that the two pleuræ should form and contain two different fluids. What was the condition of the liver? It was quite possible to have tubercle without any marked rise of temperature.—Dr. GREEN did not think that bloody fluid must of necessity have a cancerous origin.—Dr. COUPLAND was of the same opinion as regards the bloody fluid. The cholesterin might come from a degenerated false membrane.—Mr. PARKER suggested that the one side might have been infected by the other.—Dr. SILVER said that, as regarded the origin of the cholesterin, a figure in Lancereaux's *Pathological Atlas* might throw some light on it. This was a drawing of a cyst of considerable size rising from the upper surface of the diaphragm, and contained within the pleural cavity. Its contents were rich in cholesterin.—The PRESIDENT said that cholesterin was often found in serous collections, as in hydrocele; and here its formation was often rapid.—Dr. CHURTON said the great point here was the rapid formation of the strange material. Cholesterin was undoubtedly often found elsewhere. Here there was no liver-disease. He considered the malady non-tubercular, as there was an absence of wasting, not in consequence alone of the low temperature.

Two Cases of Malignant Stricture of the Œsophagus in which Gastrotomy was performed, with special reference to the advisability of this operation in narrowing of this Tube.—Mr. REEVES contributed this paper. After narrating the two cases, he pointed out how, having done gastrostomy in deference to the wishes of his colleagues, he should proceed to act in any suitable case of stricture of the œsophagus. He said that the most recent information showed that malignant obstruction was most common in the upper part of the tube, occurring in that situation in about half the cases; and, although a much larger number of observations were needed to arrive at a correct conclusion, still there was sufficient justification for the rules he wished to lay down, which were the following. 1. Because of the great mortality after gastrostomy, and also because of the more frequent occurrence of malignant stricture in the upper portion of the tube, œsophagostomy was by far the preferable operation. 2. Even in cases where the stricture was as low down as the manubrium sterni (its depth rarely being very great), œsophagostomy was indicated as a preliminary or exploratory operation; and, if it were found that the little finger or sound could not be passed through the narrowing, gastrostomy might then be performed. 3. If it resulted that the opening in the œsophagus had been made below the stricture (as in most cases would be desired), the operation could be completed by stitching the mucous membrane to the edges of the wound, and the stricture might, if thought proper, be dilated through the opening either at the time of opening or subsequently. 4. If the diseased œsophagus were reached, and no opening into it could be made through healthy walls, then it might be carefully performed, either by the finger or the thermo-cautery. 5. Œsophagotomy had been many times done, œsophagostomy several, and never had these operations caused any grave local or general symptoms, or, as operations, led to the death of the patient; whereas gastrostomy had proved most fatal. 6. The operation should be done on the left side of the neck, and a sound, if possible, be passed, that of Vacca-Berlinghieri being the best. The skin-incision should be rather nearer the mid-line than that for ligature of the common carotid, and should extend from half an inch above the episternal notch to the level of the upper border of the thyroid cartilage. The surgeon should stand on the left of the patient, looking obliquely down and across his or her body. A tube with a funnel-shaped end should be passed, tied in place, and nourishment administered as soon as the tendency to vomit caused by the anæsthetic had passed off. It was necessary to make the opening in the walls with a sharpish stab, to prevent the loose mucous membrane being pushed before the knife. The edges of the wound might be stitched up, and care taken that no food entered it. 7. The operation should be undertaken before the patient's strength was much exhausted, and even before obstruction was complete, because frequently attempts to swallow produced spasmodic suffocative dyspnœa, as in the first case related. 8. In severe cases of simple, fibrous, or syphilitic stricture in the tracheal or upper thoracic portion of the tube, œsophagostomy was indicated, as then the operation might be curative, as well as palliative.

The discussion of this paper was deferred, in order to afford opportunity to Dr. S. Mackenzie to read the next paper, several country members being specially present to hear it.

Mr. GOLDING-BIRD promised to open the discussion on Mr. Reeve's case by bringing before the Society a report of five similar cases, operated on by him in the past year.

A Case of Excessively High Temperature.—Dr. STEPHEN MACKENZIE read notes of this case. The patient was a woman, aged 42, who, thirteen years before, had met with an injury to her leg, which was followed by a persistent ulcer. Necrosed bone had on occasions been removed, and amputation of the limb previously recommended. The patient came under the care of Mr. Rivington in 1878, when the left thigh was amputated at the lower third. She was readmitted on February 25th, 1879, for painful affection of the stump, which was red and inflamed. It was thought to be erysipelatous, and she was placed in the isolation ward. She had some rigors, followed by pneumonia at the right base. On March 17th, her temperature was found to be 108.8 deg., and twenty minutes later 111; a quarter of an hour later, 105.8. On the following day, two thermometers, one in each axilla, gave 110.6 and 111. On many occasions, very high temperatures were taken—as high as 108 and 111 between February 20th and April 22nd. On April 21st, Mr. Rivington opened the stump antiseptically, and removed a piece of bone. After this, with the exception of the day following the operation, the temperature did not exceed 102. The case took an ordinary course, and the patient was discharged cured in August. The pain did not at once leave the stump, and convalescence was slow. The patient was readmitted, under Mr. Rivington, on October 21st, 1879, for pain in the stump. Another piece of bone was removed. The stump remained painful, and pain and distension of the abdomen, with vomiting, were complained of. It was for these symptoms, and to investigate the peculiarly high temperatures, that the patient was transferred to Dr. Stephen Mackenzie's care on December 31st, 1879. The patient was then thin, but not unhealthy-looking. The abdomen was distended and tender, but no tumour or bone detected. The stump was erythematous. The patient frequently vomited. It was elicited that she had taken opium for about twelve years. No important peculiarity, other than the above, was noticed until January 13th, 1880, when she was stated to have had a slight rigor, and her temperature was found to be 109.2 deg. The pulse was 72, and the respirations 24. On January 14th, the temperatures were: at 1 P.M., 108; 2 P.M., 108.2; 4 P.M., 107.4; 5 P.M., 108.5; 7 P.M., 109.6; 8 P.M., 106.8; 9 P.M., 102.6; 11 P.M., 106.4; 12 P.M., 113. On the 15th: 3 A.M., 113; 4 A.M., 113; 5 A.M., 111; 10 A.M., 107.2; 12 A.M., 111.6; 2 P.M., 112.2; 4 P.M., 114; 6 P.M., 109.2; 8 P.M., 110.2; 10 P.M., 113.3. These were given as examples of the thermometric records. On January 16th, the highest temperature was 114.2; on the 17th, 105.8; on the 18th, 112; on the 19th, 106.6; on the

20th, 108; on the 21st, 109.2; on the 22nd, 120.8 (the highest recorded). Probably many of the readings would have been higher, but the thermometer did not, as a rule, register higher than 111 or 113. On the 23rd, 116.6 (temperature in axilla, 105; in rectum, 99; in mouth, 98); on the 24th, 111.4; on the 25th, 111.2; on the 26th, 116.8; on the 27th, 110.6 After this date, the temperature was irregular, but did not exceed 103 until April 5th, when 113 was recorded. Ten minutes after this last observation, a thermometer in each axilla gave 99 in each. On April 10th, temperature, unwatched, 104; watched, 99. On May 11th, another high temperature was recorded. When a thermometer was placed in the mouth, it registered 110. Taken five minutes afterwards by the nurse, who watched her, it was normal. The same thing was repeated many times. With two thermometers in the *same* axilla, considerable differences were observed. From May 24th to July 3rd, when she was discharged, the temperature was about normal. Throughout the time she was under observation, her general condition remained much the same; but the vomiting ceased, and the abdominal pain was not complained of. There did not appear any important constitutional disturbance. When the high temperatures were recorded, the pulse at such times was usually between 70 and 80, and the respirations between 20 and 30. She was discharged on September 24th, 1879, and was re-admitted on August 16th, 1880, complaining of epigastric pain, abdominal swelling, and vomiting. High temperatures were again observed. On August 19th, a temperature of 110 was recorded. A fresh thermometer was immediately placed in the axilla, and the temperature found to be normal. On September 13th, the readings of two thermometers in the same axilla gave 105.5 and 101. On no occasion, when thermometers were held in the axilla, or the patient closely watched, were the excessively high temperatures observed. The patient had been visited within the last few days; her general condition was the same as when she left the hospital; her temperature was not taken. The author expressed his belief that the temperatures were fictitious, and on the following grounds: 1. The patient was a neurotic woman, and "an educated hospital patient"—*i.e.*, knew the importance attached to high temperatures; 2. That when on one occasion the temperature was taken simultaneously in mouth, rectum, and axilla, the temperature in the mouth and rectum corresponded, and were normal, whilst that in the axilla was 6 deg. higher; 3. That when two thermometers were simultaneously placed in the same axilla, there was as much as from 1 to 4½ deg. of difference; 4. That there was no correlation between the high temperatures, the pulse, and respirations; 5. That on no occasion when the thermometer was held in the axilla, or the patient closely watched, was an excessively high temperature obtained. When accused, subsequently, of causing the high thermometric readings, the patient absolutely denied the charge. The author stated that he did not wish to imply that all the recorded cases of similar high temperatures were of the same kind. The fact that some cases, recorded by good observers, were believed to be genuine, rendered it desirable that a fictitious one should be exposed, to put all on their guard in their investigation.—Mr. J. W. TEALE (Scarborough) said that great doubts had been thrown on the genuine character of his case, and that usually they occurred in highly neurotic females; but it was not so in the case he had recorded, for the patient, a young lady, was strong, healthy, and active. At the time, however, when the illness occurred, high temperatures were not so very much regarded. Every care was taken to verify the state of the temperature, and undoubtedly the patient was very ill. He suggested that, in such another case, a committee should be appointed to watch over it. He referred to a case under the care of Dr. Little of Dublin, where the temperature rose as high as 133.6 deg.; this was registered by a specially prepared thermometer, made by Casella, and examined at Kew.—Dr. MAHOMED had lately seen in Guy's Hospital an anæmic patient, in whom excessive temperatures had been noticed. Once, the thermometer registered 115, and on another occasion 128; but then her body did not feel particularly hot, and the surface and non-registering thermometers marked no high degree of heat. It was never discovered how this patient forced up the mercury. Dr. Mahomed, by rubbing and pressing the bulb, could, in seven or eleven seconds, send up the index of an ordinary clinical thermometer to the top, and could also achieve the same result by breathing on the thermometer enveloped in folds of silk.—Dr. T. WILLIAMS asked if any temperatures were taken during sleep.—Dr. GEORGE HARLEY referred to a case reported by Wunderlich, where, before death, the temperature was 112.5 deg., and after death, 113.5 deg. This seemed a remarkable case; for, in a case of death from pernicious fever, a short time after death, there was marked heat on opening the body. He would, with the Society's permission, read a paper on the subject, which might be considered in connection with Dr. Mahomed's paper. The Chairman (Dr. Dickinson) thanked Dr. Harley for his offer, which he was sure would meet with the approval of the Society.—Mr. RIVINGTON thought the case was one of fraud, as far as the excessive temperatures were concerned, and that she had also tampered with the stump of her thigh.

REVIEWS AND NOTICES.

DISEASES OF THE MOUTH, CONGENITAL AND ACQUIRED; WITH THEIR MEDICAL TREATMENT. By OAKLEY COLES. Third Edition. Illustrated by eighty-three Wood Engravings and ninety-six Drawings on Stone. London: J. and A. Churchill, New Burlington Street. 1881.

THIS book is an exceedingly useful one, both from the scientific and the medical point of view; and the fact that it has reached a third edition shows that it is fully appreciated by those engaged in the practice of dental surgery. Not only will it be useful to dental surgeons, but medical practitioners will also find many hints and the results of much original work within its pages. In the chapter on the Anatomy of the Normal Palate, attention is particularly directed to the intermaxillary bones, whose presence in the human subject was at one time not only denied, but their supposed absence put forward by some authorities as the best criterion for distinguishing man from the higher apes. It is interesting to note that the merit of their discovery is due to one of our own countrymen, Dr. Robert Nesbitt, though to Gœthe and Vicq-d'-Azyr must be given the credit of establishing the importance of the discovery, as illustrating the unity of type throughout the animal kingdom. A table of measurements of the palate, as a result of the examination of thirty-four adult skulls of European origin, and thirty-two adult skulls of mixed races, is given, showing, in the first series, the average length to be 49 millimètres, the average width 35 millimètres, and the average height 9 millimètres. In the second series, the measurements are 54.9, 35, and 12 millimètres respectively. The development of the palate and surrounding parts is fully entered into, and is at present the only complete account in English of the development of these parts. Various hypotheses have been put forward to account for the origin of cleft palate. According to the author, the indirect influence of heredity plays an important part in the production of the deformity, though it is extremely doubtful whether cleft palate is in itself transmissible. It has long been observed that cleft palate is frequently associated with defective development of the brain; and no doubt both are common effects of a grave vice in the developmental energy of the fœtus. Dr. Langdon Down has convinced himself that there is a constant relation between malformation of the palate and defective cerebral development, and comes to the conclusion that the ultimate antecedent of both defects is hereditary influence.

The chapter on Classification of the Deformities of the Upper Jaw is an important one, being the first attempt at classification on a morphological basis. The author has arrived at the conclusion that the triangle is the best geometrical figure for recording the form of the dental arch, since it gives simply and diagrammatically two of the measurements required—viz., the length and breadth. The way in which the triangle is formed is then explained; and we are informed, as the result of a number of measurements taken in a particular way, that "the best type of a well-developed English jaw will give an equilateral triangle; that the interbicuspid line will fall upon the triangle some five-tenths in the perpendicular from the base; and that the extremities of the interbicuspid line will pass well beyond the boundary of the triangle on either side". A reliable standard figure being thus obtained, the same method of measurement was applied to cases of deformity of the upper jaw, and it was found that "the nature of the triangle and the position of the interbicuspid line in its relation to the triangle had a definite and intelligible meaning. "The different deformities have been classified under the names of dolichoid, brachoid, macroid, microid, premaxillary prognathous, premaxillary hypognathous, and the lambdoid, [illegible] of these divisions it was found possible to assign each case. Illustrations of each form of deformity are given. [illegible] the correlation between the palate and the cranium have been made by the author, especially in connection with their transverse and antero-posterior outlines, and also with regard to the outline and length of the alveolar arch; and it was found that in the normal and fully developed skull there is a relation between the transverse and longitudinal curves of the palate and the corresponding lines of the external surface of the cranium. These relations are illustrated at the end of the book. It was also found that [illegible] affected, are associated with flattening of the left side of the cranium at a point corresponding [illegible] facts and observations [illegible]

drawn that, if it be possible to avail ourselves of these facts and the inferences which may be drawn from them, "we may be able to prognose with a greater degree of certainty the future language and speech capacity of sufferers from palatal and maxillary deformity of a congenital origin".

The troubles arising from Congenital Cleft Palate occupy a chapter; and a contrivance by which one of them—the difficulty of suckling during infancy, may be overcome, is described. An interesting account of the appliances used for remedying cleft palate from A.D. 1552 to the present time occupies the eighth chapter, and the different forms of obturators that have from time to time been in use are illustrated and described. A full account is given of the means by which an accurate impression of the mouth is made, in order that the artificial palate and velum used in cases of cleft palate may accurately fit. The author is of opinion that, after the discomfort of wearing the instrument has been overcome, in some cases reading aloud, in others a teacher of elocution, will be useful, in order that the proper use of the tongue and soft palate may be gained. The value of singing in facilitating the proper use of the parts is especially advocated. Notice is made of the defects of the palate arising from syphilis; and the treatment of these defects, as well as of cases of cleft palate and other congenital deformities of the mouth, is given. Although the author believes in the soundness of his system of curative dentistry, it is satisfactory to note that he does not undervalue the merits of the surgical operation for congenital soft palate. The essentials to successful surgical treatment are stated, and there is no doubt that cases often occur where the dental and operating surgeon may work together for the benefit of the patient.

It only remains to be said that the work is very well got up, and that the woodcuts and drawings on stone show that great care has been taken in their execution.

LEHRBUCH DER PHYSIKALISCHEN UNTERSUCHUNGSMETHODEN DER INNERER KRANKHEITEN. Von Dr. HERMANN EICHHORST. Braunschweig: Friedrich Wreden.

TEXT-BOOK OF PHYSICAL METHODS OF RESEARCH IN INTERNAL DISEASES. By Dr. H. EICHHORST. Brunswick: F. Wreden.

THIS most interesting volume, which forms a part of Wreden's *Sammlung Kurzer Beiträge* (Sampson Low and Co.), is a most excellent, well-arranged, and instructive handbook of a physical investigation of internal disorders, which is conceived in the right spirit, with adequate knowledge of the methods and resources which modern medical practice demands, and possesses a thorough practical acquaintance with them. The present is only the first part of Professor EICHHORST's valuable handbook, and deals with the investigation of the skin, temperature, pulse, and respiratory organs; the physical examination of the apparatus of circulation, congestion, and the urinal and genital organs, form part of the second volume.

In this handbook, the first chapter deals with the examination of the skin, including changes in the colour of the skin, in which a very interesting analysis is given of our knowledge concerning cyanotic, icteric, bronzed, and grey coloured skins; and the author shows a minute and practical acquaintance with all that has been written and done of late years by English and German authors.

The second chapter discusses temperatures, the mode of taking them, the relation of normal body-temperatures, and the diagnostic importance of abnormally high and abnormally low temperatures. The celebrated case of Teale of Scarborough he treats very sceptically. The chapter on sphygmography is accurate, well illustrated, and clinically important.

These three sections occupy, however, only one-third of the book, and the remaining parts are devoted to the physical examination of the respiratory organs, inspection, palpation, percussion, auscultation, phonometry, percussory transonance, examination of the sputum, examination of the larynx by palpation and inspection, and laryngoscopy.

We cannot too highly recommend this book as the type of the kind of handbook which would be very useful to English students. The only English book with which we are acquainted which compares with it is the very useful introduction to clinical study published by the Glasgow authors Gairdner, Coats, and others; for which, in a future edition, the authors may take some useful hints from Eichhorst's handbook.

M. BERGER advocates a method in skin-grafting, of exciting the vascularisation of the flap before cutting it, by covering the skin either with a mustard-plaster or with warm poultices. He has already found this method to be successful.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 5TH, 1881.

THE PROGRESS OF MEDICINE SINCE THE TIME OF DR. CAIUS.

WE lately chronicled, as an item of medical news, a proposed change in the destination of the Thruston bequest at Caius College, Cambridge. The annual honorarium of £18 given to a medical graduate of the College on delivering an oration on the progress of medicine since the time of Dr. Caius, is to be commuted into a triennial prize of £54 for the best original work on a pathological, physiological, or anatomical subject. The governing body of Caius College perhaps did not intend to pay a posthumous tribute to the teaching of Mr. Carlyle, but they have, at any rate, expressed their preference for Work instead of Talk.

In the narrow history of Caius College, the incident may be compared to the advent of Vesalius in the history of medicine. For centuries, the question had been whether Galen said this or Galen said that, or what precisely was the meaning of the language that Galen did use; then came Vesalius, and asked, But is it so in reality? The medical *alumni* of Caius College will not henceforth comment on the past, but they will add materially to the sum total of medical knowledge. The modern circumstances of the College had made such a change plainly necessary, even if there had not been much to be said for it on general grounds. No one who has ever assisted at the commemoration of Dr. Caius on the 11th of May, will forget the curious scene in the College chapel; the afternoon sunlight falling on the long rows of empty stalls and benches, the solitary Fellow and the reluctant scholar present to read the service for the commemoration of benefactors, the two or three friends of the orator, and the orator himself, in scarlet robes, introducing his speech where the sermon ought to come in, and making the chapel walls re-echo with the unwonted sound of medical jargon—of cholagogues, of sewage-pollution, of primary sores, secondary exanthems, and tertiary gummata. It was at a later hour, and in the dining-hall of the College, that a much larger and more formally dressed assemblage met to commemorate Dr. Caius. The Thruston speech was, in the nature of things, doomed; and the governing body of the College have shown that they possess that faculty, not uncommon at Cambridge, of being able to adapt their old usages to new circumstances.

Yet we cannot but regret the passing away of an old practice that had its uses. It may be important to discover new facts, and to correct old errors; but the continuity of medical doctrine is a not less important thing. There is hardly a volume of a physiological or pathological journal that does not contain some "epoch-machende", or at any rate "bahn-brechende", piece of research. It is, of course, exaggerating a very small grain of truth to say of any new discovery, according to the formula of the witty Frenchman, at first that it is not true, then that it is contrary to religion, and lastly that we knew it before; but there is always a good deal to be said for the last of these allegations, and the scarcely concealed intention of the new brooms of science to make a clean sweep of the board does not make one the less inclined to say it. Those who make research their business, are sometimes apt to forget that the superiority of the moderns is not so much

in brains as in methods, and not so much in the methodical use of the reason as in the terribly persistent use of bits of machinery for measuring and recording. There are laboratories in Germany—there may be such at home also—where one hears all day the "birr" of a galvanic battery engaged in throwing the muscles of successive frogs into rhythmical contractions, which are for ever traced by a needle on a constantly revolving drum. One feels that so great devotion to the modern methods of research might well be tempered with an occasional discourse to show how the subject of irritability was treated by the great mind of Glisson. No doubt, if Glisson were to come back to us, and were to be taken to a laboratory, and shown the frogs hung up by the leg, and the revolving drums, and all the portentous exhibition of machinery, he would feel that his mind was indeed dark, and that the young man presiding over these contrivances was a personage the very latchet of whose shoe he was not worthy to untie. But let us meet the young man, say, at the *table d'hôte*, and let us enter into conversation with him; and we may well ask ourselves whether there is not as much danger to science from the pride of method, as there used to be loss to science from the want of contrivances. Glisson, studying irritability, had nothing but his eyes to see with, and his hands to handle with, but he had still his brains to reason with. We have mentioned Glisson; and, in speaking of a commemoration oration at Caius College, we could not have mentioned a more pertinent name. We are chiefly indebted, indeed, to Professor Virchow, on the occasions of his visits to us, for the few eulogistic notices that Glisson now gets; his unfortunately named "capsule" is, perhaps, more an occasion of execration than of joyfulness to those who are introduced, for the first time, to the name of Glisson in the course of their studies. The Thruston speech, coming, as it did, from such men as Sir George Burrows or Dr. Paget, from Dr. Dickinson or Dr. Allbutt, was a means of showing the continuity of medical doctrine, and an occasion for expressing admiration of that fidelity to nature and that excellent use of the reason which were not less the distinction of great men in the earlier days of medicine than they are the best title to lasting reputation now. The ancients were apt to forget that there were brave men before Agamemnon; and the moderns are apt to date all that is excellent (in science, at least) from the invention of ingenious appliances. The rhetorical opportunity which has been taken away at Caius College will, perhaps, not be much missed there; but the intention of the pious founder of the speech, that we should go back upon the ideas and observations of our predecessors and upon the continuous stream of truth, was an intention excellent in itself.

WOOLSORTERS' DISEASE.

THE main results of the inquiry instituted by the Local Government Board into the subject of the so-called "woolsorters' disease" have for some time been before our readers; and we need not, therefore, follow Mr. Spear in his recently published official report through the details of that convincing evidence, contributed to by different observers, by which the identity of the disease with anthrax, in one or other of its forms, was established. But the report does not stop at the history of this identification. The symptomatology of the disease and its anatomy, as illustrated by the experience of the West Riding, are discussed more fully than in any previously published record; while certain observations bearing upon the pathology of the infective process are advanced, which are calculated to revive interest in the subject.

The generally recognised classification of anthrax into an "external" and "internal" form, is observed in the report; the one infection resulting in the malignant pustule, developing apparently at the point of inoculation of the virus, and presenting, at the time of its maturity, the typical appearance when the black eschar surrounded by the raised wreath of vesicles imparts; the other producing the fully developed "anthrax fever", with its symptoms of intense blood-poisoning, profound disturbance of nervous centres, cyanosis, and speedy collapse or asphyxiation; and examples of both forms of infection are described. So far, Mr. Spear is in accord with previously published experiences of the disease in man. But from such cases taken as types there is, he says, wide divergence in the development and progress of others. The malignant pustule may appear, not as an initial lesion, but as a local manifestation of a pre-existing constitutional infection; and a "minor pustule" is apt to attack the hands of those working on infectious material—a pustule very different in appearance from that of typical form, but closely resembling the lesion resulting from only partially successful inoculations of anthrax-virus upon carnivorous animals, and similar also, we gather from the description, to that produced by Pasteur's "attenuated virus" in the herbivora.

In the other variety of the disease, viz., the anthrax fever, still more important deviations from the accepted type are described; and, so far from regarding attacks of this form as almost always fatal, as German and French observers have described them, the conclusion is arrived at that only a moderate proportion of their number really reach the stage to which great fatality attaches. Frequently, we are told, while one man will suffer from the marked and rapidly fatal malady, his comrade, working on the same material, will sicken in a precisely similar way; but, after various duration of the symptoms, at a point short of the intenser manifestations of the disease, evidences of improvement appear; the patient, according to the severity and duration of his attack, quickly returns to work, or passes through a long and tedious convalescence. The histories of long continued malaise, also, among men engaged in sorting certain wools, are numerous. The symptoms here described are much those of the prodromal stage of acute infection—headache, depression, nausea, dimness of sight, cramps, restless sleep, etc., with the occasional appearance of cutaneous eruptions, petechiæ, herpes, or boils. At times, an apparent periodicity is observed in these subjective symptoms; and the men will think that they are being constantly affected afresh at the opening of the bales. Occasionally, manifestations such as these culminate in an acute attack of the disease (in which case, unless we are to suppose a fresh infection—and, in some instances of the kind, this, by the circumstances, is rendered improbable—they may be regarded as prodromal symptoms); but this is by no means frequent, and they more often disappear spontaneously. "It is possible", concludes the writer, "that there may be a condition of chronic anthracoid poisoning, the analogue of which would be found in malarial disease."

Peculiar inconstancy is, indeed, ascribed to the operation of the virus from its very inception in the body. Incubation, it is thought from experiences recorded, may be deferred by long periods of latency; full development may be still further delayed, as shown by prolonged and even intermittent prodromata; the evidence spoken of above is considered almost conclusive that the disease often does not pass beyond this prodromal stage—that, in fact, it aborts. "In short, the whole picture of the infective process in many of these cases of anthrax in man is suggestive, in a peculiar degree", says the writer, "of an infective agent, at first, and for a variable time, to use an expression of Darwin's, 'barely able to prolong its existence'; but, with the breaking down of unknown barriers, or with the advent to the blood or secretions of something favourable to its rapid multiplication, or perhaps in both these contingencies, there quickly, and often most unexpectedly, ensue the characteristic tumultuous course of the fully developed disease, and the swift and sudden termination."

Casting about for some explanation of this peculiarly unequal receptivity to the poison, exhibited not only by different individuals, but by the same individual at different times, and even whilst under the influence apparently of one and the same infection, Mr. Spear has fallen, wittingly or unwittingly, upon an old theory, often advanced and discredited, and advanced again, in relation to somewhat similar phenomena observed in attacks of cholera when that disease is epidemic. Few who can carry their professional memories back to the periods of epidemic cholera will fail to remember how high, as a predisposing cause to attack of that disease, many good observers were inclined to place the eating—or, as after any untoward sequel it was termed, the injudicious eating—of [illegible] vegetables and fruit; a belief so widely

prevalent, that in some Continental cities the enforcement upon the populace of precautions in this regard has even been attempted by police regulations. With superior knowledge of the etiology of that disease, this doctrine, as might be expected—for it never received scientific interpretation—has fallen gradually into discredit; although it must be owned that the facts upon which it was based, sometimes curiously strong and well-attested, have never yet been satisfactorily explained. This is the theory now presented to us in modern scientific guise, it is true, and with a different signification attached to it, in relation to attacks of anthrax fever.

Early in the inquiry, Mr. Spear says, discussing the subject in a note appended to his official report, the fact attracted attention, that, in an extraordinarily large proportion of cases (*i. e.*, in about 80 per cent. of the twenty-nine recent ones), the initial or prodromal stage of the disease terminated, and the acute and often fatal one commenced, between Saturday evening and Monday morning. This was not a coincidence newly observed, and had become, indeed, proverbial amongst the sorters. Possible explanations, which we need not here follow, are discussed, and, in result, the single suggestion remains that, between the hour of the sorter's leaving work on the Saturday afternoon and the Sunday night, something must occur to awaken, as it were, the slumbering disease-germs, and to give an enormous impetus to the disease.

Guided by the well-known predilection of this contagium for herbivorous animals, and by the recent pathological experiments of Professor Feser, by which it appears that rats on a flesh-diet prove refractory to inoculation with the anthrax virus, while the same rats restored to a vegetable regimen quickly succumb, Mr. Spear was led to inquire minutely into the alimentation of the woolsorters, and to obtain the histories in this regard of those twenty-nine who had recently suffered from acute attacks of anthrax fever. He found that, could the hypothesis be admitted that the ingestion of a quantity of vegetable matter bore a causative relation to the full development of such attacks, the peculiar incidence of this period of the disease upon the Sunday would be explained; and, further, as to those who actually suffered, in nearly every case where information was obtainable, the development of the urgent symptoms had quickly supervened upon the ingestion of an unusual quantity of vegetable food in some form or other—onions, lettuce, cabbage, fruit, or the copious draughts of herb-decoctions with which the sorter on his rest-days loves to doctor a supposed "cold". In the progress of some of the other cases, again, after a remission of the symptoms, a relapse seemed to follow the eating of vegetable food. This was noticed in one case, mentioned in the body of the report, after eating largely of onions; and thrice afterwards, in cases in which the patients were thought to be better, and were downstairs eating fruit, and in one instance cabbage also, twenty-four hours before the fatal termination of their illnesses. Curiously enough, while these considerations were weighing with Mr. Spear, information came from Constantinople that there, where the external form of the disease at least is well known, so that it engages the exclusive attention of a certain class of doctors, the eating of vegetables and fruit during the progress of an attack is regarded as "specially dangerous".

We do not wish, with the information at present before us, to express an opinion upon this suggestion; it is, indeed, one involving considerations of too great importance to be lightly dismissed. The evidence appears to be, so far as such evidence can be, strong and circumstantial; and we believe that the experiments of Feser, referred to above, are now very generally accepted by continental authorities as indicating that the relative immunity of the carnivora is not inherent to the genus, but is influenced by the nature of their food. Thus, while at one time the proved immunity of the fœtus in a pregnant infected animal, even of the most susceptible class, was ascribed to the "physiological filter" action of the placenta, now it has come to be regarded as, perhaps, really dependent on the fact that the fœtus is to all intents and purposes a carnivorous animal. We are prepared to admit, with Mr. Spear, that "it is conceivable that alimentary substances may bring about in the body such chemical or morphological change as will render its fluids a richer field for the proliferation of disease-germs".

FEVER IN LONDON.

In the beginning of July, an outbreak of typhus fever commenced in the neighbourhood of Lisson Grove, and cases continued to occur within the knowledge of the Vestry throughout July and August. During this period, seven cases occurred of this most fatal and contagious disease. Finding that no sufficient steps were being taken to limit, or stamp out, an outbreak which might easily threaten the safety of the metropolis, the attention of the Vestry was urgently called to the necessity of taking steps. As might be expected under such circumstances, the outbreak rapidly assumed considerable proportions; and, from September 5th to October 25th, no less than thirty-two cases occurred in Charles Street, Lisson Grove, and the immediate neighbourhood. Nineteen of these cases occurred in three houses. Recently, at the last moment, when the outbreak had attained proportions which attracted public attention, and created a public scandal, application was made to the magistrates to shut up the infected houses. Meantime, however, the epidemic had been allowed to run its course unchecked by the necessary means for the public safety; the houses, the bedding, the clothing, were not properly disinfected, and, in some cases, were not disinfected at all. Indeed, a degree of apathy and carelessness is alleged to have been shown in dealing with this epidemic which seriously threatened the safety of the district, and which reflects very considerably upon the sanitary organisation of the Marylebone parish, which had, up to the present time, been believed to be organised in such a manner as to afford a model for other parishes. It certainly cannot be the desire of the Marylebone Vestry that their parish should be other than distinguished for the excellency of its sanitary arrangements, and the completeness of its precautions for preserving the public health; and, without any desire to throw the blame upon individuals who may, or may not, be suffering, in such a case, from the want of a public system, it is clear that the lesson taught by this dangerous epidemic, and the extreme risks which the whole parish has run in this instance, must be, that a searching inquiry should be made into the sanitary system of the parish, and means taken for preventing a recurrence of such a public scandal and public danger as that which has been the subject of just comment in all the organs of public opinion during the last ten days. Thirty-eight cases of typhus were received from this district alone into the Homerton Fever Hospital. It is evident that, if there existed a system of registration of infectious diseases properly organised, the occurrence even of the first half-dozen initial cases must, under any reasonable system, have been made the starting-point of serious sanitary precautions; and nothing could speak more loudly for an early organisation of the compulsory notification of infectious disease, and for the introduction of a collateral system of isolation and disinfection in connection with such notification, than the occurrence of this outbreak.

Serious dangers have occurred, but have happily passed over, thanks to external organisations; but it is not the less evident that, in cases less sensational than outbreaks of typhus, no less dangers are being constantly run, from the neglect of compulsory notification of infectious disease, and the institution of a collateral system of isolation and disinfection. The present instance is only one of many which indicate the difficulty which is experienced in tracing the initial cases, and the impotence of the local authorities in dealing with them.

The sanitary condition of some of the houses in which the epidemic has been most severe is described to have been disgraceful in the highest degree to any part of the metropolis, and such as could hardly have been suspected to have existed in a wealthy parish, such as Marylebone. The rooms were small, dilapidated, filthy, and practically unventilated; with small back yards, in which the privies and ashpits were broken and untrapped, one or two of them being absolutely covered with ex-

crement. In one instance, a room was actually built over a common privy, into which it had ventilation.

The fact appears to be clear, that the sanitary system under which infectious cases in the homes of the poor are dealt with are badly interpreted, and carried out under defective principles, by the sanitary committee of the Marylebone Vestry and its executive officers. There is apparently a strong disposition to lay stress upon that confessedly weak side of the health-system which seeks, under a strict interpretation of the law, to confine its operation to paupers. It is, no doubt, a vicious element in the public health administration that, whereas public measures may be taken for the dealing with small-pox cases, without pauperising the individuals, the employment of public resources for the limitation of infectious diseases in the homes of the poor above the pauper class is held to be, by some sanitary authorities, in accordance with the rigid interpretation of the law, beyond the purview of their direct action. As one result of this serious calamity, and the great disgrace to the Marylebone parish, we trust that the sanitary committee will institute an inquiry into the methods now employed by their executive officers for dealing with infectious cases in the homes of the poor. This will be an useful result, and of more value than either laments or reproaches. We regret to hear of another severe outbreak of typhus fever, in Whitechapel.

THE Duchess of Teck has consented to open the new wards of the Richmond Hospital early next year.

DR. J. BRAXTON HICKS, F.R.S., has recently been elected an Honorary Fellow of the American Gynæcological Society.

LORD DERBY, president of the University College, Liverpool, has presented the sum of £400 to the medical faculty of the college to found a new annual prize for medical students.

IT is announced that Mr. S. D. Darbishire, M.A., M.B., Baliol College, is a candidate for the office of University Coroner, now vacant at Oxford.

AT the Liverpool Police Court, a woman has been fined £5 and costs for letting a house which had been tenanted by a family in which there had been scarlatina, but which had not been properly disinfected afterwards.

THE total number of persons in receipt of public relief in Paris last year was 385,148, of whom 137,518 were received in the hospitals, almshouses, and orphanages; while 219,500 were relieved at their own homes, and 28,000 children put out to nurse in the country.

AT Fulham is to be erected an immense infirmary, to provide four hundred beds, of which the foundation-stone has just been laid by Mr. Spofford, Chairman of the Croydon Board of Guardians. The building will cost about £100,000.

A NEW schedule of qualifications necessary for candidates desirous of obtaining commissions in the Army Medical Department has just been issued. The information contained in it will be noticed in next week's JOURNAL.

THE Duke of Westminster, who is president of the Westminster Hospital, has endowed the Scholarship of twenty guineas for second year's students, which is annually given to the student in the Medical School who shows the greatest proficiency in anatomy, physiology, and histology.

DR. MORRIS has resigned his appointment of Physician to the General Hospital, Nottingham, which he has long held. On the occasion of his resignation, he received the unanimous thanks of the governors for his past services. Dr. Edward Seaton of Nottingham has been without contest, appointed physician to the hospital.

A CASE of hydrophobia was admitted into St. Bartholomew's Hospital on Saturday last, under the care of Mr. Savory. The patient was a child aged seven: the symptoms appeared about a month after the bite was inflicted. The fear of all kinds of fluid was intense, the patient springing from his bed when a cup of milk was offered to him. Death occurred on Monday morning.

THE choleraic fever at Umritsur is said to be still raging, business being at a standstill, and nine-tenths of the shops closed. A correspondent of an up-country paper describes the appearance of the place as a city of the dead, and adds that not a single European has escaped the attack, and that the railway, post, and telegraph officers are working under great difficulties, owing to sickness among the *employés*.

THE number of lunatics, idiots, and persons of unsound mind retained in workhouses on the 1st January last was 16,811, an increase of 347 on the number on January 1st, 1879. Of the total, 5,211 males and 6,882 females were in ordinary parish or union workhouses; and 2,144 males and 2,574 females in the Metropolitan District Asylums for Imbeciles at Leavesden, Caterham, and Darenth.

A LARGE increase is recorded in the deaths from small-pox in British Burma, the total number of deaths from that disease amounting last year to 5,402, against 2,297 in the preceding year. Nine hundred and twenty-one children under one year, and 2,902 under twelve years of age (the percentages to the total mortality being respectively 17.05 and 53.72), were reported to have died from the disease during the year.

THE twenty-third annual collections in the churches and chapels of Birmingham on behalf of the medical charities of the town were made on Sunday last. The returns show a considerable falling off from those of recent years, the total received not exceeding £3,000, as compared with £4,886 last year and £6,414 in 1878. Several returns have yet to be received.

IT was resolved by the members of the Metropolitan Asylums Board on Saturday last to seek an interview with the President of the Local Government Board to ascertain whether that Board were prepared to take steps to enable the managers to carry out their duties according to the spirit and intention of the Metropolitan Poor Act. This resolution has in view past and pending legal proceedings.

IN his last report to the Government of Bombay, the Sanitary Commissioner draws attention to the fact that, during an outbreak of cholera, every bird in the district disappeared. This is attributed by Dr. Sullivan, the medical officer to the railway company, to the increased movement attending the various measures of precaution, the cleansing and sweeping, the use of Condy's fluid and carbolic acid, and the fumigation with sulphur and pitch.

THERE is good reason for hoping that the epidemic of scarlatina which has recently been prevailing in the borough of Chipping Wycombe is now on the decline. In his last report to the Town Council, the medical officer states that no fresh cases had occurred for some little time. Since May last, twenty-two cases have been reported, five of which terminated fatally. The epidemic has been of an extremely mild character.

A SCHOOL of dental surgery was opened in Geneva on October 22nd. The instruction is given partly in the faculties of science and medicine in the university, and partly in the school. The subjects taught are: Physics, by Professor Wartmann; Chemistry, by Professors Graebe and Denis Monnier; Anatomy, by Professor La[illegible]; [illegible], by Professor Schiff; Pathological Anatomy, by Professor Zahn; Surgery, by Professor Julliard; Histology, by Professor [illegible]. Theoretical and practical instruction is also given.

THE Statistical Society will hold its monthly meetings, during the session of 1881-2, on the third Tuesday in the months of November to

June, when the following papers, among others, will be communicated to the Society: "The Relative Mortality of Large and Small Hospitals, their Advantages and Disadvantages considered", by Henry C. Burdett, Esq.; "Two Hundred and Fifty Years of Small-pox in England", by William A. Guy, M.D., F.R.C.P., F.R.S. The general anniversary meeting will be held on June 27th, 1882, at 4 P.M.

DR. JOHN HJALTELIN, chief public medical officer in Iceland, and superintendent of the medical school in Reykjavik, has retired on a pension on account of age, and has, as a mark of favour, been appointed a state-councillor. Dr. Hjaltelin has been a zealous promoter of medical and sanitary knowledge in Iceland, and has contributed in past years several interesting articles to the BRITISH MEDICAL JOURNAL and other periodicals in this country.

A MAN has been fined, at the Bradford Police Court, ten shillings and sixpence, with costs, for neglecting to report to the medical officer of health a case of scarlet fever in his house, as required by the local Act providing for the notification of infectious diseases passed last session. It is greatly to be desired that, in all the now numerous places where such a requirement is in force, examples of this kind should be made whenever an opportunity offers, inasmuch as experience teaches that laxity of the authorities is invariably followed by neglect to report cases on the part of a certain section of the population.

SUMMONS UNDER THE VIVISECTION ACT.

AT the Bow Street Police Court, on Thursday, Mr. Waddy, Q.C., applied, on behalf of the Victoria Street Society for the Protection of Animals from Vivisection, for a summons under the Vivisection Act against Professor Ferrier of King's College, for performing a "frightful and shocking" experiment without authority from the Home Secretary. The experiment referred to was the removal of the brain from monkeys, as described by Dr. Ferrier in the Section of Physiology at the meeting of the International Medical Congress.

MEDICAL DEFENCE.

WE learn, with great satisfaction, that, at a meeting of members of the South London District of the Metropolitan Counties Branch of the British Medical Association, held at Lambeth Infirmary, on November 2nd, it was resolved to form a Medical Defence Committee in connection with this Branch of the Association; and the following gentlemen were elected members of the committee, with power to add to their number—viz.: Mr. W. Gibson Bott; Mr. R. H. S. Carpenter; Mr. H. Nelson Hardy; Dr. Robert Lloyd (Honorary Secretary); Dr. J. W. J. Oswald; Mr. Robert Oswald; and Mr. John D. Roberts. The Honorary Secretary (Dr. Lloyd) will be glad to receive communications from members desirous of joining the committee, which should be addressed to him at the Lambeth Infirmary, Pleasant Place, S.E. This is the beginning of a course which we have long advocated, and we hope it may be speedily followed by others.

THE BOARDING-OUT OF LUNATICS.

DR. OUTTERSON WOOD, Medical Superintendent of the Isle of Man Lunatic Asylum, tells the Committee of Management of that institution, in his recently published report, that, having carefully considered the question of the boarding-out of patients, he has come to the conclusion that, remembering the past history of the home-treatment of the insane poor in the island, it is not advisable to revert to a system which led to many and grave abuses. At one time, boarding out was the ordinary way of providing for pauper lunatics in the Isle of Man; and it was really because lunatics thus provided for were shamefully neglected and ill-treated, that the erection of an asylum became necessary. With regard to those persons found insane by inquisition, and who are living under the care of their committees, "I would strongly urge upon the authorities", says Dr. Wood, "the absolute necessity of having such cases registered, and placed under surveillance, by being visited from time to time by some competent and independent person, so that their health, food, and clothing, and any special treatment they may require, may be properly attended to; and so that the money paid for their board may be judiciously and properly expended". No one should be allowed, Dr. Wood thinks, to keep a lunatic for profit without being registered and under official supervision.

THE CASE OF MARGARET MESSENGER.

AT the Cumberland Winter Assizes at Carlisle, on Wednesday last, Mr. Justice Kay passed sentence of death on Margaret Messenger, aged 14, convicted of the wilful murder of an infant at Sprunston, in June last. The jury accompanied their verdict of guilty with a strong recommendation to mercy on account of the prisoner's youth; and, as Sir William Harcourt's humanity is well known, there is no need to fear that the nation will have to shudder at the execution of a child. But the question may well be asked, why Margaret Messenger should have been condemned to death at all by a deeply affected judge, and in a court-house in tears? Are such scenes likely to promote good morals, to deter from the commission of crime, or to strengthen our judicial system? The full report of the trial is not yet before us, but the summary of the evidence that we have received strongly points to the conclusion that Margaret Messenger's mind was disordered, when she perpetrated the murder for which she now lies under sentence of death. No motive is suggested for the crime, which the prisoner freely confessed, after having made two or three contradictory and romantic statements to account for the death of the baby. It is reported in the district, though of course this matter could not be inquired into at the trial, that an infant previously entrusted to Margaret Messenger's care died under exceedingly suspicious circumstances. Should this rumour prove to be well founded, there would be additional grounds for believing that the wretched girl labours under a form of insanity with homicidal impulses, that has been observed to develop itself occasionally at her particular period of life. Her mental condition ought to have been thoroughly inquired into by competent persons during the four months she has been in gaol, and then perhaps we might have been spared the painful performance in the Carlisle Court-house on Wednesday. Even now, it is to be hoped that the Home Secretary will obtain trustworthy opinions as to her mental state, so that, if mad, she may not be consigned to penal servitude for life. "'Twere good to do so much for charity." Medical jurisprudence will not be satisfied, nor the public conscience quieted, until it be determined whether this unhappy girl be a murderess or a lunatic.

MIDLAND MEDICAL SOCIETY.

THE inaugural meeting of this Society took place in Birmingham, on October 19th; John Manley, Esq. (West Bromwich), President, in the chair. One hundred and sixty members and visitors were present. Dr. Clifford Allbutt, F.R.S., of Leeds, delivered an address, "On the Surgical Aids to Medicine". The division of medicine into medicine, surgery, and midwifery, was useful on account of the defects and limits of human capacity; but, at the same time, the dangers of isolation were to be avoided. Physicians and surgeons worked far too little together, and were readier to transfer cases than to undertake them jointly; and many an operation is done as a last resource which, performed in due time, might have changed the course of the case. The speaker argued that all cases of scrofula are of septic origin, due secondarily to peripheral irritation; and that often the discovery and removal of degenerating and caseous glands, sometimes only with difficulty detected, will speedily cure scrofulous neck. Diseases of the lung and pleura were also discussed, and the importance of early surgical interference asserted. A case was mentioned in which the pleural cavity had been tapped thirty-eight times with effect. The aid that could be given by surgeons in the treatment of hepatic abscess was also noticed, and a hope was expressed that, ere long, cases of repeated gall-stone colic might be cured by direct incision of the gall-bladder. The treatment of various diseases of the kidney was also being modified by means of

surgical interference; and the improvements at present taking place with regard to gastrotomy might eventually lead to the prompt cure of gastric ulcers. The physician was urged to be unsparing in the use of his forefinger, and stress was laid upon the mischief that might accrue from neglected piles, and of pelvic disease mistaken for sciatica, diarrhœa, and the like. After referring to nerve-stretching and the treatment of stiff or painful limbs, Dr. Allbutt concluded with a warm tribute to Mr. Lister, whose genius had made many of these achievements possible. On the motion of Dr. Foster, seconded by Mr. J. Vose Solomon, a hearty vote of thanks was given to Dr. Allbutt for his able and interesting address. During the evening, various chemical, physical, and physiological experiments were exhibited by Professors Tilden, Poynting, and Haycraft, of the Mason College. A vote of thanks was also accorded to these gentlemen, on the proposition of Mr. Furneaux Jordan, seconded by Dr. Malins. At the supper which took place subsequently, Dr. Strange, President-elect of the British Medical Association, in replying to the toast of the visitors, expressed a hope that many of the members of the Society would visit Worcester in August next; and stated that, to ensure the success of the meeting, already many offers of assistance had been received from Birmingham and other large towns.

TYPHOID IN LONDON.

THE epidemic of enteric fever, which has assumed ominous proportions in London, demands, as the *Echo*, we are glad to say, urgently points out, the serious attention of the sanitary authorities, for typhoid is one of the preventable diseases. So far as science teaches, enteric fever is caused by drinking poisoned water, or by inhaling sewer air, contaminated by the germs of the disease, and it is a fact that all the epidemics of typhoid have been traced to one or other of these causes. The most insanitary conditions may exist for years and little harm be produced, but let a case of typhoid be introduced into the locality, and it spreads with the rapidity of the plague. It is not unlikely that the epidemic in London has been occasioned by the distribution of water which has been obtained from polluted sources, and until the Legislature insists on some more wholesome disposal of sewage matter than running it into rivers from which water supplies are drawn, we shall be always liable to attacks of a disease which, properly fought, could be easily stamped out. The French Government has had to deal with a similar case, and the Commission appointed has reported that all discharge of sewage matter into the Seine should be stopped until it has been purified by irrigation and downward filtration. Even that recommendation, if properly carried out, scarcely meets the demands of the sanitarians, which are simply that any water intended to be used for potable purposes should be free from the suspicion of a taint of sewage matter. Absolutely pure water is a difficult thing to obtain near London; but we agree with our contemporary in considering that there is no reason why we should permit the pollution with fæcal matters of streams from which we draw the supply for half of the Metropolis.

THE PASSION FOR PURGATIVES.

THE passion for purgatives, and the belief in their universal applicability, has been ridiculed by satirists and surgeons from Voltaire to Skey, but it still survives. A boy, aged 4½ years, named Frederick Dillnutt, has recently met with his death through the administration of a druggist's purgative powder. At the inquest, it was stated that the deceased had been ill for a day or two, and stayed at home from school. It was not thought that he was seriously ill, and the mother gave him a purgative powder. He became worse after having the powder, and died during the night, as he was being carried from one bedroom to another. Mr. John Brighouse, of 93, Tollington Park, stated that deceased was dead when he was summoned to attend him. On making a post-mortem examination, he found the whole of the organs healthy, the death having resulted from failure of the heart's action. The stomach and intestines were quite empty, which was no doubt owing to the strong purgative powder which had been given. From what he had heard of the case, he had come to the conclusion that death had been actually caused by the strong purgative powder. He wished it to be distinctly understood that, to give a child a strong opening powder on the slightest appearance of sickness, was to place the life of that child in great danger; and the jury would, of course, know that, in the majority of instances, parents went to a druggist for a powder. The coroner said that his experience had shown him the truth of Mr. Brighouse's remarks, and he hoped the press would make the case known. The jury returned a verdict that the deceased died from the administration of a purgative powder, and appealed to the members of the press to use their best endeavours in bringing a knowledge of the dangers of such powders to the public. The purgative powder is the pharmaceutist's panacea, and the apothecaries' cure-all. Although the most common, it is probably the most dangerous, and the most often abused weapon in the pharmacopœia. Prescribing druggists fly to it as their first implement, and most favourite nostrum. How many has it not slain, and how many thousands are yet doomed to die from "a simple purge"?

MUNIFICENT DONATIONS.

THE Earl of Leicester, Holkham Park, Norfolk, has given the munificent sum of £15,000 to the Norfolk and Norwich Hospital, of which he is President, to be added to the endowment fund.—The late Mr. Sewell, of Reepham, Norfolk, has bequeathed to the same hospital £1,000.

THE SUPPRESSION OF SCIENCE IN ENGLAND.

IN the current number of *Brain*, Dr. Alexander James, Lecturer on the Institutes of Medicine in Edinburgh, states that the experiments designed to illustrate his paper on the Reflex Inhibitory Centre Theory, were, owing to legislative enactments and official obstruction in this country, performed on the continent, under rather disadvantageous circumstances, at the beginning of last summer session. The experiments involved the sacrifice of a few frogs, probably not more than half a dozen, and have a direct practical bearing on our interpretation of the symptoms of disease, besides more remote relations of great significance. They were undertaken by an eminently competent operator in the pure spirit of scientific research; and yet they could not be tolerated in these enlightened islands; but Dr. James had to seek the hospitality of the Low Countries, in order to carry out this bit of high scientific work.

SMALL-POX IN ROCHDALE.

A SOMEWHAT serious outbreak of small-pox has occurred at Rochdale. At the last meeting of the Town Council, it was announced that there had already been 106 cases, with nine deaths, and that the cases were spread all over the town. Under these circumstances, it is satisfactory to learn that the Town Council have resolved to include in the Bill which they are preparing for submission to Parliament next session a clause making the notification of all cases of infectious disease compulsory.

DEATH OF PROFESSOR BOUILLAUD.

ONE of the connecting links between the past and the present century has just passed away, in the person of Professor Bouillaud, who died suddenly at his residence in Paris, in the eighty-sixth year of his age. Dr. Bouillaud was one of the oldest members of the French Faculty. He took his degree in 1823, and has been a member of the Academy of Medicine since 1825. He was the author of several works, but the most remarkable was that on diseases of the heart, in which he was the first to point out the intimate connection that existed between valvular disease and rheumatism; that the former was not a mere coincidence or complication, but that it was one of the most constant manifestations of the rheumatic taint. His therapeutics were of the old school, and he maintained to the last that no remedies were equal to bleeding and mercury in rheumatism and all inflammatory affections. During the latter years of his life, he had been engaged in getting up a work on Medical Philosophy, which he hoped would be worthy of his name, but had he lived to achieve it.

THE SULTAN'S PHYSICIAN.

THE physician of the Sultan Abdul Hamid is a Frenchman, formerly physician to the Messageries Maritimes, and now attached by contract to His Highness for several years. He has a salary of £1,000 a year, which, according to the *France Médicale*, is actually paid to him. He is provided, in addition, with apartments and provisions. He is not allowed to attend any patient besides the Sultan, or those whom, as a mark of favour, His Majesty is pleased to indicate to him. The unfortunate doctor lives in a state of continuous subjection. He must be night and day at the disposal of his illustrious patient, and cannot quit the Yildiz even for a few hours without having obtained the personal authorisation of the Sultan himself, to whom he is obliged to give the reasons for his desired absence, and to state for how long he intends to be away. As a rule, he is not allowed more than three hours' holiday, and he is obliged to justify this demand by urgent personal necessity. The Sultan's physician is lodged in the middle of the park, in a little *kiosque* like that of a toy-merchant at a fair, and divided into three compartments opening into a corridor; the divisions of the compartments not reaching to the ceiling, in order that it may be the more easy for the people about to look from one room into the other, and to inform the Sultan of the acts and deeds of his unhappy physician.

SMOKE IN THE MANUFACTURING DISTRICTS.

MR. BOUSFIELD, in a second letter to the *Times* on this subject, states that he has received letters from persons in various districts suffering from the baleful effects of factory smoke, who all concurred in the opinion that the law as at present administered was entirely inadequate to repress the sanitary evils it was intended to destroy. This view was confirmed by the graphic letter of "A Lancashire Landlord", in the *Times* of October 25th, who gave it as his opinion that the Public Health Act, 1875, now in force, threw the *onus* of prosecution in the case of nuisance from smoke upon the sanitary authorities, these being usually in urban districts the town council or the local board, and in rural districts the board of guardians. It permitted an inhabitant of an affected district and the Local Government Board, where that body was convinced of the neglect of the local sanitary authorities, also to institute legal proceedings. The result was that very little had been done in the matter by any of these. The local authorities were too much under the influence of the manufacturers who created the smoke to take the unpopular course of prosecuting them, and there were few inhabitants really independent of the trade of the district in which they lived. The Local Government Board had not created any machinery for the systematic repression of smoke. In the borough of Dewsbury, where there were great complaints of the effect of dense clouds of smoke belching from factory chimneys, in some cases only thirty feet high, he found that there had been, in the last five years, only two convictions by the magistrates for the undue creation of smoke, and both of these happened in the case of occupiers of private houses. He was convinced that no great improvement would take place, until the dispersion of these thick and sooty fumes was made the duty of a central authority. The Alkali Act passed last session, which came into force on the first day of the approaching year, was founded upon that principle. It applied to the diffusion of noxious gases by alkali, chemical, chlorine, and other works, and provided for the compulsory registration of these works after inspection by an inspector of the Local Government Board, whose business it was to secure that the best practicable means were used to prevent the discharge into the air of the offensive gases, and upon whom the *onus* of prosecution under the Act was thrown. What was wanted was an Act of Parliament putting upon the factory inspectors, who should also be under the Local Government Board, a similar responsibility with regard to the smoke and noxious gases from manufactories and works where the Alkali Act did not apply. The coming exhibition of smoke-consuming appliances at South Kensington would be of national service in bringing the best modern inventions, with the economy of fuel they produced, to the notice of the manufacturers, and in stimulating public opinion in the matter. There could not, he thought, be a doubt that the manufacturers would reap the benefit of any trouble and expense they might incur in restoring to themselves and to their poorer neighbours the blessings of the clear air of heaven and of the beauties of nature in tree, flower, grass, and stream, free from injury, dimness, and pollution. In the war of hostile tariffs which assailed our export trade, there was but one way of maintaining our commercial and industrial ascendency, and that was by the excellence and artistic beauty of our manufactures. It was idle to expect that designers and workmen who passed their lives in scenes of gloom and ugliness could acquire the purity of taste which was necessary to make their work eminent for beauty in the markets of the world. The effect of the valuable technical education which was now being promoted with so much energy would, in great measure, be thrown away unless we could secure that nature, the origin and motive of all beautiful art, should prepare and stimulate the minds of the learners.

CHOLERA IN THE PUNJAB.

THE weekly return of mortality statistics issued by Surgeon-Major Bellew, the Sanitary Commissioner of the Punjab, affords conclusive evidence of successful and energetic organisation. The return before us is dated at Lahore on September 26th, and relates to the week ending September 3rd. It reports that 9,748 deaths were registered within the Province of the Punjab, and that the annual rate was equal to 28.9 per 1,000 of the population. According to the results of the recent census, the population of this Province was 18,736,107 persons in April last, calculated upon which the 9,748 deaths in the above-mentioned week would give a death-rate of only 27.2. It appears, therefore, that the Sanitary Commissioner has not yet adopted the new population for his calculations. During the week under notice, 658 fatal cases of cholera were registered in this Province, against 616 in the previous week. Of these, 261 occurred in the Lahore district (including 138 in the city of that name), 111 in Jullundur town and suburbs, 48 in Umritsur town, 24 in Panipat town, and 29 in Umballa town. This weekly return contains, in addition to summary figures for the entire Province, statistics for each of its fifty-two municipal towns, which probably contain at the present time an aggregate population of nearly a million and a half of persons. The annual rate of mortality in these fifty-two towns during the week ending September 3rd averaged no less than 78 per 1,000, giving a vivid impression of what their sanitary condition must be. The value of this return from a sanitary-administrative point of view is unquestionable; and it would be interesting to know something of the machinery by which these statistics are collected so promptly from so large an area of country, in a large portion of which the means of communication are still of a very primitive character.

CHOLERA IN INDIA.

DURING 1880, the total number of deaths from cholera in the Presidency of Bombay was 684, which is a vast decrease upon the number returned for 1879, when no fewer than 6,937 were registered. Out of every 1,000 deaths from all causes in 1880, two were from cholera. The total number of cholera deaths for the last fifteen years was 302,584; in other words, out of a population numbering 16,228,774 persons, one in every 805 died annually from cholera. In the Madras Presidency, the total deaths from 1866 to 1879 inclusive was 1,011,791, or 72,271 per year; or one in 401 on a population of 28,991,267. In the Bengal Presidency, the population in 1872 was returned at 59,965,483; and the cholera deaths from 1870 to 1879 were 855,799, an average of 88,580 *per annum*, or one in 677.

SMALL-POX IN SYDNEY.

A MEDICAL correspondent writes: We are in the middle of a small-pox epidemic, and everybody is quarrelling about it. Small-pox never got loose before, owing to the quarantine laws; but it appears to be loose now, and half the population, or more, is unvaccinated. The Government, in dealing with it, have made a series of grave blunders

among others, they quarantined two medical men who attended some small-pox cases, and the consequence is, that no one will admit the existence of the disease among their patients. A Royal Commission —consisting of Dr. Manning, Lunacy Commissioner, two other medical men, and two civilians—has been appointed to investigate the subject; but it is believed that their report will please nobody, as all questions of this kind are made political ones, and great feeling has been imported into this one of small-pox.

SCOTLAND.

SINCE 1855, the total female convicts admitted into the General Prison for Scotland have numbered 1,756, and, amongst these, 95 deaths have been reported. Phthisis was the most fatal disease on the list, 19 deaths being attributed to it. "Worn out" is the ascribed cause of 12 deaths. Brain-disease was fatal in ten cases, uterine disease in six, heart-disease in five, and scrofula in four. Only one death happened from enteric fever.

SIR WYVILLE THOMSON, we hear, is about to resign the Chair of Natural History in the University of Edinburgh, which he has held since 1870, the duties of which, for some time past, he has been unable from one cause or another to perform; in which he has been assisted by Professor Huxley, and more recently by Professor Alleyne Nicholson. Considerable interest, says the *Echo*, is likely to be aroused about the appointment of a permanent successor, since this is probably the most valuable professorship of biology in the country.

ABERDEEN RECTORIAL ELECTION.

THE candidates nominated for this honour are Sir James Paget, Bart., and Dr. Bain. As yet, it is impossible to say who may be elected. Electioneering goes on briskly, and the merits of the respective candidates are being eagerly canvassed. The election takes place on November 12th.

DEATH OF DR. FOULIS OF GLASGOW.

IT is with great regret that we have to announce the death of Dr. Foulis of Glasgow. The sad event took place on the afternoon of October 31st, being due to a severe attack of diphtheria, contracted, it is feared, while performing the operation of tracheotomy on a patient suffering from that affection. Although but a comparatively young man, Dr. Foulis had already made his mark, both in pathology and in that special branch of surgery which he had taken up, viz., affections of the throat. His successful cases of extirpation of the larynx had given him a world-wide celebrity. In Glasgow, he was regarded as one of the most rising men in the profession; and it will be difficult to fill his place. On all hands there is universal regret at his early death, and he will be long lamented by a large circle of friends.

UNIVERSITY OF EDINBURGH.

THE session is now in full swing, and over eighteen hundred students have already matriculated. At the first professional examination for graduation in medicine, held in October, one hundred and thirty-three candidates passed; and of these, Messrs. H. J. Stiles and F. A. Pockley passed with distinction. The lectures in Pathology and Materia Medica are delivered in the Old University Buildings; while those in Institutes of Medicine are delivered by Professor Rutherford, in the large lecture hall of the Museum of Science and Art. The subject of vivisection has received ample treatment in the various opening lectures, not the least being that of Professor Douglas Maclagan, who, in his capacity of Law Professor, delivered the opening lecture in the Faculty of Law.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

PROFESSOR STIRLING, of Aberdeen, delivered the second lecture of this course in Montrose on the evening of October 13th. The lecture described the structure of the arm, and indicated the mechanism of the human hand, which peculiarly adapts it as an organ for grasping. The structure of the lower limb was next described, and special attention was directed to the human foot. It was next shown how the limbs in man were adaptations to the erect attitude. The hand and foot of man were compared with similar structures in the higher apes. The chemical and microscopical characters of bone were mentioned, and special reference was made to the periosteum, as the structure by which bone grows in diameter. The use of this membrane in the formation of new bones was illustrated by the classical experiments of Ollier of Lyons, and those of the late Professor Syme on dogs, whereby it was conclusively proved that, if in any operation upon bone this membrane be left, new bone will be reproduced by it. The importance of this fact and its bearings on the question of the amputation of limbs were strongly insisted upon. The hygiene of the bony skeleton was next treated of, it being shown how easily the bones of young children may be distorted and permanently injured by keeping children in constrained postures, or causing them to sit on stools or forms without some support for the back, and also with the feet unsupported. The causes of rickets in children were clearly explained, and the importance of good air, sufficient light, and a suitable diet was strongly urged. The artificial deformities to which the human skeleton is subjected in half civilised and civilised counties were illustrated by reference to the custom of bandaging the heads of infants practised by certain Indian tribes, and also by the deformities produced in the feet of Chinese ladies, whereby the feet, instead of being useful organs of progression, are reduced to mere stumps on which their unhappy possessor can merely totter along. The deformities of the foot resulting from the use of improperly shaped boots—whether with pointed toes or with narrow soles or with high and narrow heels, were strongly condemned. The practice of tight-lacing, which results in a permanent displacement of the ribs, and thereby interferes with the organs of respiration and digestion, was denounced. The modes in which movements are accomplished in the human body were shown, the mechanism of the various "joints" and muscles being made clear by several ingenious models, and by a number of very large diagrams. It was shown that much physiological knowledge may be learned from a study of objects easily obtainable from the butcher. In illustration of this, the mechanism of the joints was illiustrated in a clear and simple manner with the aid of some of the large joints of the ox. The muscular system was then described, it being shown how the bones, muscles, and nervous system are correlated. The voluntary and involuntary movements were referred to, some movements being voluntary at one time and involuntary at another, as those of respiration; whilst, in other cases, we have lost voluntary control over certain muscles—as those of the outer ear—from disuse; and again, movements may occur even in voluntary muscles in spite of the will and the action of the nervous system, as in the well known cases of nervous tremor and the "fidgets". It was announced that prizes would be given to the best answers to certain written questions on the subjects gone over in the lectures.

THE GLASGOW HEALTH LECTURES.

THIS series of lectures under the Combe Trust are being delivered weekly, and so far have proved very successful. The lecture on the evening of October 24th was by Dr. Russell, medical officer of health, and had for its subject "The House", the lecturer dwelling at considerable length upon the advantages of having sufficient space to live in, together with plenty of ventilation and pure air. On October 31st, the fourth lecture was devoted to "Surgical Emergencies and their Management: an Ambulance Lesson". Professor George Buchanan was the lecturer, and he dealt with the subject in a very thorough and practical manner. He gave his audience very clear instructions as to what should be done in the way of first treatment of those injured, and the points to be attended to in their conveyance by stretchers; and he also showed how a stretcher could be improvised out of materials usually at hand. He further pointed out what should not be done by any non-professional person in the case of a fracture, such as a broken leg, or fractured collar-bone. He referred especially to the serious use of

stimulants in the case of those seriously injured; and he closed a most instructive and useful lecture by brief allusion to deformities of the body, natural and acquired; among the latter, the present custom of wearing tight dresses and high-heeled boots coming in very properly for his severe condemnation. A cordial vote of thanks was awarded him by a large and appreciative audience.

THE REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending October 22nd, it appears that the death-rate in the eight principal towns during the week was 21.4 per thousand of estimated population. This rate is 1.8 above that for the corresponding week of last year, but 0.3 below that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 14.7 per thousand; and the highest in Leith—viz., 33.8 per thousand. Ten deaths from drowning were registered in Leith, which accounts for the high mortality there. The mortality from the seven most familiar zymotic diseases was at the rate of 3.4 per thousand, being 1.3 below the rate for last week. A notable increase in the number of deaths from scarlatina occurred in Edinburgh. Acute diseases of the chest caused 103 deaths, being 11 under the number recorded for last week. The mean temperature was 44.8, being 1.1 under that of the week immediately preceding, but 5.5 above that of the corresponding week of last year.

IRELAND.

A SUM of £200 has already been obtained for the special appeal made on behalf of the Hospital for Women and Children, Cork.

DEATH OF THE PRESIDENT OF THE DUBLIN BRANCH.

IN our obituary we publish, with deep regret, a notice of Dr. Thomas Hayden, whose death occurred on Sunday last, in the fifty-fifth year of his age. Dr. Hayden was beloved by all who knew him, and his death, following within a few days that of Dr. McClintock, the president-elect of the Dublin Branch, has cast a gloom over the profession in Dublin, in which both were deservedly esteemed.

SMALL-POX IN BELFAST.

ALTHOUGH this disease does not prevail to any great extent, yet it appears to be increasing somewhat; and for the week ending October 22nd, the cases in the Union Hospital numbered twenty-seven, of whom six were admitted during the week.

THE ROYAL UNIVERSITY OF IRELAND.

THE first vacancy in the Senate of this University has been made by the death of Dr. Hayden. According to the terms of the Charter of the University, the first vacancy in the Senate, other than a vacancy in the office of Chancellor, which shall arise from the death, resignation, or otherwise of the persons nominated the first Senators, shall be supplied by the election of a Senator by the Convocation of the University for the three ensuing years. The Convocation of the University has not as yet, we believe, been formally constituted; but it is to be composed of the Senate of the University, and the registered members of the Convocation of the Queen's University in Ireland at the date of the granting of the Charter (April 20th, 1880), upon such members making application to become members of Convocation of the Royal University in such manner as the Senate of the latter shall prescribe.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MESSRS. BAKER, Butcher, Carte, Franks, and Nixon have announced themselves as candidates for the vacant seat on the Council of the College caused by the death of Dr. McClintock. It is not probable, however, that all these gentlemen will contest the seat on the present occasion. Both Mr. Butcher and Mr. Nixon are ex-members of the Council, and the hospital and school to which the latter gentleman belongs are now unrepresented on it.

THE ADELAIDE HOSPITAL.

THE introductory address in this hospital was delivered on Wednesday morning last by Dr. Purefoy, obstetric surgeon to the hospital. It is understood that Mr. Wallace Beatty, M.B., will be appointed assistant-physician to the hospital, in succession to Dr. Walter Smith, the lately elected King's Professor of Materia Medica in the School of Physic, and, *ex officio*, physician to Sir Patrick Dun's Hospital.

CORONER FOR COUNTY MONAGHAN.

ON last Monday, a nomination for candidates to the vacant coronership of North Monaghan was held in the court-house at Monaghan. Considerable interest appears to be attached to the contest, and no fewer than six gentlemen, up to a few days since, were candidates for the post. Two of these have withdrawn; and on the 31st ult. four candidates, all being medical practitioners, were nominated. They were, Dr. William Woods of Monaghan, Mr. Stewart of Glasslough, Mr. Gillespie, and Dr. Gage. The election will take place this week, and will probably lie between Mr. Stewart and Dr. Woods.

THE NATIONAL ORTHOPÆDIC AND CHILDREN'S HOSPITAL, DUBLIN.

THIS institution was visited by Her Excellency the Countess Cowper, wife of the Lord-Lieutenant of Irelannd, last Saturday. Her Excellency was shown round the wards by Mr. L. H. Ormsby, surgeon to the hospital. In addition to the wards already named and occupied, a new ward is to be furnished for the reception of patients, and, by the permission of Her Excellency, to be named "The Cowper Ward".

SPECIAL FEES FOR OPHTHALMIC CERTIFICATES.

THE adjourned meeting of the physicians and surgeons of the Dublin clinical hospitals to consider this subject was held in the College of Physicians on Saturday last. Mr. Wharton was in the chair. The attendance was much smaller than that at the previous meeting, a report of which appeared in last week's JOURNAL. It was announced by the honorary secretary that all the hospitals had agreed to charge a special fee of three guineas for a special ophthalmic certificate. After some personal explanations, and an expression of opinion on the part of some present, that special ophthalmic certificates should only be given by special ophthalmic hospitals, a resolution was unanimously adopted to the effect that, from the commencement of the present winter session, all students entering for the first time for general hospital attendance, and requiring a special ophthalmic certificate, shall be charged a special fee of three guineas for it.

REFORMATORY AND INDUSTRIAL SCHOOLS, IRELAND: ANNUAL REPORT.

FROM the nineteenth report, we learn that the number of certified industrial schools on the last day of December 1880, was 52; and that the children in the schools on that date amounted to a total of 5,699, being an increase of 587 on the previous year. The deaths during 1880 numbered 66, (31 boys and 35 girls); and of these, 61 were inmates of the schools at the time of their deaths, and six girls suffering from consumption were placed outside with friends. As in previous years, the great majority of the deaths were from scrofula in its different phases. Among the other causes of death may be mentioned scarlatina, which produced six deaths, and brain-disease, to which ten children fell victims. The death-rate was 1,07 per cent., or one in every 92 of the inmates; whilst in 1879 it was one in every 79, or 1.32 per cent. of the total number in charge. These figures show an improvement in the sanitary condition of the schools, and a less death-rate than in most similar institutions. Four of the deaths from scarlatina in one of the cases were due to bad sewerage and imperfect hospital accommodation; but a new infirmary has since been fitted up, and the school, which previously suffered from outbreaks of measles and scarlatina, is now healthy. The inspector draws attention to the great danger which results in establishments where the sick are not at once separated from healthy children, and where the infirmary is imperfectly isolated from the rest of the buildings of the school. As regards the mortality in the

reformatory schools, six boys and one girl died during the year. The girl and four of the boys were carried off by consumption, one boy died from congestion of the lungs, and another was accidentally poisoned from the excessive use of tobacco acting on an enfeebled heart.

HEALTH OF IRISH TOWN DISTRICTS.

DURING the September quarter, 51 deaths from scarlatina were recorded in the fifteen town districts, of which number 19 occurred in Clonmel, 17 in Limerick, 6 in Belfast, and 5 in Cork. Whooping-cough caused 12 deaths in Belfast, being 30 under the number for the preceding quarter, 10 in Kilkenny, and 5 in Cork. The deaths from diarrhœa numbered 151, of which 69 took place in Belfast, 34 in Cork, 11 in Clonmel, 9 in Limerick, and 7 in Waterford. Ninety-seven deaths were ascribed to fever—viz., typhus 48, typhoid 22, and simple continued fever 27. Eighteen deaths from typhus were registered in Cork, 7 in Londonderry, 6 each in Limerick and Waterford, and 5 in Belfast. Measles only caused 8 deaths: 4 in Cork, 2 in Belfast, and one each in Limerick and Londonderry; while the mortality from small-pox amounted to 7 deaths, 5 being registered in Belfast and 2 in Lurgan. The deaths registered, as compared with the corresponding quarter of 1880, show a substantial decrease in all except two of the fifteen town districts. For example: in Kilkenny, where whooping-cough prevailed, there was an increase of 4 deaths; and in Clonmel, where diarrhœa and scarlatina were prevalent, there was a slight increase (12) in the mortality, as contrasted with the returns of the September quarter of last year.

ASSOCIATION INTELLIGENCE.

BRANCH MEETINGS TO BE HELD.

[illegible] Midland Counties Branch. The second meeting of the session will be held at the Medical Institute, No. 1 Edmund Street, on Thursday, November 17th, 1881. The chair will be taken by the President, Mr. Bartleet, at 7.30. Papers: Mr. T. F. Chavasse: Traumatism of the Cervical Sympathetic Nerve. Mr. J. H. Palmer: Enuresis Nocturna. Dr. Simon: Note on the Treatment of Infantile Paralysis. Mr. W. Thomas: Remarks on the Diagnosis and Treatment of Morbus Coxæ. Members are invited to exhibit patients, pathological specimens, new drugs, instruments, or appliances, at the commencement of the meeting. E. MARTIN, M.B., 9, Old Square; F. EDWARDS, M.B., 11, Newhall Street, Honorary Secretaries.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the session was held at the Medical Institute on Thursday, October 13th; the chair being taken by the President, Mr. T. H. BARTLEET. There were forty-six members present.

New Members.—The following members of the Association were elected members of the Branch: P. E. Campbell, M.B., Hatton; T. C. G. Ellerton, Leamington; J. P. Gaunt, Alvechurch.

Communications.—The following communications were made.

1. Dr. Dewes showed a specimen of Cancer of the Cervix Uteri, removed by the *écraseur* from a patient just before delivery, which it had obstructed.

2. Dr. Dewes also showed a small mass of Impacted Fæces taken from the appendix vermiformis of a patient, where it had caused ulceration, peritonitis, and death.

3. Mr. Tait showed a sketch of the Sectional Area of the Pelvis of a Rickety Dwarf thirty-eight inches high, upon whom he had performed Cæsarean section.

4. Mr. Tait also showed the Ovaries of a patient, which he had removed in April last on account of a large myoma, which has since entirely disappeared.

5. Mr. Tait also showed a Skull of a Zulu from the battle-field of Isandula, part of which had been shot away by a Gatling gun.

6. Dr. Hickinbotham showed a small Fibroid Tumour, which he had taken from the labium of a patient with some difficulty and much hæmorrhage.

7. Mr. William Thomas showed a case of Excision of the Elbow-joint, which he had performed on account of a deformity from burns in a patient aged 11. The patient had since done well.

8. Mr. Hugh Thomas showed a specimen of Scirrhus of the Rectum, taken from a patient who had died of peritonitis caused by intestinal obstruction.

9. Mr. J. V. Solomon read a paper entitled Remarks on Homœopathy, at the conclusion of which a vote of thanks was unanimously accorded to him. The President, Dr. Tibbitts, and Mr. Yates took part in the discussion which followed.

10. Mr. H. W. Browne read a paper on a case of Simultaneous Ligature of the Subclavian and Carotid Arteries for Aneurysm of the Innominate. The President, Mr. A. Baker, Mr. Tait, Dr. Dewes, Mr. Chavasse, Mr. West, and Mr. Jordan Lloyd took part in the discussion which followed.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING of the above-named District was held on Thursday, October 20th, at the White Hart Hotel, Reigate; F. B. HALLOWES, Esq., in the Chair.

Communications.—The following communications were made.

1. Dr. Stephen Mackenzie read a paper entitled "The Diagnosis of Intracranial Tumours". The author first pointed out that the three symptoms on which the greatest reliance could be placed as indications of intracranial tumour, were, pain in the head, vomiting, and optic neuritis. After dwelling on each of these, explaining their characteristics, and making necessary qualifications, he drew attention to the fact that these symptoms, individually or collectively, only could be regarded as indicative of some coarse disease of the brain. The seat of the disease—*i. e.*, the "anatomical diagnosis"—rests on other symptoms, which were described at length. Next, the nature of the tumour—*i. e.*, the "pathological diagnosis"—was considered. It was pointed out that the age of the patient, the history of the onset, a knowledge of the genetic condition of the various tumours, congenital or acquired peculiarities of constitution, and any early ophthalmoscopic appearances other than neuritis, were of the greatest service in this respect. Especially, importance was laid on the diagnosis of syphilis, as its early recognition was of the highest value for treating the disease at a curable stage.

2. Dr. Stephen Mackenzie exhibited living specimens of the *Filaria sanguinis hominis*.

3. Dr. John Walters read a case of Abscess of the Brain. The patient, aged 23, had had otorrhœa since childhood, and suffered intense headache for three weeks. After severe exertion, he awoke the following morning with intense cerebral pain, though unattended by sickness or intolerance of light or sound. The temperature rose to 103° Fahr. Every possible remedy was resorted to; but the patient died seventeen days after the grave symptoms had developed. At the *post mortem* examination, the petrous portion of the right temporal bone was found carious, and the whole of the right temporo-sphenoidal lobe was occupied with pus.

4. Dr. H. S. Stone described a case of Urethral Calculus treated in the Reigate Cottage Hospital. The patient, a male, aged 21, had formerly undergone lithotomy. About twelve months since, difficulty in micturition being complained of, the introduction of a catheter revealed the existence of a stone situated immediately behind the triangular ligament. Accordingly, other means having failed, it was removed by Dr. Stone with the knife through the perinæum, and found to be an almond-shaped uric acid calculus weighing one drachm. The patient made a good recovery.

5. Mr. W. A. Berridge read the notes of a case of Fracture of the Coracoid Process, with an account of the *post mortem* examination.

Cottage Hospitals.—On the motion of Dr. Holman, seconded by Dr. Lanchester, a provisional committee was formed to consider and arrange the best means of appropriately perpetuating the name and valued services of Mr. Albert Napper of Cranleigh, in connection with the successful establishment of cottage hospitals throughout the country.

Dinner.—Twenty-one members sat down to dinner.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District was held at the Station Hotel, Hayward's Heath, on Friday, September 30th; Dr. BYASS of Cuckfield in the chair.

Next Meeting.—It was arranged that the next meeting should take place at Tunbridge Wells, in November; Mr. Benjamin Rix to be invited to take the chair.

Vote to Secretary.—A letter from Dr. Trollope, acknowledging the vote of thanks for his services as Secretary, was read, and ordered to be entered on the minutes.

Address of Chairman.—The CHAIRMAN spoke [illegible] the unsatisfactory state of the superannuation grant to Poor-law medical officers, saying that it remained entirely at the discretion of boards of guardians not only as to the amount, but as to whether it should be given at all. He recommended that the Council of the Association

should be urged to impress on the Government the advisability of fixing a certain scale for the payment of the grants; and that it should be made compulsory on boards of guardians to adopt this scale when, after some years of office, age or infirmity prevents the medical officer from performing his duties. He also drew attention to the resolution passed unanimously at Ryde, by the Executive Council of the Association, in favour of abolishing the medical examination by the Society of Apothecaries. He expressed his great regret at this resolution; and said that the examination was fair and comprehensive; that the examiners were plentiful and competent; that the Society had deserved well of the profession for the efforts it had made to promote education, more especially in the support of a botanical garden for purposes of study, and the offer of prizes for proficiency in botany and materia medica. He said also that the Society chose some examiners by competition from among men outside its own body, thus refuting any charge of exclusiveness.

Papers.—The following were read.

1. Dr. Uhthoff: Notes on Cases of Cystitis.

2. Dr. Newth: On Insanity in General Practice.

3. Mr. Roth showed a small Faradisation Machine at the small price of 25s., urging its merits as being suited for use by patients at home.

Superannuation of Poor-law Medical Officers.—A discussion followed, on the Poor-law question alluded to by the Chairman. The following resolution was carried unanimously.

"That, the superannuation of the Poor-law medical officers being at the option of guardians, this meeting is of opinion that a fixed amount should be awarded to the Poor-law medical officers after twenty years' service; and that the Executive of the British Medical Association be requested to use their best endeavours in that direction."

Dinner took place at the hotel. Dr. Byass presided.

SOUTHERN BRANCH: DORSET DISTRICT.

A MEETING was held at Wimborne, on Wednesday, October 19th; Dr. FREDERICK GRIFFIN, of Weymouth, in the chair.

Officers.—The following were elected: *President-elect*, J. Roberts Thomson, M.D. (Bournemouth); *Vice-Presidents*, J. C. Leach, Esq. (Sturminster Newton), F. D. Lys, Esq. (Bere Regis); *Secretaries and Treasurers*, W. G. Vawdrey Lush, M.D. (Weymouth), and C. H. Watts Parkinson, Esq. (Wimborne).

New Members.—Mr. H. G. Linner (Bournemouth) and Mr. James Bartlett (Winfrith Newburgh) were elected members of the Branch and District.

A Discussion on Summer Diarrhœa took place.

Communications.—The following papers were read:

1. Mr. Hemming: Cases illustrating the Value of the Laryngoscope in Diagnosis and Treatment.

2. Dr. Leach: Short Notes of a Case of Pernicious Anæmia, with *Post Mortem* Examination.

3. Dr. Leach: A Case of Strangulated Bubonocele.

4. Typhoid Fever Temperature-Charts were shown by Dr. Batterbury.

Certificates in Lunacy.—On the motion of Dr. Spooner, it was unanimously resolved that a protest against the statement of the Commissioners of Lunacy, alleging the incapacity of Poor-law medical officers to certify in private lunacy cases, should be signed and forwarded to the Lord Chancellor and the Secretary of State.

British Medical Benevolent Fund.—It was unanimously resolved to make a grant of two guineas to the British Medical Benevolent Fund.

Dinner.—The members dined together at the Crown Hotel, under the presidency of Mr. W. D. Husband.

DEATH OF DR. J. G. HOLLAND.—Telegrams from America bring the intelligence of the death of J. G. Holland, M.D., for many years editor of *Scribner's Magazine*, and a popular author, but better known in literature as "Timothy Titcomb", a *nom de plume* which he assumed while engaged on the literary staff of an American newspaper. The deceased author and journalist was born at Belchtown, Massachusetts, in July 1819, and was educated for the medical profession, graduating M.D. at the Berkshire Medical College, Pittsfield, Massachusetts, in 1845; but, after he had practised medicine for a short time, he turned his attention to literature. After a short visit to Europe, he became, in 1870, editor of *Scribner's Monthly*, which, under his management, attained a degree of popularity, both in America and this country, which has rarely been excelled by any magazine.

CORRESPONDENCE.

TESTIMONIAL TO PROFESSOR VIRCHOW.

SIR,—Kindly allow me, through your columns, to inform the many admirers and pupils of Virchow in this country, that I have undertaken to receive subscriptions towards the testimonial which our brethren of Germany are intending to present him with on the occasion of the completion of the twenty-fifth year of his professorship in the University of Berlin, and of his sixtieth birthday. The presentation is to take place on the 19th inst. It is important, therefore, that subscriptions should be sent to me in sufficient time to be transmitted to Germany before that date. For the guidance of subscribers, I may mention that the subscriptions in Germany range from 20s. upwards, with an average of 50s.; and that I shall be happy to receive either cheques crossed Bank of England, or post office orders on the office, Vigo Street, London, W., made payable to myself.—I am, Sir, yours faithfully,

J. S. BRISTOWE.

P.S.—The following subscriptions have been received:—Sir James Paget, £5; Sir William Mac Cormac, £2 10s.; Dr. Gerald Yeo, £2 2s.; Dr. Bristowe, £2 2s.; Dr. Ord, £1 1s.; Mr. Ernest Hart, £1 1s.

PARADOXICAL TEMPERATURES.

SIR,—I should be glad if you will grant me space to say a few words relative to the case of "excessively high temperature" brought by Dr. Stephen Mackenzie before the Clinical Society on October 28th. As I had nothing new to bring forward on the subject, I did not feel anxious to occupy the time of the Society; and, besides, the late hour rendered it impossible for me to indulge in the remarks which I now submit to you.

That Dr. Mackenzie's case, looking on it *per se*, was very probably one of imposture, seems fairly clear; although, seeing that most of the best observed cases of the kind are characterised by a decided evanescence of the alleged high temperatures, the absence in this case of anything like a careful *continuous* observation, under strict precautions against all known or hitherto conceivable fraudulent methods of raising the mercury, renders the demonstration somewhat doubtful. But, on the good chance of the case being spurious, I am glad to have an erroneous datum removed from the paper in which I quoted it, and which I published in the JOURNAL of December 20th, 1879.

I considered myself justified in writing a short paper on this matter for the meeting of the Association in Cork, mainly by a case which I and others had carefully observed, with our eyes well open to the immense probability of fraud, owing to the *à priori* unlikelihood of the genuineness of the paradoxical temperatures in question. In this case, several high temperatures, without any concomitant or explanatory phenomena, were registered in the *mouth;* several in the axilla, the patient's hands being visible, and the locality of the thermometer having been previously examined; and on more than one occasion (when a continuous observation was made) the patient's arm having been securely strapped to her side, with seals placed on the strapping in such a manner as to render its removal practically impossible. For full details of this case, with some remarks thereon, I would refer those who are interested in the question to my paper quoted above, and to a longer statement of it in the *Lancet* of May 11th, 1878, and March 15th, 1879. It will be seen that all the methods hitherto suggested of fraudulent or irrelevant raising of the mercury were absolutely eliminated, including the two well-known procedures mentioned by Dr. Mahomed; viz., (1) that of rubbing the bulb of the thermometer with the moistened finger; and (2) that of expiration on the bulb of the thermometer enclosed in a layer of dry silk or flannel. The latter method was alluded to and ably explained in the *Lancet* by Dr. W. Roberts of Manchester within, I think, the last year. Nothing new, therefore, in aid of the detection of fraudulent procedure in this matter, was suggested by any of the speakers at the Clinical Society.

It surely is well known and widely admitted by many hospital physicians, and from published cases, that instances of fictitiously high temperatures, no less than of countless other feigned symptoms of disease, are by no means unfrequent, especially in the case of female hospital patients. We scarcely want elaborate re-assertions, or even, what is more to the point, but more difficult to obtain, demonstrations of this. Still, any warning against deception, be it only a somewhat oft-repeated statement, is valuable, when a subject of confessed difficulty, and, in the present state of knowledge, considerable unlikelihood, is under investigation. For my own part, I would in no wise wish to be considered a champion of the marvellous; but only, because I have, in the spirit of the extremest scepticism, carefully examined at least one

case of paradoxical high temperature, and I failed to shake the evidence for its genuineness; and, further, believing that the present state of scientific knowledge on the matter is not quite as advanced as it is regarding gravitation or biological evolution, I would simply plead that clinical observers at least should regard the question as still open.—I am, sir, yours obediently, H. DONKIN.

Upper Berkeley Street, November 1881.

*** We have been informed that the patient has since admitted her imposture to Dr. Mackenzie.

DR. PALLEN AND LACERATIONS OF THE CERVIX UTERI.

SIR,—In the JOURNAL of October 22nd, Dr. Pallen of New York has, in very complimentary terms to myself, drawn attention to an inaccurate reference to his experience in the operation for lacerated cervix uteri, which I made in the Obstetric Address at Ryde, and which, I can assure him, was quite unintentional.

On referring to my notes, I find the following remarks attributed to him in the report of his paper, and of his reply subsequent to its discussion at the Cambridge meeting, as given in the BRITISH MEDICAL JOURNAL of September 4th, 1880: "Of about nine hundred patients treated in the gynæcological class of the University Medical College of New York, during the last six years, more than two hundred had lacerations of the cervix, which either interfered with the generative functions, or produced more or less disease;" "and he believed it was absolutely necessary to sew up every case of lacerated cervix." I regret I should have thus, by some unaccountable slip, misquoted Dr. Pallen; but it in no way affects the opinion I expressed, that, in this country at least, the lesion in question does not seem to attain the pathological intensity, nor to demand the elaborate operative procedure, which it does in America. Referring to other of his remarks, I can assure Dr. Pallen that I am entirely without prejudice as regards the operation for the cure of lacerated cervix; that I do not identify myself with either the "objective" or "theoretical" schools of gynæcology; and that he can hardly charge me with want of practical knowledge of such subjects. I might remind him that, as far back as March, 1859, I performed, with complete success, the operation for vesico-vaginal fistula, discarding for the first time the shields, clamps, split-shot, and other unnecessary paraphernalia, with which it had previously been encumbered; and that I have invented a metrotome, with which I and others, both in this country and the continent, have thoroughly incised many uterine cervices.

Dr. Pallen has expressed his regret that I had not heard the debate on Dr. Henry Bennet's paper on Lacerations of the Cervix Uteri, in the Obstetric Section of the International Medical Congress. I certainly had not the pleasure and privilege of hearing that Nestor of the *ars obstetrica* on the occasion in question; but, on referring to the official abstract, I find him reported to have said: "He had attended, during a long gynæcological career, many hundred cases of laceration, slight and severe, without once operating. He always found that, under the treatment of the inflammatory state which attended them, the ulcerated edges healed, the indurated tissues softened, and a mere notch remained. He had never had irrestrainable hæmorrhage from this cause in subsequent labours, or extension of the laceration to the body of the uterus. He thought the operation a totally unnecessary one, unless in some extreme exceptional case. He drew attention to the fact, that one generation of surgeons divided the cervix deeply to cure all kinds of uterine disease; and that now another sews up accidental divisions to cure precisely the same diseases." These valuable and authoritative statements are entirely corroborative of the line of criticism I took up in my address with reference to lacerations of the cervix uteri, and the proposed operation for their cure; and that, as far as experience goes in this country, there is a close pathological and therapeutic analogy between the rectum and the cervix uteri.—Yours faithfully, J. G. SINCLAIR COGHILL.

St. Catherine's House, Ventnor, I.W., Oct. 24th, 1881.

ABDOMINAL SECTION AS AN AID TO PATHOLOGICAL INVESTIGATION.

SIR,—The admirable narration of Dr. Bantock's cases of removal of the ovaries, as given by Mr. Alban Doran, is a confirmation of an experience, now quite common to me, of the extraordinary light shed by many of our recent advances in abdominal surgery upon obscure points of pathology. No one, I fancy, could have imagined, previous to the appearance of to-day's JOURNAL, that chronic ovaritis could cause chronic peritoneal dropsy, yet, looking back on my own experience, I believe I can quote a case for which Mr. Doran's paper affords a complete explanation of a train of circumstances which puzzled all who saw them. About two years ago, a case of hydroperitoneum was under my care in the Women's Hospital, which was sent to me as a case of ovarian dropsy. I had no difficulty, however, in determining its true character, and I tapped her several times. She, like Mr. Spencer Wells's patient, had effusion in both pleuræ. As I could find no cause for the dropsies, I transferred her to the care of one of the physicians to the General Hospital, on the understanding that she was to be returned to me for abdominal section, if nothing more was made out. By a matter of forgetfulness, she was not so returned; and, under the belief that it was a case of cystoma, she was transferred to the obstetric officer of that institution for operation. My original diagnosis was confirmed, but, unfortunately, nothing was made out when the abdomen was opened; and, when the girl died, no *post mortem* examination was made, and we are in the dark as to the actual lesion in this most interesting case. Many of the facts, however, as I now look back on them in the light of Dr. Bantock's remarkable experience, make me believe that my case was like his. Certainly, no stronger arguments than those of Mr. Doran's paper could be urged for the practice I have introduced of exploring in all cases of doubt.

Only one point in the paper needs criticism; and that is Mr. Doran's assertion that, in the ovaries, where normal ovisacs and ova were found, "ovulation had been arrested for years". Evidence is rapidly accumulating in my hands, pointing to the conclusion that ovulation and menstruation have no necessary connection; and that *corpora lutea* are not a necessary result of the maturation and shedding of true ova. This is far too wide a question for a letter, and the evidence is in course of publication.—I am, etc., LAWSON TAIT.

October 29th, 1881.

SPECIAL CORRESPONDENCE.

ABERDEEN.

[FROM OUR OWN CORRESPONDENT.]

Opening of the Session at the University.—The Government Grant.—New Dissecting-room.—Address of the Professor of Surgery.—Dr. Stirling on the Colour-Sense, etc.

THE medical session at Aberdeen University commenced on Wednesday, the 26th ultimo, and, as far as one can judge at present, the number of students seems to be greater than ever. This session will be marked by two great improvements, both of which are direct benefits to the students. This is the first winter session in which the new ordinances regulating graduation in medicine will come into full play, and students will be at liberty to arrange their classes so as to make their studies fit into these new regulations. Again, this session is marked by the opening of a large new dissecting-room, second to none in the kingdom for compactness, ease of access, efficient lighting, and, above all, for the means of personal comfort which it affords to students. The indefatigable Professor of Anatomy, Dr. Struthers, has worked hard to obtain this improvement, and he is to be congratulated on the thoroughly efficient and excellently planned dissecting-room now just completed. The new rooms were opened on Wednesday, when a large company of those interested in the welfare of the medical school visited the new anatomical buildings. Amongst those present were the Earl of Aberdeen, the Principal; John Webster, Esq., M.P.; the Lord Provost, etc.

Professor Struthers took occasion to point out how small a sum the University of Aberdeen receives from the Government compared with the large sums which have been voted to Edinburgh, Glasgow, and to some of the English colleges and museums. Aberdeen is, therefore, to be congratulated that it does such excellent work on the means at its disposal. One of the main characteristics of this school is, that the professors know each student individually, so that a system of what might be called "parental supervision" is exercised by them over the students. Of course, this is only possible in a school of moderate dimensions, such as that of Aberdeen.

The new dissecting-room is a large oblong room lighted from the roof, and containing a gallery which runs along one wall. This gallery is equivalent to a great increase of floor-space, and it will be used for the dissection of the limbs after they are removed from the trunk. The gallery opens *en suite* into the gallery of the museum, the bone-room is *en suite* with the dissecting-room, and, what is of extreme importance, all the rooms are on the same floor, and open conveniently one into another.

The Professor of Surgery [illegible] on Surgery, and he pointed out the great part that [illegible] in the teaching of Surgery in Aberdeen.

Great improvements [illegible] in the arrangements of the

physiological department, under Professor Stirling. New arrangements for diagrams, for the display of microscopic specimens, and for the exposition of apparatus and experiments which have been lectured on have been made. According to his usual custom, Dr. Stirling gave an introductory lecture on a special subject. After some introductory remarks on the necessity for a chair of pathology, and on the recent foundation of a number of bursaries for medical students, liberally provided by the Town Council, Professor Stirling gave an exhaustive and eloquent address on The Colour-Sense and Colour-Blindness. After describing the objective and subjective nature of colour, he gave examples of the existence of a "colour-sense" or colour-perception in the lower animals, mentioning the experiments of Sir John Lubbock on bees, ants, and daphnias. The physiological classification of colours in living organisms adopted by Mr. Alfred R. Wallace, was alluded to, and many instances of "protective", "warning", and "sexual" colours were cited. The evidence of colour-sense in vertebrates, although it is not so strong as in some of the animals above mentioned, still it was conclusive. Dr. Stirling then dealt with Mr. Gladstone's views on the "Colour-Sense of the Greeks", derived from a study of the words for colour used in the Homeric poems. Dr. Stirling pointed out that these views were adduced on philological grounds alone, and gave it as his opinion that the views of Mr. Gladstone on the imperfectly developed colour-sense of the Greeks had been entirely refuted by the powerful and unanswerable arguments of Mr. Grant Allen. The subject of colour-blindness was next discussed, and it was pointed out that it is often hereditary, although it may be acquired as the result of an injury. It cannot be doubted that colour-blindness is much more common than is supposed. The bearing of the subject on signalling at sea and on land was strongly insisted on. Already, the examination of colour-perception is being carried out in many of the continental navies.

Professor Stirling then dealt with the recent researches of M. Pasteur and Professor Lister; and he pointed out that, as small-pox was now thoroughly under control—thanks to Jenner, and as the "charbon" in sheep and the "choléra du poule" had recently been brought into the same category through the labours of Pasteur and others, and by experimentation on animals, it was not too much to hope—nor was it Utopian to suppose—that other diseases, both of man and the "beasts of the field", may soon be brought within at least "measurable distance" of extirpation. Reference was made to the application of Mr. Darwin's recent researches on earth-worms to Pasteur's experiments on charbon. Dr. Stirling concluded his eloquent address by questioning the justness of the law which permitted men to maim and kill animals in order to gratify the instinct for "sport", while those who wished to benefit humanity—the physiologists and pathologists—are subjected to restrictive legislation, which is seriously detrimental to the progress of science, and therefore to the best interests of mankind.

PARIS.

Death of Dr. Houel.—A Dwarf.—Cremation.—The School of Medicine.

THE Paris Faculty has just sustained a great loss in the death of Dr. Houel, which took place suddenly on Wednesday, the 19th instant, from the bursting of an aneurysm. He was born in 1815, and early took to medicine, which he studied under the auspices of his uncle, Dr. Auzoux, celebrated for his anatomical models. Dr. Houel took his degree in 1848, and became an *agrégé*, or sub-professor, in 1860; but it was as conservator to the Musée Dupuytren (a museum of pathological specimens) that he was best known: this post he held for many years to the day of his death. He published a most complete catalogue of the specimens in the museum, which will be found a most instructive guide to those wishing to study the collection.

At the last monthly meeting of the "Presse Scientifique", a dwarf, a boy about 14, was exhibited. He is about 80 centimètres, or about 30 inches, in height, and weighs only 9 kilogrammes, or about 18 pounds. His head is small, but not out of proportion with the rest of his body. He was subsequently exhibited at the Academy of Medicine, where M. Jules Guérin pronounced the head to be an example of "microcéphalie généralisée". His intelligence is about the average of boys of his age and station in life, and he has the air of importance peculiar to dwarfs. His parents, who are French peasants, are of ordinary stature, and so is his elder brother. He is well made, has rather an aquiline nose, and reminds one of the model in wax of the dwarf "Bébé", twenty inches high, to be seen under a glass bell in the anatomical museum attached to the School of Medicine.

Cremation, or incineration, cannot be said to be making much progress in France; in fact, it may be considered *nil* as yet, notwithstanding the zealous efforts of the partisans of this mode of sepulture to introduce it into this country. The subject was lately brought before the Academy of Sciences by the presentation by Baron Larrey of a most interesting work, published conjointly by Drs. de Pietra Santa and Max Nansouty, entitled, *La Crémation, [illegible] en Europe, en Amérique, et en Asie.* The work, as its title indicates, is most complete, and may be consulted with advantage by everybody, whether for or against cremation. It contains a very comprehensive bibliographical index, and several plates, one of which, a large one, is a plan proposed as a "Monument Crématoire" for Paris.

After a holiday of fully three months, the School of Medicine is to reopen its doors on November 3rd; and the following is the programme of the winter session. Medical Physics, M. Gavarret; General Physics, M. Gariel; Medical Pathology, M. Jaccoud; Anatomy, M. Sappey; General Pathology and Therapeutics, M. Bouchard; Medical Chemistry, M. Wurtz; Surgical Pathology, M. Duplay; Operative Surgery, M. Le Fort; Histology, M. Robin; History of Medicine and Surgery, M. Laboulbène. Clinical Medicine, M. G. Sée, at the Hôtel-Dieu; M. Laségue, at La Pitié; M. Hardy, at La Charité; M. Potain, at Necker Hospital. Clinic for Mental Affections, M. Ball; for Diseases of Children, M. Parrot; for Syphilitic and Cutaneous Affections, M. Fournier. Clinical Surgery, M. Gosselin, at La Charité; M. Richet, at the Hôtel-Dieu; M. Verneuil, at La Pitié; M. Trélat, at the Necker Hospital. Ophthalmological Clinic, M. Panas, at the Hôtel-Dieu; Obstetrical Clinic, M. Depaul; Medical Jurisprudence, M. Brouardel. Besides the above courses, which would appear to be sufficiently complete, there are a number of supplementary lectures given by *agrégés* and *ex-officio* professors, for whose benefit they are given as much as for that of the students who attend them.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE ASHBURTON AND BUCKFASTLEIGH COTTAGE HOSPITAL.

THE fifth annual report of this institution shows that it is making satisfactory progress. The accommodation in the hospital remains the same as at the end of 1879, viz., seven adults and one child's bed in four wards.

From the report of the medical officers, it appears that 48 patients were treated during the past twelve months—an increase of ten upon the preceding year, making a total of 148 since the commencement of the Hospital in 1876. The average stay in the house has been forty days. Several cases of accident have been received, the most serious being that of a boy who had been shot in the head, necessitating the removal of one of his eyes. The operation was successfully performed and the patient progressed so favourably that he was soon able to leave the hospital.

From the financial statement of the treasurer, it appears that the total receipts for the year have been £203 15s. 1d.; while the expenditure has amounted altogether to £221 0s. 3d.; this again shows an adverse balance of £17 5s. 2d. There have been two resident attendants, viz., the nurse and a servant, throughout the year, and an average of five and a half patients, making a total of seven and a half inmates to be provided for; the housekeeping has cost £121 19s., being at the rate of 6s. 3d. per head per week; which contrasts favourably with former years.

WEST BROMWICH DISTRICT HOSPITAL.

THE annual report for 1880 shows that the total number of in-patients admitted during the year was 361, compared with 259 in the previous year; giving an increase of 102, or nearly 40 per cent. During the year, 3,773 out-patients were treated, being an increase of 761, compared with the previous year. The average cost of each out-patient was 2s. 6d. The in-patients cost £1,261 12s. 5d., being an average of £3 9s. 11d. each, or £1 7s. 7d. less than last year. The cost per bed of the average number occupied—namely, twenty-eight daily—amounted to £45. The total expenditure within the year was £1,733 4s. 11d.; the total income amounted to £1,902 14s. 9d., giving an increase of £216 18s. 8d. upon the previous year. The local Hospital Sunday collection realised £265, and the Hospital Saturday collection yielded £909. The building of a new wing was commenced in February last. The builder's contract for its erection amounted to £2,578. It is expected that this work will be completed before the end of the present year. The new wing will contain twenty beds, bringing the total number of beds in the institution up to fifty. The accommodation for out-patients at the hospital is utterly inadequate. An appeal is now being made for funds to enable the committee to commence the erection of a new out-patient department.

PUBLIC HEALTH

POOR-LAW MEDICAL SERVICES.

In the Cockermouth rural district, there were during last quarter 93 deaths, equal to a rate of 10.1 per 1,000, as compared with 14.3 for the corresponding quarter of last year.

In the week ending September 15th, there were 47 deaths from all causes at Darwen, Lancashire, equal to an annual death-rate of 18.8 per 1,000. Eight of the deaths were due to zymotic diseases, 4 of which were from scarlet fever. On discovering a case of this disease at a farm-house, the health-officer (Dr. Armitage) took the wise precaution of ordering all the cattle that were being milked to be removed entirely from the place, so as to prevent the infection of the milk.

SCARLATINA AT PRESTWICH.

The health-officer of Prestwich (Mr. J. H. Coveney) has presented to the local authority of that place a special report on the prevalence of scarlet fever in his district. From this it appears that the total number of persons affected has been 29, three of whom died after a few days' illness. Two are reported to be very ill, and twenty-four to be improving. The health-officer attaches no blame to the milk-supply; but he regards the continuance of the disease as without doubt to be due chiefly to the intercourse of the healthy with the sick. He recommends that all infected families should have their names at once notified to the school-attendance officer, and that no child should be allowed to return to school unless provided with a certificate from the health-officer that the child is free from disease.

SCARLET FEVER AT HULL.

A serious epidemic of scarlet fever is raging at Hull. At the last meeting of the sanitary authority, the health-officer reported that 128 fresh cases had been discovered during the previous week, and that there had been 68 deaths from the disease in a single fortnight. The fever is said to be distributed all over the town, and its spread is ascribed to the carelessness of the populace as regards infection. It is to be hoped that some prompt measures will be taken to secure the isolation in hospital of the patients (of whom there must be many) that cannot be treated for the disease at their own homes without danger to the health of others.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A meeting of the Council of this Association was held at their rooms, 3, Bolt Court, Fleet Street, on Tuesday, November 1st; Dr. Joseph Rogers in the chair. *Inter alia*, it was unanimously resolved that a letter be sent to the Local Government Board, asking that the provisions of their circular letter, and subsequent general order, issued July 1881, in reference to non-resident district medical officers in the metropolis, should be extended to provincial towns and rural districts; and that, in future appointments of such non-resident medical officers, if, on the report of the guardians appointing, and the inspector of the district, it appeared that the reasonable requirements of the sick poor would be fairly met, such appointments should not, as heretofore, be subject to annual confirmation. It was also resolved that a letter should be forwarded to the Right Hon. the Earl of Shaftesbury, Chairman of the Commissioners in Lunacy, complaining of the ungenerous reference to Poor-law medical officers on page 121 of the last Report of the Commissioners. It was also resolved that a letter be forwarded to the editor of the *Morning Post*, traversing the statement made by an anonymous correspondent in their issue of the 5th ult., which statement reflected most seriously and insultingly on the *bona fides* of the Poor-law Medical Service, in alleging that they were in the habit of performing capital operations unnecessarily, solely for the fees paid for the same. It was finally resolved that, at an early date, an effort would be made to reach the student class, with the view to educate them into the positive refusal to accept unpaid appointments or badly remunerated Poor-law offices.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Lanchester.—Mr. Kenwood's report is somewhat scanty in information and faulty in construction. He estimates the population of his district at 6,060, and reports the occurrence of 129 deaths, the deaths thus standing at what is described as the favourable figure of 21.2 per 1000. Nineteen deaths were due to zymotic diseases: measles, which was reported as severely epidemic [illegible] claiming 15 victims. Phthisis was fatal in eight, and bronchitis, pneumonia, and pluerisy in thirty-three cases. During the year several inspections were made of the district, which resulted in the discovery of many minor unsanitary conditions. Amongst other improvements effected has been the provision of a constant supply of water. The sewerage appears in good condition; and it is satisfactory to learn that the authority have under consideration a further scheme for draining the lower part of the town.

Sunderland.—Dr. Yeld's report is, as usual, elaborate and interesting, both from a statistical and a sanitary point of view. The death-rate is given at 24.4 per 1,000—an increase upon the rates for the previous six years. This result seems to have been mainly due to the excessive and fatal prevalence of scarlatina, diarrhœa, and measles. The first disease was epidemic throughout the year, and caused no fewer than 312 deaths. Dr. Yeld attributes this alarming mortality chiefly to the lack of early information of the cases; and he goes so far as to express the opinion that in hundreds of instances the disease would never have been contracted, if the first case in the family had been reported and properly isolated. Twenty-four cases only were admitted to the hospital, and it would really seem time that some scheme for the reconstruction of the rules of this institution were carried into effect. The deaths from diarrhœa numbered 203, all of which, with the exception of 15, were those of children under five years of age, 112 being under one year old. The greatest mortality occurred, as usual, during the autumn months. Whilst regarding the influence of meteorological conditions as affecting the prevalence and fatality of this disease, Dr. Yeld holds improper feeding responsible in a great measure for the excess in the mortality. An inquiry made respecting the feeding of infants showed that, out of 112 children dying under one year old, 10 only had been nursed by the mother. In view of this, a code of instructions was drawn up and circulated, pointing out the essentials of infantile diet. Ninety-nine deaths were registered from measles during the year, 95 of which were those of children under three years of age. Only one death from this disease occurred in 1879; and in this connection it is remarked, as a curious coincidence, that during the last six years an epidemic of measles has occurred every other year. The sanitary condition of the borough progresses. The disposal of the excrement received attention, and the extension of the sewerage is almost finished; but there are still one or two large areas that need main drainage, and it seems a frequent practice for house-drains to be laid in a defective and faulty manner. More attention has been paid to the disinfection and cleansing of rooms; and the slaughter-house by-laws were duly enforced as far as possible; but nothing further has been done towards the provision of public *abattoirs*.

Barnsley.—A large share of Dr. Sadler's very readable and practical report for 1880 is taken up by an elaborate discussion of the causes of summer diarrhœa, which last year afflicted Barnsley very severely. Dr. Sadler has evidently given much thought to the subject; and, though he has no new theories to propound, he shows reason for his belief that the disease is essentially a zymotic one, and that it depends largely for its origin upon the admission into the human body of "minute organisms which have the power of rapidly multiplying when placed in favourable conditions". Out of a total of 167 deaths registered as due to zymotic causes, no fewer than 88, or more than half, were from diarrhœa, so that there is reason for the prominence that Dr. Sadler gives to the subject. Of the other zymotic diseases, the most prevalent was scarlet fever, which was responsible for 46 deaths. The health-officer deplores the fact of this outbreak, "when a little care on the part of those in charge of children infected with the disease would have prevented it from spreading", and he urges strongly the need for compulsory notification of infectious cases. The general death-rate was high, being equal to 23.37 per 1,000 of the estimated population. The death-rate among children was also very excessive, amounting to more than 52 per cent. of the whole; this result being no doubt to a large extent due to the fatal prevalence of diarrhœa and scarlet fever. The work of sewerage extension seems to be advancing in the town, but the system of the disposal of refuse is very primitive, and is susceptible of considerable improvement.

Tyne Port.—This report is an admirable specimen of method and arrangement, and it records in a systematic manner the work done in [illegible] the year. It is a pity, indeed, that the Local Government Board has reprinted it (with others) as a [illegible] 8 of which were typhoid fever, 2 small-pox, and 1 measles. In addition, two sailors, who were admitted in 1879 while suffering from small-pox, occupied the hospital for the first three months of the year,

and discharged cured. The number of ships inspected by the sanitary inspector was 2,067, with the result that 1,220 were found in a satisfactory sanitary condition, 1,425 were passed, and 313 were in an unsatisfactory state.

OKEHAMPTON RURAL DISTRICT.—This district, which, up to last year, formed part of the combined area, under the charge of Mr. Wynter Blyth, has now, since the dissolution of the combined district, been placed under the care of Mr. Linnington Ash, whose report for 1880 is therefore, necessarily incomplete. The birth and death rates for the year were 25.4 and 16.0 per 1,000 respectively. Zymotic diseases are credited with 43 deaths, and pulmonary diseases with 31, or nearly one-ninth of the total mortality. The infantile deaths were 42 in number, equal to 15.1 per cent. of the total deaths, whilst at the other extreme of life 123 deaths were of persons over 60 years of age, 36 over 80, and 8 over 90. Measles, whooping cough, and scarlet fever were somewhat prevalent in the district. The action of a school in spreading these diseases was so obvious that the school authorities themselves closed the premises, even before any information of the epidemic reached Mr. Ash. That the agency of schools in spreading infectious diseases is great, no one doubts; but even the power of closing these establishments, which Mr. Ash suggests his authority should possess, would only meet the difficulty half-way, since the district is without hospital accommodation for isolation. The removal of nuisance seems to have been well attended to; butt he closet accommodation is far from satisfactory, privies and open cesspits abounding, and in some cases being dangerously near the wells. The water-supply is ample, but in many cases shallow surface-wells are in use, which are not uncommonly in proximity to drains, privies, and other sources of pollution.

OBITUARY.

THOMAS HAYDEN, F.K.Q.C.P.I.,

VICE-PRESIDENT, ROYAL IRISH ACADEMY; PRESIDENT OF THE DUBLIN BRANCH OF THE BRITISH MEDICAL ASSOCIATION, ETC.

DURING the past month, the Dublin School of Medicine has sustained two grievous losses. Last week, we recorded the death of one of its most distinguished obstetricians. This week, we have to register the decease of one of its most eminent physicians. Long, indeed, will the Dublin Branch of the Association remember the fatal fortnight which robbed it not only of its president-elect, but also of him who worthily occupied the presidential chair itself.

For many years, Dr. Hayden has been known to have suffered from laryngeal congestion and bronchial irritation. On the 1st ultimo, while attending a meeting of the Senate of the Royal University of Ireland, of which he was a member, he contracted a cold. Pleuro-pneumonia of the right side set in, and rapidly extended; the left lung subsequently became engaged, and for many days his life was despaired of. An unexpected crisis occurred in the third week of his illness, and he rallied somewhat. No tangible improvement, however, followed; and, an attack of acute bronchitis setting in last Saturday night, proved fatal the following afternoon.

Dr. Hayden was the son of the late John Hayden, Esq., of Parson's Hill, near Fethard, in the county Tipperary. In 1850, he obtained the licence of the Royal College of Surgeons in Ireland, and soon afterwards was appointed Lecturer on Anatomy in the Ledwick School of Medicine in Dublin. Here he obtained a high reputation as a teacher, and acquired that accurate and extensive anatomical knowledge which is so apparent in his writings.

On the establishment of the Catholic University of Ireland in 1855, he was appointed by its then Rector, the present Cardinal Newman, joint Professor of Anatomy and Physiology. The late Dr. Cryan shared the duties of this chair with Dr. Hayden until the former's lamented death last February; and, in the latter's own words, "the work, assigned to them in common, was apportioned between and performed by them for a period of twenty-five years, without even a momentary interruption of harmony and friendship". Dr. Sullivan, President of the Queen's College, Cork, and Dr. Lyons, M.P., are now the only surviving members of the original professional staff of the University.

In 1852, Dr. Hayden became a Fellow of the Royal College of Surgeons in Ireland, and, in 1860, a Licentiate of the King and Queen's College of Physicians. The following year, he was appointed physician to the then newly established Mater Misericordiæ Hospital, a noble institution, on which, in the score of years that he has laboured in it, he has shed an incipient reputation that it will fondly cherish, and may well strive to emulate. Having resigned the Fellowship of the College of Surgeons, Dr. Hayden was elected, in 1867, a Fellow of the College of Physicians, of which he was subsequently a Censor, and more recently Vice-President. Last year, he was a candidate for the Presidency of the College, but gracefully retired before the election, in favour of a senior Fellow.

Dr. Hayden contributed numerous papers to the *Dublin Journal of Medical Science* and other periodicals, and made frequent valuable and interesting communications to the Pathological and to the Medical Societies of Dublin. He was a frequent attendant at the annual meetings of the Association; and was present, and took part in the discussions in the medical section, at the Ryde meeting. In July, 1875, his great and classical treatise on *The Diseases of the Heart and Aorta*, on which he had been at work for the preceding nine years, appeared. Although it far exceeded the limits originally designed, chiefly in consequence of the writer's desire to do justice to others, and hence has been looked upon by some as too encyclopædic, the work is to a very large extent an original one. It is based on the author's own carefully made observations on his favourite subject of study; and it is replete with reports of clinical cases, and with statistical tables, invaluable to the practitioner and to the student of cardiac diseases. But this is not the place to review the book. We would rather look upon it as a not unfaithful index of the character of its author. Modest and unassuming, he was earnest, painstaking, and laborious. Strictly accurate and truthful in his observations, he was—while most careful and logical in drawing his conclusions, and in expressing them—solicitous to acknowledge the labours of others. He was a student of progress, and ambitious to add to medical science more for itself than for himself. Dr. Hayden was one of the most straightforward and widely respected members of the profession. A man of strict but non-obtrusive religious convictions, he possessed a thorough spirit of independence and singleness of purpose, which secured him the respect of all honourable men. These qualities were well exhibited on a memorable occasion in the College of Physicians, when, stung by the taunts and innuendoes that were then publicly and privately made, he declined to be swayed by party or creed; and, in eloquently advocating the independence of the College and his own, triumphantly vindicated himself from the allegations made against him. But Hayden bore no one animosity. Two of his opponents, on the occasion to which we refer, were his constant attendants during his fatal illness. We never heard him say an unkind word of anyone; and his kindness towards the junior members of his profession is well known. His hospitality to his more intimate friends was simple, genuine, and unaffected; and his courtesy and gentleness of manner to all alike, natural and sincere. May he rest in peace.

THOMAS HODGSON WATTS, M.D.

DR. WATTS was born at Blyth, Northumberland, educated at Newcastle-upon-Tyne, and commenced his medical career by being apprenticed to a surgeon at Shields; after which, he travelled on the continent, visiting the principal hospitals in France, Austria, and Germany. He became an M.D. of Pisa in 1840, M.R.C.P. London in 1844, and M.D. of Edinburgh in 1848. He then settled in Manchester, where he soon acquired an extensive consulting practice, making a specialty of diseases of the chest; and was appointed Physician to the Ardwick and Ancoats Dispensary, the Manchester Royal Infirmary, and the Fever Hospital and Lunatic Asylum at Cheadle. About 1848, he, in conjunction with the late Messrs. Dorrington, Dumville, Southam, and others, founded the Chatham Street School of Medicine, in opposition to the Pine Street School, and became the Lecturer on the Practice of Medicine. The two schools were afterwards amalgamated, and are now merged in the medical department of Owens College. Dr. Watts's kindness to the poor was proverbial, and his charities were numerous, though very unostentatious. He died, unmarried, at his residence, Erlsmere, Old Trafford, from cancer of the face, after long suffering, at the age of 65.

VALUABLE PRIZES.—The Royal Academy of Medicine at Brussels announces a prize to be awarded in January, 1884, of 8,000 francs (£400) for the best explanation of the pathology and therapeutics of the diseases of the nervous centres, especially epilepsy, illustrated by clinical data and experiments. If the essayist is successful in making a decided advance in the therapeutics of such diseases: if, for instance, he discovers a successful treatment for epilepsy—he is to receive, in addition to the sum above stated, a second sum of 25,000 francs (£1250). This money has been placed in the hands of the Academy by a person who does not wish his name to appear. In Italy, the Academy of Medicine of Turin offers a prize of 20,000 lire (£800) for the best essay on "The Physiopathology of the Blood." This is the Riberi Prize, and is open to the world, but the essay must be either in the Latin, French, or Italian tongue.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted members on October 27th, 1881.

Ranking, John, M.D.Oxford, Tunbridge Wells.
Sainsbury, Harrington, M.D.Lond., 21, Hanover Street, W.C.
Springthorpe, John W., M.B.Melbourne, 49, Manor Park, S.E.
Willcocks, Frederick, M.D.Lond., 52, Scarsdale Villas, W.

The following were admitted Licentiates.

Bickle, Leonard W., 7, Albert Square, S.W.
Clowes, Herbert A., M.B.Durham, Guy's Hospital, S.E.
Dawson, Rankine, 4, Chester Street, S.E.
Drysdale, Alfred E., 3, Stanford Road, W.
East, Frederick W., M.B.Durham, 2, Clapham Square, E.
Foley, James L., M.D.Montreal, 17, Horton Road, E.
Gubbin, George F., Westminster Hospital, S.W.
James, Charles A., Dispensary, Stoke Newington, N.
Jennings, Charles E., London Hospital, E.
Macnamara, James T., 19, Paris Street, S.E.
Mark, Leonard P., 11, Queen Anne Street, W.
Martin, John M. H., M.D.Brussels, Blackburn.
Miller, Herbert P., 86, Stoke Newington Road, N.
Palmer, John, Middlesex Hospital, W.
Ross, James, M.D.McGill, 43, Crosier Street, S.E.
Shearman, Percy E., 6, Grove, South Wimbledon.
Twynam, George E., 18, Blandford Square, W.
Usher, John E., M.D.New York, 7, Argyll Square, W.C.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations, were admitted Licentiates in Dental Surgery at a meeting of the Board of Examiners on the 28th ultimo.

Messrs. W. Snowdon Hedley, M.R.C.S., of the Army Medical Department; Francis Richardson, Derby; William A. Turner, Chichester; C. Browne Mason, Exeter; and H. Parry Headdley, Oxford.

One candidate was rejected.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BELGRAVE HOSPITAL FOR CHILDREN, Gloucester Street, Warwick Square. House-Surgeon. Salary, £[illegible] per annum, with board and residence. Applications by 23rd instant.

BIRMINGHAM GENERAL DISPENSARIES.—Resident Surgeon. Salary, £150 per annum. Applications by November 16th.

BRISTOL GENERAL HOSPITAL.—House-Surgeon. Salary, £100 per annum. Applications to the Clerk by November 5th.

BRITISH MEDICAL ASSOCIATION: Collective Investigation of Disease—Secretary to Committee. Salary, £200 per annum, with sum not exceeding £100 per annum for travelling expenses. Applications to Chairman of Collective Investigation Committee, care of General Secretary of British Medical Association, 161A, Strand, W.C., by November 20th.

CARMARTHEN AND JOINT COUNTIES ASYLUM.—Medical Officer. Salary, £100 per annum. Applications to Medical Superintendent.

DENTAL HOSPITAL OF LONDON.—Assistant Dental Surgeon. Applications to the Honorary Secretary by November 14th.

DROGHEDA UNION.—Medical Officer for Termonfeckin Dispensary District. Salary, £110 per annum, with £20 per annum as Medical Officer of Health, registration and vaccination fees. Election on the 8th November.

DURHAM COUNTY HOSPITAL.—Pupil wanted to dispense medicines and assist [illegible] Hospital for £[illegible] per annum. Applications to James Oliver, M.B.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell.—Clinical Assistant for Out-Patient Department. Applications to Dr. Crocker, Welbeck Street.

EAST SUSSEX, HASTINGS, AND ST. LEONARD'S INFIRMARY.—Assistant Surgeon. Applications to Secretary by November 14th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E. Physician. Applications by November [illegible].

GENERAL INFIRMARY, Gloucester, and GLOUCESTER EYE INSTITUTION. Assistant Surgeon. Applications by December [illegible].

ISLE OF WIGHT UNION. Medical Officer; £[illegible] per annum. Applications to Clerk's Office, Newport, by 10th November.

MIDDLESEX HOSPITAL. Surgical Registrar. Applications [illegible] elected on November 14th.

ROYAL FREE HOSPITAL OF DISPENSARY. [illegible] Medical Officer. Applications by November 7th.

ROYAL COLLEGE OF [illegible]. Applications to the Secretary by November 19th.

[illegible] HILL ASYLUM. [illegible] Medical [illegible] to Medical Superintendent.

ST. THOMAS'S HOSPITAL. Assistant Physician. Applications [illegible] A. Tritton by November 16th.

SALFORD GENERAL HOSPITAL. House-Surgeon. Salary, £[illegible]. Applications [illegible].

SOUTH DEVON AND EAST CORNWALL HOSPITAL. House-Surgeon. Applications to Honorary Secretary by November 7th.

MEDICAL APPOINTMENTS.

ALLAN, James, M.A., M.D., appointed Medical Superintendent to the Leeds Union Infirmary, *vice* G. F. Crooke, M.R.C.S., L.S.A., resigned.

ALEXANDER, Robert, M.D., appointed Medical Officer to the Knocknadona Dispensary District, Lisburn, Ireland.

BOWE, Frank, M.B., appointed Resident Medical Officer to the Leeds Public Dispensary, *vice* Dr. Chadwick, resigned.

GREENSILL, J. H., M.R.C.S., L.S.A., appointed Resident House-Surgeon to the Southport Infirmary and Local Dispensary, *vice* A. J. Propert, M.R.C.S., resigned.

HOLLAND, J. J., appointed Dispenser to the Reading Amalgamated Friendly Societies' Medical Association.

JELLY, Frederick A., M.B., C.M., appointed Resident Physician to the Saughton Hall Private Asylum, *vice* A. J. Morris, M.B., C.M., resigned.

PICKWORTH, Alfred J., L.R.C.P., appointed Medical Officer and Public Vaccinator to the Workhouse, Alston District.

POOL, W. J., appointed Dispenser to the Gateshead Dispensary, *vice* W. Kelcey, resigned.

STALLARD, J. Prince, M.B., C.M.Edin., appointed House-Surgeon to the Worcester General Infirmary.

STONEY, H. B., L.R.C.S.I., appointed Medical Officer to the Workhouse and Fever Hospital, Abbeyleix.

STUDDERT, Chas., B.A., M.D., appointed Surgeon to the Erith, Crayford, Belvidere, and Abbey Wood Cottage Hospital and Provident Dispensary, *vice* J. C. Widdup, L.R.C.P., resigned.

TERRY, Henry G., M.R.C.S., appointed House-Surgeon to the Royal United Hospital, Bath.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

DEATH.

FOULIS.—At 191, Hill Street, Glasgow, on the 31st Oct., of diphtheria, David Foulis, M.D., aged 35, Pathologist and Lecturer on Pathology, Glasgow Royal Infirmary.

PROFESSOR GRÜTZNER of Breslau has been nominated Professor of Physiology in the University of Bern, in succession to Professor Valentin.

DR. HANS MEYER, lately Assistant in the Pharmacological Institute at Strasburg, has been nominated Professor of Pharmacology in the University of Dorpat.

THE BODLEIAN LIBRARY.—At a Congregation held at Oxford on October 28th, Professor Max Müller was unanimously elected Curator of the above Library, in the vacancy occasioned by the decease of Professor Rolleston, F.R.S.

PRESENTATION TO MR. JOHN STEEL.—On October 27th, a complimentary dinner was given by the members of the Birmingham Friendly Societies' Medical Institution to their late medical officer, Mr. John Steel, who is about to leave Birmingham for Australia. Mr. J. Thomas presided, and Mr. Davis was in the vice-chair. Apologies for non-attendance were read from the Mayor, Dr. Heslop, and R. W. Dale, Esq., M.A. In the course of the evening, Mr. Steel was presented with a beautifully illuminated address and a case of surgical instruments, as a token of the esteem in which he is held by the members.

CORONERS' ACCOUNTS.—At the Middlesex October sessions last week, on the motion of Sir W. H. Wyatt, the following salaries were authorised to be paid to the several coroners of the county as from the 31st of December last, viz., Sir John Humphreys, £2,207 14s. 8d.; Dr. D. Thomas, £2,[illegible] 13s. 9d.; Dr. Diplock, £[illegible]; Mr. W. J. Payne, £54 9s. 3d.; and Mr. E. St. Clair Bedford, £500.

PUBLIC HEALTH.—The annual rate of mortality last week, being the forty-third week of the year, in twenty of the largest English towns, averaged 22.0 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Plymouth 13, Sheffield 15, Birmingham 19, [illegible] 19, Portsmouth 20, Bristol 20, Salford 20, Bradford 21, Sunderland 21, London 21, Nottingham 21, Brighton 21, Leicester 22, Oldham 23, Manchester 23, Norwich 24, Newcastle-on-Tyne 25, Wolverhampton 25, Liverpool 27, and Hull 33. Scarlet fever showed the largest proportional fatality in Hull, Sunderland, Brighton, and Nottingham; 39 more fatal cases were recorded in Hull, a higher number than in any previous week of the present epidemic—making 357 that have occurred since the beginning of July. The 35 deaths from diphtheria in the twenty towns included 25 in London and 7 in Portsmouth. The highest death-rate from fever (principally enteric) occurred in Brighton, Bristol, and Leeds. An outbreak of measles was recorded in Leeds. Small-pox caused 25 more deaths in London and its outer ring of suburban districts, one in Salford, and one in Newcastle-upon-Tyne. In London, 2,755 [illegible] and 1,588 deaths

were registered. The deaths exceeded the average by 29. The annual death-rate from all causes was 21.6. During the past four weeks of the current quarter, the metropolitan death-rate averaged 20.4 per 1,000, against 20.2 in the corresponding periods both of 1879 and 1880. The 1,588 deaths included 24 from small-pox, 19 from measles, 65 from scarlet fever, 25 from diphtheria, 29 from whooping-cough, 4 from typhus fever, 49 from enteric fever, one from an ill-defined form of continued fever, 19 from diarrhœa, and not one either from dysentery or simple cholera; thus, 235 deaths were referred to these diseases, being 6 above the average. The deaths from diseases of the respiratory organs, which had steadily increased in the eight preceding weeks from 115 to 319, further rose last week to 376, and exceeded the corrected average weekly number by 31; 233 were attributed to bronchitis and 101 to pneumonia. Different forms of violence caused 53 deaths; 47 were the result of negligence or accident, among which were 22 from fractures and contusions, 6 from burns and scalds, 5 from drowning, one from poison, and 6 of infants under one year of age from suffocation. At Greenwich, the mean temperature of the air was 43.5°, and 5.3° below the average. The mean was below the average on each of the days in the week. The mean degree of humidity of the air was 87, complete saturation being represented by 100. The general direction of the wind was northerly, and the horizontal movement of the air averaged 11.8 miles per hour, which was 0.5 above the average. Rain fell on three days of the week, to the aggregate amount of 0.98 of an inch. The duration of registered bright sunshine in the week was equal to 17 per cent. of its possible duration.

Health of Foreign Cities.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities may be derived from the following facts, obtained from a table in the Registrar-General's last weekly return. Of the three principal Indian cities usually furnishing weekly returns, Bombay is the only contribution to the table last published; the annual death-rate in this city, in the first week of October, did not exceed 27.1 per 1,000, although the 403 deaths included 8 from cholera and 91 from fevers. The rate in Alexandria was equal to 45.5, and 16 fatal cases of enteric fever were reported, showing an increase of 6 upon the number in the previous week. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 26.0 per 1,000 of their aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 22.0. The rate in St. Petersburg was equal to 42.0, showing an increase upon the rate in the previous week; typhus and typhoid fevers caused 27, and diphtheria 18, deaths within the city. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 17.4, the highest rate being 22.3 in Stockholm; two fatal cases of diphtheria and croup occurred in Christiania. The Paris death-rate had increased to 27.1, and the deaths included 47 from enteric fever, 52 from diphtheria and croup, and 10 from small-pox. The deaths in Brussels were equal to a rate of 19.0; 3 resulted from diphtheria, and 2 from typhus and enteric fevers. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 23.1, the highest being 24.7 in Amsterdam, where 8 deaths were referred to whooping-cough, and 2 to typhus and enteric fever. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 24.2, and ranged from 19.4 and 21.4 in Dresden and Hamburg, to 28.3 and 31.2 in Munich and Buda-Pesth. Small-pox caused 12 deaths in Vienna and 7 in Buda-Pesth; and scarlet fever and diphtheria were more or less fatally prevalent in most of these towns. The death-rate in three large Italian cities averaged 28.6, and was equal to 22.9 in Rome, 38.2 in Naples, and only 17.5 in Turin, where 3 fatal cases of enteric fever were reported. The high death-rate in Naples appears to have been mainly due to the fatal prevalence both of measles and enteric fever. In four large American cities, the death-rate averaged 27.8, and was equal to 20.9 in Philadelphia, 25.0 in Baltimore, 26.9 in Brooklyn, and 33.0 in New York. Small-pox caused 7 more deaths in Philadelphia, and enteric fever 24; diphtheria showed fatal prevalence in New York, and enteric fever caused 6 deaths in Baltimore.

Bullfrog Ointment.—We had supposed, says the *Pacific Medical and Surgical Journal*, that the ancient and venerable "Bufo" which performed such good service in the therapeutics of olden time, was quietly laid away in the tomb. But it seems not. A practitioner in Alameda county, on his visit to a patient, found at the bedside a jar of something he was informed was "Bullfrog Ointment." Inquiring how it was made, he was informed that he must take a pint of milk and boil it, and then throw into it the living bullfrog and boil it to a paste, throwing out the bones. Thus prepared, it is "the best thing in the world for sore breasts", for which purpose the patient was using it.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M. St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M. London, 2 P.M. Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. General Meeting, after which the Ordinary Meeting will take place. The President will exhibit a case of Disease in the Floor of the Fourth Ventricle. Dr. Allbutt will show a specimen of Renal Disease, showing Pyelitis with Calculi. Dr. Drysdale: The Origin of Vaccinia, and its Bearing on Animal Vaccination.—Odontological Society of Great Britain, 8 P.M. Dr. Richardson, F.R.S.: Caries of the Teeth in relation to Food and Feeding. Casual communications by Mr. Christopher Heath; etc.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. John H. Morgan: Two Cases of Congenital "Macrostoma", accompanied by Malformation of Auricles and the presence of Auricular Appendages. Mr. H. Langley Browne: On Simultaneous Ligature of the Subclavian and Carotid Arteries for Innominate Aneurysm.

WEDNESDAY.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Dr. Robert Barnes: Antiseptic Midwifery, and Septicæmia in Midwifery.—Royal Microscopical Society, 8 P.M. Dr. B. W. Richardson: On Multiple Staining of Animal and Vegetable Tissues.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital. Mr. Womack: Renal Secretion.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Golding-Bird: Cases of Gastrostomy. Adjourned discussion on Mr. Reeve's paper upon Two Cases of Malignant Stricture in which Gastrostomy was performed. Mr. Clement Lucas: A Case in which a Pebble was removed by Tracheotomy from the Right Bronchus. Dr. Mahomed and Mr. Cripps: Two Cases of Direct Transfusion of Blood for Hæmorrhage in Typhoid Fever.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE CLIMATE OF VENTNOR.

SIR,—In the accompanying tables of corrected temperatures for July will be found an explanation of some of the discrepancies referred to by Dr. Whitehead in his paper on the Climate of the Undercliff, as existing between observations taken at this hospital and those of other local observers.

Readings at National Hospital, Ventnor, I. W.

1881. July.	Maxima.	Minima.	1881. July.	Maxima.	Minima.
1	70.4	54.2	18	77.9	63.7
2	74.1	54.6	19	81.7	64.2
3	69.0	58.4	20	69.8	54.2
4	74.8	56.9	21	69.2	51.4
5	77.4	57.5	22	62.7	53.6
6	67.0	57.8	23	66.7	57.6
7	63.4	51.7	24	64.8	53.7
8	64.3	48.7	25	62.6	55
9	66.1	50.1	26	64.9	50
10	68.7	54.7	27	67.7	52.1
11	74.3	54.8	28	70.1	51.7
12	72.7	59.2	29	66.7	57.6
13	75.2	55	30	63.4	56.6
14	76.8	58.1	31	64.7	58.4
15	81.8	62.0			
16	70.8	63.7	Means	70.37	56.1
17	75.8	58.0			

It will be seen that, in Dr. Whitehead's table, the maximum temperature of the 14th is repeated on the 15th, and that of the latter date given a day later, as are the maxima of all the succeeding days. Hence, that of the 20th is said to have been 81.8°, instead of 69.8° actually recorded; an error the more surprising since, on the "inquiry" mentioned by Dr. Whitehead being made, the maxima of the 17th and 20th were distinctly stated to be as I have given them, and the version he gives erroneous. The minima of the 18th and 21st were recorded as 63.7° and 51.4° respectively, not 53.4 and 57.6 as he gives them. From the 15th to the 31st, in his table, no corrections have been made for index errors in either maxima or minima.

As Dr. Whitehead says, the hospital instruments have all been verified. His charge of inaccuracy of observation needs no additional refutation to the corrections it has been necessary to make to the figures on which he relied in making it.—Believe me, yours sincerely,

ROBERT ROBERTSON, M.B., Resident Medical Officer.

National Hospital for Consumption, Ventnor, I. W., October 25th, 1881.

THE DEAD A DANGER TO THE LIVING.

SIR, Clearly it was a fatuous effort to have selected sites for cemeteries contiguous to the metropolis. Those who are responsible for this act must, I should imagine, have ignored the possibility of the natural increase of population. The intramural system of burial that obtained among us for centuries had finally to be checked by stringent legislation. And this because of the nameless evils it engendered, and the sickness and mortality that attended it. It happens, however, that most, if not all, the overcrowded depositories for the dead, particularly the West End cemeteries, are almost in the like condition with the London churchyards, when an outcry was raised against them on the ground of their being producers of pestilence. The other day, a friend of mine obtained a card to view a house in the western district. When he arrived at the locality of the dwelling, he discovered, to his horror, that it was adjacent to a cemetery, and, not only so, but that all the other houses in the row were advertised "to let". Having walked a short distance, my friend entered a shop, and inquired of the owner how it was that so many dwellings were deserted. "Do you know, sir", was the reply, "that no one can inhabit them? The stench in the kitchens is insufferable, because the drainage from the neighbouring grave-ground percolates, they say, through the soil. Besides, typhus, or something of the kind, broke out in one or two of them, so that the occupants had to fly for their lives. It was bad enough for the landlords who made the speculation." There is overwhelming medical evidence to prove that the presence of burial-grounds militates against the health of populations bordering upon them, and for continual epidemics, often fatal, consequent upon contaminations from the [illegible] Dr. W. H. Ludlow, a recent visitor to and author of Philadelphia, says that "cemeteries should be located at a sufficient distance from towns"; and, moreover that, "in selecting the site, particular attention should be given to the character of the soil". It is for these reasons, among other considerations, that the London Necropolis at Woking offers such advantages. I am not at all surprised, therefore, that Mr. Seymour Haden, in his treatise, *Dwellings and the Earth*, should speak in this wise. "In the absence of any ameliorations of our present cemeterial system, nothing is left but gladly to the interest of every class, high and low, to avoid the seething suburban cemeteries, and to bury their dead at Woking." I am, sir, yours, SANITAS.

MEDICAL ETIQUETTE.

SIR, Permit me to inform your correspondent who signs himself "B.", that, as his statements are not only utterly at variance with the facts of the case, which you kindly gave me an opportunity to state, but the practitioner to whom I alluded.—Yours faithfully, HARD CASE.

AN APPEAL.

SIR,—Allow me, through your columns, to appeal to the profession on behalf of Isabel Dalzell, aged 14 years, [illegible] at the late Dr. Dalzell's, of Notting Hill. He was [illegible] and left her destitute with no means, and this child. The widow made a second and most disastrous marriage, by which she has two children. She has to work hard for them, and they are being educated at a Board school. My friend Mr. Martin, of Selley Oak, Birmingham, has gone into the case thoroughly; and he writes that he has "never heard so pitiable a tale". Dr. Russell of Birmingham [illegible]. We wish to procure Isabel Dalzell a good education, that she may qualify as a governess, and thus be able to help her mother. I have already to thank several gentlemen who have given donations, one being a Plymouth layman. Dr. Russell, Newhall Street, Birmingham, and Mr. Theo. Martin, Selley Oak, Birmingham, will be glad to receive donations. Appended is a list of the [illegible] received.

	£	s.	d.
Dr. Hingston (Plymouth)	2	2	0
John Whitleatt, Esq. (Plymouth)	0	10	6
Dr. Shingleton Smith (Exeter)	0	10	6
R. Paramore, Esq. (Hunter Street, W.C.)	0	10	6
Theo. Martin, Esq. (Selley Oak)	1	1	0
F. Hollinshead, Esq. (Selley Oak)	0	10	6
Lewis Lewis (Plymouth)	2	2	0

Faithfully yours, LEAH [illegible]

1, St. Michael's Terrace, Plymouth, November 1st, 1881.

A WORD FOR UNQUALIFIED ASSISTANTS.

SIR,—Unqualified assistants and their shortcomings form a theme most attractive to many minds in our profession; yet there is something to be urged on the other side, and I venture to say that, properly employed, they are capable of rendering a service to the public and profession of exactly the same kind and extent as that afforded by dressers and clinical assistants at hospitals, [illegible] midwifery and dispensary practice, or the pupils of medical men. Nobody objects to the doings of these youths, possibly because the supervision exercised by their principals is fondly considered effective and complete; but, of the completeness of the protection thus afforded, those only who, to an acquaintance with the daily papers add a personal experience of large medical charities, can judge. It must also be remembered that the mistakes made by the unqualified assistant in private practice are eagerly watched for by unfriendly critics, who are ever ready to expose them; while, in a hospital, a very small proportion of the slips that occur in unqualified hands are ever heard of beyond its walls, though, from the grave nature of the cases, the results must be more untoward. Yet how seldom is malpraxis on the part of the unqualified assistant established, in comparison with the frequent complaints of wrong diagnosis and unskilful treatment in the out-patient rooms of hospitals. The reason of this is not far to seek, and depends upon the fact that the assistant is an older and more practical man than the student, and has his sense of responsibility sharpened by the knowledge that his livelihood depends on doing his utmost for the patients among whom he may perhaps live for years. His proper and useful function is to afford "first aid" in cases of emergency, perform the duties of a midwife, report cases, dress, and undertake minor surgery. Provided his employer be commonly honest, no harm should arise from his employing such aid.

Finally, I think that the unqualified assistant may be likened in many respects to the alcohol, of which he is sometimes too fond. It has been said, though I do not assert it, that this liquid is a good creature of God; so also, I believe, is the assistant. Alcohol lends itself to abuse; so does the assistant. Some see no good in the spirit, and would abolish it; others would suppress the assistant. Many maintain that alcohol has a legitimate use; a [illegible] believe in the usefulness of the man, and local option. Yours, etc., W. T. I.

FACTORY APPOINTMENTS.

SIR, In your JOURNAL for October 22nd, I read a reply [illegible] to a question put, on October 1st, as to who has the appointment of the above named officers. His statement is quite correct that "it is made by the Inspector of Factories; and to him an application should be made by an aspirant to this, one of the worst paid and least satisfactory of the public appointments held by medical men".

The following statement of the requirements of the Act will fully bear out the truthfulness of this remark. The fees allowed by the Act are frequently not more than threepence for each certificate, two shillings and sixpence for each visit, which shall include from one to five persons examined at the factory within one mile of the surgeon's residence. No certificates shall be given unless a certificate of the birth, if attainable, is presented by each applicant under sixteen years of age. If not attainable, other evidence must be produced, viz., baptismal register or vaccination paper, etc. In this latter case, another certificate must be filled in and forwarded to the inspector, stating the reason why the birth-certificate has not been taken as evidence. The Act requires that all surgical certificates shall be given within seven days, if the factory be within one mile of the surgeon's residence. No certificates are available unless the above conditions are complied with; no matter how strong and healthy an applicant may be, or however capable of doing the work required, the surgeon has no discretionary power in the matter. The result is that "hands" positively refuse to be at the trouble and expense of obtaining these certificates, and the [illegible] necessary.

In cases where there is no yearly agreement with the surgeon for periodical visits, this leads to the occupiers running the risk of employing them for a longer time than is allowed by the Act; as the fee is the same for one certificate as for five, they keep the hands for weeks and months, contrary to the Act, in order that they may save the trouble and cost. No matter how long they have been employed, the surgeon cannot legally charge more than the [illegible] for his visit, which may include [illegible] examined. This [illegible] sixpence each when the birth-register is produced, and threepence when it is not forthcoming.

[illegible] followed by the Act [illegible] etc., A COUNTRY SURGEON.

LETTSOM JUBILEE FOR GERMAN PROFESSORS.

SIR, The [illegible] given to Sir [illegible] reported by the [illegible] to the Fund at M[illegible] [illegible] [illegible] [

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 10IA, Strand, London, and not to the Editor.

A QUESTION RELATING CERTIFICATE OF DEATH.

SIR,—Will you or your readers kindly inform me whether I am right in refusing a certificate of death in the following case? Early in the morning, I was called to see J. H., aged 67, who was found with a pool by the [illegible] and had evidently been [illegible] when I arrived. It appears he had been [illegible] when found, and, after running about some time, went to a house where they had to help him. While talking, he fell down, and never spoke afterward. I had never attended him before. I am, etc., [illegible]

*** We do not see how it is possible to give a certificate in such a case until the coroner has ordered a post-mortem examination. The cause of death could only be guessed at, not certified.

RETENTION OF THE GERM.

SIR,—Can any of your members inform me how to treat, constitutionally or locally, recession of the gums in a young man aged 23, apparently in good health? Yours truly, AN OLD MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

PUBLIC MORTUARIES.

SIR,—Under the heading "Public Mortuaries", in the Journal of the 29th ult., there appeared remarks made in error, of occurrences which had recently taken place at Wednesbury. If you will permit me to make a correction, as far as this town is concerned, the facts were these.

Sergeant Bates, of the local volunteers (not police), last September heroically sacrificed his own life while endeavouring to rescue a girl from drowning, who had fallen into the canal. The bodies were subsequently removed to an outhouse at the back of a public-house in the parish of Westbromwich, just on the confines of the Wednesbury parochial limit, and it was here the face of Bates was mutilated by rats.

Bates being a Wednesbury man, and losing his life in the manner mentioned, it was not surprising that the sanitary authority was indignant, and denounced the conduct of those in authority in the parish who had failed to provide the deceased in his own town, where a most substantial and complete public mortuary has been provided for some time. Out of evil good may come, for the expression of indignation at the above occurrence has led to a correspondence with the Westbromwich authorities, which may result in that town being provided with a public mortuary at no distant date. I am, yours faithfully,

J. COOPER GARMAN, Medical Officer of Health.

Wednesbury, November 2nd, 1881.

THE AFRICAN TREATMENT OF INSANITY.

THE following curious letter was addressed recently to the Medical Superintendent of the Fort Gange Colonial Lunatic Asylum by the wife of an aboriginal African, who had been for twelve months under treatment in that institution.

"I came to the Doctor to let him understand about my husband's sickness. So, Master, he is not a native of this country; the sickness he is troubled with is not a sickness for him to be here; some of his countrymen from Georgetown made me to understand so. They did went up the river to see him, so I tell them he is in charge of the Doctor; they say that this sickness is from their country, it is the gift of God from their country from generation to generation, as far as they know. If they were he wouldn't have been here to-day, because would have know what to do to keep down the sickness from him. Sir, the sickness don't require no noise at all, he must be in a house him alone and those who attended to him, and they does not use him every kind of food, purpose food must be for him, and he must close him in a house for nine days, then you will hear he himself call to go out, and when you hear him call you must not keep him back at all, that will make him cross. So I humbly beg you, Doctor, please to let him out, that countrymen may try with him a little, Sir, because they fully understand what is the sickness, and in their country it takes only three months to get better, and since he is here this now twelvemonths, so please, Doctor, let him out. They are Crumanty nation, nobody don't understand ways excepting their own country people."

This letter indicates that insanity is not unknown amongst the negroes in Africa, but that it is of such frequent occurrence that its hereditary character has been recognised. It also reveals that African notions of insanity are to-day in that transitional phase, vestiges of which may be detected in the history of most races. A childlike simplicity ascribes the strange phenomena of madness to the inspiration of gods or possession by demons, but a dawning sense of science perceives the necessity of remedial measures. The malady is a divine gift to be regarded with reverential awe, but to be purged away if possible. The treatment suggested by the experience of the Crumanty nation recalls the practices formerly in vogue at the shrines of St. Dympna and St. Fillan, and betokens, too, some dim appreciation of the value of rest in the cure of disease, and of the importance of quietude, a regulated diet, and the avoidance of all unnecessary thwarting and irritation in securing recovery in certain cases of mental derangement.

DETERMINATION OF SEX PREVIOUS TO BIRTH.

SIR,—I would ask to draw the attention of those of the profession who have large obstetric practices to what I think is worthy of notice, and to ask them to note and verify, or otherwise, the determination of sex previous to birth. I have, unfortunately, not so very many cases or examples to go on, not having had, for the past fifteen years, much to do with obstetrics; but what cases I have had and noticed have singularly turned out correct.

I have come to the conclusion that there is a difference in the figure of a woman in the family-way if the fœtus is a girl to what it is if a boy, and that a very marked one. In the former, the contour of the abdomen is more rounded and fuller over the hips; whilst, in the latter, it is more pointed and angular. A patient once remarked to me that "boys show more than girls".—I am, sir, your obedient servant,

T. D'ORVILLE PARTRIDGE.

13, Park Place, N.W.

SOLUTION OF PILOCARPIN.

SIR,—In reply to "Rusticus", who experiences the usual difficulty in keeping pilocarpin in solution unchanged, I can recommend Savory and Moore's gelatine discs for hypodermic injection. These contain one-twelfth of a grain, and readily dissolve in a few minims of water with the aid of heat, and will keep well in a dry place. In cases where it is desired to produce the full physiological effect of the drug, I am disposed to prefer jaborandi, either as infusion or tincture, the former being the more active.—I am, etc.,

W. T. LAW, M.D.

[illegible] SURGERY, [illegible] EXAMINATION IN DENTAL SURGERY.

[illegible] the Dental Students at this and at [illegible] Maxillary Artery. 2. Describe the Functions of the Tongue, and the Nerves con- [illegible] Give a [illegible] Eruption of the several Temporary Teeth. Into what groups do they, in this [illegible] the Structures met with in a complete Vertical Section through the Substance of a developing Tooth at the period of commencing calcification. 3. Mention the various methods of Attachment of the Teeth to the Jaws. Give examples of each variety. *Dental Surgery and Pathology.*—1. What are the most frequent causes of Death of the Pulp? By what structures are so-called Dead Teeth in relation with surrounding living tissues? and what morbid conditions may lead to their ultimate loss? 2. State the conditions under which you would consider the following materials the most suitable for filling Teeth, viz., Gutta-percha, Zinc Oxy [illegible] Phosphate and Copper Amalgam. Describe the Mixed Appearances and ordinary Causes of the different conditions known by the terms Gingivitis, Rigg's Disease, and Blue Gum.

CORNS.

SIR,—I have derived very great comfort from putting a poultice or wet pad—if the latter, covering it with oiled silk—on the hard corn during the night, and the following morning picking out with the finger-nail every bit of the hard part which is then made soft; then rub over two or three times with a stick of nitrate of silver. This must be repeated again and again when required, in two, four, or more weeks.

I am, etc., A MEMBER.

OPIUM-SMOKING.

SIR,—Can any member of the profession inform me what is the exact preparation of opium as smoked by the Chinese, etc.? also, where it may be obtained?—Yours truly,

L.R.C.P.

Liverpool, October 29th, 1881.

CHANGE OF NAME.

The [illegible] with an [illegible] of mind and moral courage that are rare in editors who are not inmates of lunatic asylums, has promptly acknowledged the blunder he had made, and in deference to the representations of the BRITISH MEDICAL JOURNAL has reverted to the old and well-worn name of his periodical, which this month appears again as the *New Moon*. We trust that the *New Moon* may never again suffer eclipse.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. S. Greenfield, Edinburgh; Mr. W. Bates, Birmingham; Mr. A. R. Turnbull, Edinburgh: Mr. R. S. Ellis, Willingham; Mr. H. Freeman, Bath: An Old Subscriber; Mr. F. W. Barry, Cyprus; Dr. Clifford Allbutt, Leeds; R. H. P.; Mr. J. B. Fry, Swindon; Country Practitioner; Mr. A. Jackson, Sheffield; Dr. A. H. Bampton, Plymouth; Dr. E. H. Darwin, Manchester; Mr. Lawson Tait, Birmingham; Mr. S. P. Anderson Stuart, Edinburgh; Dr. E. D. Mapother, Dublin; Mr. R. M. Wyckoff, Brooklyn; Mr. C. Low, Errol; Dr. H. Donkin, London; Dr. R. Neale, London; Mr. M. Greenwood, London; Mr. William H. Platt, London; Our Aberdeen Correspondent; Mr. W. Whitehead, Manchester; Inquiring Candidate; A Member B. M. A.; Mr. J. Edwards, Portsmouth; Dr. C. Medlicott, High Oakham; Mr. A. T. Norton, London; Mr. J. N. Porter, London; Dr. Bryan, Northampton; M.B., M.A.; Mr. R. Clement Lucas, London; Mr. W. D. Husband, Bournemouth; Our Paris Correspondent; Mr. Joseph Hirst, Huddersfield; Dr. C. Parsons, Dover; Dr. Edward Seaton, Nottingham; Mr. W. Washington David, Pontypridd; Mr. J. Martin, Portlaw; Dr. Watson, Sheffield; Hard Case; Sanitas; Mr. Vincent Jackson, Wolverhampton; Dr. W. Snow, Bournemouth; Mr. H. Lewis Jones, London: Dr. F. P. Atkinson, Kingston-on-Thames; Mr. Lewis Lewis, Plymouth; W. S. L.; Mr. T. W. Hubbard, Tunbridge Wells; Mr. J. P. Stallard, Worcester; Mr. F. B. J. Baldwin, Rotherham; A Member; Dr. Stephen Mackenzie, London; Dr. Hamilton, Edinburgh; Mr. J. Cooper Garman, Wednesbury; etc.

BOOKS, ETC., RECEIVED.

Tropical Diseases. By Joseph Fayrer, K.C.S.I., LL.D., F.R.S. London: J. and A. Churchill. 1881.

Syphilis and Local Contagious Disorders. By Berkeley Hill, M.B.Lond., F.R.C.S. London: Smith, Elder, and Co. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

REMARKS
ON
ANIMAL VACCINATION IN ITS GENERAL RELATIONS WITH VACCINATION AND REVACCINATION.

By E. WARLOMONT, M.D.,
Director of the State Vaccinal Institution at Brussels.

THE Public Health Section of the meeting of the British Medical Association at Ryde, having included in its proceedings the question, "Should vaccination by calf-lymph be encouraged?" I take the opportunity of laying some remarks on the subject before the meeting. In an address which I gave at a conference of the Parliamentary Bills Committee of the British Medical Association, under the presidency of Mr. Ernest Hart, on December 4th, 1879, and which has attained great publicity, chiefly by its insertion in the BRITISH MEDICAL JOURNAL, I examined the principal questions relating to the subject. I may perhaps be here allowed to repeat the most essential parts of these questions.

It has been asked, If human vaccine be a protection against small-pox, why, where there is no want of it, should animal vaccine be used? My answer has been, that this substitution is necessary to satisfy certain doubts, fears, prepossessions, and, perhaps, prejudices. In countries where vaccination is legally compulsory, the duty of the State is to put into the hands of the public a vaccine lymph which shall be beyond, I will not say all adulteration, but of any suspicion of diathetic adulteration. This guarantee cannot be given with humanised vaccine, as proved by the existence of vaccinal syphilis; whilst, by the use of calf-lymph, a careful operator is always certain to offer such a guarantee to the persons inoculated by him. I also added, it is not sufficient that vaccine obtained from calves should be innocuous; it is also necessary that it should be inoculable, and that it should preserve us from variola.

As to its inoculability, is not animal vaccination the progenitor of all vaccination, past, present, and future? And, if it had not been efficacious in the hands of Jenner, how could vaccination have come into practice?

To the question whether vaccination by calf-lymph protects from small-pox like humanised vaccine, the answer was, that, up to the present time, no one had contested the point. I will therefore content myself with recalling to mind what I have formerly written on this subject: "Out of more than ten thousand children vaccinated at Brussels, with animal vaccine, from 1869 to 1870, not one case was to my knowledge noted as having been attacked by the epidemic which terrified the world in 1870 and 1871. The same immunity was shared by our revaccinated cases, which, though not nearly so numerous, were, at the same time, in the foci of the epidemic." Three years later, in 1878, I wished to unburden my mind; and at a meeting of the Académie Royale de Médecine of Belgium, on March 30th of that year, I accordingly made an appeal to my colleagues in the following terms. "I have previously said that no such case had been reported to me. I repeat it; and, up to the present time, not one of the numerous medical men whom I have interrogated on the subject has contradicted me.....Has there really not been any? that seems to me impossible.....However it may be, I appeal to hospital physicians and those gentlemen attached to charitable institutions to clear up this fact, which, in consequence of the deductions to be drawn from it, requires to be rigorously verified."

This appeal has never yet met with any response, and such a silence is the most eloquent testimony in favour of the method that I could possibly have desired. This silent eloquence is of greater value, when the ardour is considered with which the adversaries of animal vaccination, of whom a few rare specimens still exist, would have collected the failures; or if we remember, taking the larger and more general view of the immunity procured by all kinds of vaccine inoculation, that Belgium has had the honour of being the native country of the illustrious President of the International League of Antivaccinators, who no doubt would have been overwhelmed with the purest delight by such a discovery.

Finally, what is the degree of susceptibility of the human species to animal vaccine? I answer unhesitatingly, that it is equal, if not superior, to that for humanised vaccine. When the calf-lymph is inoculated direct, taken from good pustules of the proper age, no other failures are known but those resulting from the manipulation of the operator. Out of three hundred children thus vaccinated by myself since May 1st of this year, not one puncture—and I say advisedly puncture, because with living vaccine I consider it unnecessary to use scarification—has failed to produce good pustules.

With regard to preserved vaccine, I shall content myself with reproducing the following statistics. In 1870 and 1871, thirty-three of the most reliable physicians in Belgium have reported to me the results obtained by them in vaccinations and revaccinations, by means of calf-lymph on points sent out by the State Vaccine Institute of Brussels. These results are: 1. In vaccinations, out of a total of 500 cases, there were 479 successful, being at the rate of 96 per cent. 2. In revaccinations, out of a total of 5,448 cases, there were 3,419 successes, being at the rate of 62 per cent.

These figures are very much larger than any brought out elsewhere, for, in England, the best vaccinators only reckon their successful cases at the rate of 90 per cent. after the use of humanised vaccine preserved in tubes, and at 95 per cent. when ivory points bearing the same kind of vaccine are employed.

Having refreshed the memories of my hearers with these data, which I hope they will pardon me for having again brought forward, but a nail sometimes wants a great deal of hammering before it is thoroughly driven home, I have little more to say about the absolute value of calf-lymph. When compared with humanised lymph, the equality of value can no longer be contested; and, as I have already said, it has the immense advantage of satisfying people's consciences, and of removing all fears of the communication of any disease from which the vaccinifer may be suffering, and especially of syphilis. It has at least this merit; and, were it only for this aspect of the question, it should always be accessible to the public, even where there is no failure in the supply of humanised vaccine.

How very necessary it is, then, for the strongest reasons, that the culture of animal vaccine should be encouraged, in places or under circumstances in which humanised lymph cannot be obtained in sufficient quantities to fulfil the requirements of vaccination and revaccination. And is not this what has lately been occurring in England? I would further say that this will of necessity always happen in a season of small-pox epidemic, because the public movement in favour of revaccination is then irresistible, and creates an excessive demand for lymph.

This proposition requires a few words of explanation. We know the way in which modern hygiene progresses; it does not go on in a purely scientific manner; it grows in equal proportions in the esteem and confidence of the public.

Its fundamental principle, based upon prophylaxis, is generally accepted. Everyone knows that prevention is better than cure, and everyone wishes to take care of number one. With regard to small-pox, the prophylactic power of vaccine is universally recognised; and, if it could for one moment be forgotten, do not the declamations of the antivaccinators incessantly stimulate popular conviction, through the reaction which ever follows their efforts? Everyone wishes to be protected from small-pox, and everyone knows how to do so. Hence the eagerness of all classes of the public for vaccination and revaccination, an eagerness actually fostered by the contradictions of its efficacy brought forward by the League, which only keeps the subject of vaccination before the attention of the public.

A certain restraint, however, checks this spontaneous and salutary movement; where animal vaccination is unknown, the spectre of vaccinal syphilis is present. In wishing to protect themselves from one evil, some persons fear to expose themselves to another. The possession of animal vaccine removes this restraint. We know that henceforth we may be revaccinated without having anything to fear. Hence large requirements which the production of humanised vaccine cannot meet, for the demand exceeds the supply. Confidence in calf-lymph is fully justified. In our Conference of Dec. 4th, 1879, we reduced to their true value the imputations founded of the possibility of transmitting glanders or anthrax by calf-lymph to the human species, and there is no need to traverse the ground again. Of syphilis, there is, of course, no question. There still remains tuberculosis, which, it has lately been suggested, might be communicated to a patient through animal vaccine. For this purpose, theoretical arguments, already confuted, have been relied on. It must, however, be acknowledged that these arguments have assumed an inestimably more serious phase since tuberculosis has been shown to be entitled to rank amongst the microbic infectious diseases, so that this hypothesis, which does not lack support, can at least no longer be rejected from amongst the number of possible occurrences. It is the more serious, inasmuch as cow-pox itself does not escape from this accusation, since bovine animals are subject to a disease which, though not precisely tuberculosis, is certainly akin to it.

The bovine race suffer from the pommelière, or pearl-disease, which cannot be considered as true tuberculosis. But it must be noted that the transmission of tuberculosis—excluding an immense majority of these cases which are untrustworthy—is obtained by the inoculation of the tuberculous matter itself. No one has ever, to my knowledge, anywhere spoken of transmission obtained through the serum of a tuberculous animal. We must therefore place our reliance on the inoculability of constitutional tuberculosis. Now I positively affirm that there does not exist any fact or proof whatsoever in support of a transmission of this nature.

A great movement of opinion has lately arisen in England and Germany against the use of milk obtained from cows suffering from tuberculosis or the pearl-disease. The great mortality amongst children brought up on the bottle was attributed to a great extent to the use of this milk. The accusations became more and more pressing and precise. Berlin was agitated by them, and a commission was nominated in that city to collect the statistical materials necessary for the solution of the question. The conclusions to which the commission came, formulated at the end of last year by Professor Virchow, one of its members, have been negatived, in the sense that rigorous examination of the facts have not given warrant for the affirmation of transmission of bovine tuberculosis to man by milk. There only then remains pure hypothesis, which can be easily constructed in relation to every kind of medication, alimentation, cohabitation—in fact of every habit.

Thus, it may be affirmed that neither syphilis, nor tuberculosis, nor glanders, nor anthrax, nor any diathetic disease, can be inoculated into the human race by animal vaccine. This, however, is dependent upon one condition, which is: that the vaccine, whether living or preserved, should be taken from a healthy animal, and collected at the required moment; this is the A B C of the whole question. If preserved, it should be done according to methods which place it beyond the possibility of any subsequent change. For this purpose, I have, in a former communication (British Medical Association: Cambridge, 1880), pointed out two methods of preservation which perfectly attain this end: that of dried vaccine on ivory points, and that of liquid defibrinated vaccine introduced into tubes. I may, perhaps, be allowed to insist once more on the primary importance of efficient preservation of animal lymph.

Ivory Points.—The small pieces of ivory, on which the animal vaccine is deposited, are square at one end and pointed at the other, and the latter is the end presented to the vaccine pressed out from the pustule by the pincers, in order to charge it with lymph. The point is afterwards quickly dried in the sun, or before a fire, at a heat not above 40° (Reaumur). When the point is heavily charged, it dries in about fifteen or twenty minutes; all the serosity has evaporated, and only the dried vaccine remains, deprived of all humidity likely to macerate the active principles. Animal vaccine keeps a long time in this form. If care be exercised to preserve these points free from damp, the vaccine deposited on them escapes all decomposition, as do certain preserved vegetables from which the water has been removed in a similar way, by spreading them out on hurdles in a dry atmosphere.

To avoid the porosity of the ivory taking possession of a large amount of the matter deposited upon it, the points should be manufactured of very solid material, well polished. Under these conditions, if the first layer has been liberally applied, it is absolutely useless to cover it with a second, as was formerly the practice.

Much is said, and justly, at the present time, of American points, with ends sufficiently sharp to effect the direct introduction of the vaccine without the aid of the lancet.* These points display the perfection of workmanship; and I prefer them, on that account, to all others—notwithstanding that, for the preliminary abrading of the skin, I should always give the preference to instruments made of metal.

Glass Tubes.—When a glass tube, open at both ends, is presented to the little globule of vaccine obtained by pressure of the pustule, the liquid rises into the tube. If the vaccine remains exposed but for a few seconds in contact with the air, it is no longer the same; it becomes coagulated, calf-lymph being highly plastic. The vaccine received into the tubes does not any the more escape coagulation, so much so, that after some hours it becomes difficult to get it out, and what is then extracted is thoroughly untrustworthy in its action. These circumstances induced me to state, at the commencement of my experiments, that "tubes, if their use be persisted in, will become the grave of animal vaccination, unless means be found to prevent this coagulation of the vaccine within them". This can now be effected by defibrinating the lymph, by a mechanical method† which removes none of the active properties of the vaccine; and our calf-lymph, thus preserved in tubes, justly enjoys great popularity.

These methods of preservation and exportation are the only ones I can recommend; there are others, unfortunately still in use, which have given rise to serious accidents, tending to bring animal vaccination into undeserved discredit. I here specially allude to the practice of distributing pustules cut out of the animal. The little tumour is seized with a fold of skin; it is excised by dividing it with a bistoury slightly curved on the flat; it is placed between two thick glasses, one having a small concavity for its reception, and is thus sent out to greater or less distances. *A priori*, this method, no longer in use except in Italy, is already practically condemned; the occurrence at San Quireio gave it a fatal blow. Thirty-eight children, vaccinated in the height of summer by means of similar fragments of flesh, which, by the testimony of the vaccinators themselves, exhaled an abnormal odour, were seized with eclampsia and extensive phlegmonous inflammations, and many of them died. This was enough to bring the method into utter disrepute. The practice is henceforth doomed; but the method, which really consists in employing, under another form, the parenchyma of the pustule, still enjoys a certain amount of favour under the name of Milanese vaccine. Dr. Colonel Saggini thus describes, in a communication to me, dated September 10th and 19th, 1880, the manner of its preparation. "In the first place", writes M. Saggini, "I should inform you that at Milan they always use full-grown animals, mostly cows; for the committee cannot procure calves, veal being excluded from Milanese dinner-tables. M. Nolli excises the pustules between the sixth and seventh days. He cuts through the thickness of the skin, as far as the subcutaneous cellular tissue, to give greater consistence to the fragment; then fixes it by one end with a pin on to a small piece of wood, with the bleeding surface downwards. He then scrapes the entire pustule with a knife, until he has removed all the detritus; then breaks up all the parenchyma with the same knife which he has used in scraping it, and adds some drops of glycerine. The mixture thus made is preserved in close vessels, in a refrigerator, and sold; it has the appearance of a soft brown paste." He sends it out in goose-quills, with directions to moisten it with glycerine before use; it is sold retail, placed between two plates of glass.

I have made use of this preparation, received on different occasions from the committee at Milan, or prepared by myself according to the Milanese plan—with this improvement, that we scrape the pustule on the pincers, without excising it; and we have been able to ascertain that, on the one hand, it is efficacious, and, on the other, that it retains its activity for a long time. Whether in the calf or in the infant, the insertion of this matter, rich in animal particles, nearly always gives rise to phlegmonous and eczematous pustules. Inexperienced vaccinators think these to be "splendid pustules"; we consider them to be of bad quality, and their evolution is frequently accompanied by inflammatory complications. The pustules thus obtained in the calf are very large, with an indurated base, and richer in inflammatory serosities than in true vaccine. During six weeks we tried the experiment weekly on two calves, and the result was unvarying. The pustules always had an appearance which no consideration would induce me to produce in a child. Therefore, notwithstanding the facility of the collecting process, thoroughly economical, for it utilises the parenchyma now thought worthless, we have up to the present time firmly refused to allow its exportation by the State Vaccine Establishment, as doubtful on various accounts. At the utmost, we prepare a limited quantity, quite exceptionally, for persons who ask for it for the vaccination of calves in distant countries.

Animal vaccination cannot, with justice, be charged with the misdeeds caused by faulty methods of preserving the vaccine. Nothing is easier than to perform excellent animal vaccinations, without having recourse to the Roman pustules or the Milanese marmalade.

If, then, the public has recourse to vaccination and revaccination, it obeys a sentiment of confidence which is universally justified, and which is likely to spread in proportion as animal vaccination is more known. There is still another circumstance which will contribute to justify the demand for revaccination. The public as well as the profession now know without possibility of doubt that the immunity conferred by vaccine wears out with time, and that we must consequently resort to periodical revaccination. On this point, I have already laid down the following formula, which I now repeat. Be revaccinated,

* These points are made at Boston. They may be had by writing to Dr. Martin, 57, Dudley Street, Boston, U.S.A.

† In this method, the lymph is first collected in large glass tubes, two or three millimètres in diameter. After a short interval of time, it is deposited on a capsule of glass or porcelain, where it separates itself into a clot, surrounded by serum. When all the serum has been thoroughly pressed out and the clot reduced to its minimum, the liquid thus obtained is introduced into its permanent depository which is quickly closed up with a preparation of paraffin or asphalte. If the vaccine be not required for immediate use, a very small quantity of distilled water is added, with about one-tenth part of glycerine, to prevent any consecutive alteration. When it is to be used very soon after it is collected, this addition may be dispensed with.

how frequent soever may have been the preceding revaccinations, whenever there is an epidemic of small-pox; and the more quickly in proportion that the epidemic is serious. This principle is destined, if it be accepted—and it certainly will be accepted by prudent persons—to increase tenfold in the course of time the demand for vaccine matter; and consequently, in a season of epidemic, the production of human vaccine will always be smaller than this demand.

This deficit will also, perhaps, arise from another idea which more and more penetrates into public opinion. A large number of persons believe that the taking of vaccine from the pustules on a child is a source of accident, and a cause of reduction of the immunity to be obtained; so that, in localities where the compliance of families in this respect is not made compulsory by law, the practitioner meets the most decided resistance to his being allowed to stock himself from the arms of the children vaccinated.

From a sentiment of reserve, which must be thoroughly comprehended, so serious is a matter which concerns nothing less than the ruin of the humanised stock, I have never brought forward this argument in support of the utility of calf-lymph, of which the possession prevents the necessity of transferring children into vaccinifers; and yet it is not clear to me that the public feeling in this instance also is not in the right. I wish to be allowed to make a simple and well-considered reflection on this point. I have already said that, out of ten thousand children I have vaccinated with animal lymph since the year 1865, not one, to my knowledge, had suffered from the terrible small-pox epidemic of 1870-1871; and I have been astonished by such an absolute immunity. This astonishment may cease to be justified if we consider that, with very rare exceptions, all the pustules of our vaccinated patients have been scrupulously respected. I will no longer dwell on this matter, not wishing to demolish the work I have laboured to build up, and which I have described in the following terms in an official report. "The Vaccine Institute, whilst being the support of vaccination in this country, should neither have the wish nor the pretension to substitute itself for the traditional practice. Arm-to-arm vaccination is, and will still long remain, powerful in its secular rights—the great power offered for the prophylaxis of small-pox; and nothing should be neglected to encourage and regulate it. Animal vaccination should be but its faithful auxiliary, but so useful an auxiliary that it would be as unjustifiable to wish to do without it as to wish to hastily renounce the older practice." Yet another word or two on this subject. When a child is brought back at the expiration of the first seven days, if it be revaccinated on the spot, even with its own vaccine lymph, it may be that there will be a fresh eruption, feeble for the most part, but occasionally showing all the signs of classic vaccinal pustule. What conclusion is to be drawn, if not that the first inoculation, insufficient to protect the subject against a second vaccinal impregnation, was *à fortiori* insufficient to guard it against variola? Hence the necessity of fresh insertions until the complete exhaustion of vaccinal receptivity. This is what I term *vaccinisation*. Thus every child brought back at the end of eight days should be revaccinated on the spot, even with its own vaccine, if it be in proper condition. If this second vaccination answer well, a third should be performed, and so on till the patient be completely *vaccinised*.

I have a decided conviction that, if this practice were followed, if all children were *vaccinised*, the immunity from small-pox would be much greater than at the present time; and it is, perhaps, from my having constantly put it into practice, that my successes have been so constant, and the result of my vaccinations so thoroughly satisfactory.

Such are the fresh considerations we have to weigh in favour of animal vaccination. It has been objected that Jenner's opinion was against it; but this argument has no weight with me. In matters of experimental science, the predictions of the greatest geniuses only show the imprudence of those who express them. Facts have decided against the predictions expressed on this subject by the immortal discoverer of vaccination.

Animal vaccine has been used in Belgium for about sixteen years. The Government has bestowed its patronage on that material since 1868, propagates it by the labours of its agents, and at the present time is engaged in studying how to still further place it free of charge in the hands of all. When the Government has achieved this result, it will examine the question of compulsory vaccination. The method of proceeding in England has not been so wise; here they have put the cart before the horse.

What can I say to those vaccinators who at the present time write to state that animal vaccination only yields failures in their hands? Nothing; or only that in other hands the amount of success, especially if my points be employed, exceeds all expectation. Mr. Edward Darke, my London agent, in a letter dated May 13th, writes to me: "One point is generally used now for one vaccination, and with ninety per cent. of success." Is, then, an operator who always fails, with a material which is successful in such a proportion in the hands of other operators, authorised to complain of the material alone? The use of calf-lymph requires that certain rules laid down in our instructions should be followed out. It is from the want of will to carry them out that failures and deceptive results are produced. In conclusion, I desire to point out:

1. In all countries, the placing of animal vaccine in the hands of the public removes the only obstacle which still keeps recalcitrants from the lancet of the vaccinator.

2. In countries where vaccination is compulsory, it is necessary that the Administration should place within the reach of families vaccine lymph which calms their fears concerning the transmission of diathetic affections.

3. Animal vaccine is, then, the necessary succedaneum for human vaccine. To propagate it to such an extent that it shall never fail the requirements of revaccination in a season of epidemic, however extensive they may be, is the first and most imperious duty of Governments in the domain of State medicine.

REMARKS
ON THE
TREATMENT OF CARIES OF THE SPINE IN CHILDHOOD,
ESPECIALLY IN REFERENCE TO SAYRE'S PLASTER JACKET.

By HOWARD MARSH, F.R.C.S.,

Assistant-Surgeon and Demonstrator of Orthopædic Surgery at St. Bartholomew's Hospital; Surgeon to the Hospital for Sick Children.

Two different methods are in vogue for the treatment of caries of the spine. The one confines the patient to the horizontal posture, with the object of relieving the column of weight, and of preventing muscular action. The other consists in the use of some apparatus with which the patient is allowed to go about as usual. The most recent development of the latter method is found in Dr. Sayre's plaster-of-Paris jacket and jury-mast. As these inventions have now been before the profession for some years, the time seems to have come for looking into the whole question, and for asking what are the principles on which such an affection as caries of the spine should be treated; what are the difficulties arising out of the conditions under which these principles have to be applied in different forms of the disease; and what is the absolute, and what the relative value of the means at our disposal for carrying them into effect.

In trying to ascertain what these main principles are, we may, I think, very properly turn to the case of inflammation of the joints in childhood. The nature of the disease is very similar in the two instances; and the functions of the spine, in bearing and transmitting weight, and in taking part in the various movements of the body, closely correspond with the functions of the large joints; of which the knee may be taken as a convenient example.

It is agreed that, when the knee-joint is inflamed, it must be kept at rest; and, that rest may be secured, not only is the joint enclosed in some firm apparatus, but the patient is not allowed to bear any weight upon the limb. Either the parents are directed to have the limb maintained in the horizontal posture; or the patient is supplied with an instrument the professed purpose of which is to transmit the weight of the body to the ground, while the affected part is allowed to hang in a perfectly passive condition, with its functions as completely suspended as are those of a healthy joint during sleep. I say nothing of the efficacy of these instruments: this varies in different examples. I allude only to the fact that they are intended to place the joint at complete rest. How does the matter stand in the case of the spine? When a patient with spinal caries is supplied with a Sayre's jacket, and allowed to go about, how are the functions of the column performed? how is the weight above the seat of the disease supported, and transmitted to the pelvic arch, and how are the acts of walking, stooping, rising, lifting objects, etc., carried on? Either the patient is using his spine, or he is using his instrument instead of his spine. If he be using his spine, then the question arises, how is it that a patient may use a diseased spine, though he may not use a diseased knee-joint? while, if it be maintained that he is using his jacket instead of his spine—that the jacket becomes vicariously a part of the skeleton, and replaces the spine in

respect to the bearing of weight and the execution of the various movements of the body the proposition is one which seems to deserve close examination.

First, I will discuss the proposition, that the action of the jacket is to remove the superincumbent weight from the spine at the point of disease; or, what is the same thing, that it supports the weight of all the parts above the level at which caries exists. Let us suppose that the disease is in the sixth dorsal vertebra, and, in order to simplify the question as far as possible, let us suppose that the patient is standing still. When the body of the sixth dorsal vertebra is in process of destruction, the fifth tends to descend towards the seventh, with the result that the column bends forward, and that the parts within the angle are compressed. It is, therefore, required of the jacket that it shall take the weight of the upper part of the column off the lower part, and transmit it by a collateral route to the pelvic arch. If this is to be done, two conditions appear to be essential: 1. There must be an efficient basis on which the jacket may rest; 2. The jacket must have a secure hold on the part of the column which it is required to sustain. Let us first examine the base. In young adult females in whom the pelvis is broad, and much greater in circumference than the thorax, and in whom the waist is small, the jacket rests on the expanded iliac crests, and the adjacent shelving bony framework of the hips, and the basis of support is fairly ample. In adult males, however, the pelvis is much less expanded, and its circumference is often less than that of the thorax; while in children under seven (very frequent subjects of caries), while the circumference of the pelvis measures, say, twenty inches, that of the thorax is often from twenty-one to twenty-four inches. Thus, while the thorax and pelvis in young adult females form a cone with the base directed downwards, in males, and quite as markedly in children, these parts form a cone the wide part of which is above. How, then, can the pelvis afford the jacket an efficient base on which to rest, while it transmits the weight of all the parts appended to the upper part of the spinal column? But more than this. In estimating the efficiency of the basis of support afforded by the pelvis, it must be remembered that the tendency of the column is to fall forward, and that therefore it is required that the purchase should be especially firm in front. In front, however, there is no bony point except the symphysis pubis. But this lies too far back, and it presents no horizontal surface looking upwards on which the lower edge of the jacket can rest. Indeed, I believe no one supposes that the symphysis does, as a matter of fact, afford any support. Yet, besides the symphysis there is nothing but the muscular wall of the abdomen, with intestines behind it—structures which, in respect to their capability of giving support to an instrument, may fairly be compared to a more or less tightly filled air-cushion. They yield and recede as soon as any pressure tells upon them. It is, I know, held by some surgeons that the purchase anteriorly is not on the abdominal wall, but on the anterior superior spines and the iliac crests. But can we concede that this is really the case? In children, these parts are so little salient, and are, so to say, so embedded in the abdominal wall, that the jacket cannot "clip" them. Even if they could be made to serve as points of support, would the skin over them bear the pressure representing the weight of the parts above the curvature? If they were thus used, should we not meet with pressure-sores over them? Though there is a great liability to pressure-sores over the spinous processes of the vertebræ, I have very rarely indeed met with them over the anterior superior spines or the crests of the ilia. Indeed, I believe these points, as a matter of fact—even when the jacket is pinched in above them, so that it has, what a child under seven has not, something approaching to a waist—afford but very slight support. This is evidently the view of Dr. Sayre, who says at p. 17 of his work, that "a detail of practical value is the application over each anterior superior spine of two or three thicknesses of folded cloth three or four inches in length. If these little pads be removed just before the plaster has completely set, such bony processes will be left free from pressure."

Thus, one of the great difficulties in the problem is, that no thoroughly efficient base for the support of the weight which the jacket is required to transmit can be obtained. But, next to a firm base to rest upon, the jacket should have a secure hold on the part of the thorax which it is called upon to support. It has been asserted that the jacket fits so closely, that it moulds itself to the alternate ridges and hollows formed by the ribs and the intercostal spaces, and thus securely grasps the chest; and Dr. Sayre says that it is to be applied so that the ribs are held still, and so that the breathing is rendered diaphragmatic and abdominal. And, he adds, when the thorax is thus firmly secured, the anus and perinæum will rise and fall synchronously with the diaphragm, and the respiration be carried on without difficulty so long as these parts are free from pressure. "It is necessary, in some cases, that the patient should sit upon a chair, with a hole in the seat, like a close-stool, or use an inflated India-rubber ring, like the ordinary life-supporter" (p. 12).

But, surely, here is an instance in which theory and a fervid imagination have overleaped the bounds of what is either advisable, or even possible, in practice. We stand aghast when we are told that the thorax, during the period of its most rapid growth and development, is to be so tightly constricted that its movements in respiration are entirely arrested. And can we believe that the skin thus firmly compressed—so firmly that no sliding can take place between the bony framework of the thorax and the jacket—would remain free from severe injury? But, if we turn to what is observed in actual practice—nay, even if we follow the instructions which Dr. Sayre himself has elsewhere given us (p. 18), when he tells us that "the bandage should be placed smoothly round the body, and must not be drawn tight"—we cannot maintain that the jacket fits so compactly as we are told it ought to do. On the contrary, I have always found that the finger can be easily passed down between the jacket and the surface of the chest. In considering the importance of the hold which the jacket should have on the thorax, in order that it may remove weight from the point of curvature, we must remember that the work must be done, so to speak, to a fine scale. We cannot safely separate the diseased surfaces so as to establish any considerable interval between them. It is rather a question of moderating the mutual pressure of the opposed surfaces than of completely separating them; so that if our support is to be adequate, it must act within the tenth of an inch; in other words, if it yield by so much as the tenth of an inch, pressure at the seat of disease returns, and the instrument loses its effect. And the difficulty of maintaining this slight amount of separation is increased by the structure of the spine itself. If the portion above and that below the disease were two solid rods, any extension we applied would tend to separate their adjacent ends—that is, to diminish their mutual pressure; but in the spine, formed as it is of blocks, with elastic intervertebral discs, the extension used is to a great degree lost in the general mobility of the column, and cannot be made with any amount of precision to act on the point at which the disease is situated.

Thus, when we see that the amount to which we can safely separate the two segments of the spine which meet at the point of disease is not more than about the tenth of an inch; that the extending force must be conveyed through a column permitting, in its whole length, considerable mobility; that the apparatus we employ is a case not applied so as to surround the spine itself, but the whole thorax and abdomen; that there is no adequate base from which the case can take its purchase; that, in fact, this base is usually no larger, and often much smaller, than the part above for which support is required; that, in order that the functions of respiration may be carried on, the case must be sufficiently loose to allow the thorax some play beneath it,—I cannot but see the doubt that arises whether the jacket is competent to carry out the principles upon which it is supposed to act. Thus far, however, I have supposed the child to be standing still, and have discussed the action of the jacket without reference to muscular action. This part of the question, however, calls for some remark. During muscular action, the spine works, both as a whole and in all its parts, by leverage. Thus, for example, when the dorsal is extended upon the lumbar spine, it forms a lever; the lumbar spine serving as its fulcrum, while the erector spinæ is the power. Whenever a lever acts, it is pressed against its fulcrum. Therefore every movement of one part of the spine on another part is attended with intervertebral pressure. Now, when a patient with spinal caries is fitted with a jacket and allowed to go about, what happens when he moves his spine—when he rises from the stooping to the upright position? If it were possible to detach the muscles at their insertion into the spine, and fix them to the jacket, the spine might remain passive, and be carried up in the apparatus; but, as it is, the spine, with the parts appended to it, is raised by muscular action, precisely as it is in health, and with the same amount of intervertebral pressure. It is the jacket, and not the spine, that is passive. The only effect of the jacket is to add to the weight which the spine is called upon to raise. Thus I do not see how it can be held that the spine is at rest, and that intervertebral pressure is prevented during muscular action by the use of the jacket; or how the condition of the spine differs from that of a diseased knee-joint, in which every muscular contraction is attended with inter-articular pressure.

In reply to the foregoing remarks, however, it may be objected that, after all, the value of a given method must be determined not so much by any *à priori* considerations as by the results which it yields in actual practice. This is true. I will, therefore, turn to this branch of the subject. In the out-patient rooms at the Children's Hospital, and more recently in the orthopædic department of St. Bartholomew's Hospital, I have applied the jacket in a large number of patients between the

ages of one and eight or ten years, and have seen it very largely used by others. In many instances of disease in the dorsal region, the patients, while wearing the jacket, have complained of no pain (but this has seemed to prove nothing, for children often do not complain though they are entirely without apparatus), and their general health has remained good; but the deformity has, in the majority of the cases, steadily though slowly increased. Here and there I have met with cases in which recovery, with more or less deformity, has ensued; but the result has been limited, I believe, mainly to instances in which the disease after a time shows a tendency to undergo spontaneous repair, brought about, perhaps, by ankylosis between the articular processes, laminæ, and neighbouring parts of the column, which, by arresting further caving-in, has relieved the bodies from pressure. In disease of the lumbar spine, also, I have on many occasions seen the deformity steadily increase, and at last a large iliac abscess form; but I cannot say I have ever seen any instance in which, even when the jacket was applied in the early stage, the arrest of the disease, and finally its cure, could be attributed to this method of treatment. In watching these cases, it has always seemed doubtful whether the jacket, instead of supporting the parts above the disease—which, let it be noted, include all the trunk and the head and upper extremities—does not simply add to the weight which the diseased column already has to bear.

As to the jury-mast for the treatment of disease in the upper part of the spine, I have not myself succeeded in rendering it useful; and, in cases under the care of other surgeons, its action has appeared clearly defective. In the cervical, as in the other regions of the spine, the scale of extension is graduated to a fraction of an inch; and an efficient action of the suspending straps is counteracted by the alteration of their tension which results whenever the position of the head is changed. There is the same difficulty in keeping the straps tight as that which is met with in the perineal band, and which has led many surgeons to discard its use. Whenever I have examined a case in which the jury-mast was in use, I have, I believe I may say, invariably found that, after a few hours, the straps have become so loose as to produce no extension.

In venturing on an estimate of the value of the jacket, I do not forget that children are sometimes much relieved by its application. This fact must not, however, be allowed too much weight. A number of instances might be cited in which, though a method of treatment is acknowledged to be inefficient, it will yet to some extent control pain and other symptoms. The jacket often gives relief, not because it so completely removes intervertebral pressure and keeps the spine at rest that the disease is placed under the most favourable conditions for repair, but because it steadies the spine, and restrains both sudden and extensive movements either forward or laterally. This effect of the jacket is often seen when, in caries affecting one or more of the upper dorsal vertebræ is applied to the trunk below the disease, but does not extend above this level. Here, obviously, it can have no direct influence in supporting the part of the spine above the caries, and yet it nevertheless affords the patient considerable relief.

Having formed these views respecting the jacket, I am left to the conclusion that the best method at present known for the treatment of spinal caries is that by complete recumbency. This plan, if carefully carried out for the necessary time—extending, it may be freely allowed, from six to eighteen months, or even longer—will generally effect a cure; and it will also prevent the occurrence or increase of deformity. It is now well known that the means are at our disposal by which the distressing deformity that used to result in the course of hip-disease can be prevented, so that the patient recovers with a straight though it may be a shortened limb; and the lamentable distortions which now commonly ensue in the course of spinal caries can assuredly be prevented by the recumbent treatment, if it be applied in the early stages of the disease. I know it is objected that this method interferes with the general health, leads to bed-sores, and is very tedious. It is tedious no doubt; but this is a feature inherent in the nature of the disease, which, in this respect, resembles caries of the tarsus, disease of the joints in childhood, and gland-enlargements slowly tending towards suppuration. As to bed-sores, they are never met with in children who are fairly well attended to, however long they may be kept recumbent, except in cases of extreme exhaustion and wasting. In ordinary instances of spinal disease, they may be avoided by the use of moderate care and the maintenance of cleanliness. And, as to the failure of the general health from mere confinement to the recumbent posture, this has assuredly been very greatly exaggerated. I have seen numerous instances in which children have remained robust and fat, even though they have been recumbent for as long as two or even three years. The causes of wasting and failing health are usually either pain or prolonged suppuration; and both these may be greatly avoided if the recumbent treatment is adopted early and carried out thoroughly.

I believe it is very advisable to combine the use of some firm apparatus with the maintenance of recumbency. For this, the plaster jacket may sometimes be usefully employed, though the poroplastic felt cases invented by Mr. Cocking of Plymouth are, I think, decidedly preferable. These cases are very readily applied; they can be easily removed and remoulded; they are very light, durable, comfortable, and by no means expensive. I have used them very largely for patients at the hospital, and have found them very satisfactory, both for acute disease during the period of recumbency, and also in the convalescent stage of the affection, when the patients are allowed to move about.

THE EARLY DIAGNOSIS OF SPINAL CARIES.

By WILLIAM RUSSELL, M.B.Edin.,
Honorary Physician to the Queen's Hospital, Birmingham.

THE early recognition of diseased conditions is of so much interest and importance to the profession, that I am induced to record briefly the following cases of spinal caries, as a supplement to Mr. Marsh's able and suggestive paper in the JOURNAL of June 11th.

CASE I.—A man, aged about 30, was admitted into the General Hospital, Wolverhampton. Some months before admission, he received a severe blow on the back, followed by progressive loss of power in the lower limbs, and ending, some time before admission, in complete paraplegia. There was no curvature; there was pain on lateral pressure along the bodies of some of the lumbar vertebræ; and pain was elicited in the same region by pressure through the abdomen and upon the shoulders. He was, unfortunately, seized with pneumonia, and died. The *post mortem* examination, which was made in my absence, revealed caries of the bodies of some of the lumbar vertebræ, and formation of pus. The precise cause of the paraplegia was not sufficiently investigated; but the case, while imperfect in this respect, verified the diagnosis of caries made on the strength of signs I shall state more distinctly at the end of this article.

CASE II.—A man, aged 29, was admitted into the Wolverhampton General Hospital under Dr. Millington. There was marked curvature in the middle of the dorsal region, with tenderness on pressure. There were abnormal sensations in the lower limbs; and the sensation of a tight cord round the waist. Hyperæsthesia was marked below the line of curvature; and a hot sponge carried down the spine became unbearable on reaching this point. After a month of absolute rest in bed, combined with general treatment, all evidence of irritation disappeared. He then had a plaster-of-Paris jacket applied; and left hospital a month afterwards able to walk perfectly and feeling strong.

In this case, the application of a hot sponge along the spine demonstrated very markedly the presence of hyperæsthesia to heat, which was, I believe rightly, regarded as an evidence of myelitis. In caries it is most misleading to expect this hyperæsthesia, for it is neither present in the stage preceding curvature, nor after curvature has developed, unless the cord has become secondarily affected.

CASE III.—A lady, about 50 years of age, had suffered long from pain in the right side; and, for some months before I saw her, had been able to walk short distances only. The case was supposed to be one of pleurodynia coupled with hysteria. There was a slight angular curvature in the dorsal region, with pain on lateral pressure and pressure on the shoulders. There was pain on stooping, and during the act of assuming the erect posture. Rest in bed was enjoined until a rigid jacket could be applied. She persisted in sitting up until complete paraplegia compelled her, in the course of a few days, to remain in bed. She, unfortunately, could neither tolerate a plaster-of-Paris nor a poroplastic jacket; we were therefore compelled to be satisfied with the dreary prospect of prolonged rest.

This case is an example of the misfortune of not recognising caries before curvature has developed; and also of the fact, insisted on by Mr. Marsh, that pain in these cases may be distant from the seat of lesion, and that peripheral pain not uncommonly points to central irritation, and can only be explained by reference to the nervous supply of the part.

CASE IV.—A seamstress, aged about 20, complained of pain in the stomach and back, which was felt most when [illegible]. Pain had been experienced [illegible] the pain and fatigue of walking to and from work had greatly increased. There was no curvature; but pain was felt on lateral pressure in the lumbar region, and in the same region by pressure through the abdomen and on the shoulders. She was ordered [illegible] plaster-of-Paris jacket could be applied. I lost sight of this case by leaving the neighbourhood, but had no doubt it would speedily recover under the treatment adopted.

Case v.—A female teacher, aged about 20, was a healthy-looking and well-nourished girl. The commencement of her illness dated from about three months before I saw her, and the first symptoms observed were pain in the pit of the stomach and in the left side. During school-hours she taught standing, and had lately experienced greatly increased fatigue and backache from it; and had further noticed that, for some weeks past, the pain in the back was brought on by stooping to put her boots on. She was in bed when I saw her, and unable to move the lower limbs; the inability seemed, however, to be partly due to dread of the effort bringing on pain. There was tenderness on deep pressure over the left half of the epigastrium and adjoining hypochondrium. A lateral curvature was present in the upper part of the lumbar region, with tenderness on pressure over it, pain being also caused by pressure on the shoulders. She was kept in bed until the legs could be moved without pain. She then had a plaster-of-Paris jacket applied, after Dr. Walker's method, and made an uninterrupted recovery; and has now for months past performed her duties as usual.

While heartily accepting most of Mr. Marsh's statements, I am inclined to place greater diagnostic value than he does on the production of pain by pressure on the shoulders. Pressure has never failed with me in eliciting pain when I suspected caries; but the pressure should not be downwards only, but also downwards and laterally, so as to explore in this way both sides of the vertebral column. The absence of pain over the spinous processes is of little value, and is frequently noted; but I have seldom failed to elicit it by pressure along the side of the spine and towards the bodies of the vertebræ. If the lumbar vertebræ be affected, pain in the "stomach" is frequently complained of, and pain can be produced by pressure through the abdomen. Pain on inspiration or coughing I have not noted; but I have known the pain, in lumbar caries, brought on by a full meal. Pain on stooping is, in my experience, an early and a valuable diagnostic point.

In the remarks on Case II, I have referred to the true significance of hyperæsthesia to the hot sponge in caries; to regard it as a necessary, or even an ordinary sign, can only mislead; for, with curvature and paraplegia present, as in Case III, there was no such heightened sensibility.

SIX CARDIAC AND VASCULAR CASES: WITH REMARKS AND ENGRAVINGS.

By EDWIN RICKARDS, M.A., M.D.,
Physician to the General Hospital, Birmingham.

Case VI. *Calcareous Pericardium.*—The specimen from which the engraving was made was taken from a patient named Martha S., who was thirty-five years of age when first admitted into the hospital, December 1875. She was not aware that she or any of her relatives had suffered from rheumatism. From her own and her mother's account (both intelligent witnesses), she was a strong child until she had a severe illness at the age of thirteen. This illness came on with pain in the chest, shortness of breath, cough, delirium, and vomiting, pain in the bowels, and swelling of the abdomen. There was no pain in any joint. She kept her bed for three weeks; and, after she had been up for a few days, her legs began to swell, the swelling lasting for a week. For two months she was unable to walk, from extreme weakness. For twenty years, dating from this illness, she performed all the ordinary duties of life without discomfort, and felt no ill effects from that illness beyond shortness of breath after severe exertion. For two years prior to her admission into the hospital, she experienced great anxiety and bodily hardships; and during this time dyspnœa, cough, coldness and lividity of the extremities, swelling of the legs, and distension of the abdomen, set in gradually. On admission into the hospital, it was found that the abdomen contained a large amount of fluid, and that the lungs were œdematous. On examining the heart, its area of dulness was somewhat increased transversely; its impulse was scarcely perceptible; its apex-beat, which was diffused and with difficulty felt, was midway between the left nipple and the sternum. The heart's action was feeble, irregular, and intermittent; its sounds were weak, but murmurless; the second sound was reduplicated. The radial pulses were very small, easily compressible, intermittent and irregular, 90 per minute. The jugular veins were distended, and pulsated, and, when emptied, rapidly filled from below. The urine was scanty and non-albuminous. She was much relieved in her general symptoms by paracentesis abdominis, the cardiac signs remaining the same. She was thereby enabled to walk about, and to leave the hospital in three weeks. During the following year and a half, she was an in-patient eight times for the repetition of the operation. At the end of that time, she died at her own home, where the *post mortem* examination was made under great difficulties.

The body was anasarcous; the extremities livid. The pleural and peritoneal cavities contained a large amount of fluid. The peritoneum was everywhere thickened. The liver was enlarged and slightly cirrhotic. The kidneys and spleen were healthy. The lungs were congested. The pericardium was entirely adherent to the heart; that portion of it covering the auricles and large vessels was slightly thickened; the portion covering the ventricles was converted into a calcareous chamber, with the exception of two small spots corresponding with the apices of the two ventricles. The ventricles were abnormally small; their muscular tissue was sound. The auricles were dilated, and their walls were hypertrophied. The valves and large vessels were quite free from any morbid change.

Dr. Hill Norris was kind enough to make an accurate drawing of the heart with its calcareous pericardium. In the engraving, the fibrous pericardium has been removed from the auricles and large vessels to which it was adherent; the auricles have shrunk by being dried. A A mark the calcareous pericardium; B B the spots of the pericardium not calcareous.



Remarks.—Hitherto, in text-books and systems of medicine, calcareous pericardium has received but a sparing notice, and that under the heading of adherent pericardium. The cases on record are few and variously denominated; some are imperfectly described, and without history, so that their value for statistics is thereby much diminished. By considering the foregoing case in conjunction with others scattered throughout medical literature, I arrive at the following conclusions.

1. Calcareous pericardium is the result of pyopericarditis, rather than, as is often held, the calcareous degeneration of the fibrous medium uniting the parietal and visceral layers of the pericardium formed during pericarditis; the pus in pyopericarditis undergoing caseation, and ultimately calcification.

2. The amount of calcification depends upon the amount of pus formed. In non-rheumatic pericarditis, the inflammation may stop short of suppuration, or the pericardial sac may contain a small or large quantity of pus. Hence, in adherent pericardium from non-rheumatic pericarditis, the pericardium may be free from calcareous matter, or may contain calcareous plates, or may be converted into a calcareous chamber. My experience in the *post mortem* room does not tell of any case of rheumatic pericarditis where the pericardium contained pus, or where the pericardial adhesions were calcareous.

3. The calcareous matter situated between the visceral and parietal layers of the pericardium is almost exclusively confined to that part of the pericardial sac surrounding the ventricles; and, while having the consistency and chemical composition of bone, wants the structure peculiar to the latter.

4. Atrophy of the ventricles is more frequently associated with calcareous pericardium than hypertrophy. The two causes which appear chiefly to determine hypertrophy in adherent pericardium are adhesion

while the heart is in a state of inflammatory softening, and valvular lesions. The pus in pyopericarditis becoming inspissated very gradually, time is thereby given for the heart to recover from any myocarditis which may have been present before adhesion takes place; and, when the pericardium becomes calcareous, the rigid casing by compression of the enclosed organ causes the heart to atrophy. Valvular disease of the heart appears to be a rare exception in calcareous pericardium, and, where present, to be very inextensive, amounting only to a nodule in one cusp of the mitral valve in Laennec's case (*op. cit.*, Case 48), and to a bead in one segment of the aortic valve, not causing insufficiency, in Ziemssen's case (*op. cit., Medical Encyclopædia*); and in both cases the lesion may have been of independent origin.

5. The auricles in calcareous pericardium are dilated and hypertrophied—hypertrophied to compensate for their dilatation from overdistension by accumulation of blood in them, in consequence of impeded circulation through the ventricles.

6. That calcareous pericardium is not of rheumatic origin.

Pyopericarditis, of which comparatively few cases are on record, appears to be of non-rheumatic origin, and uncomplicated by valvular lesions—in these two respects resembling calcareous pericardium. In the *Transactions of the Pathological Society of London*, cases are recorded exhibiting the transitional stages between pyopericarditis and calcareous pericardium. Two cases are reported by Dr. Murchison (vol. xx). In one, collections of pus were imprisoned between the two layers of the pericardium, which was extensively adherent. In the other case, the pericardium was adherent; and between its layers in some places were accumulations of pus; in others, calcareous plates. In a case under Dr. Ringer, reported by Mr. A. P. Gould (vol. xxviii), between the layers of the adherent pericardium there was found a collection of chalky paste in front of the heart, and a calcareous plate at the back of the heart.

Without any apology, I have given the history of an illness which Martha S. had when she was thirteen years of age, imperfect and traditional as it was. The disease with which she was then affected I believe to have been pyopericarditis. Her symptoms then closely resembled those of a case recorded by Dr. Glover (*Lancet*, 1872), where the patient died, and the only morbid change found was pyopericarditis.

Calcareous pericardium being necessarily of long duration, it must seldom, if ever, happen to a medical practitioner to watch the commencement of it and to see the pathology. The three medical men who attended Martha S. in her first illness are all now dead.

In the diagnosis of such cases, which for the most part must be made on the principle of exclusion, the points to be looked for would seem to be, the history of a previous severe attack of pericarditis of non-rheumatic origin; the signs of obstructed circulation; and cardiac symptoms not to be accounted for by other diseases, such as valvular, pulmonary, or renal disease, which are declared by other signs. The absence of hypertrophy and dilatation of the heart, while it favours calcareous pericardium, almost negatives fibrous adherent pericardium when the latter gives rise to symptoms. In several of the cases on record, as in this case, ascites was a prominent symptom.

The treatment indicated would seem to be, warm clothing; a carefully regulated diet; the avoidance of mental worry, bodily fatigue, and exposure to cold; and, if fluid should accumulate in the serous cavities, its removal by aspiration. Under such a *régime*, it seems probable that life may be prolonged to an advanced age. Compared with the various forms of heart-disease, calcareous pericardium would seem to promise good results from treatment, inasmuch as in it the heart appears capable of maintaining the circulation if this be not unfairly taxed, and the lesion may be said not to be progressive.

ALLEGED CONSPIRACY TO DEFRAUD.—At the Sunderland Police-court an application has been made by Mr. J. L. Walton, barrister, on behalf of the North-Eastern Railway Company, for warrants to be issued for the apprehension of Dr. Abrath, surgeon in Sunderland, and Michael M'Mann, a labourer, a patient of his, who had brought an action against the North-Eastern Railway Company in respect to injuries received in a collision at Ferry Hill Station, on the company's line, on the 10th of September, 1880. A writ had been issued and proceedings were carried on up to the time of trial, the case being set down for hearing at the Newcastle summer assizes in July last. The action was not tried, however, but was settled by the company upon the representation made by M'Mann and Dr. Abrath in respect of the injuries, £725 being paid as damages and £300 as costs. In consequence of alleged discoveries, made after diligent and searching inquiries, the company applied for warrants at the police-court for conspiring to defraud the company. The application was heard *in camerâ*. After a long statement of the facts by the counsel, the magistrates granted the warrants.

TWO REMARKABLE CASES OF EMPYEMA, AND ONE OF LATENT PLEURAL EFFUSION;

WITH REMARKS ON THE OPERATION OF PARACENTESIS THORACIS.*

BY EDWARD THOMPSON, M.B.,

Surgeon to the Tyrone County Infirmary; President of the North of Ireland Branch of the British Medical Association

THE treatment of cases of empyema and pleural effusion, especially as regards the advisability, or the contrary, of paracentesis, has always been one of the most debatable questions in medicine. Trousseau seems to have been the first physician of real eminence who largely adopted the treatment of tapping the chest in such cases; and the results he attained seem certainly to justify his praises of the operation.

The last occasion upon which I had the privilege of being present here, a most interesting paper was read on this subject by Dr. Spedding. The observations of Dr. M'Keown, when criticising this able treatise, struck me as very pertinent; he requested to be informed, not so much as to the individual experiences of members, but as to the symptoms and conditions which would lead a physician to recommend the operation of paracentesis thoracis. I propose, in this paper—first, to detail two remarkable cases of empyema that have occurred in my practice; secondly, to glance shortly at all the cases of pleural effusion that have presented themselves before me in the Tyrone Infirmary during the past six years; and, lastly, to state, as shortly and concisely as possible, the lessons I have learned from these several cases.

The cases of empyema I intend to refer to specially, because they are unique in this particular, that they represent the largest amount of effusion that, I believe, is on record; at least, I have never heard or read of any so large compatible with life.

CASE I. On September 25th, 1875, I was sent for to see a young man in the country who had been ailing for some time. I found him sitting up in bed, breathing with the greatest difficulty; an inquiry into his family history, revealed distinct evidence of a phthisical tendency. In appearance, he was tall, strongly put together, and muscular, but, unfortunately, subject to occasional epileptic seizures. About ten days previous to my visit, he had been exposed to a severe wetting, and on the following evening felt chilly and sick, with sharp lancinating pain under the right shoulder-blade.

A physical examination of the chest revealed the usual symptoms of enormous effusion into the right pleural cavity. Respiration was greatly impeded, the face was pale, and the pulse thready and weak. The patient, with some difficulty, was assisted from his bed to a chair; and in this position I performed the operation of paracentesis. As the case—owing principally to the hectic symptoms—was diagnosed as one of empyema, I did not think it necessary to employ the aspirator, but simply used an oval-shaped trocar and cannula suggested by my father. At first, no fluid came away. Thinking that perhaps a piece of lymph either had fallen against the mouth of the cannula or else blocked it up, the instrument was moved gently to and fro, and a feather introduced to clear it; to no purpose, however. An exhausting syringe was also tried; but it, too, proved useless. The cannula was then withdrawn and re-inserted, this time with good effect. Occasionally the fluid stopped; but moving the cannula from side to side got over this difficulty. Altogether 173 ounces of thick, yellow, foul-smelling pus came away, giving, of course, the greatest relief. The patient was then put to bed, a compress applied to the chest, and nourishment ordered *ad libitum*. For a few days, progress was satisfactory. On October 2nd, eight days after the operation, symptoms of hectic again became apparent. The external wound had closed up, and a large abscess was pointing just above the anterior superior spine of the ilium, showing that the pus from the pleura had made its way between the muscles of the back to this situation. Seeing the gravity of the patient's condition, and the impossibility of treating him in a country farmhouse, I strongly urged his removal to the County Infirmary, which was at once acceded to, and the patient accordingly removed to the hospital. The journey was very well borne. On the following morning, an opening was made into the abscess, and [illegible] given [illegible] a large quantity of pus. From this date until October 25th, the patient remained free from pain, but evidently losing strength. The fluid in the right pleura had re-accumulated, and the [illegible] became much more marked. Diarrhœa set in, the temperature ran up to 103.5°, and night-sweats caused great exhaustion. Paracentesis was

* Read before the North of Ireland Branch of the British Medical Association

again punctured, and [illegible] two quarts of thick creamy pus. Having determined to open freely into the pleural cavity, a blunt-pointed bistoury was inserted through the wound, and an incision about three inches in length made along the top of the seventh rib at its angle. A large plug of lint was inserted into the wound, and a drainage-tube at its lowest end. A piece of wet lint was applied over the cut, and over all plenty of dry tow, and a bandage. The following morning, the plug was removed, and the pleural cavity syringed freely with a 1 in 50 solution of carbolic acid. On the 20th of the same month, I took the following note of this interesting case. "Every morning since the 13th, the cavity of the right pleura has been washed out with a solution of carbolic acid; the result has been most surprising. A week ago, the patient was lying helpless in bed, unable, without considerable difficulty, to sit up and have the wound in his side dressed; yesterday, he was not only able to get out of bed and sit on a chair by the fire most of the day, but he was able to go downstairs and walk about the yard." After a little time, the carbolic acid causing some unpleasant symptoms, it was stopped, and tepid water injected, occasionally adding to it half an ounce of tincture of perchloride of iron to two pints of warm water. Until January, the patient progressed steadily. One morning in this month, I commenced syringing out the pleural cavity as usual. The tube of the syringe was introduced through the wound, about a pint of fluid carefully injected, and the tube withdrawn; almost immediately, the patient uttered a moan, his head fell forwards, the breathing became very hurried and irregular, and the pulse failed at the wrist. The eyes were twisted outwards, and the lips were covered with froth. The patient was placed flat on the floor, and every effort made to restore animation, but without effect. The hands and body were well and briskly rubbed, brandy and ammonia administered, and the galvanic battery applied. I tried artificial respiration, but in vain; and, after a few spasmodic attempts at respiration, life was extinct.

What was the cause of the patient's sudden death is a question that very naturally arises. At first, it was difficult to imagine; but the previous history came to my aid, and determined that it must have been an epileptic seizure. It could have resulted from no other cause. Some authorities tell us that death occasionally occurs, after paracentesis and evacuation of the fluid, from sudden expansion of the lung. In this case, such an occurrence was impossible, as the lung must have been bound down by strong bands of lymph. Neither could any accident have happened from the syringing, for it had been carefully done by myself every morning for months. That death was caused by epilepsy, I think, is clearly shown—firstly, by the previous history; secondly, by the symptoms of the attack; and thirdly, because pain in the head was complained of for some days before death.

Although the case I have just detailed ended fatally, I think it plainly shows that, even in the very worst cases of this disease, a great deal can be done by proper treatment to lengthen life, if not finally to effect a cure.

Case II.—This case is also one of considerable interest. J. D., aged 25, a sub-constable in the Royal Irish Constabulary, strong and well-built, but very anæmic in appearance, was admitted into the Tyrone Infirmary on December 8th, 1874. Previous to June in the same year, he had always been healthy. When leaving barracks one morning, he was suddenly seized with a severe pain in the left side, accompanied with weakness and vertigo. For some time he remained under treatment in the country; but his condition on admission was such that it was almost impossible to obtain any clear history of the case. He stated, however, that he had been pronounced incurable, and described his supposed disease as thoracic aneurysm. On admission to the infirmary, the left side was enormously distended, and pulsation distinctly visible (it was doubtless this symptom which caused a diagnosis of aneurysm). The intercostal spaces were much widened and bulging. Respiration was entirely absent, and the other usual symptoms of pleural effusion were well marked. The heart was greatly displaced, its apex-beat being about one inch to the right of the right nipple. Diuretic treatment, with counter-irritation, was diligently tried, but in vain. The symptoms becoming every hour more urgent, the pleura was explored, and the diagnosis confirmed. A trocar and cannula were then inserted between the sixth and seventh ribs posteriorly, and 108 ounces of semifibrinous fluid withdrawn. It is unnecessary to detail fully the daily condition of this patient; suffice it to say that, from the date of the operation to the 15th of the same month, progress was favourable. On this day, however, a rapid change for the worse took place; the temperature ran up to 103.5°; chilliness was complained of, with slight nausea; the tongue was dry and furred; pulse thready and weak. Respiration in the right lung was strongly puerile, with loud sonorous and sibilant *râles*. On the 18th, matters were more serious, and vomiting set in. Under treatment, these symptoms improved, and on the following morning the patient expressed himself as feeling much more comfortable. From this date until January 2nd, the patient remained in a very critical condition. The right lung was affected with a supposed attack of acute bronchitis. Every possible measure was tried to master this complication, but without effect. It, however, struck me as curious that, although the symptoms were decidedly those of acute bronchitis, the loud sonorous and sibilant *râles* never were replaced by moist sounds. This fact, coupled with hyper-resonance over the right lung and the rapid reaccumulation of fluid in the left pleura, led me to believe that the bronchitic symptoms were merely mechanical, and due to pressure. For some days nothing further was attempted. On January 5th, vomiting again set in, and during the night there was a further rapid change for the worse. Dyspnœa gave place to orthopnœa; the pulse failed at the wrist; the countenance grew livid; cold perspirations broke out over the body; and the patient appeared dying. He was, in fact, almost in a comatose condition. The heart still flickered, but no more. No time was, therefore, to be lost. I got a basin, half-filled it with water, to place the end of the tube in; and, with the help of the night-nurse, again tapped the pleura, and removed 168 ounces of purulent fluid, with complete relief to all the distressing symptoms. The right lung was examined as soon as possible after the operation. The bronchitic symptoms had all disappeared, and respiration was perfect. From this date until the patient left the hospital, progress towards recovery was rapid. The fluid did not reaccumulate; the left side contracted somewhat; and respiration returned to a very considerable extent in the injured lung. The patient grew quite fat and healthy-looking, and in the month of March left for his home in the county Cavan, apparently in strong and vigorous health. Two years afterwards, I heard from a neighbouring policeman that he was alive and well.

The last case which I intend to give in any detail has also one or two points of interest.

Case III.—K., aged 25, a printer, pale and anæmic, with red hair, blue eyes, and delicate complexion, was admitted into hospital with a bad scrofulous ulcer of the left leg. Under treatment, the sore healed rapidly; but his general appearance was so indicative of pulmonary disease that an examination of the chest was casually resorted to, and a considerable effusion into the right pleura discovered. Treatment by medicine failed to have any effect in removing the fluid; and, as the continued irritation of the lung was considered dangerous, it was determined to tap the chest, which was accordingly done, and a portion of the fluid (about 40 ounces) allowed exit. Curious to relate, the ulcer on the leg, which was quite healed, at once broke out as bad or worse than ever. The day following the operation, the patient said he felt better than he had done for years. The urine, which before the operation was scanty, high coloured, and loaded with lithates, became clear and abundant, and diuretic medicines acted satisfactorily. On July 1st, the patient left the hospital quite well. The side had contracted slightly, but respiration was perfect, and all dulness had disappeared. In this case, one tapping was sufficient to effect a cure. The practical point, however, is the uselessness of diuretic medicines until the pleura had been partially emptied of its contents, and the balance of the circulation restored; and then their manifest utility, suggesting that if, in similar cases, medicines proved in the first instance ineffectual, puncturing the pleura and removing a portion of the fluid may facilitate their action.

The three cases I have just detailed seem to possess sufficient interest to justify me in bringing them under your notice; and they each, especially the two first, illustrate several points of great clinical value in treating of the question of paracentesis thoracis. The first case shows the enormous amount of fluid the pleura is capable of containing; the usefulness of paracentesis; the great benefit that results from a large and free opening into the pleura, when hectic follows the first tapping; and the necessity of washing out the pleural cavity with some weak antiseptic solution, in order the better to ensure success. Again: it demonstrates how an empyema may point in almost any direction, and the necessity of making a careful physical examination of the patient's body before pronouncing our opinion. Lastly: it tells us some of the dangers that may unexpectedly carry off our patient, even when hope of a favourable result seems brightest.

Case No. II also possesses some points of great value. It points out the necessity for care in forming our opinion, even of the plainest case; for here, the fact of a well-marked impulse being communicated to the side caused the diagnosis of aneurysm, and the consequent neglect of treatment for months. It also shows the great amount of fluid the right side of the chest can contain, and the enormous displacement to which the heart can be subjected, apparently without causing more discomfort than in a large effusion of the opposite pleura. This is contrary to general experience: for, if we remember the relation of the

inferior vena cava to the heart, and how almost immediately underneath the right auricle we have the fibrous opening in the diaphragm for the passage of this vessel, there seems good reason for the opinion, so generally entertained, of the great danger of a complete dislocation of the heart to the right side; the inferior vena cava must be very seriously interfered with, and hence the dread of sudden death in these cases seems only reasonable. In my opinion, however, the great danger of this condition rests on the rapidity of the dislocation; for, if the effusion only increase very gradually, the heart, like every other organ in the body under like circumstances, has time to adapt itself to the new state of things. D.'s case also proves that it is not impossible for an empyema to become absorbed after one or two tappings; and that it is not necessary to open freely into the pleura, unless symptoms of hectic are present. It tells us, too, that the presence of an effusion for months does not always cause such a binding down of the lung by constricting bands of lymph, as to prevent all chance of its expansion. If this is possible in such a severe case as D.'s, surely it must be much more likely in cases where the effusion is comparatively recent; and hence answers forcibly the argument of those advocates of paracentesis who would in all cases make use of this expedient, without trying, in the first instance, any other form of medicinal treatment. Case No. III also speaks against those who pin their practice on this argument: for here we have a pleurisy existing for an indefinite period, and still the lung completely recovered. Indeed, in the town of Omagh, I have frequently the opportunity of examining the condition of the lungs of a lad who suffered, some years since, from a very considerable acute pleuritic effusion. His illness lasted close on three months, and yet I would defy the most skilful diagnostician or stethoscopist to detect the minutest trace of this boy's previous illness; and yet he was treated medicinally, and not by paracentesis. Finally: Case No. II teaches us the great usefulness of paracentesis, in suitable cases, and how quickly a state of comparative comfort can be accorded by its means to a patient even in a semi-moribund condition.

Case No. III has not so many points of importance, still it conveys lessons of its own, one of which I have just referred to. Does it not also tell us that a considerable pleural effusion may exist without the knowledge of the patient, and without apparently causing the slightest inconvenience?

Since my appointment to the Tyrone Infirmary, I have met with thirty-two cases of pleural effusion; and, in nine instances, I tapped the pleura—in one instance performing the operation five times, in another three times, in four twice, and in three once—with the following results: three were greatly relieved, four were completely cured, and two died apparently directly from the results of the operation. The remaining twenty-three patients were not operated on, and they all completely recovered under careful mercurial treatment (principally Bailey's pill) and repeated blistering. My experience, therefore, of the operation of paracentesis thoracis has not been very favourable; and I would never now attempt it, except in very pressing cases. But, what are the cases you consider pressing? is a question you may justly ask; and to this question, which is of a twofold nature and of the first importance, I shall now very briefly endeavour to supply an answer.

What cases do require paracentesis of the thorax? All cases where an empyema can be diagnosed; or where, owing to displacement or pressure, the action of the heart or lungs is greatly impeded; or when symptoms of death by apnœa or syncope are present; wherever, in fact, with the physical signs of pleuritic effusion, we have orthopnœa, quick feeble pulse, lividity of the countenance, a tendency to delirium, or great displacement of the heart, with discoloration of the nails, congestion of the face and lips, and the other usual signs of non-aëration of the blood. Again: where patients, suffering from a pleural effusion, are manifestly losing ground, and when there is no other ascertainable cause to account for the progressive sinking. The operation may also be necessary to relieve suffering and prolong life in specific lung affections—such as malignant or tubercular disease, and in some cases of pneumo-thorax, uncomplicated with phthisis or other specific disease.

Such are the cases that, in my opinion, require the operation. In empyema, if the fluid reaccumulate after the first tapping, with signs of wasting and much hectic, the pleural cavity should be opened into freely, a thorough drainage established, and the cavity syringed out daily with some weak antiseptic solution.

The cases that do not require paracentesis are, as a general rule, acute pleuritic effusions, or chronic effusions, unaccompanied by any of the urgent symptoms just referred to. In specific diseases of the lungs, or in cases of effusion resulting from disease of other organs—such as hydro-thorax in Bright's disease—it is generally useless, except of course as a palliative, to attempt paracentesis. Sometimes, I have found a partial tapping (the patient being under the influence of mercury) followed by rapid absorption of the fluid. I attribute the satisfactory result thus obtained to the restoration of the absorbing powers of the pleura, which, if exposed to considerable pressure from a large effusion, must of course be greatly interfered with.

In performing the operation of paracentesis thoracis, it should never be forgotten to make, in the first instance, an exploratory puncture, either with the small needle of an aspirator, or of a hypodermic syringe. This proceeding does no harm, and it confirms the physician in the correctness of his diagnosis.

In conclusion, gentlemen, it is almost superfluous to remark that I am not a very strong advocate of the operation of paracentesis. I was enamoured at first with a few successful cases; and, having carefully studied Trousseau's writings on this subject, I proceeded to follow out his line of practice indiscriminately. Two deaths, however, in rapid succession and from unaccountable causes, quickly made me pause; and I have now learned that the operation is not only one of the most useful, but also one of the most dangerous in surgery, and that great judgment is necessary in selecting the cases suitable for it. Niemeyer, indeed, goes almost further than Trousseau in his praise of the operation; and even asserts that, without it, it is useless to attempt the cure of pleural effusions. He seems entirely to discard medicinal treatment, which, in my hands, has certainly been attended with the most successful results.

TUMOUR OF BOTH FRONTAL LOBES.

By JAMES RUSSELL, M.D., F.R.C.P.,
Physician to the General Hospital, Birmingham.

THE details of the following case are more worthy than of importance merits; they are, however, of a sufficiently distinct and positive nature to justify their being placed on record. They coincide very accurately with the description given by Dr. Ferrier of the result of injury to the antero-frontal lobes, and support the opinion he has expressed as to the probable function of this part of the brain. Indeed, I find that the expressions used by Dr. Harvey and myself in describing the patient's condition were precisely those which Dr. Ferrier had employed in referring to the mental phenomena exhibited by monkeys in which the antero-frontal lobes had been destroyed. The absence of the more ordinary symptoms of cerebral disease, those usually associated with lesion of other parts of the cerebrum, so far as my imperfect examination extended, is equally striking with the positive aspect of the case, and again agrees with general experience in relation to this class of cases. I may call attention to the fact of the disease existing in the corresponding part in each hemisphere.

I only received a single visit from the patient, and on that occasion my examination unfortunately did not extend beyond the prominent symptoms. He was fifty-three years of age, and was sent to me by my friend Dr. Harvey. His wife, who accompanied him, complained that through the winter her husband had been in a kind of lethargy, as she said; he sat and seemed to doze, and was indifferent to things going on about him. He also made mistakes in business, and sometimes passed his urine in bed. She spoke of a tendency to delusion; but this tendency, Dr. Harvey tells me, never exceeded "a wrong notion about the time of the day or the day of the week, and sometimes a wondering whether he were in his own house". When he visited me, there was no appearance of paralysis. Sensation was not tested. He walked into my room, and one would hardly have noticed that there was much amiss besides a considerable amount of indifference and a degree of dulness. He answered my questions rather slowly, but clearly, but did not volunteer any statement; all information had to be obtained by direct questioning. He had some frontal headache; but it was not prominent. One positive symptom there was—greatly obscured vision; and this symptom seemed to have appeared with rapidity. He could just read No. 16 Jäger, and his wife believed he could have read No. 1 six weeks previously. The pupils were large; both discs were swollen, congested, spotted with blood, and the vessels were concealed. The patient died about six weeks after this visit, the [illegible] progressing, but no new symptom appearing, except a [illegible] of the left third nerve at the last.

On [illegible] examination, a tumour, [illegible] connected with the brain-tissue, and rather under the size of a Tangerine orange, was found in the anterior part of the right frontal lobe. A similar but much smaller tumour existed in the corresponding part of the left hemisphere; [illegible] mentioned at the extremity of the right [illegible] of the brain were perfectly healthy. [illegible] nerve was not accounted for by any *post mortem* appearance.

THE ALBUMINURIA OF ADOLESCENTS, OFTEN THE BEGINNING OF BRIGHT'S DISEASE (?).

By CLEMENT DUKES, M.D.Lond., M.R.C.P.Lond.,
Physician to Rugby School and Rugby Hospital.

In the BRITISH MEDICAL JOURNAL for November 30th, 1878, I wrote a paper, quoting cases, on the frequency of albuminuria in adolescents, and expressed my belief that it was *physiological*—incidental to puberty. But in it I stated: "This albuminuria of puberty is often so persistent, and, even when it has disappeared, recurs again and again so often, that I fear many of the cases pass on to chronic Bright's disease—although this I can only surmise, as I lose sight of them; but long continued or often repeated hyperæmia is the cause of all kidney-disease."

Since then, I have had numerous cases; and, from this persistence, and from the increase of the albumen, I am led to believe that the condition is not only *pathological*, as Dr. George Johnson holds, but that I am seeing the very beginning of what becomes, in many cases, eventually true Bright's disease. I have no opportunity of following these cases up, and so this paper is only conjectural; though it may lead others to investigate further than lies in my power.

Their *history* is this. An adolescent has symptoms that make me search for albumen: either morning headaches, disappearing as the day goes on; or marked dyspepsia; or increased impulse of heart and arterial tension; or slight œdema observed in the face; or a feeling of debility, and even syncope: albumen is found, and is followed for years. The heaving heart and the increased arterial tension are sometimes so marked, that I can diagnose the albuminuria from it alone, and I am led to examine for it in consequence. Part of this increased cardiac and arterial impulse may be physiological, and owing to causes connected with puberty; part may be due to the hyperæmia of the kidneys.

It is intermittent in *character*, occurring perhaps at one time of day only; or one day, and then not again for several days; or several days, and then absent for weeks. It is also intermittent in *quantity*—sometimes copious, sometimes only a trace; but it is persistent in this intermission, and progressively increases.

Its *cause* varies. Sometimes scarlatina has preceded; sometimes it is hereditary; more often its cause is untraceable, it having arisen and progressed insidiously. Microscopically, there are no casts or cells. That this albuminuria is not connected with the secretions of puberty, as has been suggested, is beyond question; for, whether it be copious or scanty, old or recent, it can be got rid of in an hour or two by putting the patient to bed and giving milk only; and it can be reproduced almost at will, by getting up and giving more diet. That it is owing to hyperæmic kidneys is, I think, clear.

That many cases of the albuminuria of adolescents are only transient in character is without doubt; that many persist for years, and yet recover, is, I think, probable; but that a large proportion are simply the first stage of Bright's disease will, I believe, be proved in time.

SURGICAL MEMORANDA.

THE IMMEDIATE ARREST OF BLEEDING FROM THE NOSE.

THE literature of this subject is plentiful enough, but not very satisfactory—countless little manœuvres are recommended, by one or more of which every surgeon fondly hopes that he may do battle in the next case to which he is summoned, probably in much haste and terror. Few emergencies more strikingly appeal for speedy relief, for many sufferers can ill spare the blood they are losing; and as even a little blood makes a great show, the bystanders are often faint and frightened, perhaps trying their own empirical nostrums before the doctor arrives. And few exploits more vividly declare a medical man's readiness and skill than when he first calmly hushes the tumult of family and friends, and then goes quietly to his work, with the assured confidence that he can then and there permanently stop the hæmorrhagic flow.

At a meeting of the Royal Medical and Chirurgical Society, on April 12th, 1881, a distinguished surgeon exhibited "a simple instrument for plugging the nares in epistaxis. It consists of a bag of India-rubber, which, after insertion in the nares, can be inflated with air to the required size; and, exerting equable pressure, speedily checks the hæmorrhage." This report, which I quote from one of the medical journals, gives the impression that the principle of the instrument was a novelty, and that no one had ever heard before of air-inflation as a means of stopping bleeding from the nose.

As a matter of fact, an instrument of an identical kind was described by Dr. Taaffe of Brighton, in the *Lancet* for January 4th, 1873. I had one made after reading his letter, and it answered its purpose very fairly well for three or four years. On one occasion, however, it failed because the inflated surface did not seem large enough, and blood escaped from the posterior nares into the pharynx. Shortly afterwards, a more perfect instrument was devised by Dr. H. Cooper Rose, and an account of it was given in the BRITISH MEDICAL JOURNAL for January 10th, 1874. In an improved form it is again described (and represented by figure) in Mr. W. Spencer Watson's book on *Diseases of the Nose and its Accessory Cavities*. It now "consists of a gum elastic tube about five inches long, with lateral perforations near the end, and covered with thin caoutchouc membrane in the form of a spirally twisted bag for the last three or four inches of its length. To use it, the membranous bag is smoothly folded over the continued tube, and the whole being oiled (diluted glycerine is better) is passed along the floor of the nares till it reaches the pharynx. The bag is now inflated..... and if a stop-cock is fitted, the air is kept in by turning it as soon as sufficient tension is obtained." The cavity of the twisted bag could be injected with water, if it were desired; but I have never found this necessary. When I recollect what "bleeding from the nose" was in old days, I cannot be too thankful to Dr. Rose for his simple and effective invention. To be called to an obstinate accident of this kind, especially when other medical men had failed, was enough to make one sick at heart from the possibility of adding another failure to the dreary history; and then there was the consciousness that delay might mean impaired health or even death to the victim. The victory is half won when a man is armed with an apparatus which he knows is sure to succeed; and I am now speaking of cases in which he wishes to succeed, and which are not forms of natural bloodletting to be encouraged. The object of this brief communication is to recommend Dr. Rose's instrument for *(a)* facility of introduction; *(b)* the extent and evenness of the inflated area; and *(c)* the possibility of its remaining *in situ* for thirty-six or forty-eight hours, when it may be gently removed, and the hæmorrhagic nostril can be syringed with some cold astringent fluid for purposes of cleanliness and the washing away of blood *débris*.

JOHN KENT SPENDER, M.D.Lond.,
Physician to the Mineral Water Hospital, Bath.

DEPRESSED FRACTURE OF SKULL, WITH CEPHALIC BRUIT.

J. C. was admitted into the Union Hospital here on September 6th. The day previous, he sustained "in a quarrel", a compound depressed circular fracture about the size of a halfpenny on the left parietal protuberance. He died on the 15th. On the fifth day of admission, a cephalic hissing *bruit*, synchronous with the pulse, could be distinctly heard by the ear at a distance fully one yard from the cranium. The patient heard it also himself, and directed our attention to it occasionally. It was intermitting, and continued audible till two days prior to his death. On *post mortem* examination, there was inflammation of the meninges. An abscess, containing about an ounce and a half of matter, was also found in the substance of the brain beneath the seat of fracture, and in close proximity to the longitudinal sinus. How was this *bruit* produced?

WILLIAM O'NEILL, Mitchelstown, Co. Cork.

MANIPULATION OF THE SCAPULA IN DISLOCATION OF THE SHOULDER.

AT an early period of my practice in the country, about twenty years ago, I was called in to reduce dislocation of the humerus into the axilla of a neighbouring practitioner, a very muscular man, and attempted to do so by means of the heel in the axilla, but failed. I then placed my patient in a sitting position, and, having fastened one end of a round towel to an immovable object behind him, on a level with the shoulder, over which I brought the other end of the towel, crossing it at the back of the scapula, had the arm adducted and well extended. I then placed one of my hands over the acromion to depress the glenoid cavity, and the wrist of my other arm as nearly as possible beneath the head of the humerus to raise it at this stage; and the arm being gradually adducted and lowered, with continued extension, the dislocation was quickly and easily reduced. I have reduced many dislocations in this manner since, and am of opinion it is more efficient and agreeable than by the heel in the axilla. It resembles in principle the method communicated by Dr. Illingworth in the JOURNAL of October 15th.

41, Cromwell Houses, S.W. CHARLES C. HICKS, M.D.

CLINICAL MEMORANDA.

ALBUMINURIA IN A VERY YOUNG CHILD.

CASES such as described by Dr. Mackenzie Booth in the JOURNAL of October 15th are by no means rare. During the past month alone, two children, three and a half and five months old, with the condition of urine described by Dr. Booth, have come under my care; and in both this was associated with a mild universal impetiginoid eczema.

Without theorising as to the connection between eczema and kidney-affections in children, I may draw attention to a clinical fact, the result of my experience—viz., that a considerable percentage of cases of eczema of the external genitals in both sexes is followed by suppression of urine, convulsions, and death.

J. RUTHERFORD MORISON, M.B., F.R.C.S.Edin.

OBSTETRIC MEMORANDA.

ANTEVERSION OF GRAVID UTERUS AT FULL TERM.

THE following case occurred whilst I was Resident-Surgeon at St. Marylebone Workhouse, and is interesting in so far that its rarity makes it so. A. C., an unmarried and well-developed woman, aged 21, and a servant by occupation, was admitted on December 16th, 1880. Previously to this, she had been a patient in one of the London lying-in hospitals. She was pregnant for the first time. At the time of her admission she complained of great pain, and told me she thought she had arrived at the full time of pregnancy. I examined her *per vaginam*, which caused her a great deal of pain, owing to the tender condition of the passages, caused by several previous examinations. I found the pelvis roomy, and the os uteri rather high up, which is generally the case in primiparæ. It was undilated; and, with the exception of the great pain, which she said was "all around her", there was no evidence of her being in labour. I bandaged her firmly, as I invariably find that the support which a binder gives relieves the pain a great deal; and I gave her a draught of tincture of henbane and compound spirit of ammonia. This caused her to sleep, and she woke very much refreshed the next morning, but still complaining of the pain. From this time to the morning of December 31st, I examined her three times, the last time being on that morning, and each time found no alteration from the time I first examined her. In the meantime, she had never complained of any difficulty or pain in defæcation or micturition. On the evening of December 31st, I was hastily summoned to see her, and found her screaming vociferously, and in very great pain of a bearing-down character. I immediately examined her *per vaginam*, but only with great difficulty could I get my finger into the passage, owing to the pelvic cavity being filled by what I thought at first to be the head. I searched for the os, and, after some time and a great deal of trouble, found it very high up and parallel with the promontory of the sacrum. I then knew that the body filling the pelvic cavity was the head pressing on the anterior wall of the uterus, which felt so thin that I was fearful of its rupturing. Then, instead of placing her on her back, which, I believe, is the plan generally adopted, I made her kneel, with her face on the bed. I then crooked my finger into the os, which was barely enough dilated for my so doing, and used gentle but firm traction in the direction of the curve of the sacrum, at the same time pressing the fundus upwards with the thumb of the same hand; and, after a short time, replaced the uterus in its proper position. She was then placed on her back, with the buttocks well raised and firmly bandaged, with the force directed upwards. The pain quickly ceased, and I gave her another draught as before; after which she slept for several hours. About 10 A.M. the next day, I was again hastily called to see her, and found her in the same condition as on the previous day. The uterus was displaced as before; but, on using the same treatment, it was soon replaced. The os was very much dilated, and occupied by the now tense bag of membranes; and there were now present the bearing-down pains of labour; I therefore gave her twenty minims of liquid extract of ergot, which brought on rapid uterine action, and she was shortly delivered of a male child. During the whole time, or since, there had been no hæmorrhage of importance. My reason for going in direct opposition to the routine line of treament was—that, as the head almost filled the pelvic cavity, and as the direction of the axis of the pelvis, when a woman is lying on her back, is downwards directly towards the coccyx, it follows that the head, when placed as above, must have a tendency to gravitate to the most dependent part, namely, the coccyx; but, when the body is in the position in which I placed it, it must follow that any body must gravitate towards the brim, which is well exampled by the happy result in the above case. H. BOYLE ROSSALL, Leavesden Asylum.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LONDON HOSPITAL.

CASE OF SUNSTROKE TREATED WITH [illegible].

(Under the care of Dr. LANGDON DOWN.)

[FOR the notes we are indebted to Mr. C. E. JENNINGS, House-Physician.]

During the excessive heat in the third week of last July, the medical work at the London Hospital was greatly increased by the number of patients complaining of lassitude, headache, giddiness, constipation, and general *malaise*. One case of sunstroke was admitted. Chas. K. D., aged 17, a medical student, was exposed to the midday sun for about three hours on July 12th, when he walked four miles. He was exceedingly tired after his walk. At 7 P.M., he was seized with sudden pain in the head, and fell to the ground. He described his sensations as though some one had struck him violently in the occipital region. His hands and limbs trembled violently for a few seconds previous to syncope. When seen by his brother, he was delirious; and, when roused, complained of "bad dreams", "falling of cliffs", etc. The pupils were contracted; the pulse 90; temperature 100° Fahr. After being roused, he relapsed into the semi-comatose state again, and shouted for help against imaginary dangers. Half a drachm of bromide of potassium was administered. He passed a fair night, though he rambled much in his sleep. On waking in the morning, he said he felt quite well. On attempting to rise from bed, however, he immediately fell to the ground. He complained of pain over the back of the head, and there was much tremor of the hands.

On July 19th, he was admitted into the hospital. He was then slightly flushed in the face, and complained of headache, loss of appetite, and lassitude. He saw floating bodies before his eyes. Pulse 95, full; temperature 99° Fahr. There were no physical signs or symptoms indicating disease in the thoracic or abdominal viscera. There were muscular tremors, but no definite paralysis. The power of grasp in the hands, and tactile sensibility, were good. Superficial and deep reflexes were normal. The excursions of the globes of the eyes were normal; the media were clear; the optic discs injected. There was no albumen in the urine. Milk and beef-tea were ordered as diet. An ice-bag was applied to the head. Scruple doses of bromide of potassium, combined with aromatic spirits of ammonia and infusion of gentian, were given three times a day.

The next morning (July 20th), the temperature was 97° Fahr.; pulse 80. The bowels being confined, an ounce of castor-oil was ordered. Pudding was added to the diet. On July 21st, he was much better; but acne-spots had appeared on the face, indicative of the physiological effect of the drug employed. The dose of bromide of potassium was diminished by one-half. The dietary was increased by the addition of a chop and eggs. The following day, he was discharged, and went for a sea-voyage.

KING'S COLLEGE HOSPITAL.

A SERIES OF CASES OF MAMMARY DISEASE.

(Under the care of Mr. LISTER.)

[WE are indebted to Mr. Penny, Surgical Registrar, for the notes of these cases.]

CASE I. *Scirrhus of Mammary Gland.*—[illegible] W., aged 63, was admitted on November 23rd, 1880. Her previous history was good, and she appeared then to be in fair health. In the left breast was an ulcer, of the size of a crown-piece; it was about half an inch deep, with indurated edges; this ulcer was situated on a hard base, not circumscribed, but extending over the greater part of the left mamma; the whole was movable on the deeper structures. The discharge from the ulcer was most offensive. The axillary glands were enlarged.

Operation, November 24th. The ulcer was [illegible] with iodoform, and then filled with small strips of boracic lint; over this a piece of unprepared [illegible] was fastened with [illegible]; over that, the surrounding parts were well [illegible] with [illegible] per cent.). The patient was then put under the influence of chloroform, and the left mamma excised, the incision [illegible] the ulcer; the incision was next extended into the axilla, and the infil-

trated glands were removed. After ligature of the vessels, three drainage-tubes were inserted into the axillary, and one into the sternal extremity of the wound. The margins of the wound were next brought together with two pairs of button-sutures, and great force was used to effect the approximation. The edges were subsequently closely stitched together with silk and silver sutures.

November 27th. The patient had a good night. There was a copious sanguineo-serous discharge. The dressed wound was looking well; one of the axillary tubes was removed. Temperature, morning 99.2°, evening 99.6°; pulse 94.

November 28th. The patient had a good night, and took a good dinner of solid food. The wound was dressed; there was a sanguineo-serous discharge; the wound was looking well, and free from inflammation. Temperature, morning 97.8°, evening 98.6°; pulse 100.

November 29th. The wound was dressed, and the sternal tube was removed; also one button-stitch. The discharge was serous in character. Temperature, morning 99°, evening 97.8°; pulse 100.

December 1st. The wound was dressed, and the remaining button-stitch was removed, and one of the axillary tubes.

On December 2nd, the wound was dressed; and, on December 4th, all the drainage tubes were removed, and all the stitches.

The wound was dressed on December 7th, 9th, 11th, and 19th, when it was entirely healed, with the exception of a small spot over the site of the drainage-tube. The temperature after the 29th ranged between 97° and 99.2°. The patient was discharged, with the wound completely healed, on December 23rd.

CASE II. *Excision of Mamma for Scirrhus.*—C. B., aged 58, was admitted on December 2nd, 1880. Her previous history was good. On admission, there was a tumour, of the size of a medium-sized orange, in the right mamma; this was first noticed a month before, and had formed very rapidly. It was freely movable on the deeper parts, and also under the skin.

On December 3rd, the right mamma was excised in the usual manner; the incision was then extended into the axilla, and several glands infiltrated with scirrhus were cleared out. The vessels were then tied with catgut. Three drainage-tubes were inserted into the axillary, and one into the sternal end of the wound. One button-stitch was required to approximate the margins, and the edges of the skin were closely stitched with catgut and silver stitches.

December 4th. The wound was dressed; there was a free discharge of a sero-sanguineous character; the sternal tube was removed. Temperature, morning 99.8°, evening 100.2°; pulse 74.

December 5th. The wound was dressed, and was looking well, and free from inflammation. Temperature, morning 100.4°, evening 99.8°; pulse 74.

The wound was dressed on December 7th and 8th, when one tube was removed, and the rest shortened; one button-stitch and several catgut stitches were also removed.

The dressings were renewed again on December 10th, 12th, and 14th, when all the stitches were removed, and only a short piece of drainage-tube left. It was dressed again on December 19th, when the last drainage-tube was removed, and the wound left to heal.

The patient was discharged, on December 28th, quite healed.

CASE III. *Excision of Mamma for Large Adeno-Lipoma.*—M. L., aged 38, was admitted on February 12th, 1881. The previous history was good. The patient first noticed an enlargement of the right breast about eight years before admission; this gradually increased. She applied for relief on account of the inconvenience caused by the size of the tumour, which interfered with the free movement of the right arm, especially when undressed. The tumour was freely movable in the deeper parts. Mr. Lister operated on this patient on February 18th. An elliptical incision was made on each side of the nipple, enclosing a piece of skin about two inches in width. The integuments were then dissected up, and the tumour removed. The vessels were secured with catgut. Two drainage-tubes were inserted into the axillary and one into the sternal end of the wound; and the edges of the wound, which came well together, stitched with silk and silver sutures. A dressing of carbolic gauze was applied.

February 19th. The patient had a good night. There was a free sanguineous discharge. The wound was dressed, and one of the axillary tubes removed. Temperature, morning 99.8°, evening 99°.

February 21st. The wound was dressed. There was very little discharge. The sternal tube was removed, the axillary shortened, and all stitches were removed, the wound having healed by first intention in the whole of its extent. Temperature, morning 99°, evening 97°.

February 23rd. The dressing was renewed. There was very little discharge. The remaining piece of drainage-tube was removed.

February 27th. The spray was discontinued; there being only, at the ite of the drainage-tube, a superficial sore.

The patient was discharged, with the wound completely healed, on March 3rd.

CASE IV. *Cystic Tumour of Mamma: Treated by Puncture, Injection of a Solution of Chloride of Zinc, and Drainage.*—A. W., aged 45, was admitted on January 3rd, 1881. About a month before admission, the patient noticed an enlargement in the left breast. When admitted, a hard lump could be felt freely movable on the deeper parts and beneath the skin; there was no enlargement of the axillary glands. An indistinct sense of fluctuation could be felt.

On January 10th, an incision was made through the skin; the cyst was punctured with a trocar and cannula, and some fluid evacuated. A solution of chloride of zinc (forty grains to the ounce) was then injected into the cavity. Through the cannula a probe was introduced, and the cannula then withdrawn; over the probe a drainage-tube was passed into the sac. The usual antiseptic dressings were then applied.

January 11th. There was a free sero-sanguineous discharge on the dressings. Temperature, morning 98.8°, evening 98.8°; pulse 94.

January 13th. The discharge was much less, but still dark in colour. Temperature, morning 98.6°, evening 98.6°.

January 16th. The wound was dressed; there was scarcely any discharge. The tube was shortened.

The tube was left out on January 21st; and, the wound being quite superficial, on January 28th, the spray was discontinued. The patient was discharged completely cured on February 1st.

CASE V. *Cyst of Mamma, treated in the same manner as Case* IV.—E. G., aged 56, was admitted on November 14th, 1880. Eighteen months before admission, she noticed a lump of the size of a pea on the left breast; this gradually grew to the size of a hen's egg, the size it had attained when she was admitted. Fluctuation could be felt in the swelling.

On November 14th, Mr. Lister treated the case like the above Case IV. It progressed favourably, and the patient was discharged, with the wound quite healed, on November 30th.

CASE VI. *Double Mammary Abscess: one dressed with Carbolic, the other with Eucalyptus, Gauze.*—E. B., aged 19, was admitted on February 11th, 1881. The patient was confined on January 25th. When admitted, she had an abscess in the left mamma, and was also suffering from bronchitis. Poultices were applied to the mamma.

On February 16th, Mr. Lister made an incision into the breast; about four ounces of pus were evacuated. A large drainage-tube was then introduced, and a dressing of carbolic gauze applied.

On February 17th, the discharge was copious, and rather purulent. Her cough was rather troublesome, and there was free discharge from the left ear. Temperature, morning 100.2°, evening 102.8°; pulse 94.

On February 18th, there was still free discharge; the cough and discharge from the ear were much the same. Temperature, morning 99.2°, evening 102.6°; pulse 84.

February 19th. As there still continued to be much discharge, it was thought that the drainage was imperfect. Accordingly, the finger (well purified in carbolic lotion, 5 per cent.) was introduced into the cavity of the abscess, and a small sac broken down, giving exit to about an ounce and a half of pus. Temperature, morning 98.8°, evening 100.4°; pulse 88.

February 21st. The discharge from the breast was much less serous in character. The dressing had not been changed since the 19th. The cough and otorrhœa were much better. Temperature, morning 90°, evening 99.4°; pulse 96.

The patient now progressed favourably, the discharge remaining serous in character. She was dressed on February 24th and 28th, and on March 5th and 9th. At the last date, the wound being then superficial, a small piece of boracic lint was fastened on; this was removed on March 14th, the wound then being completely healed. Since the 21st, the temperature had varied between 98° and 99°.

On March 12th, the patient complained of a feeling of uneasiness in the right breast; and, on examination, it was found to be inflamed. Poultices were applied. The temperature at this time rose again to 100.8°.

On March 16th, Mr. Lister opened the abscess on the right breast, and about two ounces of pus escaped. He then put in a drainage-tube, and applied a dressing of eucalyptus gauze.

March 17th. The discharge was free and sero-sanguinolent. Temperature, morning 100°, evening 100.6°; pulse 92.

March 19th. There was very little discharge, serous in character. Temperature, morning 98°, evening 98.4°.

March 21st. The discharge was only sufficient to stain the dressing. The tube was shortened. Temperature, morning 98°, evening 98.8°.

March 25th. There was very little discharge on the dressing. The tube was left out.

March 28th. With the exception of a small spot over the site of the drainage-tube, the wound was entirely healed. It was quite healed when the patient was discharged on April 2nd.

REMARKS.—It is almost needless to say that, in the above cases, all antiseptic precautions were rigidly observed. In the cases (I, II, and III) of excision of the breast, great care was taken to purify the axilla before the operation with a five per cent. solution of carbolic acid. After sponging the part, a towel soaked in the solution was wrapped round the seat of operation, and plenty of time allowed for the antiseptic to act. In such cases as IV and V, and all similar diseases, Mr. Lister combines free antiseptic drainage with irritation of the lining membrane of the sac, and with uniformly good results.

MANCHESTER ROYAL INFIRMARY HOSPITAL.

EXCISION OF THE THYROID GLAND.

(Reported by WALTER WHITEHEAD, F.R.C.S.E., F.R.S.Edin., Surgeon to the Infirmary.)

HANNAH L., aged 51, unmarried, living in one of the suburbs of Manchester, was admitted into the Manchester Royal Infirmary on May 17th, for the purpose of having a bronchocele removed. The growth had existed for thirty years, having remained for a long time of the size of a pigeon's egg, and caused very little inconvenience until within the last five years, when the enlargement made rapid advances, and became the source of great disfigurement. The breathing became embarrassed, and she suffered occasionally from paroxysms of dyspnœa; the voice also gradually became hoarse and feeble. She further suffered from a perpetual dread that the tumour would eventually assume gigantic proportions, and occasion sudden suffocation.

The tumour occupied the front of the neck, the upper border being on a level with the thyroid cartilage. It hung down in a pendulous manner on to the upper border of the sternum, and the base of its attachment extended laterally to the borders of the sterno-mastoid muscles, which were displaced by the growth. The tumour was lobulated, some of the lobes conveying a sense of fluctuation, whilst others appeared solid. The mass was movable, and moved with the larynx at each attempt to swallow. The skin was also freely movable over the growth. The lateral lobes of the thyroid could be distinctly felt, and made out to be enlarged and hard. The mobility of the tumour, the probability of its being of a fibro-cystic nature, together with the fact that it was steadily increasing in size, and the impossibility of forming an opinion as to the ultimate size it might attain, appeared to suggest and to warrant an attempt at extirpation. This conclusion was also strengthened by the opinion that all other modes of treating a tumour of such a mixed character would be futile, and possibly attended with more dangers than its removal.

May 21st. A vertical median incision, four inches long, was made from the upper border of the thyroid cartilage to the sternum. The sterno-hyoid and sterno-thyroid muscles, which were expanded over the tumour, were drawn aside, and the capsule reached. The superior and inferior thyroid arteries, dilated to extraordinary dimensions, were either twisted or tied, according to the principles laid down by Dr. Patrick Heron Watson, before the investing capsule was divided. The lateral lobes were freed by careful dissection, and the whole of the gland removed by enucleation. The amount of blood lost during the operation was insignificant. A drainage-tube was left in the wound, and the edges were brought together with sutures.

The operation and subsequent dressings were conducted under strict antiseptic treatment. A day after the operation, there was almost complete aphonia, which has remained ever since; and, although the patient has made a complete recovery in every other respect, the edges of the rima glottidis are still shown by the laryngoscope to be unsymmetrical, and passive during respiration, the abductor and adductor muscles being evidently paralysed from some injury to the recurrent laryngeal nerves during the operation.

The tumour, upon examination, was found to consist of several cysts, with interposing masses of solid tissue. The lateral lobes were very much hypertrophied, and almost wholly calcareous. Descending from the central mass, there were pedunculated growths, evidently some of those isolated accessory portions of the thyroid gland-substance mentioned by Paget as resembling "the little spleens often seen near the larger mass".

REMARKS.—Although extirpation of the thyroid gland has been placed amongst those operations which "prudent surgeons scarcely feel justified in undertaking", cases such as the one recorded warrant, by their successful issue, surgical interference, as it has been several times shown that the operation may be completed without accident, and with a risk by no means out of proportion to the advantages gained by the patient.

The patient was exhibited at the Lancashire and Cheshire Branch of the British Medical Association, held at Preston on June 29th. The only trace of the operation was a linear cicatrix two inches in length; the voice had been daily improving, and in every other respect the patient had regained perfect health.

MANCHESTER SOUTHERN HOSPITAL.

REMOVAL OF OS CALCIS AND ASTRAGALUS.

(Under the care of Mr. DACRE FOX.)

E. T., aged 10 years, became an out-patient on January 29th, 1879. At that time she had a sinus leading to carious bone on the outer side of the os calcis, where she was said to have had a blow. The bone was gouged, the wound healed, and the patient was discharged. In July 1880, she again came under notice. There then existed extensive disease of the os calcis, as proved by the use of the probe; the foot was swollen, especially at its outer aspect in the neighbourhood of the calcaneo-astragaloid joint; it did not appear certain that the astragalus was involved. Mr. Fox decided to remove the os calcis in the manner described by Mr. Lund (*Trans. Pathol. Soc. Lond.*, vol. xx., 1869), carrying the incision [illegible] as to give more room if it was found necessary to remove the astragalus; the flap was dissected from the outer aspect of the foot, care being taken not to wound any of the peroneal tendons. The inferior surface of the bone was freed from the pad of the heel and twisted outwards with a pair of [illegible] and divided without injuring the flexor tendons. The periosteum at the front and outer part of the os calcis was loose and unhealthy, but it was sound posteriorily and internally, and was peeled off together with the calcaneal epiphysis with a raspatory. A small opening in the upper part of the calcaneo-astragaloid joint communicated with carious bone in the body of the astragalus, which bone was therefore removed. There was a little hæmorrhage, easily arrested by torsion. The edges of the wound were brought together by means of silver sutures. The cavity was kept clean by washing with carbolic lotion, and at the end of eight weeks the foot was soundly healed.

In April 1881, the following note was made. The child limps very slightly, and can both stand and hop on the foot, and balance itself backwards and forwards without pain or fatigue. With the aid of a stiff boot, she appears to suffer little inconvenience. A great deal of new bone has been thrown out, and the child has perfect control over the movement of the foot.

REMARKS.—The case appears of interest, as showing how extensively the bones of the foot may be removed in a child, if care be taken not to injure the soft structures, as then much new bone may be expected to be thrown out and result in a very movable and useful foot.

SURGICAL TREATMENT OF ABSCESS OF THE LIVER. Dr. [illegible] Winslow, of Baltimore, in the *Annals of Anatomy and Surgery* for June 1881 summarises the results of his investigations in regard to the surgical treatment of abscess of the liver as follows. 1. The liver should always be aspirated in a case of suspected abscess, in order to verify the diagnosis. 2. Many small and a few large abscesses have been cured by one or more aspirations; hence this method should always be employed at the first exploration, and we should then wait until it refills. If the pus collects slowly and in small amounts, it may be again aspirated; if quickly and in large quantities, aspiration is not to be relied upon. 3. Incisions should be made into the abscess cavity at the most prominent portion of the tumor, whether in an intercostal space or not; and irrespective of the presence or absence of adhesions. 4. Rigid antiseptic precautions add much to the safety and certainty of a successful result. 5. When Listerism is impracticable, good results will generally be obtained by simple incision or [illegible] by the introduction of a drainage tube, and the daily use of carbolised injections. 6. Any of these methods is preferable to leaving the case to nature.

RATTLESNAKE POISON. Dr. Lacerda [illegible] the following results of his experiments on the [illegible] (*Crotalus horridus*) in the *Journ.* 1. The poison of [illegible] destroying the red blood-corpuscles, and by [illegible] chemical quality of the [illegible]; 2. The [illegible] bodies similar to the [illegible]; 3. [illegible] animal killed by a snake's bite, when inoculated to another animal of the same [illegible] hours, under the [illegible]. 4. The poison can [illegible] losing its specific quality; 5. Alcohol is the best antidote to the poison of *Crotalus horridus* known until now.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 8TH.

A. W. BARCLAY, M.D., President, in the Chair.

TWO CASES OF CONGENITAL MACROSTOMA, ACCOMPANIED BY MALFORMATION OF THE AURICLES AND BY THE PRESENCE OF AURICULAR APPENDAGES.

BY JOHN H. MORGAN, F.R.C.S.

ONE patient was a year old, and very small. The deformity consisted of a fissure-like prolongation of the mouth, downwards and backwards into the left cheek, and extending about three-quarters of an inch, and involving all the structures of the cheek. The lower maxilla was considerably smaller than normal, and the movements were not symmetrical. The external auditory meatus was larger outwardly, and placed more anteriorly, than usual, and ran backwards, where it became narrow in front of the membrana tympani, which, with the ossicula, was believed to be natural. Two so-called auricular appendages were placed in a line, one below the other, on the cheek, between the tragus and the extremity of the fissure. One similar growth existed on the right cheek, and there was a similar but less morbid condition of the meatus on this side. The hearing was believed to be good. There was no hereditary history. The other case was that of a delicate child, aged 5, who presented an almost identical condition on the opposite side of the face. The mouth was prolonged into the cheek on the right side of the face, and there were two similar growths on the cheek, and the external meatus of each ear was expanded outwardly. The malformation of the lower jaw was not so evident, but it was smaller than usual. Hearing was fairly good in both ears, and the child talked naturally. There was no history of hereditary malformation. Mr. Morgan said that the two cases justified the observation, that malformations of these parts were more frequent in females; but the only two cases of macrostoma hitherto described had not been accompanied by any deformity of the ears and their appendages. It was suggested that the deformity of the mouth was due to non-union of those parts of the first branchial arch which formed the upper and lower jaw, and not to any error of formation of the oral opening; whilst the auricular appendages were probably aberrant remnants of the opercular skin-fold of the first post-oral branchial cleft. They were much more common in all domestic animals than in man; but the author had found them in two cases lately, in neither of which was there any branchial fistula, whilst they were not present in a case of branchial fistula, in front of the right sterno-mastoid, in a boy. The patients were exhibited to the Society.—Mr. FRANCIS MASON had seen two cases of enlarged mouth: one in the practice of Sir W. Fergusson, at King's College Hospital, in which there was also deformity of the ears; the other at St. Thomas's Hospital. In a work of which he was the author, he had quoted a case, with a photograph.—Mr. HOLMES said that the theory of the connection of the malformation with imperfect development of Meckel's cartilage was new to him, and had not been mentioned by other authors. It was, however, very interesting to hear two cases together, which bore out the explanation given by Sir James Paget and Mr. Morgan. There was no reason why the defect should not be remedied by sewing the parts together.—Mr. SAVORY had under his care, in St. Bartholomew's Hospital, four years ago, a young woman with a similar malformation of the mouth, but without deformity of the ear. A cure was effected by paring the edges of the cleft and bringing them together, a piece of the tissue being brought round at the angle of the mouth, so as to avoid the inconvenience which would be caused by a cicatrix.—Mr. BARWELL had shown the elder child at the International Medical Congress, and the foreign visitors who were present said that they had never seen such a case. He agreed with Mr. Morgan's explanation.—Mr. BERKELEY HILL said that Professor Virchow had described a case of the kind in his *Archiv*.—Mr. BARWELL said that Dr. Virchow was unfortunately unable to be present when he showed the case.—Mr. THOMAS SMITH had had a case of cleft cheek at St. Bartholomew's Hospital, which was successfully treated by paring the edges of the cleft, and sewing them together. The orbicularis oris in this case was perfect. He had seen two or three cases of supernumerary cartilaginous auricles, without deformity of the mouth; but he had never seen such cases as these exhibited by Mr. Morgan.—Mr. CLEMENT LUCAS asked whether Mr. Morgan had examined into the condition of all the members of the families, so as to ascertain whether the deformity might not have been foreshadowed by some previous defect. He had, some time ago, a child under his care with a branchial fistula, whose mother had a similar malformation.—Mr. DALBY said that it was not very uncommon to find supernumerary ears, with perfect hearing; but, in cases of great deformity of the ears, the hearing was almost always greatly impaired.—Mr. MORGAN expressed regret that Sir James Paget, who had taken much interest in the subject under discussion, was unavoidably prevented from being present. Two questions were suggested by the cases. Why should the deformity be more frequent in females than in males? What was the influence of maternal impressions in the prevention of such deformities? If the influence of such impressions were admitted, why should small portions of the germinal membrane go wrong? No doubt, an imperfect development of the first branchial cleft was connected with the deformity of the ear and the defect of the mouth. As regarded operation, he did not anticipate much difficulty; but the younger child was in an unfavourable condition. He thanked Mr. Barwell for having placed the elder child under his care. He had endeavoured to ascertain, by means of correspondence through the parents, whether there was any similar malformation in other members of the family; but none could be discovered.

A SUCCESSFUL CASE OF SIMULTANEOUS LIGATURE OF THE SUBCLAVIAN AND CAROTID ARTERIES FOR INNOMINATE ANEURYSM.

BY H. W. LANGLEY BROWNE, M.R.C.S. (WEST BROMWICH).

Suffering from innominate aneurysm, in an advanced form, John A., aged 32, was admitted into the West Bromwich Hospital on June 29th, 1881. The sac-walls and coverings were thin, and liable to rupture. There was a loud *bruit* over the swelling. The man was very weak, and suffered intense pain in the chest. On July 11th, the two arteries were tied with chromicised catgut ligature, which Professor Lister had himself prepared. Antiseptic measures were used throughout. The highest temperature was 100.6°. Pulsation returned in the right temporal artery four days and in the right radial nine days after ligature, and at the time of this report was still very slight at the radial. There was much less pulsation in the tumour, which had strong thick walls. There was no *bruit*, nor pain. The man felt so well that he had already tried to work. The condition of the tumour on October 28th was still one of improvement.—Mr. BARWELL congratulated Mr. Browne on the success of the case. He asked what was the condition of the aorta and heart before the operation. This had great influence on success. From an examination of statistics of the operation, he had arrived at the conclusion that, when there was extensive atheroma of the aorta, with dilatation, the ligature of the two great vessels was likely to be soon followed by death; if dilatation were not present, it would probably soon follow. It was important, before operation, to examine the state of the heart and aorta. The heart was hypertrophied in cases of aneurysm of the large divisions of the aorta; and there was, in many instances, aortic insufficiency.—Mr. HOLMES said it was a mistake to call the case successful at so early a period after operation. The author had rightly said that the danger of rupture of the aneurysm had been reduced; but it was not correct to assume that there was no danger of a return of the aneurysm. He was not aware that any one operated in such cases without examining the heart and aorta.—Mr. C. HEATH referred to the difficulty of diagnosis between innominate and aortic aneurysm; there was no positive diagnostic test during life.—Mr. BROWNE said that, as far as could be ascertained before the operation, the heart was sound. The case was one of successful ligature of the carotid and subclavian arteries; but he did not say that the aneurysm was altogether cured; it was too early to say this. He concluded by referring to the advantage of the chromicised over the carbolised catgut—the latter, in his experience, having become too rapidly absorbed when used for ligature.

DRAYTON RURAL DISTRICT.—Although somewhat late in appearance and imperfect in construction, Dr. Sandford's report is, on the whole, fairly satisfactory. He estimates the population of his district at 14,590, and reports the occurrence of 172 deaths, 27 of which were from zymotic diseases. Whooping-cough was very prevalent, and was fatal in 11 cases, all the deaths being in children under five years of age. Dr. Sandford attributed this mortality to the lowness of the temperature, and to the neglect of parents in procuring timely medical aid. There was a diminution in the number of deaths from phthisis, but an increase in those from cancer, 10 deaths being registered from this latter disease. Dr. Sandford does not say much about sanitary matters, but this may arise from no fault of his, since there seems but little to notice. An improved water-supply, however, is reported, though there is still difficulty in getting landlords to provide their tenants with this necessary of life.

REVIEWS AND NOTICES.

TROPICAL DYSENTERY AND CHRONIC DIARRHŒA, LIVER-ABSCESS, MALARIAL CACHEXIA, INSOLATION, WITH OTHER FORMS OF TROPICAL DISEASE; AND ON THE HEALTH OF EUROPEAN CHILDREN AND OTHERS IN INDIA. By Sir JOSEPH FAYRER, K.C.S.I., LL.D., M.D., F.R.S., President of the Medical Board, India Office. London: J. and A. Churchill. 1881.

THIS work on tropical diseases consists of lectures and papers that have from time to time been read before medical societies, or have appeared in journals. Hence, they are already familiar to such of our readers as are interested in tropical medicine, and require, therefore, only brief notice at our hands. A large part of the book is devoted to Tropical Dysentery and diarrhœa, and formed the subject of the Lettsomian Lectures delivered a short time ago before the Medical Society of London. Although dysentery has lost much of its interest to practitioners in this country, from the fact that it no longer scourges the population as it did two centuries ago, it is still one of the most formidable diseases of hot and malarious countries, and of armies in all climates when exposed to hardships and unsanitary conditions in the field; and on this account its etiology, pathology, treatment, and prevention continue to be of the highest importance to tropical physicians and military and naval medical officers.

After a brief historical retrospect, our author gives an exhaustive account of its geographical distribution and prevalence in India and other foreign stations, and then passes on to the etiology of the disease. Quoting Sir A. Tulloch and Dr. Ewart, he gives the prevalence and mortality of dysentery as follows in different foreign stations: 1, West Africa; 2, Ceylon; 3, Tenasserim provinces; 4, Madras, Bombay, and Bengal; and, in tabular statements, the relative prevalence in these divisions of India. Sir JOSEPH FAYRER, in discussing the etiology of the disease, summarises nearly every opinion to be found in the writings of medical authors, ancient and modern. Somewhat to our surprise, he quotes with approbation the dictum of Fouquet, to the effect that disease and ulceration of the intestinal glands are no essential part of dysentery; pointing, in support of this opinion, to the "undoubted fact" that in many severe and fatal cases, "no ulceration is found". We greatly doubt this "fact"; for, having seen "many severe and fatal cases" of dysentery in the countries where it most prevails, we have never seen a case of the disease which, on examination after death did not present disease and ulceration of the intestinal glandular structures, or, in chronic cases, unequivocal signs of such conditions having been present at an earlier stage. We are glad to see that the evidence so carefully collected by the sanitary officers of India on the propagation of dysentery by foul water has due prominence in this part of the work, as well as the fact that a distinct diminution in the prevalence and mortality of the disease takes place whenever pure water is substituted for foul. Very notably was this important fact brought out by Dr. Chevers many years ago, and more recently by Dr. Payne and others in Calcutta.

In the lecture devoted to the Morbid Anatomy of Dysentery there is nothing new; but we are glad to see that the author does not overload the description, so often done by others, who dwell on what are, after all, only differences in degree of the same appearances as if they were really differences in kind. We have already referred to Fayrer's approval of Fouquet's opinion that disease and ulceration of the intestinal glands are no essential part of dysentery. It is remarkable, after so expressing himself, that the author quotes with assent the statement of Parkes and Aitken that the glandular structures are very early implicated, and even that true dysentery never occurs without ulceration being present. Both statements cannot be true; so far at least as tropical dysentery is concerned, we hold, not with Fouquet, but with the distinguished pathologists named above, who had unrivalled opportunities for the study of the morbid anatomy of the disease. The late Dr. Chuckerbutty, as Fayrer says, "divided dysentery into a great many forms". There is one of his "forms" which is, we think, without question, founded on error. No doubt tubercular deposits may be found in men dead from dysentery or any other disease; but that there is such a thing as "tubercular dysentery" we do not believe, and are satisfied that what has given rise to the belief is the appearance of the solitary glands of the intestine in the stage before ulceration, when they present the prominent appearance which has led some observers to compare them to shot-pellets beneath the mucous membrane.

Our author gives a careful description of the most trustworthy modes of treatment. In acute dysentery this may be briefly said to be rest in the recumbent position, milk-diet, and large doses of ipecacuanha. In giving a history of this almost specific remedy, Sir Joseph Fayrer is at pains to do justice to Mr. Docker, who, when serving with the 5th Fusiliers in the Mauritius, revived the plan of giving this remedy in large and effective doses, with the splendid result of reducing the mortality from 54 per 1,000 to less than 5 per 1,000 in the acute form of the disease, thus returning to the practice which made the fortune of Helvetius in 1689. Docker, however, great as is the credit due to him, was by no means the first to revive this method of using the drug. Surgeon-General Cornish some years ago exhumed from the records of the Madras Medical Board some letters of great interest, from which it appears that, so far back as the early years of this century (1806-7), Mr. Abercrombie, surgeon of the 34th Regiment, used with striking success the large doses now so much given, premising opium in full doses to prevent vomiting. On the strength of Abercrombie's recommendation, the same practice was followed by Mr. Mullens, surgeon to the 39th Regiment (1807). This officer had treated dysentery in the mode then prevalent; viz., by bleeding, mercury internally and externally, blisters, and such-like remedies, with frightful mortality; those who did not die under it suffering from great debility, lingering convalescence, and frequent relapses. After taking to Mr. Abercrombie's method he appears hardly to have lost a case. Mr. Abercrombie learned this method of using ipecacuanha from a Dr. Graham, long employed in the Guinea trade on the coast of Africa. We can only explain the circumstance that in the face of such evidence to the efficacy of this remedy in dysentery, it fell so often into disuse, by the fact that there existed in those days few means of making the experience of individual practitioners generally known.

The author has a high opinion of bael (*Ægle marmelos*) in certain forms of both acute and chronic dysentery. After a large experience in its use, we have found it valuable only when there is a distinct scorbutic complication.

We have left ourselves no space to notice the other papers in this valuable work, which we can confidently recommend to all students of tropical medicine.

A TREATISE ON BRIGHT'S DISEASE AND DIABETES. By JAMES TYSON, A.M., M.D. Philadelphia: Lindsay and Blakiston. 1881.

THIS work is written by one who is evidently an educated and accomplished physician, well read in the literature of Bright's disease, and having had considerable clinical experience of its various forms; but as a systematic treatise, it is certainly not equal to the standard English works on the same subject; while the systematic method adopted, and the brief style in which very important subjects are treated, give us too little insight into the author's own mind. Thus the general question of albuminuria is dealt with in a very incomplete manner; the author does not allude to the researches of Posner and Fürbringer, which, taken together with the experiments of Nussbaum, conclusively determine that albumen transudes along with the water into the Malpighian capsules; he makes no mention of the albuminuria described by Leube in healthy men, or the cases described by Moxon, Dukes, and Saundby, of albuminuria in adolescents; there is no reference to the chemistry of the albuminous compounds, or any definition of albuminuria. He expresses his preference for Heller's test for demonstrating minute traces of albumen, but he mentions no other re-agents.

In the chapter on tube-casts, the author also omits all mention of the recent labours of Aufrecht, Cornil, Ribbert, and others, on their mode of formation; but we are pleased to observe that he attaches due importance to their appearance. Renal tube-casts should be regarded as evidence of inflammatory changes in the renal parenchyma, and their number and persistence as indicating the extent and duration of the malady. Their transient occurrence corresponds to inflammation which may not go beyond the stages of cloudy swelling and vacuolation, and from which complete recovery may take place.

Dr. TYSON divides Bright's disease into acute and chronic, including under the latter head the fatty, lardaceous, and contracting forms. The information given under each head is very condensed, though a very fair amount of space is devoted to treatment. The author thinks highly, and we think with justice, of the value of jaborandi and pilocarpin in acute and subacute cases. He recommends a third of a grain of the hydrochlorate of pilocarpin to be injected subcutaneously, or an infusion may be made by pouring four ounces of hot water on a drachm of jaborandi leaves, which, when sufficiently cooled, may be filtered and injected into the rectum; this dose of pilocarpin is, however, unnecessarily large for the beginning.

On the disputed questions concerning the vascular system in Bright's disease, the author follows Dr. Johnson; but his want of space possibly prevented justice from being done to the various aspects of the problem, as the account given is very meagre.

With reference to the causation of contracting kidney, the author regards the influence of alcohol as an exploded idea; but, in this

country, at any rate, the belief that the excessive use of malt liquors and animal diet play a very important part in causing the disease is one that is widely spread and well founded.

The accounts of the minute changes in the kidney are so very short, that we cannot judge of the author's opinion on points of detail which are yet of importance, but which, we suppose, he regards as superfluous, or was compelled by want of space to ignore. There is a confusion of matters of fact and matters of opinion; for example, instead of telling us what he has seen in the vessels of contracting kidney, we have a hasty sketch of the views of Johnson, Dickinson, and Gull and Sutton.

With reference to the difficulty of diagnosis alluded to by the author in the latent nature of the contracting form, we would go so far as to lay down the rule that this form of kidney-disease should be suspected in all cases of chronic disease after forty years of age, and that all such patients should be questioned as to rising at night to pass urine, and this secretion should be examined.

Chapters on pyelonephritis and cyanotic induration are added, although the author does not include these in Bright's disease.

The second part of the book deals with diabetes mellitus and insipidus. Respecting its style and scope, the remarks already made apply equally. The interesting question of diabetic coma is dismissed in half a page. For qualitative analysis, the author prefers Trommer's test, and for quantitative estimates the fermentative method of Dr. Roberts. He makes the remark that he has never met with a case of diabetes mellitus in a female, either in hospital or in private practice, an experience that is surely very exceptional.

The volume is illustrated with several woodcuts, chiefly borrowed, and with two chromo-lithographs; one of these shows the state of the retina in the lipæmia of diabetes, as described by Dr. Albert G. Heyl. These are all well executed, and the printing and paper are of the usual excellence of American higher class publications.

In this short notice, we have perhaps dealt more with the defects than with the merits of the book. It contains a large amount of information in a condensed form, so as to prove an useful handbook for students; while the full remarks on treatment, and especially on the use of the more modern remedies give it a value which, we doubt not, will be duly appreciated by practitioners.

THE ELEMENTS OF PRACTICAL MEDICINE. By ALFRED H. CARTER, M.D.Lond., Physician to the Queen's Hospital, Birmingham. London: H. K. Lewis. 1881.

THE author tells us, in his preface, that this small volume does not pretend to compete with the standard works of Aitken, Bristowe, and Niemeyer, but is designed to serve as a general introduction to the study of medicine, and to bring the essentials of the subject within the grasp of those who are not disposed or have not the leisure to read the large and complete works referred to. It is by no means true that all good men read large text-books. We overheard a well-known London physician, who was the winner of numerous prizes as a student, say that he invariably confined his reading to one of the smaller manuals; and our own knowledge of prize-takers supports the view that they are not, as a rule, men of wide reading. We do not believe for a moment that there are many students whose medical knowledge is limited by, or co-extensive with, the books they have read. Every student learns a very large amount of medicine and surgery from the oral instruction he gets daily in the hospital wards, and which supplements to a very large extent his scanty book-learning. When he has to prepare for an examination, some such work as the one before us may very usefully be placed in his hands, to enable him to run over a great deal in a short space of time, and to refresh his memory on facts with which, it is to be hoped, he is not altogether unfamiliar. But even the student already well read in the larger manuals may with advantage make use of a smaller book as he nears his examination, for success then depends, to a very large extent, on the readiness with which the principal points in each subject can be remembered; and so long as success at such examinations is made an object of a student's ambition, so long will he be induced to use the means best calculated to help him.

With respect to the present work, its compilation has been evidently made with great care, and with the skill of one familiar with the needs of students; the statements of fact are clear and trustworthy, and the opinions expressed are sound and judicious. A therapeutical index is added, which contains most of the modern methods of treatment, and will prove an useful guide to young practitioners.

We all know how small are the beginnings of great things; and, therefore, we see no reason why the present volume should not serve as a basis for future expansion into a work which may ultimately rival the standard text-books with which, at present, the author deprecates any comparison.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

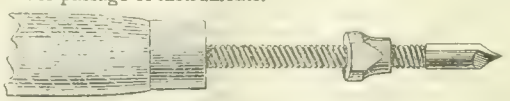
INSTRUMENTS FOR THE TREATMENT OF DISEASES OF THE EAR.

THESE instruments were shown at the Manchester Medical Society, October 3rd, 1879, and at the meeting of the British Medical Association at Cambridge, 1880.

No. 1 is a delicate instrument for applying liquid caustic or other medicated fluids to the drumhead, auditory canal, or middle ear. It consists (see illustration) of a piece of soft rubber tubing passing through an ivory handle, in which is fixed a fine gold tube with a glass extremity an inch or more long, through which the amount of fluid taken up is visible. It is made as delicate as possible, and obstructs the view in the slightest degree. For hospital use, I employ a stout glass vaccine-tube bent and passed into the rubber one which traverses the handle. This is not costly; and the tips, when broken, are soon replaced. For the treatment of granulations, or the stumps of polypi after removal by operation, a drop of saturated solution of nitrate of silver, chromic, or chloracetic acid, is taken up by capillary attraction; the glass tubule is then passed into the ear against the diseased point, and the contents are gently blown out by the rubber tube held between the lips of the operator; any excess is readily withdrawn. For making an opening in the drumhead, where the auditory canal is so narrowed or tortuous that only a limited view of the membrane can be obtained, or where the knife cannot be used, this instrument will be found useful; and, for the purpose of making a perforation in such exceptional instances, nothing is more effectual than Ricord's paste, made with strong sulphuric acid and the finest charcoal, or preferably lampblack, sufficiently thin to enter the tube. Its colour accurately marks the limits of the application, and its consistence prevents the caustic from spreading too widely. Fragile as the instrument appears, the one from which the woodcut was taken has been in use for more than three years without any accident beyond an occasional stoppage of the tube, which can be removed and cleared with a fine wire. The length and curvature of the gold portion are specially adapted for use with the specula of the modified Brunton's otoscope, as used at the Manchester Ear Institution; but Messrs. Arnold, of West Smithfield, who supply the instrument from the original model, will readily alter both to suit any other form of speculum. Those referred to above, have one-third of the thickness of the side cut away to within half an inch of the tip, to permit the passage of instruments.



No. 1.

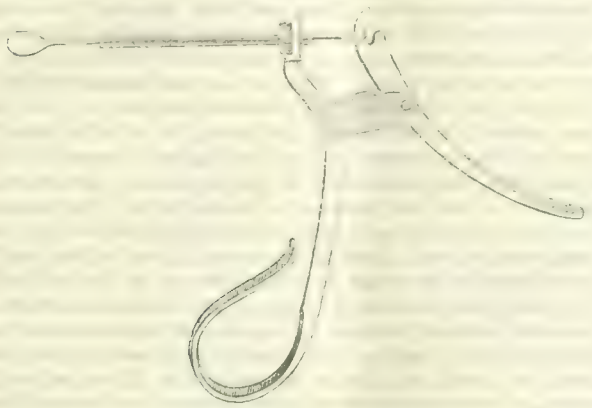


No. 2.

No. 2 is a perforator for the mastoid process. The instrument shown, though not quite satisfactorily, in the woodcut, is one which, after trial of several others, including the trephines, appears to me to answer the purpose best. It is a gouge-drill ground to a triangular point; the stem is a screw, on which travels a vulcanite stop. The cutting extremity is of greater diameter than the screw, so that the instrument cannot bind or stick fast. To use it, screw down the nut or stop towards the point of the instrument as far as it will go; then, when the bone has been bored up to the nut, withdraw a little, unscrew half a dozen turns, and so go on until the mastoid cells are reached. The advantages are: that it is simple in construction, cannot get out of order, and, with but slight pressure, cuts cleanly and easily, removing the particles of bone to the surface; and, finally, there is no pos-

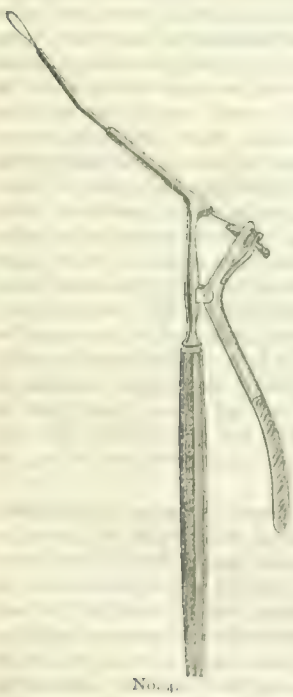
sibility of its plunging unexpectedly into the mastoid cells, and injuring the lateral sinus. It is applied by steady pressure and a rotatory motion, as one would use a joiner's pricker or sprigbit.

No. 3 is a polypitome, very useful for the removal of such polypi as are not so deep-seated as to require operation through a speculum. It consists of two pieces: one, a taper flattened silver tube, carrying a loop of annealed brass wire; and the other, a lever which cuts off the growth by raising the wire. It has this advantage: that, after ascertaining the depth of origin of the polypus (with a delicate silver probe), the loose tube with the loop can be slipped past and over it with facility. The lever is then applied over the button (the tube meanwhile firmly held in position by the left hand), and the polypus comes away at one stroke.



No. 3.

No. 4 is a modification of the polypitome of Dr. Ladreit de la Charrière of Paris. It is applicable to deep-seated polypi which can only be reached by the aid of a speculum. To adapt it for use with the Brunton's otoscope, I have bent the tubule, and, as the wire is very delicate and liable to stretch, I have added a small windlass, which regulates the length of the loop, and which may be used *in situ* if requisite. These instruments are, as will be observed, on the principle of the *éraseur*, which I regard as the best instrument generally. It seems to me, that the ordinary method of removal by torsion or by forcible extraction (the use of Wilde's snare, for instance, which will not always cut cleanly) is a practice to be adopted with caution, except in cases where the tissue of the growth is so tender that it gives way readily. The structure of some old-standing polypi is so dense, and their attachment so firm, that the operator, if he use the snares generally advocated, will sometimes find himself unable to remove either the growth, or the instrument which grasps it, without the employment of dangerous force. Some of the American, English, and other instruments are now adapted for cutting instead of strangling the growth; but most are fitted with the loose crossbar, which, should the wire give way, exposes the patient to grave injury, as the point may plunge uncontrollably into the ear. Besides which, part of the drumhead, or even some of the ossicles, may be torn out. Taking into consideration the fact that the point of origin of a polypus can rarely be exactly ascertained before removal, it would seem reasonable to advocate more cautious treatment, amongst the profession generally, than the routine practice of dealing more roughly with aural polypi than with those in any other situation, except, perhaps, the nose. The *éraseur* is probably the safest instrument: it has this apparent disadvantage, that it cannot be relied on to remove these growths always at one sitting, unless the operator can afford to wait until bleeding has ceased, and he can get a clear view of his work; but it has the advantage of being the least painful method, and, as operations of this kind are commonly performed without anæsthetics, let the patient be spared needless torture from the use of coarse instruments, especially such snares as grasp only without cutting through if required, of which it may be said to be a question whether it is more difficult to get them into the ear, or, when in, to remove them, at least in the case of fibromata. The originals of all these instruments have been placed in the hands of Messrs. Arnold, of West Smithfield, as models. In polypetome No. 3, the artist has represented the wire loop as projecting much too far beyond the end of the cannula. The loop should also be bent laterally.

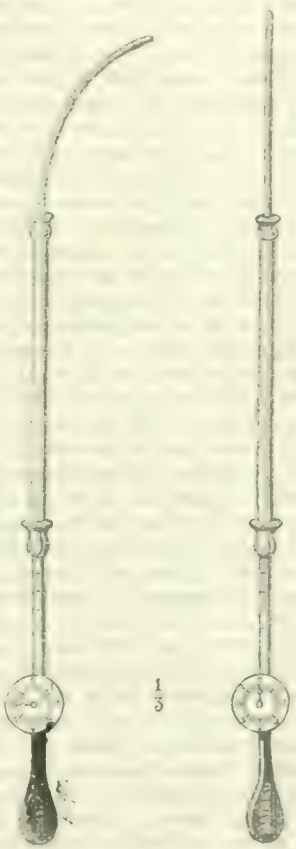


No. 4.

T. H. PINDER,
Honorary Surgeon to the Manchester Ear Institution.

ON A NEW METHOD OF DETECTING SMALL STONES IN THE BLADDER.

I HAVE used for about three or four years the following method of detecting stone when small or in fragments. I take a nickel-plated sound, such as is commonly used for that purpose, and hold it over the flame of an ordinary lamp or candle until the point is covered with a thin black film. After it has become quite cool, I dip it in a solution of collodion and allow it to dry. I then oil it with castor-oil, and introduce it a short distance in the urethra and withdraw it to see if it be injured. If not, I proceed to explore the floor of the bladder with a sweeping lateral movement. If there be a stone or any fragments left after lithotrity, its black covering will be removed in patches, and the bright metal will show through. I think this more delicate than Mr. Napier's indicator, the point of which is made of lead, blackened by chemical agents; and this very method does not impair the conducting power of the sound in any degree. I prefer for my own use a short beaked solid steel sound, with a round handle, which has a flat disc about two inches from the end, at right angles to the curve of the beak, to serve as a guide for the direction of the point. The round handle allows it to be rotated between the index-finger and thumb, the most sensitive part of the hand —two things necessary for rapid and delicate manipulation.



S. CUTHBERTSON DUNCAN, M.D.

BRISTOL.—Mr. Davies's report for the first quarter of the present year is less interesting than usual. During the quarter, there were 1,247 deaths, equal to an annual death-rate of 23.0 per 1,000. Of the total deaths, 245 were of infants under one year of age, and 171 were of children between one and five years. There was a diminution in the number of deaths from scarlet fever, a result attributed to the reception by the health-officer of early information of the disease, and to the prompt measures taken for isolation, disinfection, &c. Three deaths were registered from diphtheria, but Mr. Davies was unable to assign any cause for this mortality. It is satisfactory that no case of small-pox occurred during the quarter, and that the hospital set aside for such cases was entirely empty. The fever hospital continues its useful career.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 12TH, 1881.

MEDICINE AT THE CONGRESS.

AN interesting article on the Medical Congress held this year in London appears in the current number of the *Westminster Review*. Whether the article is written by a medical or non-professional man does not appear; but the writer takes a favourable view of the success of the Congress, and also speaks highly and favourably of the progress which medicine has made in the last generation. It was not, indeed, possible for him to do otherwise; for an age which has produced the ophthalmoscope, otoscope, and laryngoscope, the sphygmograph and hæmodynamometer; which has created the cell-theory, and placed pathology on a new basis by its application; which has revolutionised surgery by the enunciation and application of antisepticism; in which physiology has been completely reconstituted, both by the suggestion and perfecting of new instruments of research, and by the comparison of human processes with those which obtain in other organised beings; and which has brought some special operations to such perfection that one operator alone can boast of having added some tens of thousands of years of life to his own day and generation—such an age could not but be reviewed favourably by any writer who was not wilfully blind, or hopelessly wedded to some foregone conclusion. In the answer to the three great questions which every diseased state raises—what it is, what are the signs and symptoms of it, and how it is to be treated—there can be no doubt that satisfactory progress has been made by the present generation; nor is it going too far to say that the advance made in the last thirty or forty years is such as has not been equalled by any previous equal period of time; and that it is even unlikely that the next generation can hope to equal, much less surpass it. Probably that part of the domain of medicine where the greatest triumphs may be expected in the immediate future is the attempt to identify many, and perhaps all, of the fevers with the life-history of various organic forms, animal and vegetable; but even this attempt, when it proves successful, will be rather the scientific realisation of an idea already suggested, than a complete revolution, such as our own time has witnessed. The writer says well, indeed, that much of the advance of medicine has been one of instrument rather than of principle; but no one will deny that, in the prevention and treatment of specific disease, as latterly in the discovery of its causes, the progress has been philosophical rather than mechanical; or that if, as seems likely, the near future should lay down certain easy means of combating the development of its known causes, and should carry them out to the abortion and extinguishing of the various forms of the disease, the advance will be one of principle rather than of detail. If the suggestion of vaccination cannot be claimed as a triumph for this generation, the reasons why it is successful and the wider extension of the principle, may fairly be said to have been discovered in it. Not that we agree with everything said by our author under this head. He seems, for instance, to have fallen into a strange error when, anticipating the possible extinction in the future of zymotic diseases, he says that to this class the greatest mortality has always been attributable. Certainly their mortality has been greatly diminished; but what are known as local diseases have, at least for thirty years, been far more fatal than zymotic diseases; and each quinquennial period sees a new and continuous increase in them; so that, at present, they are more than three times as fatal as the zymotic diseases, and, in fact, account for nearly one-half of the total mortality, against about one-third thirty years ago.

In the three directions which he terms development, assimilation, and accretion, the writer contends that the progress of medicine in this generation has been marked and continuous. Development is shown mainly in the discovery of instruments for precise examination, and in the suggestion and application of those principles to which reference has already been made. In the direction of assimilation, medicine may also be said to have made great advance, though, perhaps, not to the extent once hoped for. There can be no doubt that, for example, the assimilation of the discoveries of organic chemistry has not quite realised the expectations of some who rushed impetuously into the new and fascinating domain. This may have been because hopes higher than it was just or possible to realise were entertained; or it may have been because a certain amount of misconception, as to the nature and meaning of living processes, warped the judgment of some of the first inquirers into the practicability of applying to vital phenomena the discoveries in this new department of investigation. The same may, perhaps, be said of the assimilation of electrical discoveries into at least therapeutics, although physiology has made bold and striking application of many of the newest results of this part of physical inquiry. As regards the applications of hydropathy, as it is called, is there not too narrow a mental horizon in the case of many inquirers who still confound the special question of the application of water, hot and cold, general and local, with that of the application of heat and cold in general, of which hydropathy is a particular case? And has not physics, on the one hand, in the law of the conservation of energy, and physiology, on the other, in the discovery of the relations of animal heat to heat in general, and in the statement of the scientific methods of treating inflammation, laid down a general body of rules whose application is already made by many practitioners of medicine in a way which leaves nothing to be desired? It is much to be regretted that the application of such rules having in general received so special a form has led to forms of treatment called by certain special and almost sectarian names, and too often associated with certain places; and, what is even more to be deprecated, with the use of certain special, though quite common, waters. It is hardly to be denied that such forms of treatment, though they certainly do belong to the general practice of medicine, have yet, through the advertising of public companies and other even more objectionable practices, come to be associated in the public mind with so much mysticism as almost to justify the accusation of quackery and delusion. But this is happily dying out; and, no doubt, as the education of the public increases, it will tend to disappear altogether, especially if broad principles be kept steadily before the public rather than narrow and isolated details. Concerning accretion, it may be said that it very often resolves itself into a special form of assimilation, any process or instrument not yet admitted into the *armamentarium* of general therapeutics or examination finding its proper place under this head.

In these ways, then, and by these means, as well as by others that will occur to the reader, the progress of medicine in our generation attests its claim to be admitted as an indisputable fact. There is the less reason to dwell on the proof, that general opinion may be said to endorse this view. But it has sometimes seemed to us that the very brilliancy of the facts which justify the assertion of progress occasionally blinds us to the perception of appearances not so bright, which careful examination may show in the progress of our art. To some of these, the writer refers—as, for instance, when he quotes the venerable Helmholtz, to the effect that, if "our generation has suffered under the influence of spiritualistic metaphysics, the coming one will have to be on its guard against materialistic philosophy". Though it is clear enough that the facts of life are not life itself, that pathology may reveal to us the disturbing processes which we call disease, without showing us the power which causes them; that microscopic revelations are one

thing, and a very important one, but the force which induces them is another, and yet one on which it is important that we should hold clear conceptions; these things, though plain enough when pointed out, are rather apt to be forgotten in the blaze of physical discovery and the illumination of minute research. The philosophy of medicine, or even its metaphysics, though many in our day so much dislike the word, lies behind its science, and is quite as great as it; and questions relating to it cannot be ignored with impunity, however much a too continuous examination of its science may have tended to throw it into the background. Our predecessors thought more of it, because science had not for them so brilliant a glare of discovery. We think more of science and less of philosophy. But our successors will be superior both to he fathers of medicine and to their own immediate predecessors, in proportion as they explain and illumine our scientific discoveries by a wise and judicial philosophy.

THE ANTIVIVISECTION PROSECUTION.

THE Antivivisection Society has secured a costly but graceless advertisement, by the criminal prosecution which it has undertaken against Professor Ferrier in the Bow Street Police Court. It would be premature to speak of the facts of the case until they have been tried, but it is not out of place to refer to the spirit of persecution, which is evidenced by the manner in which the summons has been applied for by three barristers, and by the publication in this way of offensively worded statements against one of the most accomplished of living physicians, and in reference to researches of which the importance is recognised throughout the world, and to a demonstration made on the occasion of the International Medical Congress, to see which was assembled a distinguished body of the representative men of Europe. The question under discussion at this demonstration is one which involves the very basis of the diagnosis and treatment of diseases of the brain, and the most momentous facts in the study of mind, through its organ the brain, in health and in disease. That such a course should have been pursued by the distinguished advocates put forward to assail Professor Ferrier in an *ex parte* application, is a matter for deep regret. It is a dishonour to the English nation in the eyes of the world that a physician and a man of science, pursuing studies of the most profoundly important character, with the cognisance and the assistance of the most eminent members of his profession, not only in this country but in all European countries, should be subject to obloquy and insult, and should be assailed in his absence and behind his back as a criminal. In very truth, Dr. Ferrier's labours are such as command the admiration and enlist the intelligent hopes of every physician in Europe, and have already added to our knowledge of facts pregnant with instruction, and which, when the whole problem has been worked out, may be looked forward to as affording invaluable assistance towards the solution of the most difficult questions on mental physiology and in the treatment of disease. The British Medical Association cannot regard such a prosecution with indifference; it owes it to the reputation of medicine, as well as to its relations to the public, to see that justice is done in the first instance, and that, so far as possible, some reparation shall be afforded to the eminent physician whose reputation has been violently attacked, and whose labours have been treated with so much ingratitude. In such a case the Association must proceed with calmness and dignity, with the respect due to the law, which, however inopportunely and unwisely, has been invoked; but not without a sense of the duty which is incumbent upon it as a great professional body, which had previously expressed its approval of these researches, by a grant, through the Scientific Grants Committee, to protect the interests of the individual attacked, and to vindicate the value of the objects of research, as well as the propriety of the means employed. To the result of the proceedings, which will be carried on in the Police Court on Thursday next, we look forward with confidence; and we shall have more to say at the close on the sentiments which these proceedings are calculated to evoke, and of the proceedings which it will be proper for the profession to take to express its feeling under circumstances of so much provocation and insult—of so much injustice to the spirit in which physiological research is pursued by medical men. It is time earnestly to record the use and abuse which has been made, on various occasions, of the recent legislative enactments on the subject of experiments upon animals.

A THEORY OF THE IMMUNITY FOLLOWING INOCULATION.

IT is one of the happy conditions of progress in medicine that practice may long outrun theory, and be none the less sound on that account. Jenner's curious speculations on the theory of inoculation prophylaxis, his views on the relation of small-pox to cow-pox, and of the latter to grease in the horse, have a very different value from the stupendous success of his vaccination-practice. The scientific explanation of that success, which Jenner failed to give, can hardly be said to have been supplied even yet. The last few months have seen the establishment in France of an inoculation practice for a common and destructive disease in sheep, of the nature of a mycosis without morphological features; for another somewhat rarer disease in sheep, also a mycosis; and for a third mycotic plague which is apt to break out in poultry-yards. The practice has not yet undergone the crowning test of commercial success, but it has a singularly favourable experimental record. At the same time, the labours of M. Pasteur and others do not appear to have brought us any nearer to an intelligible explanation of the prophylactic virtues of inoculation. The pathological theory, in the hands of M. Pasteur, lags almost as far behind the practice as it originally did in the hands of Jenner. We say almost, because something must be allowed for the isolation, if not the identification, of an organism as the actual virus. It is truly remarkable that the expedient of using certain fluids as the media of cultivation should have so helped to clear the theory of specific germs from the mists and ambiguities that hung around it. That we should at last have traced even one virus to an organism, and to nothing but that organism, is matter for congratulation. But the theory of prophylaxis derives only an apparent elucidation from the recent additions to the physiology, or rather the biology, of virus.

A writer whose work we purpose to give some account of, Dr. Grawitz of Berlin, observes, in an address before the congress of the German Surgical Society in April last (Langenbeck's *Archiv*, July, 1881), that the recent experiments in France, and the discussions thereon, "have led to scarcely any modification of the hitherto current hypotheses [of prophylaxis]; they have produced nothing which can be greeted as a new and fruitful idea, as a furtherance to general pathology". The reason of this, Dr. Grawitz thinks, is twofold: first, that M. Pasteur has worked always from the one-sided standpoint of a mycologist, regarding only the fungi, and not the animal tissues and their reactions; and, second, that the organisms are extraordinarily small and wanting in character to distinguish them from other bacteria.

Dr. Grawitz has, for the last seven or eight years, been occupying himself with the larger fungi—with such fungi as aspergillus and penicillium, whose spores are several hundred times the size of a micrococcus. Adopting from the botanists the cultivation method of Brefeld, he was able to obtain fungi and their spores freed from all admixture of septic organisms or of torulæ. A first long series of experiments showed that, at least, that class of fungi would not grow in the human body, under ordinary circumstances. Subsequent experiments showed him that the same fungi, aspergillus and penicillium, which are ordinarily unable to support life when introduced into the body, might be trained, as it were, to live in the body and work mischief, and that, too, without any change in their external appearance. They could be gradually adapted, through systematic culture, to the chemical and thermal conditions of the circulation, and so converted into parasitic fungi. The spores, being introduced into the blood-stream, germinate therein, become impacted at innumerable places, and then grow through the vessel-walls into the neighbouring parenchyma. The cells of the tissues are thereby killed, and break up into an albuminous and fatty

detritus; while the fungi may throw out an amazing amount of mycelium. If these centres are very numerous in a very vital organ, death follows (in the dog and rabbit) in three or four days; if the animals survive that period, a suppurative reaction sets in, and the fungus-growth is overpowered. Under no circumstance does the mycelium produce gonidia; or, in other words, there is no multiplication of the fungi within the body. If the first generation of spores (that artificially introduced) exhausts itself, the parasitic invasion is at an end. The kidney is the favourite organ for the spores to develop in, and it will be found occupied by a number of yellow wedge-shaped centres; smaller points of the same nature occur in the liver, with equal frequency. Next in order come the muscular tissue and the intestine; more particularly, the mucous membrane of the cæcum will contain in some places yellow nodules of fungus-conglomerates; in other places crater-like ulcers, whose floor and margins are thickly overlaid with mycelium. In the third rank are the spleen, the lymphatic glands, and the marrow of bone; and, lastly, there are the brain and lungs, which are only affected when larger masses of gonidia are introduced into the carotid artery or into the venous circulation respectively.

It will be observed that Dr. Grawitz does not produce in dogs and rabbits any disease known to nosology; he merely causes a more or less severe, it may be a fatal, inconvenience to these animals by making fungi to grow in the interior of their bodies. But, although he is working, as it were, outside the province of diseases known and actually occurring, yet he goes on to extract, from data of the same kind and value, the following ingenious theory of the immunity caused by inoculation. In the successive cultures by which the fungi were adapted to living in the body, there were intermediate periods when they were only partially so adapted, and had correspondingly slight effects upon the cell-life of the tissues and organs where they were lodged. In like manner, there were found, among the tissues and organs of the body, certain which did not permit of even the most perfectly adapted fungi taking root and growing in their substance, notably the lungs and brain. The brain, which is richly supplied with oxygen, was the organ most resistant to the parasitic growth; while the kidney, whose oxygen requirements are small, was the least resistant. It occurred to Dr. Grawitz that, as the fungi could be adapted to a higher degree of vital energy, enabling them to enter into a successful struggle with the tissues for existence, so the less resisting of those tissues might gradually be adapted to a higher degree of that special energy needed to resist the fungus. He sought to bring about that adaptation of the more helpless tissues in two ways; first, by introducing into the body a considerable quantity of the partially adapted (or half malignant) fungus; and, secondly, by introducing a very small quantity of the perfectly adapted (or highly malignant) fungus; in the first case, the vital powers of the fungi would be so weak, that even the kidney would make existence hard for them; and, in the second case, the quantity of the fungus would be so small, that the few centres of fungus-growth resulting would not endanger the life of the dog or rabbit so inoculated. These problematical adaptations of the tissues having been duly brought about, Dr. Grawitz proceeded, after four to six weeks, to give the same animals such a dose of malignant fungus as would ordinarily have killed them in three or four days, and as, in fact, did kill the control-animals beside them. In the case of those which had been adapted or made accustomed to a large quantity of weak fungus, the result was, that they either resisted entirely the full dose of malignant fungus, or that the due effects of the latter were delayed twelve or fourteen days. In the case of the animals whose tissues had been habituated by means of a small dose of the malignant fungus, not a single one of them succumbed. A number of these latter were killed after a time, but neither the kidneys, nor any other favourite seat of the fungus-growth, showed the ordinary yellowish nodules. It is worthy of note that protection against the malignant aspergillus was afforded not only by the slighter inoculation of the same fungus, but equally through previous adaptation or habituation with penicillium and oïdium lactis. As a controlling experiment, the protective influence of uncultivated aspergillus and penicillium was tried, and was found to be *nil*.

Such is the theory of Dr. Grawitz to account for the success of the practice of vaccination and of inoculation for anthrax and fowl-cholera. A certain fungus can be, as it were, educated up to living inside the human body, and, in like manner, certain tissues of the human body, otherwise an easy prey to the fungus, can be educated up to resisting the latter. That seems only fair, and as it should be; *se non è vero, è ben trovato*. The body has, further, the best of it, in that it takes only one trial to adapt its tissues, while many successive cultures are required to adapt the fungus. In both adaptations, heredity comes in; the gradually acquired invasive properties of the fungus are retained by successive crops of spores for many months, and the more rapidly acquired resistant properties of the tissues are transmitted to successive generations of cells for a corresponding period. After a time, the penicillium or aspergillus loses its acquired power of living in the body, and returns to its natural state of a mould living on bread; in like manner, the resisting power of the cells of the body is weakened in the course of their successive renewals, and is ultimately lost. It will be remarked as a strong element in the theory of Dr. Grawitz, that the language of it is to a great extent the language of the evolution hypothesis; such terms as "adaptation", "struggle for existence", "inheritance of acquired characters", have a certain look of being rightly applied as in this theory, which deals with a simple fungus on the one hand, and with the cells (or "elementary organisms") of the body on the other. The more extended statement of the experiments, and the fuller discussion of the hypothesis, which are promised for an early number of Virchow's *Archiv*, will be awaited with interest.

EXPERIMENTAL URÆMIA.

THERE is no collection of symptoms which causes the practical physician more difficulty or embarrassment in practice, than that with which he is often face to face at the bedside, and which is roughly described as uræmia. Often he finds himself alike anxious to relieve, and yet powerless and disarmed. A recent work published by MM. Feltz and Ritter (Paris, 1881: Berger-Levrault), summarises the results of researches which they have carried on for the last fifteen years, and it is analysed in an interesting review by M. Lereboullet, in the *Gazette Hebdomadaire*, October 21st, 1881. No doubt, as M. Lereboullet observes, the antecedents of the patient, the progress of the symptoms, and their well marked characters, easily allow a practitioner to quickly establish the diagnosis so far as naming the condition; but, when he has pronounced the word uræmia, of which he only partially understands the signification, and when he asks himself what he ought to do, the most accomplished physician hesitates, and often abstains. He knows it is true that bleeding in large or repeated quantities has some chance of arresting the most terrible complications; he has often seen it stated that drastics and diaphoretics sometimes succeed. But is it very rational to bleed an albuminuric individual who has already long since arrived at a state of extreme debility; is it of use to purge him; and is it advisable to provoke free sweating? Highly accomplished physicians may sometimes be heard to explain to their classes the reasons which have induced them to advise the administration of purgatives in cases in which elimination is insufficient; on the other hand, others may be heard to explain why they abstain from the use of purgatives in such cases. The stools obtained by the use of drastic purgatives, they say, eliminate an exceedingly small quantity of urea; and, on the other hand, the abundance of the alvine excretion diminishes still more the excretion of urine. What then, they ask, would happen under such circumstances except aggravation of the morbid conditions which, theoretically at least, can only be referred to the progressive accumulation in the blood of the matters which the kidney alone can eliminate? Therapeutic powerlessness is, in this case, as in many others, due to the insufficiency of range of pathological physiology, and hence the great interest of this summary of the long researches of MM. Feltz and Ritter. They have laboriously endea-

voured to ascertain what is the influence of the injection into the blood of principles which the organs of excretion eliminate. They have proved that the words cholæmia and cholesteræmia do not at all mean what they who introduced them into scientific language thought them to mean. The injection into the blood of the colouring matters of bile and of cholesterine, even of the biliary acids, never excite symptoms of grave icterus.

In investigating the result of the injection of the substances known as extractives, the injection of various ammoniacal salts, or of those of urea, they have attacked the theory of ammoniæmia supported by Virchow, and that of Schottin, and have demonstrated that it was only in an impure state that urea excited the convulsions, which has caused certain physiologists to put forward the theory of uræmia. But the most remarkable result of their patient researches is that of the intravenous injection of fresh or stale urine. The injection into the vein of a dog of fresh human urine, filtered, and warmed to 35°C. (95° F.)very rapidly excites symptoms identical with those which characterise the uræmia determined by ligature of the ureter or of the renal vessels, that is to say, by sudden suppression of the renal function.

These uræmic symptoms are not due either to the augmentation of intravascular tension or to acidity of the urine, since injections made with pure or with acidulated water are harmless. But—and this is the essential fact of these new researches—they are likewise not due to the introduction into the veins of the organic matters of the urine. These, when injected either alone or together, do not possess the symptoms of uræmia, which absolutely contradicts the theories of Wilson and Schottin. On the other hand, by introducing into the blood the mineral salts contained in urine three days old, the authors have reproduced exactly the same phenomena as by acting with fresh normal urine, or urine strongly concentrated by repeated coagulation. Pursuing their very interesting researches, MM. Feltz and Ritter observed that the poisonous salts of the urine were the salts of potash; that the same uræmic symptoms were excited by injecting into the blood normal urine, as by introducing the salts of potash dissolved in distilled water in proportions equal to those which this urine contained. If clinical observation should confirm the experiments made on animals, if it be demonstrated, therefore, that uræmia is nothing else than poisoning by salts of potash accumulated in the blood or fixed in excess in the tissues, great progress will have been made; nor would it be rash to suppose that such a discovery would put the physician on the path of new therapeutical methods applicable to the treatment of uræmic symptoms.

These researches would thus render signal service, and, with M. Lereboullet, we would urge physiologists to control these results by new experiments, and thus to contribute to the elucidation of one of the most interesting of the controversial problems of modern physiology, and to the solution of one of the greatest difficulties of modern medicine.

MR. BENJAMIN BARROW, President of the British Medical Association, has been elected Mayor of Ryde for the sixth time.

AN admirable bust, in marble, of the late Surgeon G. A. Otis, United States Army, the erudite compiler of the surgical history of the War of the Rebellion, has been placed to his memory in the Army Medical Museum at Washington by his brother officers.

THE Medical Acts Commission have decided, before closing their sittings, to receive evidence tendered on behalf of the Medical Alliance Association, and have appointed Friday, November 11th, for the examination of Mr. Nelson Hardy, President of the Association.

IT is announced that Professor Huxley has resigned the office of Secretary of the Royal Society (an appointment which he has held since 1872) in consequence of the pressure of other duties. It is reported that Dr. Michael Foster, Prælector of Physiology in the University of Cambridge, will probably be his successor.

THE Ingleby Lectures, in Queen's College, Birmingham, will be delivered on November 17th and 24th, at 4 P.M., by Dr. Thos. Savage, senior surgeon to the Birmingham Hospital for Women, who has chosen as his subject, "Some of the Applications of Abdominal Section". The lectures are free to members of the profession.

THE eminent professor of ophthalmic surgery in the University of Vienna, Herr von Arlt, would, on completing the seventieth year of age in April 1882, have retired in accordance with law, but has been requested by the Minister of Instruction to remain in office until the end of the academical year in 1883. He has consented to this, and has accordingly withdrawn his notice of resignation.

RESPECTING the case of excessive high temperatures recorded by Dr. Stephen Mackenzie in a communication read at the last meeting of the Clinical Society, and reported in the last number of the JOURNAL at page 746, besides being made the subject of reference in another part of the same number, the patient in question has confessed to Dr. Mackenzie that she caused the high temperatures by means of poultices, hot bottles, etc.

WE learn from an Indian contemporary that the practice of flushing the trenches in the military quarter with salt water is now about to be abandoned. This practice is stated by the local press to have been condemned as far back as 1867, yet steps have only just been taken (and now mainly in consequence of the outbreak of yellow fever) to give effect to the suggestions made at that date by the Military Medical Department.

DEATHS from snake-bites and by wild beasts are said to be largely on the increase. Last year's returns show that the number of persons killed throughout India by wild beasts or snakes has gradually increased from 19,273 in 1876 to 21,990 in 1880. The largest number of deaths occurred in Bengal, where 10,064 persons died from snake-bites, and 359 were killed by tigers; but an opinion has been expressed that these returns are not trustworthy, and that an immense proportion of the reported deaths by snake-bites were really suicide, and the explanation given by the friends of the deceased was simply meant to save the honour of the family, and on that ground was accepted by the not too scrutinising police.

AT the inquiry recently instituted by the Local Government Board into the proposal of the Kingston rural sanitary authority to establish an infectious hospital for the joint use of their own and the neighbouring sanitary districts, Dr. Hogg, in his evidence, stated that he believed £750 annually would cover the expenses of attendance of the medical officer, nurses, etc., in a combined hospital; and that it would require £1,100 annually for the same purpose in the case of five separate hospitals. This is important in estimating the action of some of the neighbouring sanitary authorities, whom it is proposed to include in the combined hospital scheme, and who are actively endeavouring to procure sites for separate hospitals of their own in which to treat infectious cases; so that they may have a better excuse for their opposition to the scheme.

TESTIMONIAL TO VIRCHOW.

IN last week's JOURNAL was published a note from Dr. Bristowe, referring to the subject of the intended testimonial to Professor Virchow, which it is proposed to present to him on the completion of the twenty-fifth year of his professorship in the University of Berlin, and of his sixtieth birthday. It is intended that it should take place on the 19th instant, and those who desire to take part in it should at once communicate with Dr. Bristowe. The marvellous career of the founder of cerebral pathology; his splendid achievements as a pathological anatomist, as a teacher, as an anthropologist, and, indeed, in all the range of biological and medical sciences, as well as many of the collateral sciences, have long thrilled his colleagues throughout the world with admiration. His eloquence, his earnestness, his amiability of character, his perfect simplicity, his

single-minded love of truth and freedom, have made Professor Virchow not less distinguished as a citizen and a politician than he is as a man of science, and have endeared him as much personally to all who know him, as they have contributed to spread his fame throughout the world, and to make him one of the noblest and most remarkable figures of modern times. It is a glory to medicine to possess among its professors one who stands prominently before the world as a type of what is noblest in achievement, in personal beauty of character, and in grandeur of life and work. Virchow is confessedly not only first among the pathologists of the world, but in the very first rank among the public men of Europe. Unspoiled by greatness, he remains as modest, simple, unaffected, kindly, and gentle as at the first stage of his career. The study of his life, his work, and his character is in itself an education; and to take part in any mark of esteem, respect, and affection for such a man will be felt by many as a personal pleasure.

SIR ERASMUS WILSON.

THE Prime Minister has communicated to Mr. Erasmus Wilson the intention of the Crown to confer a knighthood on him, in recognition of his professional position, and in consideration of his munificent gifts for the support of hospitals and the encouragement of medical study. Sir Erasmus Wilson occupies this year the distinguished position of President of the Royal College of Surgeons of England, and has long been at the head of the dermatologists of England, and foremost in Europe in that speciality. Among his munificent gifts to hospitals has been the erection, at his sole cost, of a wing of Margate Infirmary, involving an outlay of £30,000; in addition to liberal donations to the Royal Medical Benevolent College at Epsom. He has contributed to the encouragement of medical study by the endowment of a chair at the College of Surgeons, and the provision of a collection of objects suitable for instruction. It would be difficult to use more worthily, in the evening of a successful professional life, the surplus of the means which have been accumulated; and every one will feel that the honour of knighthood is not at all in excess of the claims of the dignity of the position to which Mr. Wilson had attained, and the munificence which has distinguished him.

VACCINATION TRACTS.

AN excellent little pamphlet, entitled *How Baby was Saved*, has been written for distribution by sanitary authorities, and is published by Cassell, Petter, and Galpin, price 5s. per 1,000, for gratuitous distribution. A tract called *How Baby was Killed* had been distributed largely about St. Pancras by the antivaccinators, and *How Baby was Saved* was written to limit the influence of the former. The latter gives an account of the conversion of an antivaccinator, who is held up in the former for admiration.

MISHAPS AT HOSPITALS.

AT an inquest lately held by Mr. Langham on the body of Thomas Perry, aged 74, who died from stricture and bladder-disorder, it was alleged that the authorities of King's College Hospital were to blame in sending the patient out into the cold after an operation by the house-surgeon. The jury expressed an opinion that at the hospital more care ought to have been shown, and the deceased retained, or the operation should not have been performed. In these cases, which have been painfully numerous of late, great allowance must be made for the youth and inexperience of the house-surgeons, and for the difficulties of their position. But serious obloquy is brought upon our hospital system by the recurrence of such incidents; and we think the time is more than ripe for a discussion of improved methods of administration, by which the grave responsibility of deciding whether patients seriously injured, or suffering from severe forms of illness, should or should not be received into hospital, should be referred to some senior resident medical man, and not decided offhand by a young man who has just passed the College, and who has little knowledge of the world, or experience in settling questions of complex character. Not only are our casualty departments in hospitals often overcrowded, but they are also insufficiently overlooked; and very young shoulders are assumed to carry very old heads. The results are, frequent painful episodes; hardship and cruelty to patients; injustice to the house-surgeon, who is placed between two fires; discredit to the medical staff; and a shock to the public conscience.

THE CHOLERA.

A SPECIAL correspondent in Alexandria says that the alarm of cholera has died away in Egypt. It has completely gone from Aden. It has much diminished at Mecca. It never reached Jedda. Twice before in the last ten years we have had the same alarm, and with the same happy result. Of course, we cannot be absolutely free from all danger as long as pilgrims from the cholera district have to return to Egypt; but the great diminution of the disease in the Hedjaz, the Mecca district, much diminishes the danger of its being imported. The time of year is against its progress, as cholera likes heat. Above all, the International Sanitary Commission has decided that they will not admit a single pilgrim nearer than the quarantine station, one hundred miles down the Red Sea, until every possible chance of contagion has passed away. Visitors to Egypt may therefore feel at their ease. Advices from Mecca of the 29th ultimo report the number of cases of cholera to be now fifteen daily. As, however, the number of pilgrims has reached one hundred thousand, this increase in the epidemic is not considered disquieting.

THE NEW BUILDINGS FOR CHARING CROSS HOSPITAL MEDICAL SCHOOL.

THE medical school attached to Charing Cross Hospital has long been hampered by the insufficient accommodation which was all that it was possible to assign to it in the hospital itself, and it is a matter for congratulation that the school is now housed in a building specially adapted to meet the wants of a modern school of medicine. The new buildings have been erected, on a site granted by the Duke of Bedford, in Chandos Street, immediately opposite the hospital; and are connected with it by means of a subway, through which bodies can be drawn on a trolly. The *post mortem* room is situated at the top of the new buildings, and is well lighted from above; it is placed in communication with the basement by a lift, which communicates below with each floor and with the subway. By this arrangement, the greatest facility is given for cadaveric examination at a distance from, and entirely separate from, the hospital itself. Another admirable feature is that, by this arrangement, the *post mortem* room, which is furnished as a theatre, has been placed in the immediate neighbourhood of the dissecting-room, so that the student can pass without loss of time from the one to the other, and is thus early encouraged to familiarise himself with the broad facts of morbid anatomy. The dissecting-room is also lighted from the roof; is well ventilated, the entering air passing over sets of "hydrocaloric" water-coils; and its walls are surrounded by slates for drawings and demonstrations. The floor is paved with encaustic tiles, and, by a simple arrangement, can be quickly dried after the necessary sluicing and washing. Opening off the dissecting-room are rooms for the demonstrator, porter, etc. On this floor is also a large lecture-theatre, also lighted from the roof. On the first floor is the physiological laboratory, and a large theatre to seat one hundred and seventy students. Between the laboratory and the theatre, and communicating with both, is the private laboratory of the teachers of physiology and histology. This most convenient arrangement will commend itself to everyone who has any acquaintance with the trouble and annoyance caused by having the laboratory and the lecture-room at some distance apart. In the same way, the chemical laboratory and theatre are also in direct communication; the benches and desks in this theatre can, in the summer session, be converted into tables for the course of practical instruction. The library and museum are placed on the ground-floor, and do not seem to us so well adapted to their purpose as the other parts of the building. This is, no doubt, chiefly due to the exigencies of space, and the impossibility of providing sufficient light in the lower parts of a building situated in so crowded a neighbourhood. The library will be found, we fear, to be imperfect

in the matter of ventilation. We have said enough, however, to show that the whole plan of the building reflects the greatest credit upon all who have contributed to its perfecting, but especially upon Mr. J. J. Thomson, A.R.I.B.A., the architect; by the exercise of a discriminating taste, he has, with simple means, succeeded in giving an air of refinement to the whole building which is thoroughly consonant with the learned uses for which it is designed. In addition to the rooms already described, there are, on the ground-floor, a council-room, librarian's and curator's room; and in the basement, porters' dwelling-rooms, injecting-room, storeroom, engine-room, lavatories, and other offices. We have little doubt that a new career of usefulness and a still larger success await the school in these new premises, which have been, by the exercise of so much skill and ingenuity, so well adapted to their purpose.

IMPROVED FIRE-GRATES.

AMONG the more interesting novelties which will be on view at the Smoke Abatement Exhibition, we understand that the joint invention of Messrs. Everitt and Barnards, consisting of a contrivance for preventing smoke from open fire-grates, is likely to be very attractive. The success which Messrs. Barnards have had with their "slow combustion stove" entitles anything proceeding from the hands of one of their firm to a thorough examination; and no doubt the stall of Messrs. Barnard, Bishop, and Barnards at the above-mentioned exhibition, where this new invention will be on view, will be visited by many who are anxious to ascertain whether there is indeed some means of solving this hitherto insolvable problem—the cure, or rather the abolition, of a smoky chimney. The exhibition will partially be opened on the 17th inst.

THE DWELLINGS OF THE POOR.

COMMENTING on the report issued by the Dwellings Committee of the Charity Organisation Society on the subject of dwellings for the poor, the *Morning Post* criticises the results of an obligation thrown upon the parishes by the Act of 1875, to provide new dwellings for the evicted tenants either within, or within a short radius of, the cleared sites. With the enormous value of land for business purposes in these dense neighbourhoods, this could only be done by burdening the rates with the difference between the rental the sites would bring if devoted to commercial uses, and their rental as applied to dwellings for artisans, less the advantages resulting from a general improvement to the locality by the demolition of ruinous or unsanitary buildings. The Dwellings Committee seem to incline to the opinion that it is neither expedient nor necessary to provide for the whole, or even a great part, of the disturbed tenants on the spot. In point of fact, model lodging-houses have only provided in the course of twenty years for about one half-year's annual increment of the population of the metropolis. Practically, they are a failure so far as they provide house-room for people who earn twenty shillings a week or less. Most of the lower class displaced creep again, either from necessity or choice, into similar houses to those from which they have been ejected, at a greater distance from their work, in some other low neighbourhood, which they thus further overcrowd. We gather from the report that, generally speaking, we must look, not to model lodging-houses, accommodating their 1000 to 1500 to the acre in London itself, as a means of meeting its growing population of the really poor, but to improvements in existing poor neighbourhoods, and especially to extensive and general emigration outwards. There seems to be no reason why it should not be put in the power of the labouring man to house his family in purer air at a distance from his work, a course which so many among the classes above him adopt from choice. Private enterprise can supply such accommodation at rates he can afford a few miles out of town, and secure at the same time a paying investment. But if this is to be done on any extensive scale, and in a way to be a real benefit to the working classes, the Legislature must exercise some efficient control over the structural and sanitary character of these suburban colonies; and must further come to their aid by compelling all railway companies to run workmen's trains at convenient hours and cheap rates. A single train reaching London stations shortly before six, and costing a shilling for a weekly ticket, is not enough. There should be similar cheap trains by which shop-girls and errand-boys and telegraph-clerks, who all swell the family earnings, should be conveyed to London an hour or two later. The monopoly which railways enjoy as public carriers may easily degenerate, unless properly regulated, into a barrier shutting off the suburbs from the poorer classes as a residence, and swelling the rates and increasing the mortality of the metropolis by overcrowding still more its already too thickly peopled area.

MEDIAN LITHOTOMY.

THE operation of median lithotomy is now so rarely undertaken, that it may interest our readers to hear that it was successfully performed by Mr. Christopher Heath, on Wednesday last, at University College Hospital. The calculi, three in number, were situated in the prostate just in front of the neck of the bladder; and it was this unusual situation which necessitated an unusual operation. We hope to publish full details of the case as soon as it is completed.

FREUND'S OPERATION IN ENGLAND.

ON Thursday, November 10th, Dr. Bantock removed the entire uterus from a woman aged 54, at the Samaritan Hospital. She was suffering from epithelioma of the cervix. The operation was commenced from below, the anterior and lateral part of the cervix being separated, with a narrow border of mucous membrane, from the vagina. That canal was then plugged with wool soaked in tincture of iodine, and the abdominal cavity opened by an incision, as in ovariotomy. Each broad ligament was secured by transfixion with a single silk ligature; the uterus was then cut away from its lateral appendages, and large pressure-forceps applied on the uterine side of the cut edges of ligament. The uterus was next drawn up by forceps, and the peritoneum dissected away from its lower part; the subsequent dissection of the front of the cervix from the cellular tissue which separates it from the bladder was a task of great difficulty. The free edges of the peritoneum, after the uterus had been completely separated, were allowed to fall, like a flap, over the vaginal opening.

THE LATE DR. BREWER.

WE deeply regret to have to record the death of Dr. Brewer, Chairman of the Metropolitan Asylums Board, while yet in the full vigour of his intellect and full power of work. Dr. Brewer has for many years occupied a prominent place in the municipal and sanitary government of London. He devoted himself throughout his life, and with great energy and ability, to the improvement of the sanitary administration of London. In this he did useful work; he sacrificed to it his whole time, and made it the great work of his life. For fifty years, he has laboured in London for the benefit mainly of the poor, and the improvement of the health-conditions and government of the metropolis. In the House of Commons, where he sat for some time as Member for Colchester, his great desire was to aid in the amelioration of the position of the working classes. To the great work undertaken, and in the main most ably and successfully carried out, by the Metropolitan Asylums Board, he gave a love and devotion such as are rare, even in England, among public men. He gave his life to it, and, from the beginning to the end, he worked from the pure love of the work, and for the great objects he had at heart, without seeking or receiving any sort of remuneration for his services. The popular obstruction which has been raised during the last few years to carrying out the functions of the Metropolitan Asylums Board, by a loudly expressed selfishness and somewhat ignorant local opposition, gave him much anxiety, but did not slacken his interest in the great task. Dr. Brewer was the Chairman of the Sanitary Committee of the Metropolitan Board of Works, as well as of the Metropolitan Asylums Board. For thirty years, he was President of the Milliners' and Dressmakers' Association, a benevolent institution in which he took a characteristically earnest interest and active part. Throughout his life, Dr. Brewer had the in-

estimable happiness of the concurrent aid, counsel, and devoted assistance of a most affectionate and able wife, without whose unwearying support and intelligent counsels his work must at least have been less happy and enthusiastic, if it were not less fruitful. There are few medical men possessing commensurate ability, public spirit, and energy, who have at the same time the means thus entirely to devote themselves to unremunerated public labours throughout their lives. Dr. Brewer's career is an example, however, of the great value which medical education, and the knowledge which goes with it, add to the career of any man in public and municipal capacities. His work lives after him; and the Metropolitan Asylums, in administering which he spent so large a part of his life, will long bear testimony to the usefulness of his public career.

THE BRIGHTON HEALTH CONGRESS, AND DOMESTIC AND SANITARY EXHIBITION.

THE arrangements for this Congress, under the active management of the Mayor of Brighton (Alderman Hallett), are becoming extensive, and promise well. The exhibition will open on December 12th; and, on the 13th, Dr. B. W. Richardson will inaugurate the Congress with an address; Mr. Chadwick, C.B., will preside over Section A, "Health of Towns"; Mr. Holland, M.P., M.A., over Section B, "Food in relation to National and Domestic Economy"; and Dr. Alfred Carpenter over Section C, "Domestic Health and Educational Training". On the 14th, a *soirée* will be given by the Mayor; and, on two other evenings, addresses will be delivered by Dr. Taaffe and Mr. Brudenell Carter; the latter, "On Eyesight", will be addressed specially to working men and women. The exhibition will include eight sections. 1. Food: its economic preparations and use. There will be daily demonstrations of cookery, special exhibit of cheap preparations for the poor, and appliances for preparing all kinds of eatables. 2. Domestic and labour-saving appliances will include gas-stoves, washing and sewing machines, etc. 3 and 4. House-sanitation and industrial dwellings will deal with water-supply, ventilation and warming, drainage, disinfection, and hospital construction, with models of cottages and fittings. Upwards of forty of the best known makers of sanitary goods have already taken spaces; lectures will be given daily, and the diagrams of Mr. Teale's book will be shown as dissolving views. Hospital beds, with dressed lay figures, appliance and diet sheets, will also be shown. Demonstrations of analyses will be given, and "unsanitary dress" will be a feature. Section 5, on lighting, electrical, and kindred inventions, will be an important one, and some of the largest companies will exhibit in it. A temporary iron building, over two hundred feet in length, will be required for motors and engines. Section 6, on decorative art, includes photography, china-painting, tapestry, furniture, etc.; Section 7 is devoted to horology; and 8 to a loan-collection, including much from South Kensington, and many choice modern paintings.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

DR. HESLOP, after many years' service, has resigned the office of senior physician to the Queen's Hospital, Birmingham. Upon accepting his resignation with regret, and thanking him for his labours for the charity, the committee have recommended to the governors his appointment as consulting-physician. Dr. Sawyer now becomes senior physician; and the number of full physicians will henceforth, in accordance with changes in the arrangement of the staff, recently determined upon and announced in our pages, be reduced from four to three. The committee are about to invite applications for the newly created office of physician to out-patients.

QUEEN'S COLLEGE, BIRMINGHAM.

THE annual report of Queen's College has just been published. During the past year, the classes in the medical department have been attended by ninety-seven students; a complete dental department has been established; and the necessary professors and lecturers appointed by the associated action of the College and the Dental, General, and Queen's Hospitals. The number of candidates attending the matriculation examination of the London University was larger than in any previous year. The general summary of income and expenditure showed the former to have been £2,512, and the latter £1,971, leaving a balance in hand of £541. The recently established Queen's and Sydenham Scholarships, designed for affording pecuniary assistance in the professional education of sons of medical men, appeared for the first time in the balance-sheet as an item of expenditure to the amount of £63. We learn that forty new students have joined the classes for the present session, giving an entry exceeding that of many previous years.

HOSPITAL SUNDAY IN BIRMINGHAM.

SUNDAY, October 30th, was Hospital Sunday in Birmingham, the offertories being made, in triennial turn, for the Queen's Hospital. The General Hospital received the proceeds of the collection last year, and next year the minor hospitals and dispensaries of the town, grouped together for the purpose, as the "amalgamated charities", will share the benefactions. So far as the returns for this year were made up on November 5th, it appears that the collection has reached £4,131, exhibiting a falling off as compared with recent years. In 1859, the first year of the collections, the amount raised was £5,200 for the General Hospital; and since then, the proceeds have varied from £2,953, contributed in 1861 for the amalgamated charities, to £6,414 in 1878 for the Queen's Hospital. Last year, for the General Hospital, the total was £4,886.

YELLOW FEVER IN BARBADOES.

WE learn that two more army surgeons have fallen victims to the epidemic of yellow fever in Barbadoes—Dr. T. R. Oliver and Dr. W. Deane Freeman. The medical department appears to be suffering very severely in the present outbreak of the disease.

THE CAUCASIANS.

THE extension of civilisation, by such "resources" as the Russian Government can afford, is throwing great light on the psychology of primitive races. In the valleys of the Caucasus are several races, some remarkable for uncomeliness and low intellectual development; others, such as the Circassians and Georgians, proverbial for their beauty and mental acuteness. Interesting facts have lately been made known concerning the ills to which they are subject, especially with regard to maladies of the flesh which are apt to involve the higher faculties, or to spring from mental causes. A century and a half ago, Wahuscht, a Greek geographer, mentioned, in a record of his travels, the fact that he had observed cases of goître in the Circassian and Georgian valleys of the Caucasus. General Bartholomäi discovered the presence of cretinism and goître among the natives of Suanetia, during his invasion of that district. M. Von Seidlitz, President of the Caucasian Statistical Society at Tiflis, has sent a contribution on this question to Virchow's *Archiv*, October 1881. He states that the affection has spread in the Caucasus, but that luckily no acute epidemic has occurred, like that which attacked eight per cent. of the Russian troops in Turkestan, in 1877. An instructive map illustrates the spread of endemic goître and cretinism. Von Seidlitz shows that these allied affections have particularly increased in Suanetia, a district near the eastern limit of the Black Sea, not far to the north-east of Batoum, and watered by the Mulach and the Rion, a river which opens into the sea near Poti, a Russian port bombarded by the Turks in 1877. The increase of disease is undoubtedly due to constant intermarriage, to the unhealthy state of the native villages, and to the sickliness of the puny native population, which abounds in idiots, deaf-mutes, and individuals otherwise afflicted. Endemic goître is also common, at the present day, in Daghestan, along the upper courses of rivers that flow into the Caspian. It is also known in districts near Batoum, whilst it is completely absent from villages adjacent to the affected regions. It occurs in some valleys of the Anti-Caucasus. In Daghestan, particularly near the birthplace of the patriot Schamyl, a remarkable form of hysteria, peculiar to men, has been observed. The patient barks

and howls furiously during each attack, and his illness is generally traced to disappointment in love-affairs, and to similar causes of, what would generally be called, a sentimental kind; in fact, to the same origin as that which produces the characteristic epileptiform seizures in young women. Seidlitz, in a tour in Daghestan, gave up as hopeless a case of apparent acute mania in a male villager. As a crowd collected to witness his departure, he saw, to his surprise, a young woman of great beauty standing quietly amidst the throng, and looking well and blooming. Only an hour before, he had attended this same female for a nervous attack as bad as that which had afflicted the man whom he had taken for an incurable maniac. These people are a hardy and handsome race, very different from the benighted Suanetians, who do not appear to suffer from hysteria.

CONVALESCENT HOMES.

THE report of the Council of the Charity Organisation Society states that the convalescent work, which commenced in April, 1880, with the establishment of a centre at the offices of the council for the supply of information respecting convalescent homes, has been during the past session considerably developed. The inadequacy of the provision made, both for out and in-patients from the metropolitan hospitals, had for some time attracted the attention of the council. Under the existing conditions many persons were necessarily sent back after hospital treatment to their ordinary employment, while still in a state of health little suited for the resumption of work. With the intention of removing this evil, the council undertook to obtain convalescent accommodation for all deserving cases recommended to them by the hospital authorities. An offer to this effect, made in June and accepted by several leading hospitals, has been only partially utilised this year; but the council trust the proffered supply of an obvious and pressing want will be more largely demanded in the future. With the view of supplementiug the deficient accommodation furnished by convalescent homes, arrangements have been made with persons in the country and at the seaside, willing to board convalescents at a low rate of payment and with ladies willing to supervise cases located in their neighbourhood, and, if necessary, to find further accommodation. The results of this experiment have so far proved satisfactory.

ZYMOTIC DISEASES IN LONDON.

THE fatal cases of small-pox in London declined to 12 last week, and were one below the average. The fatal cases of scarlet fever, which had been 48 and 65 in the two preceding weeks, further rose last week to 95, which were 28 above the average, and exceeded the number returned in the metropolis in any week since December, 1879; 8 of the fatal cases belonged to Islington, 6 to Hammersmith, 4 to Rotherhithe, 6 to Lambeth, and 9 to Camberwell. The 29 deaths from measles, although 10 more than the number in the previous week, were 10 below the average; 16 were recorded in South London, of which 7 occurred in Battersea. The deaths referred to diphtheria, which had been 21 and 25 in the two previous weeks, declined to 13 last week, but exceeded the average by 3; they included 3 in Islington. The 40 fatal cases of whooping-cough exceeded the numbers in recent weeks, and were 7 above the average; 8 occurred in Pancras. The 13 deaths from diarrhœa showed a further decline from recent weekly numbers, and were 14 below the average; 11 were of children under five years of age. The deaths referred to enteric fever, which had been 53 and 49 in the two previous weeks, rose again to 53 last week, and exceeded the average by 26; 3 belonged to Hackney, 3 to Pancras, 3 to Marylebone, 3 to Clerkenwell, 5 to Bromley and Poplar, and 3 to Lambeth. The 5 fatal cases of typhus were recorded in the Metropolitan Asylums Hospitals at Homerton and Stockwell. The Metropolitan Asylums Fever Hospitals contained 143 enteric fever and 55 typhus fever patients on Saturday last. Four deaths were indefinitely referred to "fever" or "continued fever". Nine deaths were referred to puerperal fever, exceeding the average by 3; 3 were recorded in St. Mary, Paddington, subdistrict.

PROFESSOR HUMPHRY'S SPEECH ON VIVISECTION.

THE excellent speech delivered by Professor Humphry on proposing the resolution on vivisection at the annual meeting in Ryde, has been printed separately, and four copies have been sent to each member of the Association for the purpose of distribution in quarters where such arguments as are employed by Professor Humphry may be necessary of useful. Members who may not have received copies, or who may be desirous of having more than have already been sent to them, should apply at once to the General Secretary, at the office of the Association, 161A, Strand, W.C.

A FERTILE MULE.

A GREAT zoological rarity is now on view at the Jardin d'Acclimatation, Paris. It is an African female mule, named Catherine. In 1874, this animal, together with a Barbary stallion, Caïd, and their offspring, Constantine, were about to be sent to the Vienna Exhibition, when they were all three purchased for the Gardens in Paris. Since then, Catherine has given birth to an offspring (Hippone), by a horse, in 1874; to two others (Salem and Othman), the sire being an ass, in 1875 and 1878; and, quite recently, she has produced a fifth (Kroumir), the issue of the same horse as her first two offspring. It is very interesting to compare together the members of this family, unique in origin. The fact of the mule being fertile positively disproves the Arab proverb: *N'har f'ouled el braïa ent a oul reliet ouldentra*: "When the mule produces offspring, women will become men, and men will become women." Salem and Othman are regularly used for the cars on the miniature tramway which unites Port Maillot to the Garden of Acclimatation.

SCOTLAND.

ST. ANDREW'S UNIVERSITY.

THE Lord Rector, Sir Theodore Martin, K.C.B., will deliver his inaugural address in St. Andrew's University on Monday, November 21st. Last week, Professor J. Bell Pettigrew gave his opening lecture on physiology; and, as a theme, chose "The Phonograph, or Speech-Recorder, in its relations to the Human Voice and Ear", which was well received, and was suitably illustrated by diagrams and experiments. Before concluding, he alluded to the Master of Arts degree; and expressed a hope that, in conformity with the propositions of the Scottish University Commissioners, a greater number of other subjects would be placed at the option of the student during his curriculum, so that he might have the right and opportunity of selection between such subjects as chemistry and mathematics, natural history and Greek, or physiology and logic.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

AT the October examinations, twenty candidates passed the first professional examination, and forty passed the final professional examination, for the double qualification, L.R.C.P. and S.E., granted by the colleges conjointly; while five candidates passed the final examination of the College of Surgeons, and were admitted L.R.C.S.E.; and one candidate, having passed the necessary examination, was admitted licentiate in dental surgery.

WESTERN DISPENSARY, FOUNTAINBRIDGE, EDINBURGH.

THE annual meeting of the contributors to the Western Dispensary, Fountainbridge, Edinburgh, was held on Thursday, November 3rd. Dr. Pringle occupied the chair. The annual report submitted showed that there had been a considerable increase in the number of cases treated during the year, 5,000 patients having availed themselves of its advantages. The increase had occurred in all the branches of medical aid given to the sick. During the year, Dr. Hunter Mackenzie had given special attention to diseases of the throat. Agreeably to the expressed wishes of the medical board, Mr. Alexander Bruce, M.A.,

M.B., was elected a medical officer; and Dr. David Berry Hart was permitted to change from the obstetric department to that of diseases of women, so that the institution will now have the advantages of Dr. Halliday Croom's and Dr. Hart's services for diseases of women. Although the subscriptions were not so good as during the two previous years, there was still a comfortable balance to the credit of the dispensary. The Committee hope to be able to open the sick kitchen, as formerly, which will put in the power of the medical staff to order beef-tea and other suitable diet for necessitous patients.

ABERDEEN UNIVERSITY RECTORSHIP.

THE rectorial contest goes on apace; Sir James Paget and Dr. Bain were formally nominated on Saturday. This occasion is seized upon by the rival parties as one for the display of much muscular vigour. The contending parties march into the quadrangle of Marischal College; each party takes up its position with its standard-bearer well protected by sturdy henchmen. One party attacks the other, and then commences the "battle of the standards". Blue is Sir James Paget's colour, and red and gold Dr. Bain's. The onslaught of the "reds" was fierce, and the "blues" struggled bravely; but, after a gallant contest, the blue banner was torn into shreds, and distributed amongst the victors. Another banner was soon procured, and each party defiled from the quadrangle to promenade through the main streets, which they did to the most unmelodious sounds, brought forth by primitive yet effective noise-yielding instruments. As usual, a good deal of wit and humour have been exhibited in some of the "literary squibs" which are brought forth by the rival parties. It is astonishing, in this contest, to notice how politics have been eliminated through the desire of the nominees; but the students have certainly made up for the absence of this stirring topic by canvassing the question of "conjoint boards": and their verdict seems altogether against the establishment of such institutions—at least, if one may judge from the speeches made on both sides.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

PROFESSOR STIRLING delivered the third lecture of this course in Montrose on the evening of November 1st. The hygiene of the muscular system was first discussed, it being shown that muscular exercise is a physiological necessity. The game of lawn-tennis was highly commended as one combining healthy muscular exercise with a sufficient mental stimulus. The chief part of the lecture was occupied with the subject of food. In discussing the question, "Why we eat our dinner?", it was shown that food is required to repair the tear and wear of our tissues; to supply energy to keep up the temperature, and to do the mechanical work continually going on in our bodies; while in persons who are growing, an additional supply of food is required to build up the growing tissues, *i.e.*, for the further development of its tissues and organs. The various chemical ingredients entering into the composition of a typical food—such as milk—were then described, the importance of mineral salts being illustrated by a reference to the necessity for common salt, iron, and phosphates, while the absence of certain salts in the food gave rise to the condition of scurvy. The uses of carbo-hydrates, fats, and proteids, were also described. The mode in which these constituents must be combined to form a proper diet was referred to; and the important question of how a diet must vary with age, work—mental or physical—race, and climate, were fully entered into. The latter condition being particularly noticeable in comparing the diet of a Hindoo, with his rice and "ghee" diet, with that of an Esquimaux, who has to consume several pounds of fat daily to get the necessary amount of heat to keep up his temperature. The sources of food from the animal and vegetable kingdoms were next described, it being pointed out, however, that all our food ultimately comes from the air and the mineral kingdom, while the energy which undergoes transformation within our bodies is derived ultimately from the sun. It was further shown how mere chemical composition alone was not a sufficient index of the value of food, as seen in comparing the chemical composition of gelatine and albumin, two bodies which are closely allied chemically, while they have an unequal dietetic value, although it is probable that the dietetic value of gelatine is higher than was surmised by those who conducted the experiments for the French Academy. In considering the "foods" which we actually do consume, Dr. Stirling directed particular attention to the value of oatmeal and peas as two valuable and cheap foods which deserve to be made greater use of by those who wish to get as cheap and as useful a meal as possible at little cost. Certain forms of "whole-meal" bread were strongly commended; although it must be remembered that there are certain forms which, because they contain too much "bran", are apt to be hurried too rapidly through the intestinal canal. Some of the flours made in Dundee from the best Hungarian wheat are equally nutritious, and ought to be better known; maize, as containing much fatty matter, in addition to other substances, is also too much neglected; and, amongst animal foods, fish is also too seldom used by the working classes. Vegetables, also, ought to form a much larger percentage in a dietary than they usually do. In speaking of "drinks and beverages", the excessive use of tea, especially amongst the female sex, was strongly condemned; while it was urged that cocoa is a beverage too much neglected, as it is a true food. A short reference was made to the subject of alcohol, which was treated from the physiological, rather than the moral, standpoint.

THE GLASGOW HEALTH-LECTURES.

THE fifth lecture of this series, under the auspices of the "Combe Trust", was delivered on the evening of the 7th instant by Professor McCall Anderson, who chose for his subject Small-pox and Vaccination. After dwelling on the terrible nature of small-pox as a disease, and giving some idea of the dreadful ravages caused by it in former times, the lecturer proceeded to point out how Jenner's labours, culminating in the introduction of vaccination, had robbed the disease of its terrors, and placed the whole of mankind under a lasting debt of gratitude to him. In concluding, Professor McCall Anderson dealt with most of the objections which have been from time to time urged against vaccination, and he urged his audience to consider for themselves the facts he had brought forward before them, and those contained in the pamphlets which were very extensively distributed in the course of the evening by some very energetic antivaccinators.

THE GLASGOW OPHTHALMIC INSTITUTION.

THE formal opening of the new extension of the above institution took place on the 7th instant. The additional accommodation now obtained gives ten more beds for indoor patients, a day-room for males as well as for females, a dining-hall, a bath-room, and operating-theatre. The progress that has been made by the Glasgow Ophthalmic Institution is shown by the fact that, while in the first year of its existence the number of in-patients was 119 and of outdoor ones 1,257, last year they amounted to 373 indoor and 3,227 outdoor. A very gratifying feature in the finances of the institution is the large amount contributed by the working classes, who largely benefit by the charity. At the close of the proceedings, Dr. Wolfe distributed the prizes to the students in the clinical classes.

THE GLASGOW DISTRICT ASYLUM.

THIS asylum, which is situated at Bothwell, and is the first under the new District Board of Lunacy, is now opened for the reception of patients, under the superintendence of Dr. Clark, formerly of the Royal Asylum, Morningside. The building is not entirely new, having formerly served as a private asylum; but it has undergone very extensive alterations, so that the accommodation now amounts to 210 beds, and care has been taken to introduce every reasonable modern improvement. So successfully has this been done, that, without any extravagant cost, the asylum has been rendered comfortable, cheerful, and healthy, and nothing has been left undone that could minister to the bodily and mental improvement of the occupants. At the meeting of the Glasgow District Board of Lunacy held on the 2nd instant, a proposal to divide the district into four parts, with power to combine

wholly or partially for lunacy purposes, was rejected, and it was eventually decided to look out for a site for the erection of another parochial district asylum.

THE EDUCATION OF IMBECILE CHILDREN AT LARBERT.

At the annual meeting of the Edinburgh Auxiliary of Scottish National Institution for Imbeciles at Larbert, held last week, it was reported that there were then 126 inmates, while numerous cases of application for admission were ready for submission to the directors. Attention was directed to the satisfactory condition of the funds; and of the investment fund of £12,000 which it was proposed to raise, £5,000 had already been guaranteed.

THE REGISTRAR-GENERAL'S RETURNS.

From the returns of the Registrar-General for the week ending October 29th, it appears that the death-rate in the eight principal towns during the week was 21.6 per thousand of estimated population. This rate is 2.6 below that for the corresponding week of last year, but 0.2 above that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 17.2 per thousand; and the highest in Perth—viz., 29.6 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 4.1 per thousand, being 0.7 above that for last week. Acute diseases of the chest caused 99 deaths, being 4 below the number recorded for the previous week. Eight of the deaths recorded in Leith were caused by drowning. The mean temperature was 43.2, being 1.6 under that of the week immediately preceding, but 4.2 above that of the corresponding week of last year.

THE HEALTH OF GLASGOW.

The report of the medical officer of health for the week ending October 29th states that there were 451 deaths registered, representing a death-rate of 23 per thousand living. There were 60 fewer deaths in the aggregate this year, fully half of which were saved in zymotic diseases, the remainder in diseases of the lungs and of children. There were 156 deaths from pulmonary disease, which gave a death-rate of 8 per thousand living, and constituting 45 per cent. of the total deaths. The deaths from fever amounted to 7, all of them being from enteric; while the number of deaths from infectious diseases of children was 33, viz., 14 from measles, 12 from scarlet fever, and 7 from whooping-cough. There has been a rapid extension of measles in the northern district of the town, where 6 of the total 14 deaths from that disease were registered. The total number of cases of fever registered was 59, viz., 50 of enteric fever, 5 of typhus, and 4 undefined.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

During the month of September, the deaths of 1,780 persons were recorded in the eight principal Scotch towns; this number was less by 389 than the average of the same month during the previous ten years, and consisted of 869 males and 911 females. The respective mortalities of the town were, per 1,000 of the population, Aberdeen, 14; Perth, 15; Dundee, 16; Edinburgh and Leith, 17; Glasgow and Paisley, 19; and Greenock, 20. Forty-two per cent. of the deaths were of children under five years of age, and the respective percentages were: Perth, 24; Aberdeen, 34; Dundee, 36; Edinburgh, 39; Greenock and Paisley, 44; Glasgow, 46; and Leith, actually 51. Zymotic diseases caused 17.3 per cent. of all the deaths. Diarrhœa in Leith caused 7 per cent., and in Paisley 9 per cent., of the entire mortality. Of 45 deaths ascribed to fever, 14 were registered as typhus, 29 as enteric, and 2 as simple continued, fever. Scarlet fever caused 47, whooping-cough 34, diphtheria 22, croup 22, and measles 20, deaths. Apoplexy contributed 40 deaths, paralysis 53, cardiac diseases 111, hydrocephalus 38, and premature birth debility 50 deaths. Phthisis pulmonalis caused 215 deaths, equal to 12.1 per cent. of the entire mortality; while inflammatory affections of the respiratory organs, other than those already mentioned, caused no fewer than 321 deaths, or 18.0 per cent. of the whole. From violent causes, there were 58 deaths, and from the direct effects of intemperance 5 deaths. Three females were over 90 years of age, of whom one, a widow, was 95. The births for the month numbered 3,365, of whom 1,730 were males, and 1,635 females. During the month, the mean barometric pressure was greater by 0.157 inch, the barometric monthly range less by 0.250 inch, the mean temperature less by 0.5°, the rain-depth less by 0.37 inch, and the wind-pressure less by 0.23 lb. than the average of the same month during the previous twenty-four years; while the mean humidity was equal to the average. The month was dull, cloudy, cold, and humid, with a preponderance of east winds. The highest mean temperature, 54.2°, was at Dundee, and the lowest, 52.3°, at Paisley. The greatest rainfall was at Dundee, and the least at Aberdeen.

IRELAND.

Two deaths from small-pox were registered last week in Waterford, and one in Belfast.

KILMALLOCK UNION.

A meeting of the Committee of the Charleville Dispensary District was held last Saturday for the purpose of appointing a medical officer to the district in the room of Dr. Wallis, resigned, when Dr. Cremen was unanimously elected. We may add that Dr. Wallis has obtained a superannuation allowance of two-thirds of his late salary.

DUBLIN HOSPITAL SUNDAY FUND.

The eighth annual collection in aid of the above fund will be made in upwards of 230 places of worship in Dublin and its vicinity to-morrow, Sunday.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

At a recent meeting of this College, a motion to repeal a resolution of the College, passed on February 21st, 1868, namely, "That, in future, no King's Professor in the School of Physic shall be allowed to hold an appointment as medical officer to any clinical hospital other than that of Sir Patrick Dun", was rejected by a large majority.

THE QUEEN'S COLLEGE, BELFAST.

An influential deputation of Belfast gentlemen waited on the Chief Secretary for Ireland at Dublin Castle last Saturday, to urge upon the Government the necessity of enlarging the accommodation for students at the College; and also to seek a grant in aid of technical education. The President of the College stated that the Belfast Medical School is now the largest in Ireland, containing more than three hundred students. The consequence is that the anatomical class-room and the dissecting-room are so much overcrowded, that the professors fear that the health of the young men may seriously suffer. The chemical department is even worse. Professor Letts stated that he had to teach seventy-five students of chemistry in a laboratory that would accommodate only fifteen. He had to deliver the same lecture three times a day, and to put twenty-five students into the apartment intended for fifteen on each occasion, in order to get through his professorial duties. Much time was thus wasted, and the atmosphere of the apartment was rendered most unsatisfactory for students and lecturer. The estimated cost of the improvements required was £12,000. The Chief Secretary promised to press upon the Treasury the careful consideration of the matter.

PATHOLOGICAL SOCIETY OF DUBLIN.

At the annual general meeting of this Society, held on Saturday last, the following officers were elected for the session 1881-82: *President:* William Stokes. *Vice-Presidents:* J. T. Banks, Samuel Gordon, Edward Hamilton, George H. Kidd, William Moore, and T. J. Tufnell. *Council:* John Kellock Barton, Anthony H. Corley, George F. Duffey, John M. Finny, Arthur W. Foot, Reuben J. Harvey, James Little, Thomas E. Little, Robert M'Donnell, Christopher J. Nixon, John M. Purser, and John B. Story. *Secretary and Treasurer:* Edward H. Bennett. *Secretary for Foreign Correspondence:* John

William Moore. The Society at present numbers eighty-six members. Votes of thanks were passed to the retiring President, Dr. Arthur Wynne Foot, and to Dr. Purser, Professor of the Institutes of Medicine in the School of Physic, who has kindly given facilities in his laboratory to the Committee of Reference of the Society. It is proposed to hold two or more evening meetings of the Society, at which the reports of this Committee should be submitted; and the preparations and other material on which their statements were based should be open to the inspection of the members. A resolution of condolence with the family of the late Dr. Hayden, a Vice-President of the Society, was unanimously adopted.

PROPOSED AMALGAMATION OF THE DUBLIN MEDICAL SOCIETIES.

AMONG the resolutions proposed at the opening meeting for the current session of the Pathological Society of Dublin was one—which had been previously adopted by the Council of the Society—to the effect that it would be desirable that the medical societies of Dublin should be amalgamated. This resolution was adopted unanimously by the meeting, and there were strong expressions of opinion pronounced in favour of the proposed amalgamation. At present, there are four societies in Dublin in a state of more or less vitality. They are the Pathological, the Surgical, and the Obstetrical Societies, and the Medical Society of the College of Physicians. Most of the active working members of the profession belong to two or more of these societies. But there is frequently a want of papers for the meetings, and the attendance generally is very meagre. These circumstances do not tend to encourage a high class of communications, nor the exhibition of much energy in the proceedings. There are, doubtless, difficulties in the way of an amalgamation, but by no means insuperable ones. And if a good medico-chirurgical society were formed out of the amalgamated societies, it might—if considered advisable—have sectional meetings on the same evening, under the same roof. In this way, a good attendance of members might be secured, and a creditable volume, representing the practice and progress of the Dublin school, be published annually. The Council of the Pathological Society have been authorised to take such steps as may seem necessary to carry out the resolution of the Society.

HOUSE OF INDUSTRY HOSPITALS.

DR. REUBEN HARVEY, Lecturer on Physiology in the Carmichael College of Medicine, has resigned his post of Assistant-Physician to these hospitals, in order that he may have time to devote himself more exclusively to his physiological investigations.

CORK DISTRICT LUNATIC ASYLUM.

AT a monthly meeting of the Board of this Asylum, held last week, Captain Fagan, one of the governors, alluded to the previous meeting, when the chairman opened the proceedings with a long bill of indictment against Dr. Eames, the resident medical superintendent, charging him with general extravagance in the administration of the house, and also with failing to carry out the orders of the board. He did not intend to enter into the merits or demerits of these charges against Dr. Eames; but he would say, that, considering that the Cork Asylum was one of the cheapest and best managed establishments of its kind in Ireland, Dr. Eames ought to get an opportunity to answer these charges, when they were brought forward and made public. He should say that, since he became a member of the board, it always struck him that Dr. Eames would best consult his own peace of mind if he took less interest in the patients and in the house, and followed the maxim of the great philosopher who said: "Do not be too zealous in the discharge of your duty." What he protested against was, that charges of a grave description, against the responsible officer of such an institution as that, should be made there at a public board, without the pretence of a previous investigation of any kind, and without giving him the opportunity of knowing that these charges were likely to be made. The proper course for a member who saw irregularity occurring there to pursue would, in his opinion, be to call the attention of the house committee to the matter, who could have made full inquiries in the presence of Dr. Eames, and make a report to the board on the conclusions they came to. In order to prevent a recurrence of such things in the future, he begged to propose the following resolution: "That, in the opinion of this board, it is inconvenient and prejudicial to the proper conduct of the business of this institution that its official visitation, and the investigation of questions arising from such visitation, affecting its management or interior economy, should be undertaken otherwise than by the house-committee, which is specially appointed by this board to perform these duties." The chairman having made several charges against Dr. Eames, they were shown by that gentleman to be unfounded; and, after considerable discussion, the following notice of motion was handed in by Captain Fagan: "In the opinion of this board, it is inconvenient and prejudicial to the interests of this institution, that its official visitation should be made, or that the questions arising therefrom, having reference to its management and interior economy, should be investigated otherwise than by the house committee, which has been specially named by this board to perform these duties."

CORONER FOR COUNTY MONAGHAN.

ON the 3rd instant, an election for a coroner for the Northern Division of the County Monaghan was held in the Court House, Monaghan. There were four candidates, but at an early hour two resigned; and the contest, as was expected, lay between Dr. Stewart and Dr. William Woods of Monaghan. The most intense excitement prevailed, and party spirit ran so high that upwards of two hundred police were employed in the town to keep order between the partisans of each side. At twelve o'clock, both candidates were equal; but, in a few hours, the numbers showed in favour of Dr. Stewart, the Conservative candidate, who, when the poll closed at four o'clock, was 263 votes a-head of his opponent. Both gentlemen were chaired round the town by their supporters, and the town was not restored to its usual quietude until midnight.

THE LATE DRS. HAYDEN AND MCCLINTOCK.

AMONG the many honourable offices held by these eminent physicians, one of not the least importance, as showing the estimation in which they were held by their professional brethren, was the post of President and President-Elect respectively of the Dublin Branch of the British Medical Association, which they occupied at the time of their deaths. The loss which the Dublin Branch has sustained by the deaths of its two principal officers is indeed a serious one. Its members, however, will appreciate the sympathy which is felt with them by other Branches of the Association. At a meeting of the Council of the Metropolitan Counties Branch, held on the 4th inst, the following resolution was unanimously adopted:—"That this Council, having heard with much regret of the recent death of Dr. Thomas Hayden, the President of the Dublin Branch of the British Medical Association, and Dr. Alfred H. McClintock, the President-Elect of the same Branch, desires to express to the Council and members of the Dublin Branch its fraternal sympathy with them in the loss which they have sustained, by the removal of two such eminent and highly esteemed members of the Association."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council of the College was held on Thursday, the 10th instant. The minutes of the Quarterly Council, held on the 20th ultimo, were confirmed. Mr. Croft's declaration on his admission as a member of the Court of Examiners was received. A report from the Committee on the Medical Acts Commission was received, and a long discussion followed. The Council agreed that every candidate should be obliged to pass a complete examination in medicine, surgery, and midwifery before he could be admitted to the register. The examination should be conducted by a combination of the licensing bodies. A separate examination to admit to the register and entitle to the diplomas of the combining Corporations should not be required. The Council thought that the Universities should not be allowed to grant diplomas, but should only have the power to grant degrees. Regarding the constitution of the Medical Council, the Council did not agree as to changes in its constitution. Mr. Edward Hadduck, of Biddulph, Congleton, was elected to the Fellowship of the College.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

MIDLAND COUNTIES CENTRAL BRANCH: EAST LEICESTER AND SOUTH DERBY DISTRICT. The next meeting of the above District will be held at the Grove Hall Asylum, Bow Road, on Thursday evening, November 17th, at 8.30 P.M., when Dr. Mickle will read a paper on the Form of Mental Disease, and illustrate the same by cases in the asylum. FREDERICK WALLIS, Honorary Secretary, 27, Cazenove Road, November 7th, 1881.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held on Tuesday, November 29th, at the New Kentish Hotel, Tunbridge Wells; Mr. Benjamin Rumsey in the chair. Meeting at 3 P.M. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. Members intending to read papers should communicate at once with the Honorary Secretary. T. JESSOP VERRALL, Honorary Secretary, 95, Western Road, Brighton, November 7th, 1881.

STAFFORDSHIRE BRANCH.—The first general meeting of the present session will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 24th, 1881, at 4 P.M. VINCENT JACKSON, General Secretary.—Wolverhampton, November 7th, 1881.

GLOUCESTERSHIRE BRANCH. The annual meeting will be held, at 6.30 P.M., on Tuesday next, November 15th, in the Board Room of the County Infirmary, Gloucester. The supper will be at the Bell Hotel at 8.30. Business of the meeting—1. Dr. Bond, to introduce the subject of Medical Defence Associations and the desirability of establishing one in connection with this Branch. 2. Points in the Treatment of Enteric Fever: Dr. Wilson. 3. A case of a very unusual form of Astigmatism: Mr. E. D. Bower; Astigmatism as a cause of Nerve-Disturbance: Dr. Batten. 4. The Pathology of Hepatic Tumours, with Microscopical Demonstrations: Dr. W. Robert Smith. 5. Medical and Surgical Cases of Interest in the Infirmary.—RAYNER W. BATTEN, Honorary Secretary.

SOUTH OF IRELAND BRANCH. The annual meeting of this Branch will be held in the Royal Cork Institution, on Saturday, November 19th, at 4 P.M. Members wishing to read papers, make communications, or exhibit pathological specimens, are requested to communicate at once with the Honorary Secretary. The annual dinner will take place the same evening at Lloyd's Hotel, at 7 o'clock.—T. GELSTON ATKINS, B.A., M.D., Honorary Secretary, 7, St. Patrick's Hill, Cork, November 7th, 1881.

STAFFORDSHIRE BRANCH: ANNUAL MEETING.

THE eighth annual meeting of this Branch was held on Thursday, October 27th, 1881, at the Swan Hotel, Stafford. Mr. W. H. FOLKER introduced the President-elect, Mr. J. K. WYNNE, who took the chair.

Letters were read from Mr. Eaton, Grantham; Dr. Fothergill, London; and the Secretaries of the South Wales and Monmouthshire Branch.

Vote of Thanks.—Mr. WESTON proposed: "That the best thanks of this meeting be given to the retiring President, Mr. W. H. Folker, for his services during the past year." This was seconded by Dr. E. P. TYLECOTE, and carried unanimously.

President's Address.—The PRESIDENT delivered an address, in which he referred to the improved and the improving social position of the medical profession, and he instanced the International Medical Congress, recently held in London; and this was also regarded as a proof that the profession was growing and waxing greater every day. Allusion was made to a subject of the greatest practical value, and which would become a more prominent matter in the future—viz.: the physiology of the digestive act, and the utility of artificial digestive agents.

Dr. ARTHRIDGE proposed: "That a cordial vote of thanks be given to Mr. Wynne for the able and practical address which he had just read;" Dr. CRAWFORD seconded the resolution, and it was carried with applause.

New Member.—The following gentleman was elected a member of the Branch: Mr. S. Butler, Stafford.

Report of Council.—Mr. VINCENT JACKSON read the annual report as follows:

"Your Council reports that, during the year, the usual number of three general meetings has been held.

"At Stoke, upon the report of the General Secretary that the Branch by-laws were out of print, it was resolved 'that the Council be requested to revise the rules, and to submit their report to the next general meeting'. The meeting at Stafford, after some alterations, confirmed the rules as revised by the Council, and directed, when they were printed, that a copy should be sent to each member.

"The feature of the year was the acceptance of an invitation from the Council of the Lancashire and Cheshire Branch to hold a joint-meeting at Crewe. The gratification of this gathering will long be remembered; for no effort on the part of our entertainers was wanting to make it enjoyable; hospitality, instruction, and pleasure were so happily combined that, on all sides, a general regret was felt when the time for departure arrived. Especially must be noticed the munificent catering for their guests, in the Town Hall of Crewe, of Mr. and Mrs. James Atkinson; and the kindness, attention, and geniality which were displayed by Dr. Davidson, the Honorary Secretary of the Lancashire and Cheshire Branch.

"The following members have, by their contributions at the various meetings, earned the thanks of your Council: Mr. Spanton, Mr. Sampson Gamgee (Birmingham), Mr. E. T. Gray, Mr. W. H. Folker, Mr. Manby, and Dr. Monckton.

"The number of members—three being new—is one hundred and twenty-six. Several names, through death and removal to other localities, are absent from the list.

"The decease of Dr. Henry Day of Stafford is much to be regretted. A member of the Branch from its commencement, and a past president, Dr. Day, on all occasions, showed that he was not only an accomplished and learned hospital physician, but his general information, fluency as a speaker, and all-round ability, marked him as not only unusually well qualified for his position as a representative man, but as a worthy and honoured member of his profession. His loss to the Branch is a great one, and will long be felt.

"The melancholy and recent death of Mr. Skerving of Wednesbury must be mentioned. In the noontide of life, he was cut off, and whilst in the vigorous pursuance of his daily avocation. No one seemed less likely to die, for Mr. Skerving was young, active, and apparently healthy; but the time and the season knoweth no man."

The adoption of the report was moved by Dr. TOTHERICK, seconded by Mr. MULVILLE THOMPSON, and carried.

Financial Statement.—Mr. J. G. U. WEST read the statement of accounts for the past year, which showed a balance of £20 5s. 4d.

Next Annual Meeting.—Mr. ALCOCK proposed that the next annual meeting be held at Wolverhampton. This was seconded by Dr. J. H. TYLECOTE, and agreed to.

Election of Officers for 1881-82.—The following were elected. *President-Elect:* J. Y. Totherick, M.D. *Vice-Presidents:* J. H. Tylecote, M.D.; W. H. Folker, Esq. *General Secretary:* Vincent Jackson, Esq. *Financial Secretary:* J. G. U. West, Esq. *Auditor:* W. H. Folker, Esq. *Council of the Branch:* J. T. Arlidge, M.D.; G. Reid, M.B.; E. Fernie, M.D.; F. J. Gray, Esq.; H. M. Morgan, Esq.; F. E. Manby, Esq.; J. T. Hartill, Esq.; J. A. Lycett, Esq.; C. Orton, Esq.; G. G. Sharp, Esq.; J. A. Mulville Thompson, Esq.; J. W. Wolfenden, Esq. *Representatives in the Council of the Association:* J. T. Arlidge, M.D.; J. Alcock, Esq.; W. H. Folker, Esq.; D. H. Monckton, M.D.; W. D. Spanton, Esq.; F. E. Weston, Esq.

Votes of Thanks were passed to the Auditor and Secretaries.

Dinner.—The members dined together at the close of the meeting.

YORKSHIRE BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of the Yorkshire Branch was held at the Red Lion, Pontefract, on Wednesday, November 2nd; the President (Mr. BALL) in the chair.

Communications.—The Secretary read a letter from the South Wales and Monmouthshire Branch relative to subscriptions to the Medical Benevolent Fund, which, on the motion of Mr. MCGILL (Leeds) and Mr. DOLAN (Halifax), was referred to the Council of the Branch.

The Secretary read a communication from Dr. Milner Fothergill, relative to the management of the JOURNAL, which the meeting decided there was no necessity to discuss.

Communications.—The following communications were read and discussed:

1. Mr. T. W. Harrop (Gorton): Puerperal Septicæmia: Notes in Five Cases.

2. Dr. Rabagliati: Some Alteration in the National Death-Rate in Recent Years.

3. Mr. McGill: Chloral Bougies in the Treatment of Gonorrhœa.

4. Mr. McGill: Two Cases of Gastrostomy.

Dinner.—After the meeting, the members dined together at the Red Lion.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.

THE first meeting of the fourth session was held at the Town Hall, Hackney, on Thursday, October 20th; the President of the Branch, EDWIN SAUNDERS, Esq., in the chair. Twenty-two members were present.

It was decided that the meetings should be held monthly as heretofore.

The late Dr. C. D. Kingsford.—Mr. TOULMIN of Upper Clapton proposed, and Dr. RICHARD WALLACE seconded: "That this meeting expresses its deep sense of sorrow at the lamented decease of Dr. Dudley Kingsford, and that the Honorary Secretary be requested to convey to Mrs. Kingsford and her family the heartfelt sympathy of the members of the District in their sad bereavement." The resolution was carried.

President's Address.—The President delivered a short address, in which he urged the necessity of every medical practitioner having an annual holiday, with suggestions as to how it should be spent.

Contagious Pneumonia.—Dr. DALY read a paper on contagious pneumonia, based on six cases of acute typical pneumonia which occurred in the same house, under his care; the disease spreading from patient to patient like some zymotic disease. Two cases proved fatal. The water-supply and sanitary arrangements were carefully investigated, and found good. Only those who were much in the sick-room took the disease. The conclusion drawn was, that, as phthisis may be contagious in some rare instances, so may pneumonia; especially as we know that there is a bovine disease, pleuropneumonia, which is highly contagious, and which spreads from beast to beast, by means of the pus- and epithelium-cells of the sputa passing into the air-cells of healthy animals.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the session was held at the Grand Pump Room Hotel, Bath, on Thursday afternoon, October 27th; D. DAVIES, Esq., President, in the chair. There were also present thirty-five members and two visitors.

New Member.—J. G. Douglas Kerr, M.B., C.M., was duly elected a member of the Branch.

Papers.—The following were read:

1. Dr. Cole read notes on two cases of Addison's Disease. Dr. Spender and Dr. Goodridge made remarks.

2. Dr. Cole read notes of a case of Rupture of the Lung in the course of Acute Bright's Disease.

3. Dr. Cole read a paper on a case of Pelvic Cellulitis in a male subject, on which Mr. F. Parsons made some remarks.

4. Dr. Markham Skerritt gave some interesting cases of Interlobular Emphysema of the Lung, which led to a short discussion.

WEST SOMERSET BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, November 3rd, 1881. There were present thirteen members and one visitor. G. W. RIGDEN, Esq., President, occupied the chair.

British Medical Benevolent Fund.—A letter was read from the Honorary Secretary of the South Wales and Monmouthshire Branch, stating that the members of that Branch had resolved to subscribe five shillings a year each to the British Medical Benevolent Fund, and urging on the members of this Branch to follow their example. Dr. Kelly gave some explanations as to the working of this Fund, and mentioned as an example that a sum of £18 had just been granted to the aged widow of a medical man who formerly practised in Bridgwater. One or two gentlemen who had not hitherto given anything to the Fund promised to become subscribers.

Mr. Eaton's Grievance—A communication from Mr. Eaton of Grantham, together with his pamphlet—"A Warning to Medical Men, showing the Liability of Medical Men in making Contracts with Public Bodies"—were laid before the meeting.

Case of Scirrhus.—A case of scirrhous disease was shown by Dr. Clark, on which he was desirous of learning the opinion of the meeting.

Question of the Evening.—The question proposed by the Council—viz., "The Advantage or otherwise of Vaginal Injections after Delivery"—elicited a discussion, in which most of the members joined. Some disciples of the more modern schools of practice thought that not only benefit and comfort were derivable from the general use of warm water or mild antiseptic injections (confined to the vagina only) after delivery, but that by their use a danger of septic poisoning might be sometimes avoided. On the other hand, some members of the older schools, who had been taught that meddlesome midwifery was the great evil to be shunned in practice, were somewhat sceptical as to the wisdom of employing vaginal injections, except in cases where some morbid conditions called for their use.—A written reply from Dr. Cordwent was read by the Honorary Secretary.

Uterine Injections.—Some remarks on the great value of uterine injections in certain cases were made by Mr. Hugh Norris. He narrated a striking case in which a strong solution of iodine injected into the uterus at once arrested an alarming hæmorrhage, which had defied other remedies.

Dinner.—The usual dinner was enjoyed in due course, and a very pleasant meeting was brought to a close about ten o'clock.

CORRESPONDENCE.

THE VIVISECTION ACT AND DR. FERRIER.

SIR,—In to-day's *Times*, I see that a summons was granted against Dr. Ferrier for having performed some experiments on monkeys without a special licence.

Without making any comments on the merits of the case, may I suggest that a fund should be raised to defray any expenses that Dr. Ferrier may have to incur, as being the most thorough way of showing our sympathy with him?

If you will undertake the management of such a fund, I will gladly subscribe one guinea towards it; and I have no doubt a substantial testimony of the very high opinion Dr. Ferrier is held in by his professional brethren will be the result.—Believe me, your obedient servant,

MORTON SMALE.

89, Seymour Street, Hyde Park, W., November 4th, 1881.

THE TYPHUS FEVER IN ST. MARYLEBONE.

SIR,—Permit me to give an emphatic contradiction to the report of the Sanitary Committee to the St. Marylebone Vestry yesterday, that at a recent interview with the committee I stated I had no charge to bring against the sanitary authorities. What I did say was that I did not blame individuals, but the system pursued for the past, for the failure of the sanitary authority of the parish (in other words, the vestry) to prevent the epidemic of typhus fever (still spreading), and to arrest it immediately after its outbreak. There have been forty-one cases in all, with six deaths up to the present. The sanitary authority—typhus being at once the most contagious and the most easily preventible of diseases—ought to have suppressed the epidemic more than a month ago, and thus saved several lives. Had I not stepped in, at some detriment to health and private practice (keeping up only with the aid of professional assistance, constant Turkish baths, extra diet, and the non-use of stimulants), and discharged the duty the vestry neglected, the cases would have numbered hundreds, and the deaths at least twenties. Typhus cannot survive fresh air, and the removal to the excellent hygienic conditions of Homerton Fever Hospital has saved probably seventeen lives that would have been lost had the patients remained in their unsanitary homes. Of the cases so removed a number ought to have been attended to by the vestry. I had nothing to do with these, but had not the heart to see them die without a chance of life. The paupers are the care of the guardians, and right well do these gentlemen fulfil their trust. But no one seems to care whether struggling ratepayers, who are not paupers, live or die. In March last, from a non-pauper case of small-pox which was not removed by the vestry, eleven cases followed in Charles Street. I also told the committee that their professed disinfection was but an outside cleaning of the cup and platter, and was a delusion and a snare. Where attempted, it was practically valueless; and I instanced two recent cases where no attempt was made. One was a man who was allowed to sleep in the infected bed from which a case had been sent the week before. The other was the poor woman on whom the inquest was held, and who slept and died on the infected bed from which her child had been taken seven days previously.

About nineteen years ago, there was an outbreak of typhus fever in the same street and neighbourhood, when the relieving-officer (then

called "inspector") and the district medical officer caught the disease and died. The sanitary authority ought to have at once remedied the unsanitation; but, after repeated subsequent epidemics of contagious diseases, the sewage from the houses is still semi-stagnant and defective, and one house is actually built over a privy, which latter ventilates between the boards into the inhabited room above.

Let me bear, after repeated personal inspection of my cases in the typhus wards, ungrudging testimony to the excellence of Homerton Fever Hospital, the floors of which are so clean that a dinner could be eaten off them, and to the efficiency and skill of the superintendent, Dr. Collie, and the medical and nursing staff. As I told the committee, if they would only distribute handbills and other information among the inhabitants of the healthfulness and comfort of Homerton Hospital, much prejudice would be removed, and their own sanitary efforts much aided.

I cast no reflection on my friend Mr. Blyth and his staff, or even on the vestry. The traditional conservatism of the *ancien régime* has been too much for them; but I venture to appeal to the latter intelligent and spirited body to immediately reorganise their system, and systematically ascertain the sanitary condition of the whole parish. By so doing, they will earn the respect and gratitude of the entire community.—I am, your obedient servant, NORMAN KERR, M.D.

November 4th, 1881.

SPECIALISM IN MEDICINE.

SIR,—It was an almost inevitable consequence of such an address as that which Dr. Russell Reynolds recently delivered to the medical world, over the heads of a students' debating society, that it should excite a good deal of strong feeling, and much public and some private correspondence. It was to be feared also, as has already happened, that the rather considerable class of journalists who are just now in the mood to attack the character, conscience, and conduct of medical men (in support of the various anti-vaccination, anti-contagious diseases Acts, anti-vivisection, and anti-sanitation crazes), should pounce upon Dr. Russell Reynolds's rather confused anathema, and give to it an emphasis and a general application which can hardly be said to go beyond the actual text of this denunciatory composition, but which, probably, does go a good deal beyond the author's meaning, so far as he may have defined it in his own mind. "At this unlucky juncture", says one of these writers—in following up the repudiation by Dr. W. B. Carpenter, F.R.S., of the gross attack upon the medical profession in the *Modern Review*—"Dr. Russell Reynolds, F.R.S., has bethought himself of giving 'a piece of his mind' concerning his brother doctors, in an address delivered before the Medical Society of University College; and the BRITISH MEDICAL JOURNAL (of all newspapers in the world) has published the same, serenely unconscious, we presume, of the dart of 'electrical lighting' it is calculated to produce on the darkness of the lay intellect in relation to medical morality;' with more of the same sort of writing, in which the various sentences are quoted in which Dr. Reynolds describes the "unpardonable farce of a so-called consultation"; the "meddling and muddling of a most disreputable sort" by obstetricians; the physicians who have "coined names for trifling maladies, if they have not invented them"; the patients who get well by "the happy accident of being removed from their doctor's care"; the surgeon "who has the power in his hand, and he knows it, and wields it often with a cruelty that no words of mine can sufficiently condemn". The opportunity for using the weapons thus forged for their hands is too good to be lost, and the material too inviting for use. "And these are the men—these are the enthusiastic members of 'a noble profession', so carried away by their passionate sympathy with suffering humanity, that they demand the right to torture harmless animals by wholesale, on the chance of bringing some alleviation to the woes of their race." So writes the triumphant *Zoophilist*; and this is only the preliminary bark of the general howl which is sure to follow.

The fact is, however, that "these" are not the men who concern themselves at all on the subject; although, no doubt, some of these are "among" the men; just as faithless husbands, drunken impostors, and neglectful pastors, breakers of the law of God and man, of whom we sometimes read and know among clergymen, are "among" the men for whom are claimed, and justly claimed as a body, special sanctity and spotless purity of life, the love of souls, and the hunger for spiritual progress; or among barristers, who, as a body, typify the principles of justice, independence, and legality. The artifice of the figure of oratory, "these are among the men", is transparent, and hardly candid. The "enthusiastic members of a noble profession", who have claimed the right which zoophilist denies, were men who have had as their spokesmen Jenner, Paget, Simon, Christison, Henry Thompson, Humphry, Wilks, Pavy, Quain, Owen, Darwin, Huxley, Fraser, and, in fact, every man in medicine, in surgery, or in biological science in this country or throughout the world who is known as of any eminence, power, or knowledge: they are not themselves, neither are they the leaders of, men such as Dr. Reynolds describes, and such as writers of the opinions of Zoophilists will long delight to detach from the canvas on which he has sketched and coloured, with no great sobriety of tint, groups of a great variety of form of professional rascality.

It would certainly seem not undesirable that Dr. Reynolds should revise this evidently hasty and rather "unlucky" production. The holy horror of specialism has led him into the publication of a thesis of which the general aim is excellent, but which, it needs little care in reading to observe, must have been thought out as hurriedly and imperfectly, as it is written confusedly and ungrammatically. Some of the passages are well-nigh unintelligible; and there are scores which might be used, after Cobbett's fashion, as exercises in cacography and bad grammar. Here is one: "Women attach an amount of importance to dysmenorrhœa entirely out of proportion to that which they *render* to dyspepsia; and tight lacing and ball-dressing, and all that they involve, are disregarded, so long as *these special functions* are not disturbed. But when anything goes wrong in such way that the 'lunar periods' are *put out*, then the specialist is consulted; and happy is it for *them* if the doctor *himself* do not suffer from specialism." Thus "tight lacing and ball-dressing" are, it appears, to be regarded as "special functions"; and we learn that it is happy for the "lunar periods", which have been "put out", that the doctor does not suffer from specialism. Slipshod writing is usually characteristic of slipshod thinking. This is not much more grotesque than the "soothing" of the obstetrician's room with a "dim light", and Dr. Reynolds's objection to the "dim silence" which has been before noticed. Dr. Reynolds has not taken the pains to separate the black sheep from the white. He has mixed up all sorts of discoloured individualities, and he gives the whole flock a dingy hue. He portrays successively "distinguished surgeons" who cannot tell one end of a stethoscope from another, but who nevertheless go into the country to diagnose endo- from peri-carditis; physicians who, though "quite incompetent", undertake operations for stone and minor operations in surgery; surgeons who learn their lessons mainly "in the chatter of the clubs"; surgeons who are "outrageously rude and overbearing"; physicians who are "conspicuous adepts in soft words and phrases"; "digestive doctors", who worry their patients with blue pill, and "bring them to the verge of extinction"; "head-doctors", who treat cardiac valve diseases as a neurosis, and pleural effusion as hysterical; consumption-doctors, who "send their patients to the Riviera or the uttermost parts of the earth", when it was unnecessary for them to make such pilgrimages; medical witnesses, of course including an "eminent surgeon", whose evidence is "utterly unscientific, ignorant, and perverse"; meetings of doctors which are "not a consultation, but a farce"; and, finally, persons practising specialisms "that have so limited an area that it is quite impossible for any man, who is restricted to any one of them, to make an income, unless he does so by inducing his patients to pay him needless visits; such, for example, as to touch his throat with something every day; to turn the screw of his 'instrument for the back' two or three times a week; or to do something to the Eustachian tube with equal frequency". "But these", he says, "are mistakes". These are "worse than crimes, these blunders".

The result of this general survey of the profession, from the China of the highest eminence of "great names" to the Peru of obscure rogues, is to disclose a great variety of ignorance, misdoing, presumption, wickedness, and folly, which, it is apparent, is within Dr. Reynolds's experience, not at all incompatible with professional eminence and distinction, or is at all confined to a small and limited class, but of which he indicates types beyond number, presumably far from solitary ones, since they are not designated as rare exceptions, although, even as individual cases, sufficiently numerous to make up a mass of appalling, yet prosperous and unpunished, wickedness and error. It is not surprising that this dark picture is pointed to with delight by the active enemies of medicine, who just now abound among the "anti" factions; or that they should take Dr. Reynolds's sketch as he presents it, and emphasise it with "Ecce homines".

The picture, however, needs finishing; the shades need defining, and the lights thrown in. The argument needs clarifying, and the grammar and composition somewhat urgently call for revision. As it stands, "specialism" is first defined as "an abuse of labour"; later we are told that thousands of [illegible] from the "vice of specialism", although, in the next line, we read that "if they do their work well, they are absolutely dependent on the work of specialists"; still later, we are told that specialism is "unscientific retro-

gression"; and again, that it is "a morbid condition of mind". Again, the public—"the foolish people"—are described as partly responsible for specialism; and then, just below, we are informed, as if to complete this mass of contradictions, that "great names will often override specialism", but that, when it does so, "this is due to the fault or ignorance of the public, and has its reward".

In fact, specialists and non-specialists are in turn abused in this perplexing anathema. It is not surprising that, besides the pain which this address has inflicted upon the many specialists who find themselves mixed up here in inextricable confusion with the worst sort of company which the mind of man can conceive, the text is seized upon as a very creed for antivivisectors, antivaccinators, and all the enemies of medicine and its professors.

"It is an ill bird that fouls its own nest"; the spectacle is hardly more seemly when a prominent physician is seen attacking all ranks of his profession in a mood which despises the limitations of logic or the elementary restraints of intelligible composition.—I am, sir, your obedient servant,

SPECIALIST.

THE ETIOLOGY OF INFECTIOUS DISEASES.

SIR,—I have seen no reply from Dr. Carpenter in answer to my letter in the JOURNAL of October 15th, asking him to let us know the evidence which showed that "persons in a healthy condition might with safety even go among those suffering from infectious diseases", if the sanitary arrangements of every house and place could be got into a satisfactory state. It is probable he may think it too wide a subject to discuss in a letter. However, it seems to me a matter of such importance, that I should be glad if you would allow me, through your correspondence columns, to suggest that, seeing scarlet fever is breaking out all over the country, members might examine the sanitary arrangement of the houses in which cases occur, and let us know, through the JOURNAL, if they meet with scarlet fever in any house where the sanitary arrangements are perfect. It is so rare to find a house whose sanitary arrangements are perfect, in the district in which I practise, that it may be a long time before I meet with scarlet fever in such a one.—I am, yours truly,

JOHN HADDON.

Monks Hall, Eccles, Manchester, November 8th, 1881.

THE PRINCE AND PRINCESS OF WALES AT SWANSEA.

SIR,—My attention has just been called to your notice of what may, I think without impropriety, be designated the meagre reception given at the Swansea Hospital to the Prince and Princess of Wales on the occasion of their recent visit to that institution, which notice appears to me to require some explanation.

In August last, Mr. Horman-Fisher, the chairman of the committee, wrote on their behalf to the Mayor, asking his kind offices to secure a visit of their Royal Highnesses to the hospital. On the 29th of that month a reply was received, stating that Sir Dighton Probyn had "particularly requested" him (the Mayor) "not to ask H.R.H. to do more than what had already been arranged." No further action was therefore taken by the committee in the matter, nor preparation made to give their Royal Highnesses a suitable, though not necessarily an ostentatious, reception. Dr. T. D. Griffiths, after the dock ceremonies were over, sought and obtained an introduction to the Prince, and received his consent to visit the hospital, which lay in his return route from the docks. No intimation of this fact having been made to any member of the medical staff, or of the committee—for which there was certainly ample opportunity—the consequence was that the only representatives of the former present to receive the Prince and Princess were Dr. Griffiths (the ophthalmic surgeon) and Mr. Humphreys (the house-surgeon), and, of the committee, not one.—I am, yours obediently,

GEORGE PADLEY,

Senior Consulting Physician, Swansea Hospital.

Swansea, November 5th, 1881.

THE COST OF SEWAGE-FARMING.—It appears, from the annual statement of the Reading Sewage Farm which has just been published, that there has been a total loss on the year's operations amounting to £146. The loss on the crops could not be put at a smaller sum than £1,500; but from the cattle had been received, for butter and milk, £2,743 13s. 11d.; cattle sold, £434 5s. 2d.; increase of valuation, after deducting expenses of purchase, etc., £535 5s. 1d.; sheep, paid for keep, £102 13s. 2d.; total, £3,815 17s. 4d. It was stated, however, at the Council meeting at which these figures were presented, that, looked at from a sanitary point of view, the farming operations had been a great success, and that Reading had never before been in such an excellent sanitary condition.

MILITARY AND NAVAL MEDICAL SERVICES.

REGULATIONS FOR ADMISSION TO THE MEDICAL DEPARTMENT OF THE ARMY.

THE following schedule of qualifications necessary for candidates desirous of obtaining commissions in the Army Medical Department, has lately been issued.

1. Every candidate for a commission in the Army Medical Department must be 21 years of age and not over 28 years at the date of commencement of the competitive examination. He must produce an extract from the register of his birth, or, in default, a declaration made before a magistrate by one of his parents or guardians, giving his exact age. He must also produce a recommendation from some person of standing in society—not a menber of his own family—to the effect that he is of regular and steady habits and likely in every respect to prove creditable to the department if a commission be granted; and also a certificate of moral character from the parochial clergyman, if possible. 2. The candidate must sign a declaration upon honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, nor has any hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. His physical fitness will be determined by a board of medical officers, who are required to certify that his vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. The board must also certify that he is free from organic or other disease, and from constitutional weakness or tendency thereto, or other disability of any kind likely to unfit him for military service in any climate. 3. Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned. 4. Candidates will be examined by the examining board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a*. Anatomy and physiology, 1,000 marks; *b*. Surgery, 1,000 marks; *c*. Medicine, including therapeutics, the diseases of women and children, 1,000 marks; *d*. Chemistry and pharmacy, and a practical knowledge of drugs, 100 marks.—N.B. The examination in medicine and surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and examination of medical and surgical patients at the bedside. The eligibility of each candidate for the Army Medical Service will be determined by the result of examination in these subjects only. Examinations will also be held in the following voluntary subjects, for which the maximum number of marks will be.—French and German (150 each), 300 marks; natural sciences, 300 marks. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German. The natural sciences will include comparative anatomy, zoology, natural philosophy, physical geography, and botany, with special reference to materia medica. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences. 5. After passing this examination, every qualified candidate will be required to attend one course of practical instruction at the Army Medical School as a probationer on: (1) hygiene; (2) clinical and military medicine; (3) clinical and military surgery; (4) pathology of diseases and injuries incident to military service. 6. All candidates will be required to conform to such rules of discipline as the Senate may from time to time enact, and they will be required to provide themselves with uniform, viz.: the regulation undress uniform of a surgeon but without sword. 7. They will be required to attend the Army Medical Department Mess at Netley, and to conform to the Rules and Regulations thereof.

Every candidate for appointment to the medical ranks of the Army Medical Department shall possess two diplomas or licences, recognised by the General Medical Council—one to practise medicine, and the other surgery, and shall be registered under the Medical Act in force in the United Kingdom at the time of his appointment. A public and open competition shall be held twice in the year for the admission of qualified candidates as probationers. The number of appointments so competed for shall be not less than half of the number of vacancies

which shall have arisen in the last completed half-year ending on the 30th June or 31st December. Not less than half the number of vacancies shall be filled up by competition, and it shall be competent for the Secretary of State to fill up the remaining number from such qualified candidates as may be proposed by the governing bodies of public schools of medicine in the United Kingdom or in the colonies as he may think proper. Every candidate so proposed shall be certified by the governing body proposing him to be duly qualified according to a standard to be laid down by the Secretary of State, and shall be approved by the Director-General. The Secretary of State shall from time to time fix the order of precedence and the proportion in which the several schools of medicine shall be offered the nomination of candidates. A surgeon on probation shall on appointment be sent to some large station for instruction in ambulance and hospital corps duties, until the commencement of the next course of study at the Army Medical School. After passing through such course at the Army Medical School as the Secretary of State shall decide, the surgeon on probation, after passing a qualifying examination in the military medical subjects taught there, and satisfying the Director-General that he is a person of proper skill, knowledge, and character for permanent appointment in the Army Medical Department, shall be commissioned as surgeon. The surgeons on probation who pass out of the Army Medical School at one qualifying examination shall take precedence among each other as surgeons, as follows :—(*a*) Those appointed on nomination according to their date of joining on probation. (*b*) Those appointed on competition according to the last day of the competitive examination, and in the order of merit at such examination, with priority over any joining under subsection (*a*) on the last day of the competitive examination. A surgeon's commission shall bear the date of the day of his passing out of the Army Medical School.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MEDICAL RELIEF IN THE PENISTONE UNION.

In our issue of the 25th of June of this year, we called attention to the application of Dr. Gruggen, Medical Officer of the Silkstone District of the Penistone Union, for an increase of his absurdly small stipend of £26 10s. with extras, which possibly amounted to about £10 more, out of which he had to attend to the requirements of the pauper sick of a population of 5,213, on an area of 8,830 acres, and to provide all medicines and appliances, save cod-liver oil and quinine. His salary, it would appear, stood at the rate of 1s. 5¾d. a day, or 2¾d. a visit. Although his application was supported by the chairman, it was, after a not unusual exhibition of ignorance and bad feeling on the part of the assembled guardians, unanimously refused. Thereupon, Dr. Gruggen resigned. His place was speedily filled up by a gentleman possessing only one qualification, who was additionally induced to apply for the vacancy by the bait that he should be made the medical officer of health. The guardians have, however, since appointed some one else. We see, by the *Barnsley Chronicle* of October 29th, that this gentleman has also resigned; and the Penistone Guardians advertise, on the same terms, for a successor. Will they get a medical officer on such terms? We hope not; and we urgently press upon the consideration of all medical men resident in the neighbourhood, to shun all dealings with the Penistone Board of Guardians until they have learned that the vicious economy of which they are the exponents has for its ultimate issue an augmentation of the rates they are, in their fatuity, striving to diminish. The prolongation of sickness, and an increase in the number of widows and orphans, have always been the inevitable outcome of sparing the means and appliances for the mitigation of the sufferings of the pauper sick.

Bequests and Donations.—Mr. Michael Frederick Bruxner of Hyde Park Terrace bequeathed £2,000 each to the London Hospital, the German Hospital, St. George's Hospital, and the City of London Hospital for Diseases of the Chest. —Alderman Sir John Musgrove, Bart., bequeathed £500 to the Tunbridge Wells Infirmary. —Lord Overstone, and Mr. Richard Loder, M.P., have each given £500 to the Extension Fund of the Charing Cross Hospital.—"T. A." (per Messrs. Dalton and Jessett) has given £50 each to the Hospital for Sick Children and the City of London Hospital for Diseases of the Chest.—Mr. John Swift has given £50, additional, to the Cancer Fund of the Middlesex Hospital. —The Grocers' Company have given £50 to the Dental Hospital of London.

OBITUARY.

THOMAS M. GREENHOW, M.D., F.R.C.S.

On October 25th, in his ninetieth year, died at Newton Hall, near Leeds, Dr. T. M. Greenhow, formerly of Newcastle-on-Tyne. The second son of the late E. M. Greenhow, M.D., who was highly esteemed as a medical practitioner for many years at North Shields, he studied at Edinburgh during the greater days of that University. After becoming M.R.C.S. in 1814, and serving as assistant-surgeon in the army for about two years, he determined to adopt civil life, and settled at Newcastle in 1817. He soon became surgeon to the Lying-in Hospital, and obtained great experience in obstetric practice; but his taste lay in the direction of surgery; and, in the year 1832, he was elected surgeon to the Newcastle Infirmary, an office which he held for about twenty-three years, during many of which he was senior surgeon. Prior to this period, in conjunction with the late Sir John Fife, he had established the Eye Infirmary at Newcastle, an institution which did an immense deal of good among the poor of the northern counties, when eye-diseases were less understood than they are now.

His surgical success was great. His boldness as an operator was only equalled by the skill and resource with which he conducted the most serious undertakings in surgery; but he ever had an intensely conscientious desire to do all for the patient's benefit; and, in the treatment after operation, his care and attention to details of dressing and management were as conspicuous as his tact in the operating room. Before the days of antiseptic appliances, he well knew the value of a pure atmosphere, of local cleanliness, and of simple cold-water dressing; and these he preferred to ointments and lotions in the treatment of compound fractures, of stumps after amputation, and of serious wounds of all kinds.

Dr. Greenhow's mechanical ingenuity was considerable; and he constructed various instruments and modifications of surgical appliances which his great experience suggested to him. In 1833, he invented a fracture-bed by which a broken leg or thigh could be slung, and which had numerous advantages in supporting the limb in a horizontal position, while allowing it, with perfect safety, a degree of freedom which enabled it to accommodate itself to any movement of the pelvis. The knee, being flexed at a comfortable angle, was made a fixed point, from which extension to any desired degree was effected by means of a screw acting on a foot-piece, in which the foot was secured. In fractures of the thigh, by means of a groin and pelvis-strap and the screw, extension and perfect apposition of the fractured ends were obtained, while the ease and comfort of the patient were greatly increased. This fracture-bed was used for years at the Newcastle Infirmary. Nor was this facility of invention confined to surgical apparatus, for he has left behind models of machines of various kinds, concerning which his ingenious mind was ever at work up to the last month of his life.

On August 15th, 1848, Dr. Greenhow performed, with success, the operation of complete excision of the os calcis for caries of the bone. This was the first instance of successful removal of this bone; and, at that time, he was unaware that the late Mr. Hancock had performed the same operation two months previously; so that the credit of its invention belonged to him equally with Mr. Hancock. He repeated the operation several times satisfactorily, and it is now, of course, an established one in surgery. In the first instance, he removed a portion of integument at the apex of the heel, but subsequently avoided any such removal, and carefully refrained from encroaching with the knife on the sole of the foot.

His success in lithotomy was remarkable, and to this his wonderful sense of touch greatly contributed. The anxious watching he bestowed on these cases after operation, added, no doubt, considerably to the chances of his patients, and in his hands they knew they had every advantage. It is needless to add that he frequently practised all the major operations of surgery; but it may be well to notice more particularly his skill in ophthalmic cases, for which he had a very considerable reputation, founded on his large experience at the Eye Infirmary, and in private practice.

During the cholera-epidemic at Newcastle in 1832, Dr. Greenhow worked assiduously; and he subsequently published his views of the disease at considerable length. Twenty years later, he foretold that this country would again be attacked; and, in a letter to the Mayor of Newcastle, called attention to the insanitary condition of the town, pointing out, among many things, the evils of overcrowding, of burying the dead in the midst of populous towns, of underdrainage, imperfect drainage, and of impure air. The warning was unheeded; and, in the following year, his prediction was verified, the town was ravaged, and hundreds of its inhabitants died.

His mind, indeed, was ever on the alert to detect imperfections in the conditions and circumstances surrounding the life of the people; and hence it was that, in the early days of sanitation, he took a leading part in the movement, and, by speaking, and writing, and working, strove, not only in his own town, but in others around, to inculcate those principles which are now happily understood and acted upon. A sincere philanthropist, he was ardent to accomplish his good designs; in their pursuit, he acknowledged no difficulty, knew no misgiving, feared no evil; simple-minded and single-hearted, a true friend, a genial gentleman, he was one who had not an enemy in the world, and went down to his grave honoured and respected, and loved alike by old and young.

In 1843, he was appointed one of the original Fellows of the College of Surgeons, and at his death was the senior Fellow but one on the list. In 1855, he had conferred upon him by the University of Durham the degree of M.D.

In 1860, he retired from practice, leaving Newcastle, to live in the neighbourhood of Leeds. He married, first, Elizabeth, eldest daughter of the late Thomas Martineau, Esq., of Norwich, and niece to Mr. Martineau, the celebrated surgeon to the Norwich Hospital; and, next, Anne, second daughter of the late William Lupton, Esq., of Leeds. A daughter and two sons survive him.

ALEXANDER MACDOUGALL, L.R.C.S., EDINBURGH.

On October 30th, Mr. Alexander MacDougall died at Morningside, Edinburgh, in his seventy-eighth year. Mr. MacDougall studied in Edinburgh, and received his diploma there in 1831. For many years, he was treasurer of the Royal Infirmary, and also acted in the capacity of superintendent of the institution, in which he resided for many years. He discharged his duties with such fidelity and success that, a few years ago, when advancing years compelled his retirement, the managers permitted him to do so on full pay. Although his official duties withdrew him from the ordinary work of the profession, he continued to devote himself to its literature; and, for many years, was a devotee to microscopical science, and was most successful in his preparations of crustaceans, etc. He was brother of Professor MacDougall, who for many years occupied the chair of moral philosophy in Edinburgh University.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 7th instant, and when eligible will be admitted to the pass examination.

Messrs. John H. Brown, H. St. George Boswell, Henry J. Ley, Ernest D. Kirby, and Peter B. Bury, students of the Edinburgh School; Sidney M. P. Roberts, B.A.Cantab, and H. Wilson McConnel, B.A.Cantab, of the Cambridge School; George W. Richards, of the London Hospital; J. Howard Betts, of the Kingston School; Alfred E. Drury, of the Birmingham School; W. Hamilton Hall, of University College; John R. Barefoot, of the Madras School; John Welpton, of the Leeds School; Charles J. Sharp, of the Liverpool School; George Byrne, of the Manchester School; Archibald B. Gemmel, of the Glasgow School; and Herman E. Heyd, of the Montreal School.

Seven candidates were rejected.

The following gentlemen passed on the 8th instant.

Messrs. George F. Alexander, J. Coatsworth Watson, and Robert Logan, of the Edinburgh School; Bertram Hunt, and H. Carrol Otway, of St. Bartholomew's Hospital; John H. Hacking, and Walter O. Steinthal, of the Manchester School; Thomas R. Lewers, of the Melbourne School; John McH. Gell, of the Glasgow School; Robert W. Murray, of Guy's Hospital; James E. McDougal, of the Liverpool School; Alfred Bourne, of the Newcastle School; George H. Dodd, of St. Thomas's Hospital; Thomas G. Styan, B.A.Cantab, of the Cambridge School; John Godson, of the Birmingham School; and T. Perez Castaneda, of the Paris and Madrid Schools.

Eight candidates were rejected.

The following gentlemen passed on the 9th instant.

Messrs. Edward A. Opie, Arthur H. Dixon, James H. Gilbertson, and W. W. Ernest Fletcher, of St. Bartholomew's Hospital; E. Wickham Barnes and Herbert H. Marsden, of the Liverpool School; Phillip J. Nunnerley, and S. Nunez Cardozo, of the Madras School; W. A. Dawson Montgomery, of the Toronto School; John J. Pitcairn, of the Charing Cross Hospital; Mahendra N. Banerjee, of King's College; Richard B. Eskrigge, of the Manchester School; Robert Cuff, of Guy's Hospital; Frederick E. Abbot, of the Newcastle School; and Bernard Volckman, of the London Hospital.

Nine candidates were rejected.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 3rd.

Buchan, William Augustus, Plymouth.
Francis, John Arthur, St. Bartholomew's Hospital.
Macmillan, Colin, Nottingham.

The following gentlemen also on the same day passed their Primary Professional Examination.

Gravely, Frank, University College.
Sutton, Henry Martyn, St. Thomas's Hospital.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN, Clarence Street, Warwick Square—House-Surgeon. Salary, £50 per annum, with board and residence. Applications by next Assistant.

BIRMINGHAM GENERAL DISPENSARIES—Resident Surgeon. Salary, £85 per annum. Applications by November 17th.

CARMARTHEN AND JOINT COUNTIES ASYLUM—Medical Officer. Salary, £150 per annum. Applications to Medical Superintendent.

CHARING CROSS HOSPITAL, Strand—Assistant Physician. Applications by December 3rd.

DENTAL HOSPITAL OF LONDON—Assistant Dental Surgeon. Applications to the Honorary Secretary by November 14th.

DURHAM COUNTY HOSPITAL—Pupil wanted to dispense medicines and assist house-surgeon; board and lodging in hospital, for £30 per annum. Applications to James Oliver, M.B.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell—Clinical Assistant for Out-Patient Department. Applications to Dr. Crocker, Welbeck Street.

EAST SUSSEX, HASTINGS, AND ST. LEONARD'S INFIRMARY—Assistant Surgeon. Applications to Secretary by November 14th.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Physician to Out-patients. Applications by November 23rd.

GATESHEAD DISPENSARY—Resident House-Surgeon. Salary, £210 per annum. Applications to Mr. J. Jordon, Honorary Secretary, 2, Side, Newcastle, by 23rd instant.

GENERAL INFIRMARY, Gloucester, and GLOUCESTERSHIRE EYE INSTITUTION—Ophthalmic Surgeon. Applications by December 7th.

GUARDIANS OF THE POOR OF ST. MARY, Islington—Resident Medical Officer. Salary, £200 per annum. Applications by November 22nd.

HOSPITAL FOR SICK CHILDREN—Medical Registrar. Honorarium of £52 10s. Applications by 23rd instant.

ISLE OF WIGHT UNION—Medical Officer. Salary, £80 per annum. Applications to Clerk's Office, Newport, by 10th November.

LIVERPOOL DISPENSARIES—Assistant House-Surgeon. Salary, £108 per annum. Applications to the Secretary, Leith Offices, 34, Moorfields, Liverpool.

LONDON TEMPERANCE HOSPITAL—House-Surgeon and Registrar. Applications to Frank Wright.

MIDDLESEX HOSPITAL—Surgical Registrar. Applications to Secretary-Superintendent by November 12th.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road—Assistant House-Surgeon. Applications by 21st instant.

PORTSMOUTH LUNATIC ASYLUM—Assistant Medical Officer. Salary, £120 per annum. Applications to the Chairman of the Committee by November 14th.

ROYAL COLLEGE OF SURGEONS—Examiners in Anatomy and in Physiology. Applications to the Secretary by November 19th.

ROYAL INSTITUTION OF GREAT BRITAIN, Albemarle Street, W.—Fullerian Professor of Physiology. Applications by 24th November.

RUBERY HILL ASYLUM, near Bromsgrove—Assistant Medical Officer. Salary, £100 per annum, with furnished apartments. Applications, by November 14th, to Medical Superintendent.

ST. PETER'S HOSPITAL, 54, Berners Street, W.—House-Surgeon. Applications by November 22nd.

ST. THOMAS'S HOSPITAL—Assistant Physician. Applications in writing to A. Tritton by November 16th.

STROUD GENERAL HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to John Libby, Esq.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Junior House-Physician. Applications by the 19th instant.

MEDICAL APPOINTMENTS.

BROWN, John, L.R.C.P.Lond., reappointed Medical Officer of Health to the Bacup Urban Sanitary Authority.

COOPER, E. F., M.R.C.S., appointed Assistant Medical Officer to St. Andrew's Hospital for Mental Diseases, Northampton.

CURNOCK, G. D., L.D.S., appointed Assistant Dental Surgeon to the National Dental Hospital.

DAMANT, A. J., L.R.C.P., appointed Resident Medical Officer to the Eastern Dispensary, Bath.

DREAPER, J. B., M.R.C.S., appointed House-Surgeon to the Hulme Dispensary, Manchester.

LANGTON, Herbert, M.R.C.S.E., L.S.A.L., appointed District Medical Officer to the Brighton and Hove Dispensary, *vice* T. J. Verrall, M.R.C.S., resigned.

MARK, L. P., L.R.C.P., appointed House-Surgeon to the Richmond Hospital, Dublin, *vice* J. Robbins, M.B., resigned.

REDMOND, Joseph Michael, M.K.Q.C.P.I. & L.M., L.R.C.S.I., appointed Physician to the Mater Misericordiæ Hospital, Dublin, *vice* T. Hayden, F.K.Q.C.P.I., deceased.

RICHARDSON, Charles Boards, M.B., C.M., L.R.C.P.Lond., M.R.C.S.E., appointed Senior House-Surgeon to the Brighton and Hove Dispensary, *vice* H. Langton, M.R.C.S.Eng., resigned.

SMITH, A., L.D.S., appointed Assistant Dental Surgeon to the National Dental Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

PARSONS.—November 8th, at Willow Vale, Frome, the wife of Frederick Parsons, of a daughter.

THURNAM.—On November 3rd, at Yardley Hastings, Northampton hire, the wife of F. Wyatt Thurnam, M.B., of a daughter.

MARRIAGES.

OLIVER—JENKINS.—At Christ Church, Consett, on the 27th of October, by the Rev. Thos. Williams, M.A., Vicar of Llanidloes, cousin of the bride, assisted by the Rev. F. Steggall, Vicar of Consett, Thomas Oliver, M.D., Newcastle-on-Tyne, to Edith Rosina, eldest daughter of William Jenkins, Esq., J.P., Consett Hall, County Durham.

WHEELER—TASKER.—On the 3rd inst., at St. George's, Hanover Square, by the Rev. R. W. Forrest, D.D., Vicar of St. Jude's, South Kensington, assisted by the Rev. J. Robbins, D.D., Vicar of St. Peter's, Bayswater, John Wheeler, M.D., C.M., of 1, Pembridge Gardens, Bayswater, to Jane Tasker, of Gibraltar.

ST. BARTHOLOMEW'S HOSPITAL MEDICAL COLLEGE.—The Preliminary Scientific Exhibition of £50 for one year has been awarded to Mr. F. N. Brown and Mr. H. W. Gardner, equal.

INTERNATIONAL MEDICAL CONGRESS.—We learn that Mr. Barraud's picture of this subject will, in all probability, be published this year, and will contain portraits of about five hundred of the leading medical men of our own and every other country represented at the Congress.

AWARDS AT THE INTERNATIONAL MEDICAL EXHIBITION.—We regret to learn that the authorities of the recent International Medical and Surgical Exhibition have felt themselves precluded from taking the necessary measures to remedy the injustice which, as the medical press has unanimously pointed out, was done in the case of the awards in the medical and dietetic class at the recent exhibition. We have already referred to the inconsistency palpable in the circumstance that an award of merit was given to a preparation which, if not secret, had certainly many of the general characters of a secret preparation, and which was sold at such a price, and described in such a manner, in the accompanying handbills, "as a specific for tapeworm", and otherwise shown in such a manner as would, under the ordinary rules which are supposed to govern these matters, have precluded it from notice at an exhibition of this kind. No disposition is shown to remedy the palpable injustice of the denial of awards to some most eminent firms who exhibited articles of high pharmaceutical merit and value, prepared with great skill, and put forward with all guarantees of good faith, and in a manner inviting and permitting an easy verification of the statements. We refer especially to the exhibits of Messrs. Wyeth, and McKesson and Robbins, shown by Messrs. Burroughs and Wellcome, the London agents. We observe, in the *Pharmaceutical Journal* for October 29th, a statement which appears to present something like a semi-official excuse for the course taken. It is suggested there, in an editorial article, that the jurors before whom a phosphorus pill is put, alleged to contain one-fortieth of a grain of phosphorus enclosed in a soluble and air-tight capsule, cannot be expected to ascertain whether the coating is soluble, whether the pill contains one-fortieth of a grain, or whether the pill is air-tight. If this is the only explanation that can be given, it certainly speaks little for the care of the jurors, or for the manner in which they understood their duty of making awards. Surely nothing could be easier than, in the case cited, for any person to ascertain, in the course of a few minutes, as to the coating being highly soluble—a statement the correctness of which can be ascertained on the tip of the tongue in a minute; whether or not it be air-tight, is almost as adequately shown by the fuming of the phosphorus on its being cut into; and the question of quantity, if any doubt exist, is not one which need present any difficulties for a skilled pharmacist. On the whole, the excuse put forward makes the matter rather worse than before; and we fear it must now be concluded that the jurors neither did their duty completely, nor are prepared to offer any intelligent explanation as to the principles on which they made their awards.

PUBLIC HEALTH. The annual rate of mortality last week, being the forty-fourth week of the year, in twenty of the largest English towns, averaged 22.8 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Wolverhampton 17, Portsmouth 17, Bristol 18, Leeds 18, Sunderland 21, Sheffield 21, Brighton 21, Nottingham 21, Bradford 22, London 22, Leicester 22, Norwich 22, Manchester 22, Salford 22, Newcastle-on-Tyne 22, Plymouth 24, Birmingham 24, Oldham 26, Hull 27, and Liverpool 28. Scarlet fever showed the largest proportional fatality in Hull, Nottingham, and Brighton; 36 more fatal cases were recorded in Hull, where no fewer than 393 have occurred since the beginning of July. The 28 deaths from diphtheria in the twenty towns included 13 in London and 8 in Portsmouth. The highest death-rate from "fever" occurred in Brighton. Small-pox caused 15 more deaths in London and its outer ring of suburban districts, one in Liverpool, and one in Newcastle-upon-Tyne; no fatal case of this disease was registered in any of the seventeen other large provincial towns. In London, 2,618 births and 1,645 deaths were registered. The deaths exceeded the average by 49. The annual death-rate from all causes was 22.4. During the past five weeks of the current quarter, the metropolitan death-rate averaged 20.8 per 1,000, against 20.4 in the corresponding periods of both 1879 and 1880. The 1,645 deaths included 12 from small-pox, 29 from measles, 95 from scarlet fever, 13 from diphtheria, 40 from whooping-cough, 5 from typhus fever, 53 from enteric fever, 4 from ill-defined forms of continued fever, 13 from diarrhœa, and not one either from dysentery or simple cholera; thus, 264 deaths were referred to these diseases, being 38 above the average. The deaths referred to diseases of the respiratory organs, which had steadily increased in the nine preceding weeks from 115 to 376, were last week 375, and corresponded with the average; 239 were attributed to bronchitis and 102 to pneumonia. Different forms of violence caused 56 deaths; 47 were the result of negligence or accident, among which were 19 from fractures and contusions, 7 from burns and scalds, 2 from drowning, and 14 of infants under one year of age from suffocation. Eight cases of suicide were registered. At Greenwich, the mean temperature of the air was 43.1°, and 3.6° below the average. The mean was considerably below the average on each of the first five, whereas it showed a large excess on the last two days of the week; it was 14.1° below the average on Monday, while the excess on Saturday was 12.3°. The mean degree of humidity of the air was 88, complete saturation being represented by 100. The general direction of the wind was southerly, and the horizontal movement of the air averaged 10.0 miles per hour, which was 1.5 below the average. Rain fell on three days of the week, to the aggregate amount of 0.19 of an inch. The duration of registered bright sunshine in the week was equal to 11 per cent. of its possible duration. The recorded amount of ozone was considerably below the average throughout the week.

HEALTH OF FOREIGN CITIES.—The following facts, derived from a table in the Registrar-General's last weekly return, afford the means for estimating the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate, according to the most recent weekly returns, averaged 31.8 per 1,000; it was equal to 23.4 in Calcutta, 29.1 in Bombay, and 35.7 in Madras. Cholera caused 20 deaths in Calcutta and 11 in Bombay, and 14 fatal cases of small-pox were reported in Madras. The usual return from Alexandria does not appear to have come to hand. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 25 7 per 1,000 of their aggregate population, whereas the average rate in twenty of the large English towns during last week did not exceed 22.8. The rate in St. Petersburg declined to 36.8, although the 472 deaths included 30 from typhus and typhoid fevers, 16 from scarlet fever, and 10 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 19.6, the highest being 20.4 in Copenhagen; 3 fatal cases of scarlet fever occurred in Copenhagen, and the 65 deaths in Stockholm included 3 from diphtheria and 3 from typhoid fever. The Paris death-rate was equal to 25.1, and the deaths included 42 fatal cases of typhoid fever and 39 of diphtheria and croup. The rate of mortality in Brussels was equal to 21.2. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the rate averaged 22.7, the highest being 22.8 in Amsterdam, where 4 deaths were referred to typhus and enteric fever. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.2, and ranged from 20.5 and 22.3 in Dresden and Berlin, to 29.3 in Buda-Pesth and 29.8 in Munich. Small-pox caused 17 deaths in Vienna and 15 in Buda-Pesth; scarlet fever and diphtheria showed fatal prevalence in most of these German towns. The death-rate in three large Italian cities averaged 29.5, and was equal to 22.3 in Turin, 25.8 in Venice, and 34.5 in Naples; measles caused 32 and typhoid fever 10 deaths in Naples, and 5 deaths from typhoid fever were reported in Turin. In four large American cities, the death-rate averaged 24.0, and was equal to 24.3 in Philadelphia, 25.3 in Baltimore, 26.0 in Brooklyn, and 26.3 in New York. Small-pox caused 11 deaths in Philadelphia and 3 in New York, and enteric fever 10 in Philadelphia; excessive diphtheria mortality was reported in each of these American cities.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M. Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M. University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

Charing Cross.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

Guy's.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

King's College.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

London.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

Middlesex.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

St. Bartholomew's.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

St. George's.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

St. Mary's.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

St. Thomas's.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

University College.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

Westminster.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Wordsworth will exhibit a Child the subject of Congenital Absence of both Eye-balls. Mr. Francis Mason will show the parts removed from a case of Congenital Deformity of the Rectum after Littre's Operation. Dr. Robert Lee: Cutaneous Diseases of Children. Dr. Stephen Mackenzie: Pityriasis Rubra and its Allies.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens: Dr. S. West: 1. Case of Extra-Uterine Fœtation; 2. Pulsation of the Liver (living specimen). Mr. R. W. Parker: Thorax of an Infant with Rickety Deformity. Mr. F. S. Eve: Ossified Adenoma of Skin. Dr. Douglas Powell: Aneurysm of Aorta, with Secondary Pouch. Mr. Pearce Gould: 1. Two Teeth from an Infant three days' old; 2. Specimen of Odontoma. Dr. Isambard Owen: Hypertrophied Toe-nail, seven inches long.

WEDNESDAY.—Association of Surgeons practising Dental Surgery, 7.45 P.M., Council. 8.30 P.M., Casual Communications.

THURSDAY.—Harveian Society of London, 8.30 P.M. Dr. G. C. Henderson: A case of Small-pox followed by Ataxy. Dr. Cavafy: A case of Sciatic Nerve Stretching in Locomotor Ataxia.—Abernethian Society, St. Bartholomew's Hospital. Mr. Keetley: Tetanus.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

Communications respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the Journal, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

Authors desiring reprints of their articles published in the British Medical Journal, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

Correspondents not answered, are requested to look to the Notices to Correspondents of the following week.

Correspondents who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

We cannot undertake to return Manuscripts not used.

Royal College of Surgeons of England.

The following were the questions on Anatomy and Physiology submitted to the ninety-one candidates at the written examination. 1. Describe the Lower Half of the Radius. 2. Describe the manner in which the several Bones of the Pelvis are connected together. 3. Describe the Popliteus Muscle, its attachments and relations. 4. Describe the Dissection necessary to expose the Suboccipital Triangle and its Contents. 5. Describe fully the Course of each of the Arteries entering into the Anastomoses about the Scapula. Show how, by means of these Anastomoses, the Collateral Circulation may be carried on after Ligature of the third portion of the Subclavian. 6. Describe the Intercostal Nerves; their origin, course, and distribution. 1. Describe the structure, distribution, and functions of the Glands of the Skin. 2. What is meant by Reflex Action? Give examples of it, and, in the examples given, mention the course by which the afferent and efferent impulses are conveyed. 3. Describe the Chemical Constitution of the Neutral Fats, their relation to Soaps, and their preparation for Absorption in the Small Intestine. 4. Describe the structure of a Lymph-Gland. What are its functions? 5. Describe the Microscopic Appearance, the physical and chemical characters, and the uses of Tendon. 6. What is Urea? Where is it formed? and how can it be quantitatively estimated?

A Metropolitan Teacher.—At the primary, or anatomical and physiological, examination which was brought to a close on the 10th instant, ninety-one candidates had been examined, against sixty-one at the corresponding period last year.

Regulations of the Royal University of Ireland.

Sir,—Might I trouble you for some further slight explanation of a paragraph which appears in the Journal of October 29th, in connection with the regulations of the Royal University of Ireland? Is it intended to mean that, with a view of meeting the case of those who are actually in practice, etc., the Senate shall have the power of granting exemption from the matriculation and first university examinations, and that, therefore, they may obtain the M.B. degree upon passing the professional examination, without residence?—I am, etc., W. E.

* 1. It is incumbent on everyone to pass the Matriculation Examination. It is only the "First University" Examination which can, under certain conditions (not yet determined) be omitted. 2. Residence is not necessary for any of the degrees; and, in the case of medical degrees only is attendance on prescribed courses of lectures requisite. The institutions recognised for this purpose are very numerous and widespread. 3. Even those students who are permitted to omit the "First University" Examination will be required to pass the three Medical Examinations; this in itself will require three years. And it seems that the Senate has made no provision for the admission of those who already hold medical diplomas to the Degree Examination at an earlier period than after the expiration of the full four years.

Antiseptic Inhalations.

Sir,—As some of your correspondents are asserting their claims to priority in the treatment of lung-disease by antiseptic inhalations, it may not be amiss to recall the fact that this treatment, in one form or the other, is really ancient. We can see that the germ of the idea was in the mind of medical writers in the sixteenth and seventeenth centuries, when they directed their fumigations with various balsamics, "which is to be done by throwing the ingredients on red coals, and receiving the fumes through a proper tube directed to the windpipe". It was further developed fifty years since by Garmul, Scudamore, and Crichton, who severally recommended the inhalation of chlorine, iodine, and tar-vapours; while two of the substances now employed, namely creasote and the terebinthinates, were specially mentioned by Dr. Copland in his *Medical Dictionary* as valuable remedies in phthisis and chronic bronchitis.

The only novelty in the modern procedure is the use of a respirator as a medium instead of an inhaler, and I question if it be so great an improvement. My own experience leads me to prefer having the vapour of the drugs in question diffused in the air of the room by means of a bronchitis-kettle, the solution being dropped from time to time on a small piece of sponge placed within the mouth of the steam-pipe. The vapour being thus constantly inhaled, and in a state of greater dilution than when a respirator is used, affords equal benefit, and is more agreeable to the patient. It was precisely this form of inhalation that Dr. Copland recommended in his article on Tubercular Consumption, published more than twenty years ago. But, setting aside the claim of originality, it is only fair to admit that those who have revived the use of antiseptic inhalations deserve great credit for calling attention anew to a remedy of unquestionable value.—I am, sir, your obedient servant,

Henry Taylor.

Guildford, November 5th, 1881.

Horny Growth.

Sir,—I send you a horny growth which I have removed from a patient, also a sketch of the excrescence *in situ*, which measured on removal one and a half inches. The patient, who was a dock-labourer at Sunderland, stated it had been growing about two years, and the reason that he assigned for "wearing" this curious appendage so long was that "he had been told if he had it cut off his ear would turn into cancer".—I remain, sir, your obedient servant,

Richard Ellis, F.R.C.S.Ed., Senior Surgeon, Newcastle-on-Tyne Throat and Ear Hospital

Newcastle-on-Tyne, November 4th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

SANITARY ADMINISTRATION OF ASSAM.

SIR,—No doubt facts are stubborn things, but, at the same time, they are very fallacious, barring figures, which are more so. That mortality is high in Assam is true, but that it is exceptionally so as compared with other parts of India is open to doubt, if the climate be taken into consideration; to compare the mortality statistics with that of home is absurd. People here, and even in India, talk very glibly of Assam, though probably if asked to point the province out on the map they would be rather puzzled; all they know is "that it is where the tea comes from, and I somewhere near China is it not?"

I have been connected officially with Upper Assam for the past ten years, and my duties have been mainly with sanitary matters connected with tea-gardens and their coolies; and I may, therefore, speak with some degree of knowledge on the subject. That mortality is high I grant, but at present I do not see very well how this can be altered. Rome was not built in a day, nor can a malarial unhealthy climate be rendered pure and healthy by a stroke of a pen. It was not so very long since, speaking comparatively, that London and other places that rather seem to boast and plume themselves on their healthiness, were anything but so; and even now, the horrid filth and dirt allowed to remain in the streets, dustbins, etc., to pollute the air, is something appalling; you are by no means the city of Hygeia that you seem to imagine yourselves. Bring the tropical sun of India to bear on this mass of corruption for weeks and months together, and see where you would be. You had a slight taste of high temperature, and you may thank God it did not last, or the consequences might and would have been serious.

Now Assam, very few years ago, not much over a quarter of a century, was one dense, almost impenetrable, jungle, the earth composed of rotting leaves of trees and of trees themselves—rich and glorious land for planting, but most deadly to human life; then comes the planter, clears and plants the land, hoes it up and turns it up in various ways, exposing it to the intense strength of a tropical sun, and naturally sets free miasma, malaria, or whatever you like to term it. To perform this, coolies from other parts of India have to be brought into the country, its indigenous inhabitants being too few and too lazy or careless to care to work. They are naturally exposed to disease, and do become diseased; but, year by year, this is lessening, and Assam is becoming more and more opened out and cleared of jungle, whilst cultivation is taking its place. Ten years ago, I can remember large tracts of forest and grass land which are now extensive tea-gardens. All this tends, and is tending, to render Assam healthier. Roads are opening out, and consequently causing a free current of air to circulate, and take the place of stagnating malaria. One of the causes of unhealthiness amongst coolies was undoubtedly water, which has been for years very bad, containing all kinds of organic impurities; but if the condition of the country be remembered, is this to be wondered at? Planters are fully alive to the necessity of good water, and are striving in every way to obtain such; but here, again, comes in a remark I made nine years ago, you may provide coolies with pure potable water, but will they take it? I have seen, over and over again, coolies stop at a ditch or pool of water filthy in the extreme, and drink this, because it did not suit him to go a few yards to the well providing him with good drinking water. Coolies are yet very child-like—not to say bland—and, like children, will do things they ought not to do. Certain rations of rice, ghee, etc., are provided by the Act at a certain fixed rate, and shops are near, or in all tea-gardens, where he can procure such things and other luxuries if he cares for them, but he will not always do so, and will buy trash and sweets and gay clothing for his back, instead of proper clothing for his stomach. Childish this, very childish! but is he the only child in this world? Are not many countrymen in some parts of Western Europe very similar?

When tea began to develop itself, there was a consequent rush of labour, and any and every two-legged animal that could or could not work a hoe was imported, fit or unfit, and more of the latter than the former. This has been greatly modified and altered, and great pains are taken to weed out and reject those unfit for labour.

India has suffered greatly from famine in past years, and the panacea was emigration to the tea districts; tea wants labour, coolies want tea, &c., wages, etc., send the poverty-stricken labourer to the tea districts, and so fill two wants. Unfortunately for the experiment, the coolie happened to be too far gone, and could not labour, but preferred to lie down and die. This was felt for years afterwards in Assam, and caused mortality to be high; and I am fully convinced we have not yet lost its effects, but still feel the importation of such coolies; some still linger on for a few years, whilst the children brought up have not all improved, and many still carry the effects of the famine in their bodies, and on any provocation readily succumb to disease. Any labour from any part of India was considered suitable for Assam; the direct contrary is the fact, and but very little labour, and that only from certain parts of India, is suitable. All "jungly" coolies, as we call them, are good; but denizens of towns and many districts of India are quite unsuitable. Madras, Bombay, and most North-West Province coolies do not do well in Assam, at least at present, though in years to come I believe they will. Southalia and Cheta Nagpur are our best recruiting grounds, but then they are limited; and, alas! tea is like the horse-leech's daughter, and cries out for More, more.

From my own personal knowledge, I know planters are only too willing to learn, and most ready and thankful for any hints with regard to sanitation, or what in any way will promote the welfare and health of their coolies; but, as above stated, coolies will not always obey orders. Is our own labourer or townsman a bit better? As far as I can see, he is rather worse, and it is lucky for him he has a mild climate to deal with. It is very easy for the inspector of labourers or a magistrate to ride into a factory, and say, Do this, and that; drain here; build a wall there; remove this row of houses; clear away this jungle; clean up and fill in those holes, which are only the receptacles of filth. I say it is very easy to say this, for I have said it over and over again, at the same time wondering how the unfortunate manager of the garden was going to do it, and even if done, how long the coolies would let it remain. The marvel is, the beautiful state in which most coolie lines are kept, and the well built houses and cook-houses. I am by no means exaggerating or romancing, when I say that, taken the general appearance of tea-garden coolie lines, these will beat for cleanliness any or all your home hamlets, villages, and slums of majority your town streets, in your towns and cities.

Facts and figures are stubborn things I know, and look appalling when seen in our annual reports; but please look into them and discuss them before passing judgment. For example, just before I left Assam in turbulent, I might say cholera, in which the deaths from cholera had been excessive, as well as I can remember now, about twenty-seven or twenty-eight out of seventy. But was the planter in his factory to blame for this? Mr. O'Donnell would say Yes. I say No. These coolies had been all carefully recruited by the manager himself in Cheta Nagpur, and who had further marched them to the garden with them, and attended to them personally during the whole time they were in transit. They reach their garden late one evening, and the manager, to his horror, discovers that his head native assistant is stricken with cholera, and that, previously to this, another or more cases had taken place in the garden, but of which he knew nothing. The cholera had arisen in and been brought to the garden from the neighbouring Assamese villages. In an annual report, would not such an event [illegible] and render the readers who knew not Assam to consider there is something very rotten in the state of Denmark if such things be; and yet, who's fault was it? Not the coolies, not the manager's, nor the unfortunate introducer of the cholera into the garden. These things will and must occur for years yet, and in spite of all the pamphlets ever written. Let us remember that it is but to be *lente sed certe*, and not to become hysterical about the beams in other people's eyes until we have got rid of the mote in our own.

In conclusion, I beg to state that, taking everything into consideration, the death-rate of Assam tea-gardens, though high—nay, very high—is not to be wondered at, and that, not so very many years hence, I am fully of opinion that our death-rate will not be higher than other parts of India, if so high. With that of this favoured land, all that I can say is, that our sanitation [illegible] far above that I see around me; and given a climate that we have to contend against, there would be few of you to bury your dead, much less to write sensational articles inveighing in a wholesale sweeping manner against government, officials, planters, etc.—I am, sir, your obedient servant,

T. D'ORVILLE PARTRIDGE, Inspector of Labourers, Upper Assam.

13, Park Place, N.W., September 17th, 1881.

A JUNIOR MEMBER does not state what remedy he has employed, and whether the case has anything to take it out of the ordinary run. A great number of remedies are recommended in the ordinary text-books.

THE CLIMATE OF VENTNOR.

SIR,—I could have no wish to impugn the correctness of the meteorological observations as recorded at the Royal Hospital for Consumption; and if the note which I appended to the July observation had been more carefully read, it would have been at once seen that all I did was to direct attention to an apparent discrepancy in the results obtained at Ventnor and St. Lawrence, as compared with those at the Hospital. An error in the readings, which will account for some of the difficulty which arose, appears to have occurred subsequently to the 14th, by placing the maximum observation to the day on which it was made, and not to the preceding day, as usual.

My only object was to deal with the fact of an apparent discrepancy between the observations at Ventnor and St. Lawrence on the one side, and that of the Hospital on the other. The discrepancy still exists, and has yet to be accounted for; though it by no means follows that the observations were incorrectly made.—I am, sir, your obedient servant,

JOHN L. WHITEHEAD.

Belgrave House, Ventnor, November 7th, 1881.

RESPIRATORS.

SIR,—It would be helpful to some of us who are looking for the usual results of the coming winter if Drs. Coghill and Cosgrave would kindly state the price of their respirators, and the name of the instrument-maker.—Yours truly,

A LEARNER.

DELTA.—At each university certain text-books are recommended, of which a list can be had on application to the registrar of the university.

PEMPHIGUS GANGRENOSUM OR VARICELLA GANGRENOSA.

SIR,—In the discussion at the Royal Medical and Chirurgical Society on what Mr. Hutchinson terms gangrenous varicella, I note his allusion to the disease described by Dr. Whitley Stokes. In my student days, I saw many cases of that disease, which we then called pemphigus gangrenosus. In the days of our unmatched prosperity, when we were seven millions, and the peasant's diet in winter was the potato alone, unless varied with a dish of wild brassica, the children in poor parts of Ireland often suffered from this disease. I have also seen it induced by proximity to foul cesspools. In popular language, it was called "burnt holes"; and a sovereign remedy, generally practised by the local "Lady Bountiful", was an ointment made with the leaves of the [illegible], which, in addition, milk, broth, and wine, the value of the ointment is difficult to define. I do not think that I have seen a case since 1848, when the people began to use better food.—I am, etc.,

JAMES MARTIN.

Portlaw, October 29th, 1881.

P.S. A cousin of mine, a country gentleman, who had a name for this ointment as a secret in his family for years, often had a number of cases brought to him for treatment; and I have known him to kill a calf for the benefit of his patients.

IMPERFORATE RECTUM.

SIR,—I was called on to attend a woman in her confinement last week; and even after the confinement I was informed that the child had no sign of a rectum, or any passage to allow the bowels to move through. This was noticed by the child's grandmother, a rather intelligent person of her class, as she determined on giving a soap enema to the child on seeing no motion, though she had given it a little castor-oil. On examination, I found a large fissure and no sign of an external orifice. At this time the scrotum was black, and the entire colour of the child a deep yellow. I made an opening at the point where the orifice of the rectum should be in the natural state of things. I then introduced a small trocar and cannula; when in the full depth, an escape of wind rushed out at first, and I felt the trocar and cannula move freely in the rectum, and a teaspoonful of very black blood flowed away. I then gave a small [illegible] enema, and a [illegible], after which I introduced a tent of oiled lint to prevent closing. The bowels moved freely, and no signs of inflammation set in. Had not the grandmother noticed the case, evidently the child would be unnoticed until inflammation of the bowels had caused its death.

This case affords an indication that the medical attendant must sometimes take responsibility, for many mothers have not noticed at the birth of the child as we too often do consider, and even the friends of our patient very often consider, fearing we pay unnecessary visits to [illegible]. I am, etc.,

M. L. CORNACCHIA, M.R.C.S.I., etc.

1, Albert Terrace, Belfast, September 24th, 1881.

MEMBER R.M.A.—We [illegible] to the [illegible] we do not understand why it should be [illegible] man is called upon to make an [illegible] under the circumstances stated.

Fees for Certificates.

SIR,—Touching Mr. W. H. Michael's Bill for the notification of infectious diseases, might I ask if Mr. Michael (who is, I presume, a barrister) were legislating for the performance of duties by a lawyer, would he name 2s. 6d. as the fee? Medical men are obliged to work for very small fees, but then they are paid by the poor, who must otherwise do without the medical attendance. It is quite another thing when the Government is the debtor. A proposal of low fees by a lawyer is an anomaly, considering that they never work gratuitously themselves, and that their fees are high; but from a medical barrister, such a proposition is almost absurd. A solicitor, for like service, would charge 6s. 8d. Why should a doctor get less?—Your obedient servant, EXCELSIOR.

*** The fee of a solicitor for fulfilling the functions of Commissioner of the High Courts of Justice, in taking affidavits, filling in and attesting the same, is a shilling.

N. R. H. should apply to a certain whether his name is on the *Register*, to the Secretary of the General Medical Council, Oxford Street. If it is, he might apply for advice to R. H. S. Carpenter, Esq., 130, Stockwell Road.

Treatment of Diphtheria.

SIR,—My own opinion with regard to nitrate of silver is, that it is harmful in all cases of throat-affection except strumous enlargement (early stage) and syphilitic ulceration of the tonsils. Perchloride of iron also is of very little service except in a relaxed condition of the fauces. The best local application, as far as I have seen, is boracic acid. The throat should be painted frequently with the following solution. Boracic acid, twenty grains; glycerine, half a drachm; compound infusion of roses to the ounce.

Drs. Cossar Ewart and Malcolm Simpson, in speaking of its action, say: "Pieces of the membrane which had been brushed with a saturated solution of boracic acid, when placed on the warm stage of the microscope, showed the characteristic bacilli, but these were absolutely innocuous; and, instead of lengthening into spore-bearing filaments, micrococci bacterium termo, or torula, appeared in their stead. By the use of the acid, the disease was shortened, and the other members of the family were protected from infection."

As regards internal treatment, I think it is perfectly agreed that iron is the remedy *par excellence;* combined with dilute nitric acid and chlorate of potash, it seems most effectual. Of course, plenty of good beef-tea and carefully regulated quantities of port wine are required to keep up the patient's strength and circulation. My own experience of this treatment is so satisfactory, that I should like others to give it a trial, and mention the results obtained.—I am, sir, your obedient servant, F. P. ATKINSON.

Kingston-on-Thames, November 1st, 1881.

A New Remedy for Hiccough.

SIR,—Being troubled the other day with an attack of hiccough, it occurred to me that the inhalation of tobacco-smoke might prove beneficial. I was surprised to find that it gave me instantaneous relief. Since then, I have tried it in several other cases, and have invariably found the attacks to be immediately arrested. It is true that the inhalation of the fumes frequently causes considerable personal inconvenience, and in some cases may be objectionable; yet the action of the "fragrant weed" is so remarkable, that it is, perhaps, deserving of note. It is, of course, possible that the same result might be obtained from the inhalation of stramonium, etc., but of this I cannot speak with any certainty.—I remain, yours truly, R. H. P.

Attendance on Families of Medical Men.

SIR,—I shall feel much obliged if other medical men will give an opinion on the subject of charging for attendance on the widows of medical men and their families. I have attended such a family; the widow resides in her own house—one of several belonging to her—which is worth over £100 a year's rental; and, having sent in an account for my services, I was told by the above-mentioned lady, not only that "my account was very high"—I charged five shillings a visit—but that it was unusual to charge at all in such cases. On expressing my opinion on the matter, I was told that "if my conduct were published in the medical journals, it would look very eccentric". I replied that I would myself publish it, which I now do.

My own opinion is, that we ought always to charge for our attendance on the families of deceased medical men when they are left comfortably off. I am aware that many do not so charge, but I fear that in many cases the non-charging is from want of moral courage.—I remain, yours faithfully, H. B. BLACKBURN.

129, Ladbroke Grove, W., November 2nd, 1881.

Nil Novi sub Sole Accidit.

SIR,—In your JOURNAL of June 18th is published an article by Henry Netherclift, Medical Superintendent of the Chelsea Infirmary, on the "Direct Method of Artificial Respiration for the Treatment of the Drowned", still-born, etc. This is undoubtedly a great improvement on Sylvester's and Dr. Marshall's systems, as any anatomist and physiologist might at once see. However, it is not new. From infancy, I can remember stories of resuscitation from drowning told as follows. When any person was "taken out of the water", the following plan was adopted. A bystander was induced to lie down on the ground. At right angles across him was laid the (supposed) drowned person, whose stomach was supposed to rest on the party laid down. Another party held firmly the back and head of the drowned man (clutching the hair in his hand) to prevent the bending of the neck, and consequent choking. Another bent the drowned man's legs on the thighs, and the thighs on the abdomen, and used this as a pump for expelling the water from the stomach and linings. No mention was ever made of any attempt to fill the lungs on the bellows principle, as so ably and graphically described by Mr. Henry Netherclift.—I am, etc., RICHARD MCDOUGALL.

Murrumburrah, New South Wales.

N.B.—The above description may be heard of any day about Dumfries and other places in the south of Scotland.

Recession of the Gums.

SIR,—In answer to "An Old Member of the British Medical Association", I beg to suggest that, as the presence of tartar both below and at the edge of the gums is one of the chief causes of receding gums, this must be removed, after which the patient should be directed to use a soft tooth-brush, and occasionally paint the gums with glycerine of tannic acid. There are, of course, other causes, such as loose teeth, etc., which require appropriate treatment; but space will not allow me to explain here. Full information on the subject can be obtained from Tomes's *Dental Surgery*.—Yours faithfully,

CHAS. W. GLASSINGTON, M.R.C.S.Eng.

105, Fulham Road, South Kensington, S.W., November 5th, 1881.

Dr. Neale's "Medical Digest".

SIR,—In the commendatory notice you gave of the proposed second edition of the *Digest*, you are scarcely fair to your own Journal or to myself. It was no want of appreciation of the BRITISH MEDICAL JOURNAL that made me omit it specially from the list of journals referred to; but unfortunately, at the time I began my career, the JOURNAL did not exist; and, during the years I was abroad in Java, I assure you it was hard work to digest the contents of those journals that had been my earliest companions. You must remember that the *Digest* was begun and continued up to nearly the end of 1876, without any idea of publication, and then it appeared "on its own positive merits", not for what it did not contain, but because it rescued 100,000 to 120,000 valuable references from greater or less obscurity. Now let some one else perform a similar task for those periodicals I have left unnoticed. —I am, etc., RICHARD NEALE, M.D.Lond.

60, Boundary Road, South Hampstead, N.W., October 15th, 1881.

We are requested to state that the present address of Dr. Thompson, the Honorary Secretary of the Irish Graduates' Association, is 1, Florence Terrace, Ealing, W.

Fees in Manufacturing Districts.

SIR,—What are the highest fees that a surgeon and apothecary, practising as a general practitioner in a manufacturing district, can charge for his attendance and medicine, and for prescriptions? Is there any rule or scale on the subject?—I am, etc., A GENERAL PRACTITIONER.

Sea-Sickness.

SIR,—Dr. Gibson has given an excellent *résumé* of the best therapeutic measures for the relief of this distressing malady; but is the rational treatment not as much mental as medicinal? After some experience of seafaring life, I came to the conclusion, several years ago, that sea-sickness was, in the great majority of cases, simply the product of fear, nervousness, and timidity. People go to sea with the expectation of being sick; and, as a natural consequence, they are not disappointed.

On my last voyage, we left New York with fourteen passengers, all males, most of whom were about to cross the Atlantic for the first time. As a sort of *experimentum crucis*, I took an early opportunity of expressing to each of them my conviction that sea-sickness was, to a great extent, preventible by an effort of determined will. The voyage proved to be an exceedingly rough one (it was the month of March), but I heard no complaint of the slightest sickness; and I am certain that none of them experienced any of the horrible sensations usually associated with *mal de mer*.

I have had no further opportunity of testing the correctness of my theory; but I am decidedly of opinion that a pinch of resolution will prove of more service to the intending seafarer than all the specifics in existence.—I am, etc., M.D.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Whitehead, Ventnor; Mr. E. White Wallis, London: Mr. Henry Taylor, Guildford; Mr. John Lowe, Lichfield; Dr. Saundby, Birmingham; Mr. H. J. Philpot, London: Excelsior; Mr. A. Jackson, Sheffield; Mr. S. Phillips Day, London; Mr. Lawson Tait, Birmingham; A General Practitioner; Skian; Mr. H. B. Blackburn, London; M. O. H.; Dr. J. W. Moore, Dublin: A Learner; M.B., Member; Dr. A. Carter, Birmingham; Dr. W. Snow, Bournemouth; Mr. H. L. Jones, London; Dr. F. P. Atkinson, Kingston-on-Thames; Mr. Lewis Lewis, Plymouth; W. T. L.; Mr. T. W. Hubbard, Tunbridge Wells; Mr. J. P. Stallard, Worcester; Mr. F. B. J. Baldwin, Rotherham; Dr. Bristowe, London; Mr. J. F. Le Page, Durham; An Old Member of British Medical Association; T. W.; Dr. A. B. GreatRex, Lawton; Inquirens; Dr. Braxton Hicks, London; Our Edinburgh Correspondent; Mr. G. Eastes, London; Dr. J. Rogers, London; Mr. J. Farrar, Morecambe; Mr. K. H. Buckler, Paris; Mr. Henry Powell, jun., Weybridge; Mr. Arthur Kempe, Exeter; T. S. P.; A Junior Member; Mr. Charles Cottle, London; Mr. J. Kendall Burt, Kendal; R. H.; Dr. Shuttleworth, Lancaster; Mr. T. J. Dyke, Merthyr Tydfil; Mr. Annandale, Edinburgh; Mr. Shirley Murphy, London; J. B.; Mr. H. Lewis Jones, London; Mr. Albert Napper, Guilford; An Undergraduate of Cambs. College; Delta; Dr. T. Gilbart Smith, London; W. A. G.; Dr. T. G. Atkins, Cork; Dr. Farquharson, Aberdeen; Mr. T. J. Verrall, Brighton; Dr. C. Cattle, Nottingham; Mr. E. Wilson, London; L.K.Q.C.P.I.; Mr. Frederick Wallace, London; Mr. J. Sharman, Eastbourne; Dr. John Haddon, Manchester; Dr. Norman Kerr, London; Dr. Rabagliati, Bradford; Mr. C. H. Roberts, Londoa; Another Certifying Surgeon; Our Aberdeen Correspondent; A General Practitioner (B.A.Cantab.); Mr. G. Padley, Swansea; Mr. C. B. Richardson, Brighton; M.D.; Dr. Sawyer, Birmingham; Mr. C. W. Glassington, London; Mr. Vincent Jackson, Wolverhampton; Dr. T. Barlow, London; Mr. B. J. Tuck, Seaford; Our Glasgow Correspondent, etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

CLINICAL LECTURE
ON
PNEUMONIA.

Delivered at the Liverpool Royal Infirmary.

By A. T. H. WATERS, M.D., F.R.C.P.,
Physician to the Infirmary.

GENTLEMEN,—I purpose in the present lecture to lay before you an analysis of a series of cases of acute pneumonia, which have occurred to me in my hospital practice. I have purposely not included in the series cases which have been treated by me in private practice, either alone or in conjunction with other practitioners, for the reason that such cases are not open to public criticism, and frequently cannot be observed with the same care and accuracy as are practicable with cases occurring in hospital. The experience now referred to extends over a period of more than twenty years, and includes the time from February 1861, to the present date. During that period, I have been physician to two large hospitals—first, the Liverpool Northern Hospital; and, secondly, that in which we are now assembled. Into the former hospital, a large number of seamen are admitted; and many of the cases of pneumonia which came under my care there occurred in men who were presumably in good health previous to the attack, which had come on suddenly after exposure to cold whilst doing their ordinary work on board-ship. I mention this fact as, I think, it has a bearing on the question of treatment, to which I shall have to refer.

The cases number one hundred and fifteen. They are drawn up in the table which I show you, which presents the leading features of each case—viz.: the initials, the age, sex, occupation, and previous health, as far as could be ascertained, of the patient; the date of the commencement of the attack, generally marked by the occurrence of rigor; the date of admission into hospital; the side and the extent of lung involved; the frequency of the pulse; the number of the respirations; the temperature, when taken by the thermometer; the treatment; the date of convalescence, viz., of the period when all active symptoms had subsided; when the pulse had fallen to a natural or nearly natural standard, 60 to 80; when the temperature was normal, and the patient able to take solid food. The table further includes the number of days during which the patient had been under treatment when convalescence was established, and the number of days which had elapsed from the beginning of the attack; the date of discharge, and the number of days the patient was in the hospital; and, lastly, the result, with remarks on the complications of the case, if there were any.

As to the age of the patients: under 10 years of age, there were three cases; between 10 and 20 years, eighteen cases; between 20 and 30, forty-six cases; between 30 and 40, twenty-eight cases; between 40 and 50, fifteen cases; between 50 and 60, four cases; between 60 and 70, one case. Ninety-seven patients were males; eighteen females. Many of the patients were strong, robust-looking men, in whom the disease had only existed for a few days before admission, the attack being distinctly traceable to exposure to wet or cold, or both.

The list includes men engaged in a great variety of occupations. There were seamen, porters, hawkers, stewards, tailors, etc.; one is described as a gentleman.

Of the one hundred and fifteen cases, the pneumonia was single in ninety-nine; double in sixteen. Of the single cases, the right lung was the seat of the disease in forty-four; the left in fifty-three; in two cases the side affected is not noted. Of the double cases, the right lung was most involved in five; the left in eight; both equally in three; only half in two; the base in one. In five of the single cases, the pneumonia was seated in the apex and upper lobe of the lung; and of these five, four occurred on the right side. In ten cases, the pneumonia was complicated with bronchitis; in seventeen, there was pleurisy with effusion; in two, there were symptoms of gangrene of the lung—one of these recovered.

Of the one hundred and fifteen cases, six died—viz.: Nos. 7, 55, 81, 82, 85, and 112—giving a rate of mortality of 5.21 per cent. No. 7 died from the result of sudden and extensive effusion into the pleura, after convalescence from the pneumonia had set in. No 55 was admitted into hospital in a sinking state, and died within forty-eight hours; hepatisation of the whole of the right lung being found after death. No. 81 was a woman of worn-out constitution, who sank from excessive diarrhœa. No. 82 had evidence of previous phthisis in one lung. No. 85 had gangrene; and No. 112 was a severe case of double pneumonia, in which death occurred on the third day after admission into hospital.

In reference to the period at which convalescence was established: in five cases, convalescence was established at the end of the third day of treatment; in fifteen, at the end of the fourth day; in eighteen, at the end of the fifth day; in eleven, at the end of the sixth day; in nine, at the end of the seventh day; in twelve, at the end of the eighth day; in seven, at the end of the ninth day; in seven, at the end of the tenth day; in four, at the end of the eleventh day; in four, at the end of the thirteenth day; in two, at the end of the fourteenth day; in one, at the end of the sixteenth day; in one case, at the end of the nineteenth day; in one, at the end of the twenty-second day; in one, at the end of the twenty-third day; and in two cases, at the end of the twenty-fourth day. In five cases, the date of convalescence is not noted.

The average duration of these one hundred and four cases, from the commencement of treatment to the period of convalescence, was 8.06 days.

But it is important to ascertain how soon convalescence was established from the commencement of the attack, as well as from the commencement of treatment. Most of the patients had been ill for a few days before they were admitted into the hospital.

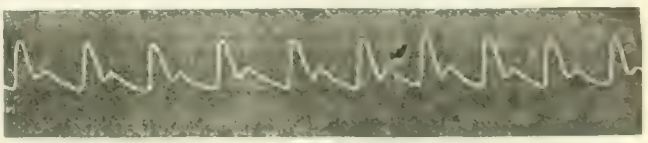
In eighty-one cases, I was able to ascertain the date of the commencement of the attack. Of these, eight cases were convalescent at the end of the sixth day of the attack; seven, at the end of the seventh day; eight, at the end of the eighth day; six, at the end of the ninth day; five, at the end of the tenth day; fifteen, at the end of the eleventh day; six, at the end of the twelfth day; four, at the end of the thirteenth day; four, at the end of the fourteenth day; four, at the end of the fifteenth day; three, at the end of the sixteenth day; two, at the end of the seventeenth day; four, at the end of the nineteenth day; one, at the end of the twenty-second day; one, at the end of the twenty-fifth day; one, at the end of the twenty-sixth day; one, at the end of the thirtieth day; and one, at the end of the forty-third day. This gives an average of 12.02 days for the eighty-one cases. In the remaining cases, the date of attack could not be ascertained.

The result of these cases, especially when taken in conjunction with others of which statistics have been given, tend to show that pneumonia, under the present mode of treatment, is by no means a fatal malady; and that, at least in the ordinary run of hospital cases, a mortality very little, if at all, exceeding 5 per cent. may be expected.

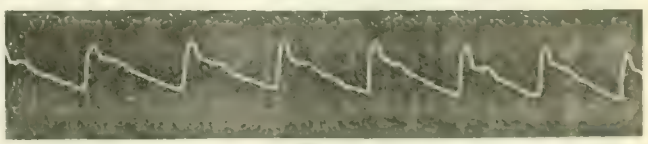
Before I proceed to make any remarks on the treatment adopted in these cases, I wish to make a few observations on some of the conditions which characterise pneumonia.

First, as regards the pulse. I do not wish to speak as to its frequency, but its character. Speaking generally, the pulse in pneumonia, although in many cases apparently full, is wanting in firmness, and indicates a feeble arterial tension; in fact, it is essentially dicrotic, and this dicrotism has been more or less marked in all the cases in which I have taken sphygmographic tracings of the pulse. I show you tracings taken from three patients.

Nos. 1 and 2 were taken from John W. (No. 77 of the series), a healthy-looking man, twenty years of age, who was admitted on May 15th, with pneumonia of the left lung. The pulse was 90, full, but soft and compressible. The tracing No. 1 was taken on the day after admission, being the fifth of the attack. You see it is essentially dicrotic. The man was treated with five grains of carbonate of ammonia with spirits of chloroform every four hours. On the 19th, the pulse was 56, and tracing No. 2 was taken. You observe that the dicrotism is only slightly marked; that, in fact, the pulse had become almost normal in its character.



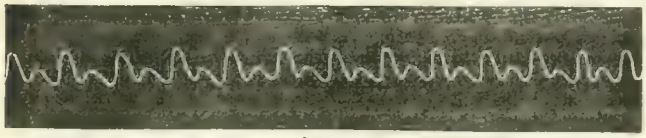
No. 1.



No. 2.

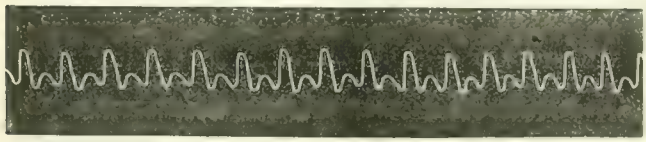
Tracing No. 3 was taken from James W., a sturdy young man, who was admitted into the hospital on the 4th of January. The attack, which was preceded by symptoms of derangement of the liver,

commenced on the 22nd of April, and the tracing was taken on the 23rd. It presents well-marked dicrotism. The patient was treated with carbonate of ammonia, and six ounces of brandy daily. He was convalescent on the sixth day.



No. 3.

Tracing No. 4 shows extreme dicrotism of the pulse. It was taken from a patient who was suffering from tubercular pneumonia. The man lingered for several weeks; he was admitted on the 5th April, and died on the 16th May. He presented all the features of that adynamic form of pneumonia which is associated with tubercle. After death we found both lungs studded with tubercles; the right solidified, with small cavities in the lower lobe; the left in a state of engorgement. The dicrotism of the pulse was perceptible to the touch. The tracing was taken on the 23rd April. Stimulants and nourishment were given freely throughout the attack, but the character of the pulse did not alter except to become quicker and weaker as the case progressed.

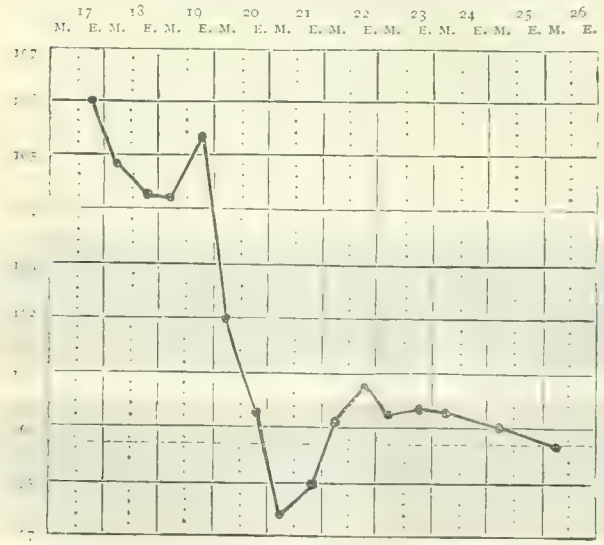


No. 4.

The comparison of these tracings with each other may, I think, be very instructive, and may show you that, should you be in doubt in any case, the sphygmograph may possibly give you valuable assistance.

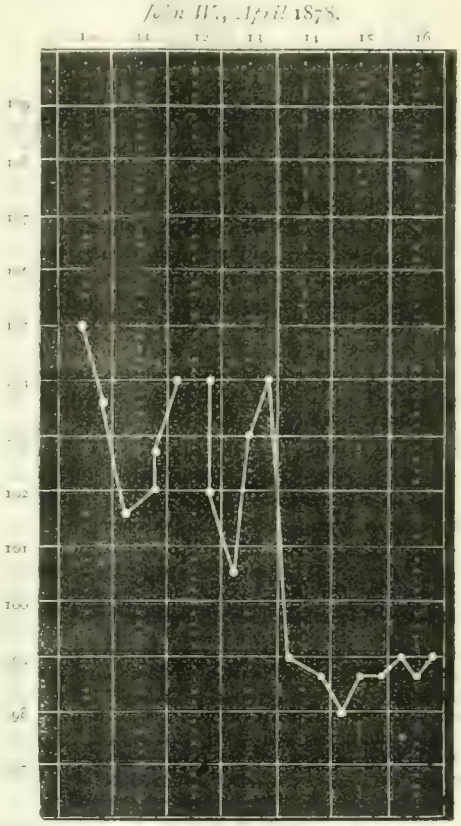
As regards temperature; before the introduction of the clinical thermometer into general use, the importance of observing the frequency of the pulse and of the respiration was insisted on, but now we also insist on the observation of the temperature; and this affords a most valuable guide as to the progress of the case. As a rule, it may be said that, in acute pneumonia, the temperature rises rapidly and reaches a high level in the early period of the attack; that for the most part the oscillations of temperature during the acute stage are not very great; that there are no marked remissions, as is the case with typhoid fever and acute phthisis. But there is a feature in the temperature of acute pneumonia which is very striking, viz., its rapid fall when what we may term the crisis arrives. I show you the temperature-chart of a case of very acute pneumonia in which this rapid defervescence is well

Robert T., January 1872.



marked (Robert J.). From the evening of the 19th January to the evening of the 20th, viz., within twenty-four hours, the temperature had fallen six degrees; viz., from 105.4 to 99.4; and on the following morning it was below the normal. Now although, as a general rule, whenever the temperature makes a decided fall in pneumonia, we may consider the case is practically over, it would be very rash to come to this conclusion in all cases. Indeed, we occasionally find that there is more than one well-marked fall, with subsequent rises, before the final defervescence occurs. The chart which I now show you illustrates this point very well (John W.).

John W., April 1878.



When three records are given, the temperature was taken at 9 A.M., 5 P.M., and 9 P.M. On April 15th, the temperature was observed at 1 P.M., when it was at the same height as at 5 P.M.

The temperature in pneumonia reaches a high level in some cases. It rarely, however, rises above 106° in the axilla. In the series of cases referred to in the table where the temperature was taken, there is only one instance in which the temperature reached 106°. In only a small proportion of cases did the temperature pass beyond 105°; the highest recorded temperatures in cases ending favourably that I am acquainted with are 106.7° by Ziemssen, and 107° by Kocker. In fatal cases a temperature of 108.9° and 109.4° has been reached before death. In some of the worst cases of pneumonia, those which assume a typhoid character, the temperature maintains a somewhat low level—102° to 104°.

The occurrence of a prolonged and well-marked rigor as an initial symptom of pneumonia is a well-known fact. In the series of cases, it was very distinctly ascertained to have existed in a large number, but in others its existence could not be satisfactorily made out.

Although pneumonia undoubtedly has a tendency to terminate favourably after a certain number of days, by rapid defervescence, by so-called crisis, yet the duration of cases differs very materially, depending on a variety of causes; and no precise rule can be laid down with reference to the time any given case will last.

The table shows that, of the one hundred and ten cases which recovered, the largest number were convalescent at the end of the fifth day of treatment, viz., eighteen; then there were fifteen on the fourth day, and twelve on the eighth.

The table also shows that, in the eighty cases in which the date of the commencement of the attack was clearly ascertained, convalescence set in in the largest number—fifteen—at the end of the eleventh day; whilst there were eight at the eighth day, and seven at the seventh.

Some cases of pneumonia are ushered in with severe gastric disturb-

ance, bilious vomiting, etc.; whilst, in a few, the attack is preceded by a distinct attack of jaundice.

In five of the cases in the table, the pneumonia was situated in the apex and upper lobe of the lung. These cases of apex-pneumonia often present features of great interest. I have seen several of them, and they have been marked, especially when occurring in women, by profound disturbance of the nervous system. Delirium of a most violent kind, sometimes assuming a maniacal character. Usually such cases do well, but they always give occasion for great anxiety, for a pneumonia of the apex is usually an indication of one of two conditions, either of the presence of some tubercular deposit, or else of a depraved and vitiated constitution.

I now proceed to speak briefly of the treatment which was adopted in these cases. In no instance was venesection practised. Only three patients were cupped, viz., Nos. 2, 7, and 9. In only three cases were leeches applied, viz., Nos. 3, 5, and 7. In Nos. 1 and 13, leeches had been applied before admission.

In twenty cases only—twenty of the early numbers of the series—antimony was given in small doses varying from one-quarter of a grain to one grain and a half, except in two cases, Nos. 2 and 6, in which it was given in doses of three-quarters of a grain and a grain.

Mercury, viz., calomel, was not given in any case. In one case, No. 10, I gave blue pill twice a day for six days, but no soreness of the gums was produced. In no other instance was mercury given except as a purgative, in combination with some other drug, at the commencement, or during the course of the treatment.

In a large majority of the cases—in over ninety—carbonate of ammonia, with spirit of chloroform and cascarilla, was given from the beginning of treatment and throughout the attack. For the cascarilla, cinchona or senega was occasionally substituted.

In a large majority of cases—more than eighty—some alcoholic stimulant—wine or brandy, more frequently the latter—was given early in the disease, usually from the beginning of treatment, and continued throughout the attack. The stimulants were given at regular intervals every hour, or every two, three, or four hours, frequently with food—beef-tea or milk. In the most severe cases, brandy was given every hour, or hour and a half. The quantity varied; it rarely exceeded six ounces daily. In a few instances, it was eight ounces, and in three, twelve ounces. In some of the milder cases, no alcoholic stimulants were given, carbonate of ammonia and spirit of chloroform with cascarilla being alone used.

In a few cases, quinine was given; and I wish to observe that I consider quinine in rather full doses a very valuable therapeutic agent in some cases of pneumonia of an adynamic type. In two cases of the series, it was given to the extent of sixteen and twenty grains daily, and a marked improvement followed its exhibition. Both these were cases in which the pulse reached 140; one was in a pregnant woman, who aborted during the attack.

Mild counter-irritation was always resorted to; large mustard and linseed-meal poultices were for the most part applied throughout the attacks; blisters were never used in the acute stage, and only occasionally during convalescence, when the matters effused into the lung were being slowly absorbed.

In every case, nutrients were allowed freely, viz., beef-tea and milk from the beginning of treatment, and solid food as soon as the patients could take it.

ST. JOHN'S AMBULANCE ASSOCIATION: DINNER TO MAJOR DUNCAN, R.A.—The members of the London Medical Staff of the St. John's Ambulance Association dined together at Limmer's Hotel, on Wednesday, October 26th, to do honour to Major Duncan, R.A., the Director of the Ambulance Department of the Order of St. John of Jerusalem in England. Dr. Sieveking occupied the chair, and was supported by Sir William Mac Cormac, Surgeon-Major Baker, and others, to the number of twenty-two. In the name of the company, the Chairman conveyed to Major Duncan the object of the dinner, namely, to thank him personally for the kind and courteous way in which he dealt with the medical men connected with the Association; to assure him that, in his work, he had the hearty co-operation of those best fitted to judge of the work, the medical staff themselves; to encourage him to continue his work, and rest contented that, whilst the work of the Association was carried on in its present well regulated form, he would enlist the sympathy of the medical profession and of all classes of the community. Major Duncan, in replying, laid the modest aims and objects of the Association before the company in his usual firm and enthusiastic way; and his speech was marked by the keen feelings of sympathy so strongly characteristic of his nature.

HYDROPHOBIA: ITS PATHOLOGY AND PREVENTION.*

By JOSEPH EWART, M.D., F.R.C.P.,
Retired Deputy Surgeon-General, Bengal Army, etc.

1. *Morbid Anatomy.*—The few observations I propose to make in this communication will have special reference to the pathology and prophylaxis of hydrophobia in man. In a series of papers contributed to the *Lancet* in 1855-56, Mr. Netten Radcliffe has published a very comprehensive account of the symptoms, etc., of the disease in 109 well reported and authenticated cases. He has also furnished us with a careful analysis of the *post mortem* appearances in 46 cases of communicated hydrophobia. The abnormal appearances consisted principally of intense congestion of the arachnoid and pia mater in the cranium and spinal canal, engorgement of the choroid plexuses and velum interpositum, a certain amount of red or sanguinolent serum and corresponding turgescence of the hemispheres of the brain, cerebellum, and central ganglia. "The medulla oblongata and pons Varolii were found injected in four cases. In one of these cases, the injection was slight; in another, it was more marked near the region of the auditory, facial, pneumogastric, glosso-pharyngeal, and hypoglossal nerves; and, in a third case, there was inflammation of the pia mater covering the medulla and pons". Much vascular injection was noted in particular nerves, as in the ulnar, "in the upper arm and axilla of the bitten limb"; in the membranous investment of the origins of the eighth, fourth, fifth, sixth, and seventh nerves. Some of these nerves resembled muscular fibre in colour and appearance, as did also the branches of the cutaneous nerves leading from the cicatrix." Again, "there were evident signs of inflammation at the origin of the filaments of all the cervical spinal nerves exposed, but not at the origin of the lumbar nerves. These observations were, in the main, confirmed at the *post mortem* examinations of the two Glasgow cases, under Drs. Dunlop and Patterson." The veins of the encephalon were distended with blood, which, in the longitudinal sinus at least, was fluid. The surface of the arachnoid was smeared with blood-tinged fluid over the hemispheres, and there were a few ounces of similar fluid in the ventricles. Portions of the nervous system, the cicatrix and skin around, with the corresponding nerve up as high as the elbow (patient bitten in left ungual phalanx, etc.) were preserved and hardened in alcohol and chromic acid solution. (1) In the vicinity of the cicatrix, and about an inch around it, the skin and its subjacent fat "were infiltrated with round cells, which in some parts were so abundant as to have caused absorption of the fat, the adipose tissue being replaced by round cells" (Dr. Joseph Coats, *Lancet*, February 3rd, 1877, p. 162). Dr. Coats further remarks that, in some of the blood-vessels, there was disintegrated blood-clot, and a "peculiar condition", consisting "in a production of clear, transparent, globular bodies, which look like drops of an exuded fluid, just inside the blood-vessels along their internal wall". (2) Dr. Coats also found, at very frequent intervals, "an accumulation of round cells in the perivascular spaces of the medium sized vessels" of the encephalon. The extent of this lesion was not uniform or continuous. "In some sections, there were, at one side of the vessel, a few corpuscles lying loosely outside the wall. From this there were all degrees of the lesion, till, in some specimens, these bodies formed a thick mantle around the vessel, lying in masses several rows deep. This lesion was not confined to the medulla oblongata, but existed in the spinal cord as low down as the middle of the dorsal region, and in the pons and crura cerebri. In the convolutions, it was also present in a very minor degree." Round cells of the same sort were discovered around many of the ganglionic cells and in the territories between them, in some instances in such numbers as to completely bury these centres of power. A number of amyloid bodies existed; and in only one of the numerous sections made, had there been any blood extravasated. The nerves of the arm and hand up to the cicatrix were all healthy.

Professor Maurice Benedikt, it would appear, had previously described somewhat analogous revelations from many examinations of rabid dogs, and one case of hydrophobia in man (Virchow's *Archiv*; *Lancet*, March 10th, 1877, p. 358). The round cells of Coats he terms nuclei surrounding the ganglion-cells, and forming here and there clear spots in the substance of the cerebrum. "He regards the clear spots as being formed by the fine molecular basement-tissue of the cerebral substance, from which the morphological elements properly belonging to it have been, so to speak, macerated out." He has further noticed hyaloid masses in the [illegible]

* Read [illegible]

lumen of the vessel, or bursting through its adventitia. "Careful examination enabled him to satisfy himself that these hyaloid masses originate from the corpuscles of the blood, and chiefly from the red corpuscles, which lose their pigment, enlarge, undergo alterations in form, and become confluent, after which they are transformed into diaphanous masses, that constitute the transparent globular bodies, looking like drops of an exuded fluid, discovered by Dr. Coats" (*Lancet*, March 10th, 1877, p. 353).

Dr. Gowers showed, at the meeting of the Pathological Society, on May 15th, 1877, "an extensive series of microscopical sections exhibiting the changes in the medulla oblongata and spinal cord in four cases of hydrophobia". Both as regards the congestion of the blood-vessels and lesions in the circumvascular sheaths and in the vicinity of ganglionic cells, there is much general agreement with the results of the microscopical investigations of Benedikt and Coats. Thus, "in all the four cases, the vessels of the grey matter were greatly distended, the distension being greatest in the medulla near the grey nuclei in the lowest part of the fourth ventricle". Then variable aggregations of the round cells of Coats, of the nuclei of Benedikt, and of the small cells of our author in the circumvascular lymphatic sheaths, and scattered through the tissue among the nerve-elements, are mentioned. Near the hypoglossal nuclei, dense collections of these cells existed, constituting, in the words of Dr. Gowers, "miliary abscesses". Smaller masses were interspersed "among the fibres of origin of the hypoglossal and glosso-pharyngeal nerves". Areas of granular degeneration existed in the closest proximity to the vessels. Sometimes, *ante mortem* white clots were found in the large veins in process of metamorphosis; "portions being different from the rest, darker, granular or spongy in aspect", and occasionally simulating embolism. In a small vessel with a swollen coat, the contained clot was proportionately reduced in circumference; and "in this vessel there were round cells in the perivascular sheath, and leucocytes accumulated in old clot and within the substance of the swollen inner coat, affording strong evidence that the cells outside were also migrated corpuscles".

The changes in the nerve-cells were by no means so distinctly developed, consisting merely of slight tumefaction, in moderate granular degeneration in their interior and around them here and there. Such as they were, "these changes were most intense in and about the hypoglossal, pneumogastric, and glosso-pharyngeal nuclei; slighter in the nuclei of the auditory, facial, and fifth nerves; slighter also in the cord, and still slighter in the upper part of the pons". The maximum amount of nerve-change and degeneration was found in the region of the "respiratory centre". In one case, in which the lesion was intensified in this centre, respiratory spasm was unusually severe; in another, in which the lesion of the hypoglossal nucleus was very marked, at the beginning of each spasm, "noise, as of the tongue being smacked against the roof of the mouth", was audible.

II. *Etiology.*—Whatever views may be held concerning the possible spontaneous generation of rabies in the canine and feline races, there can be no doubt that in man it is invariably communicated. "Very many of the best observers, recent as well as old, such as Blaine, Garratt, Magendie, Dupuytren, Breschet, Schröder, Adam, St. Cyr, Puech, Boudin, Virchow, and others, reject the theory of spontaneous development." (*Cycl. of Med.*, vol. iii, p. 441, 1875.) There is generally the history of the patient having been bitten by a dog or cat in this country; by the dog, cat, fox, or wolf, on the Continent; by the dog, cat, fox, or jackal, in India; or by any of these or their congeners in other countries. There is usually sufficient proof that the animal is either actually rabid, or, owing to its having afterwards become the subject of hydrophobia, that it was passing through the period of incubation, during which the blood and saliva may have been infected by relays of virus from the part originally poisoned. Indeed, it is quite possible that man may be infected by an infected animal, without the latter ever becoming affected with rabies at all. Sometimes the evidence is defective and conflicting. Occasionally there is no evidence of inoculation. Here the frequency with which chaps, excoriations, and epithelial or epidermic abrasions may be licked by diseased or rabid dogs or cats, or by these animals infected without necessarily becoming rabid, without attracting particular attention at the time or being recollected afterwards, should not be kept out of consideration. "The virus of hydrophobia is contained in the saliva and foam of the affected animal; also in the blood and salivary glands; and possibly also in still other solid and fluid portions of the body. It is always fixed, never volatile." (Bollinger, *loc. cit.*, p. 445.) The starting point of this terrible malady in the human subject is the insertion of this hydrophobic poison into a wound, or its effective contact with an absorbing surface, such as a chap, excoriarion, or sore.

III. *Incubation.*—Once so deposited, there is considerable variation as to the exact time when the disease may become developed. According to Radcliffe, the time which elapsed before the development of the symptoms of the disease, after inoculation, in eighty-two cases, was as follows.

10 cases		from the 2nd	to the 15th day.
7 ,,		,, 16th	,, 21st ,,
18 ,,		,, 23rd	,, 28th ,,
6 ,,		,, 29th	,, 35th ,,
10 ,,		,, 37th	,, 42nd ,,
8 ,,		,, 45th	,, 56th ,,
12 ,,		,, 63rd	,, 84th ,,
3 ,,		,, 90th	,, 112th ,,
2 ,,		,, 140th	,, 146th ,,
2 ,,		in 6 months.	
1 ,,		,, 11 ,,	
1 ,,		,, 18 ,,	
1 ,,		,, 26 ,,	

Dr. Hamilton, quoted by Radcliffe, ascertained the period of incubation in 104 cases as follows.

17 cases		from the 18th	to the 30th day.
63 ,,		,, 36th	,, 59th ,,
9 ,,		in 3 to 4 months.	
2 ,,		,, 5 ,,	
1 ,,		,, 5 ,,	and 11 days.
1 ,,		,, 6 ,,	
1 ,,		,, 7 ,,	
2 ,,		,, 8 ,,	
1 ,,		,, 8 to 9 ,,	
2 ,,		in the 9th month.	
1 ,,		in 11 months.	
1 ,,		,, 14 ,,	
2 ,,		,, 18 ,,	
1 ,,		,, 19 ,,	

Thus, in the first series, out of 82 cases, 60 occurred between the second and fifty-sixth days; whilst, in the second series, out of 104 cases, 80 became fully developed between the eighteenth and fifty-ninth days. But, in certain cases of each series, the period of incubation is found to have extended over many months. Radcliffe, Gull, Scriven, Chuckerbutty, and Morgagni each cite a case in which the incubation covered five years and a half, thirteen years, nine years, seventeen years, and twenty to forty years respectively.

As a very general rule, it may, therefore, be acknowledged that a considerable period elapses between the inoculation of the virus and the outbreak of hydrophobia. Still, in this matter there can be no certainty, inasmuch as, in Radcliffe's series, ten cases occurred between the second and fifteenth days; or, to go into details, two took place in three days, one in four days, two in eight days, two in ten days, two in eleven days, and one in fifteen days. The all-important bearings of these facts upon prophylaxis will appear presently.

III. *Pathology.*—When a sufficient quantity of the poison has gained access to the blood—and this may be so on the third day after the individual has been locally infected—it lights up the hydrophobic tempest, provided the nerve-centres upon which it is expended are in a state of disposition favourable for its reception and operation. In the investigations of Benedikt, Coats, and Gowers, there is evidence to show that the force of the virus is thrown upon the respiratory, glosso-pharyngeal, and hypoglossal nerve-centres of the medulla oblongata, and the vaso-motor nerves related to those parts. In those cases where there is much maniacal excitement, its operation is extended to the ganglionic cells of the brain and their vascular supply; whilst, in cases where tetanic symptoms of the extremities are strongly pronounced, its action embraces much of the motor ganglia of the cord below the medulla. The most characteristic effect is respiratory and pharyngeal spasm, with more or less terror at the sight of water, or inability to swallow it. The convulsive acts of the whole of the muscles of respiration and deglutition recur with such frequency and force as eventually—in from one to four days or more—to terminate in complete exhaustion; and the heart itself, which doubtless participates in this tetanoid contraction, ceases to act, death taking place from a mixture of asthenia and asphyxia. Hence, near the end, the muscles affected become worn out, lose their irritability, or their nerve-centres become so tired, that they are incapable of exciting them to spasmodic action; or a combination of these mortal conditions supervenes, and the power of swallowing liquids and of breathing without spasm returns for a limited period in a minor degree. In the case published by Dr. Chevers in the eighteenth number of the *Indian Annals of Medical Science* (1865), in which tracheotomy was performed, as recommended by Marshall Hall, although the horror of liquids was most intense, the immediate effect was to enable the patient to drink. Still he sank by asthenia from the violence of the spasms, especially of those affecting the thoracic muscles of respiration and the diaphragm.

Doubtless, in some cases where there is great predominance of laryngeal spasm, the patient is in jeopardy of sudden death by suffocation. In reference to this point, Dr. Chevers says: "It was manifest that, previously to the operation, every attempt to drink created violent spasmodic action in three sets of muscles: (1) the pharyngeal, (2) the laryngeal, (3) the diaphragm and thoracic muscles of respiration. The operation immediately allayed and put a final stop to the injurious effect of contractile spasm in the glottideal muscles. Consequently, the patient was at first enabled to swallow liquids, subduing with difficulty the resistance of the pharyngeal and respiratory muscles. The spasmodic action in these two sets of muscles, however, gradually obtained the ascendency, and deglutition became more and more difficult at every draught. My observation of this patient's condition convinced me that, whilst tracheotomy in hydrophobia effectually prevents suffocation from spasm of the glottis, it is still possible that suffocation may occur from spasm of the thoracic muscles of respiration and the diaphragm. This, however, was not the issue in my patient's case." In a communication I have received from Dr. Chevers, he says: "On the subject of hydrophobia, allow me to press my recommendation of tracheotomy early in the disease, immediately it is believed to be hydrophobia, as a means of preventing laryngismus, and thus of maintaining the power of the nervous system, and of giving fair play to chloroform, etc.....I do not admit that my case was, in any physiological or pathological sense, a failure; I call it a good and sound experiment, which was, as I anticipated, attended with a degree of marked success, but which failed to save life, first, because tracheotomy was employed rather late; secondly, because laryngismus, although it is the chief cause of death from hydrophobia, is not the only cause."

That the poison of hydrophobia is probably absorbed without much delay, may be inferred from our experience of the rapid absorption of hypodermic injections and snake-poison. We know that a sufficient quantity may be taken up to produce the disease in a few days, and cause death. In such cases, the dose may have been overwhelming, and the particular nerve-centres may have been predisposed to the operation of the poison to an unusual degree; whilst somewhat modified conditions may be present in the majority of cases, in which the period of incubation is much prolonged. The quantity of poison inoculated being small, the quantity immediately absorbed is small in proportion. Moreover, the susceptibility to the explosion of the hydrophobic storm may also be delayed, until the dose accumulated in the circulation is sufficient for its production. Indeed, in some cases, the amount of the virus is probably too small to produce the disease, and in others it may be successfully eliminated or neutralised; or it may just be adequate to the lighting up of a non-fatal attack of the malady. Such degrees of comparative immunity or mildness of attack in persons exposed to, and believed to have received into their systems, any of the poisons of the zymotic diseases, are acknowledged; and though, in these, there is no reason for believing that the stage of incubation is ever so long postponed or varied, as is the rule in hydrophobia, yet there is a certain measure of postponement, or some variation as to the time which elapses between the reception of the poison and the outbreak of the consequent disease. So also in the case of tubercle: this may be locally generated, and disappear by absorption, or be rendered innocuous by calcareous degeneration, and recovery take place without much general disturbance, or with a minimum of it. Or, owing to some exciting cause, such as great exposure or privation, or some inherent predisposition, the blood may become infected, and acute tuberculosis of a fatal character be set up. Again, it not unfrequently happens that many years may elapse between the introduction of the poison of syphilis into the economy, and the striking declaration of its presence in the form of specific gummata in important organs or parts.

That the quantity of the poison inoculated at the time of a person being bitten may be a material point in any given case, is corroborated by some experiments with the cobra poison, published and commented upon at pages 14, 15, and 16 of the *Report of the Snake Commission*, Calcutta, 1874. "When dogs were effectually bitten by the cobra, death resulted in fifty minutes, doubtless having been postponed on account of the long time the snake had been detained in captivity. When the poison was hypodermically injected in from two to two and a half grains, one grain, three-quarters of a grain, and half a grain, death took place on an average in one hour and forty-three minutes, one hour and fifty-six minutes, one hour and thirty-two minutes, two hours and eleven minutes. Out of three dogs poisoned by a quarter of a grain, one died in four hours and twenty minutes, the second in four hours and one recovered after having passed the whole day in a state of snake poisoning. The part of the leg into which the poison had been injected became much swollen, very painful to the touch or pressure, and ultimately suppurated. This dog was large and powerful, and there can be no doubt that it was owing to this, and its natural strength of constitution, that recovery was to be attributed. A dog weighing 14 lbs. succumbed, in four hours and twenty-eight minutes, to the eighth of a grain of the virus. The tenth of a grain killed a dog weighing 18 lbs. in eleven hours and thirty minutes; but two dogs weighing 30 and 38 lbs., although evidently affected, ultimately survived, after a similar dose of the poison. Of three dogs into which the twelfth of a grain had been injected, two were known, after being much oppressed, to have recovered, whilst the third bolted and probably recovered also. The hypodermic injection, however, of only the sixteenth of a grain proved fatal to a dog weighing 17 lbs., in thirty-one hours and twenty-five minutes; but another, weighing 40 lbs., recovered, after being evidently affected for a whole day."

Sir Joseph Fayrer, Mr. Vincent Richards, Dr. Wall, and myself, have shown that snakes may bite persons without injecting any of the virus into the tissues, or only such a minute quantity that, though symptoms may follow, the result is not necessarily mortal. So, as Sir Joseph points out in his letter to the *Lancet*, November 24th, 1874, p. 785, rabid animals may inflict wounds without depositing any, or at least a potentially effective quantity, of the poison in the wound or wounds inflicted by them. When the amount is insufficient to cause death, it is reasonable to infer that the system has succeeded in eliminating or neutralising the poison, just as animals and man have been proved to succeed in ridding the blood of small portions of snake-poison.

IV. *Prophylaxis.*—Almost universal experience shows the absolute valuelessness of any mode of treatment by drugs, after the hydrophobia has been developed. Hence, from the earliest times, the treatment of the wounds, through which channel the poison causing the malady gains access to the blood, has always received special attention in view to prophylaxis. Thus, whilst absorption has been restricted by the application of a ligature between the wound and the heart, the wound has been sucked, scarified, and cauterised by nitrate of silver or nitric acid, etc. In the practice of the late Mr. Youatt, cauterisation succeeded in four hundred persons, and four times in his own case. In reference to this point, Sir William Gull says: "If I had to choose for myself, I would inhale ether, and have the whole track of the wound destroyed by strong nitric acid or nitrate of silver." *(Op. cit.)* But as, in the hands of others, any or all of these measures frequently fail—probably owing to the whole of the infected tissue not having been brought under the operation of the caustic or escharotic—the plan usually mentioned, but not insisted upon with sufficient emphasis, in both old and recent works, is, with the modification of the additional safeguard of the application of caustic or nitric acid, powerfully reiterated by Sir Joseph Fayrer, who says: "If I were bitten by a dog or other animal, *even suspected* of rabies, I would suck the wound, put on a ligature, inhale ether (if I could not get chloroform), and have the bitten part thoroughly cut out, and then cauterised with nitric acid or nitrate of silver, so as completely to disorganise any virus that might remain." (*Lancet*, November 24th, 1877, page 786.)

Bollinger declares that "the excision of the wound or cicatrix, with subsequent cauterisation, is very efficacious. This method is continuously indicated during the entire period of incubation, and for several subsequent days or weeks, and may possibly be of advantage even during the premonitory stage of hydrophobia". *(Op. cit.*, p. 507.)

My chief aim in bringing this subject to the notice of this meeting is still further to emphasise the radical method of dealing with wounds caused by animals known to be, or strongly suspected of being, rabid. The wound should be previously sucked (it may sometimes be by the patient) by a person whose lips and mouth are free from chaps or excoriation, and a ligature applied whenever practicable close to, and between, the wound and the heart. If now excision be thoroughly executed with the single object of removing all the virus that may have been inserted into the wounds, success in prophylaxis becomes a certainty. The operation should be done under ether, every wound carefully explored, and a substantial margin of tissue removed, so as to ensure the extirpation of all the structures that may have been exposed to infection. If this be performed with patient deliberation, incised may often be substituted for punctured and lacerated wounds, healing promoted by the first intention, and the disfigurement from scarring materially diminished. If, however, there have been much tearing or laceration of parts, it may be well to cauterise the wound or wounds, after excision, with nitrate of silver, nitric acid, or strong carbolic acid, [illegible] extraction by the knife may be destroyed or removed in the subsequent [illegible] cision and completeness in bites from rabid animals than in those inflicted [illegible]

been absorbed will be found in, or close to, the inner aspect of the wounds, whilst, in the latter, the virus, if injected into the areolar textures, may be squirted in all directions, and over a considerable area. Even in cases where a chap, or an open sore, has been licked by a rabid animal, excision is preferable to any other mode of prophylaxis.

Doubtless, excision should, whenever practicable, be performed as soon as possible. But there is reason to believe that, in exceptional cases, it may be successfully practised after cicatrisation of the wounds, or even thirty-one days after the bite, as in the case published by Rust, and cited by Sir William Gull. Seeing the early period at which symptoms may appear, such postponement of the excision should never receive the sanction of the responsible medical adviser. The experience, however, is encouraging, inasmuch as it is calculated to show, as far as a single instance can, that life may be saved by excision long after the wounds have cicatrised. Perhaps the extensive changes that have taken place meanwhile in the cicatrix, skin, and subjacent fat, to the extent of an inch around the site of the original wound, in the course of a few weeks, as demonstrated by Dr. Coats, would appear to indicate the necessity for a much larger removal of structure, under such circumstances, than would be at all required were it performed immediately after the bite, or before the wound had been healed up.

In conclusion, much hydrophobia may be prevented by (1) restricting the numbers of stray, pet, and domestic dogs and cats by (*a*) police regulation and (*b*) licensing; (2) by muzzling those which are known to be excessively pugnacious, or too ready to assume the offensive, with or without provocation; (3) by careful and kindly attention to the sick and distempered; (4) by the extermination of such as become rabid.

A CASE OF HYDROPHOBIA.

By JAMES FOWLER, M.R.C.S. Eng.,
Surgeon to the Clayton Hospital and General Dispensary, Wakefield.

HYDROPHOBIA being so rare a disease that many practitioners pass a lifetime without seeing a single case, I have thought it worth while to give the following notes of a well-marked one. I was indebted for the opportunity of seeing it to the kindness of Mr. Wiseman, under whose care the patient, a fine strongly built man of sixty-one years of age, was lying at Ossett, near Wakefield.

J. L., a labourer, had always been a healthy man, never having required a doctor but once in his life, and then only for a broken finger. About two months before the first appearance of symptoms, he was putting some fresh straw into the kennel of a spaniel belonging to his master, when the dog, which had always been fond of him, and up to that time had seemed perfectly healthy, snapped at him and bit his left thumb. The same night the dog ran away, and has never been heard of since. The wound healed quickly, and the accident was soon forgotten. In the forenoon of Wednesday, May 19th, 1880, however, having been apparently perfectly well up to that time, he felt a pain in his arm, which shot up to his shoulder, gradually increasing as the day went on, and seeming, by spreading over the chest, to cause a difficulty in breathing. There was no sickness or vomiting, nor disorder of the stomach; but at the same time he could take but little food, though usually he had a good appetite; and he complained of being "starved to death", and all night was shivering and restless. Though the room was small, and there was but little air in it, he complained of incessant draughts, and called for extra curtains—saying they would "starve him to death and kill him"; just as patients with erysipelas complain of draughts, or the sensation of wind blowing over the face, etc., possibly from a hyperæsthesia of the skin, or disturbance of the circulation in it, or pyrexia. On Thursday morning, he found he had a difficulty in swallowing, in addition to the above symptoms; could eat but little breakfast, and felt depressed and out of sorts; or, as he said, "not so well"; and yet he went at half-past five to attend to a greenhouse fire, and then to his work at seven, as usual. In the middle of the day, he could not eat his dinner; but went back to his work, and worked until six o'clock in the evening. On reaching home, he could at first only swallow a mouthful or two of tea, and that with the greatest difficulty; but, determined to finish the cup if possible, he made many trials, jumping up ten or a dozen times to walk across the floor, because, as he said, he could not breathe, and eventually took the whole, having at that time no terror of liquids. It was only now that anyone thought for the first time of sending for medical advice; and, when the doctor came at last, it was without the patient's consent. Mr. Wiseman found him complaining of great stiffness of the muscles of the throat and tongue; great difficulty in swallowing; difficulty of breathing, with twitching of the mouth; and extreme sensitiveness to the least breath of air. In the early part of the night, he told his wife to open the window, as he could not breathe; but soon told her to shut it, or "the cold air would kill" him. The night was again passed without sleep, in the greatest misery—part of the time being passed in pacing the floor of his room; he had no pain, he said, but could not "draw breath". On Friday morning, the difficulty of swallowing had increased so much that a fit of choking was induced by any attempt to drink, and after that time he was totally unable to swallow a drop. The saliva even could not be swallowed, but ran out of his mouth; his pharynx was apparently spasmodically contracted; and the breathing was very difficult, being frequently spasmodically arrested. There was almost constant twitching of the muscles of the mouth and limbs, which increased as the day went on until the movements became convulsive; and, to the previous inability to swallow liquid, was now added an extreme dread of it. Draughts of air in the room, or movements of any kind, brought on immediate spasms. Mr. Wiseman recognised the nature of the disease, and looked for and found the cicatrix on the thumb left by the bite two months ago. The patient again passed an extremely restless night, unable to stay in bed more than a minute or two at a time, continually getting up to walk about; but, on Saturday morning, slept comfortably for some time. At 3 P.M., I saw him with Mr. Wiseman. He was then sitting up in bed, in extreme agonising distress and terror, but unable to explain in what it consisted, though apparently quite conscious and rational; imploring, beseeching, by gesture and expression, for something, but unable to say what; talkative, but only in short incoherent, jerky sentences, rapidly and wildly uttered, as by an insane person: "Lord have mercy on me", etc.; and neither heeding nor answering questions, as though entirely absorbed in his own manifest distresses. If anyone approached him, he motioned with his arm for him to begone, and would say, repeatedly, "My good man, my good man, keep from front of me", being extremely intolerant of anyone passing between him and the window, even at a distance. If anyone moved in the room, or opened a door, or even spoke, there were a violent spasm of the pharynx and inspiratory muscles, and distortion of the mouth, which came on at intervals, however, without any apparent cause—possibly a reflex phenomenon, produced by some sight or imagination of something which had previously distressed him, acting on a too extremely sensitive nervous centre; or by mucus or saliva collecting in the fauces, the throat not allowing the passage of even the natural saliva, which, however, was much increased in quantity, there being by the side of the bed half a large chamber utensil full of glairy saliva, which had been hawked or spat up since morning. Though saliva rapidly accumulated in his mouth, and he constantly made efforts to expel it, there was nothing that ignorance or credulity could well exaggerate into the foaming or barking of a dog; nor did he ever make the least attempt to strike, or scratch, or bite anyone near him; nor did any of those present and about him seem in the least to expect or fear anything of the kind. At times, when convulsed, he would throw himself completely out of bed, unless restrained, but without pain apparently in the contracted muscles; and sometimes he was perfectly still and free from spasm of any of the voluntary muscles, without any tension whatever of the spinal muscles, the muscles of the jaw especially being in constant motion—spitting or speaking; while, as a rule, when not convulsed or in spasm, he was extremely restless, mentally agitated, throwing his head, or arms, or legs about, and able to raise himself in bed or walk across the floor—the case, by these peculiarities, being strikingly distinguished from one of tetanus. The face was extremely anxious, pallid, pinched, perspiring; the eyes bright, restless, glancing continually apparently with either suspicion or terror; the tongue clammy, coated with thin white fur and viscid saliva; the bowels obstinately confined—not having been opened by an aperient administered at first whilst he was still able to swallow; the pulse very small, weak, and frequent. Some hours afterwards, the body began to be covered with large, dark, livid patches. At 9.10 P.M., on waking out of a short but comfortable sleep, he called his son upstairs, and seemed for the moment still quite conscious, and in his senses; he could not speak, however, and died almost immediately—rather suddenly at last, sitting up in bed as before, only three days and a half after first complaining, and after but two days' absence from his daily labour.

As regards treatment, it only remains to be said that, practically, no treatment whatever was applied to the bite in the first instance, as the man never saw a doctor; he rubbed the wound with a "rubbing bottle" of "oils", went about for a few days with a rag tied round the finger "to keep the dirt out", and said he was "ne'er afraid of a dog-bite". Afterwards, when Mr. Wiseman saw him, hypodermic injections of morphia were administered—on Friday morning a quarter of a grain, on Saturday morning half a grain—which seemed to have a decidedly calmative and beneficial effect, inducing snatches of peaceful and refreshing slumber. But exhaustion was already rapidly setting in when I saw the case; and, though we tried to get up some enemata of strong

beef-tea for nourishment, and of water to quench thirst, it was impossible, as he could never be made still enough to endure it; nor was it even possible to reassure him, or offer the slightest comfort or consolation, as he seemed unable to listen to anything, so entirely absorbed was he in his appalling suffering.

A careful *post mortem* examination was made by Mr. Wiseman 42 hours after death. The rigor mortis was very marked indeed, the body not arching at all when a block was placed beneath the abdomen, in order to place the body in a suitable position for the removal of the spinal cord. The blood was abnormally fluid. There was rather more obvious congestion of the corpse than usual, and of the central nervous organs; but without serous effusion. The lungs also were more decidedly congested, being dark purple in colour; but all other organs of the body were perfectly healthy.

CASE OF HYDROPHOBIA; RECOVERY.

By JOHN RUXTON, M.B.
Surgeon Army Medical Department.

P., a boy, aged between five and six years, was bitten at Peshawur, East Indies, on September 20th, 1874, by an infuriated bull-bitch, which was soon afterwards destroyed; and being chained at the time, had no chance of doing further damage. The bites were very severe, and situated at the top of the right thigh externally and on the right leg; they were freely cauterised with fuming nitric acid within half an hour, which caused considerable loss of tissue; and were afterwards dressed with carbolised oil (1 in 40) to promote granulation. The healing process went on satisfactorily, but he occasionally complained of itching and irritability of cicatrices on the thigh, frequently rubbing off the scab over the seat of the wound, where cicatricial loss of tissue was still apparent. There was no other symptom of constitutional disease.

On October 19th, 1874, almost a month from the date of being bitten by the bitch, his father remarked that the boy was very heavy and feverish, and sent him home to bed. Feeling no better on the 20th, he was kept in bed, his skin being then very hot, and he was very thirsty, drinking lemonade freely. About 5 P.M. the same evening, his symptoms became more alarming, he being unconscious, taking no notice of his parents or others around him, and refusing food or drink, dozing off to sleep, but disturbed by the slightest noise. The parents, thinking this a case of ague, sent for Mr. Offerman, the assistant apothecary then in charge, who prescribed some calomel and James's powder, and was packing the child in a cold sheet, according to my usual treatment, when a sudden convulsion supervened, again recurring in one and a half hours. The father, dreading some connection between the dog-bite and present symptoms, requested me to see the boy; this I at once did, and found him very feverish and restless, with beads of saliva about his mouth. I suspected the worst, but did not give any pronounced opinion to the parents, as it might have been ague with convulsions, which in earlier childhood present themselves in so many ways. I ordered the tepid sheet, and the child to be well covered with blankets, and gave a diaphoretic mixture; the case to be carefully watched, and any change of symptoms to be at once reported to me. Diaphoresis and sleep followed, which latter lasted till 1 A.M. on the morning of October 21st, when he suddenly awoke in a screaming fit, as his mother expressed, "screaming wildly, not as if he were hurt". The father came for me at once; and on my arrival at his house, the poor lad had the most intense fits, screaming violently; he had clonic interrupted muscular contractions, twisting sometimes to the side, foaming at the mouth, spitting saliva from between the teeth, dreading all liquids, the slightest disturbance reproducing these frightful contortions. From the previous history, the anxiety manifested by the intelligent parents, and the characteristic symptoms, my diagnosis of hydrophobia was justified, I think; in which opinion Assistant-Apothecary Offerman unhesitatingly coincided. No other medical officer was with my regiment at the time; and the parents seemingly had implicit faith in me, for they said they did not wish another medical man. Thinking nothing could be done, I did not insist.

I [illegible] about the abdomen, and screaming as if suffering from worms, I ordered an enema of half an ounce of castor-oil and sixty minims of turpentine with soapsuds, but nothing of note came away. Perfect quietude [illegible], the [illegible] previously experienced, and which are hereafter more fully detailed, flashed across my mind, and as a palliative I determined to try it. Five minims of the tincture were with great difficulty given by the mouth, and [illegible]; on its withdrawal the disease recurred, I determined to continue for

screaming fit, and spitting saliva from between his teeth. As there were several other children in the house, and a spare ward was made ready in hospital, I removed him thither, explaining to his parents that he would not be seen by other members of his family in this hopeless state, and that I did not expect he would live long. The room was darkened and isolated, most complete quietude rigidly enforced, and five minims of tincture of cannabis Indica were repeated by mouth in short convulsive gulps; most of it, however, was swallowed, I think. A deep sleep, lasting for ten hours, soon followed, and he awoke conscious of those around him, recognising his mother for the first time for twenty-seven hours. His pupils were contracted to a point; and, he seeming very heavy, went quickly to sleep again for another twelve hours, with slight interruptions till the morning of October 22nd, when, to my utter astonishment, he took some milk and beef-tea without difficulty, still seeming heavy and dozing off to sleep at intervals during the day. I determined to continue for one night more my physiological dose of cannabis Indica; and after careful feeding with beef-tea, I administered five minims by the mouth without difficulty about 5 P.M., which kept him asleep for eighteen hours, during which time he was carefully watched, his pulse and respirations more particularly, both of which continued good throughout; and I now regret I did not tabulate them, but I had my hands full at the time.

When he awoke on the forenoon of October 23rd, his pupils were very much contracted; he seemed drowsy, weak, and blanched, with languid circulation, but free from fits, and all the other frightful symptoms we had witnessed. I afterwards fed him well for a week on non-stimulating diet, and prescribed tonic doses of quinine and nitro-hydrochloric acid, which in that aguish district did good in any convalescence; and he was discharged, but to attend and see me occasionally.

On October 30th, he was well and hearty, and seemingly none the worse for his recent attack and long sleep. I last saw him in 1878, when I left my regiment; he was then in good health, the cicatrices alone remaining.

REMARKS.—Judging from the result, some may be sceptical about my diagnosis. I can only remark I had no doubt of it when I removed the child to hospital, as I thought, to die; it seems too good also to be true; but why change my diagnosis because he recovered? I hoped ere now to have had further opportunity of trying my vaunted remedy, but have not; and would have wished to give a more definite *rationale* of treatment. I, however, state facts, and leave to more fertile brains and abler pens to supply the theory; but I hope some of the readers of the JOURNAL may give it a trial, and that I may yet hear of cures of hydrophobia by physiological and repeated doses of cannabis Indica.

Reverting to my original idea of giving cannabis Indica, I recalled to memory the vivid description given us by our learned and highly respected Professor of Materia Medica in the University of Aberdeen where I studied—Alexander Harvey—more especially about the smoker dreaming he was climbing hills of Cavendish tobacco, which, to an indulger in that so-called pernicious plant, was too great a temptation for frail mortal, and I determined to taste the pleasures of Indian hemp; and I now relate my experience. On dismissal of the class, I took a fair dose, was highly exhilarated thereby, and, to use a vulgarism, had very jolly sensations all over, content with my temporary paradise; then, feeling heavy and drowsy, I sat down on the window-sill of a fashionable shop, and was asleep in a short time, as I was afterwards told by two fellow-students, in a stage of intoxication, which the passers-by, in their usually charitable spirit to medical students, no doubt attributed to alcohol. My two friends, who had been watching me throughout, had considerable sport at my expense, but did not leave me till I awoke from a sound and refreshing sleep. My object in this case being to make this wretched lad happy, though only as a palliative, I tried my old friend cannabis Indica, and with the best results. The drug was given by the mouth with difficulty, and I wondered he swallowed as much as he did; had I failed to give the medicine in this way, the hypodermic method could be used. The natives of India smoke it as "bang"; they say it makes them happy, relieves indigestion, and gives a glowing sensation all over.

In conclusion, I gave the first dose as a palliative, aiming at giving the lad rest and ease. Finding it partially successful, I was encouraged to give a second dose, which exceeded my most sanguine expectations; and profiting by a case of locked jaw about which I then read, which [illegible]

[illegible]

CASE OF SCORBUTIC SPINAL HÆMORRHAGE.

By PETER EADE, M.D., F.R.C.P.,
[illegible]

On August 6th last, I was [illegible] with Mr. Mard, a young lady, a farm[illegible], aged 13, who had been [illegible], viz., for four or five months, with cough, expectoration, and subacute inflammatory symptoms in the chest; and who was then suffering from severe pain and constant spasmodic startings and jerkings of both her legs and thighs, with which she had been seized quite suddenly five days before.

At our visit, she was lying in bed upon her back with the shoulders raised, in a most constrained position, with the hand of a nurse firmly pressing upon both her thighs so as to keep them down and steady, and to prevent the constant painful jerkings of the limbs which immediately took place when this restraining force was removed.

This condition, we were told, had existed continuously for the preceding forty-eight hours, both through the nights and days; and, although she had been somewhat quieted by opium, yet she begged, or almost insisted, upon the hands being never removed; and the nurses had, in fact, most unweariedly kept up their irksome and straining attentions, and had been kneeling by the bedside, doing this, for all this time.

She was noticed to be very pale and thin, though mentally clear and bright; and, on inquiry, it appeared that her history was bad, she having lost several near relatives from consumption; also that, ever since the age of one year, she had herself suffered from otorrhœa and partial deafness, and that, for the last four months, she had been suffering from lung-disease, consisting of subacute pleuropneumonia, terminating in abscess at the base of the left lung. On examination, dulness, feeble breathing, and large moist sounds were found to be still present at the left base. The heart's sounds, though free from *bruit*, were also heard over a large portion of the left side.

On further examination, her pulse was found to be small, weak, and quick, and her temperature to be 100° Fahr. The urine was free from albumen. There was also entire freedom from pain along the spine, as well as in the limbs when the spasmodic startings were restrained. And it was found that sensation in the legs was unaffected, and that no spasmodic jerkings were produced by merely touching the skin, although the spasms immediately recommenced directly the pressure of the nurse's hands was removed from the thighs.

Taking into consideration the febrile temperature, the strumous history, the recent and still existing thoracic disease, the most feasible diagnosis now appeared to be that of some form of scrofulous disease, affecting the spinal cord and its membranes, either directly or by propagation from the diseased chest; but, on still further inquiry, it appeared that, for the preceding two or three weeks, she had had recurring small hæmorrhages under the skin of the legs, and it was also elicited that she was of a very peculiar nature and habits, that she had a great dislike to vegetables and fruit—indeed, was scarcely ever known to eat any, except on the most rare occasions—and that her habitual diet consisted of meat, or beef-tea, and bread.

Taking these additional facts into consideration, even although there was an absence of sponginess of the gums or other hæmorrhagic conditions, we finally arrived at the opinion that she was really suffering from scurvy, that there had been a scorbutic hæmorrhage into the membranes of the lower part of the spinal cord, that the paralysis and spasm—the spastic paralysis—was due to this, and possibly that much of her generally diseased condition might also be due to the depraved condition of her blood.

Acting upon these views, we decided at once to put her upon small and frequently repeated doses of lemon-juice, and to give her in addition nothing but a few drops of tincture of belladonna, or some opium, if the restlessness required it.

The result was most satisfactory. The symptoms, after four or five days, began slowly to amend. The startings gradually subsided; the hæmorrhages did not recur; and soon she began to regain some power of movement in the legs, and in due time to be removed from her bed; and, on September 30th, she could stand and walk.

It will thus be seen that the progress of this case, under merely anti-scorbutic diet, exceeded our most hopeful anticipations. At the visit on August 9th, the prospect appeared most gloomy, and the prognosis given was most grave; but the girl was, at the end of six or seven weeks, up, and walking about with the aid of sticks or the arm of a friend, and was very greatly improved in health and general appearance. The lemon-juice was continued up to the end of September, and it may be said most distinctly that, within a very few days of its commencement, the improvement had commenced, and was going on.

In the *Lancet* for June 1880, I have recorded four cases, under the title of Scurvy in Civil Practice, which had then recently occurred to me; and, since that time, I have met with at least one other. All these patients were either well cared for, or in sufficiently comfortable circumstances, and the diseased condition appeared to have been induced either by eccentricity as to diet, by over-care as to non-use of foods which were thought not to agree, or by prolonged use of liquids only, such as milk-gruel or beef-tea, which had been prescribed for the cure of some dyspeptic disorder.

Attention has been called by authors, especially Buzzard and Aitken, to the occasional occurrence of such scurvy by inadvertence, as I would venture to call it, in private practice; but the occurrence of so many undoubted and discovered cases in one man's practice in so short a time would make it probable that the disease may be comparatively common (though often unsuspected) to a greater or less degree, and that we should often do well, in obscure cases of causeless debility and malnutrition, to inquire closely into the habitual dietary of the patient.

In one of my cases recorded in the *Lancet*, vertigo and recurring attacks of bronchitis were the marked symptoms before the hæmorrhages appeared; and I would venture, in reference to the present case, to suggest that possibly the pneumonic attack might have been due to the depraved nutrition of the lung-tissue by the scorbutic blood.

Like this case, all my others recovered well and steadily under the use of lemon or lime juice, and the steady enforcement of a more vegetable diet.

The state of spastic paralysis in this young girl was probably explained, I believe, by assuming a mechanical irritation caused by a hæmorrhage into the membranes of the cord in the lower dorsal region; and the gradual progress towards recovery has, doubtless, been coincident with the slow absorption of the clot, in the same way as the various hæmorrhages under the skin had been seen to be gradually removed.

CLINICAL MEMORANDA.

ON THE FROTHING OF URINE AND OTHER ORGANIC LIQUIDS.

In the *Glasgow Medical Journal* for October 1881, is a paper on what the author calls *Physalisation*, or the property which certain organic liquids, especially albuminous ones, possess of yielding a more or less permanent froth when agitated with gas. Dr. Kirk gives details of several experiments, in which the amount of froth produced by various urines, healthy and pathological, was compared with that produced by pure water under similar circumstances. By far the most important deduction from these experiments seems to be, that albuminous urines are not invariably found to yield an abundant froth; indeed, some specimens, though highly albuminous, are said to have yielded no froth at all—not even so much as is observed in the case of the healthy renal secretion. Dr. Kirk mentions that the reaction of the albuminous urine to vegetable colouring matters has a certain modifying influence upon the "physalisability" of the liquid; some alkaline specimens yielding no froth till they have been treated with acid. This may account, possibly, for the absence of any frothing in one of his own cases, in which the urine (in a case of cystitis) was slightly ammoniacal.

Another influence which is mentioned by Dr. Kirk is, the action of oily matter in forming a film upon the surface of the liquid, and so preventing the rising of the froth. But there is an agent which seems to have escaped Dr. Kirk's notice, though it is well known by chemists to have a powerful action in preventing the frothing of albuminous liquids. A very small quantity of alcohol, added to an albuminous solution, has the effect of completely preventing the formation of froth on the surface of the liquid, even when violently agitated with air.

The question has for some time interested physiologists: whether or not alcohol may be separated, as such, by healthy kidneys in normal individuals. If such action by the healthy kidney, associated with a normal digestive apparatus, be deemed possible, surely such an occurrence should be carefully looked for in cases of disease. It would be interesting to know whether alcohol was strictly withheld from those of Dr. Kirk's patients in whose urine no frothing could be detected; and, in all future cases of non-physalisable albuminous urine, a careful search for alcohol in the secretion would add something to the interest of the observation, whether that agent happened to be present or not.

G. Stillingfleet Johnson, M.R.C.S.Eng.

PARALYSIS OF THE LEFT ARM IN AN INFANT, FROM DISLOCATION OF THE HEAD OF THE HUMERUS INTO THE AXILLA.

On March 16th of this year, I was called to Mrs. S., who was taken ill in labour. When I arrived, about 9 A.M., I was informed that the waters had escaped since the noon of the previous day. The pains then were irregular and weak, the pulse quick and slightly intermittent, respiration hurried and of a deep sighing character, the tongue furred and of a brownish colour, and the appetite was completely gone. On making a digital examination, the vagina felt hot, swollen, and dry; the os was dilated to about the size of a five-shilling piece; and the part presenting was of a hard protruding feel, which I diagnosed to be shoulder-presentation. As the woman began to feel prostrate, and intervals of delirium commenced, the only alternative I had in view was immediate delivery. About one ounce of brandy having been administered, and the bladder and rectum having been cleared, the necessary preparations were made; and, without the use of chloroform or any other anæsthetic, I set about the operation of version. Having well greased my right hand and arm, I introduced it slowly and carefully in the usual manner; and, after some difficulty, I laid hold of a foot, leaving the other to follow, and the operation was soon completed without further trouble. In the case of the child, respiration was suspended for a few minutes. The mother very quickly rallied, all things seemed to go on satisfactorily, and in two more hours I left. In the morning when I called, the nurse drew my attention to the motionless condition of the child's arm, which hung down by the side, as if it did not belong to the body. On a close examination, I found a dislocation of the head of the humerus into the axilla, and slightly backwards, which was easily reduced; but, after reduction, the use of the arm was in no way gained, the thumb as before remained turned in on the palm, the fingers clenched. It remained in this condition for about three months, in spite of friction and all other simple remedies. Finally, I determined to try galvanism. I began with two cells of Maw's patent galvanic machine, continuing it every day for about fifteen minutes for one week, at the end of which time there was a slight perceptible quivering motion down the muscles of the arm; and, on the second week, I increased the power one more cell, and the arm gradually gained strength. On the third week, I brought it up to five cells, at which I kept it every third day for two more months, when the arm had quite gained its use.

T. A. MITCHELL, L.R.C.S.I.,
Surgeon to the Lewisham Dispensary, Catford, Kent.

SURGICAL MEMORANDA.

SEVERE GUNSHOT-WOUND: RECOVERY.

At 9.30 P.M. on November 11th, 1878, I was sent for to see C. T., about 25 years of age, a poacher. He had just been to a public-house, drinking with other men before visiting a pheasant covert. To escape observation he had taken the gun to pieces, and placed them inside the pocket of a shooting-coat he was wearing. The barrels were fully loaded. Whilst turning round sharply to speak to one of his companions his coat-tails came into contact with a wooden form, one barrel exploding, and he fell forwards, dreadfully wounded, and was carried into a neighbouring cottage and placed on a bed. On my arrival he was stretched out on his face, perfectly insensible. On examination, I found a large circular wound, with jagged edges, situated about six inches above the right hip, its tract passing backwards and upwards close to the scapula. Two ounces of No. 14 shot and two gun-wads, with several portions of clothing, had passed up to the summit of the wound. I gave directions for linseed-meal poultices to cover his back, and administered half a grain of hydrochlorate of morphia, and left him in a very critical state. The next morning he recovered consciousness. The skin became much inflamed over the seat of the injury, accompanied by severe pain extending up the entire tract; but, by keeping him raised by pillows, the foreign substances began to gravitate downwards towards the exit of wound, and, by the aid of dressing-forceps, on the sixth day after the accident I removed pieces of cloth and flannel. Dark fluid blood followed, with the wads, and eventually the shot came away a few at a time for two weeks. During the first few days I kept him on new milk and soda-water; had the wound dressed with hot linseed-meal poultices constantly, and occasionally gave a quarter of a grain of hydrochlorate of morphia. When the inflammatory symptoms subsided, and nothing was left in the wound but the shot, I ordered him beef-tea, broth, and raw eggs for diet, and discontinued the sedative pills. The only other treatment was the administration of an ounce of oil of turpentine as an enema on November 14th, which was followed by marked benefit; and, lastly, the wound was healed by applying zinc ointment. On December 10th, just one month after the injury, my patient walked to my house, which was a distance of three miles, and I struck him off the sick-list, cured.

T. WELLS HUBBARD.
Tunbridge Wells, November 1st, 1881.

THERAPEUTIC MEMORANDA.

THE ANTISEPTIC TREATMENT OF LUNG DISEASES.

The value of local treatment of the lungs, in phthisis and allied diseases, is now generally recognised; and the success attained will be found, as a rule, to be directly proportionate to the completeness and continuity of the process employed. It may be attempted by (1) causing the fumes of an antiseptic to permeate the apartment in which the patient is located; or (2) inducing him to wear a respirator or inhaler which admits of being charged with the antiseptic fluid. I have experienced disappointment in my use of the first, at least when used alone. Regarding the second method, I have endeavoured to carry it out by means of the naso-oral respirator—*i.e.*, a respirator or inhaler which covers both the mouth and nose, and, on account of its valvular arrangements, can be worn for lengthened periods without inconveniencing the patients. In acute phthisis, the lungs can scarcely be acted on too freely or continuously by the antiseptic; and, as the nasal channels form the physiological respiratory highway, they, as well as the mouth, should be under strict antiseptic guardianship. In fact, I believe the necessity for antiseptic nasal respiration in phthisis to be the more important; and, from this point of view, I am at present experimenting with nasal respirators.

In reference to the antiseptic employed, almost any volatile one may be used. Carbolic acid, after inhalation for some time, may be found in the urine in very minute traces, according to my friend, Mr. Falconer King, who has made for me several very careful investigations on this point. It has never, in my experience, produced toxic symptoms, although used pretty continuously for several months, and in concentrated solutions. Under similar conditions, no traces of creasote can be found in the urine. A medical friend has lately recommended to me sanitas oil, as likely to prove an efficient substitute for carbolic acid and creasote in cases where the use of the latter is objected to.

Dry inhalations should be used with caution in cases with laryngeal complications. My experience on this point agrees with that of Dr. Coghill, who found these applications very apt to aggravate the laryngeal mischief. This may be obviated by using a weaker solution of the antiseptic—say, one of carbolic acid or creasote to three of rectified spirit—and by freely applying to the larynx, three or four times daily, a solution of carbolic acid, morphia, and glycerine, by means of the laryngeal spray, which brings the fluid into direct and plentiful contact with the larynx. Not only has this a most soothing effect on the throat, but, at the same time, it seems to retard the progress of the laryngeal disease.

My respirator, which is now largely used by the profession, is made by Mr. Gardner, South Bridge, Edinburgh.

G. H[illegible], M.D., Physician for Throat Diseases to the Western Dispensary, Edinburgh.

OBSTETRIC MEMORANDA.

PROTRACTED LABOUR.

I do not present this case as anything new, nor particularly extraordinary, but as illustrative of the resources of art, where nature fails, and as showing the need of great patience, much firmness and self-reliance, and prompt action, under concurrent unfavourable circumstances. It occurred in a lone country place. The patient's age was twenty-three, and it was her first labour. When I reached the cottage, which had but one room and one fire-place, I had to ascend a ladder, and found the patient lying on a bed in a garret with a low sloping roof. A midwife was with her. She had been in labour about 48 hours, and the debilitating effect of [illegible] was [illegible]. The os uteri was well dilated. There was a head-presentation, which proved to be vertical. The pains were feeble, and at long intervals. Two full doses of ergot, with about an hour's interval, increased them [illegible] less to keep [illegible] forceps, but, though I had a good purchase, with the handles securely locked, I could not bring [illegible] cular effort. There was no [illegible], and the cervix had become quite

slothful. I willingly acceded to the piteous cries of the poor sufferer for a little rest, and was in hopes that nature would rally from her inertia, after a little timely rest, aided by suitable restoratives. As this is a practical report, it may not be irrelevant to suggest, as a good nutritive, the yolk of an egg gradually beaten up with a tablespoonful of oatmeal and half a pint of hot water, and then sweetened with lump sugar. After waiting about an hour, the patient entreated to be delivered. I essayed the forceps once more, but in vain. I pressed a fontanelle with my finger, but could not perceive any pulsation, nor had the mother felt the child stir for a long time. I was satisfied that it was dead, and felt fully justified in resorting to craniotomy. This was readily effected; but even then, neither the blunt nor curved hook, nor my fingers in the child's mouth, could stir it. The head being now lessened, the long forceps was again fixed; and, in a very few minutes, I at last succeeded in bringing the child's head and neck into the world. The difficulty then was not quite over, for I had to introduce the blunt hook into the axilla before the first arm was extricated. After this, it was all plain sailing. The umbilical cord was quite free, the placenta was readily removed, and the mother made a good recovery. It was a very large child. HENRY MEYMOTT, Ludlow.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. BARTHOLOMEW'S HOSPITAL.

A CASE OF HYDROPHOBIA.

(Under the care of Mr. W. S. SAVORY.)

[FOR the notes of this case we are indebted to Mr. J. MACREADY, Surgical Registrar.]

George W., aged 7, was admitted on October 29th, 1881. He had been bitten about a month previously on the left wrist by a fox terrier. The dog had been taken out in the morning by the boy's father, and was noticed to snap at other dogs during the walk. In the evening, after biting the boy, the dog was destroyed. The wound was cauterised three hours after its infliction; it healed readily, and the child continued as usual at school. On the morning of October 27th, the child complained of stiffness in the neck, and was allowed to lie in bed all day, dozing. He declined food, and no attempt was made to induce him to take any. Throughout the day and night of October 28th, he was restless, and became violently affected when drink was offered him.

On admission, his mind was clear. When milk was brought to him, he became convulsed. Even the mention of the word "cup" produced convulsion. A small scar was just visible on the front of the left wrist. The temperature was 102.4°. An enema of an egg and essence of beef was ordered to be given every two hours. He had taken no food since the evening of October 26th. At 5 P.M., the first enema was given. Up to 10 P.M., he had a convulsion about every ten minutes. An injection *sub cute* was then given, of one-sixth of a grain of hydrochlorate of morphia and one-sixtieth of a grain of atropia.

From that time till 2.30 A.M. on October 30th, the spasms occurred at intervals of from twenty to twenty-five minutes; they then became more frequent, and happened as often as every fifteen minutes till 6 A.M. During the night, the subcutaneous injection was made four times. From 6 A.M. till 9 A.M., the spasms were noticed about every forty-five minutes, but again became frequent, occurring every seven minutes up to 10.30 A.M. The temperature was 103.2°. During the night, he dozed in the intervals between the spasms. At 10.30 A.M., narcotics were withheld. Between that time and 5.40 P.M., he was convulsed every ten minutes, and had no sleep. Between 3 P.M. and 5.40., he foamed at the mouth. The morphia and atropia injections were then resumed, and given about every four hours. During the night, though spasms only occurred once in the hour and once in eighty minutes, he did not sleep, and at 8.20 A.M. on October 31st he died. He took nothing by the mouth after admission into the hospital. It was noticed that the spasms affected the left side only—the left side of the body, the left limbs, and left side of the face.

The *post mortem* examination revealed nothing beyond this, that the cervical enlargement of the spinal cord was said to have been found softened and unduly vascular. It has not yet been submitted to microscopical examination.

MANCHESTER ROYAL INFIRMARY.

NOTES OF FIVE CASES OF HYDROPHOBIA, WITH REMARKS ON TREATMENT.

By F. A. SOUTHAM, M.A.Oxon., F.R.C.S., Assistant Surgeon to the Infirmary.

THE following particulars of seven cases of hydrophobia which were treated in the Manchester Royal Infirmary during my two years' tenure of office as resident surgical officer may, perhaps, not be considered unworthy of record; and although in each instance the result was fatal, yet I have been induced to publish them, in the hope that some of the facts observed may assist further investigators, by throwing some light on the treatment, hitherto so unsatisfactory, of this fearful disease. (*See* Table on next page.)

CASE I.—In this case, the symptoms were extremely well marked; the spasms at the time of admission were almost constant, and were excited by the approach of any person, or by the slightest draught of air; the patient exhibited no dread of liquids, asking to have her lips moistened with water, and voluntarily attempting to drink, but being obliged to desist on account of the severe spasms excited by the attempt. Seven hours after admission, she became wildly delirious, and so violent that she had to be fastened down in bed. The case was treated throughout by subcutaneous injections of chloral, in fifteen-grain doses, repeated at intervals of from one to three hours. This plan of treatment appeared, from the first, to give a marked but only temporary relief to the symptoms, each injection being followed by an abatement in the violence of the spasms. Twelve hours after admission, and after two drachms of chloral had been administered in the manner described, they had almost entirely disappeared; and, six hours later, she was sitting up quietly in bed, perfectly sensible, drinking tea, and taking solid food, without the slightest difficulty. Three hours later, there was a sudden return of the convulsions, attended by severe vomiting and copious discharge of saliva; after this, she fell into a condition of coma, and, the pulse becoming very rapid and almost imperceptible, death ensued about twenty-eight hours after admission.

The temperature, which at the time she came under treatment registered 100.2°, gradually sank to 97.6°, and then steadily rose again, registering, shortly before death, 103.2°.

CASE II.—In this case, the symptoms were very similar to the preceding, but the spasms were excited by the sight or even mention of fluids, and also by the sound of pouring water from one vessel to another. There was complete inability to swallow, though the patient suffered from intense thirst. An attempt to give chloroform, with the view of introducing some food into the stomach by means of the stomach-pump while under its influence, excited such severe spasm that its administration had to be discontinued. The case was treated with chloral (450 grains being given by subcutaneous injection in doses of from 15 to 40 grains, and 120 grains being administered by enema) and morphia (eight grains being given by injection). In this, as in the preceding case, there were temporary remissions in the symptoms, with exacerbations, accompanied by wild delirium, the spasms appearing to be relieved, and at times altogether disappearing under the influence of the chloral, but never to such an extent as to enable the patient to swallow. Towards the end, chloroform was again administered, and this time successfully, for the patient was completely brought under its influence; but, on discontinuing the anæsthetic, the symptoms returned unrelieved. Death took place from simple exhaustion, fifty-one hours after admission, the spasms having entirely ceased some time previously.

The temperature, which was 99.6° on admission, gradually rose to 105° before death.

CASE III.—The symptoms at first were of a very mild type, but sufficiently well marked to leave no doubt as to diagnosis. The patient was at times able to swallow with very little difficulty, the spasm excited by the attempt being very slight. With the exception of two injections of half a grain of morphia, no treatment was adopted. Fourteen hours after admission, severe spasms, however, set in very suddenly, the respiratory muscles being chiefly affected; this condition continued for about an hour, when she sank into a condition of profound coma, and gradually died.

Temperature, 98.4° on admission, rose to 100.4° before death.

CASE IV.—The symptoms were very well marked; there was no dread of fluids, but complete inability to swallow. The patient was at times very violent and delirious, requiring restraint. The case was treated with morphia and curare. Two grains and a half of the former were administered subcutaneously, without any apparent benefit. Two hours after admission, a quarter of a grain of curare was injected without any relief to the symptoms; and, three hours subsequently, after a

Synopsis of Cases.

	Name.	Age.	Physician or Surgeon.	Nature and Seat of Bite.	Incubation Period.	Date of Admission.	Duration of Symptoms before Death.	Duration of Hospital Life.	Condition of Urine.	Temp. before Death.	Treatment.
I.	Eliza H.	[illegible]	Dr. Brookfield	Cat; hand	10 months.	April 18, 1881	[illegible]	[illegible]	[illegible]	[illegible]	Chloral.
II.	Frank A.	[illegible]	Mr. Bowring	Dog; hand	3 weeks.	July 7, 1879	[illegible]	[illegible]	[illegible]	[illegible]	Chloral and morphia.
III.	Mary F.	[illegible]	Mr. Bradley	Dog; [illegible]	2 weeks.	Oct. [illegible], 1879	[illegible]	[illegible]	[illegible]	[illegible]	Morphia.
IV.	William K.	[illegible]	Mr. Hurd.	Dog; hand	13 weeks.	Dec. 7, 1880	[illegible]	[illegible]	[illegible]	[illegible]	Morphia, curare, chloroform.
V.	Susan T.	[illegible]	Mr. Bradley	Dog; hand	6 weeks.	April 19, 1879	[illegible]	7 days	[illegible]	[illegible]	Curare, hot-air bath.
VI.	James C.	[illegible]	Mr. Lund	Dog; face	12 weeks.	July 24, 1879	[illegible]	[illegible]	[illegible]	[illegible]	Tracheotomy, hot-air bath.
VII.	Alfred R.	[illegible]	Mr. Bradley	Dog; [illegible] arm	7 weeks.	Nov. 19, 1879	[illegible]	[illegible]	[illegible]	[illegible]	Chloroform, hot-air bath.

repetition of the same dose, urgent symptoms of impending asphyxia suddenly appeared, the face becoming very livid. This condition, which was not preceded nor attended by any severe spasm of the larynx or muscles of respiration, came on suddenly, and without any warning, and was apparently due to the toxic action of the drug. Just as death appeared imminent, a severe attack of vomiting came on, which appeared to arouse the patient: for, in the course of a few minutes, the breathing improved, the pulse becoming stronger, and the face of a better colour; immediately afterwards, a severe attack of general spasms set in, and he became so violent that he had to be fastened down in bed. Three hours later, a quarter of a grain of curare was again injected; and, after a further interval of four hours, another one-third of a grain, without any apparent benefit or relief to the spasms, which were now so violent, that, in order to afford a temporary relief, chloroform was administered, and the patient kept under its influence for about twenty minutes. About an hour later, he fell into a condition of coma, and gradually sank.

Temperature, on admission 99.4°, rose before death to 101.4°.

CASE V.—In this case, the symptoms were of a very typical character, the dread of fluids being extreme. One-sixth of a grain of curare was injected shortly after admission, but without any relief to the spasms, respiration becoming more difficult, with a sense of intense suffocation, and the face of a dusky hue. The patient was then wrapped in blankets, and placed under a cage, with a large spirit-lamp burning beneath it. In less than a quarter of an hour, a marked change occurred; the spasms became less frequent and severe, entirely disappearing in the course of half an hour, the breathing, at the same time, becoming more regular and less rapid. This treatment was continued for an hour and a half, with great comfort to the patient, who lay quietly in bed, feeling perfectly easy, and expressing a desire to go to sleep, as well as her gratitude for the relief afforded. She dropped off into sleeps of from fifteen to twenty minutes' duration; but, suddenly awakening from a calm sleep that had lasted half an hour, she started up in bed, discharged saliva copiously from the mouth, and died very suddenly from spasm of the glottis, two hours after the hot-air bath had been discontinued.

Temperature, 98.8° on admission, was not marked, as in the other cases, by any rise before death.

CASE VI.—The symptoms in the little patient were very well marked, the spasms being excited on offering or even mentioning fluids, on blowing on the face, and also on pouring water from one vessel to another. Tracheotomy was performed by Mr. Lund; and the patient was kept under the influence of chloroform for an hour and a half after the termination of the operation; on its discontinuance, the spasms reappeared unrelieved. A hot-air bath was then employed, and its administration appeared to give considerable relief to the spasms, but not so marked as in the preceding case; for they still continued, though in a much milder form, the presence of the tube in the trachea appearing to keep them up by acting as a constant source of irritation. The hot-air bath was continued for three hours, and then stopped. After an interval of an hour and a half, during which the spasms were more frequent and severe, the bath was again employed; but the patient, falling into a condition of coma, gradually sank, and died in the course of about two hours.

The temperature was not taken.

CASE VII.—[illegible] at the time of admission were so severe, and the sufferings of the little patient were so painful to witness, that, with a view of offering the readiest and most complete relief, chloroform was at once administered, and the patient was kept under its influence until death, which ensued in about five hours. There was a complete cessation of all spasm while under its influence; but, directly an attempt was made to discontinue it, they at once reappeared. The hot-air bath was employed [illegible] without any apparent benefit.

Temperature 100.4° on admission; rose in the course of five hours to 104.6° before death.

REMARKS.—In the absence of any definite knowledge of the cause upon which this disease depends, we are led to treat its symptoms, the chief and most prominent of which are the spasms, always present to a greater or less degree at some stage in its course, and which indicate some irritation of the nervous centres.

From a comparison of the different plans of treatment adopted in the preceding cases, it will be seen that the methods employed may be divided into four classes, a different result being aimed at in each instance, viz.:

1. Chloral and opium; administered as sedatives, in order to quiet the nervous excitement, and thus modify and allay the spasms by the direct action of these drugs on the nervous centres.

2. Chloroform and curare; given with the view of arresting the spasms by the special action of these agents on the muscles themselves, the one acting centrally, the other peripherally, on the nervous system.

3. Tracheotomy; performed in order to prevent death from asphyxia through spasm of the glottis.

4. The hot-air bath; employed with the view of eliminating the poison from the blood by means of the skin.

Of the four drugs made use of in these cases, chloral, by its sedative action on the nervous system, appears to give the most beneficial results, by prolonging life, and also by temporarily allaying the spasms, and in this way alleviating the sufferings of the patient. In the two cases in which it was employed, life was prolonged in the one instance for twenty-eight, in the other for fifty-one, hours after active treatment was commenced; in the remaining five cases, on the other hand (which came under treatment at much the same stage in the disease), and in which other plans of treatment were adopted, the patient did not, in any instance, survive for more than sixteen hours; so that, even though the action of chloral as a curative agent may be *nil*, yet, if it is a means of prolonging life even only for a few hours, valuable time is gained for the employment and trial of other remedies. Its administration by subcutaneous injection is a ready and effective method of giving the drug; much more so than by enema, as in the latter case there is the risk of causing an irritable condition of the rectum, and thus interfering with the employment of nutrient enemata, the only means of supporting the patient's strength. In neither case did the prick of the needle set up any spasm, nor was the injection followed by any evidence of local inflammation, though it is impossible to say whether abscesses might not have formed at the seat of injection if the patient had survived.

With respect to the action of morphia, though given in grain-doses frequently repeated, no such marked relief was observed as in the case of chloral; and I should be inclined to regard this drug as a remedy of much inferior value, both as a means of affording relief and of prolonging life.

With regard to the employment of curare, if it is to be administered until its toxic action is produced by causing general muscular paralysis, a new element of danger is introduced into the case; to ensure success, it is obvious that the general paralysing action of the drug must be produced, a necessary result of which will be paralysis of the muscles of respiration [illegible] two cases in which it was employed (in the one instance after two injections of one-quarter grain each at an interval of three hours; in the other after a single injection of one-sixth of a grain), alarming symptoms of failure of the respiratory power suddenly appeared, while at the same time [illegible]

administration, there is an entire freedom from all spasm; but, in the three cases in which it was employed, the convulsions returned on its discontinuance with all their former force. In Case VII, in which narcosis by this means was sustained uninterruptedly for four hours, I have no doubt that the fatal termination was hastened. The objection to its use, is the severe spasm which is excited on first attempting to bring the patient under its influence. In Case II, the convulsions were so violent, and such severe respiratory spasm was set up, that it was necessary to discontinue its use.

Tracheotomy has been advocated with the view of preventing death from sudden spasm of the glottis; but it will be found that, as a general rule, death does not take place from this cause, but rather from exhaustion and gradual failure of the heart's action, the patient sinking into a condition of complete coma, with abatement of all symptoms, respiration in many cases going on quietly and free from all spasm. In six of the preceding cases, this was the condition at the end; in one only, Case V, was death due to spasm of the glottis. In Case VI, in which tracheotomy was performed, the presence of the tube in the trachea appeared to be a constant source of irritation, apparently causing the patient considerable distress.

With regard to the hot-air bath, which has been much lauded by writers as a cure for hydrophobia, and especially by M. Bouisson, who states that he not only cured himself, but also eighty patients who had been bitten by rabid animals, we must remember that rabies only develops itself in a small proportion of those bitten by animals suffering from this disease. In Case III, in which this plan of treatment was adopted, and where the symptoms were very well developed, it very quickly afforded marked relief, all the spasms entirely ceasing, and the patient quietly dropping off to sleep. It did not, however, prevent a fatal issue; the patient dying, as has been described, from sudden spasm of the glottis, about two hours after it had been discontinued. Whether the result might have been different if it had been continued for a longer period, it is impossible to say; but I think that if any real benefit is to be derived from this plan of treatment, it should be employed at the very commencement of the disease, with the onset of the earliest premonitory symptoms. From Cases VI and VII, in which it was also used, no inference as to its curative value could be drawn: for, in the one, the patient was completely anæsthetised; in the other, tracheotomy had been performed, and the irritation of the tube seemed to favour the production of spasm.

Before concluding, I may briefly call attention to several other points of interest in connection with the foregoing cases: and first, with reference to the situation of the wound caused by the bite; in each instance, this was inflicted on the face, arm, or hand, showing that bites are much more disastrous when situated on parts of the body unprotected by clothing. In six of the seven cases, pain and irritation in the neighbourhood of the cicatrix accompanied the earliest premonitory symptoms. With respect to the temperature of the patient, it is stated by Bollinger, in the article on Rabies in Ziemssen's *Encyclopædia of Medicine*, that it is usually but slightly elevated: in three of the above cases, it rose to over 103°; and the one in which it was the highest—viz., 105°—was that in which large quantities of chloral were administered; the physiological action of this drug, as observed in experiments upon animals, being to cause a lowering of the body-heat. As regards the condition of the urine, it is stated, in the same article, that albumen is never present; but in every one of these cases it was found in large amount before death; in three instances, sugar was present in addition, evidently the result of some irritation of the medulla oblongata, the symptoms observed during life thus agreeing with the pathological changes observed after death, this being that portion of the nervous centres in which the most marked and constant lesions have been found.

YELLOW FEVER.—Dr. Manuel Da Gama Lobo, of Rio Janeiro, physician to His Majesty the Emperor of Brazil, has been prosecuting some microscopic investigations relative to the land origin of yellow fever. He has found at Vera Cruz, Mexico, and Havana, Cuba, sufficient evidence to warrant him in stating that these localities are fruitful sources of a poison which causes the disease. The toxic agent is derived from a micro-organism, which belongs to the family of *bacilli*.—*New York Medical Record.*

QUEEN'S COLLEGE, BELFAST.—The following scholarships have been awarded. Senior Scholars: Chemistry, J. J. Redfern, E. McCausland; Natural History, Alexander Cuthbert. Junior Scholars: Fourth Year: Medicine, Anatomy, and Physiology, J. J. Austin; Therapeutics and Pathology, John McMurray. Third Year: Medicine, Isaac Crawford and W. White. Second Year: Medicine, James Marwood, J. S. Lyttle. First Year: Medicine, W. B. McQuitty.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 15TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Pulsation of the Liver.—Dr. SAMUEL WEST showed a patient who presented this condition to a marked degree. He was twenty-one years of age, and had suffered two years earlier from ascites. After repeated tappings, he recovered to a great extent, though well marked heart-disease remained. He had had rheumatic fever when seven years old. The ascites returned; and, after tapping for the sixth time, a large pulsating swelling, a little to the left of the middle line, was observed. The heart was of very large size; dyspnœa and orthopnœa were severe, and the liver was generally enlarged. The whole liver pulsated, but, in the area above referred to, the pulsation was most marked, and was distensile. There was no venous distension, and no ascites. Dr. West doubted whether the case was one of pulsating liver, and was inclined to attribute the condition to a tumour in the liver, either an aneurysm or a fluid tumour, to which pulsation was communicated.—Dr. MAHOMED suggested, as another alternative, that there was atrophy, almost amounting to paralysis, of the diaphragm, owing to the previous great distension of the abdomen. Dr. Mahomed thought that the patient breathed entirely by his thoracic muscles; such a condition would render more evident a pulsation communicated to the liver by the heart.—Dr. FREDERICK TAYLOR asked whether any tracing of the pulsation of the liver had been taken; this might show whether the pulsation was arterial or venous.—Dr. DOUGLAS POWELL thought that the case might be one of pulsating liver due to the aortic regurgitant disease.—Dr. WEST said that the pulsation was distinctly systolic in time. He could not agree with Dr. Mahomed's explanation, and he felt, with Dr. Powell, that it was difficult to understand how so much cardiac disease as to produce hepatic pulsation could exist without cyanosis and more constant dyspnœa.

Extra-uterine Fœtation.—Dr. SAMUEL WEST stated that the patient, a fortnight before admission, began to suffer from severe pain in the abdomen; this was persistent. Severe diarrhœa and slight vaginal hæmorrhage occurred at a later period. When admitted, she was in a state of collapse, and died in a few hours. It was found that the abdomen was filled with blood and blood-clots, and attached to the right side of the brim of the pelvis was a tumour of the size of an orange. This proved to be a tubal gestation. The right Fallopian tube was obliterated; the ovary was not involved in the tumour. The placenta was attached to the brim of the pelvis and to the rectum; the hæmorrhage had been due to rupture of the placenta at the point of adhesion to the rectum. The tumour contained a fœtus of about three months. The mucous membrane of the uterus was hypertrophied, and there was a corpus luteum in the left ovary. She had previously borne two living children.—Dr. WILKS asked how the ovum had moved over from the opposite ovary.—Dr. WILTSHIRE said that there were several cases on record in which gestation had occurred in the upper end of an occluded Fallopian tube, and in which, as in this case, the ovum must have come from the opposite ovary. The question regarding the decidual membrane was one of great interest; sometimes it was extruded. He referred to a somewhat similar case which he had lately seen, and in which the diagnosis was greatly assisted by the passage of a decidual membrane.

Rickety Thorax.—Mr. R. W. PARKER showed this specimen, removed from a child aged 12 months. The chest presented a double deformity—the usual rickety deformity, and a second kind, which was accompanied by spontaneous fracture of three ribs. As to the anterior (the usual) bend, it might be observed that the bend occurred in the rib proper, and not in the cartilage. As to the fractures, he doubted whether they might not have been brought about at the moment of death, during the last inspirations.—Dr. WILKS remarked that it was a perfect specimen of rickety chest.—Dr. BARLOW said that sometimes there were some nodosities of the ribs posterior to those at the costo-cartilaginous junction. Such nodosities, he believed, were due to spontaneous fractures, such as those in the specimen. He could not, therefore, agree with Mr. Parker that they occurred at the time of death.—Mr. WARRINGTON HAWARD thought that it was commonly the bone which bent, and not the cartilage; and that, therefore, this specimen followed the general rule.—Dr. PAYNE said that Mr. Parker seemed to say that the pressure of the atmosphere on the chest was greater at the time of death than at other times. This, however, would hardly bear examination; the pressure must be greatest during inspiration. He questioned whether the fractures might not be due to

violence after death. He had noticed such nodosities as those referred to by Dr. Barlow, and thought his suggestion most ingenious and satisfactory.—Dr. SEYMOUR TAYLOR said that he had lately seen a body in which a great number of bones were fractured; among these were several ribs, in which the union was not bony.—Dr. SHARKEY had done a *post mortem* examination on a child in whom eight ribs were fractured; in five, the fracture was recent; in three, some repair was going on. In addition, there was an acute peritonitis without obvious cause. There was no external sign of violence, nor effusion of blood in the pleura. This child was not rickety. Could spontaneous fractures of ribs, he asked, occur in healthy children? This was an important medico-legal question in this case. There was no evidence of violence.—Mr. PARKER was struck, in his case, by the very limited nature of the disease of the rib, and the consequent acuteness of the bend. Virchow had pointed out that spontaneous fracture of the ribs did occur in rickets, though it was more common to find it in connection with syphilis.

Aneurysm of Aorta and Secondary Pouch.—Dr. DOUGLAS POWELL said that the specimen was taken from a woman aged 55. She had probably suffered from syphilis. The illness dated from January 1881, when she had an attack of bronchitis after exposure. Eight months later, dyspnœa became severe. When admitted, the organs generally were healthy; but over the aortic cartilage was a small area of dulness, and in that situation a slight impulse and *bruit* were discovered. There was complete aphonia, and the cough had a "laryngeal" quality. The pulses and pupils were equal. Her symptoms improved under treatment for about a month, but again returned, and caused her death. *Post mortem*, the ascending aorta was found to be slightly dilated. Just below the origin of the chief vessels was an aperture communicating with a sac which pressed on the trachea. On the right side, the sac was partially occluded; on the left side, the recurrent laryngeal was intimately blended with the sac of the aneurysm. The muscles of the larynx on the left side were atrophied. Communicating with the left subclavian was a second aneurysmal sac, occluded by a recent laminated clot; probably this occlusion had taken place during the period of improvement under treatment. The dyspnœa was so great that it was impossible to make a laryngoscopic examination, so that he could not say whether one, or both, cords were paralysed. It would have been interesting to determine this, as experiments on animals had shown that paralysis of both vocal cords did not produce dyspnœa as long as the breathing was tranquil; but that any slight excitement immediately determined an attack of dyspnœa, the increased current of air causing the cords to flap together.—Dr. WILKS remarked that it was said that the abductors were alone affected by atrophy, due to implication of the recurrent laryngeal.—Dr. SEMON said that, if all the muscles of one vocal cord were paralysed, the cord would be in the "cadaveric condition", and would offer no obstruction to respiration. Dr. Ferrier had pointed out that the greater affection of the abductors was a part of a general law, which held good with regard to the abductor muscles of all the joints of the body.

Hypertrophied Toe-nail.—Dr. ISAMBARD OWEN showed a toe-nail, seven inches long; it had not been cut for forty years.—Dr. WILKS said that he had noticed that the finger-nail would grow its own length in six months; but he believed that the toe-nail would take at least one year, perhaps two, to grow its own length.—Mr. HENRY MORRIS said that, in his own thumb-nail, he had noticed that the nail was reproduced in five days less than five months.—Mr. GOULD found that his own finger-nails grew one-thirty-second of an inch in a week.

Stenosis of Aortic Orifice.—Dr. ISAMBARD OWEN showed a specimen of calcareous atheroma of the aortic valves, which had caused almost complete closure of the orifice; it had been removed from the body of a patient aged 70. He had suffered from dyspnœa for two years, but was only seriously ill for a few days. During the short time he was under observation, the temperature of the body had been below normal; the pulse had been extremely weak, the arteries hard, and, to the left of the xiphoid cartilage, a short systolic murmur had been heard.

Goitre of Thyroid Body Pressing on the Trachea.—Mr. BRYANT PITTS stated that the patient was a boy, aged 15, who had suffered from bronchocele for six years. He was admitted into St. Thomas's Hospital for attacks of stridulous breathing. On the same evening he had a severe attack of dyspnœa; after incision of the tumour had failed to give any relief, tracheotomy was done, under some difficulties, and subsequently the tumour was removed. Though relieved at the time, he sank and died thirty hours after the operation. The thyroid body was enlarged by simple hypertrophy, and weighed five ounces; the trachea was compressed and flattened from side to side. He referred to three other cases of dyspnœa due to bronchocele which had died recently in St. Thomas's Hospital. One of these was a case of exophthalmic goître; in another case the patient was temporarily relieved by incision of the tumour.—Dr. ISAMBARD OWEN asked whether the rings of the trachea were of the usual size and thickness. In one case he had seen, in which death had occurred in this way, the rings were remarkably small and weak.—Mr. PITTS said that he did not think there was any abnormal condition of the rings.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 11TH, 1881.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Honorary Members.—Sir James Paget and the nine distinguished foreigners, named at page 673 of the BRITISH MEDICAL JOURNAL for the 22nd ultimo, were unanimously elected honorary members of the Society.

Five Cases of Gastrostomy for Stricture of the Œsophagus [illegible] was performed, considered in regard to the advisability of this Operation.—Mr. GOLDING-BIRD presented brief abstracts of these cases, together with notes of a case in which the operation, though commenced, had to be abandoned, from the occurrence of œsophageal hæmorrhage that threatened immediate death. He pointed out that, being a palliative and not a radical operation, it could not be judged by bare statistics, for it dealt with the effect of the disease, not the disease itself. His cases showed that the chances of giving relief were inversely as the length of time the patient had suffered. The man who lived five months after gastrostomy was 66 years of age, but symptoms had only existed for two months. All the others had much longer histories. Gastrostomy of itself was not a fatal and hardly a dangerous operation, the one case of peritonitis that occurred being due to an accident, the causes of which were not likely to be often encountered. As with most other radical or palliative operations, the patient had the better chance the earlier he was operated upon; and this was especially so in gastrostomy, where the surgeon only fed, but the patient still required power to digest; yet he would not withhold gastrostomy even from cases presenting themselves late in the disease, where starvation was the only prospect, though he thought the anæsthetic added much to the existing share of depression in the patient. He would here, however, modify the usual plan, and open the stomach at the time of operating, and give nourishment at once. He believed that he lost two of his cases by not doing this, fearing vomiting, etc. He was distinctly opposed to œsophagotomy as a substitute. Four out of the five cases quoted had the growth in the chest, and therefore would not have been benefited by œsophagotomy; while, when the growth was at the cricoid level, it was operating dangerously close to a growth liable to fungate or increase on irritation. Dilation of a cancerous stricture high up might be fairly tried, but when in the chest it was, in his opinion, more dangerous than gastrostomy itself.—Dr. COUTTS [illegible] aged 60 years, who had suffered from dysphagia for six months, and was almost moribund upon his admission to the Middlesex Hospital. The fluid which was given him was heard, upon auscultation, to trickle as far as the eighth dorsal spine. Stimulants were administered, and the patient rallied. As a bougie could not be passed through the stricture, Mr. Morris opened the stomach through a vertical incision in the abdominal wall, and fixed the stomach to the outer wound by quill-sutures, the union being accomplished in three days. The patient was meanwhile fed with enemata, then by a little food introduced into the stomach, but he sank on the fifth day. The disease extended beneath the diaphragm, pushing forward the pericardium; and the gastric fistula was found to have been made within an inch and a half of the pylorus. As in most other cases coming to hospital, the time for operative interference which might benefit the patient had passed. The passage of food through the diseased œsophagus irritated the growth; the operation should be done at [illegible] inquired if a cannula had ever been fixed in the stomach, as was done by physiologists when performing the operation for the sake of obtaining gastric juice. The animals survived the operation. With some such precaution, the accident of pouring beef-tea into the peritoneum could not take place.—Mr. DURHAM thought cases of cancer of the œsophagus some of the most painful the physician or surgeon could have to treat. He had [illegible] Mr. Howse's suggestion of stitching the stomach-wall to the [illegible] wound a few days before the opening of the stomach was very good. The objection to the operation was, that patients would not permit it until the period of operation had almost gone by. But the same objection applied to [illegible]. The [illegible] over-rated; the [illegible] sufficient recuperative power left in him to enable him to recover. The [illegible] excellent, and admitted of happy results; but when the operation was done for disease, the result [illegible]

pieces wound in the neck was highly repellant to most patients. He would not have it done upon himself in such an unhappy contingency. He would suggest a third alternative. A female patient of his, now in Guy's Hospital, who had a growth involving the larynx and œsophagus, had, after a time, complete dysphagia, even for liquids. She was then fed through a No. 7 elastic catheter passed into the stomach from the mouth, and which found its way between the growth springing from the posterior wall of the larynx and the wall of the pharynx. A catheter, changed every fourth day, had now been kept in for four months, and the size of it had been increased, so that she now wore a No. 12 instrument. Dr. Krishaber, at the recent International Medical Congress, had detailed four cases, and had reported that in most instances the œsophagus tolerated the presence of a bougie, but it would not do so in all cases. Before attempting the operation of gastrostomy, Mr. Durham advised that the plan of leaving a tube in the œsophagus should be first tried. The instruments should be passed carefully, they must be soft, and should find their own way, without forcing, so as to avoid perforation of the diseased gullet. The tube should not be passed day by day at each time of feeding, but should be retained in position. Dr. Krishaber had advised the passing of the tube through the nostril; but a "nice little pipe in the mouth" was to most patients less disagreeable than one passed through the nose. If feeding through a tube could be accomplished, it should certainly be attempted before either œsophagotomy or gastrostomy was performed.—The PRESIDENT suggested that Dr. Coupland and Mr. Durham should furnish notes of their cases for the *Transactions* of the Society.—Dr. D. POWELL remarked that there was a danger of injecting the fluid food into the pleural cavity through a perforation in the œsophagus, however skilful the surgeon might be. He had seen the growth extend to the pleura. He had also recently seen, at the Eastbourne Convalescent Hospital, a young woman with traumatic stricture of the œsophagus, upon whom Mr. Bryant, at Guy's Hospital, had formerly performed gastrostomy, with the result that the patient was now rosy and well-fed, in a condition indeed of over-nutrition. She had been easily fed through the gastric opening, through which no regurgitation occurred. He considered that the operation should not be done in cases which were far advanced.—Dr. GOODHART said that, as regarded the extent of the disease, he thought the simple annular stricture was rare. The disease usually extended from the level of the cricoid cartilage nearly to the pylorus. Hence, from the pathological point of view, gastrostomy was the preferable operation.—Mr. RIVINGTON thought no surgeon would open the stomach if he could pass a bougie through the œsophagus. In one of Mr. Reeves's cases, no bougie could be passed, and the disease was evidently high up in the œsophagus. In such a case, he would choose œsophagotomy, so as to pass a tube through the disease, and therewith feed the patient. When possible, a bougie should, of course, be passed.—Mr. DAVIES-COLLEY desired to remove some of the objections still attached to gastrostomy. Mr. Howse had, by modifying the operation, given to patients an extension of life of several months' duration, even when the disease was cancerous. When the malady of the œsophagus was not cancerous, the result was still more beneficial. He had performed gastrostomy upon two patients. In one, the disease was very extensive, and already sloughing at the time of operation; that patient soon died. The second patient was a woman, who, after the operation, and the consequent rest given to her œsophagus, from which it once more became patulous, was able to swallow; the wound in the stomach was consequently sewed up, and she had since done well, being able to swallow even solids. Mr. Howse's method of operation consisted in stitching the wall of the stomach, by two circles of sutures about an inch apart, to the abdominal wall around the abdominal opening. There was thus about an inch of the serous membrane enclosed between the two circles; and not until union of the opposed serous surfaces occurred, *i.e.*, after about four or five days, was the stomach opened, and the patient fed through the fistula. Nutrient enemata were meanwhile administered.—Dr. ANDREW CLARK had a small addition to make to the discussion. Some months since, a little boy had come under his care at the London Hospital, who had swallowed ammonia, which had caused ulceration of his mouth. After three months of treatment, he had gone out able to swallow liquids, but in two or three months subsequently was readmitted, and could not then swallow even liquid food. Application being made to the surgeons to open the stomach—they were not like the Guy's surgeons—they declined to perform gastrostomy. After a time, the house-surgeon, Mr. Oxley, with care managed to pass a bougie through the œsophagus, and now, after nine months, the little patient could swallow a meal of mutton-chop or other solid food. He wished to know if any and what care had been taken to make the food given to gastrostomised patients easy of digestion, as by peptonising it, etc. He thought information on this subject desirable.—The PRESIDENT asked the question, where was cancer of the œsophagus most frequently situated? Mr. Reeves had seemed to think it was most often found at the upper part of the œsophagus; but his own experience would place the most favourite site lower down. In the case of cancer, no operation could be expected to be over-successful; but, in the case of traumatic stricture, life might by an operation be indefinitely prolonged. Of course, if the bougie could be, it should be, passed. Œsophagotomy had seemed to him to be a difficult operation, especially if the œsophagus were flaccid; and he asked if it were easy to feed the patient through the wound. The operation of gastrostomy was easier, but should not be deferred until the patient became too low to rally.—Mr. GOLDING BIRD had hitherto been afraid to pass the œsophageal tube in cases of cancer for fear of perforation; but to-night's discussion had modified his opinion on this point. In his operations of gastrostomy, he had adopted Mr. Howse's precautions. In the case of accident, a stitch had been cut at the time of the operation, the stomach had great tension upon it, and so the opening between that viscus and the abdominal wall into the peritoneal cavity had occurred.—Mr. REEVES said that in two of his cases the cancer of the œsophagus had not extended far down that tube, and the stricture was small. Such he had found to be the case in most specimens in museums; whilst it was generally easy to pass a finger or bougie through the stricture. In cases of gastrostomy, a Danish surgeon had distended the stomach through a tube passed into that viscus through the œsophagus. Verneuil, in 1876, made two rows of stitches in the manner which had been now described as Mr. Howse's modification of the operation. The mortality after gastrostomy was so high, that almost anything was justifiable before resorting to it. Therefore, he would say, first do œsophagotomy, which was not a difficult operation, and dilate the stricture. As in cancer of the rectum, he had performed forcible dilatation with the finger without the occurrence of serious hæmorrhage, so he considered cancer of the œsophagus might be in a somewhat similar manner dilated without bad result.—Mr. LUCAS explained that Mr. Howse's operation consisted not only, like Verneuil's, in the stitching of the wall of the stomach to the abdominal wall by two circles of sutures, but, in addition thereto, in the deferring of the opening of the stomach for three or four days after that; whereas Verneuil opened the stomach directly after the external operation. This was a great distinction between these two methods of performing gastrostomy.

A Case in which a Pebble was removed by Tracheotomy from the Right Bronchus.—Mr. R. CLEMENT LUCAS read notes of this case. A little boy, aged 4, sixteen days before admission into Guy's Hospital, was playing with a pebble, and accidentally swallowed it. He was immediately seized with violent paroxysms of coughing and dyspnœa, which lasted for some time, and then passed away. From that time, he was usually seized about twice daily with these paroxysms of coughing, which were always accompanied by distressing dyspnœa. During the attacks, the face became blue, and the veins prominent and turgid. It was especially on waking from sleep that the coughing became violent. In the intervals between the paroxysms, he suffered no distress, and was able to laugh, sing, and swallow without the slightest discomfort. When seen by Mr. Lucas, on July 14th, 1881, the child was breathing with difficulty, and a physician who examined his chest had heard *râles* over the right bronchus. The cough was violent, rasping, and jerky, unaccompanied by whooping or wheezing. When the paroxysm came on, the child became blue, and almost suffocated. Mr. Lucas further noticed that, during the effort of coughing with his finger on the trachea, the foreign body could be felt to rise and strike that tube, and then fall back again. The trachea was opened, under Mr. Lucas's direction, by the house-surgeon, Mr. Wood, and held open by retractors. At this time, the child ceased breathing, but was restored by artificial respiration. The coughing which followed failed to dislodge the foreign body. A silk suture was next passed, by means of a semicircular needle and needle-holder, through the margin of the wound in the trachea on each side. The trachea could by means of these be drawn widely open. The child was then inverted, and percussed on the back. The body did not become dislodged till the child was again placed on its back, when a fit of coughing brought it into sight. It was two or three times sucked back by the inspiration which followed after it had been driven up in the trachea, but it was eventually dislodged, and prevented by forceps from re-entering. The foreign body proved to be a hard white pebble about the size of a cherry-stone. The after-treatment consisted in placing the child in a steam-tent, with moistened lint. For several days, the child breathed chiefly through the wound. There were *râles* in the chest, and muco-purulent expectoration. The temperature rose on the third day as high as 102° Fahr., but gradually subsided to normal at the end of a week. The child left the hospital well on August 4th, the wound being at this time soundly healed. Mr. Lucas

remarked that tracheotomy was the only treatment in such cases, as it was highly improbable that the vocal cords, irritated by the presence of a foreign body in the trachea, would allow that body, when of considerable size, to repass the rima. Left alone, the case would almost certainly after a time have proved fatal. He strongly advocated the use of sutures to draw open the tracheal wound, as being infinitely superior to any form of retractor or dilator that could be invented. The weight of the pebble in this case caused delay in its expulsion. Had it been a cherry-stone, as the parents thought, it would probably have been more readily coughed up. Some foreign bodies, as tracheotomy-tubes, could not be expelled by coughing, owing to the air passing by or through them. He alluded to a case of this kind that he brought before the Royal Medical and Chirurgical Society in 1877, and said that a narrow-curved forceps was the best instrument to use in such cases.—The PRESIDENT exhibited a pair of forceps devised by himself, and intended for use in such a case as that of Mr. Lucas. The peculiarity in their construction consisted in the fact that, when the blades were open, they occupied less space than when closed. The blades were fenestrated; and, in cases of impaction in the urethra or larynx, they might be used with much advantage. The curve of the blades would vary with that of the canal in which they were to be employed.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, OCTOBER 7TH, 1881.

G. E. PAGET, M.D., F.R.S., President, in the Chair.

On the Aetiology of Zymotic Diarrhœa.—Dr. ANNINGSON, in a paper on this subject, showed from his experience as medical officer of health in Cambridge, that infant mortality was excessive in 1880 and due to epidemic summer diarrhœa. In order to show what, if any, definite relation there might be between the numbers of cases of sickness and of deaths on the one hand, and meteorological conditions on the other, Dr. Anningson exhibited a chart, showing the variations from day to day in the rainfall, atmospheric pressure, temperature, and humidity, and the cases of sickness and deaths for each week from July 17th to October 9th. This showed the sickness and mortality to have had two marked periods of exacerbation—the first in the second week of August, after a steady rise from July 18th to August 14th; the second period reaching its height more rapidly in the second week of September, and declining sooner. The meteorological conditions preceding directly or accompanying the highest readings of sickness and death were a high temperature, maximum above 70° Fahr., and minimum above 60° Fahr.; a low degree of humidity and a gradually diminishing atmospheric pressure (*i.e.*, a steady fall of the barometer readings maintained for several successive days), followed after the occurrence of the first cases of illness by a heavy fall of rain. That any one of the above conditions, though some of them were in a measure interdependent, was not alone a determining factor in the causation of epidemic summer diarrhœa, was shown by the fact that, while the temperature curves in the week ending August 14th, were higher even than those of the week immediately preceding it, yet the epidemic continued to decline. There was this difference, that the heat was concurrent in the one week with a rising, in the other with a falling barometer.—Dr. PAGET remarked that in Scotland the mortality was not greater during the hot months, but rather less than the average, and alluded to a thesis read by Dr. Buck, of Leicester, who contended that heat was not the sole cause of summer diarrhœa, but that the imperfect drainage of ground and sewage water was an important factor. He added that at Melbourne, in Australia, it was found that the greater the amount of summer diarrhœa the more typhoid was there in the autumn, suggesting that similar organisms might be the cause of both.—Mr. HODSON said that, while summer diarrhœa had formerly been prevalent regularly in Bishop's Stortford, since an effective system of drainage had been in operation in that town this disease had been very uncommon, and typhoid fever had also been much less frequent.—Dr. LATHAM observed that Dr. Anningson's tables showed that the highest rate of sickness was preceded by a fall of the barometer and a rise of temperature, and that when the barometer was high and the temperatures also, then the mortality was low. He considered that the high temperature had the effect of promoting putrefactive changes, and the low atmospheric pressure had the effect of favouring the introduction of sewer gas into houses. Great variations, too, of temperature had the effect of lowering vitality and rendering individuals more liable to zymotic influences.

Saxon Bones with Arthritis Deformans found near Cambridge.—Mr. WHERRY exhibited some bones of the Saxon period, showing the same pathological changes as are now recognised under the name of arthritis deformans. These bones were found at Girton College, near Cambridge, only a few feet below the surface. The date ascribed to them was about A.D. 410. Mr. Wherry mentioned that traces of this disease had been found in many skeletons of ancient races. Mr. Wherry then showed some jaw-bones of other Saxon skeletons, in which the teeth were curiously ground down. Very few of the teeth were decayed, but the jaws were more prone to decay than the teeth, whereas in the present generation the adjoining teeth would have succumbed to the destroying process.— Dr. HUMPHRY compared these specimens with some ankylosed vertebræ in Dr. Thurnam's collection, found in the long barrows in Wilts, and said to be remains of Pre-Celtic man.—Dr. BRADBURY suggested gout as a possible cause.—Dr. LATHAM alluded to Charcot's theory of disease of the spinal cord as a cause of the change.—Mr. WHERRY, in reply regretted that the distance of 1,400 years precluded the chance of verifying M. Charcot's theory, but thought that, if the disease were of nervous origin, it would be more symmetrical and affect the smaller joints.

Dilatation of the Stomach.—Dr. BRADBURY related a case of this affection treated by washing out with a siphon-tube, and showed the patient, a man about 58, who has been treated by him in the hospital since June last. The patient had for four years preceding his admission been subject to attacks of vomiting, recurring at intervals of seven or eight weeks, and lasting, as a rule, two or three days. For a month before admission, he had vomited almost daily. Gradual loss of flesh had been observed from the first, and, since a month previously, emaciation had been rapid. Vomiting occurred from one to two hours after a meal, the vomit seldom amounting to more than a pint. The patient had wasted very considerably, but his complexion was florid, his skin elastic, and there was no history of malignant disease in the family. The teeth were extremely bad. No tumour could be detected in the abdomen, but the area of stomach-resonance extended somewhat below the margin of the ribs, and was traceable as far as the mid-line of the body. Two days after admission he vomited some yeasty matter, which contained numerous sarcinæ. He again vomited on the two following days, and continued to do so at intervals of about a week, until the 28th of July. The treatment up to this time consisted merely in careful dieting, and in the administration of a mixture containing strychnia and hydrochloric acid with his meals. From this date, however, the stomach was washed out with the siphon-tube at intervals of a week to ten days. At the end of a month his appearance had improved greatly; he had gained a stone in weight; nausea was unfrequent, and vomiting entirely absent. Though he was still under treatment, the "washing out" was only required at much longer intervals than at first, and during the intervals he was entirely free from discomfort. Simple warm water was used, the stomach holding about two pints without any uneasiness arising. When this quantity was introduced, the stomach was emptied by the siphon action of the tube, and the process was repeated until the water returned clear.

THE AMERICAN GYNECOLOGICAL SOCIETY.—At the sixth annual meeting of this Society the following papers were read: Acute Diffuse Hyperæsthesia of the Peritoneum following Minor Gynecological Operations and Manipulations, by Dr. S. C. Busey, of Washington; Exploratory Puncture of the Abdomen, by Dr. H. J. Garrigues, of New York; Notes on Cases of Pelvic Abscess, by Dr. G. H. Lyman, of Boston; Genital Renovation, particularly by Kolpostenotomy and Kolpoecpetasis, in Urinary and Fæcal Fistulæ, by Dr. N. Bozeman, of New York; Forcible Elongation of Pelvic Adhesions, by Dr. E. Van de Warker, of Syracuse; Esthiomène, or Lupus of the Vulva, with Cases and Coloured Illustrations, by Dr. I. E. Taylor, of New York; Bursting Cysts of the Abdomen, by Dr. William Goodell, of Philadelphia; Erysipelas in Childbed without Puerperal Peritonitis, by Dr. H. F. Campbell, of Augusta; Expansion of the Bladder over the Surface of the Abdominal Tumors and its Attachment to them, or to the Abdominal Walls as a Complication of Laparotomy, by Dr. T. Gaillard Thomas, of New York; A Case of Partial Inversion of the Uterus, caused by a Fibroid Polyp, by Dr. T. A. Reamy, of Cincinnati; Axis-Traction of the Obstetric Forceps, by Dr. A. H. Smith, of Philadelphia. The following were elected [illegible] *President:* Dr. T. Addis Emmet, of New York. *Vice-Presidents:* Dr. G. H. Lyman, of Boston, and E. Noeggerath, of New York. *Council:* Drs. H. J. Garrigues, of New York; James D. Trask, of Astoria, N.Y.; George H. Bixby, of Boston; and G. J. Engelmann, of St. Louis. M. Tarnier, of Paris; Dr. [illegible] Dr. Winckel, of Dresden, were elected Honorary Fellows. The next annual meeting will be held in [illegible] 1882.

REVIEWS AND NOTICES.

SUPPLEMENT TO ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE. Edited by GEORGE L. PEABODY, M.D. London: Sampson Low, Marston, Searle, and Rivington. 1881.

THIS volume suggests various reflections. The title-page indicates that v. Ziemssen, the originator of the *Cyclopædia*, has had nothing to do with it; and then, turning to the announcement in the preface, that the book is intended to cover only those subjects treated in the American edition, some of the volumes of which are now five or six years old, we find that it has been the aim of the writers to give a concise account of the progress made in the various departments of medicine since each volume was published—to bring, in fact, each subject well up to date. It must at once occur to the reader that, supposing that this very serviceable intention is thoroughly carried out, anybody that is happily possessed of the *Supplement* may send the other volumes to his lumber-room or to the rubbish-dealer. They would certainly fall under the ban of a late writer in the *Times*, who determined to have nothing in his house which was not useful as well as ornamental: nothing which was not literature, which, we suppose, would mean, in the same way, utility and ornament in the special domain of books. The editor practically admits that the supplement will in a measure supersede the original when he writes: "It is believed that, independently of its connection with the *Cyclopædia*, as a volume giving the results of recent advances in medical science, the present book will be acceptable to the profession." We quite agree with him. At the same time, one can hardly avoid indulging in the speculation, how far such an idea could come to fruition inside the embrace of an international copyright?

But, after all, these are not questions with which we need concern ourselves. We have only to inquire whether the purpose of the editor is well conceived, and adequately executed by his staff of coadjutors. To this we now proceed. There are, of course, subjects treated in the original which have no need of a supplement; and, consequently, the present volume does not cover the whole range of medicine. But the rapid strides made by most branches, and the number of subjects which it has been found necessary to include in this volume, show how soon a book gets out of date, and how much labour there is in any attempt of this kind.

The volume commences with two pages of the bibliography of typhoid fever; and then follows an article that opens up various suggestive points, particularly in connection with the etiology of the subject. We find in it a mention of the discussion, which took place in the columns of our JOURNAL, between several distinguished authorities on typhoid fever, the close relations which are now daily being shown to exist between the septic diseases of men and animals, between typhoid fever and other forms of septic fever, call for comment; and also the close resemblance between the harmless bacillus subtilis and the dangerous bacillus anthracis. Under the head of treatment, there is a note upon Sir William Jenner's very important address to the Midland Medical Society, the chief point of which was that milk, though a suitable article of diet for such cases, is dangerous if it be given indiscriminately, or in unlimited quantities. The anti-pyretic treatment occupies the greater part of the remaining space in this article, which is a good introduction to the book by Dr. Shattuck of Boston, containing, as it does, a reasonable amount of instructive matter.

The article by Dr. Kinnicutt, on croup and diphtheria, is all to the point; it opens with four pages of bibliography, and then proceeds to the germ-theory of diphtheria; the generation and means of transmission of the diphtheritic poison; the relations of croup and diphtheria; and the treatment of the latter. We find nothing about croup, except in its relation to diphtheria; and the author, in common with so many recent investigators, appears to consider the two diseases identical. As regards its origin, it is considered proved that the contagium of diphtheria is particulate; and the author holds that we have now to recognise the fact, that the whole tendency of modern scientific research is more and more to show that the ultimate constitution, the true unit of the various contagia, must either be, or essentially include, a specific living organism, able to multiply its kind. Upon the treatment the article contains nothing which is not already well known to our readers.

Curiously enough, and as illustrating one of the disadvantages which accrues from the gathering together of ideas from all sources—articles from many pens which have no unity of plan, no matter how able the editorial supervision—we next light upon an article on small-pox and vaccination, and we read that our present data do not warrant the conclusion that micrococci form either the contagium of variola or its vehicle. Now, while we do not dispute the accuracy of such a statement upon the grounds upon which it is made, we do think that, if other infectious and contagious fevers, other allied processes of any sort, can be shown with reasonable probability to be due to germs of this kind, they become test cases for the whole group of zymotic diseases; and the argument drawn from such a source is of far greater weight than any to be derived from the failure, or even the success, of a few experiments. We do not say that the question is a settled one by any means; but, if a zymotic origin be true for one such disease, it is nearly certainly true for all. This article, which is a translation of the author's own additions to his original article, is wanting in some summary of the recent advances of animal vaccination, both in the estimation of the public and the profession. At the same time, we are not disposed, with the translator, to disagree with the author when he writes, that the advantages of humanised lymph lie in the fact that it may be had in any desired amount; that it is more easily preserved; and that it is more certain to produce an effect. We believe, on the contrary, that these statements do rest upon ascertained facts. Animal lymph is less easily preserved; and, therefore, less uniformly successful. But, when it takes, its *protective influence* is probably so far in excess of that of the stock of humanised lymph now in circulation, as to make it desirable to put up with slight inconveniences, such as the more frequent failure of the first inoculation. Dr. Lewis Smith contributes an interesting article on cerebro-spinal meningitis. But he appears unable to throw any new light upon this still very obscure affection. The most successful treatment would appear to be the same as for sunstroke—the prolonged application of cold to the head or spine. The article on anthrax may serve to remind us that even "supplements" grow old, and quickly too, for woolsorters' disease finds no mention. Dr. Garland is entrusted with the subject of diseases of the pleura. His remarks upon the line of dulness presented by pleuritic effusions are, we think, in the main correct, and possess some novelty. With regard to the treatment of pleuritic effusions, we are also at one with him, that the advantages of the siphon plan of emptying the chest are numerous; but his advocacy fails to carry conviction, because all reference is omitted to any possible disadvantages; and all who have had any experience in thoracentesis well know, that the one disadvantage of the siphon plan is no less than that, not unfrequently, the fluid will not flow by its means. If all goes well, no plan is better; but, what is to be done if it fails? The article on diseases of the lungs embraces notes on croupous pneumonia, hypostatic processes, embolic pneumonia, fat-embolism, atelectasis, emphysema, gangrene, pulmonary consumption, and tuberculosis. The last section on tuberculosis is especially interesting, as giving a *résumé* of the discoveries of late years upon the relations of the pearl disease of cattle to tubercle in man. The section upon diseases of the heart contains also much interesting matter. We may mention particularly the *résumé* of the views of Lewinski, Traube, Ewald, Senator, Grawitz, and Israel, concerning the cause of hypertrophy of the heart; and that concerning recent observations upon paracentesis of the pericardium. The remainder of the volume is occupied, for the most part, by diseases of the nervous system and renal disease. The diseases of women, diseases of the bladder, gonorrhœa, etc., take up a good deal of space which might in some instances well have been curtailed, for we quite fail to see that there is anything of novelty in them that has been recorded. Eight pages are devoted to impotence and sterility in the male, for instance—a subject which, though we will not say it is unimportant, is, nevertheless, one upon which really novel observations are hard to find. Nor do we see what advantage accrues from such a heading as pruritus vulvæ, when all the information therein contained is, that, "when the pruritus is a symptom of diabetes, a course at Carlsbad offers the best chance of cure"! The section upon diseases of the nervous system includes articles on diseases of the peripheral cerebro-spinal nerves, by Dr. Webber; on the brain and medulla oblongata, by Dr. L. Putzel; on diseases of the spinal cord, by Dr. R. von Santwood; and on vaso-motor and trophic neuroses, by Dr. Putnam. Taken altogether, the section embraces a comprehensive survey of the recent literature of the subject. Diseases of the kidney are from the pen of Dr. Ball. Albuminuria is a subject which is not as yet by any means exhausted, and it admits therefore of literary treatment which will repay perusal. Uræmia and chronic Bright's disease—the other subsections—are also worthy of consultation. The volume concludes with articles upon acute rheumatism, gout, anæmia, and various questions of toxicology.

In concluding this summary, we are compelled to say that we doubt if such a book will adequately repay the labour or the cost that have been expended on its production. If we may be permitted to say so, all through the volume the reader is embarrassed by an idea of year-bookism, which is suggested more than anything, perhaps, by the full bibliographies, and, in many instances, by the little information which follows. One feels all along that, what might have been digestible as

whole meal, has been overdone by the too great admixture of pure husks; and the curiosity and the scepticism which we may allow existed in our mind, as to the possibility of achieving satisfactorily the purpose of the outset, end somewhat in disappointment. The idea of the book is a good one. It is an idea which is most difficult to work out satisfactorily. The disconnectedness of the various points which have to be considered, even under any one heading, place a writer under a disadvantage which can hardly be overrated; and so many things of reputed novelty are either not new or not true, that, what is suitable for record in periodicals, where it can stand the test of further observation and experiment, is entirely out of place in a cyclopædia of medicine. There must, however, as a matter of course, and as we have endeavoured to indicate, be much interesting matter in such a volume; and we trust that, even if it fails in completing its enterprising purpose, it will, nevertheless, prove of sufficient value to repay Dr. Peabody and his staff of able coadjutors for the very serious amount of labour they have been called upon to undertake.

NOTES ON BOOKS.

Life and Poems of J. C. Prince. Edited by R. A. Douglas Lithgow, LL.D., M.R.C.P., etc. (Manchester: Abel Heywood and Son. 1880).—Dr. Lithgow has done well in gathering together into something of a permanent form the literary remains of one of the many remarkable men who arise among the labouring masses of our industrial centres. The poet, for he had a true if not an ambitious inspiration, was the son of a drunken and naturally destitute reed-maker of Wigan. Fortunately for him, he had an able and high-principled mother, from whom no doubt he inherited some of his own best qualities. But all she could do for him after his birth was to help to feed him and to procure for him, by the casual teaching of a Sunday school, the power to read and write a little. Other schooling he never had. From nine years old he had to earn his bread. Yet the instinct of his genius kept him reading, in season or out of season, and educating his own thoughts in defiance of his surroundings. The account, told mostly in his own plain but careful English, of how he started, at the age of twenty-two, to "tramp", first to Alsace, in search of work, and then back again to Manchester, only to find his wife and children driven by fresh misfortunes into the poorhouse, is a telling picture of the privations to which even the best of the artisan classes were exposed in 1830. But in all his troubles, strange as it may sound, his one resource was to write poetry. Still stranger perhaps it is, that his first and chief poetic teacher was Byron, the aristocrat and the spoilt child of fortune. But the remaining record of his life has an unfortunate family likeness to the story of Burns, Tannahill, and others of the ill-starred class of poets who are poor. His first volume, *Hours with the Muses*, had an unexpected and fatal success. He left his trade, took up a small stationer's shop, became a lion among Manchester literary folk, and took to drink. The rest of his history is a pitiful series of efforts to resist temptation, constantly followed by a worse collapse. Many friends helped him, but it was of no use; and he died, broken down and destitute, in 1866. If he had inherited his mother's good qualities, his father's moral weakness had descended to him also. Of his poems, which Dr. Lithgow has collected in these volumes, we can speak with cordial praise. All are honest, and show a deep love of nature, and of all things generous and noble. Some, such as that headed "Look up", and two sonnets upon his own life, "I might have been", reach a high poetic level. Perhaps the fairest judgment on him is contained in the last line. Like so many others of the finer spirits who are penned in and warped by social circumstances which they are too weak to overcome, we can only say that he "sought for fitting food, and struggled towards the light". It is well that now at least, when the poet's troubles are over, an appreciative editor has been found to rescue the poetry.

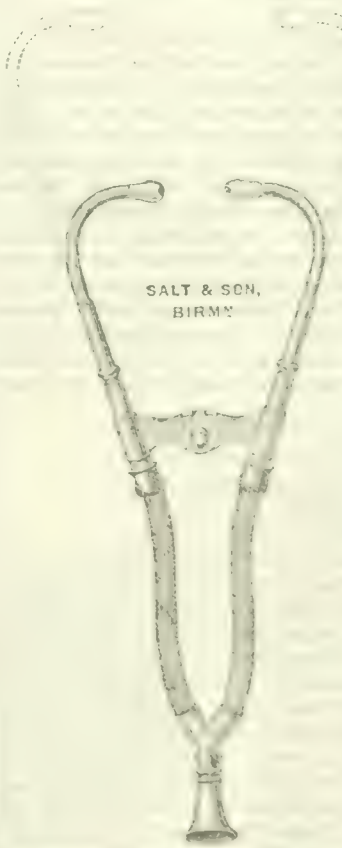
REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

GONORRHŒAL INJECTION SYRINGE.

In the treatment of gonorrhœa, injections have fallen much into disuse, and this I believe has arisen from two causes. First, from a very erroneous impression that they are productive of mischief or stricture, etc. This is an entire mistake; an injection of proper strength and judiciously used can never produce stricture. The most frequent cause of stricture in connection with gonorrhœa is frequent chordee and long continued chronic inflammation of the urethra (uncured clap). The second reason is, the want of improvement in the disease which has so often followed their use in some surgeons' hands. This arises either from the mode of using the injection, or, much more frequently, from the imperfect instrument used in administering the injection. To obviate the faults of nearly all the syringes usually sold for this purpose, I have had a syringe made by Messrs. Maw, Son, and Thompson, somewhat after the pattern of one in use in America. It possesses the following advantages. The nozzle is of vulcanite, smooth, of equal calibre throughout, and projects only three-eighths of an inch beyond a soft India-rubber cone which closes the end of the glass cylinder forming the body of the syringe. The stream of injection, as it issues from the nozzle, is, therefore, directed evenly down the urethra, while the nozzle itself does not irritate or project too far within the meatus. The lips of the urethra can be firmly pressed against the soft India-rubber cone, and thus all risk of the injection returning past the nozzle is prevented. The syringe will fit perfectly any meatus, and also any bottle, which latter is of considerable advantage, as the syringe, by being well pressed into the neck, and the bottle being inverted, can be filled direct from it. The piston is made also of vulcanite, and so packed, that it completely and evenly fills the cylinder, and prevents any of the fluid passing backwards into the upper part of the syringe when the piston is depressed. The cap is vulcanite, and can be unscrewed to clean out the syringe, if necessary. The top of the piston is in the form of a ring, through which the finger is passed, enabling the patient easily to regulate the force used. These syringes are not expensive, are strong, and little liable to breakage.

C. D. Hill Drury, M.D., Bondgate, Darlington.

SALT'S PORTABLE BINAURAL STETHOSCOPE.



Messrs. Salt & Son have forwarded to us a binaural speculum, having a modification [illegible] by them, and which we think is a great improvement. The alteration consists in the adaptation of a sliding tube to the metallic part of the instrument, next the physician during use, whereby its previously inconvenient length is lessened about two-fifths, while stability, when in use, is secured by a bayonet-lock action, turning to the right. The stethoscope [illegible] as it never was before, a portable instrument, and this without detriment to its acoustic qualities. In the accompanying illustration, the dotted lines show the varied positions of the [illegible] to their shortest length, and [illegible] are [illegible] tion with the elastic tubes, this stethoscope can be carried about without inconvenience. A slip junction at the central joint might, [illegible]

Royal Hospital, [illegible].—H.R.H. [illegible] has kindly consented to preside at a dinner early in the new year; and H.R.H. the [illegible] to open the new wards of the [illegible].

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 19TH, 1881.

DR. FERRIER'S LOCALISATIONS; FOR WHOSE ADVANTAGE?

Cui bono? is a not unnatural question for the unscientific public to ask with regard to physiological research; but it is one which is often somewhat difficult to answer in a way satisfactory to the man to whom scientific terms constitute a dead language; to whom scientific data are the dry bones of a barren scepticism, and scientific truth the apparent triumph of a relentless materialism. To the scientific man, truth for her own sake seems worth the devotion of a life to seek and to know; small profits and quick returns are not thought of; truth will give her own reward; man suffers because he is ignorant; the laws of life can only be followed when known, and thus he devotes his life gladly to the laborious task of wresting from nature the secrets of life she guards so jealously. Says Browning:

"No end to learning:
Earn the means first—God surely will contrive use for our earning."

Did Galvani think of the electric telegraph and all the thousand uses of electricity, when he was occupied in investigating the physical causes of motion under certain conditions in the muscles of a dead frog? Did Galileo dream of the treasures of unknown continents, when investigating the motions of the stars, and working out truths regarding our solar system? Or, to come to our own times, did Pasteur imagine the surgical uses to which his laborious and minute investigations into the life-history of bacteria would be put? or did Ferrier, in his earlier studies in metaphysics, or his more recent researches into the phenomena of cerebral functions, feel certain that his investigations, undertaken solely with the desire to know the truth, to make clear physiological phenomena, would quickly lead to a marked increase in our knowledge of the pathology of the diseased brain, and to the successful treatment of cases of brain and nervous diseases, formerly considered hopeless?

"This little man seeks a little thing to do—
Sees it and does it;
This high man, with a great thing to pursue,
Dies ere he knows it.
That low man goes on adding one to one;
His hundred's soon hit.
This high man, aiming at a million,
Misses an unit."

But brilliant results, world-wide in their useful application, in the past, give the class of unlearned fanatics no assurance that similar results may accrue to them from the patient, self-denying, and laborious work of the scientific men of the present. They reiterate with a fatuous persistence *cui bono, cui bono?* and taunt the seekers of truth with being merely actuated by a "vulgar curiosity". This base spirit of "the low man" whom Browning paints, has been recently markedly shown in the persecution to which physiologists have been exposed; a persecution which has now culminated in the action brought againt Professor Ferrier. It would hardly have been possible to select a physician whose researches have done so much as his have done to throw light on the nature of the most important functions of the human race, those of the brain; and on the treatment of the most terrible diseases—nervous and mental diseases—which afflict mankind. It may be well, therefore, at the moment to briefly recall Professor Ferrier's work, and, for public information, to show the uses to which it has already been put. The whole ultimate value of such earnest and thorough work to the world at large, it is as impossible to predict, as it was at the first to predict any useful result whatever from the work of Galvani, Galileo, or Pasteur.

In 1870, Fritsch and Hitzig published an experimental research on the brain, showing that the cerebral substance was not, as had been hitherto thought, unsusceptible of excitation; and they demonstrated, among other things, that electrical stimulation of the anterior parts of the brain produced movements on the opposite side of the body. Professor Ferrier laboriously and ably continued and extended these researches, and succeeded in ascertaining in a very exact manner that, in certain animals—dogs, cats, and monkeys—the excitation of certain definite and limited areas of the external cortical layers of the brain invariably produce certain definite movements on the opposite side of the body. In his earlier experiments performed on dogs, cats, and rabbits (published in the *West Riding Lunatic Asylum Report* of 1873), he ascertained that the anterior lobes of the cerebral hemispheres are the chief centres of voluntary motion and active outward manifestations of intelligence; he defined and localised the centres for the movements of the eyelids, face, mouth, tongue, ear, neck, hand, foot, and tail; and showed that, in general, the action of the hemispheres is crossed, but that certain movements of the mouth, tongue, and neck, are bilaterally co-ordinated for each cerebral hemisphere; that the corpora striata have crossed action, and are centres for the muscles of the opposite side of the body; that the optic thalami, fornix, hippocampus major, and surrounding convolutions, have no motor significance, and are probably connected with sensation; that the optic lobes or corpora quadrigemina, besides being concerned with vision and the movements of the iris, are centres for the extensor muscles of the head, trunk, and legs; and that the cerebellum is the co-ordinating centre for the muscles of the eyeball; and on the integrity of these centres depends the maintenance of the equilibrium of the body.

It would be difficult to overestimate the value and importance of these discoveries; but, when they were followed and confirmed, a little later, by similar researches on the brains of monkeys, the localisation of function in the human brain—having been deduced from the study of the homologous parts of the brain of the lower vertebrates, and the almost identical brain of the monkey—was removed from the region of probabilities to that of scientific facts. These researches, coupled with an immense amount of pathological data collected by Charcot, Pitres, Hughlings Jackson, and many others in all countries, have culminated in the establishment of a cerebral topography of localisation of function, which, though still disputed, and however much they may be modified by other researches, such as those of Goltz and Munk, must enter largely into the new physiology and pathology of the brain.

Briefly considered, the defined areas of cerebral localisation discovered and mapped out by Ferrier are as follows. Most of the voluntary motor centres are grouped round the deep vertical fissure of Rolando, which passes from the summit of the hemisphere above to the horizontal fissure of Sylvius below; the convolution anterior to this fissure, the ascending frontal, contains, in its upper part, the centres for the complex movements of the arm and hand, and, in its lower part, the centre for the movement of the lips; the posterior half of the superior and middle frontal convolution is a centre for lateral movements of the head and eyes, with elevation of the eyelids and dilatation of the pupil; in the upper part of the convolution, which is behind the fissure of Rolando, the ascending parietal convolution, is the centre for voluntary movement of the lower limb, and lower down are centres for the movements of the hand and wrist; the posterior extremity of the third left frontal convolution is, as had been previously established by Broca, the centre of speech, and, as further demonstrated by Ferrier, the motor centre of articulation. Behind the ascending parietal convolution, in a spot called the supramarginal lobule, are the centres of vision; still more posterior is the centre of hearing; the centre of smell is located in the

uncinate gyrus; near it is the centre of taste; and touch is located in the hippocampal region. Ferrier showed, moreover, that the optic lobes, or corpora quadrigemina, are not only closely connected with the function of sight, but are also the centres of equilibration and of certain emotional expressions; and that the cerebellum, while mainly concerned in the preservation of equilibrium, is also a centre for associated movements of the eye, and of various muscular adjustments which aid in maintaining the equilibrium of the body.

These are, briefly stated, the main results of Professor Ferrier's researches; and to the physiologist and physician they are, by mapping out the brain, as invaluable as a chart of an unknown region would be to an explorer.

It was not long before physicians and surgeons began to take advantage of these new data. They found in them an explanation of many of the pathological experiments practised by that arch-vivisector Nature; and discovered that some of the diseases of the brain hitherto considered incurable were susceptible of amelioration, or even of cure. We will mention a few examples of the recent application of cerebral localisation to medicine, among a great number. A child (*Fall on Head—Recovery*, Correspondenz-Blatt für Schweizer Aerzte, No. 1, January 1st, 1870) two and a half years old, had a slight fall on the left side of her head, to which, however, no importance was attached; a week later, the child was seized with vomiting, pain in the head, and paralysis of the right leg and arm, followed by ptosis and strabismus; the next day there was complete right hemiplegia, with left facial paralysis and loss of consciousness. The paralysis pointing, according to Dr. Ferrier's localisation of functions of the brain, to injury or disease of a certain definite spot; the skull at this spot was, therefore, laid bare, and a depressed fracture was discovered. The piece of depressed bone was removed, giving exit to a quantity of pus; consciousness and power of movement of the paralysed limbs returned a few hours after the operation, and the child eventually recovered. A man who had been struck on the left side of the head with a stone immediately became unconscious; and, on recovering consciousness, was found to have become completely speechless, or aphasic, without paralysis. Some time later, he came under the care of Dr. Hammond of New York (*Diseases of the Nervous System*, seventh edition, p. 209), who diagnosed from the symptoms fracture of the internal table of the skull and pressure on the posterior part of the third frontal convolution. The spot thus indicated by the localisation of the lost function of speech was trephined by Professor Sayre, and, as diagnosed, the internal table of the skull was found to be fractured and a splinter pressing on the convolution named. The fragment was removed; and, as soon as the patient recovered from the ether, he spoke perfectly well. We will give but one case from a great number of traumatic epilepsy. A child, aged 7, received a blow from a poker; it produced no external wound, and no scar or depression of bone remained. A year later, the child had an epileptic fit, and continued to have fits daily for about seven years, with occasional periods of exacerbation, at which time the fits increased to twenty or thirty a day. At the end of this time, Dr. Ferrier was asked to see the child in consultation; tenderness was found over the right parietal region, with loss of power in the left hand, and indistinct utterance from loss of muscular power in the lips. Trephining was decided upon, and Dr. Ferrier pointed out that the seat for trephining should be rather low down, to correspond to the centres in the brain for the arm and lips, which seemed affected. This was done; for eight weeks after the operation, the child was free from fits, and though at the periodical exacerbations the fits returned, yet with always diminishing severity (BRITISH MEDICAL JOURNAL, October 16th, 1880). These cases might be multiplied greatly. In the *Glasgow Medical Journal* (September 1879) is reported a case of right hemiplegia and convulsions, due to tumour of the dura mater pressing on the motor centres of the left brain, diagnosed by aid of cerebral localisation, and cured by removal of the tumour. In *Brain* (October 1881) is a case of left hemiplegia, due to abscess of the brain, the situation of which was indicated by knowledge of the motor centres of the paralysed limbs; the skull was trephined, and the abscess opened and emptied, the patient ultimately recovering. Dr. Echeverria has collected 165 cases of traumatic epilepsy, of which 64 per cent. were cured by trephining, the site for the operation and the exact nature of the lesion being indicated by cerebral localisation.

But, apart from these cases of direct surgical interference, which, but for a just confidence which a knowledge of cerebral localisation gives, would be left to either live or die equally miserably, the influence of exact knowledge of the brain is felt in the treatment of mental and nervous diseases. Time was, and not long ago, when insanity was looked upon by the physician, as it is now by the vulgar, not as a disease of the brain-tissue, often capable of cure, but as an incomprehensible affliction of the impalpable mind, before which the physician and surgeon are therapeutically powerless. Thanks, however, to scientific research, brain-tissue has been found to be not only as capable of regeneration as many of the other structures of the body, but even more so; and stimulation, electrical and therapeutical, of degenerated centres of localised function may, and in fact often does, lead to recovery. In an interesting paper by Dr. Althaus, in *Brain* (April 1881), cases are given of the application of the constant current, with very happy results, to those parts of the brain which, from the symptoms considered in connection with cerebral localisation, were known to have undergone morbid change. This comparatively untrodden path opens a new vista of the cure of nervous diseases.

In therapeutical researches, also, the effort at the present day is to discover and define the localised action of drugs; and in this direction also the study of cerebral localisation opens out to us a fair prospect of being able to treat various forms of insanity and acute nervous diseases, due to local causes, on a rational basis. Dr. Ferrier's recent research on the localisations of atrophic paralyses—showing how atrophy of certain groups of muscles which are associated in action is due to localised lesions in the spinal cord—point the way to fresh improvement in the treatment of such lesions.

Indeed, the outcome of the minute and faithful study of the functions of the brain cannot be estimated, so great are the already achieved, and so much greater the probable, benefits; so vast the importance of knowing the working of the great organ of the mind and centre of the movements and sensations of the body.

Apart from the medical treatment of insanity and nervous diseases, which, considering the misery and suffering these diseases inflict, is a great matter, the earnest study of brain function can hardly fail also to lead to the elucidation of some of the most difficult and interesting psychical, educational and social questions. From whatever side it may be viewed—with regard to the treatment of insanity, the diagnosis and treatment of nervous diseases, the solution of the questions of psychology, [illegible] an exact knowledge of the functions of the brain is indispensable.

Finally, it must be remembered that these researches are only of yesterday, and that they are, so to speak, as yet but the preliminary sketches of a great picture, of which only the first outlines have been laid down. Professor Ferrier's first research on this subject was published only eight years ago. Considering the vast complexity, the delicacy and difficulty of the research, an amount of progress has already been made, and practical results have already been obtained, such as can hardly be pointed to in any other great [illegible]. At the present, the physiologist can but rarely expect that his labours will be so rapidly appreciated throughout the world, and their [illegible] and practical applications in the science and art of [illegible] gery. This rich reward and this great gain have already been achieved: but no one at all conversant with the subject could be guilty of supposing that the [illegible] [illegible] [illegible]

yet been said, but only the few first words have been written which will yet be inscribed upon this most important page of science and practice. The last researches of Dr. Gerald Yeo, aided by Dr. Ferrier, which have been made the subject of this present persecution, aim at the combination of antiseptic methods with the physiological facts and precepts flowing from Ferrier's previous work, and applicable to the treatment of disease. Lister's work has given rise to hope that cerebral wounds may be made to heal without surrounding inflammation, and with a facility which will justify yet bolder and more beneficent operative proceedings on the brain than had previously been attempted in injury and disease; and, aided by the combination of antiseptic methods with the precepts of localisation, a further view of surgical therapeutic proceedings is opened out—a more accurate knowledge of the results of ablation, and the new series of instructions for surgeons and physicians which may be derived from them. It is in this study that these benefactors of the human race have been interrupted, and dragged to the police-court as criminals, happily in vain, but at the very moment when science and humanity are hailing their work as of the most beneficent character and of the largest promise.

MUSCLE-HOMOLOGY AND NERVE-SUPPLY.

THE relation between the homology of muscles and the nerve-supply is a subject which has been engaging the attention of several anatomists during the last few years. It is one not only interesting and important to anatomists, enabling them to trace the history of a muscle or group of muscles, but also to the medical profession, since it may, in certain obscure cases of affections of the nervous system, explain symptoms, and thus give a clue to the seat or cause of pathological phenomena. The study may possibly be only the first step towards the determination of the nerve-centres of the spinal nerves, a discovery which would be of great practical importance. The last contribution to our knowledge of muscle-homology and nerve-supply is a paper by Dr. D. J. Cunningham of Edinburgh, in the *Journal of Anatomy and Physiology* for this quarter.

To determine the homologies of the muscular system, it has been the custom, in this country, to rely solely upon the position, origin, and insertion of a muscle. Those features are, however, subject to much variation, and entire reliance upon them has led to many errors. Of the three, the "insertion" is the most reliable. Many instances might, however, be given to show that it is subject to alteration and variation. It has been recently enunciated that there is an invariable and immutable relationship between innervation and homology; a muscle is to be regarded as the end organ of a nerve; and, when a muscle alters its position and connections, its original and typical relations can always be identified by its nerve-supply. The object of Dr. Cunningham's paper is to test the value of this doctrine as well as its correctness. The most convenient method of doing so, he finds, is to choose one or more nerves, and examine them in their relation to the group of muscles they supply in a large number of animals, as well as in man. This method of research is one, the importance of which cannot be overestimated. Its value was fully recognised and taken advantage of by Hunter, and it was by this means that he was able to make many of his important and lasting discoveries regarding the structure and functions of the body. As being the most advantageous nerves for the purpose, Dr. Cunningham selected the plantar nerves of the foot, and examined them in their connections with the intrinsic group of muscles. After an examination of the feet of a large number of animals belonging to different orders and genera of mammalia, he found that, in the majority, the innervation of the intrinsic muscles is identical. It is the same as that found in the human foot. The internal plantar nerve supplies the abductor and flexor brevis hallucis, while the external plantar nerve is distributed to all the other intrinsic muscles of the foot. In the hand, the nerve-arrangements are similar to those in the foot; thus the median nerve, which is the representative of the internal plantar, supplies only those muscles which are homologous with the abductor and flexor brevis hallucis muscles; while the ulnar nerve, the representative of the external plantar, supplies all the remaining intrinsic muscles. Although this arrangement is the rule, there are several notable exceptions to it in the elephant, hyrax, beaver, and fox-bat, to which attention is directed. From those exceptions, Dr. Cunningham thinks it is possible that, at some period, the internal plantar nerve was as much concerned in the supply of the intrinsic pedal muscles as the external, or perhaps even more so; and that now there seems even to be a tendency for the latter to drive the former out of the field altogether. By extending his studies beyond the muscles in question, he found several other deviations from what may be considered the typical nerve-supply, as in the case of the adductor magnus, the biceps cruris, the tibialis anticus, etc.

The facts which Dr. Cunningham has brought forward seem undoubtedly to entitle us to conclude that the doctrine of the invariable relation between nerve-supply and muscle-homology is an erroneous one, and contrary to existing facts. The value of the nerve-supply as a guide to muscle-homology is, however, very important, and is only equalled in importance by the "insertion". It is very probable that the source in the brain or spinal cord from which the nerve-fibres destined for the supply of a certain muscle are derived is invariably the same. Of this, there is, however, little proof; but it is a matter of certainty that these nerve-fibres may adopt different nerve-strands, in order to reach the muscle. These conclusions, arrived at by Dr. Cunningham from a study of the foot, have been independently confirmed in other groups of muscles by Fürbringer, Gadow, and other German anatomists.

COTTAGE HOSPITALS AND THEIR FOUNDER.

AT the meeting of the East Surrey District of the South-Eastern Branch of the Association, on October 20th, Dr. Holman proposed a resolution appointing a committee of representative cottage hospital surgeons, resident in Surrey, Sussex, and Kent, to promote a testimonial to Mr. Albert Napper, the founder of cottage hospitals, who has recently retired from practice. We believe that this movement is calculated to excite the interest and to secure the support of the medical profession throughout the United Kingdom; because, not only is Mr. Napper deservedly popular on account of his many excellent personal qualities, but especially on account of the good work which he has accomplished, and, more particularly, as the founder of the cottage hospital movement, which has done so much for the profession and the public. In the year 1859, with the exception of one or two small miners' hospitals in colliery districts, there were practically no institutions in this country which could be classed as cottage or village hospitals. In that year, Mr. Napper established the first village hospital on the present model at Cranleigh, in Surrey. The movement soon attracted attention, its value was promptly recognised by the profession, and, at the present time, there are about three hundred cottage hospitals in the United Kingdom, and this number is being annually increased. The three hundred cottage hospitals have an income of quite £150,000; they annually relieve at least fifty thousand in-patients, which in-patients contribute £25,000, or one-sixth of the cost of their maintenance to the hospitals. The memory and the work of the originator of such a movement as this are worthy of a substantial memorial, which shall associate his name with the movement for all time.

The cottage hospitals are not confined to England, but have become largely popular in America, on the Continent, and in the Colonies. Not only is this the case, but our own Local Government Board, and the Government authorities in other countries, have recognised the value of the cottage hospital as a means whereby infectious diseases may be readily and effectually isolated. Cottage hospitals have, therefore, not yet reached the limit of their usefulness; and, twenty years hence, it is possible that an idea promulgated by the Diocesan Board of Missions of Massachusetts, whereby cottage hospitals are commended to the consideration of the clergy and others throughout the towns in the diocese, with a view to the immediate erection of small and inexpensive hospitals wherever their absence may have been felt, may be

carried out. It is worthy of note, as showing the value of Mr. Napper's scheme, that permission has been sought and obtained for the publication of a French edition of Mr. Burdett's book on *Cottage Hospitals*, which, it is believed, will be of use to the Government in promoting measures for securing public health.

The foregoing facts speak eloquently in favor of the memorial which has been initiated by the South-Eastern Branch, of which Mr. Napper is one of the oldest and most respected members. Every member of the medical profession who has been associated with a cottage hospital will recognise the importance of Mr. Napper's work, and will gladly testify his indebtedness to the man by contributing something to the testimonial fund. The profession at large has found the cottage hospital of great value, not only as a means whereby the work of the student has become that of the trained physician and accomplished surgeon, but in raising the status of the profession in the eyes of the public, and in tending greatly to promote harmonious working and good fellowship amongst individual members of the medical profession. Dr. Holman of Reigate, who has consented to act as the honorary secretary, holds a high position amongst the members of the British Medical Association; and this fact will at once stamp the movement as one which is destined to success. We can cordially commend it to the sympathy and support of every member of the medical profession who takes an intelligent interest in all that concerns its welfare and advancement.

THE amount of fees received from the candidates at the University of London in the last financial year amounted to £7,267 14s. 1d.

THE Queen has commanded a valuable present of old linen to be sent to St. George's Hospital for the use of the patients.

THE Library of the Royal College of Surgeons will be closed on the Friday and Saturday, 25th and 26th instant, on account of its being required for examination purposes.

A REMARKABLE anniversary has recently been celebrated in Derbyshire by three brothers who were all of one birth. The occasion of the anniversary was their seventy-fourth birthday.

AT a recent meeting of the Darlaston Local Board, the medical officer reported a continuance of the epidemic of scarlet fever, fifteen deaths having been registered from this cause during the past month.

A TELEGRAM from Bombay, dated November 11th, says: "The outbreak of cholera here has now subsided, and the disease has entirely disappeared."

A CONSIDERABLE diminution is reported in the number of deaths from fever in Bombay. In 1880, the mortality from this cause was 246,779, against 286,526 in the previous year.

THE Princess Beatrice has made a donation of £400, part of the proceeds of her Royal Highness's Birthday Book, to the funds of the Belgrave Hospital for Children, of which charity her Royal Highness is patroness.

ACCORDING to the latest returns, the Prussian States, with a population of 27,000,000, have 8336 physicians, 103 surgeons, and 238 dentists. In Berlin, with a population of 1,122,385, there are 944 physicians, and 79 apothecaries.

WE regret to learn that the eminent German surgeon, Professor Victor von Bruns of Tübingen, has recently had an attack of apoplexy. According to the latest account, however, he was making fair progress towards recovery.

THERE are in Belgium 2,111 medical practitioners, and 2,130 midwives. The population of the country being 5,500,000, it follows that, in Belgium, there are 3.84 medical men, and the same number of midwives, to every 10,000 inhabitants.

DR. R. W. BURNET, of the Great Northern Hospital, already favourably and extensively known to the profession in London, is a candidate for the office of Assistant-Physician to Charing Cross Hospital, for which he undoubtedly possesses high qualifications.

IN consequence of the spread of scarlet fever in their district, the Newton Local Board have ordered, at the recommendation of the medical officer, an efficient disinfector to be provided, and a house-to-house visitation to be made, to ascertain the extent of the disease.

WE note with some amount of satisfaction the progress of the scheme for the proposed Scarlet Fever Convalescent Home. The committee have received from an anonymous donor £1,000, the first of nine similar sums required in order to entitle them to £1,000 which a gentleman has offered. Several contributions of £100 have also been received.

THE remains of the late Dr. William Brewer, Chairman of the Metropolitan Asylums Board, were interred on Tuesday last at Brompton Cemetery. The ceremony partook somewhat of a public character, a large number of deceased's old colleagues and friends being present, in addition to the immediate relatives.

DURING 1880, cholera caused 2,638 deaths in British Burma, or an increase of 810 over the number of the previous year; the ratio of deaths per 1,000 of the population being .85, or an increase of .26, as compared with 1879. The mean ratio of the previous five years had been nearly two per thousand.

THE health authorities at Bristol are very active, and very jealous of their good repute. The letter which we publish, therefore, in another column from "Viator", an intelligent medical man who has recently visited Bristol from the metropolis, will not fail to attract their attention, and will probably lead to useful results.

AT the final meeting of the committee for the reception of the British Medical Association at Ryde, it was found that, after discharging all liabilities, a balance of £16 10s. 6d. remained. It was unanimously agreed that this sum should be given to the British Medical Benevolent Fund. Thanks were given to the Mayor and the Local Secretaries for their energetic and successful services.

DR. ABRATH, and Michael M'Mann, a working man, have been brought before the Sunderland Bench, charged with conspiring to defraud the North-Eastern Railway Company of a sum of money, on a claim that the latter had been seriously injured in a collision on the line. Some extraordinary statements were made by the counsel for the prosecution, and the further hearing of the case is adjourned.

GREAT mortality from yellow fever is said to have occurred among the 4th (King's Own Royal) Regiment, which has just arrived at Plymouth from Bardadoes. There is said to have been a total loss of 140 men. The day before the remnant of the regiment embarked, twenty soldiers were buried. There have only been six deaths on the voyage. The *Orontes*, which has brought them home, is now in strict quarantine.

AT a recent meeting of the Statistical Society, Mr. J. T. Lawson read a paper on statistical observations on the growth of the human body (males) in height and weight, from eighteen to thirty years of age, as illustrated by the records of the Borough Gaol, Liverpool. Mr. Lawson arrives at the conclusion that the men of this and other European countries do not arrive at physical maturity till thirty years of age, and do not before that age acquire their full capacity for exertion and endurance.

THE deaths last week in London from small-pox were 27, being 8 above the average; the deaths from measles, which had been 48, 65, and 68 in the three preceding weeks, declined to 42, and were 10 below the average; the deaths from scarlet fever, 24, were 13 over the average; those from diphtheria, 35, 8 above the average; and those

were 3 deaths from typhus. The Metropolitan Asylums Fever Hospitals contained 131 enteric fever cases and 58 typhus fever cases on Saturday last.

THE editor of our Russian contemporary the *Wratsch* is making an appeal, through the *Pirjadok* of St. Petersburg, for Russian contributions to the "Virchow Fund", which is to be instituted in Berlin in honour of the approaching twenty-five years' jubilee of the great naturalist and statesman. The writer declares that he is the spokesman of a number of his medical brethren in Russia who have studied under Professor Virchow, and consider that they owe the best part of their specific culture as physicians to the great Berliner.

ANOTHER attempt is, we read, being made in South Africa to induce the native tribes to submit to systematic vaccination. The Fingoes, especially, are reminded that, in 1861, the small-pox raged with peculiar violence among them, although the rest of the country was comparatively free from the disease. Their liability to the disease was traceable to the fact that their witch doctors opposed vaccination, and induced the people to rely for immunity on forked wooden pegs which they stuck in the ground before the kraals. Still, people and "doctors" were swept away, while those who had been vaccinated escaped the disease. The result was that the Fingoes offered the European doctors a cow or a sovereign if they would only vaccinate them.

THE HUNTERIAN MUSEUM.

AT a quarterly meeting of the trustees of this Museum, on the 11th instant, for the election of a trustee in the vacancy occasioned by the decease of Sir Philip de Malpas Grey Egerton, Bart., who was elected so long ago as 1840, with the Earl of Enniskillen and the Duke of Devonshire, the Right Honourable the Earl of Aberdare was unanimously elected.

THE CASE OF MARGARET MESSENGER.

THE sentence of death passed upon Margaret Messenger, the young girl who was convicted at the Cumberland Assizes of the murder of an infant entrusted to her care, has been respited during her Majesty's pleasure. In accordance with our suggestion, a medical inquiry is to be made as to her mental condition. Sir William Harcourt, as was to be anticipated, has acted with humane promptitude in this painful case.

THE HARVEY STATUE.

THE report of the proceedings at the unveiling of the statue of Harvey at Folkestone in August last, by Professor Owen, C.B., has been published in pamphlet form by the editor of the *Folkestone News*, 16, Shellons Street, Folkestone. The price of each copy is fourpence only. The report gives the names of the guests present on the occasion, the speeches made both at the unveiling ceremony and at the subsequent banquet at the Town Hall, and the address of Professor Owen. It is from this latter cause that value will be attached in the eyes of medical men to the pamphlet. The address is a powerful defence of the position maintained by humane vivisectionists—men free from every thought of cruelty, but imbued with an earnest desire to serve their fellows and the lower animals themselves by the advancement of physiological knowledge. As it adds to those already published one more discourse capable of imparting to the people at large exact knowledge on the questions at issue between vivisectionists and their opponents and detractors in the present day, we welcome the opportune publication, in this form, of this address of Professor Owen.

ERICHSEN MEMORIAL.

A GENERAL meeting of the subscribers to the Erichsen Memorial Fund was held at the University Hospital, Gower Street, on Saturday, November 12th. Professor Marshall, F.R.S., presided. The treasurer stated that the subscriptions amounted to £468 19s. 6d., but that £35 5s. 6d. had been expended in printing, etc., so that there remained a balance of £433 14s. It was resolved that a sum of money be expended on a marble bust of Mr. Erichsen, to be placed in University College, as a mark of respect for his long connection with, and great services to, the School of Medicine of that College. Professor Marshall, Dr. F. Mouat, Dr. Bastian, Dr. Waller Lewis, and Mr. B. Hill, were appointed a committee to select the sculptor, and have power to expend the balance left after the bust had been paid for in any way that Mr. Erichsen may himself decide.

IN [illegible] TOWNS.

IN workhouses, hospitals, and public lunatic asylums, 11,224, or 10.2 per cent., of the deaths were registered last quarter in England and Wales. This proportion exceeded that in any of the ten preceding corresponding quarters. In the twenty large towns, 6,055, or 15.5 per cent., of the deaths were recorded in the principal public institutions; the percentages in the various towns ranged from 6.8 both in Sheffield and Sunderland, to 17.6 in Brighton, 18.4 in Manchester, and 19.3 in London. Excluding the twenty large towns, the proportion of institution deaths in the rest of England and Wales did not exceed 7.3 per cent.

NEW PHYSIOLOGICAL STATION.

TO meet the views of M. Marey, Professor of the Collége de France, a physiological station is being established in the Bois de Boulogne. In his laboratory at the Collége de France, M. Marey has been able to make a number of researches on the physiology of the nerves and muscles; but, from want of space, he has encountered difficulties when he required to study the functional movements of the various animals. The new physiological station of the Bois de Boulogne, which will have a roadway of 3500 yards in length, will enable M. Marey to make interesting experiments on this subject.

PROFESSOR VIRCHOW.

ON November 4th, Professor Virchow was entertained at a supper in the hall of the central skating-rink at Berlin by about a thousand students of the university. The galleries were filled with ladies; and the members of Virchow's family occupied places at the central table, which was adorned with a bust of the illustrious professor. At the professor's table was a seat covered with laurel-wreaths for Virchow, who was conducted to his place at 9 P.M., a band playing the march from *Tannhäuser*. The health of Professor Virchow was proposed in earnest and appropriate terms by a student, Herr Weissmann, and the professor responded. Toasts were also drank to the health of Virchow's family, and of the professors in the university.

STIMULANTS IN WORKHOUSES.

AT the recent meeting of the British Medical Temperance Association, Dr. Norman Kerr read a paper on the subject of Stimulants in Workhouses. He showed that, where there had been considerable reduction in the quantity of stimulant consumed, improvement had been reported in discipline and conduct, without any injury to health. Many medical officers had given in reports highly favourable to the almost total disuse of alcohol as a medicine. He himself very rarely had occasion to prescribe alcohol for the sick poor. He did not urge the total disuse of alcohol as a medicine, but he strongly recommended his brethren not to prescribe it if any other equally good therapeutic agent could be employed.

THE SENATE OF THE UNIVERSITY OF LONDON.

THERE are now two vacancies on the Senate, one caused by the resignation of the Dean of Lincoln, the other by the death of Dr. Archibald Billing. The loss of the valuable services of the Dean of Lincoln on the Senate will be much felt. These two vacancies leave one election in the hands of the members of the Convocation. In all probability, the next meeting of Convocation will take place in January, when the election of the new representative can be made. On this occasion, the Faculties of Medicine and Science have an accepted claim to representation, by a medical or science graduate on the Senate. It will be remembered that, at the last election of a medical candidate on the Senate, when Sir William Jenner was elected, Sir Willi Jenner,

Dr. Robert Barnes, and Mr. Cooper Forster were nominated. No doubt Dr. Robert Barnes and Mr. Cooper Forster will again be prepared to place themselves in the hands of Convocation, if it were thought desirable to have the services of one or other of them on the Senate. The claims of Dr. Robert Barnes on the confidence of the Convocation of the London University are great. In the infancy of the University, he initiated the organisation of the Graduates' Association, and acted as Honorary Secretary of the Graduates' Committee in their long and successful struggle for the new charter. It is possible that, in the event of it being considered advisable to secure the election of a more purely scientific member of the University on to the Senate, either Professor Carey Foster or Dr. George Buchanan may be appointed.

M. PASTEUR'S VACCINATIONS.

STATISTICS brought up to October 1st show that the inoculations of splenic fever, according to Pasteur's method, were performed on 160 flocks, comprising 68,900 sheep, of which 33,576 were vaccinated, and 21,938 animals were left uninoculated, so as to judge of the results of the difference of treatment. Before vaccination, the losses caused by splenic fever amounted, on the whole of the flocks, to 2,986 animals. During vaccination, and until its effects were perfected, 260 sheep out of the whole number of 33,596 perished. During the same period, the mortality rose to 366 out of the group of 21,938 which were not vaccinated. When the effects of vaccination were complete in the first group, the mortality from splenic fever fell to five. This rate has persisted up to the present time; and the next statistical account will give, it is expected, the same satisfactory results as regards the groups of animals vaccinated and left unvaccinated.

THE MALARIAL POISON.

MEMBERS of the Association who may have attended the meeting at Cambridge in 1880, and who found their way to the exhibition of microscopic preparations, will probably have observed one particular slide sent from Rome by Professor Tommasi-Crudeli, upon which were mounted two or three minute clusters of jointed rod-like bodies, described as examples of the *Bacillus malariæ*. These organisms had been "cultivated" from the soil of a malarious district in Sicily; they were believed to be the special and particular cause of malarial fever, inasmuch as the cultivation-fluid in which they grew and multiplied gave rise, when injected into rabbits, both to symptoms and to anatomical conditions that were identical with those of the malarial fever of man. The grounds of that conclusion are given in a memoir drawn up jointly by Professors Klebs and Tommasi-Crudeli, and published at Rome in 1879. The National Board of Health of Washington, desirous of having authentic information on the pathology of a disease that is so common in certain parts of the United States, deputed Dr. Sternberg to make an inquiry at New Orleans, in order to test the conclusions arrived at in Italy. Dr. Sternberg started with a prepossession in favour of the *Bacillus malariæ* hypothesis; and he followed with a certain amount of closeness—whether sufficient or not will probably have to be debated afterwards—the methods by which the organism had been isolated by his predecessors. He certainly found bacilli and minute filamentous algæ closely resembling the different forms described and figured by Klebs and Tommasi-Crudeli; but he saw no good reason for conferring upon these particular forms the special distinction of being named *Bacillus malariæ*, in preference to any other of the minute vegetable organisms which occurred in the soil of a malarious marsh, and in the fluids inoculated with the same. Not only was he unable to separate one particular bacillus from among several (including the bacteria of putrefaction), but he found that the kind of organism most nearly corresponding to that which has been specially designated the bacillus of malaria occurred under circumstances where there was no suggestion of malaria; for example, on the surface of *bouillon* in his laboratory at the Johns Hopkins University in Baltimore. But perhaps the most disquieting part of Dr. Sternberg's criticism relates to the experiments with animals. He observes: "It seems to me that nothing short of a paroxysmal fever, exhibiting marked periodicity as to the recurrence of the paroxysms, and a sufficient number of them to remove the suspicion of apparent periodicity from accidental causes, can be accepted as proof in an experimental investigation of this nature." The rabbit was the experiment-animal both in the Italian investigation and in that at New Orleans. The average temperature of the rabbit is about 103°; but it varies between 102° and 104° under very slight causes, such as fear. Dr. Sternberg gives his own temperature-curves side by side with those of Klebs and Tommasi-Crudeli; and he sees nothing in either of them to suggest paroxysmal rises of temperature. Another point of identity relied upon by the first experimenter was the characteristic shape of the enlarged spleen, and the occurrence of black pigment in it, as well as elsewhere in the body. But Dr. Sternberg shows that both the splenic enlargement and the black pigment were found in rabbits which died of septicæmia induced by injecting human saliva under the skin. He thinks that the particular proof of an organism in malaria, which has been furnished by Klebs and Tommasi-Crudeli, has been discredited by his own observations; but he still thinks that malaria may be due to such an organism or organisms. For the experimental test, he thinks the human subject should be employed. He observes: "In a disease not of a fatal character, and one for which we have a prompt and reliable remedy, it would seem that subjects for experiment might be found, especially among medical men and medical students, who have always shown themselves ready to subject themselves to inconvenience, or even danger, in the pursuit of scientific discoveries of value to mankind." But if the injection of organisms "cultivated" in fish-gelatine from swamp-mud are apt to produce constitutional disturbances more septicæmic than distinctively malarial, it is, perhaps, a little beside the question to rely upon our "prompt and reliable remedy" for malaria. Dr. Sternberg's valuable criticisms and original observations and experiments are fully given in Supplement No. 14 of the *National Board of Health Bulletin* (Washington, July 23rd, 1881). The paper is illustrated with the temperature-charts already mentioned, and with two micro-photographic plates of the various organisms found, including three figures of the *Bacillus malariæ* of Klebs and Tommasi-Crudeli, reproduced by photography and the heliotype process from their drawings.

THE CHOLERA AT MECCA.

THE Sanitary Commission at Alexandria has received a communication from Mecca, stating that the mortality from cholera at that place on the 6th instant reached three hundred. On the following day, it was found impossible to obtain an exact return of the number of fatal cases. Cholera has also broken out at Djeddah. Dr. Ardouin, the quarantine inspector, has not yet left for Elwedj.

CHOLERA IN BERAR.

CHOLERA is reported to have been entirely absent from the Hyderabad assigned districts during the past year, a similar immunity not having occurred since 1873 and 1874. The variations in the outbreaks of cholera from year to year have a peculiar interest of their own, as they would appear to come and go in a remarkably constant rotation over most parts of the empire: a series of epidemic years, generally three in number, being followed by one or more of comparative immunity, or complete freedom from the disease. In 1868, the number of deaths registered from cholera was 5,447, or 2.8 per 1,000 of the population under registration. The disease prevailed through each month of the year, and the epidemic reached its highest in July of 1879, in which year the mortality nearly doubled that of 1868. In 1870 and 1871, the deaths from cholera fell to 504 and 581 respectively; but in 1872, after an unfavourable season of deficient rainfall and bad crops, they rose to 1,578. During the two following years—1873 and 1874—the province enjoyed complete freedom from the disease; and this immunity continued until May 1875, when cholera appeared in the Buldana district, reaching Berar from the Bombay Presidency. It rapidly spread over the province, and reached its maximum in July, in which month 12,374

deaths were registered. The total number of deaths recorded for the year was 22,405, or 15.2 per 1,000 of population. In 1879 the disease reappeared, but in less intensity, the deaths falling to 2,683; and it died out in 1877, during which year 842 deaths were registered from cholera. In 1878, the most severe outbreak of cholera on record occurred, which swept away 34,306 persons, or 15.6 per 1,000 of the population. The epidemic appeared in the province on the 1st April, reached its maximum in August (when 11,263 deaths were registered), and became quiescent in December. In 1879 there was a slight revival of the epidemic, but of less intensity than was anticipated, 223 deaths only being recorded. Last year the disease had completely disappeared; but there is, unfortunately, no hope that, with the sanitary condition prevailing in the province, it will not reappear in due course.

THE INDEX MEDICUS.

A CIRCULAR addressed to the subscribers to that valuable publication the *Index Medicus* has been forwarded to us from the publishing house of Leypoldts of New York, with a request that we will help to save the enterprise by giving it publicity. The support, the publishers say, which it has received from the profession during the current year, by way of *bonâ fide* subscriptions, has not been sufficient to meet the expense of issue; and they feel reluctantly forced to call upon those who promptly volunteered to see them safely through the year's issue, for the amounts severally guaranteed. The continuation of this publication for another year must, they say, depend upon the profession believing the enterprise to be of such importance to medical science as to entitle it, on the part of the profession, to a more general support. If the general practitioner has no direct use for the *Index*, he is, nevertheless, they justly claim, indirectly benefited by its work. They look to medical organisations for support; and the following have already helped to form a guarantee fund, viz., the American Medical Association, the Philadelphia County Medical Society, the Philadelphia Pathological Society, and the Philadelphia Obstetrical Society, each of whom subscribed fifty dollars toward the guarantee fund of 1881.

INQUESTS.

DURING the three months ending September last, 6,142 inquest cases were registered in England and Wales, equal to 5.6 per cent. of the total deaths; this proportion was higher than that which prevailed in any corresponding quarter during the past ten years, excepting in 1879, when it was 5.7 per cent. In the twenty towns, the proportion of inquest cases averaged 6.0 per cent.; it was so low as 2.8 in Sheffield, and 3.4 in Nottingham and Oldham, while it ranged upwards in the other towns to 8.9 and 9.1 in Birmingham and Manchester.

CHARGE AGAINST THE MANAGEMENT OF ST. BARTHOLOMEW'S HOSPITAL.

AN inquest was held yesterday, relative to the death of Mr. W. Booth, a medical man, who recently died in St. Bartholomew's Hospital. Dr. Sherrard, and Dr. Casidy, both of whom accompanied the patient to the hospital, gave evidence tending to show that he was kept a very long time, chiefly in a draughty room, before being admitted to a ward, and that he did not receive proper attention. The inquest was adjourned till Wednesday, Mr. Cross, who appeared for the hospital authorities, remarking that, when the other side of the case was heard, it would assume a very different aspect.

SCARLET FEVER AT MERTHYR TYDFIL.

A VERY serious outbreak of scarlet fever has occurred at Merthyr Tydfil, which seems likely to attain still larger dimensions through the inefficient manner in which the local School Board have met Mr. Dyke's recommendations as to closing the schools. During the last five weeks, no fewer than three hundred and one cases of the disease have been recognised, and new cases are daily occurring. Mr. Dyke reports that in all cases of children over four years of age and under eight, the same answer is given on inquiry, that they attended such and such a school; and he has based upon this the advice to suspend all the schools, which the School Board have declined to adopt, except in a limited and partial manner, which deprives the closing of all its usefulness. When no fewer than one hundred and fifty-three deaths from scarlet fever occur within the space of ten months amongst a population of forty-nine thousand, with every prospect of the number being largely swollen before the end of the year, the imperfection of our present law with regard to the closure of schools becomes a matter of very urgent and important concern.

HABITATIONS OF THE POOR.

AN inquest has been held at the Middlesex Hospital on the body of an infant, aged four months, the son of a music printer, living at 16, Newman Street, Oxford Street, who, it was alleged, was asphyxiated on Sunday morning last. Dr. Whitefield said the room in which the child and its parents lived was totally unfit for human habitation. An opinion was expressed that the poorer classes were now a great deal worse off than they were before the metropolitan improvements and the Peabody Trust were carried out, and that the trust had been scandalously abused.—An inquest has been held at St. Martin's vestry hall as to the death of an infant, aged eleven months, residing at Hanover Court, Long Acre. The mother attributed the death to a stench which was continually arising from the yard. Dr. Dunn said he should not be surprised to hear of typhoid fever breaking out at the house, as the place was totally unfit for human habitation. The foreman of the jury said it was a well-known fact that the drainage in the neighbourhood of the Strand was very defective. The jury returned a verdict that the deceased died from convulsions, and added a recommendation that Dr. Skate, the medical officer of health, be communicated with in reference to the drainage and sanitary arrangements of the house in question.

LESSHAFT ON THE SITUATION OF THE STOMACH.

ALL who took part in the meetings of the Anatomical Section of the International Congress, last August, will remember the great warmth with which Professors His and Kölliker discussed the opinions of Dr. Lesshaft of St. Petersburg, with regard to the situation of the stomach and the relation which exists between its form and its functions. An abstract of the paper will be found in our issue of October 1st, page 560. In Virchow's *Archiv*, October 1881, the Russian anatomist makes some observations on certain details, not contained in the essential part of his monograph, being simply references to the opinions of others; nevertheless, they were the subject of fierce discussion. He states how, in his paper, he mentioned that Cruveilhier, Sappey, Quain, and Ellis, even in the latest editions of their works, describe the stomach as placed horizontally in the abdominal cavity; and that His himself, in an essay "On Preparations of the *Situs Viscerum*" (*Archiv für Anatomie und Physiologie*, 1878), represents the stomach in the same position, in his drawings, without any accurate statement on the subject in the text; Luschka, on the other hand, had described the correct position, according to Professor Lesshaft's ideas, in 1863. Next, the Russian anatomist described the position of the stomach as seen in the freshest possible subjects, and in contracted conditions of its walls. Lastly, before proceeding to the main part of his paper, he gave anatomical proof that the supposed rotation of the stomach on its axis during distension, hitherto believed in, was impossible. He complains that Professor His did not enter the room where the sectional meeting was held till after these introductory remarks had been made. Unaware of them, His attacked him, asserting, firstly, that Lesshaft had talked of questions already settled; secondly, that nothing had recently been written, or demonstrated in diagrams, concerning the movement of the stomach on its axis during distension; thirdly, that it was not true that anything had been said in his (Professor His's) essay, on the horizontal position of the stomach; and, lastly, that the same essay referred more to methods of demonstration than to the relations of viscera. Kölliker then observed that His had described and drawn the position of the stomach quite correctly in his essay. Lesshaft has since studied his opponent's work; and, in reply to His's four charges, states that, firstly, he had discussed all opinions on certain questions before His had entered the room, and stated fully whether they were old or new.

Secondly, he finds that His represents a distended stomach placed in a perfectly horizontal position, with the great curvature forwards. Thirdly, he must repeat once more that His gives the stomach a horizontal position in the drawing referred to, although no precise reference is made to this question in the letterpress. Lastly, Lesshaft quotes a part of his opponent's essay, where the method of preparation, introduced by His, is extolled for its value in determining the relations of the viscera. Lesshaft adds that this method may be very useful for embryologists and histologists as a means of demonstration; but, judging from His's photographic drawings in the essay, Lesshaft can only say that any anatomist would be horrified at the idea of teaching anatomy in such a manner. His has since replied, in the number of the *Archiv* for the current month. He vigorously defends his method of demonstrating regional anatomy, and repeats his condemnation of Lesshaft's opinions. Professor Lesshaft's recent memorandum in Virchow's *Archiv* clearly reduces the greater part of the memorable dispute to a pure misunderstanding on questions which he admits to be quite distinct from the main features of his remarkable monograph. Judging from his statements, much time has been wasted through the neglect of his opponents in ascertaining what he had said in the part of his paper which they had not arrived in time to hear: a timely warning to members of English societies who, arriving late at a meeting, often hazard remarks on papers of which they have heard but a few concluding remarks.

DEODORISING IODOFORM.

M. CAILLOL (*Gazette Hebdomadaire de Médecine et de Chirurgie*, November 4th, 1881) describes a successful mode of removing the repulsive odour of iodoform. It suffices to add to the iodoform, in a bottle in which it is preserved, some fragment of Tonquin bean. The odour then becomes no longer recognisable, and recalls that of bitter almonds. It lasts for many days, even when the iodoform is withdrawn from the bottle and exposed to the open air.

CULTIVATION OF CINCHONA IN JAMAICA.

THE Government of Jamaica are desirous of encouraging the planting of Peruvian cinchona trees in the island. It is stated that the soil and climate are not less favourable than those of the East Indian plantations in the Neilgherry Hills, whence a large quantity of bark and quinine is now annually obtained. With this view, the Government announce that they are prepared to grant lands at a mere nominal price, on conditions calculated to ensure that the allotments shall be used for this purpose only.

ANIMAL VACCINATION IN BRITISH BURMA.

IN his last report on the administration of British Burma, the Chief Commissioner alludes to the question of animal vaccination. He states that experiments were tried in Rangoon as to the possibility of introducing calf-lymph into Burma, and of keeping up an uninterrupted supply. He succeeded fairly well during two months—December and January—but he completely failed in producing any effect in the hotter months and the rains; and from the knowledge gained at Brussels and former experience in Burma, he is of opinion that it will be almost impossible to keep up an uninterrupted supply in Rangoon. He thinks, however, that it might be arranged at other places in the provinces, and is of opinion that animal vaccination is not urgently necessary, until inoculation has been made penal and vaccination compulsory.

VACCINATION IN BOMBAY.

VACCINATION-RESULTS from Bombay show a gradual but general improvement. Out of 642,505 persons primarily vaccinated, 616,513 cases were successful, or 95.93 per cent., against 95.11 in 1879-80, and 94.53. The number of unsuccessful cases also compares favourably with that of the previous year, being 14,721 against 15,178. Secondary operations, after the failure of the first, were performed on 2,678 persons, and 15,949 persons escaped observation. Revaccination-results are not so favourable. During the year, 62,479 persons were revaccinated, against 63,122 for 1879-80. In 139 instances, the revaccinations were repeated; in 6,336 instances, the results could not be obtained, and in 10,801 it failed. The number of successful cases was 45,481, or 72.79 per 1,000, against 71.98 in the preceding year. The total deaths from small-pox were 940; the mean annual number for the last fourteen years being 10,233.

SCOTLAND.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

THE third lecture of this course was delivered by Dr. Stirling in Arbroath, on Tuesday evening, the large hall being filled to overflowing with an audience which numbered about 1,200. Food was the subject of the lecture. The importance of a further extension of the system of instruction in domestic cookery amongst the working classes was ably advocated. Special attention was directed to the various kinds of wheat-meal bread which are in use, it being shown how the recent improvements in "milling" enable millers to prepare flour which is relatively far more nutritious than flour prepared in the old way. Most of these improvements have come from Hungary, where the question of the proper "milling" of flour is treated in quite a scientific manner.

ADDITIONAL MEDICAL ELECTION.

THIS election took place on Saturday, and resulted in the return of Dr. Bain. As usual, the voting was by "nations"; and in all four nations, Dr. Bain had a majority; the several majorities being two, six, ninety-six, and one hundred, giving a total numerical majority of two hundred and four out of a total of nearly eight hundred. It cannot be doubted that Sir James Paget lost a large number of votes through his supposed or actual advocacy of a conjoint board. This question of a conjoint board has figured prominently in the discussions which have taken place amongst the students; and, as usual, the Aberdeen students have sifted the matter to the bottom, and their verdict has been given in a way by no means to be misunderstood, viz., against the conjoint board scheme, and the additional imposition of fees for obtaining a medical or surgical qualification. Most effective use was made of artistic talent to ridicule the "conjoint scheme"; and the illustrated leaflet representing the baptism and burial of the said scheme was a very clever caricature, charged with satire, in which the situation was admirably pourtrayed. The purported father of the scheme, the comments of gossiping friends, the baptism and speedy death of the "poor thing, unworthy of its father", together made up a *tout ensemble* which afforded hearty amusement to all concerned.

GASTRIC OR TYPHOID FEVER?

LAST week a case of some interest to the profession and public in those towns that have adopted a compulsory system of the intimation of infectious disease, was tried and decided in Edinburgh. Under the section of the Edinburgh Police Act for the notification of infectious diseases, John Bowie, L.R.C.S.&P.E, residing in 43, Launston Place, Edinburgh, was prosecuted for failing to intimate to the proper authorities several cases of typhoid fever which had occurred in his practice in Caledonian Crescent, Dalry District, Edinburgh. Dr. Bowie cross-examined the various witnesses for the prosecution, and, in his defence, contended that gastric fever, from which he considered his patients suffered, was not the same as typhoid fever; and quoted authorities in support of this. Dr. Littlejohn, the medical officer of health, contended that they were identical in all essentials; and, this view being adopted by the sheriff, he imposed a fine on Dr. Bowie. This case has led to various letters in the local press, and even a leading article; and Dr. Bowie, who has appealed against the decision, has written to the *Scotsman*, stating that Dr. Littlejohn had never visited the house in which the cases were till the afternoon of the first day of the trial; and that the diagnosis of the case had been left to an ex-policeman acting as a sanitary inspector, and that it was on the autho-

rity of this official that the prosecution was instituted. If this be the case, it certainly seems desirable, in the interest of the working of the Act, with the institution of which Dr. Littlejohn has been so actively and usefully associated, that cases of such importance should appear in court only after a thorough examination by competent professional authority.

THE MEDICAL STUDENTS' CHRISTIAN ASSOCIATION.

ON Saturday, November 12th, the Edinburgh Medical Students' Christian Association held its annual meeting in the Bible Society's rooms. There were present a number of students, members of the profession, and several professors. The Secretary's report showed that there had been an increase of eight on the numbers of the previous year. It was stated that the attendance at the meetings was not so good as might be desired, but that means would be taken to render the meetings more attractive. Drs. Moir and Ronaldson, and Professors Crum Brown, Spence, and Simpson, addressed the meeting.

VISIT OF THE DUCHESS OF TECK TO THE HOSPITAL FOR INCURABLES, EDINBURGH.

THE Princess Mary of Cambridge (Duchess of Teck) and the Duke of Teck, accompanied by the Countess of Hopetoun, Lady Lamington, Lady Hope, Lady Caroline Hope, and other ladies, paid a visit to the Longmore Hospital for Incurables on November 12th. They were received by Drs. Affleck, Joseph Bell, and Jardine, and Mr. Maclagan, secretary of the institution, by whom they were conducted through the hospital. The Duchess exhibited much interest in the various patients, the general arrangements and ventilation of the institution, and was evidently gratified by what she saw. She gave to each patient some flowers; and, at the close of the proceedings, had presented to her many of the ladies and gentlemen who were present, and who, by visiting and otherwise, show their interest in the hospital. Altogether, the visit was highly successful, and was the source of much pleasure to the patients, as well as to the distinguished and kindly visitors.

HANDSOME LEGACY TO PAISLEY INFIRMARY.

THE Paisley Infirmary has to be congratulated on the large sum of £6,000 which has been bequeathed to it by the late Mr. Clark, senior partner of the firm of Clark and Co., of the celebrated Anchor Thread-works, Paisley. Of the £6,000, a sum of £1,000 is to be added to the endowed funds of the Infirmary, while £5,000 is to aid out-door patients suffering from consumption. To the same Infirmary, the late Miss Jessie Gordon of Helensburgh has bequeathed a sum of £1,000 less legacy duty; and £900 has therefore been paid to the Treasurer of the institution.

THE LATE DR. FOULIS OF GLASGOW.

AT the meeting of the managers of the Glasgow Royal Infirmary held on the 7th instance, reference was made to the recent lamented death of Dr. Foulis, and an unanimous expression of regret was entered on the records of the institution at the loss the infirmary had sustained. During the seven years that Dr. Foulis acted as pathologist, he laboured very successfully in extending the pathological museum; and, while he enriched it by the addition of no fewer than seven hundred specimens, he greatly enhanced their value by an accurate and careful account of each case in the museum journals. It may be mentioned that a movement is on foot to perpetuate his memory, and give expression to the high esteem in which he was held, by founding a travelling scholarship in pathology, to be open to students of the Glasgow medical schools. Already the idea is being very liberally responded to by the profession in Glasgow.

THE REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending November 5th, it appears that the death-rate in the eight principal towns during the week was 21.1 per thousand of estimated population. This rate is 3.1 below that for the corresponding week of last year, and 0.5 below that for the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 12.3 per thousand and the highest in Glasgow—viz., 24.8 per thousand. The mortality from the seven most familiar zymotic diseases was at the rate of 3.8 per thousand, or 0.3 below that for last week. Diphtheria, under which heading are included certain other diseases of the larynx, was the most prevalent epidemic. Acute diseases of the chest caused 134 deaths, or 35 more than the number recorded last week. The mean temperature was 40.2, being 3.0 under that of the week immediately preceding, but 0.6 above that of the corresponding week of last year.

IRELAND.

DR. MAY has resigned the post of medical officer of Rathfriland Dispensary District, Newry Union.

THE Local Government Board have sanctioned a retiring allowance of £53 6s. 8d., to Dr. Swan, late medical officer of the Abbeyleix Workhouse. Dr. Swan held the post for the past thirty-seven years.

A MAN named Strain has again been fined for refusing to have his child vaccinated, and the Belfast guardians who prosecuted have directed their solicitor to prosecute week after week until the Act was complied with.

THE introductory addresses at the House of Industry Hospitals, and at the Mater Misericordiæ Hospital, which were to have been delivered last week, have been postponed in consequence of the death of Dr. Hayden.

DR. WILLIAM BEAMISH, medical officer of Her Majesty's male and female prisons, Cork, has retired, after a service of forty-one years. The way in which he discharged the duties has been shown by the reports of the different Inspectors-General of Prisons in their annual inspections, and by the low rate of mortality of those under his care. It is stated that the Prisons' Board have recommended the Treasury to grant Dr. Beamish the highest superannuation allowance in their power to award.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AT a meeting of the Fellows held on Saturday last, Mr. Butcher was elected to the vacancy in the Council of the College caused by the death of Dr. McClintock.

SOCIETY FOR NURSING THE SICK POOR, BALLYMENA.

DURING the past quarter, 46 cases (19 surgical and 27 medical) have been regularly attended; while, in 36 instances, advice or assistance has been given. Of these 46 cases, 17 have been discharged convalescent, and 6 have died. It is pleasing to note that the ladies' committee express their grateful acknowledgment of the courtesy and attention of the medical men under whose direction their nurses have worked.

ST. JOHN'S AMBULANCE ASSOCIATION.

AT Kingstown, a course of instruction—the second of the kind—was completed last week by Dr. Mackey, and the members of the classes who had attended presented the lecturer with a purse of sovereigns and an illuminated address, for the profit, instruction, and practical knowledge which they had derived from the lectures delivered.

ALCOHOLIC STIMULANTS IN IRISH WORKHOUSES.

THIS was the subject of a paper read at the Health Section of the Social Science Congress, Duhlin, by Dr. E. MacDowel Cosgrave. The question, he observed, How far alcoholic stimulants should be used in our workhouses, was an important one, as such stimulants were at present the cause of much direct and, it was to be feared, indirect expenditure. During 1880, the sum of £11,845 8s. 7d. was spent on stimulants in the Irish workhouses, forty per cent. of the sick receiving them. The cost

per head varied from 9¾d. in Ulster, to 3s. 3d. in Connaught. In the Dublin Unions it averaged 2s. 10d. per head. Stimulants were given to attendants in at least seventy-six of the one hundred and sixty-three Unions. The amount of stimulants consumed seemed, on the whole, to be decreasing; but in some Unions it was increasing. In the South Dublin Union the rate per head had fallen, during the last five years, from 2s. to 9½d., whilst in the North Dublin Union it had risen from 1s. 5d. to 1s. 9d. Stimulants could not fairly be used in the Unions as food, as their cost would be excessive, to say nothing of the uncertainty of their utility. Thus, even if all the food-elements contained in alcohol were capable of being burnt, one imperial pint of Guinness's stout would only be equal, as food, to rather less than five ounces of sugar. Also, 3½d. worth of bread was equal, as a force-producer, to 3s. 4½d. worth of stout, estimated at its highest possible value. Alcohol was also too costly to be used as a food-adjunct for the poor. The results that would follow if the quantity of stimulants used in the Irish workhouses were materially diminished there would probably be favourable. Insurance statistics and army and benefit club experiences showed that a total abstainer was, *cæteris paribus*, not only very much healthier that a drunkard, but also appreciably a better life than a moderate drinker. The experience of any Unions which had diminished the amount of stimulants used, tended to show that it had resulted in an increase of health. Many English Unions showed this. If the return of the number of inmates, deaths, and costs of stimulants in the Irish workhouses were granted annually, there would soon be sufficient ground for drawing more positive conclusions. In the South Dublin Union the death-rates for the past five years were 67, 69, 54, 55, 37, whilst the cost of stimulants per head was 2s., 1s. 5d., 1s. 2d., 1s. 1½d., 9½d. In the North Union the corresponding figures were 65, 76, 72, 86, 67, and 1s. 5d., 1s. 2d., 2s. 1d., 2s. 5d., 1s. 9d. Besides improving health, the withdrawal of stimulants would improve the order, lessen the temptations to enter and to remain, discourage malingering, lessen the rates, and do something to render those leaving the workhouses less likely to return, and more likely to change from rate-absorbers to rate-producers.

ULSTER HOSPITAL FOR CHILDREN.

A BAZAAR and fancy fair in aid of the funds of this deserving institution was held in the Queen's Arcade, Donegall Place, Belfast, on the 10th instant, and following day. Additional accommodation was required for the increasing number of patients, and, in order to obtain this, and to remove some liabilities, a special appeal was made, in order to extend its usefulness. At the opening of the bazaar, Sir John Savage, Chairman of Committee, made a brief statement of the claims of the hospital to support. The institution was founded about 1873, for the purpose of alleviating and lessening disease and suffering amongst the children of the poor. During the eight years of its existence, there have been 1,047 patients admitted to the wards, and 35,292 patients treated at the extern department of the hospital. Were it not for the kindly and sympathetic aid afforded by it, many of the little sufferers in all probability must have perished; and it is impossible to overestimate the real and substantial good an institution like the Ulster Hospital for Children affords to the needy and distressed. It is believed that the bazaar has been one of the most successful held in Belfast for many years, and that a very handsome sum will be realised.

NORTH DUBLIN UNION WORKHOUSE.

IN consequence of the removal of Dr. Joseph E. Kenny, by sealed order of the Local Government Board, from his post of medical officer to the workhouse, its board of guardians will, on the 30th of this month, proceed to elect a qualified medical officer to fill the vacancy, at a salary of £150 per annum. Dr. Sigerson, who with Dr. Kenny, made a report for the Dublin Mansion House Committee Relief Fund on the outbreak of fever in the West of Ireland in the summer 1880, is, we understand, a candidate for the office. A sum of nearly £900 has been subscribed by his sympathisers and friends since Dr. Kenny's committal to Kilmainham Jail as a fund towards indemnifying him against the loss he has sustained professionally by his imprisonment and deprivation of office.

INTRODUCTORY ADDRESSES AT THE MEDICAL SCHOOLS IN DUBLIN.

THE LEDWICH SCHOOL OF MEDICINE.

THE first, in point of time, of the introductory addresses for the session 1881-2 in Dublin was delivered at the School by Mr. WILLIAM STOKER, recently appointed one of the lecturers on Surgery in the School. The lecturer alluded to the losses Irish medicine and surgery had sustained in the recent deaths of Drs. Hayden and McClintock, dwelling specially on their merits as authors. The claims of the Irish School on its alumni to bequeath it a literary reputation were then warmly advocated, it being contended that, while "English practice and theory are amply reflected in print, tradition is the only custodian of some of Ireland's best work." An appeal was therefore made to the present leaders of Irish medicine not to let the fruit of their ripe experience be lost to their successors. The lecturer then passed in review the leading features in the new educational scheme of the Royal College of Surgeons in Ireland, and dealt severely with some innuendos recently made as to the Dublin private teachers. Another important feature in the address was a synopsis of the medical regulations of the Royal University.

THE MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.

THE lecturer at this hospital was Dr. FOOT, physician to the hospital. After some introductory observations Dr. Foot said: "Success in hospital education, as in all other kinds of training, is to be achieved only by making our method subservient to that spontaneous unfolding—that natural process of mental evolution, from the simple to the complex, which all minds go through in their progress towards maturity. The best means of superintending this process of evolution is a problem which has engaged the attention of the most thinking minds of the present as well as of previous generations." Speaking for the department of clinical medicine, Dr. Foot said "that, in the process of mental evolution the medical student passes through, our object is as soon as possible to make his education a process of self-instruction. As soon as education is made a process of self-instruction it becomes a pleasurable process; and when the acquisition of knowledge has been rendered habitually gratifying, there arises a tendency to continue, without much or any superintendence, that process of self-culture previously carried on under superintendence. For, as long as study is habitually repugnant, so long will there be a tendency to discontinue it when free from supervision of a teacher, or the whip and spur of a master. The attitude of mind in the young medical student at first is that of submission to dogmatic teaching; his tendency is to accept without inquiry whatever is established. By-and-by, scientific teaching makes constant appeals to individual reason. Its truths are not to be accepted on authority alone; but all are at liberty to test them—nay, in many cases the pupil is required to think out his own conclusions. He is not asked to admit the propriety of any step without seeing it to be true. Hence trust in his own powers is produced, which is further increased by the uniformity with which Nature justifies his inferences when they are correctly drawn. From all which mode of teaching there flows that independence which is a most valuable element in character, and is a prime factor in the genesis of self-culture. 'Every person', says Gibbon, 'has two educations—one which he receives from others, and one, the more important, which he gives himself;' and on this point Sir Walter Scott has observed that 'the best part of every man's education is that which he gives himself." "Many of you who are now listening to me", Dr. Foot continued, "are in this second stage of education—this stage of self-instruction—and are almost emancipated from the control of the teacher, save so far as relates to the suggestion of some particular line of observation, or some special and definite subject of investigation. You have passed from the stage of opinion called 'the unanimity of the ignorant' to that called 'the disagreement of the inquiring', but have not settled down into the final phase—that of 'the unanimity of the wise'. In this transitional period, pride, resulting from self-acquired knowledge, is to be carefully guarded against. Many are spoiled by listening to its voice whispering to them that the teacher can teach them no more. They forget that he may possess an element of knowledge they are as yet quite unprovided with in the inestimable [illegible] of experience, which is [illegible] by the marriage of reflection with carefully observed facts. The cure for this tendency to [illegible] remarks, 'in [illegible]

come to have less confidence in themselves and more in nature.' How true are the words of Cowper:

'Knowledge is proud that he has learned so much;
Wisdom is humble that he knows no more.'

"The pride of science is humble when compared with the pride of ignorance, and who can pretend to know much if he reflects that the great sea of knowledge is unfathomable, and that the wisest, at the end of the longest life, can only assert that he has wetted his ankles on its brink." "In conclusion," said Dr. Foot, "I will only add that, in so far as accurate practical knowledge, purity of intention, moral and intellectual tact, modesty, and true, that is, sympathetic, humanity can rule over the caprices of fortune and of man, in so far you may be the artificers of your own fortune; it is also certain, beyond fear of doubt, that working for pure objects and with pure wishes, you will find contentment even *without* external successes, proving the truth of what Spencer says:

'The mind is its own place, and in itself
Can make a heaven of hell, a hell of heaven.'"

COUNTY BOARDS.

THE decision of the Cabinet to make the chief Government measure of the coming session of Parliament a Bill for the establishment of County Boards, with a view to assimilate the local government of counties to that of municipalities, will be hailed with much hopefulness by those who have had practical experience of the anomalies of the present system. From the point of view especially of sanitary organisation, the Bill, if it be framed in the spirit and on the lines that may fairly be expected, will be of the utmost value and importance. County boards have long been demanded, by those best competent to judge, as the great desideratum of local self-government. It is not now necessary to go into details on this subject, since the whole question was thoroughly exhausted by the Joint Committee of the British Medical and Social Science Association at least ten years ago. Though the points urged by this committee were brought prominently before the Government of the day, Mr. Stansfeld stubbornly declined to adopt any of their suggestions, and the Public Health Act of 1872 came into force with no machinery for its adequate fulfilment. An attempt will no doubt be made to palm off this idea of county boards as a new and entirely original invention. It is worth while, therefore, recalling to mind that as early as 1871, when there was no sanitary organisation to speak of in existence, and the whole system of county boards could have been arranged for with no clashing of existing interests at all, the Joint Committee prepared and made public an exhaustive scheme which has never been improved upon, and which, even when read in the light of the accumulated experience of the last ten years, is as nearly as possible perfect. At the conference convened in June of 1880 by the Society of Arts to discuss this very question, Mr. Ernest Hart, believing that the general public were very insufficiently informed of the labours of the committee, laid before the conference an abstract of their investigations, and the conclusions at which they arrived. (See vol. i, 1880, p. 911.) It is earnestly to be hoped that the Government, in drafting their Bill, will see fit to adopt the sound principles laid down by the committee in their several reports on the subject; otherwise it will become the duty of the Parliamentary Bills Committee to take steps for securing the amendments necessary to bring the Bill into conformity with the teachings of experience on this most important and vital question of the public health.

THE CHANDOS CHAIR OF MEDICINE AND ANATOMY.

A STATEMENT, now being issued to the graduates of St. Andrews and others, sets forth that the misfortunes which have of late overtaken the University of St. Andrews, and particularly its medical chairs, are so grave as to necessitate some action on the part of the well-wishers of the University. This action is especially called for in the case of the Chandos Chair of Medicine and Anatomy, which, considering the restrictions placed upon it, and the amount of work performed by the Chandos Professor, is, perhaps, the worst paid chair in the University.

The emoluments of the Chandos Chair, which at their best seldom reached £300 per annum, are now, owing to deterioration in the value of college lands and other causes, reduced to £200 or thereby—a sum altogether inadequate to support any university chair, particularly a leading medical chair. The unsatisfactory position of this chair has been frequently alluded to in the medical* and other journals of late, and need not be discussed here; suffice it to say, it is proposed to raise a fund for its better endowment, and it is hoped the idea will meet with the hearty approval of the St. Andrews' graduates, and others interested in medical education. The St. Andrews' medical graduates alone number considerably over 1000, and if each graduate only contribute £1 1s., a sum of upwards of one thousand guineas will be subscribed, which will form a not unimportant addition to the at present very inadequate income of the chair. While it is proposed to fix the minimum subcription at £1 1s., it is not thought desirable to restrain the liberality of those who can afford, and are disposed, to give more.

* BRITISH MEDICAL JOURNAL and *Medical Times and Gazette*, March 27th, 1880; *Medical Times and Gazette*, 11th September 1880; *Medical Press and Circular*, 15th September 1880, etc.

ROYAL COMMISSION ON INFECTIOUS HOSPITAL ACCOMMODATION.

WE understand that a Royal Commission has been appointed to consider the hospital accommodation in the metropolis in relation to infectious diseases. The Commission will consist of Lord Blatchford, Sir James Paget, Sir Rutherford Alcock, Dr. Burdon Sanderson, Dr. Alfred Carpenter, Mr. Jonathan Hutchinson, Dr. Broadbent, Mr. Arthur Pell, M.P., and Mr. Pemberton, M.P.

FEVER-DENS IN WHITECHAPEL.

AN epidemic of typhus fever is at present prevalent in some of the streets in the immediate neighbourhood of Commercial Street. We find that it began on October 10th, in one of the houses in Keate Court, the seat of a similar outbreak in 1876, and which was included in the area condemned by the medical officer of health more than five years ago. The streets, etc., embraced in this area are as follows: Tewkesbury Buildings, Inkhorn Court, George Yard (south end, west side), Angel Alley (south end), Queen's Place, New Court, George Yard, Wentworth Street, George Street, Flower and Dean Street (south side from George Street to Commercial Street), Wilson's Place, Lower Keate Street, Keate Court, Upper Keate Street, Sugar Loaf Court, Crown Court, and Commercial Court. It is stated that, for density of population, these localities are not exceeded in any other district in London. "The mortality in this area is largely in excess of the average rate of the district of Whitechapel, being as 46.3 to 26 per 1000" (*Sanitary Report of Medical Officer of Health*, April, 1876).

The houses in which the present epidemic first made its appearance are overcrowded, very filthy, and dilapidated; while, in some, the staircases are without light, and in a dangerous condition. The fever has since appeared in some licensed common lodging-houses, which are under police supervision, in Dorset Street, which is situated on the other side of Commercial Street. With regard to the condition of these houses, and similar ones in the district, it is needless to consider them as elements of overcrowding; and they are the cleanest, best ventilated, and healthiest in every respect. It is thus to be seen that, in all probability, what occurred in these licensed lodging-houses was that the fever either spread from the houses in Keate Court to the lodging-houses, or arose from infection brought into them by rag-gatherers, sorters, or others who inhabit them, because it appears on investigation that the materials sorted by these people were semiputrescent and swarming with vermin. It is obvious that people handling such rags as just described must have incurred serious danger of various kinds of infection.

Up to the present time nine cases of typhus have occurred in this area; these cases have all been removed to the Homerton Fever Hospital, where they now remain. In addition to these, five cases have occurred in Dorset Street, four were in the licensed lodging-house above mentioned, and one in No. 20, an isolated house let out by the room. According to latest information, only one case has proved fatal in the Homerton Hospital; but, inasmuch as several of the patients now in the hospital are in a high state of fever and delirious, it is of course impossible to state what the actual mortality of these thirteen cases will be.

It should be stated that in the house No. 30, Dorset Street, the first person who took the fever was Jane P., the wife of a rag-sorter; the husband then had it. The next person was Edward A., rag-porter, who was a friend of F. and Jane P., and who used to take his meals with them; the fourth and last person who contracted the fever was John B., employed in the house, who was also a friend of F. and J. P., and who used to take his meals with them occasionally.

As regards the origin and course of the epidemic in Keate Court district, it appears that Thomas S., his mother, and two sisters were the first persons who contracted the disease, and were removed to the Fever Hospital five weeks ago. Although Thomas S. was the first to contract the disease, it has been utterly impossible to trace it to its origin. As a matter of fact, the conditions in which he was living were as follows. T. S., aged 18, with his mother and two sisters, lived in one

room in the attic of No. 5, Keate Court, where of course all cooking, washing, etc., for the family was carried on. He was taken ill, and remained at home until the disease became pronounced. The remaining cases, with two exceptions, appear to have been sporadic. The first was Alfred M., aged 19, shoeblack, of 11, Flower and Dean Street, licensed lodging-house. Out all day, generally came home very tired; had supper, and retired to bed about 8.30 P.M.; never went into other houses. The second was Fred. D., aged 32, of 11, Flower and Dean Street; the third, Edw. M., aged 29, of 12, Thrawl Street; the fourth, Michael H., aged 32, no fixed address; he was taken to the infirmary on October 26th, and developed typhus the day after. The fifth was Thos. T., age unknown, of 33, George's Yard, a travelling tinker.

The two exceptional cases were those of F. M. and J. W. As regards the case of F. M., aged 5, 32, Baker's Row, the mother stated that her son had been staying with his aunt at Homerton, and, whilst there, was in the habit of playing with his aunt's errand-boy; the latter was taken ill, and developed typhus; the former was sent home, but two days later had to be conveyed to the Homerton Fever Hospital with typhus. J. W., aged 35, a rag and bone collector, occupying with his wife one room at 3, Charlotte Court, Charlotte Street. His landlady stated that he had lived at the above address for some time; but that, only a few days before he was removed, she found out that on two succeeding nights he had brought home the rags and bones collected during the day, and had deposited them in their room during the night—so that he and his wife had slept in this small apartment, and had inhaled the effluvia from this mass of filth during at least fourteen or fifteen hours. Notice to leave was immediately given to them; but the same day the man complained of feeling very ill, and two days later was removed with typhus.

It may be mentioned that, during the same period of time, several cases of typhoid fever have occurred in this district. Of course, in such hygienic conditions as have been above described, typhoid would almost of necessity be endemic; and, as far as we have been able to gather on this point, it is the case in this district.

The above facts emphasise in a remarkable manner the truth of the principles laid down by Dr. Buchanan, in his report to the medical officers of the Privy Council, on the Typhus Fever Epidemic in Liverpool, 1865.

The present epidemic in Whitechapel might have been foreseen by any expert in hygienic science. It has broken out afresh in houses which were condemned as unfit for human habitation five years ago. It is obviously high time that the lives of the poor people, who are forced to inhabit these houses, should be protected by those in whose power it lies to minimise the danger, and that the houses should be forthwith pulled down.

HEALTH OF CUSTOMS OFFICERS.

THE Annual Report of the Commissioners of Customs includes, as usual, the report of their medical inspector, Dr. W. Dickson, R.N., on the sanitary condition of the officers in his charge during the year 1880. The force in the port of London, 933 in number, is stationed on the river or its banks between London Bridge and Gravesend, in employments of diverse and multifarious character, one-fourth of them being chiefly resident on board-ship, distributed, for revenue purposes, in vessels from foreign countries on their arrival in the Thames. Such persons might be supposed to be peculiarly liable to contract disease of infectious character from the crews, cargoes, passengers, and baggage with which they are necessarily so much in contact; yet there has been this year, as almost always, an entire immunity from exanthematous or other zymotic disease in this class of officers. A few cases of the kind occurred among the officers resident in London; but in no instance was the disease contracted on duty, but was always traceable to their own family or neighbourhood. The febrile zymotic class of illness yielded only 4½ per cent. of the total number of cases in the year, and only 3 per cent. of the whole time lost to the force by sickness.

Very different was the proportion of constitutional diseases, especially rheumatism and gout, which formed 18 per cent. of the entire amount of sickness, and were often associated with the pulmonary and cardiac disorders which occur in the course or as the sequel of arthritic affections. Pulmonary diseases, including phthisis, constituted 31 per cent. of the whole amount of sickness—a larger proportion than usual, and chiefly due to the very severe weather of January and October, almost unprecedented in English meteorology. Diseases of the nervous system, including insanity, were in the ratio of 10 per cent. Those of the digestive organs comprised 14 per cent. of the total number of cases, but only 7½ per cent. of the entire amount of sickness, calculated as time lost to the service. Diseases of the skin and cellular tissue, and accidental injuries, contributed each about 10 per cent. of the sum total, and are found to recur, in the experience of many years, in a more fixed proportion than affections of the internal organs.

As many of the Customs officers are well advanced in life, chronic and senile diseases are found in considerable numbers. The mortality is almost entirely caused by organic disease of long standing. In 1880, it was four in excess of the average, which for many years has been 13 per 1,000. The deaths were at the rate of 15 per 1,000, besides two others caused by drowning—in all, 17 per 1,000; the mean age of those who died having been fifty years. But the amount of invaliding or premature superannuation has been exceedingly small—only 2 per 1,000, at the mean age of fifty-four years. And herein lies the peculiarity of these statistics, which assimilates them more to those of ordinary civil life; for, as is well known, the great majority of cases of organic disease are at an early period eliminated by invaliding out of the Army, Navy, Police, and Post Office services; and therefore no accurate or even approximate calculation can ever be arrived at of their real mortality. The average age of those forces is, moreover, considerably lower than that of the officers of Customs, which is not much less than forty years. Considering the exposure to the weather that many of these officers undergo, their protracted hours of duty and broken rest, and the circumstance that no abatement whatever of their stipend is made during absence by sickness or accident, the proportion of men incapacitated from duty seems to be remarkably small. The daily number on the sick-list has been only 4 per cent. on strength; the ratio of admissions was 73 per cent.; the mean duration of each case was seventeen days and a half; and the time lost by sickness throughout the year by each member of the force averaged twelve days.

At Liverpool, where there are 400 officers of the same class, the ratios have been somewhat higher. The time lost by sickness has been sixteen days per man; the mortality rate has been 20 per 1,000, and the invaliding rate 12 per 1,000.

These are the general results; but full details of the occurrence of disease, its incidence on the various classes and at different seasons, are registered in the ample tables comprised in Dr. Dickson's report.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, General Secretary.

BRANCH MEETINGS TO BE HELD.

Honorary Secretaries.—Clifton, November 1881.

South-Eastern Branch: East Sussex District.—The next meeting of the above District will be held at the Bear Inn, Nevill-street, Tunbridge Wells, on Thursday, November 24th, at the New Kentish Hotel, Tunbridge Wells; Mr. Benjamin Rix in the chair. Meeting at [illegible] P.M. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. Members intending to read papers should communicate at once with the Honorary Secretary.—T. Jenner Verrall, Honorary Secretary, 78, Western Road, Brighton, November 7th, 1881.

Staffordshire Branch.—The first general meeting of the present session will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 24th, 1881, at 4 P.M.—Vincent Jackson, General Secretary.—Wolverhampton, November 6th, 1881.

CORRESPONDENCE.

PROPOSED SUBSCRIPTION TO DR. FERRIER.

Sir,—Mr. Morton Smale has, I am sure, by suggesting the formation of a fund to defray the expenses which Dr. Ferrier may incur in the action about to be brought against him by the Antivivisection Society, anticipated the wishes of very many members of the profession. I shall be happy to subscribe a guinea; and if we cannot share the worry and annoyance to which Dr. Ferrier must necessarily be subjected, we can, at least, ensure that to these is added no pecuniary loss.—I am, your obedient servant, C. T. Brookhouse, M.D.

43, Manor-road, New Cross, S.E., Nov. 15, 1881.

Sir,—Should Dr. Ferrier be victimised by any fanatical proceedings of the antivivisectionists, many in the ranks of the profession would, like myself, feel it a privilege should they be allowed to take the opportunity of slightly acknowledging the debt of gratitude which the profession owes to him and workers like him.

I hope that he will allow himself to be indemnified in regard to any expenses that he may be put to, by the willing contributions of professional brethren and disciples, and that a fund may be opened for the purpose.—Yours obediently, W. Wilberforce Smith, M.D.

3, Eastbourne-terrace, W., 11th Nov. 1881.

Sir,—I am desired to send to you for publication the accompanying resolution, unanimously adopted at a meeting of the Sheffield Medico-Chirurgical Society, held this evening.—Yours very truly,

Simeon Snell,
Honorary Secretary to the Sheffield Medico-Chirurgical Society.

"At the meeting of the Sheffield Medico-Chirurgical Society, held on November 10th, 1881, the following resolution was unanimously adopted:—"The Medico-Chirurgical Society of Sheffield beg to offer their hearty sympathy to Professor Ferrier under the attack which has been made upon him in reference to a recent vivisection, and to express their high admiration of his scientific attainments and researches, and their warm appreciation of the great services he has rendered to medical science and suffering humanity."

Sir,—The subject of vivisection is being daily brought more and more prominently before both the profession and the public, and notwithstanding the able addresses delivered by Professor Fraser, Mr. Simon, and Professor Virchow at the recent meeting of the International Medical Congress, and the resolution proposed by Professor Humphry at the meeting of the British Medical Association in August last, and which was passed with only one dissentient, yet nothing seems to have been done to check the action of "an unscrupulous band of agitators who, heedless of truth and reason, are prosecuting their cause with all the blind impetuosity of ignorance and misdirected sentimentality." It surely is time that the profession should take decided and unanimous action, more especially when I believe I am correct in stating that a criminal prosecution has been undertaken by the Antivivisection Society against Professor Ferrier at the Bow Street Police Court for performing operations on monkeys without a license from the Home Secretary. May I be allowed to suggest that a meeting should be called to consider the advisability of forming an association, the objects of which should be the promotion of a more general knowledge of the reasons and results of so-called vivisection amongst the public, and the consideration of what steps can be taken to remove the impediments which at present stand in the way of scientific investigation in this country? By the "Cruelty to Animals Act," 1876 (39 and 40 Vic., c. 77) painful experiments on animals are prohibited under heavy penalties, etc. It is possible that Professor Ferrier may be "mulct" of heavy damages; and, as it is a question which concerns each individual member of the profession, I consider that the legal expenses should be borne by the whole profession, and not left as a personal burden on the back of such a distinguished and eminent worker as Dr. Ferrier. If the above proposal should meet with your approval, I shall be happy to send you my mite if you will undertake to receive subscriptions.—Yours, &c.,

W. J. H. Lush, M.D., F.R.C.P.E., M.R.C.S.E.

Fyfield, Andover, Nov. 12th, 1881.

*** It will be seen that the British Medical Association has undertaken, and successfully carried through, the defence; of which it will, of course, bear the costs. We are of opinion, however, that a subscription to a fund, which should take the shape of a testimonial expressive of sympathy with Dr. Ferrier, admiration of his excellent work, and protest against the unjust persecution and the groundless obloquy to which he has been subjected, would be far from out of place; and we should gladly receive subscriptions for such a purpose. —Ed. B. M. J.

MEDICAL SOCIETY OF LONDON.

Sir,—We should be greatly indebted to anyone who would kindly supply us with the Christian names in full of the following gentlemen, who were orators of this Society:—Dr. E. Edwards, 1779; Dr. Sutton, 1791; Dr. Fryer, 1792; Mr. Saumarez, 1813; Dr. Blicke, 1836; and also of Dr. R. W. Bampfield, who obtained the Fothergillian Medal in the year 1824.—We are, Sir, yours obediently,

T. Gilbart Smith,
Edmund Owen,
Hon. Secretaries to the Medical Society of London.

8th November, 1881.

MILITARY AND NAVAL MEDICAL SERVICES.

THE NEW SCHEDULE OF REGULATIONS FOR ENTRANCE INTO THE ARMY MEDICAL SERVICE.

Sir,—In the Educational Number of the Journal of September 10th you announced that a new schedule was in course of preparation regulating the conditions of entrance into the Army Medical Department; and I now see the schedule in the Journal of the present week. I have read the regulations carefully, and find nothing really new in them; they are in exact agreement with the recommendations on the subject in the report on the state of the Army Medical Department by the triumvirate of 1878, the fallacies of which were thoroughly exposed in a serious remonstrance published by the Board of Army Examiners of that time. They also accord with the terms of the warrant which followed those recommendations. I need not refer further to these documents; many able criticisms of them appeared in the Journal of the latter part of the year 1878 and in that of the following year. The plan of nomination is reiterated with a little more emphasis and distinctness in the present schedule, but its features are not altered in any essential respect. The effect of a return to a system of nomination for admission into the medical service of the army is probably realised but by few persons. It has undermined the liberty and power of the department, and overthrown what it took many years for it to acquire. Its introduction would surely not have been permitted by the chiefs of a Liberal Government, had they had time, or had they regarded it as a matter of sufficient importance, to master its bearings. In all other branches of the public service, including those of the army, the principle of open and free competition has been steadily gaining ground; in the Army Medical Department alone has it been departed from. The profession and the public had the right of obtaining all appointments made in the military medical service by free and fair competition; that right has been seriously curtailed and shaken. True that it is conceded half the appointments shall remain open to public competition; but there is no reason why, as half have been taken away from public competition, the other half should not be also taken, if it be considered expedient, by those who may hereafter have the same power to do so as their predecessors. The *laudatores temporis acti* may well be pleased, for the reintroduction of nomination is a return to the system which was in force in the days, long past, when Sir James McGrigor was Director-General of the department. In those days the candidate whom the Director-General might nominate (ostensibly it was the Secretary for War who nominated) was first recommended by a teacher or governing body of some medical school, and was then sent to the military hospital at Chatham, whence a report had to be furnished as to the qualities of the novitiate before he received a commission. But even at that time there was an examination, before he was sent to Chatham, by a board in London, of which the Director-General was himself president. There was thus an additional test to what is now required by the present plan

of nomination; and the history of the medical service at that time has sufficiently shown to what private account in occasional cases the system of nomination was then turned.

When the history of the last few years in the Army Medical Department comes to be written, it will appear as an epoch remarkable for the opposite direction in which the department has moved to that in which other parts of the army have been moving. While in other branches the principle of free competition has advanced, in the medical branch it has been restricted. In other branches scientific attainments have been more and more encouraged; in the medical, less and less. Examination before promotion to the higher grades of the combatant service, to make sure that the officers concerned have not retrograded, but have kept pace with the advance of their special science, has been more and more insisted upon, and even extended; in the Army Medical Department the only examination before promotion which existed has been discontinued. The examination which was instituted at Netley, so that the quantity and quality of work done might tell with advantage to the probationers who worked there, has been stopped, and a minimum qualifying standard substituted. In the combatant branches of the army competency as a test for holding special staff appointments is becoming more and more the rule; in the medical branch the mechanical movement of numerical succession has become more and more fixed. The army medical officers at one time could pride themselves on theirs being the most learned corps of the army. Even in the days when unrestricted nomination and private examination were the rule, scientific attainments and learning met with encouragement and reward. Now, while other corps in the service have their special scientific journals, and carry on scientific discussions at their corps meetings, which are followed with interest in foreign countries as well as in our own, in the Medical Department professional service meets with rare and scant recognition, and its one annual publication has lost the greater part of its scientific value. It is not possible for such a state of things, in an important branch of the public service, to last. Signs are not wanting that the department is already shaking off the professional lethargy into which it has been gradually brought. By the determination, a few years ago, of the best among the rising generation of young surgeons not to enter the service of the army while the status and remuneration remained as they were, and with the assistance and influential co-operation of the civil members of the profession, especially of the British Medical Association, the scale of pay, the relations of rank, and the pensions of the medical officers on the completion of their service, were materially enhanced. By these means the medical officers have been placed in a position of independence in these respects that will bear comparison with that of the officers in any other department of the service. Hope must now rest on the exertions of those officers of the department who believe that it is on their usefulness, and on the right fulfilment of their great calling as sanitarians, physicians, and surgeons in the military service, that the real distinction of the medical corps depends to get for the department a standpoint in scientific and professional reputation worthy of its name. It is not on administration, nor on rewards from those in high places, that the department must depend for gaining such a character: the medical officers must win it for themselves in spite of adverse circumstances.—I am, etc.,

November 12th, 1881. A. M. D.

SERVICE IN THE INDIAN ARMY.

Sir,—Changes in the Army Medical Department have been [illegible] but I have seen nowhere advocated [illegible] considerable room to many medical officers [illegible] of Indian service, the present length of which [illegible] ages were longer, and return more difficult and expensive than now. The term of Indian service has not been altered in the case of [illegible] cers, and a change from five years to three or [illegible] often be a priceless advantage, while it would scarcely add to the expenses of the State. Even with the present term of five years, many officers are found willing to extend an Indian tour to six or more years; and there will be no difficulty in getting volunteers to remain in India on account of the higher allowances, while, by the change I propose, those who wish to come home on account of health, or for family reasons, would be enabled to do [illegible] expense attendant on exchange.

There are many three-year stations with incomparably better climates than have those of the East Indies; and it seems only reasonable that an equally early opportunity of return should be available in the case of all.—I am, sir, yours, etc., S. M.

In [illegible] year; after five years, it becomes £250 a year. (For other rates of pay according to rank, see Royal Warrant of December 2nd, 1879.) He has allowances of fuel, light, and quarters; these allowances vary according to rank and length of service. The pay in India varies [illegible] tailor will furnish an estimate of price of the separate items. When an army surgeon is ordered to proceed from one station [illegible] paid for him.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS AND THE LUNACY COMMISSIONERS.

THE following correspondence will be read with pleasure in connection with our previous comments on this subject in the BRITISH MEDICAL JOURNAL.

3, Bolt Court, Fleet Street, November 4th, 1881.

MY LORD,—We are directed by the Council of the Poor-law Medical Officers' Association to write and complain of certain statements which appear in page 121 of the late report of the Commissioners in Lunacy, which seriously reflects on the capacity of Poor-law medical officers as certifiers of lunatics. The Council venture to remind your Lordship that the great bulk of the certification of lunatics throughout the country must of necessity pass through the hands of Poor-law medical officers, most of whom, though holding badly-paid offices, are highly educated and honourable men. Being fully cognisant of the very large services you have at all times rendered to the cause of the sick poor, and the kindly manner in which you have at various times spoken of the arduous labours of Poor-law medical officers, the Council trust that you will, on reflection, see fit to modify the harsh expressions to which you have given countenance by your signature, and will take an early opportunity of removing the impressions caused by the report, of which they feel they ought complain.—We have the honour to be, my Lord, your obedient servants,

JOSEPH ROGERS, M.D., Chairman of Council.
J. WICKHAM BARNES, F.R.C.S., Honorary Secretary.

The Right Honourable Earl of Shaftesbury, K.G.

St. Giles's House, Cranborne, Salisbury, Nov. 8th, 1881.

SIR,—It was not until this morning that I had the honour to receive your letter.

I reply to it immediately, without waiting to consult my colleagues, for I am sure that I know their sentiments as well as I know my own.

They will concur, I am sure, with my expression of regret that a passage in our last report should have given pain to so valuable and deserving a body of men as the Poor-law medical officers. I have not the document at hand, so I cannot refer to the precise language, but I have a very distinct recollection that the statement was made, not in disparagement of the merits of yourself and your colleagues, but to meet an assertion (made on authority to which I need not further allude) that the signature of the Poor-law medical officer, or some other official, should be absolutely, and indispensably, necessary to every certificate for the admission of patients into houses licensed for the care and treatment of the insane.

It was against the imposition of such a necessity, by Act of Parliament, at all times, in all localities, and in all circumstances, that our remarks were directed.

It would, indeed, grieve me to become a party to any injurious reflections on the Poor-law medical officers collectively.

Both in the present day and in former days I have had, and I still have, abundant evidence of their skill, diligence, and humanity.—I am, Sir, your obedient servant, SHAFTESBURY.

J. Wickham Barnes, Esq., F.R.C.S.

CHOLERA IN CYPRUS.

[illegible] is almost identical with the Egyptian notice.

"Under the powers vested in him by the 'Quarantine Ordinance, 1879', and in consequence of the existence of cholera in Arabia, His Excellency the High Commissioner [illegible] Cyprus from Aden or Ottoman Ports in the Red Sea, which are provided with clean bills of health, and which have not undergone quarantine in Egypt, shall undergo a quarantine of observation of seven full days from the date of the medical [illegible] case in which satisfactory proof can be given to the sanitary authority that no case of a suspicious character has occurred on board during the voyage, and if, at the same time, the vessel is in a good sanitary state, the term of quarantine will be reduced in accordance with the following scale.

[illegible]

Passengers [illegible] luggage, [illegible]

disinfection may be ordered to be carried out by the superintendent of quarantine. 2. All infected ships that resort to any [illegible] which may occur on board of cholera [illegible] during the voyage, whatever its duration, must undergo strict quarantine. The quarantine has to be performed at the port of [illegible]. The quarantine to be performed in every case will date from the date of the vessel's arrival at the lazaret, and may be extended by ten days if considered necessary by the superintendent of quarantine. Susceptible goods, passengers' luggage, etc., shall be landed in quarantine and [illegible] considered necessary by the superintendent of quarantine. Non-susceptible merchandise shall not be landed until after the expiration of the quarantine. All vessels arriving in [illegible] which have not had any suspicious case on board during the voyage, must submit to a medical inspection. Free pratique shall only be given if the report of the visit is satisfactory. If the report should be unsatisfactory, the vessel must [illegible] the quarantine regulations laid down in paragraphs 1 and 2 of this order, as the case requires. This order bears date and has effect from the 15th day of October 1881, inclusive."

We hear, from our correspondent at Nicosia, that a good hotel has recently been opened at Larnaca, which is said to be one of the most comfortable in the East. The reported occurrence of fever in July and August was very partial, and which he attributes to the following cause.

On the 25th of July, a very heavy downpour of rain occurred in a limited area, extending from a few miles west of Nicosia to an undetermined point to the east of that town, within and including a portion of the Famagusta district; to the north, it was bounded by the Kyrema range; and, to the south, the rain fell in a decreasing ratio to the coast, at Larnaca only one-fiftieth of an inch being registered. Immediately after this downfall, the maximum temperature, with one or two slight alternations, increased steadily from 91.8° on July 25th, to 111° on August 28th. It was in the area defined above, and during the time noted, that the outbreak occurred; and he believes there can be no doubt but that it was caused by the malaria developed by the action of great heat in a soil impregnated with decayed vegetable and other organic matters that had been subjected to thorough soaking with rain. The fever was of ordinary quotidian type, yielding very readily to the action of quinine; its prevalence throughout the infected district was very great, the inhabitants of whole villages being down at once; at Nicosia, he believes, fully four-fifths of the population suffered more or less from it. The natives themselves say that the heat was greater, and the fever more prevalent, than any year since 1866, the last cholera year here. As far as could be ascertained, not very many deaths occurred from the fever, except amongst young children. The death-rate of Nicosia, however, for August, being at an annual ratio of over 45 per 1,000; of course, in a small population like Nicosia, this is more or less fallacious; still, the increase was very marked. Vaccination, he says, has gone on very satisfactorily this year up to the present time; a considerable number more vaccinations have been performed than were done during the whole of last year; and, as vaccination is not compulsory, there are considerable difficulties to be overcome, notably the apathy of the people; most of them recognise the value of vaccination.

OBITUARY.

WILLIAM HINDS, M.D., BIRMINGHAM.

We regret to record the death of Dr. William Hinds of Birmingham. Born in 1811, he pursued his medical studies at the Queen's College and Queen's Hospital in his native town, taking the diploma of M.R.C.S. in 1844, and graduating as a Doctor of Medicine in King's College, Aberdeen, three years afterwards. For upwards of twenty-five years, holding office up to his death, Dr. Hinds filled the professorship of botany in his Alma Mater. In this position, he discharged his duties with unvarying diligence and efficiency. Many of our readers will remember the weekly rambles of his class, under his cheery guidance, in the beautiful Warwickshire lanes. For many years, Dr. Hinds held the post of secretary to the medical professors of Queen's College; in this capacity, he was practically dean of the school; and he exhibited in all his relationships with his colleagues and with students a kindly urbanity and an unflinching devotion to the work and welfare of the College. On the 4th of October, he was present at the opening of the winter session of his school, and took part, as usual, in the distribution of prizes. He then looked in his wonted health, appearing younger than his years; a few days afterwards, he exhibited some apoplectiform symptoms, and died on the 18th of the month. Besides his collegiate appointments, Dr. Hinds was at one time lecturer on botanical science in the Midland Institute. He was also formerly a medical officer to the now abolished Town Infirmary. Many years ago, he published an ambitious book on *The Harmonies of Physical Science in relation to the Higher Sentiments;* and he contributed papers on pericarditis and other subjects to the medical papers.

PRESENTATION TO MR. GODART.—On Friday, November 11th, a testimonial was presented to Mr. Thomas Godart, late librarian to St. Bartholomew's Hospital Medical School. The testimonial, which consisted of a purse of eighty guineas, accompanied by an illuminated address, was presented to Mr. Godart by Mr. Savory, senior surgeon to the hospital, and the only member of the present staff who has been connected with the institution longer than Mr. Godart himself. The testimonial was subscribed to by both the surgical and medical staff, and by numerous students, both past and present. Mr. Godart acknowledged in the warmest terms his sense of the kindness conferred on him, and the meeting dispersed after a vote of thanks to Mr. Savory for presiding.

THE CHARGE AGAINST PROFESSOR FERRIER UNDER THE VIVISECTION ACT: DISMISSAL OF THE SUMMONS.

As we last week intimated, the executive of the British Medical Association did not think it right that Dr. Ferrier should be left to meet the attack made upon him in this matter without such support as should absolve him from liability to costs, and should indicate the sentiment, which is undoubtedly universal throughout the profession, that he has been made the victim of an attack which aims at the whole body of physicians and physiologists through him. Having ascertained that Professor Ferrier was, in fact, guiltless of any proceeding in contravention of the law, they therefore instructed their solicitor to undertake the defence on behalf of the Association, which, it will be seen, has resulted in the dismissal of the summons obtained by the *ex parte* statement of counsel. It is an additional injury, and affords serious ground of complaint, that such erroneous statements should have been publicly made, in the absence of the person unjustly charged, and that obloquy should have been cast upon an eminent practising physician, and a false charge hurled against him with the utmost publicity, a fortnight before the case was heard, without notice to him, and when he could not vindicate himself. The charge has been fully refuted, but the hardship of the course pursued is only the more apparent. The following is a report of the proceedings.

On Thursday, at Bow Street, Professor Ferrier appeared before Sir James Ingham in answer to a summons charging him with a violation of the Vivisection Act. Mr. Waddy, Q.C., Mr. Besley, and the Hon. Bernard Coleridge appeared for the prosecution; and Mr. Gully, Q.C., and Mr. Houghton, instructed by Mr. Upton on behalf of the British Medical Association, appeared for the defendant.

On the case being called on,

Sir JAMES INGHAM said: This may be a convenient time to inform the defendant that he is not obliged to be tried by me unless he likes. If he thinks proper, he may be tried by a jury. It may be convenient for him to know that.

Mr. GULLY: I understand that the defendant is desirous of being tried here.

Sir JAMES INGHAM: Very well.

Mr. WADDY: I appear, Sir, before you in support of the summons. Although, a fortnight ago I addressed to you some observations upon the question of law, it may be convenient, in order that my friend Mr. Gully and myself should know exactly where we are in regard to it, that I should briefly indicate what it is we propose to prove. The statute under which the summons is taken out, and which we say Dr. Ferrier has violated, is the 39 and 40 Vic., cap. 77. The Act, I think I am justified in saying, was passed in favour of the medical profession and in the interests of science; and I do not say that Dr. Ferrier has done anything which, if he had taken the precaution of having a certificate, he would not have been perfectly justified in doing. By the provisions of the Act, no experiments can be performed except by persons who are licensed. The experiments are to be performed in a certain way; but the restrictions upon the license, and upon certain modes of performance of the experiments, may be removed by obtaining a certificate. I am not going to allege that Dr. Ferrier performed the operation in question; I do not know that he did; but that is not the question we are upon. The question we are upon now is whether or not the operation was the beginning of the experiment performed six months before the time of which I speak, and whether the victims—or as that may be an offensive term, I will say the subjects—of the initial part of the experiment were kept alive by Dr. Ferrier for the purpose of experiments being performed upon them in contravention of the 4th sub-section of section 3: "The animal must, if the pain is likely to continue after the effect of the anæsthetic has ceased, or if any serious injury have been inflicted on the animal, be killed before it has recovered from the influence of the anæsthetic which has been administered." That, I apprehend, is clearly within the summons, which states that Dr. Ferrier has performed experiments in violation of the restrictions imposed by the law. What we say is this. The statute has carefully provided that there shall be no real restriction upon the performance of all experiments that are necessary in the interests of science and humanity; but in order to take care that these experiments shall not be performed by persons of undisciplined minds, or merely for the sake of curiosity, not for the sake of science, of which I have no doubt Dr. Ferrier is seeking to advance the interests.

Mr. GULLY: Do I understand that the charge made here to-day is, not that Dr. Ferrier performed an operation upon animals calculated to give pain, but that, having performed such operation, he did not destroy the animals?

Mr. WADDY: Practically it amounts to that.

Mr. GULLY: I say, in all good faith, that I have not the slightest intention of taking any technical objection, but that is not the charge that I understood from this summons, nor you, I think, sir, when you granted the summons. It involves a class of evidence with which I daresay I might at short notice be prepared to deal, but it is not evidence to which we have addressed ourselves in meeting this summons. We came prepared to meet the charge that an experiment had been performed, but this charge is a different one.

Sir JAMES INGHAM: I think it will be more convenient that I should hear the full statement of the learned counsel, with such evidence as he thinks proper to adduce before me, and then to decide any question which you may raise upon the evidence. I do not know how the learned counsel means to define the word "experiment". It may be that an actual vivisection has been performed as part of an experiment. Does he mean to contend that an experiment begins and ends with the surgical operation, or does he mean to contend that the experiment is continued over such a reasonable space of time as may attain the object for which the vivisection has been performed? Perhaps he will tell us what his idea is of the word "experiment", because I think that goes to the whole root of the question.

Mr. GULLY: If I have misapprehended my learned friend, I beg his pardon. I understood him to say—he will correct me if I am wrong—that he was rather addressing himself to the words of the proviso of the third section. The third proviso says: "Experiments may be performed without the person who performs such experiments being under an obligation to cause the animal on which any such experiment is performed to be killed before it recovers from the influence of the anæsthetic, on such certificate being given as in this Act mentioned." I understand my friend to say that the charge which he comes to substantiate to-day is, that there has been a breach of the proviso—animals having been kept alive without a certificate under that proviso.

Sir JAMES INGHAM: If you read a little further, I think it will throw certain light upon the general question. "That the so killing the animal would necessarily frustrate the object of the experiment." The Act of Parliament, therefore, seems to contemplate two things—the experiment and the object of the experiment. I want both the learned counsel, before the case is closed, to give me their view of the meaning of the word "experiment". I collect from the statement, so far as that has gone, that the surgical operation was performed more than six months before this summons was taken out. You are aware that there is a restriction on the power of the magistrate. No information or summons can be laid before a magistrate after the expiration of six months from the offence which is charged. If, therefore, the offence with which Dr. Ferrier is now charged was completed before the 3rd of May last, I have no power in this case. If the surgical operation was only part of the experiment—if the experiment itself continued for a longer time—then I may have power.

Mr. GULLY: I quite see that the course which you, sir, propose is a reasonable one, but I thought that my friend was not proposing to do what you suggest.

Sir JAMES INGHAM: I presume it will appear, from the evidence brought before me, that the experiment, as defined by the Act of Parliament, was continuing within a period of six months from the time of the summons being taken out.

Mr. WADDY: I endeavoured on the last occasion to lay stress upon the very distinction which you have been good enough to take, and to which I will try to draw the attention of my friend. I will meet the thing as plainly as I know how to do it. If the statute does not cover the ground it is intended to cover, it is of no use to quarrel with it, but we must seek to have it amended elsewhere; but, if it does cover it, it covers it by virtue of the word "experiment". I will admit as candidly as possible that, unless I can establish that there has been an experiment performed within six months of the date of the summons, I must fail. With regard to the original cutting or wounding of the animal in question, as far as I know anything at all about it, that was probably six months before. I hope it will not be understood that I am making any suggestion of fraud on Dr. Ferrier's part, but I wish to put forward this illustration. Suppose a man chose deliberately to commit an offence of this kind, and then, in breach of this Act, to keep the animal and say, "Because you never found me out within six months, therefore you cannot punish me for the breach of this Act, because it is in contempt of the Act [illegible] keeping a dead body. Section 3 says: "The following restrictions are imposed by this Act with respect to the performance on any living animal of an experiment calculated to give pain"; and then, subsequently, it is extended to the infliction of "any serious injury". Of course, you might have a case in which an animal suffered great pain at one time, which afterwards passed away; but still, such an injury might be inflicted as to make it a cruelty to keep the animal alive. I say an experiment is, or may be, of two kinds. It may be an experiment to ascertain an immediate and already existing fact; and in that case the experiment is done, and you may kill the animal before the effect of the anæsthetic ceases. Or it may be that the experiment is not to discover some existing fact, but to discover the result of a certain operation. I will not go into the moral grounds of the matter, but I believe the justification set up is something of this kind: "If I observe for a considerable length of time the result of certain injuries inflicted upon certain organs of the brain, arguing backwards, in the case of a human being, if I find those results existing, I shall be able to diagnose that the injury is in certain organs; but if I am to ascertain that, it is of no use to limit me to the making of a single experiment, which is all over in half an hour; that will tell me nothing. My experiments may last for weeks, or months, or years, and if I am to be limited to the time when the animal is under the influence of anæsthetics, I shall be doing nothing for science, and my hands will be tied." Now, the Act says that is a perfectly reasonable proposition. It says it is a sad thing that pain or injury should be inflicted upon the animal, and that it would be totally unjustifiable unless some good result happened; but if this good result is to happen, you may get a certificate which will enable you to continue your experiments as long as, in the interest of science, it may be considered necessary. You must, however, get a certificate from certain persons, who, from their official position, are known to the Government, and are believed in and trusted, and properly trusted—namely, the President of the Royal Society, and other well-known persons. But then, lest they should be in any degree biassed, the certificate so obtained is to be forwarded by the applicant to the Secretary of State, and it is not to be available until a week after it has been so forwarded. Then if, during the week, the Secretary of State, observing what the operation is, and thinking that it is a wrong thing to allow, disallows it, of course the certificate is gone; but, if he do not disallow it, the certificate remains, and, during the whole of the experiment so continuing, the person performing it is protected by statute. The words of the third section are, "The following restrictions are imposed by this Act with respect to the performance on any living animal of an experiment calculated to give pain." The experiments are to be performed in a certain way; and it is provided in the third subsection that the animal must, during the whole of the period of the experiment, be it a week, or a month, or a year, be under the influence of some anæsthetic. That, of course, would be absurd in the case of a long period, and therefore any scientific man would say, "I cannot do it." Then the Act says: "The animal must, if the pain is likely to continue after the effect of the anæsthetic has ceased, or if any serious injury has been inflicted on the animal, be killed before it recovers from the influence of the anæsthetic." But then there are the provisos, and every one of them is to be read into the section of the Act. It will be observed that the whole of the subsections are not distinct and alternative, but are cumulative. All these things must be done, and the only exception is this: "The experiments may be performed without the person who performed such experiments being under obligation to cause the animal on which any such experiment is performed to be killed before it recovers from the influence of the anæsthetic, on such certificate being given, as in this Act mentioned, that the so killing the animal would necessarily frustrate the object of the experiment." In this case, the experiment was the removal of the brains of monkeys, one or more, then the careful observation from day to day of the subsequent lives of those monkeys. I believe I am right in saying that there was no benefit to science whatever to be obtained by Dr. Ferrier in this particular instance by the removal of the brains of the monkeys, seeing that the operation was under anæsthetics. The experiment, properly speaking, began after the monkeys awoke, and, under those circumstances, the killing of the animals would necessarily frustrate the object of the experiment. What is the object of the experiment? I read in certain documents, which I shall have to lay before you, that there are certain motor and sensory areas, and the object is to ascertain the effect of the removal of portions of the brain from these areas. That is a kind of [illegible] ascertain whether there is any sensation left; and that is ascertained by [illegible] that the experiment is one "calculated to give pain". Now, [illegible]

astonished if he were to say that anything I have now stated indicates any fresh line or any fresh attack for which he was not prepared. I say, "You have been performing this experiment over a considerable length of time; and you ought, therefore, to have had a certificate". There is really no grievance in this matter at all. If it were so, it would be no answer; but, as a matter of fact, it is right that it should be pointed out that there is no grievance. If Dr. Ferrier has been carrying on these experiments—which, for aught I know, may be useful to science and to humanity—it would be a monstrous thing if those whom I represent were to come down upon the little men, and pass by the great men like Professor Ferrier. If their operations are justifiable, they are really the men who must keep within the provisions of the law. Men of eminence, men of science, men of benevolence, are precisely those who must bring themselves within the operations of the law; and, if they will do that, we shall have nothing to say against them. The experiments in question were carried on in King's College Laboratory. The operation which enabled them to make those experiments had been performed a long time before, possibly not even by Dr. Ferrier himself, possibly not even in this country. Now let me suppose a case. Let me suppose that, instead of these animals having the first injury done to them by the hand of Dr. Ferrier, had it done by the hand of any other person, Professor Yeo, for instance. Suppose that it had been done at Boulogne, or anywhere else, is it to be said that any professional gentleman in this country would be entitled to have an operation of that sort performed by an entire stranger on the continent, and then to purchase the injured animal and bring it over to this country to make experiments upon it when it was in a condition to which it could not have been brought in this country in accordance with the law? That would be precisely this case. An International Medical Congress was being held. The President of the Physiological Section, whom, if necessary, we shall call, for we have subpœnaed him, Dr. Michael Foster, opened the work of the section by a learned discourse; and then a person, with whom we have nothing to do except as a matter of history, Professor Goltz, read a paper upon the localisation of the functions of the cerebral convolutions. It was known that this was a subject to which Dr. Ferrier had devoted long, extensive, careful, and no doubt valuable, research; and Dr. Ferrier followed Professor Goltz, and made some observations which, I think, I shall be in a position to prove before you. Of course, much of the evidence will have to come from the mouths of gentlemen who were then present; and no doubt the views of many of them—I find no fault with them for it—are very strongly in favour of Dr. Ferrier, and therefore they will be, to some extent, unwilling witnesses. I will not, however, allow myself to believe that any of these gentlemen, whatever feeling or prejudice they may have in regard to Dr. Ferrier on behalf of science, will offer the slightest obstruction to the course of justice. Professor Ferrier stated that he had made certain experiments, not upon a dog, as in the case of Professor Goltz—who, I believe, brought a dog to England to show—but upon certain monkeys. I believe experiments of that sort have been going on for many years; and I hold in my hand lectures that have been delivered and published by Dr. Ferrier himself with regard to these experiments upon monkeys. In order to settle the question which was at issue between Dr. Goltz and himself, Dr. Ferrier either proposed or acceded to the proposal that the monkeys and the dog should be exhibited and experimented upon. I need not go into the minor question at issue; it is enough to say that there was a difference of opinion between Dr. Goltz and Dr. Ferrier. Dr. Goltz thought that he had proved certain facts. Dr. Ferrier stated—these are his words—that he was prepared to accept the facts of so eminent an observer as Dr. Goltz, but he rejected his conclusions, upon the ground that the experiments which he was at this time still conducting day by day on these monkeys, led him to believe in a different scientific result from that which had been attained by Dr. Goltz. Accordingly, they adjourned for the purpose of making experiments on these animals to King's College Hospital. I confess I am at a loss to understand how my friend can readily contend before you that that was not an experiment within the meaning of the statute. There was a dispute between two eminent medical authorities, which could only be settled by experiment; and they actually adjourned to the laboratory for the purpose of experimenting upon the monkeys and upon the dog.

Sir JAMES INGHAM: Was it with the view of performing an experiment causing pain?

Mr. WADDY: I am not prepared to say, nor do I think it is necessary. With great respect, that is not the question—whether the experiment caused pain at the time. It was one continuous thing. As I have already said, an experiment which causes pain at one time may cease to cause pain at another.

Sir JAMES INGHAM: You know that the statute was intended to put down experiments causing pain. Would you contend that the experiment in question was continuing after pain had ceased?

Mr. WADDY: Clearly, with great respect. Subsection 4 of Section 3 says that the animal must be killed if the pain is likely to continue after the effect of the anæsthetic has ceased, or if any serious injury has been inflicted. The question of pain ceasing is important in regard to one alternative; but it has nothing to do with the other. If the injury is continuing, that is by statute made equivalent to the causing of pain. You shall not do one of two things. You shall not, in the first instance, perform an experiment causing pain; and you shall not afterwards say, "Now the pain is all gone". You cannot defend yourself in that way. If you might do so, you could ride round the corners of the Act and destroy it altogether. You might have operations on animals performed in France, the most cruel operations in the world, and most unnecessary; and, by the very force and cruelty of the operation, the animals might be paralysed; then you might bring them to this country, and maintain that you were not committing a breach of the statute. Or, suppose that you did the thing in private, not allowing the thing to be known for six months, and then at the end of six months you might say that the Act did not apply. I am also reminded by my friend Mr. Coleridge that there is another way in which the Act might be defeated. A person who had a licence might perform these various operations, and then hand the animal over to an unlicensed person; and the unlicensed person might protect himself by saying, "I did not do the cutting and wounding; I did not perform the first operation—I am merely keeping the animal alive now that it is seriously injured." Or take another illustration, following out the same line of thought. You paralyse the animal so that it cannot feel; it has still the power of motion, but no sensation. You hand it over to an unlicensed person, who says, "Now it is all ready; it cannot feel, but the motor area is still untouched, and therefore the muscles will still work; I may cut off the right hand, and that will not cause pain". Would not that be inflicting a serious injury, although it would not be an experiment causing pain? and can any man contend that that would not be within the meaning of the Act? If it be not, I venture to think that the Act is one that is capable of very serious amendment. With great respect, sir, I submit that the question whether there was pain caused to the animal at the time is a matter beside the present inquiry. The experiment was a continuous one, and the mistake was that it was continued, according to the words of my summons, in violation of the restrictions imposed by law. The restriction imposed by law is either that the animal must be killed, or that the person experimenting upon it must have a certificate, and it will not be said that Dr. Ferrier had a certificate. I was about to say that the continuation of the experiment was at King's College, when several gentlemen were present. A portion of the brain was destroyed by what amounts to practically cutting it through with a red hot wire, and in that condition the animal was still left. I believe I shall be able to call the gentleman who wrote the report from which I have been reading, and who will no doubt be able to substantiate his own report. That being so, I think I am justified in saying that he did make experiments upon these animals there and then—Dr. Ferrier and others. I shall not attempt to inflame this matter. I am perfectly satisfied to leave it to you. My contention is not a surgical or a medical contention. I am not stating that Dr. Ferrier is a cruel or a brutal man. I am simply bringing forward the short and narrow point that Dr. Ferrier had not got a certificate. We must insist upon all gentlemen who perform these experiments keeping within the law, and it will not do to strike at small men and pass by the great men.

Mr. CHAS. SMART ROY was then examined by Mr. Coleridge: I am M.D. of Edinburgh. I was one of the secretaries of the Physiological Section of the International Medical Congress. A discussion was opened by Professor Goltz on the 4th August at the Royal Institution. Dr. Michael Foster was in the chair, and opened the proceedings. The discussion was on a subject in which I was interested, and I paid attention to it as far as I could. I dictated from memory a portion of the report which appeared in the BRITISH MEDICAL JOURNAL.

Mr. GULLY: The witness says he dictated a portion of what appears.

Dr. ROY: The report as it appears in the JOURNAL is not correct. It is not wholly in accordance with my memory of what passed.

Mr. COLERIDGE: Will you kindly tell us, as far as you recollect, what did pass?

Dr. ROY: Professor Goltz delivered the first address on the localisation of function in the cortex cerebri. He described his experiments, and the effects he had obtained from the experiments. I understood that he was seeking to determine what degree of truth attached to the assertion of Flourens, that large parts of the brain of living animals

may be removed without resulting in apparent loss of cerebral function. After Dr. Goltz had ceased, Dr. Ferrier continued the discussion. It did not in all points agree with what had fallen from Dr. Goltz. The substance of what he said was that he differed on certain points from Professor Goltz. He referred to experiments he had himself made, or assisted in making, in which portions of the cerebral cortex had been removed from the brain of the animal. I think he referred to monkeys. I cannot remember what words he used. I was attending to my own duties as secretary. The substance of what he said was that he removed certain portions of the cortex of the brain, and paralysis was found in certain muscles and limbs of the animal.

Mr. COLERIDGE: Did he refer to these experiments in detail?—I believe he did. I cannot describe the detail. I recollect only very vaguely what he said. As far as I can recollect, he referred to experiments which he had made in the course of his work on the subject. He removed certain portions of the brain in one case, and certain portions in the other case; and he found certain effects in one case, and certain other effects in another case. Professor Ferrier did not offer to exhibit at the Congress two of the monkeys upon which he had so operated. He showed certain of the members of the Congress two monkeys at King's College; but that had nothing to do with the Congress. The discussion ceased, and we went to the Physiological Laboratory at King's College, to see a dog that was to be exhibited and two monkeys, upon which an operation had been performed by Professor Yeo. I cannot recollect who told me that there were those monkeys there. The thing was talked of by the officers of the Section. Whether Professor Ferrier spoke to me on the subject, I cannot remember. In giving the address, Dr. Ferrier, I believe, alluded to the two monkeys which were to be seen afterwards. As far as I can remember, he said that there were two monkeys that would be shown at King's College upon which certain operations had been performed, and which showed certain results. I do not remember that he said that he had performed the operations. I went to the laboratory at King's College. There was a very large number of members of the Congress present. There were M. Charcot, Dr. Michael Foster, Professors Yeo and Huxley, Mr. Lee, and Dr. Ferrier himself. Speaking roughly, perhaps there were between seventy and a hundred altogether; the majority were foreigners. I do not remember seeing Dr. Pavy, M. Schäffer, or Mr. Ernest Hart. The monkeys were shown. Dr. Ferrier showed that, in one case, there was paralysis of one of the limbs; it could be seen. In the other monkey, there was almost or absolute deafness. Dr. Ferrier did not touch the monkeys, as far as I remember. The animals were evidently paralysed; it could be seen in their moving.

Mr. GULLY: My friend is pressing this gentleman to say something against Dr. Ferrier; surely he should allow him to give his own version of the matter.

Sir JAMES INGHAM: Just describe what passed. You say you saw the monkeys and that Dr. Ferrier made some observations upon them: tell us all that was said and done.—Dr. Ferrier showed that one of the monkeys did not move one of its limbs, and that in the case of the second monkey noises made close to its head did not attract its attention. These were the principal points he showed. With regard to the deafness he fired off a pistol close to the animal's head and showed that it did not turn round. The other monkey was moving about in the arena of the lecture room, and it was evident to everybody present that it did not move one of its limbs. As far as I can remember he said that in the case of the monkey which showed paralysis of the limb a certain portion of the cortex situated towards the front of the head had been removed. With respect to the deaf monkey, he said that another portion of the brain had been removed.

Mr. COLERIDGE: Had he mentioned these monkeys in his address?—I think he had. I have no notes of what I dictated. I do not remember that part of his address in which he explained the mode in which these results had been arrived at. I only made a report for the BRITISH MEDICAL JOURNAL accidentally afterwards. I dictated the report to a shorthand writer. I do not know his name. I have no draft of what was published in the paper. I first saw the report immediately after the JOURNAL appeared on Saturday, October 8th.

Sir JAMES INGHAM: When you dictated your recollection of what had taken place on one of the last days of the Congress; within ten days of the delivery of the lecture. But I saw no printed report until October 8th.

Mr. GULLY objected that it was an inaccurate report.

Sir JAMES INGHAM: The inaccuracies may be pointed out. If it is substantially accurate, I do not see that there is any objection in allowing the witness to read it.

Mr. GULLY objected.

(The witness read the report.)

Mr. COLERIDGE: Having refreshed your memory by reading what is before you, will you give us now a correct description of what took place?—I can only give what I have given already. I read this report before I came into court. I can give no more than I gave before. One dog was exhibited in the laboratory of King's College, besides the monkeys. The dog belonged to Professor Goltz. On this point I believe what I have stated here to be correct.

Mr. GULLY: I should like to know what this dog has to do with this case.

Sir JAMES INGHAM: For anything I know, an operation was then and there performed on the dog.

Mr. GULLY: That is not what we are charged with. I am brought here expressly to meet a charge of having performed an operation on two living animals, to wit, two monkeys. I take the objection in the interests of time, because my friend will find nothing was done to the dog.

Sir JAMES INGHAM: Was anything done to the dog?

WITNESS: No.

Sir JAMES INGHAM: I very much dispute part of the law laid down by the learned counsel in the opening. I do not see how the defendant can be made responsible for anything that was done by another person.

Mr. COLERIDGE: What was the matter with the dog?—The dog showed some diminution in the cerebral functions. He did not recognise his master so readily, for example, as a healthy normal dog would do. There were two depressions on the surface of the skull; they were somewhat hollowed out. The skull was more hollow than is normally the case in dogs. I do not remember that Professor Ferrier made any remarks about this dog, comparing it with the monkeys; he may have done so. Professor Yeo spoke on the subject of the difference between the dog and the monkeys. I did not hear Professor Ferrier speak on the subject at all, as far as I can remember.

Mr. COLERIDGE: What was the arrangement made in Dr. Ferrier's presence?—I do not think it was made in Dr. Ferrier's presence. As far as I remember, it was first arranged on board a steam-launch on the Thames, on Saturday during the Congress. Dr. Ferrier was present when the dog was looked at.

Mr. COLERIDGE: Was any arrangement made about the monkeys in Dr. Ferrier's hearing?—Not at that time, so far as I can remember. I do not remember that it was even made when both he and I were present at the same time. I know it was made, but I was not present, so far as I can remember, with Professor Ferrier.

Cross-examined by Mr. GULLY: The monkeys and dog were at the laboratory at King's College which is under the charge of Professor Yeo. As secretary at this meeting, I made minutes on some days. Professor Yeo is well known in the scientific world with reference to experiments of this nature. The animals were kept at his place, and, as far as I know, had always been kept there. As secretary of the section of Physiology, I had a good deal of business to attend to while the meeting was going on. A gentleman belonging to the BRITISH MEDICAL JOURNAL came to me some days afterwards, and asked me to give him some recollections of that discussion; and I gave him my recollection at the time. Something is added to it in the paper. That is all I know about the matter.

Dr. MICHAEL FOSTER, examined by Mr. Besley: I am an M.D. of the University of London; M.A. of the University of Cambridge; LL.D. of the University of Glasgow; a Fellow of the Royal Society; Member of the Royal College of Surgeons; Fellow of the Linnæan Society. I am likewise the author of several physiological works. I was President of the Physiological Section of the International Medical Congress, and occupied the chair during the whole time. I was present upon the occasion when Dr. Ferrier described experiments that had been made on the brains of monkeys. There was a discussion upon the functions of the surfaces of the brain. Professor Goltz opened the discussion, and maintained one view, which is, briefly, that the surface of the brain acts as a whole. Dr. Ferrier followed, and maintained that when any action, for instance, takes place in the body [illegible] the brain is called into action. Each speaker brought forward facts in support of his view, and the discussion was carried on by subsequent speakers. The taking away of the brain of several dogs was mentioned, and of several monkeys. It was not stated where the monkeys then were. The method of operation was gone into in some detail both by Professor Goltz and by Dr. Ferrier. Professor Goltz said that the [illegible] regard to certain monkeys which were specially alluded to.

Sir JAMES INGHAM: Are you now telling me what Dr. Ferrier said?—I am trying to state, to the best of my ability, what was said by Dr. Ferrier on that occasion. I think several monkeys were mentioned, but that I do not quite remember at the present moment. The method in the case of certain monkeys which had been operated upon recently differed from the method employed before by Dr. Ferrier upon monkeys—inasmuch as they were performed on what is called the antiseptic method, therefore leaving results which could be trusted more explicitly.

Mr. BESLEY: Will you translate that a little more clearly to an unlearned mind?—You are aware, when a wound is made, it is apt to fester. That festering is brought about in large measure by organisms, which set up processes which interfere with the healing. In consequence of some inquiries by Professor Lister some time ago, a method was invented for dealing with wounds to the exclusion of these germs. That is called the antiseptic method. By that means wounds are made to heal in what persons, years ago, thought an incredibly short space of time, and with the smallest amount of mischief. That was stated by Dr. Ferrier as the method adopted with regard to particular monkeys. Professor Ferrier said that, in former years, he had removed from the surface of the brains of monkeys certain parts, and certain parts only; and he found, in consequence of the removal of those definite parts, certain definite conditions of the organism, certain definite failures for the most part. When, for instance, he removed a certain part of the brain, the animal was unable to move an arm; and, when he removed a certain other part of the brain, it was unable, say, to move a leg; that in other cases the animal, without any weakness of the muscular system, became blind or deaf, and so on; and he further said his former experiments upon monkeys had been corroborated by observations which he had been able to make upon monkeys on which Professor Yeo had operated; inasmuch as these other cases were monkeys which had been operated upon by the antiseptic system; and the whole of his results, both old and new, were in direct contradiction to Professor Goltz's. I think that is briefly what he said. I may observe, there are two sets of monkeys, the old and the new. The old monkeys were operated on by Professor Ferrier himself, and the new monkeys by Dr. Yeo.

Mr. BESLEY: Who stated that the monkeys and dog were in existence, and that comparison could be made between them?—I do not know whether it was stated that they were in existence. That possibly was the case; but there was no public announcement at the Congress that these animals would be examined. I, as President of the Section—and in that opinion I was supported by the Executive Committee—thought it very undesirable that there should be any possibility of the meeting of the Congress being entangled with what is popularly called the vivisection question; and therefore we decided that there should be no approach whatever in the official proceedings of the Congress to anything like a distinct vivisection experiment, so called, using a word to which I object; but it was thought by the physiologists present, who were there in considerable numbers, that it would be very desirable to examine these animals together—on the one hand, the dog brought by Professor Goltz, and on the other hand the monkeys which had been operated upon by Prosessor Yeo; and by a special arrangement, which was entirely conducted by myself, I saw Professor Ferrier and Professor Goltz, and they both thought that the opportunity should not be lost, and that the dog and the monkey should be examined privately at King's College laboratory, where the monkeys and the dog happened at the time to be. It was rather Professor Yeo's special invitation, but it was arranged by myself, as President of the Section, though not officially. Professors Goltz and Ferrier were consulted by me before it was done. A great number of foreigners and some English physiologists were present. I think the last witness rather underrated the English present. There was Professor Huxley, Dr. Carpenter, Professor Burdon Sanderson, and Professor Rutherford. The meeting was really typically a meeting of those interested specially in the brain. I did not preside upon that occasion. It was a mere assemblage. Professor Goltz, I believe, first spoke to the assembly, and pointed out the peculiar condition of the animal. Afterwards Professor Ferrier pointed out the condition of two monkeys. There were two monkeys on that occasion. One monkey in which we could see nothing the matter was brought in. It seemed to be a perfectly natural monkey. Nevertheless, when Dr. Ferrier fired a pistol behind its back, when it could not see what was done, the monkey showed no sign whatever of hearing; whereas the other monkey that was present was evidently startled by the noise. There was other proof that the monkey was deaf. The striking operation with the other monkey was this. Professor Ferrier offered it a biscuit, and, instead of taking it by the right hand, as it had been accustomed to do when it was healthy, it took it by the left hand. The paralysed monkey was brought in by the attendant, and it was very obvious to anyone, skilled or not skilled, that there was a deficiency of movement on one side, more especially in the upper extremity. If I remember rightly, the animal walked across the arena, and it was very evident it was paralysed; and as it stood one could see it continually moved one hand, and only slightly moved the other. I think Dr. Ferrier pinched it. I forget how far the question of feeling was investigated. I remember distinctly the question of movement came prominently forward. One hand of the monkey was pinched, and the other side just slightly pinched. In the one case there was a rapid movement; in the other, not. I am not quite sure whether it was not what is called hyperæsthesia — that is, an increase of feeling on the paralysed side. That was the point of interest at the moment. No galvanic battery was used. After Professor Ferrier had spoken, other gentlemen took part, and more especially Professor Yeo, who had watched the animals for a long time. I think one or two other gentlemen spoke as well, and then the meeting broke up. Afterwards, talking with several physiologists, it seemed very desirable that an exact knowledge should be got of the conditions of the brain of the dog on the one hand, and the brain of the monkey on the other; and I arranged, chiefly through my own efforts with Professor Ferrier on the one hand, and Professor Goltz on the other hand, in accordance with a desire which was expressed by a large number of physiologists, that the dog and the paralysed monkey should be killed, and the brains should be most carefully examined by independent authority. The animals were killed, and the brains are now in the hands of a committee.

Mr. BESLEY: When was the killing?—I think it was Monday morning, during the Congress, but I had nothing to do with the killing. The committee appointed to receive the brains consisted of four eminent physiologists—Professor Schäfer, Dr. Klein, Dr. Gowers, and Mr. Langley.

Mr. BESLEY: You told us, with regard to the discussion, and the object of the experiment being made, and the contrast of the animals?—That is one thing. Of course, there is far more in the experiment than the mere contrast of the animals. That was quite a subordinate matter of the whole business. The dog itself was a whole series of problems, perfectly separated from any contrast with the monkeys. The paralysed monkey was selected for *post mortem* examination in consequence of something Professor Ferrier said. We all knew that this monkey had been operated upon by Professor Yeo in a definite way, and had received a definite superficial injury. In consequence of that, we could see for ourselves that there was a certain condition produced, and it became of very great interest to ascertain, by careful, and especially by microscopic observation after death, the exact nature of the injury which had been inflicted upon the brain?—The definite proposal to Professor Ferrier and Professor Goltz, that the monkey should be killed, came through myself; but it was simply an expression of the desire of, I may say, all the physiologists present.

Sir JAMES INGHAM: I should like to know what is the specific experiment calculated to produce pain which you impute to Professor Ferrier. It is proved that the two monkeys had been operated upon by another gentleman—Professor Yeo. I want to know what you impute to the defendant. What is the definite offence which you do impute to Professor Ferrier? It is proved that the monkeys were not operated upon by him, but by Professor Yeo. They are produced in the laboratory of Professor Yeo; they are produced by the servant of Professor Yeo; and Dr. Ferrier, who is an enlightened physiologist, appears to have taken an interest in the experiments. I should like to know what definite offence you impute to him.

Mr. WADDY: The only offence that can be imputed to Dr. Ferrier, as I understand, would be under this 4th subsection of the 3rd section—that the animal should be killed immediately, before it recovers from the influence of the anæsthetic. What would be the state of the case with regard to Professor Yeo of course I do not know; we have nothing to do with that now; but of course, if Professor Ferrier were there taking a leading part as one of the others, aiding and abetting in this experiment—if the thing that had been done was wrong——

Sir JAMES INGHAM: I want to know what is the specific thing that you say was wrong?

Mr. WADDY: Contiuuing the experiment upon this animal upon which serious injury had been inflicted, it not having been killed before it recovered from the influence of the anæsthetic which had been administered.

Sir JAMES INGHAM: Then you say that his pinching the monkey which had been operated upon by Professor Yeo made him a participator in that cruel experiment?

Mr. WADDY: I speak of the whole of the experiment carried on there and then—the comparison of the one with the other. I do not

rely at all upon the pinching—it is part of the particular thing; but the mere keeping of these animals alive by Professor Yeo on the one hand and Professor Ferrier on the other hand.

Sir JAMES INGHAM: It is not proved that he kept them alive. I really wish to get a clear idea of the manner in which you shape your case. It is quite clear that the case proved by Dr. Foster is different from that which you opened, according to the best of my judgment.

Mr. WADDY: Any persons who were taking part in the experiment, be they one, ten, or fifty—the experiment lasting over those months, being carried on at one time by Professor Yeo, and at another time by Professor Ferrier—these people, who were present, are, we contend, liable. Professor Ferrier refers in his address to certain monkeys, and then he offers these two illustrations of the doctrine which he has been propounding. Therefore we have him making, as I say, a continued series of experiments, or rather one continued experiment, in various parts, during the whole of this time; and any person, as we say, continuing an experiment which is one inflicting serious injury on an animal is liable.

Sir JAMES INGHAM: You know that proof is strictly limited to what took place in the laboratory. What is the specific thing that you say was wrong in what Professor Ferrier did?

Mr. WADDY: Not entirely in the laboratory. We have it in evidence from Dr. Foster that there had been a statement made by Dr. Ferrier with regard to experiments made on the monkeys, and which were afterwards tendered in illustration of what he had been saying, and anything that had been done by way of watching and comparing is sufficient for my purpose. It is the not killing which is the important point; and, with regard to these animals, we have Dr. Ferrier examining, comparing, and making his observation of experiments upon animals which ought to have been killed, and which were not killed before recovery from the influence of the anæsthetic which had been administered. The matter prohibited here is an experiment that may have been commenced six months previously, and possibly even out of your jurisdiction. The experiment is a continuous offence from first to last, and if you can go with us in that view of the matter, it lasts while it is necessary to keep the animal experimented on alive, after the effect of the anæsthetic has ceased, for the purpose of making observations. It is one continuous experiment, and Professor Ferrier cannot shield himself now by saying that the actual cutting operation was performed by Professor Yeo.

Sir J. INGHAM: For anything I know, it was Professor Yeo who, without the knowledge of Professor Ferrier, performed a cruel operation, and then Professor Ferrier afterwards becomes acquainted with the fact that such an operation had been performed, and observes the effect. Would you say that that observation alone makes him guilty of the cruel act?

Mr. BESLEY: If the experiment is the matter of offence, and not the cruel act of cutting, we say the experiment is the offence; namely, that during a lapse of time, not measured by hours or days, there was no authority for keeping the cut and maimed animal alive. Professor Ferrier is surely aiding and abetting the keeping alive when he is actually describing the state of the animal at the time, he being present and taking part in the discussion.

Sir JAMES INGHAM: You mean to say that the hundred scientific gentlemen who attended the laboratory were partakers of the cruelty?

Mr. BESLEY: I say an active participation is quite enough. The statute says distinctly any person performing or taking part in performing any experiment which requires the life of the animal to be prolonged after it has recovered from the anæsthetic; and anyone must be participating in that experiment if he takes an active part whilst the animal is alive when it ought not to be alive. According to my idea of the Act of Parliament, there is no experiment provided for by this statute as being lawful which does not begin with anæsthetics and end with death.

Sir [illegible]: I [illegible] participation in the original Act in order to make this an act of cruelty within the meaning of the Act of Parliament. There is not only no proof that Professor Ferrier had anything to do with the original act, but the proof, so far as it goes, is to the contrary. If you have nothing more to adduce, I think it will be my duty to dismiss this summons. [illegible]

Mr. WADDY: I would rather not press that at present. (To the witness) I [illegible] whom did these monkeys belong?—To Professor Yeo, I suppose. I did not know positively. I did not ask Professor Ferrier's permission, but I asked his acquiescence that the animals should be killed.

Mr. WADDY: I do not find any fault at all with the killing; the animals were anæsthetised before they were killed?—I believe so. At the time I was under the impression that the animals were the property of Professor Yeo, but Professor Ferrier was observing the animals, and had been observing the animals. This is what I have been told. I do not know who has told me; it may be Professor Ferrier; I rather think that Professor Yeo has told me. I am not quite sure whether I had conversed with Prof. Ferrier about the monkeys before the meeting. I may have for a little while, but certainly I had no lengthened conversation such as would leave any very great impression upon my mind. The existence of the animals was known to Professor Burdon Sanderson, and to the various physiologists in England. If I did, it was on the authority of Professor Yeo, because I see him much more frequently than Professor Ferrier.

Dr. WAKLEY examined by Mr. WADDY: I am editor of the *Lancet*. Professor Gamgee, Owens College, Manchester, furnished the report. I have the original manuscript. I was not present at the time.

Mr. GULLY: Professor Gamgee is, no doubt, a very skilled scientific man, but when it comes to the question whether admissions have been made with reference to a criminal prosecution, of course I cannot take this gentleman's notes.

Mr. WADDY: We have an account given by the *Lancet*. We have the name of Professor Gamgee vouched as being the gentleman who has furnished these notes and written this account. If my learned friend doubts the accuracy of the report, as I cannot call Dr. Ferrier himself, what I shall have to ask is that we may have an adjournment in order that Professor Gamgee may be called.

Sir JAS. INGHAM: The question is whether you have any objection to an adjournment for the purpose of enabling the prosecution to see what the evidence of Dr. Gamgee will be.

Mr. GULLY: We object to an adjournment for a vague purpose like that. If my friend will say the precise point he expects Professor Gamgee to prove—he has had an opportunity of communicating with him and with Dr. Wakley.

Sir JAMES INGHAM: The *Lancet* must have been in the possession of the gentleman who instituted this prosecution, probably from the very date of its publication. If there was anything in the report contained in the *Lancet* that would support the prosecution, they might very well have made the inquiry of the editor, who would have furnished them with the name of the contributor. If they proposed to rely upon anything contained in the report, they most certainly ought to have had it.

Mr. WADDY: With very great respect, we do not get much assistance in the course of a prosecution of this kind from gentlemen of the medical profession.

Mr. GULLY: I do not know that my friend has tried to get anything from Dr. Wakley.

Mr. WADDY: To-day is the first time we have ascertained who it was that was there for the purpose of observing and taking notes of what took place, and writing afterwards a careful article on the subject.

Mr. GULLY: We have communicated with Professor Gamgee, and I know very well that he will say precisely what was said by Dr. Roy, that, on the question upon which they are relying, this article does contain false impressions. For that reason, I object to an adjournment merely to get Professor Gamgee here.

Mr. WADDY withdrew his request for an adjournment on that ground.

Sir JAMES INGHAM: Then it would be convenient, I think, with reference to any proceedings that may be taken hereafter, for me to state exactly what my view of the case is. First of all, it is proved that the operation which caused the pain was performed by Dr. Yeo, and there is no proof that the defendant had anything to do with that operation. I also find, as a fact, that two monkeys were kept in the possession of Dr. Yeo. There is no doubt that some facilities were afforded to Dr. Ferrier to inspect those animals from time to time, and that he did inspect them, and took very great interest in the physiological results of the experiments made by Dr. Yeo. Further, I think the case cannot be carried. It does not seem that there was anything more than that he took great interest in the results of a cruel [illegible] court.

Mr. GULLY: As [illegible] matter, and in connection with a "cruel operation", I ought to say that this was an operation [illegible] of science.

Sir JAMES INGHAM: I would not say "cruel", but an "operation calculated to produce pain".

Mr. GULLY: Dr. Yeo, I may say, conducted it in strict accordance with the law, using anæsthetics, having a licence for the operation, and having a certificate for the keeping the animal alive during the period for which it was kept alive. Therefore everything was done in strict compliance with the law.

Sir JAMES INGHAM: The summons will be dismissed.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in Anatomy and Physiology, at a meeting of the Board of Examiners, on the 10th instant, and when eligible will be admitted to the pass examination.

Messrs. William Penhall, B.A.Cantab, Ernest K. Campbell, Charles R. Edwards, and William H. Bailey, students of St. Bartholomew's Hospital; Frederick A. Warner, Robert E. Molesworth, and Walter P. Spaite, of St. Thomas's Hospital; Ernest Webster, of the Manchester School; Thomas H. Miller, of Guy's Hospital; Wilson Pash, B.A.Cantab, of the London Hospital; Tom Scutt, of St. Thomas's Hospital; and Ernest H. Goode, of University College.

Seven candidates having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their anatomical and physiological studies for three months, making a total of thirty-one out of the ninety-one candidates examined, including three who had an additional three months.

The following gentlemen were admitted Members of the College at a meeting of the Court of Examiners on the 14th instant.

Messrs. James Richmond, Preston, Lancashire; John Fryer, L.S.A., Batley Carr, near Dewsbury; Edward G. Ochiltree, M.B.Glasg., Victoria, Australia; Thomas R. Lewers, M.B.Melb., Melbourne, Australia; William H. Line, M.B.Dub., Daventry; T. P. Castaneda Y. Triana, M.D.Madrid, Habana; Thomas Greaves, M.D.New York, Charlotville, Virginia; William M. Hurtley, L.S.A., Leeds; William Fligg, M.B.Ed., Edinburgh; Thomas H. Summerhill, Wolverhampton; Merwanji D. Karanjia, L.S.A., Bombay; Anthony G. Viljoen, M.B.Ed., Caledon, Cape of Good Hope; John Conway, M.B.Glasg., Glasgow; Daniel Riordan, M.D.Queen's Univ. Irel., Llandore, near Swansea; Matthew C. Sykes, L.R.C.P.Lond., Barnsley, Yorkshire; and Benjamin R. A. Taylor, L.S.A., Botisdale, Suffolk.

Eight candidates were rejected.

At this meeting of the Court, Mr. John Croft, of St. Thomas's Hospital, the recently elected member, took his seat.

The following gentlemen were admitted members on the 15th instant.

Messrs. John D. Evans, L.R.C.P.Ed., Llandovery; Ernest Martyn, M.B.Aberd., Southall; William J. Coles, L.S.A., Croydon; John G. Marshall, L.S.A., Wallingford; Richard Hingston, L.S.A., Liskeard; Hugh Rayner, Liverpool; Elliot Daunt, Launceston; Robert Williams, Liverpool; Henry E. Archer, Anerley, S.E.; Lauriston E. Shaw, Hastings; Thomas H. Chittenden, Maidstone; Edwin L. Adeney, Reigate; James E. Square, Plymouth; Bryce Gordon, Bombay; and William H. Hart, L.S.A., Streatham.

Thirteen candidates were rejected.

The following gentlemen were admitted Members on the 16th instant.

Messrs. John C. R. Husband, Ripon, Yorkshire; Robert G. Style, Chichester; St. Clair Thomson, L.S.A., St. Mark's Crescent, N.W.; George Fox, Huddersfield; George N. Pitt, M.A.Cantab, Sutton, Surrey; Hugh Kershaw, Brighouse, Yorkshire; Thomas R. C. Edwards, Gloucester Crescent; Ernest Birkett, Ramsgate; William F. Cleaver, M.D.Kingston, Stamford Street; H. Egerton Williams, Abertillery, Mon.; George Greenwood, Dalston; Charles R. O. Garrard, L.S.A., Tickenhall, Derbyshire; Richard H. Cowan, L.S.A., Southsea; James Harrison, L.R.C.P.Ed., Manchester; Eldon Harvey, L.R.C.P.Ed., Bermuda; Herbert E. Deane, L.S.A., St. Peter's Park, W.; Benjamin Bertram, Cape Colony; and Francis Gotch, Bristol.

Twelve candidates were rejected.

At a meeting of the Council of the Royal College of Surgeons on the 10th instant, Mr. Edward Hadduck, L.S.A., of Biddulph, Congleton, was elected a Fellow of the College, of which institution he was admitted a Member on October 21st, 1842.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 10th.

Cortes, Herbert Liddell, Guy's Hospital.
Cowan, Richard Hamilton, London Hospital.
Dummere, Howard Howse, Victoria Dock Road, E.
Hingston, Richard, London Hospital.
Richardson, Adolphus Joseph, London Hospital.
Rowell, Robert Henry, Houghton-le-Spring.
Yeatman, John Walter, Royal Sea-Bathing Infirmary, Margate.

The following gentleman also on the same day passed the Primary Professional Examination.

Edwards, Charles Augustus, London Hospital.

UNIVERSITY OF EDINBURGH.—The following candidates have passed the first professional examination for the degree of M.B., October 1881.

M. S. P. Agassor, Alfred Aikman, M. S. Alexander, J. M. Balfour, M. M. Bass, B. K. Bain, Jane Bell, G. L. Bonnar, Frederick Boyd, J. L. Bottomley, Paul Bowie, Herbert Bramwell, D. M. Brown, J. A. Brown, J. R. Burns, J. M. Cadell, Henry Caudwell, Edward Carmichael, Thomas G. Churcher, E. W. Clarke, J. G. Cossins, A. H. Croucher, A. S. Cumming, Daniel Davies-Jones, Alexander Davidson, A. N. Davidson, D. R. Dow, Thomas Easton, Edwin Eckersley, George Fisher, J. W. Fox, A. E. Grant, Benjamin Griffiths, J. S. Hebblethwaite, P. E. Handyside, W. C. Holmes, George Headley, W. H. Hill, Archibald Hood, T. A. F. Hood, Robert Howden, R. E. Horsley, C. W. Howell, A. W. Hughes, B. E. Lauderdale, R. Jackson, Hugh Jamieson, Hugh John, John Johnston, Thomas Johnstone, G. H. Kenyon, Henry Ker, Francis Kinchen, David Laing, W. S. Lang, A. W. M. Leicester, W. M. Little, H. J. Mackay, Wm. Mackay, F. L. M'Kenzie, J. H. M'Kenzie, N. J. M'Kie, John M'Myn, Archd. Macqueen, G. D. Malan, J. W. Martin, D. J. Mason, Angus Matheson, R. T. Meadows, Wm. Miller, Duncan Menzies, Robert Mitchell, B. M. Moorhouse, A. E. Morison, E. J. B. du Moulin, Daniel Mowat, W. J. Munro, J. H. Neale, J. H. Neethling, Sydney Partridge, Ian Paterson, M. G. Pereira, F. A. Pockley (with distinction), G. Y. Polson, H. P. Prankerd, H. H. Pridie, Joseph Priestley, J. M. S. Preston, E. E. T. Price, A. C. Purchas, Alwin Raimes, T. R. Rait, C. A. Renny, John Rigg, G. M. Robertson, John Robertson, J. S. Robertson, T. H. Robinson, Joseph Rutter, A. O. Schorn, William Shand, John Simpson, George Smith, William Sneddon, Y. S. Snitwong, Arthur Solomon, J. C. Steedman, H. F. D. Stephens, A. J. Stiles, H. J. Stiles (with distinction), J. W. Stirling, J. M. Stormouth, G. H. H. Symonds, John Sykes, T. S. Tanner, J. C. Taylor, William Taylor, Andrew Thomson, D. G. P. Thomson, H. A. Thomson, Thomas Thyne, Alfred Turner, J. W. O. Underhill, David Wallace, David Walker, E. F. S. Walker, N. P. Walker, L. W. Watson, A. K. Watt, E. G. Westenra, G. E. C. Wood, J. E. Wolfhagen, J. C. Young.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their first professional examination during the October sittings of the examiners.

Ernest Herbert Schäfer, Middlesex; John Gormley, County Roscommon; Theodore Mailler Kendall, Sydney, N.S.W.; Thomas Sharples, Preston; Searle Monteith Haward, London; Alexander Willox McFadyen, Stirling; Francis Gurney Mason, Newark; William Stephen Johns, Norfolk; Eustace Julian D'Gruyther, India; Odoardo Tomaso Achile Villani Van Vestrant, London; Edmund Eyre, Limerick; James Maher, Ballinasloe; John Gower O'Neill, Hastings; Robert Currie, County Antrim; Edmond Walsh, County Cork; Alfred Ellison Muncaster, Manchester; John Oldershaw, Derby; Arthur Wellesley Wales, Belfast; Frederick Cyril Joseph Capes, London; William Henry Clifton, Wiltshire.

The following gentlemen passed their final examination during October and November, and were admitted L.R.C.P.Edinburgh and L.R.C.S.Edinburgh.

John Thomas Dickie, Edinburgh; Louis Fitz-Patrick, Dublin; Robert Andrew Stirling, Melbourne; Thomas Sharples, Preston; Henry Simpson Wood, Melbourne; Alexander Macdonald Westwater, Edinburgh; John Rusby Seymour, London; Edwin William Reilly, Calcutta; Robert Hall Nailer, Madras; James Callaway, Gloucestershire; James McGregor, Portsmouth; Edgar Rastricke Hanson, Cornwall; John Henry Whitham, Cambridgeshire; William Henry Fretz, Colombo, Ceylon; Malcolm L. Cameron, Canada; Dadabhoy Sorabji Shroff, Bombay; William Gunn, Canada; Maurice Frank Jones, Bombay; John Buchan Spence, Berwickshire; Theodore Mailler Kendall, Sydney, N.S.W.; Haward Roxboro Elliot, Iriquois, Ontario; James Hayward Hough, Cambridge; Duncan McTavish, Canada; William Cormack, Canada; William Ebenezer Berryman, Madras; Francis William Joshua, Cirencester; Ernest Offord Stuart, Woolwich; Alfred Llewellyn Perkins, Cwm Amman; John Trimble Elliott, County Armagh; John Mackenzie, Sutherlandshire; Harold Athelstane Baines, Melton Mowbray; John Oliver Chisholm, Jedburgh; Robert Joseph O'Farrell, Galway; Michael Augustine Lyden, Galway; Frederick Erskine Paton, Broughty Ferry; John Norman Thompson, Madras; William MacGregor, Ceylon; William Bird, Yorkshire; James Ballantine Hogg, Edinburgh; Anthony Bailey, Yorkshire.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.—The following gentlemen passed their final examination, and were admitted Licentiates of the College, on October 21st.

George Haddow, Galston; Alexander Bruce Low, Edinburgh; Alexander Stookes, Liverpool; Rudolph John Maas, Michigan, United States.

The following gentleman, having passed his final examination for the diploma in Dental Surgery, was admitted L.D.S. on October 20th.

Matthew Finlayson, Alloa.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BELGRAVE HOSPITAL FOR CHILDREN, Gloucester Street, Warwick Square—House-Surgeon. Salary, £30 per annum, with board and residence. Applications by 23rd instant.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant-Surgeon. Applications by December 6th.

CHARING CROSS HOSPITAL, Strand—Assistant Physician. Applications by December 3rd.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge Road, S.E.—Physician to Out-patients. Applications by November 23rd.

GATESHEAD DISPENSARY—Resident House-Surgeon. Salary, £210 per annum. Applications to Mr. J. Jordon, Honorary Secretary, 2, Side, Newcastle, by 23rd instant.

GENERAL INFIRMARY, Gloucester, and GLOUCESTERSHIRE EYE INSTITUTION—Ophthalmic Surgeon. Applications by December 5th.

GUARDIANS OF THE POOR OF ST. MARY, Islington—Resident Medical Officer. Salary, £100 per annum. Application by November 22nd.

HOSPITAL FOR SICK CHILDREN—Medical Registrar. Honorarium of £50 per annum. Applications by [illegible] Assistant.

HOSPITAL FOR SICK CHILDREN—Dispensary Improver, 10s. per week. Applications, by letter, to the Secretary, 49, Great Ormond Street, W.C.

KENT COUNTY ASYLUM, Barming Heath, near Maidstone—Third Assistant Medical Officer. Salary, £120 per annum. Applications to F. Pritchard Davies, M.D., Superintendent, by November 30th.

LIVERPOOL DISPENSARIES—Assistant House-Surgeon, unmarried. Salary, £108 per annum. Applications to the Secretary by November 22nd.

LOWESTOFT FRIENDLY SOCIETIES' MEDICAL INSTITUTE—Surgeon. Salary, £200 per annum. Applications to John Hammond, 84, Bevan Street, Lowestoft, by December 1st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road—Assistant House-Surgeon. Applications by 21st instant.

NORTH DUBLIN UNION—Medical Officer. Salary, £150 per annum. Applications by November 30th.

ROYAL COLLEGE OF SURGEONS—Examiners in Anatomy and in Physiology. Applications to the Secretary by November 19th.

ROYAL INSTITUTION OF GREAT BRITAIN, Albemarle Street, W.—Fullerian Professorship of Physiology. Applications by 24th November.

RUBERRY HILL ASYLUM, Bromsgrove—Assistant Medical Officer. Salary, £100 per annum. Applications at once to the Medical Superintendent.

ST. MARY'S HOSPITAL, Paddington—Medical Superintendent and Registrar. Salary, £150 per annum. Applications by December 3rd.

ST. PETER'S HOSPITAL, [illegible] Street, W.—House-Surgeon. Applications by November [illegible]

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Junior House-Physician. Applications by the 19th instant.

MEDICAL APPOINTMENTS.

ASHTON, C. E., appointed Resident Medical Officer to the French Hospital. R. A. Busby, M.R.C.S.E., resigned.

BURGESS, J. J. L.R.C.S.I., appointed Medical Officer for Annamore Dispensary District.

DASHWOOD, E. S., M.R.C.S., appointed Assistant House-Surgeon to the Sussex County Hospital.

GULLIVER, G., M.B., appointed Assistant-Physician to St. Thomas's Hospital, *vice* W. S. Greenfield, M.D., resigned.

LOWTHER, H., L.R.C.P., appointed Medical Officer to the Isle of Wight Union.

MARK, Leonard P., L.R.C.P.Lond., M.R.C.S.Eng., appointed House-Surgeon to the Richmond Hospital, Surrey, *vice* J. Robson, M.B., resigned. (In last week's JOURNAL, the appointment was by error stated to have been made at the Richmond Hospital in *Dublin*.)

OGILVIE, George, M.D., Lecturer on Experimental Physics at the Westminster Hospital, appointed Physician to the Hospital for Epilepsy and Paralysis, Regent's Park.

PENNY, W. J., M.R.C.S., L.R.C.P.Lond., appointed House-Surgeon to the Bristol General Hospital.

ROSS, Donald, M.B., C.M., appointed Surgeon to the South Sea Plantation Company, Samoa, Levuka, Fiji.

SPENCE, W. J., L.R.C.P., appointed Resident Medical Officer to the Bradford Infirmary and Dispensary.

STUART, T. P. Anderson, M.B., appointed Assistant to the Professor of the Institutes of Medicine, and Senior Demonstrator of Practical Physiology in the University of Edinburgh.

TURNBULL, A. R., M.B., Senior Assistant-Physician, Royal Edinburgh Asylum, has been appointed Medical Superintendent of the Fife and Kinross District Asylum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTHS.

CASH.—November 14th, at Penta Villa, Torquay, the wife of A. Middleton Cash, M.D., of a daughter.

HARTE.—November 12th, at 3, Athenæum Street, Plymouth, the wife of Staff-Surgeon Mark Anthony Harte, Her Majesty's ship *Royal Adelaide*, of a daughter.

DEATH.

SMITH.—On the 8th instant, at Sheffield, Charles Smith, B.A.Cantab, M.D.Edin., aged 47.

A GOOD EXAMPLE.—A Liverpool butcher has been summoned for exposing for sale several pieces of the carcase of a cow, unfit for human food. Mr. Vacher pronounced it to be part of a carcase of a cow that had died from a complication consequent on parturition. The defendant was sentenced to a month's imprisonment.

AN antivaccinator at Blackburn, named Thomas Duxbury, proprietor of a temperance hotel, has been summoned a second time for refusing to submit his child to the operation. He urged the magistrate not to inflict the penalty, in view of the promise of the Government to abolish repeated convictions for the same offence; or, if a penalty were imposed, to make it cover twelve months. The magistrate granted an order that the child be vaccinated within a fortnight.

IT has been officially announced that His Majesty the King of Sweden and Norway has been graciously pleased to confer upon Dr. Alfred Meadows the Commandership of the Second Class of the Order of Wasa, as an acknowledgment of services rendered by him during His Majesty's stay at Bournemouth last spring, as well as to the Crown Prince of Sweden during his visit to England. The insignia of the order were officially presented to Dr. Meadows by His Excellency Count Piper, the Swedish Minister Plenipotentiary at the Court of St. James.

A NEW INFIRMARY IN WALES.—The Governors of the Glamorgan and Monmouth Infirmary have resolved to proceed at once with the erection of a new building, which is to cost £23,000. The site of the building is the gift of the Marquis of Bute, and sums of £1,000 have been contributed towards the cost of the proposed work by the Marquis, Lord Windsor, Lord Aberdare, Lord Tredegar, Mr. J. H. Insole, and Mr. James Ware. The architects are Messrs. Oames, Seward, and Thomas, Cardiff.

POCKET MONEY FOR A HOSPITAL.—The late Baron James de Rothschild, of Paris, who died suddenly on October 24th, of acute apoplexy, being in his thirty-seventh year, gave early in life a proof of having inherited the benevolent characteristics of his family. When but a lad he saved up his "pocket money", with the then ambitious desire to build a hospital. With the help of his relatives, he was eventually able to accomplish this design, and erected a large hospital near Boulogne, in the administration of which he took great personal interest.

ROYAL INFIRMARY, GLASGOW.—The following gentlemen have been appointed house-physicians and house-surgeons for the next six months, beginning November 1st. *House-Physicians:* Jas. Limont, M.A., B.Sc., M.B., C.M.; G. H. Mapleton, M.B., C.M.; P. A. Smith, M.B., C.M.; W. A. McLeod, M.B., C.M.; H. Jones. *House-Surgeons:* James A. Potts, M.B., M.R.C.S.; C. Buchanan-Hunter, M.B., C.M.; Thos. A. Dickson, L.R.C.S.; H. W. White; Chas. S. Young. *Assistant at the Throat Dispensary:* Thos. A. Dickson, L.R.C.S.

QUEEN'S COLLEGE, CORK.—The following scholarships have been awarded. Senior Scholarships: Chemistry, Benjamin Hosford. Junior Scholarships (fourth year), Medicine, Midwifery, and Medical Jurisprudence, Frederick E. Adams; third year, Anatomy, Physiology, and Surgery, James H. Swanton, William Barter.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities may be derived from the following facts, compiled from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the death-rate, according to the most recent weekly returns, averaged 31.2 per 1,000; it was equal to 27.0 in Calcutta, 28.3 in Bombay, and 30.8 in Madras. Cholera caused 15 deaths in Calcutta and 12 in Bombay, and 12 fatal cases of small-pox were reported in Madras. The death-rate in Alexandria was equal to 44.4 in the last ten days of October, and the recorded deaths included 19 fatal cases of typhoid fever and 11 of whooping-cough. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 25.9 per 1,000 of their aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 22.4. The rate in St. Petersburg increased again to 38.7, and 497 deaths included 24 from typhus and typhoid fevers, and 20 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 19.0, the highest being 21.3 in Copenhagen; 2 fatal cases of diphtheria were recorded in Stockholm. The Paris death-rate was equal to 27.2, and the deaths included 28 fatal cases of typhoid fever, 53 from diphtheria and croup, and 9 from small-pox. The usual return from Brussels does not appear to have come to hand. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the rate averaged 22.7, the highest being 24.3 in the Hague, where 3 deaths resulted from scarlet fever and 2 from whooping-cough. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 26.6, and ranged from 20.5 and 21.2 in Dresden and Hamburg, to 28.3 and 30.2 in Buda-Pesth and Munich. Small-pox caused 26 deaths in Vienna and 11 in Buda-Pesth; diphtheria showed fatal prevalence in Berlin, Dresden, and Munich. The death-rate in three large Italian cities averaged 25.5, and was equal to 20.1 in Turin, 23.6 in Venice, and 28.8 in Naples; measles caused 20 more deaths in Naples, and typhoid fever showed more or less fatal prevalence in each of these three cities. In four large American cities, the death-rate averaged 26.5; it was 20.5 in Philadelphia, 26.4 in Brooklyn, 28.9 in Baltimore, and 30.0 in New York. Small-pox caused 9 and typhoid fever 20 deaths in Philadelphia, and diphtheria showed fatal prevalence in Baltimore, Brooklyn, and New York.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. Henry F. Baker: A case of Congenital Displacement of the Head of the Tibia backwards in both Legs, with Double Club Feet. Dr. Stephen Mackenzie: Tinea Favosa (four cases) and its Allies. Dr. Routh: On the necessity of adopting a different Mode of Burying Bodies, the subject of Infectious Disease.

TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Spencer Wells: Case of Excision of a Gravid Uterus with Epithelioma of the Cervix; with Remarks on the Operations of Blundell, Freund, and Porro. Mr. J. M. Girdlestone (of Melbourne); On the Surgical Uses of Kangaroo-Tendons.

WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Port: Some cases of Hydatid Tumour of the Liver.

THURSDAY.—Abernethian Society, St. Bartholomew's Hospital. Mr. Jessop: Genu Valgum.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Mahomed and Mr. Cripps: On Two Cases of Direct Transfusion of Blood for Hæmorrhage in Typhoid Fever. Dr. Whipham: Three Cases of Continued Fever, with Affection of the Spleen and Unusually High Temperature. Mr. W. H. Bennett: A Case of Talipes Equino-varus treated by Resection of a Portion of the Tarsus (patient will be exhibited). Mr. J. R. Lunn: Two Cases of Myxœdema, Male and Female (patients will be exhibited).—Quekett Microscopical Club, 8 P.M. Mr. W. H. Gilburt: On the Structure and Division of the Vegetable Cell.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, subscriptions of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names of communication only [illegible].

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

TESTIMONIAL TO PROFESSOR VIRCHOW.

SIR,—Allow me to acknowledge in your columns the following subscriptions, in addition to those previously announced, towards the above testimonial; and to urge [illegible] delay as to [illegible]

11, Old Burlington Street, W., November 1st.

	£	s.	d.
Felix Semon, M.D. ..			
F. J. Mouat, M.D., F.R.S.			
W. Aitken, M.D., F.R.S.			
Sir W. Gull, Bart., F.R.S. ..			
E. Brown, Esq.			
[illegible] M.D., F.R.S.			
Samuel Wilks, M.D., F.R.S.	2	2	0
Sidney Coupland, M.D.	2	2	0
G. H. [illegible], M.D.			
D. [illegible], M.D.			
N. Moutchkine, Esq.			
J. Mar[illegible] Sims, M.D.			

DISTRIBUTION OF HOSPITALS.

SIR,—In speaking of the hospital-distribution of London, in his late interesting communication published in your last issue, Mr. Burdett makes one omission, which I trust you will kindly allow me to supply. This is, that the north of London, with one million inhabitants, possesses but one hospital, viz., the Great Northern, with thirty-three beds. Until lately, this was correct; but about three years ago, the institution known as the North-West London Hospital was started to supply the pressing want of the not very wealthy and crowded districts of Hampstead, Highgate, and Camden and Kentish Towns. This hospital contains twenty-six beds, which are always full, and is now furnished with all modern improvements and new specialties for the successful treatment of disease. The out-patients number daily about eighty, from each of whom, unless when recommended by a subscriber's letter, or when urgency presses, a small payment of sixpence or a shilling is demanded. This plan [illegible] of the hospital. [illegible] I remain, sir, your obedient servant,

D. P. Cu[illegible], [illegible] of the Hospital.

Connaught Square, W., October 24th, 1881.

SMALL-POX AND VACCINATION.

SIR,—During the late epidemic of small-pox, upwards of one hundred cases have come under my care, and not a few of these have seemed to furnish curious instances of the wonderful protective power of vaccination. The following are cases of the kind.

1. A woman suffering from small-pox suckled her child throughout nearly the whole period of the disease; the latter, vaccinated successfully a month before, never showed any symptoms.

2. Small-pox occurred in a German family, and the eldest of four children eventually succumbed to it. He was the only one in the family unvaccinated, and was nursed for nearly a week at home among the other three, all of whom escaped. The father told me he believed in vaccination, but, as he was living in the United States at the time of the birth of his eldest, where vaccination was not compulsory, he had omitted through carelessness to have the operation performed.

3. Small-pox broke out in a family of three children, none vaccinated. On the removal of the eldest, aged 7, to the hospital, I vaccinated the other two, both [illegible] was not very well; and accordingly, just ten days afterwards, as the vaccinal pustules were beginning to die away, a slight but distinct variolous eruption broke [illegible] disease; the second, although the variolous poison was in the system probably when I inoculated with the vaccinal lymph, could scarcely be said to have had [illegible] theless, I could not help believing, as taught by most authorities, that the vaccine, owing to its shorter period of inoculation, had forestalled the more formidable virus, and that the preservation of my patient's life was not improbably the result of this [illegible]

It is [illegible] men, that to my mind influence their opinions more than any statistics, however [illegible] but they [illegible] of our profession, that vaccination is a scientific truth, and one of no mean importance; that it has [illegible] long will it be ere a time arrive when Jenner shall be looked upon as an impostor, and the labour of his long and arduous lifetime as a delusion, pernicious rather than beneficial, and a stupendous monument of the credulity of superstition of the human kind.—I am, etc.,

M. GREENWOOD, M.R.C.S., L.R.C.P.Lond.

18, Queen's Road, E., October 26th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

SANITARY ARRANGEMENTS IN BRISTOL.

SIR,—This is an age of progress, and we have daily evidence of the great progress made in sanitary matters from the number of advertisements relating to sanitary apparatus, the almost universal appointment of sanitary authorities and sanitary officers. Still, for all that, we do not find that typhoid fever, scarlet fever, etc., have disappeared from our town and village.

I have just returned from my holiday trip, and have been much impressed by certain sanitary improvements which are being systematically carried out at Bristol, and which will doubtless be of inestimable value—to the residents shall I say? No! but to one class of them at least—I mean the doctors. While passing along a street called the City Road early one morning, I noticed, in the gutter before every house, a box containing what is usually known as "dust", viz., the usual household refuse from the house. I watched this being taken up by dust-carts and carried away; and I said to myself: What a boon for the tenants! no dirty dustbins, or boxes with decayed animal and vegetable matter, poisoning the household, and giving rise to disease. But my curiosity urged me still further, and I followed the dust-cart to a large open space at the lowest part of the district, which has often been overwhelmed with floods, and there I saw the dust-cart emptied of its contents, composed of large quantities of vegetable matter, a fair sprinkling of animal refuse, old preserved-meat tins, ashes, etc. On inquiry, I found this great mass of decaying animal and vegetable refuse and universal muck-heap was intended to be used as the foundation on which streets of small houses are to be erected. In order that this soil should be still further improved, the fire ashes are carefully sifted out, and sold for building purposes; and the larger cinders, or breeze, I think they called it, for furnaces. In fact, the only innocuous portion of the dust is carefully removed. On further inquiry, I learnt that expostulation on the part of those immediately interested in the welfare of the poor had proved in vain; and a little bird whispered in my ear that the sanitary authority had stated that it was a very suitable and healthy soil on which to build. Have the perpetrators of this enormity no fear of fever or cholera, not to say of plague, before their eyes? Would they themselves be bold enough to live in a house built on such a muck-heap? I venture to say: "Not on any account". Is it possible that, in this enlightened age, with Government officials paid to overlook the health of the country, there should be no way of preventing the outbreak of epidemic disease which must surely follow the completion of this design? In this instance at least, it appears to me that the district sanitary authority is very far from deserving the title, and still less the power of the office.—I am, sir, your obedient servant, VICTOR.

M.D., F.R.C.S. Irel., L.S.A. (Stafford). No one is allowed to practise as a physician or surgeon without having a French degree or having passed the clinical examination of the Faculty. Our correspondent should communicate with the Dean of the Faculty of Medicine, Paris, who will send him the required regulations.

THE TITLE OF DOCTOR, AND FELLOWS OF COLLEGES OF PHYSICIANS.

SIR,—I have noticed on many occasions that Fellows of the King and Queen's College of Physicians in Ireland have had the prefix of Dr. when spoken of in the BRITISH MEDICAL JOURNAL, even when they have not had a degree in Medicine from an University. Will you kindly inform me if it is the custom for Fellows of the College of Physicians of London, as for those in Dublin, to assume that title under the above circumstances? I am, sir, faithfully yours, CHARLES COTTON.

4, Cecil Square, Margate, November 11th, 1881.

*** We believe it is; very few of the Fellows of the College of Physicians of London have not the degree of M.D.; those who have not are still habitually styled, and style themselves, Doctor.

SUBSCRIBER. Any statement of the kind should be exact, and should be signed.

LOBELIA, FREE INCISION, AND ASPIRATION.

SIR, So much has been written about, and so many cases reported on, the treatment of empyema in the BRITISH MEDICAL JOURNAL during the last two years, that I ask you permission to add my experience following, not to indicate the general treatment pursued, but to show the folly of attempting to cure empyema by repeated aspiration, and the necessity for early and free incision.

James W——, 7 years, was seen with pleuro-pneumonia, from which he apparently recovered, and began to run about. Twenty days after he had been last seen, his father came (he lived about five miles in the country), and complained of the boy's breathing becoming more embarrassed. The little patient was again seen, and dulness had returned to the left side, the side originally affected, and his breathing was more hurried. He was blistered, and put on diuretics, but still the symptoms of compressed lung increased, and no doubt was entertained but that he was suffering from empyema, and the operation of tapping was advised. The breathing was [illegible] livid. Thirty-five ounces of pus were drawn off by means of the aspirator, with, of course, immediate relief to the patient. For two days, the little patient improved, but distressing symptoms from the first, still continued. After this, however, he became more restless towards evening, and dulness increased, so that, on the second day after the operation, it had to be repeated, and with a result differing from the former only in the quantity (thirty ounces) of pus withdrawn. In thirty-six hours the operation was repeated the third time, and nearly two hundred ounces were drawn from the cavity. After the third experiment a great deal of pus flowed, though so slowly, that it was deemed unadvisable to make free incision. This was done between the fourth and fifth ribs, about one inch and a half posterior to the nipple, and a large tube inserted. The child improved for a day or two after the operation, but relapsed, and in the case, the short tube, which hitherto could easily be kept clean, became fouled, and [illegible] ceased.

I then said in the district that the boy must die, but seeing, with the exception of the left side of the chest being flat, the boy looked and felt well.

[illegible] to the physician to be called in consultation. Yours, etc.,

M.R.C.S.

L. E. C——. We have no control whatever over the person named; and if he do not belong to the medical profession he would be practically quite unaffected by any observation to which we could make.

CONTINENTAL WATERING-PLACES.

SIR,—I should be much obliged if anyone could inform me if there are any compact and handy books on continental watering-places which give a description of the various mineral waters and their properties; and, if so, which is the best and most useful for a doctor.—I am, etc., M.D.

[illegible] Manual for Baths and Watering Places. Brandt. The Continental Health Resorts [illegible] translated and edited by Dr. Herman Weber.

MEDICAL ETIQUETTE AND SCARLET FEVER.

SIR,—I would be glad to know what the following is considered etiquette. I am attending a case of scarlet fever. The father belongs to a contagious diseases club. Although I have given a certificate, the club depute their surgeon, a local practitioner, to see the case (*vide* letter enclosed). Is it according to professional etiquette for him to do so?—I am, etc., "DO UNTO OTHERS", etc.

*** The "letter enclosed" was an intimation from the medical officer of the club to our correspondent that he had been deputed to report on the case, and proposed to visit the patient the next day. Provided that he did not interfere with the management of the case, but that his visit was merely an official one with the view of guarding the interests of the club, we scarcely think that he acted unprofessionally.

FACTORY APPOINTMENTS.

SIR,—Will you kindly allow me to supplement the remarks of "A Certifying Surgeon" in the Journal of November 5th? I may, perhaps, remark that I have held the office since 1868.

The fee of half-a-crown to include five certificates, I have always contended, applies solely to such factories as require and have a periodical visit, *i.e.*, once a week; and by no means to factories who only send for the certifying surgeon when they require several certificates. This practice has always been recognised in my district (which is a large manufacturing town), both by Her Majesty's inspectors and also by the Association of Certifying Surgeons. I have not found much difficulty in procuring birth-certificates; and for this reason: most "young persons", or full-timers, have just left school, and their school-book is ample evidence of their age, and of having passed the fourth standard if under fourteen years of age. When a lad is plainly, from his appearance, over fifteen years, I require no birth-certificate, simply writing "Over 15" in the factory register. A family bible, if not tampered with in any way, is also sufficient as proof of age. With regard to children, or half-timers, the only proof of age necessary in their case is the child's half-time book.

As regards the emoluments of the office, the contract system works well in my district, and is fairly remunerative to the surgeon, without being oppressive to the factories. Large factories, of course, require weekly visits, and in these cases I fix my contract at about two thirds the amount of fees payable; for the reason that very frequently you have only to walk into the factory, when the clerk tells you that no certificates are required this morning. In a large number of smaller factories, whose changes are very seldom, I make a smaller charge *per annum*, on the understanding that I only visit when sent for; and to facilitate matters, I have post-cards with request for me to call printed on one side, and my name printed on the other; one of which I leave whenever I am summoned to attend. This plan seems to give satisfaction to both parties.

The foregoing fees, etc., merely apply to factories under a mile from my house, which embrace the great majority of them; in all other cases, I charge 2s. 6d. a visit, and 1s. each certificate. One factory, which is only a few yards over a mile from my house, pays me 5s. each visit, and the proprietor is very careful to send to me in the required number of days, and does not keep his "hands" back—or, as we call it, "bottled up", so as to evade payment of fees. The sixpenny fee is the worst part of it, but this does not affect me much.

I shall be glad to correspond privately with [illegible] your correspondent, if you will kindly give them my address.—I am, etc.,

ANOTHER CERTIFYING SURGEON SINCE [illegible]

SIR,—There is no public appointment which is so certainly and quickly followed by a large general practice, as that of certifying surgeon; and for this reason, such appointments are eagerly sought after. In the district where I reside, there are a large number of mills, and the certifying surgeon attends nearly all the mill-owners, and also most of the factory operatives. Besides this, the surgeon attends nearly all the cases of accidents, because the mill-owners contract with him; so that, practically, it is very rarely that a mill-accident is ever attended by any other doctor in the town. It is very different with a medical officer of health, as I know from experience that the public, especially when any contagious disease is prevalent, will avoid sending for him.—Yours, etc., M. O. H.

DR. GREAT REN (Lawton). The fee for attendance as a witness in the county court is [illegible] with travelling expenses not exceeding one shilling per mile one way.

DANGERS OF THE HYPODERMIC INJECTION OF NITRATE OF SILVER.

DR. S. HUDSON writes, in the [illegible] *Record*: "I have [illegible] in the last number of the *Recorder*, from a correspondent of the BRITISH MEDICAL JOURNAL, on the danger of hypodermic injections of [illegible]. He says: 'I, too, have had some experience in the use [illegible] though not with the iron. About three years ago, Mr. T., a young man about twenty years of age, came to my office and showed me a small [illegible] on the end of his left forefinger. He informed me that it was [illegible] and desired me to take it off. Without further examination [illegible] hypodermic syringe, with a strong solution of nitrate of silver—perhaps three or four drops—and [illegible] In less than [illegible] [illegible] him home. The next morning, I had the mortification to see that two of his fingers were [illegible] days was terrible [illegible]

THE DALZELL FUND.

SIR,—We thank you for inserting our appeal in your issue of the 5th instant, and those gentlemen who have already responded to it. All we want about [illegible] and we will see that it is well spent. [illegible] of donations received [illegible] the treasurer. Faithfully yours, LEWIS LEWIS.

1, St. Michael's Terrace, Plymouth, November 10th, 1881.

Second List.

	£	s.	d.
H. Stear, Esq. (Sutton Walden)	2	2	0
Dr. Pearce (Plymouth)	1	1	0
G. Jackson, Esq. (Plymouth)	0	5	0
Anon. (Kingston)	0	5	0
Alpha	1	10	0
X. (Devonport)	0	5	0

EXCEPTION, says the *Globe*, may well be taken to some of Mr. Justice Kay's recent observations to the grand jury at Liverpool on the liquor traffic. Everybody, however, must concur with him as to the necessity of greater power being given to punish the adulteration of alcoholic drinks. Beer or spirits, which if drunk pure would not be hurtful, is too often sold in a condition in which it must act as a poison, however temperately imbibed.

ANTIVIVISECTIONISTS.

SIR,—I inclose a copy of a letter published in the *Times* of November 7th, together with two anonymous letters I received a few days afterwards. These two letters I should have thrown into the waste-paper basket, but it occurred to me that many of your readers would like to see them, and thereby learn how petty and foolish some of these antivivisectionists are.—I am, etc., URBAN PRITCHARD.

"*The Practical Value of Vivisection.*—To the Editor of the *Times*.—Sir, I see by *The Times* of to-day that a summons has been granted against my friend and colleague Professor Ferrier, for certain experiments on animals which were undertaken for the advancement of our knowledge of the functions of the brain. I do not wish to discuss the merits of the case, which, no doubt, will be carefully considered and impartially dealt with; but I am anxious to add my testimony, however insignificant, to the practical value of Dr. Ferrier's work in my limited branch of medicine. On many occasions I have been considerably assisted both in diagnosis and treatment of nerve deafness by Professor Ferrier's knowledge gained in the course of his experimental studies. Of course his work is, and will be, of far greater value to the general physician. I am confident that the medical profession at large feel so strongly on this point that Dr. Ferrier will not be allowed to bear any pecuniary loss, should this case, through some technical omission on his part, be decided against him. I cannot help lamenting the harm that is being done to the advancement of the healing art by false sentiment fostered by many really well-meaning persons. Is it not sad to think that a professor should be driven to the Continent to perform experiments which have for their object the perfecting of a system which has already saved thousands of lives? And yet it is a fact that such did occur last year to another eminent London professor.—URBAN PRITCHARD, M.D., F.R.C.S., Chairman of the Section of Otology, British Medical Association.—3, George Street, Hanover Square, November 4th."

[Copy of Letter No. 1. Postmark: Walton-on-Thames, November 7th, 1881.]

"Your 'friend Ferrier!'—he is properly described as a brute not fit to live. That is the friend who turned into ridicule, in the presence of the embryo fiends he was instructing in cruelty, the agonies of another poor monkey he had been carving.

"'Friend'—you could not better describe what you are yourself than by styling that fiend Ferrier your friend. What a fearful untruth—'saved thousands of lives!' Do not think you and the other vivisectors—the very name is quite shocking—deceive any living person in their senses, by saying your hellish crimes in which you delight, are perpetrated for the good of human nature—stuff! They are wrought to put guineas in your pockets; and each medical butcher hopes in a kind of misty way for a statue, in memory of his cruelty. I would that each and every one of you were struck dead, as you bend in delight over the torture-trough where lies some innocent and beautiful dumb creature.

"That such a practice is allowed to be, strikes at the root of all religion. The power that rules, must be devoid of mercy; and it adds a wearing sorrow to the life of thousands, who love the dumb creatures. What did you pay the *Times* or what did the *Times* pay you, for your letter? That paper hastens to promote your creul pastime."

[Copy of Letter No. 2. Postmark: London, E.]

"Oh you wicked heartless wretch—We have *seen your* most disgusting letter in the *Times*, and we wish that a summons may be granted against such a cold-blooded heartless villian, who could be so vile and godless to dissect a *poor dumb* animal *alive* just to cram his head with what he had no business to know about—such an heartless wretch who could torment his poor fellow animals to death in such a revolting and awful manner for the sake of *knowing* more than God intended him to—prying into things which no ones has a right to know—is far worse than a murderer. You, and your old Dr. Ferrier, and all such friends, deserve to have a milestone hung around your necks and be thrown into the sea. If you are so very anxious for the advancement of knowledge of the functions of the brain, why don't you give yourself bound hand and foot to be vivisected? More and perfect knowledge could be obtained *that* way—you then would be doing a far greater service for the advancement of knowledge than in disecting a poor dumb animal, or as you seem to be made of stone why not disect one of your own children. I sincerely hope you may have to undergo all the pain thoes poor creatures felt. If people would live more rightly, there would not be so much need for the 'healing art' and then poor dumb animals (which is a most abominable shame) would not have to suffer so much for people's wickedness."

RESPIRATORS.—Dr. Coghill's may be had at Maw's, from 5s. upwards. I have tried and found them useful.—J. M. BRYAN, M.D.

FEES IN MANUFACTURING DISTRICTS.

THE highest fees for general practitioners is 5s. without yielding up the prescription, which should be left with the dispensing chemist. The scale of fees is from 2s. 6d. to 5s. as a rule. J. M. B., M.D.

SIR,—A patient of mine, a young lady of high social position, consulted me about a very disagreeable affection. On rising in the morning, she is unable to move her lower jaw without making a loud cracking noise. She can always do it voluntarily, but for a couple of hours after getting up it is beyond the control of her will. If any brother practitioner can suggest a remedy, he will receive the sincere thanks of your obedient servant, A. COURLEY MALLEY, B.A., M.B.

Munslow, Craven Arms, Salop, November 14th, 1881.

ATTENDANCE ON FAMILIES OF MEDICAL MEN.

1. IT is not usual to charge widows of medical men nor their children; but an honorarium is expected, and generally given (such has been my case); and if no notice within three months, some reminder should be sent. 2. Five shillings per visit is the outside fee in the provinces, within the town, to good patients. A [illegible] practitioner's scale of fees may be seen in Letts's [illegible] Diary. J. M. B., M.D.

YORKSHIRE STUDENT.—1. The year of pupilage to a medical practitioner does not exempt from any portion of the curriculum of lectures and hospital practice laid down as a minimum by the examining boards. 2. The certificate of pupilage must be given on a printed form, to be obtained on application to the several qualifying bodies, medical schools, and hospitals. Our correspondent does not state whether he has passed one of the preliminary examinations in subjects of general education recognised by the Medical Council. This must be done before registration as a medical student; and such registration must take place not more than fifteen days after the commencement of professional study. Full information will be found in the Educational Number of the BRITISH MEDICAL JOURNAL (September 10th).

INSOMNIA IN A CHILD.

SIR,—I shall feel greatly obliged if any of your readers can suggest any remedy for "insomnia" in a young child aged 1 year and 10 months, as this disorder has been a cause of constant worry and annoyance almost from birth. The boy is in other respects strong and well nourished, and, though with an hereditary tendency to "neurotic" disorders on one side of the house, displays no other symptom of nervousness. Every night, he is awake for at least three or four hours, and, though teething at times exaggerates the mischief, yet an independent habit of wakefulness appears to have been formed.

Bromide of potassium, and the giving up the midday sleep (when he rests well), have been tried, but without benefit. Nothing in the shape of opium, hyoscyamus, conium, or chloral, has been given.—Yours faithfully, WORRIED.

INQUIRER.—In reply to inquiry respecting the books to be used in preparation for the examinations on State Medicine of the University of London, we are informed that the Senate purposely abstains from naming any special treatises on the subjects prescribed.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Crichton Browne, London: Dr. Joseph Ewart, Brighton; Mr. Lewis Lewis, Plymouth; Mr. J. Porter, London: Dr. Joseph Coats, Glasgow; Mr. W. H. Platt, London; Mr. Shirley Murphy, London; A Member; Dr. W. Kelly, Taunton; Dr. S. Rees Philipps, Exeter; Mr. C. Spurway, Pegli; Dr. Mussen Young, Melton; Mr. Simon Snell, Sheffield; Dr. Wilberforce Smith, London; Mr. James Edwards, London; Dr. Thomas Barr, Glasgow; Mr. H. Nelson Hardy, London; Dr. A. T. Carson, Belfast; M.R.C.S.; Mr. Morton Smale, London; Dr. H. H. Dickson, Atlanta; Dr. A. M. Cash, Torquay; Dr. R. B. Davy, Cincinnati; Mr. J. B. Morris, Swansea; Dr. J. S. Bristowe, London; Dr. A. Sheen, Cardiff; Dr. W. Jelly, Madrid; Dr. E. MacDonald Cosgrave, Dublin; Dr. Charles Hill Drury, Darlington; Dr. A. Davidson, Liverpool; Our Aberdeen Correspondent; A Passenger; Dr. B. Anningson, Cambridge; Dr. Percy Boulton, London; Dr. A. B. Brabazon, Bath; Mr. E. S. Dashwood, Brighton; Dr. W. Strange, Worcester; Dr. Logie, London; Mr. Charles Cotton, Margate; Mr. F. S. Goulder, Dudley; Dr. Urban Pritchard, London; Mr. T. W. Barron, Durham; Mr. A. Lloyd Jones, Craven Arms; T. A. D.; Mr. A. C. Malley, Munslow; Dr. W. A. Greenhill, Hastings; Mr. J. E. Ingpen, London; Mr. T. Chas. Cade, London; Dr. A. Downes, Chelmsford; Mr. R. Clement Lucas, London; Mater; Mr. A. Freer, Sheffield; Dr. Markham Skerritt, Clifton; Rev. A. G. Short, Bridge of Allan; W.; Dr. F. T. Chavasse, Birmingham; Mr. W. G. Cumming, South Oldham; Dr. J. Ward Cousins, Southsea; Dr. Duffey, Dublin; Mr. W. D. Steel, Abergavenny; Dr. John Lowe, Sheffield; Mr. J. Wickham Barnes, London; Dr. C. T. Brookhouse, London; A. W. W.; Dr. T. Gelston Atkins, Cork; Dr. C. E. Glascott, Manchester; Scrutator; Dr. R. M, Fawcett, Cambridge; Mr. T. P. Cook, Colchester; Dr. G. Gregory, Bolton; Mr. John Buxton, Wrexham; Dr. J. W. Langmore, London; Dr. Emrys Jones, Manchester; Mr. Heaton C. Howard, London; etc.

BOOKS, ETC., RECEIVED.

Transactions of the Obstetrical Society. Vol. VI. Edinburgh: Oliver and Boyd. 1881.

On Chorea. By O. Sturges, M.D. London: Smith, Elder, and Co. 1881.

The Brain and its Functions. By J. Luys. With Illustrations. London: Kegan Paul and Co. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,, ...	20 ,,
,, 26 ,, ,, ...	25 ,,
,, 52 ,, ,, ...	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

NOTES
ON
LACERATION OF THE CERVIX UTERI; ITS CAUSES AND TREATMENT.*

By J. HENRY BENNET, M.D.,
Formerly Obstetric Physician to the Royal Free Hospital, London.

My object in bringing forward the subject which forms the title of the present communication is principally to initiate a discussion, to learn myself from others. The presence of so many illustrious obstetricians, representing many nationalities and many schools, affords an admirable opportunity of obtaining an authoritative expression of opinion as to the etiology and treatment of this lesion. New views respecting the causes and treatment of laceration of the cervix uteri have been brought forward of late years by eminent American and German gynæcologists, and promulgated by them with great enthusiasm and authority. As the time allotted is very limited, I intend to confine myself principally to the enunciation of my own opinions, founded on a long life of clinical observation: and I may thus early state that these opinions are decidedly antagonistic to what I may term the recent American doctrines. At the same time, I wish it to be well understood that I feel the greatest esteem and respect for the talented gynæcologists whose opinions I combat.

These doctrines, the principal exponents of which are Dr. Emmet (*Principles of Gynæcology*), and Dr. Pallen of New York, may be reproduced in a few words. Dr. Pallen, it may be remarked, is much more exaggerated in his views than Dr. Emmet. He states that he has operated in 500 cases.

Firstly, it is said that laceration of the cervix, as an accident connected with parturition, is very common; indeed, so common, that it was found by Dr. Pallen, at the Gynæcological Clinic of the University Medical College of New York, in more than 200 cases out of 900 patients there treated.

Secondly, it is laid down as an axiom that these lacerations, as such—as mere lacerations—are a most fertile cause of uterine disease, of hypertrophy, defective involution, displacements, leucorrhœa, sterility, etc.; that they are also a frequent cause of *post partum* hæmorrhage, of septicæmia, of metritis, and of puerperal fever; and that the proper, and the only proper, treatment is a plastic surgical operation, viz., sewing up the lips of the laceration.

It is laid down as a rule by Dr. Pallen, in his memoir read before the British Medical Association at Cambridge, 1880 (BRITISH MEDICAL JOURNAL, May 14th and May 21st, 1881), that the sooner the plastic operation is performed after parturition, the better it is for the patient, as with laceration of the perinæum. In this memoir, the following axioms are laid down peremptorily by Dr. Pallen: that the operation can and should be performed as soon as discovered, immediately after parturition, or within a few days after parturition; that all parturient women should be examined immediately after childbirth, with a view to ascertain if laceration have occurred; and that every accoucheur ought to acquire the surgical skill necessary to perform the operation, and ought to go to every confinement with the instruments required for its performance, prepared to use them in case of need.

I believe that the above pathological doctrines, in so far as they relate to the frequency of laceration of the cervix uteri in labour, are the expression of facts; and American gynæcologists deserve great credit for bringing them so authoritatively before the profession. By drawing attention generally to the frequency of laceration of the cervix in labour, they have done good service to the cause of gynæcology, and have succeeded where I partially failed.

I believe that I was the first to forcibly direct attention to the frequency of laceration of the cervix during childbirth, as a cause and as a complication of subsequent uterine suffering. I would refer to the second edition of my work on uterine inflammation, published in 1849, thirty-two years ago, pp. 225 and 352.

In this, the second edition, after discussing the subject generally (page 225), in speaking of the diagnosis of cancer of the uterus in its early stage (page 352), I make the following statement: "The cervix is, in reality, frequently lacerated; and, if Dr. Ashwell has not observed this to be the case (see page 433 of his work), it must be that, on the one hand, he has not analysed with sufficient care the results furnished by digital and instrumental examination; and that, on the other, he has mistaken for incipient cancer the cases in which the lacerations, not having healed, have led to a puckered indurated state of the edges of the os. When laceration occurs in labour, if the parts involved do not return to a healthy state, but remain ulcerated and inflamed, lobes are formed around the os, separated from one another by fissures more or less deep. These lobes, although merely inflamed, may become of a stony hardness; and, when this occurs, the hardness is very erroneously supposed to characterise scirrhus, and is cited as an evidence of the malignant nature of the disease. If the lobes thus formed around the os, and thus indurated, are considerably hypertrophied, they present exactly the sensation to the touch which Dr. Montgomery compares to the ends of the fingers brought closely together, and which he considers to characterise the second stage of cancer."

In the third edition of my work, published in 1852 (pp. 185 to 470), and in the fourth, published in 1861, I confirmed and extended what I had previously stated on this important subject. Thus, during a long gynæcological life, I have recognised the frequency of laceration of the cervix uteri, and its importance in the etiology and treatment of many forms of uterine disease. I have described it in my writings, taught it to my pupils, and have treated it in practice. I consider myself entitled, therefore, to speak on the subject with some little authority.

Although accepting, in a measure, the facts and the etiology of cervical laceration as brought forward by our American brethren, I join issue with them entirely as to the general advisability, nay, general necessity, of the surgical operation they so warmly advocate as a rule for all cases, slight or severe.

Referring to the causes of laceration of the cervix, I quite agree that instrumental or manual interference, during or after parturition, laborious prolonged labour, or abnormally rapid labour, may give rise to cervical laceration, as stated in the successive editions of my work. I believe, however, that, in the immense proportion of cases, the lesion is due to previous disease, to rigidity of the cervical tissues, the result of previous chronic inflammation, which nature has been unable to modify, to soften during the later periods of pregnancy.

In a very early stage of my obstetric career, I became convinced that much that is to be found in standard works on obstetrics respecting rigidity of the cervix during labour, was founded on ignorance of the pathological changes produced in the cervix by chronic inflammation. I became convinced that the so-called spasmodic rigidity of the cervix during labour, about which so much has been written, was all but invariably the mere result of previous inflammatory induration.

I arrived at this conclusion in a very simple way. I made it a rule—and a very good rule it is, productive of sound practical results—to examine instrumentally, six weeks or two months after parturition, all the women I attended who had presented during the labour either rigidity of the cervix, or hæmorrhage, or had experienced any accidents whatever during that or the *post partum* period, or even during pregnancy. I followed this rule in such cases with my public as well as my private patients, requesting them to come to me six weeks after their confinement, that I might ascertain "if all was right". I never met with any difficulty either in public or in private practice, once I clearly explained the reason for my demand, viz., the fear that all might not have gone right during the confinement.

In cases of rigidity of the cervix, and of delayed labour from that cause, I all but invariably found diseased conditions of the cervix, hypertrophy, induration, the evident origin of the cervical rigidity, generally accompanied by inflammatory lesions, such as erosion or ulceration, evidently of old origin, long antecedent to the labour. Often these lesions were accompanied by lacerations, clearly the result of the induration existing at the time of the labour.

I may again mention what I stated in a paper read before the British Medical Association at Cambridge last year (1880). When in these examinations, made six weeks or two months after the confinement, I met with inflammatory lesions, uterine or cervical, generally speaking the pregnancy had been a laborious one. It had been chequered by extreme sickness or hæmorrhage, and, in most instances, parturition and the [illegible] had been abnormal in [illegible].

One of the most prominent and frequent pathological conditions observed under these conditions was laceration of the cervix uteri, more or less extensive, mostly single, sometimes double or multiple. So frequently did I meet with a [illegible] when there had been injury of the [illegible] degrees I came to [illegible] pares the cervix, during the last months of gestation, for the phenomena of parturition, by change of structure. When the time arrives

* Read at the Gynæcological Section of the International Congress [illegible], August 7th, 1881.

the structure of the cervix uteri is so modified that it dilates and opens as readily as the healthy sphincter ani. But, given a cervix diseased, hypertrophied, indurated by chronic inflammatory action, unsoftened, structurally dense and hard, it is self-evident that its normal dilatation will be impeded, and that laceration must often occur.

Such being the sequence of events in the immense majority of cases of laceration of the cervix met with in practice, nothing can be more erroneous, clinically, than to attribute, as a rule, the inflammations, the indurations, the erosions, the ulcerations, subsequently discovered, to the mere laceration. To present these lesions in this light is, in most cases, to substitute effect for cause. I repeat, the morbid conditions found accompanying laceration are not, in the great majority of instances, the result of the laceration, or caused by it, but are the natural inevitable result of the previously existing chronic disease of an inflammatory character which led to—caused—the laceration.

I quite admit, however, that laceration of the cervix uteri during labour, in a healthy female, from instrumental or manual interference, or from any other cause, may be followed by all these morbid conditions—may produce them—if the woman be out of health, and if the case be indefinitely neglected.

In my experience, however, these are the exceptional cases. The reparative, healing, curative energies of nature are so great after parturition, nature has such power to restore the uterine organs to a normal healthy state during the puerperal stage, that most lesions which occur in healthy women during labour are no doubt spontaneously cured. As I have already stated, it is principally the women who present uterine or cervical disease at the time of parturition, who do not recover spontaneously from accidental lesions. No doubt very many healthy child-bearing women, who are perfectly well, and have never been examined, because they present no morbid symptoms, would be found to show the traces of laceration of the cervix spontaneously healed, were they examined instrumentally. If the cervix be actually the seat of chronic disease at the time of the laceration, on the contrary, the local disease, aggravated by the labour, perpetuates itself in spite of the curative, restorative efforts of nature, and draws attention to its existence by the usual symptoms.

Thus, clinically, we have to deal with laceration of the cervix uteri under three different conditions. 1. In connection with severe chronic disease of the cervix of an undoubted inflammatory character—hypertrophy, induration, ulceration, the fissure is deep; its edges, unhealed, are sometimes hard, hypertrophied, and capable of being everted by the bivalve speculum. Such a case bears every anatomical evidence of being the result of old disease existing at the epoch of one or more antecedent labours. 2. There may be one or more clean fissures, with unhealed edges, and accompanied by decided inflammatory lesions and tissue-changes, enlargement of the cervix, soft or hard, erosion, ulceration of the cervical mucous membrane, etc. These pathological conditions are decided; but the hypertrophied, lobulated condition of the cervix is not as marked as in the former class of cases; its chronicity is evidently not so great. The parturition which occasioned the laceration may not have been remote, and it is much easier to obtain a cure. 3. There may be a clean-cut fissure or fissures unhealed, but not accompanied by the above-described pathological conditions. The fissure is probably the result of recent parturition in a healthy or tolerably healthy female, and is generally easy to heal by very simple means.

We are thus led to the consideration of treatment. The distinguished American gynæcologists whom I have named, have stated in their writings that all these lacerations ought to be operated on surgically; to be sewed up by a delicate, difficult plastic operation, either immediately after parturition or whenever discovered. This operation is proposed as a surgical necessity; as the only means of avoiding the whole train of uterine lesions and sufferings with which we are so familiar—menorrhagia, dysmenorrhœa, neuralgia, chronic inflammatory lesions, non-involution of the uterus, displacements, sterility, etc. Nay, the origin and cause of all these morbid states in child-bearing women, and their permanency, seem to be principally attributed to the laceration, when such a lesion exists.

To this doctrine we may answer: What, then, is the cause of these morbid states in the still more numerous cases in which they exist in child-bearing women, with equal intensity, without any laceration whatever having occurred? To me, this attempt to establish a kind of new uterine pathology, founded on laceration of the cervix, is quite visionary. That such lacerations, unhealed by nature, after childbirth, constitute an important and unfavourable complication, aggravate all the local and constitutional symptoms, and render recovery, when unhealed, difficult, if not impossible, is true, perfectly true. But there is an abyss between admitting these pathological statements to be true, to be undeniable facts, and attributing to the existence of the laceration itself all the lesions and symptoms which accompany it, and asserting that a surgical plastic operation can alone cure the fissure and restore the patient to health.

I do not hesitate to say that this operation, although admissable possibly in extreme cases, is unnecessary in a very large proportion, I may even say in nearly all, the cases for which it is thus recommended. I have lived amongst these cases all my professional life, for more than forty years, and have treated many hundreds, to say the least. Not having kept a register, however, I am unable to say how many I have attended, or what proportion the cases of uterine disease with laceration of the cervix I have seen and treated bear to those without. I have always succeeded in healing the laceration, and in curing the morbid conditions that accompanied it, more or less readily, according to the case, by simple surgical means and appliances, without having recourse to the plastic operation introduced of late years. I always considered the laceration to be part and parcel of the inflammatory disease that coexisted—either its sequela or its cause. As the concomitant inflammation of the cervix and uterus of the surrounding tissues improves, the raw edges of the laceration begin to heal. As the hypertrophy and induration of the cervix softens and diminishes, so do the hypertrophied lips of the laceration soften and diminish. When the cervix regains its natural size and texture, and all erosions and ulcerations have healed, the deep gaping rent, fissure, or laceration, heals and disappears; a mere notch only, in most instances, remaining.

In some cases, if the laceration have been very deep, if the cervix had been very much enlarged and indurated, and remain so notwithstanding local treatment and careful constitutional management, the healed fissure or fissures may remain deep and patent, and permanently divide the cervix into lobes. I am quite prepared to admit that in such cases the operation may be admissible, or even the best treatment to adopt. In my early life, these cases were generally thought to be cancerous, and I was the first to point out their non-cancerous nature, and to demonstrate that the direction of the fissures, radiating from a centre, like the spokes of a wheel, constitutes a good differential character (see page 349 *et seq.* of my work, second edition, 1849). It was principally in these obstinate and intractable cases that I used, and still occasionally use, issues made with my cylinders of potassa cum calce. I never, in any of my writings, proposed or suggested melting down diseased tissues by potassa fusa, as I have been most unjustly reproached for doing.

I do not assert that this new plastic operation ought never to be performed in any conceivable case. I make no such a sweeping assertion. I admit that possibly, in extreme cases, the plastic operation may be the best treatment to be adopted. That is a question which I leave others, younger men, to decide. I do, however, assert that, in a long gynæcological career, with my eyes thoroughly open to the pathology of laceration of the cervix uteri, I have successfully treated my patients by other and milder means, all but uniformly restoring them to health. I would add, that I do not see the rational application of this operation in the great majority of cases, inasmuch as all the improvement said to follow the operation may be obtained by simply curing the concomitant inflammation, and by healing the divided lips of the laceration, as already stated. I have cured an infinite number of women suffering from laceration, and from its antecedent, concomitant, and subsequent complications, by the means of treatment usually resorted to before the autoplastic operation was proposed.

In my own practice, I have simultaneously treated the local lesions and the constitutional symptoms: the latter by rest, hygiene, and general medicinal agencies; the former by the surgical means that are usually resorted to in the practice of surgery to remove chronic disease of attainable mucous membranes, such as those of the anus, vulva, fauces, nares, mouth, etc.; these agencies are emollients, and local depletion, astringents, and vitality-modifying agents, such as iodine, the nitrate of silver, and the mineral acids. To treat disease of the attainable regions of the uterus on these principles, is merely to apply to disease in these parts the universally recognised laws of surgical practice, varied according to the case, and according to individual experience and views.

To deny the existence of inflammation, acute or chronic, in the uterine and cervical mucous membranes and tissues, and to repudiate the use of the usual surgical therapeutics, is irrational and unscientific.

I still teach the doctrines I have always taught in uterine therapeutics: thoroughly examine your patient; treat and remove by ordinary surgical means all removable lesions, all pathological conditions; treat at the same time most carefully all constitutional failings and symptoms; and then wait, handing over the case to rest, to hygiene, and to time. With their assistance, nature will complete the cure, in the great majority of cases, without surgical operations of one kind or

another. In the cases to which Dr. Emmet alludes, in which the laceration extends to the bladder, producing vesico-vaginal fistula, or into the cellular tissue behind the uterus, giving rise to cellulitis, I quite agree that more active surgical interference may be absolutely required.

There is a feature connected with the new plastic operation for laceration of the cervix to which I would draw attention. Many gynæcologists, both European and American—among whom stand prominently the late Sir James Simpson, and my old friend, Dr. Marion Sims—have recommended, during the last twenty years or more, deep division of the cervix, with scissors and bistoury, by a single or double incision, down to its connection with the body of the uterus, for nearly every form of uterine suffering: sterility, displacements, hypertrophy, etc. For my own part, I never could understand the *rationale* of these operations, and never performed them; my patients recovering without. Now, singular to relate, we have a new school of gynæcology brought forward, which teaches us that spontaneous lacerations, the very anatomical conditions thus artificially induced to cure disease, are the actual cause, when they exist, of uterine suffering in child-bearing women; and that, by sewing up the lips of the laceration, the patient is to be cured, and made well for ever more.

These extreme surgical doctrines refute each other. None of the gynæcologists, who recommend and practise slitting up the cervix, as a remedy for uterine suffering, have found that their operation leads to laceration of the uterus during subsequent labour, or to any other evil consequence. On the contrary, they assert that the operation is a perfectly innocent one in its results, and attribute marvellous curative powers to the division of the circular fibres of the cervix.

How is it possible that such very different views can prevail, that they can both find enthusiastic followers and supporters? I think that the explanation may be found in the surgical character of the remedies proposed and carried out. In hospital practice, when a patient is operated on, as soon as the wound is healed, she is dismissed, and the case is registered as a cure, quite irrespective of what follows months or years later. It was so with my own public practice in early life. Private practice, however, soon proved to me how much we are apt to be misled by the first apparent results of surgical treatment in public institutions. When I was called upon to follow up my own treatment, or that of others, for months or years in private life, I found that I had much overestimated the value of operations on the uterus; that the radical permanent changes I had anticipated did not take place in private practice. The gynæcological celebrity appears, performs the operation, and then generally disappears—thinking, most conscientiously, that he has cured the case. But the family attendant, into whose hands the patient falls, gradually finds out that the health has been but little, if at all, modified by the operation resorted to.

In many instances, both these operations—the deep division of the cervix, and the sewing up of spontaneous lacerations—proposed and carried out in order to radically cure uterine suffering of varied character, ignore an important fact, which I pointed out many years ago. There is a class, a tribe, of women, perhaps not otherwise defective in constitution, who seem born to suffer from the uterus and the ovaries from the dawn of menstruation until its close, in some way or other. In them, there is a constitutional element—gouty, rheumatic, scrofulous, anæmic, or neuralgic—which seems to concentrate itself on the uterine organs and functions. These females often illustrate in their own persons, in succession, all the phases and forms of uterine pathology. No treatment, no operation, can or will change their nature, and enable them to pass through their uterine life entirely without suffering. Yet this is their constant aim. They attribute to us much more power to modify their condition than we really possess, and are ready to adopt any new practice, any new operation; often thinking they are better at first, whatever is done. The real therapeutic value, therefore, of any uterine operation performed, of any means of treatment used, can only be really recognised in such constitutions long after the operation; years or more.

According to my experience, all we can really do with such constitutional sufferers is, to cure curable disease, wherever and whenever it comes; to regulate the constitutional condition; the general health; and thus to lead up to the menopause, avoiding, when possible, all severe surgical measures. The menopause attained, these women may really become healthy old women, in accordance with the popular belief. All the slitting up of the cervix, all the sewing up of lacerations, all the numerous pessaries invented, fail to change their constitution. Their organisation being defective as regards the uterine organs and functions, they have to bear a more or less severe amount of uterine suffering, with its morbid sympathetic reactions, as long as uterine life lasts. Young physicians do not know this fact, and aim often at impossible results.

In such cases, if extreme, the new operation for the ablation of the ovaries—castration, as it has been proposed to call it—might be seriously entertained. The favourable change produced by the cessation of ovulation might thus be attained long before its natural advent. But, are we justified in endangering life to remedy (possibly) mere invalidism, even if the patient consents, or wishes it? This is a question which the profession will have to decide. I am not called upon to discuss it here.

Dr. Emmet, in his work, says that those who differ with him, who reject his views with regard to his plastic operation, will be found amongst those who, from advanced or advancing age, have become incapable of receiving new ideas—have become, in a word, scientifically fossilised. I presume he will think that I belong to this class, for there are many years behind me now. I trust, however, gentlemen, that such will not be your verdict, and that you will accept this essay in the sense in which it has been written, as an exposition of my own experience and practice, as a protest against exaggerated views, and not as a protest against recent improvements in uterine surgery. Viewed in this light, it may be an element in weighing the value of the recently promulgated doctrines respecting the surgical treatment of laceration of the cervix.

In the earlier period of my gynæcological career, which commenced more than forty years ago, I had to claim, during many years, from an unwilling profession, the recognition of the right to treat the uterine organs surgically. Success crowned my efforts. Gradually the right, so long denied, to examine and treat the uterine organs just as we examine and treat all other accessible organs, was conceded. Gynæcology has, since then, progressed rapidly, and has become an important part of surgery.

I must, however, be allowed to add that the movement has gone further than I, individually, wished or approve. In my opinion, of late years, gynæcology has become unreasonably surgical in the hands of some eminent practitioners. I believe that they demand more from decided, severe, surgical modes of treatment than such treatment can give, in the sense of removing entirely suffering in the uterine organs and functions. Thence this protest as regards the plastic treatment of laceration of the cervix. At the same time, I again repeat that I by no means object to or repudiate Dr. Emmet's operation in extreme well-selected cases, leaving it to the younger gynæcologists of the day to decide when it should be performed as an exceptional operation. No man can be more anxious than myself to see science in general, and gynæcology in particular, progress. I am still, I believe, ready to accept new views and new doctrines, provided they are founded on facts, and not on blind enthusiasm.

It would, indeed, be a sad illustration of the tendency of the human mind, were I unwilling, in advancing life, to give to others the sanction I so pertinaciously and so successfully claimed in my youth in the same field of pathology and therapeutics.

ON BETHESDA WATER IN THE TREATMENT OF DIABETES MELLITUS.

By WILLIAM MURRELL, M.D., M.R.C.P.,

Lecturer on Materia Medica and Therapeutics at the Westminster Hospital; Senior Assistant Physician to the Royal Hospital for Diseases of the Chest

A FEW months ago, my attention was directed by Dr. Harvey J. Philpot to Bethesda water as a remedy for diabetes; and, a supply having been placed at my disposal by the Bethesda Water Company, I determined to give it a trial. It appears that this antidiabetic mineral water has been used in America for several years with great success. The spring was discovered by chance in Wisconsin, and so quickly attained a reputation for the cure of diabetes, that a large hotel—said now to be the largest in the world—was erected for the accommodation of the crowds of visitors who flocked thither to drink the waters. The patient is directed to take from eight to ten tumblersful daily for ten days, and then half the quantity for the next fifteen, thirty, or sixty days. An analysis of the water shows that it contains seventeen grains of carbonate of lime and and twelve grains of carbonate of magnesia to the gallon, besides chloride of sodium, sulphate of potash, aluminia, and silica. The gaseous constituents appear not to have been estimated. Several remarkable cases are mentioned, some of the patients being well-known public men in America; but the reports are wanting in scientific accuracy.

My own experience is confined to a single case of diabetes mellitus. The patient was a young man aged 20. He was unable to give us any information about his parents or relatives. He had spent the greater part of his life working in a coal-mine; but for the last two years he had been a farm-labourer. He was well and strong until about a year ago,

when he began to lose flesh and strength, was always hungry, and suffered much from diarrhœa. His legs began to swell, and he gradually became worse, until, finally, he gave up work and came under medical treatment. He had never noticed anything wrong with his water, and did not know that he passed an unusually large quantity. There was no history of syphilis.

On admission, he was found to be much emaciated, his weight being only a little over eight stone. He was curiously apathetic, and rarely volunteered any statement as to his feelings or sensations. On examination of the chest, it was found that there was dulness at both apices, with a little fine crepitation. The bowels were regular, and the motions were passed without difficulty. The urine was always acid, and free from albumen. It contained a large amount of sugar, the quantity passed in the twenty-four hours varying from one to two pounds. His appetite was voracious, and it was difficult to satisfy his hunger. He suffered from time to time from boils, which usually gave a great deal of trouble. His sight was good, and there was no cataract. He had been for some time under the care of Dr. Netherclift, who had treated him with liquid extract of opium with marked benefit.

With the view of giving the Bethesda water a fair trial, it was determined to divide the observations on the urine into four series; 1. Patient on ordinary diet; 2. Patient on ordinary diet *plus* Bethesda water; 3. Patient on restricted diet; 4. Patient on restricted diet *plus* Bethesda water. The result will be seen from the accompanying table.

Date, 1881.	Fluid taken in 24 hours.	Urine passed in 24 hours.	Specific gravity.	Grains of sugar in 24 hours.	
May 21	—	250 ozs.	1	8,000	Ordinary diet.
„ 22	—	280 „	1	9,100	
„ 23	—	300 „	1	9,900	
„ 24	—	300 „	1	9,920	
„ 25	12 pints	325 „	1022	8,125	
„ 26	12 „	270 „	1025	8,100	
„ 27	12 „	270 „	1	8,100	
„ 28	12 „	300 „	1021	9,000	
„ 29	9 „	420 „	1032	13,440	
„ 30	—	340 „	1	11,220	
„ 31	—	440 „	1	11,480	
June 1	8 „	270 „	1	9,450	Full diet, with Bethesda water, from six to eight pints a day.
„ 2	11 „	430 „	1	12,900	
„ 3	12½ „	300 „	1	10,500	
„ 4	11 „	400 „	1014	11,200	
„ 5	10 „	340 „	1	9,520	
„ 6	10 „	400 „	1	11,200	
„ 7	9 „	340 „	1	11,220	
„ 8	7 „	240 „	1	8,120	
„ 9	11 „	280 „	1	10,080	
„ 10	13 „	325 „	1021	9,775	
„ 11	11 „	420 „	1034	11,745	
„ 12	12 „	365 „	1	12,245	
„ 13	12 „	400 „	1014	11,200	
„ 14	12 „	440 „	1025	12,320	
„ 15	20 „	440 „	1	13,200	Restricted diet, without Bethesda water: bran bread.
„ 16	—	350 „	1	9,250	
„ 17	10 „	400 „	1	10,000	
„ 18	11 „	370 „	1025	9,620	
„ 19	—	340 „	1	8,500	
„ 20	—	270 „	1	6,750	
„ 21	—	140 „	1	3,500	
„ 22	—	370 „	1025	9,250	
„ 23	—	150 „	1	3,600	Three oranges.
„ 24	6½ „	130 „	1	3,120	
„ 25	6½ „	130 „	1	1,950	Glycerine ʒiii from to-day.
„ 26	—	120 „	1025	3,000	
„ 27	6¼ „	110 „	1	2,750	
„ 28	6 „	120 „	1020	1,440	
„ 29	½ „	125 „	1025	3,125	
July 1	5½ „	110 „	1025	1,430	Restricted diet, with Bethesda water; from five to seven pints a day.
„ 2	—	130 „	1	3,250	
„ 3	6½ „	125 „	1026	1,625	
„ 4	7½ „	150 „	1027	1,850	
„ 5	12½ „	210 „	1	3,570	
„ 6	8½ „	170 „	1	3,740	
„ 7	10½ „	210 „	1	3,780	Gluten bread from to-day.
„ 8	7 „	140 „	1021	2,940	
„ 9	7 „	140 „	1020	1,540	
„ 10	12 „	200 „	1	2,600	
„ 11	—	180 „	1	1,980	
„ 12	10½ „	180 „	1	3,420	
„ 13	7 „	140 „	1021	2,940	

1. The average of eleven days of ordinary diet gives 344.5 ounces of urine and 10,323 grains of sugar *per diem*.

2. The average of fourteen days of ordinary diet *plus* Bethesda water gives 375 ounces of urine and 16,670 grains of sugar *per diem*.

3. The average of sixteen days of restricted diet gives 200 ounces of urine at 4,120 grains of sugar *per diem*.

4. The average of twelve days of restricted diet *plus* Bethesda water gives 162 ounces of urine and 2,579 grains of sugar *per diem*.

For the purposes of comparison, however, it would be better to eliminate the first three or four days of each series, and we then obtain a somewhat different result.

1. The average of the last eight days of ordinary diet gives 367 ounces of urine at 10,530 grains of sugar *per diem*.

2. The average of the last twelve days of ordinary diet and Bethesda water gives 365 ounces of urine and 10,493 grains of sugar *per diem*.

3. The average of the last twelve days of restricted diet gives 146 ounces of urine and 2,403 grains of sugar *per diem*.

4. The average of the last eight days of restricted diet *plus* Bethesda water gives 180 ounces of urine and 2,987 grains of sugar *per diem*.

Whilst he was on restricted diet, every precaution was taken to exclude both sugar and starch. Some difficulty was experienced except in the matter of bread, but this was obviated by allowing him first bran-bread, and subsequently gluten-bread. After a time, he suffered greatly from dryness of the mouth and constipation, and it was found necessary to give him a little glycerine—about three ounces a day—which he used for sweetening his tea. The Bethesda water was taken without difficulty; but the patient so rarely gave us any information respecting his subjective sensations, that it was impossible to tell how far they were influenced by treatment. The case unfortunately terminated fatally, the patient dying of acetonæmia. On July 13th, he was found crying and complaining of pain in the stomach. At 2 A.M. on the 14th, he vomited, and complained of headache and of severe pain in the stomach. At a quarter to four, he was violently convulsed, the urine and fæces being passed under him. At 6 A.M. he had another slight convulsive attack, and then passed into a semicomatose condition, in which he died about noon. The *post mortem* examination was made by Dr. Gabbett, who found signs of recent pericarditis, scattered tubercle in both lungs, cloudy swelling in the kidneys, and a fatty liver. It seems probable that the fatal termination of the case was accelerated by the strictness of the dietary adopted; at all events, it was in no way due to the Bethesda water, which deserves a more extensive trial, not only in diabetes, but in Bright's disease. I beg to thank Mr. Batterham, of the Westminster Hospital, for assistance in the examination of the urine.

REMARKS ON ANIMAL VACCINATION.

By ERNEST HART.

Chairman of the Parliamentary Bills Committee of the British Medical Association.

In the presence of those so intimately and practically acquainted with the subject as Dr. Warlomont of Brussels, and Dr. Martin of Boston, whom we are all glad to welcome to our meeting, it would ill become me to attempt to present a review of the question, were it not that I have been led, in my capacity as Chairman of the Parliamentary Bills Committee of the Association, to devote much study to the subject in its various aspects.

The introduction into the House of Commons, in the session of 1879, of Dr. Cameron's Bill providing for the employment of lymph direct from the calf in cases where parents objected to the use of humanised lymph, led me to devote a portion of my vacation in that year to studying the working of certain of the flourishing animal-lymph establishments in Holland and Belgium. From what I saw there, I was convinced that the same system could be transplanted with success to England, and that there existed no substantial reasons why animal lymph should not be supplied by our English National Vaccine Establishment as well as human lymph. The subject seemed to me, indeed, so important, that I prevailed on Dr. Warlomont to brave the London fogs for the purpose of giving the results of his great experience in the matter before an English audience. You will doubtless all be familiar with the important and weighty conference which assembled in December 1879, under the auspices of the Association, to discuss the question, and to endeavour to bring it within the limits of practical politics. In a report which I prepared for the use of the Conference, I went at length into the history of animal vaccination in different parts of the world, and brought forward evidence to rebut the official objections to the introduction of calf-lymph. Though Mr. Sclater-Booth, whom we first approached on the subject, did not give a favourable reply to our petition, the question was afterwards thoroughly gone into by the Local Government Board; and when Dr. Cameron again brought forward his Bill on June 11th, 1880, Mr. Dodson, who had meanwhile suc-

Introduction to a discussion in the Section of Public Medicine, at the Annual Meeting of the British Medical Association in Ryde, August 1881.

ceeded Mr. Sclater-Booth, announced that the Government had taken the matter into consideration, and were prepared to undertake the supply of animal lymph as well as that of long humanisation. This concession has, unfortunately, not resulted in anything practical up to the present; since the Board, a year after Mr. Dodson's promise, still reply to inquirers that their arrangements for the supply of animal lymph are not completed. It is difficult to understand why so long a delay has been allowed to take place; but it would be unprofitable, as well as vexatious, to inquire minutely into the causes, since we all know how slow Government offices are to move.

There are two chief questions in connection with this subject to which it may be well to direct attention for a few moments—viz., the practicability of animal vaccination, and its efficiency. On both these points the opinions of the gentlemen who follow me will be of more value than my own; but I think I may fairly claim to have given in my report evidence almost irresistible on the subject.

It has been argued that, however useful and valuable animal lymph may be, its cultivation is a matter of difficulty; that the keeping up of the stock on a series of animals is liable to interruptions; that the lymph does not keep well—and similar objections. It is undoubtedly true that, like everything else requiring care, a certain amount of skill and patience is required for the successful cultivation of calf-lymph; but those who have acquired the dexterity necessary for the operation will tell you that they have no difficulty in keeping up their stocks, and that they are now using lymph obtained by an unbroken series of transmissions through several hundreds of animals. As regards the preserving qualities of calf-lymph, it is generally admitted that, preserved in tubes, its efficacy soon becomes impaired; and all cultivators recommend its collection on points, as being the most certain method.

As to the efficiency of animal vaccination, there can be but little question. Attempts have been made to compare the ordinary current vaccinations by calf-lymph with those performed with human lymph from arm to arm by a specially skilled vaccinator of the highest repute. Fairly compared, animal lymph shows equal, if not superior, results of insertion to that derived from the arms of infants; and as regards its prophylactic power against variola there are undeniable proofs, as Dr. Martin and Dr. Warlomont will tell you, of the very decided advantage which it possesses in this respect. That the lymph manifests greater results on the human system than current lymph, simply shows its greater vaccinal power; and in ordinary cases, the constitutional disturbance is no more intense than it ought to be in typically perfect vaccination.

In this connection, some statistics with which I have been favoured by Dr. Carsten of the Hague (who has written to me expressing his regret at his inability to be with us) are both interesting and instructive. They show not only the very small proportion of failures which now attends the performance of animal vaccination at the various stations in Holland, but also the steady improvement which has been manifested since the lymph was first used.

In 1869, when animal vaccination was begun at Rotterdam, there were 67 failures out of 542 operations; last year (1880), there were only 4 failures in 2,727 operations, whilst in as many as 1,563 of these the full amount of ten vesicles was obtained. At Amsterdam, there were 19 failures in 1870—when animal vaccination was started—out of 626 operations; whilst during the last six years there has been but one single failure out of a total of 14,849 operations! Similar experience comes from the Hague, Utrecht, and Haarlem; and the gross total of all the vaccinations performed in Holland with animal lymph, including all the earlier efforts, shows that out of 60,754 operations, only 720, or little more than one per cent., have been unsuccessful. Testimony such as this, and on so large a scale, shows indisputably that the allegations made against the taking power of calf-lymph have no foundation in fact. The proportion of failure last year was indeed only 0.3 per cent.

There is but one other point to which I should wish to refer, and that is the undoubted advantage which animal vaccination possesses in its freedom from the suspicion of being concerned in the possible inoculation of syphilis into the human body. If for no other reason than this, its use ought to be encouraged. On the subject of the possible inoculation of syphilis, a variety of opinions have been expressed in this country and abroad, and it could serve no useful purpose to attempt to discuss them at the present moment. But, however much opinions on this point may differ, there is a general agreement in recommending the cultivation and official recognition of calf-lymph as a means of calming the apprehensions (however ill-founded) of parents as to the qualities of the virus used. The counter objection, that calf-lymph may be the means of inoculating the vaccinated person with animal diseases, hardly needs serious discussion. On this point, and on the one of which I have just spoken, I may appropriately quote the words of my excellent friend Dr. Dompeling, the accomplished director of the Utrecht vaccination station, contained in an appendix to an edition which he has published, in Dutch, of my little book on the *Truth about Vaccination*. Dr. Dompeling, speaking of the possibility of communicating the syphilitic virus by vaccination, says:

"This guardian angel of mankind would have its lustre darkened, were we not fortunate enough to possess a means whereby we can avoid the danger, and guarantee it against all spot or blame: I refer to the use of animal vaccination—that is, the inoculation of matter originally derived from the cow and communicated to the calf, and which has never passed through the human body. In Holland, *parcs vaccinogènes* have been already for several years in operation. That in Rotterdam was established in 1868; then followed the Hague, Amsterdam, and in 1873, Utrecht; and subsequently several other towns. Many thousand persons have been vaccinated with animal lymph; and preference is more and more given to this method. It seems as if the objections (even the conscientious objections) against vaccination were beginning to give way, and people were more willingly induced to submit themselves to this salutary treatment.

"The advantages of this kind of institution, of which there has even been one in Japan since 1874, are great, because as much vaccine matter can be produced at any time as is necessary, simply by inoculating more calves; and this is of the greatest importance in times of epidemics of small-pox, or in such a panic as we experienced last summer. Erysipelas, which appears often to occur as a result of human vaccination, is, according to Dr. H. A. Martin of North America, and also our own observation, very seldom seen. The mishaps are rare, and the results most excellent. Whether the protection afforded against small-pox is as good as, or better than, that resulting from humanised lymph, time must teach. Even if the principle of immediate connection between a number of good cicatrices, and protection against small-pox, is to be established, this can only be shown by time; but we may with reason wait for this.

"Has, then, animal vaccination no dark side? We do not know. It has several times been asked whether any morbific matter can be communicated from cattle to man by animal vaccination. In the first place, that horned cattle are liable to syphilis is most strongly denied by, amongst others, Depaul, who has collected evidence on the subject, and by Ricord. Veterinarians are of opinion that, in opposition to the horse, in which some diseases are both difficult to distinguish, and are really capable of being communicated to man, so that no use can ever be made of inoculation from it, the diseases which occur in calves and heifers are on the one hand not capable of being communicated, and on the other hand have such distinctive characters, that no one who is not exceptionally thoughtless or careless would make use of an animal so diseased. Besides, even in slight maladies, such as diarrhœa, the development of the pock is hindered, and it is formed imperfectly, or not at all. To render precaution complete, it is serviceable to have a veterinary surgeon attached to every *parc vaccinogène*, as has been the case in Utrecht since the establishment of the institution, which is an annex to the veterinary school; this leads to security in the genuineness of the lymph, which is taken exclusively from calves, and, just as in the other *parcs vaccinogènes* in our country, has been originally transmitted from the cow, and has never passed through a human body."

I would conclude in the words of Dr. M. Hay of Vienna, who says: "Animal vaccination belongs to the future. Its general use as far as possible—a gradual substitution of it for human lymph—should be the aim of all who see in vaccination one of the most happy discoveries of preventive medicine."

AMERICA.—In the annual report for 1879 of the Commissioner of Education, Gen. John Eaton, just published, the following statistics are given. "According to the census of 1870 there were, nine years ago, 62,383 physicians and surgeons in the country. The number of graduates reported to this office since 1873 is as follows: 1873, 2,391; [illegible]; 1879, 3,271; or a total in the seven years named of 10,016. If to this [illegible] estimate, we have 25,000 additions to the profession in ten years. This is much in excess of any proportionate increase in the population of the country and far beyond the loss by death in the profession. [illegible] without preparation, the increase becomes appalling."—*New York Medical Journal*.

ON THE RELATIONS OF SMALL-POX AND COW-POX

EST TALLY AS ILLUSTRATED BY THE EXPERIMENTS OF MR. BADCOCK, FORMERLY OF BRIGHTON.*

By G. F. HODGSON, M.R.C.S.Eng., etc.,

I HAVE been induced to bring this subject before your notice on two accounts: firstly, because I believe that Mr. Badcock's experiments, although the most extensive, and consequently the most valuable, of the kind, that have ever been practised, have never adequately been made public; and, secondly, because (perhaps as a consequence of such want of publicity) there have recently been made earnest attempts to propagate a general belief in another set of experiments, which have been interpreted by their conductors to prove the exact reverse of what Mr. Badcock's proceedings do.

I may here state that, to my mind, Mr. Badcock's investigations go to prove the genuineness and validity of the deductions drawn from the experiments of Gassner (1801), of Thiele of Kasan (1839), and of Ceely of Aylesbury (about the same date), to the effect that cow-pox is small-pox modified by its passage through the cow; although, on the contrary, the conclusions of the Lyons Commission (1865), which seem to have been adopted by Italian and Belgian Commissions (the last-mentioned this year), and also strenuously advocated in this country by Veterinary-Surgeon Fleming of the War Office (pamphlet, 1881), would make it appear that small-pox and cow-pox are two entirely distinct diseases, and that the former is so little altered by passing it through the cow, that it will still be infectious small-pox. Which of these two sets of experiments has had a true interpretation given to it by their respective conductors is, of course, of the greatest importance; and my endeavour now will be to satisfy you that the generally received opinion in England—that cow-pox is small-pox rendered mild and uninfectious by being passed through the cow—is that which claims our unqualified confidence and belief.

About forty-five years ago, Mr. Badcock had a sharp attack of small-pox. On recovery, these thoughts occurred to him: Was his previous vaccination defective? Had Jennerian lymph deteriorated? Could a fresh and more vigorous lymph be procured? At length (in 1840), he determined to keep a shed of cows himself, and to experiment upon them.

Although often failing afterwards, it was Mr. Badcock's good fortune to have a first success. Obtaining from the late Sir (then Mr.) Cordy Burrows some lymph from a primary case of human small-pox, he inoculated a cow with it, and produced (in the judgment of Dr. Willis and Mr. Burrows) such perfect vaccine vesicles, that he was induced therefrom to vaccinate his own baby, and with the result, again, of satisfying the medical men that genuine vaccine pocks occurred on the little boy's arm. From these, in turn, a supply of lymph was obtained, and was propagated on other children, uniformly with the same results; many other medical men taking part in the proceedings, or using the new lymph in their practices.

Mr. Badcock's enthusiasm carried him forward, and led him, notwithstanding many failures and disappointments, to incur considerable expense in keeping up a stock of cows on which to continue his experiments. For twenty successive years did he persist; from time to time, as opportunity offered, procuring through medical men fresh supplies of variolous matter, and using it on the cows. Altogether, he practised on two hundred cows. By observation, he soon concluded that the udder was not the most eligible part to operate on, the animals often being so impatient and resentful of the use of the lancet there as to interfere with success. Afterwards, taking advantage of the liking which many domestic animals have for their backs to be rubbed, the cowherd would engage the cow's attention by that device (which also would cause her to raise her tail); and thus Mr. Badcock found that he could proceed deliberately to insert his lymph in the thinly haired skin in the neighbourhood of the vulva.

Several of the two hundred animals he inoculated repeatedly. In only thirty-seven instances were satisfactory vaccine pocks considered to result; indeed, in four of these, they were not so finely developed as to encourage a transference from them of their contents. Consequently, the total number of cases in which typical vaccine pocks were produced, and which were considered eligible for vaccinating from (during the twenty years' experiments), was thirty-three. These successful cases were watched, in different stages, by various medical men, many of whom were public or practical vaccinators highly qualified to decide on their merits; and the lymph ss obtained has been circulated throughout the civilised world. It continues to be held in high esteem in Brighton, where the three public vaccinators have each of them received gifts from the Government three several times for the high standard of their vaccinations.

The late Mr. Marson used Mr. Badcock's lymph for many years, and so did the late Mr. Ceely. The latter and Mr. Badcock commenced their experiments in the same year, unknown to each other; and Mr. Ceely, having succeeded twice only himself, afterwards visited Brighton, and, having satisfied himself of the thorough reliableness of Mr. Badcock's doings, then ceased personally to experiment further—the more readily so, in consequence of the arduousness of his other occupations as a country hospital surgeon and general practitioner.

This is a sufficient answer to Veterinary Surgeon Fleming's contention (pamphlet, 1881) that Mr. Ceely's experiments are not trustworthy, and could hardly be satisfactory to himself, or he would not have stopped at only two successes.

[I may here point out another unfortunnte argument of Mr. Fleming. In trying to show that it was not genuine cow-pox that Mr. Ceely described a Mr. Pollard's five cows and one sturk to have contracted by grazing in a meadow in which the bedding of small-pox patients was spread, and then to have communicated to their owner's hand, Mr. Fleming omits an all-important part of the narrative—viz., that a man-servant of Mr. Pollard also contracted, from the same animals, pocks on his face and hand, from which Mr. Ceely successfully propagated the disease to children, and carried it on through a great number of successive removes. Plates 3 to 6 inclusive, at the end of Vol. x of the *Transactions of the Provincial Medical and Surgical Association*, 1842, are Mr. Ceely's representations of that young man's pocks.]

To return to Mr. Badcock's doings: I would have you notice that from his thirty-three successfully variolated cows, and from them only, did he ever attempt to convey lymph to human beings. All the other more numerous inoculations, which produced only "minute papules" or other slight irritation, or nothing, he considered as failures. Such minute papules Mr. Ceely also considered as failures in his experiments. These facts have an important bearing on the proceedings of the Lyons Commission, as will be seen presently.

It is a circumstance of priceless value, that the late Mr. Ceely was led to have both his successes and his failures represented by an able artist. Plates XV to XXI in volume VIII of the *Transactions of the Provincial Medical and Surgical Association* illustrate the different stages of his eight insertions of variolous matter in one cow, all done at the same time. The four upper he styles "lymphless or abortive tubercles". They seem to be the equivalents of the "minute reddish papules" of the Lyons Commission. Plate XVII represents these as dying away on the eighth day, and the four lower insertions as developed into good pocks. From the latter, lymph was transferred to children with much success, as illustrated by some of the concluding plates in the same volume.

Now, for practical purposes, Mr. Ceely's plates may be considered to illustrate Mr. Badcock's experiments; for, as I said before, these two gentlemen after a while formed an acquaintance with each other, and considered that their respective experiments corroborated each other; after which Mr. Ceely discontinued to experiment.

Mr. Badcock is not a medical man. At the time of commencing his investigations, he was a dispensing chemist. He is now advanced in life, but still retains his wonted shrewd common sense, tempered with much modesty. He says that he never had any literary or scientific pretensions; and hence the little pamphlet, which I now show you, dated 1845, the major portion of which consists of testimonials from numerous medical men, is the only printed record which he has had made of his invaluable experiments; all of which, too, during the whole twenty years, were carried out at his own sole expense.

Sir Thomas Watson and Dr. Bristowe, in their text-books on the practice of medicine, have both accepted Ceely's and Badcock's investigations, as furnishing the true bearing of cow-pox to small-pox; and, as long ago as 1857, in the ponderous "Blue-book" on Vaccination, compiled under the superintendence of Mr. Simon, he thoroughly does the same. These are extracts from his report. "Researches, subsequent to Jenner's, have settled this part of the question. It has been made matter of familiar experiment that the infection of small-pox may be communicated, by inoculation, from man to the cow, producing vesicles which present the physical characters of cow-pox; and that the lymph from these vesicles, if implanted in the skin of the human subject, produces the ordinary local phenomena of vaccination, from which lymph may be transferred to other unprotected persons, all of which human beings will diffuse no atmospheric infection, and will afterwards themselves cease to be susceptible to small-pox. The people thus protected are so, because the process has really given them

* Read in the Public Medicine Section of the British Medical Association at Ryde, in August 1881.

small-pox of the most mitigated kind. The merit of this discovery belongs, in the first place, to Gassner, in 1801; and, of corroborating it, in 1840, to Ceely and Badcock. The last-mentioned has, during the last seventeen years,* again and again derived a fresh stock of vaccine lymph from cows thus artificially infected by himself; has vaccinated with such lymph more than fourteen thousand persons, and furnished supplies of it to more than four hundred medical practitioners."

I fancy that now you are wondering why I take such pains to again prove what has been proved and accepted as demonstrated fact so long ago. I stated, at the beginning of this paper, why I do so—viz.: because several influential people, basing their notions on the doings of the Lyons Commission, are not only disputing the character of Ceely and Badcock's doings, but are even daring to pronounce their vaccinations to have been the means of spreading infectious small-pox. Here is the report of the Lyons Commission. At page 56 begins the chapter headed "The local and general effects produced on the ox by the inoculation of human small-pox". Here I read that seventeen animals were variolated—the females on the vulva, the males on the perinæum or scrotum; and some of them by merely subepidermic pricks, others by punctures passing through the true skin. On each animal, no general constitutional effects whatever resulted. The local effects were so little pronounced as totally to escape the notice of the observers at first; but, by the fifth day, there existed at the sites of the superficial punctures, in all the animals, "very small reddish papules", from two to four millimètres in diameter. This was when they had attained their maximum. By the twelfth day they had completely disappeared, never having presented the least vesicular or pustular appearance, nor any crust beyond an extremely small blackish one in the pricks themselves. At the sites of the deeper punctures (some of which had had the variolus lymph passed into them freely by a cannulated needle), less local effects still developed themselves.

Further on, we read that, from these *très-petites papules rougeâtres* (very small reddish pimples), the Commission, by dint of excising and scraping, obtained enough "serosity" on the point of a lancet to inoculate the arm of a child (unvaccinated) with one insertion; and from it, in due time, they inoculated a second child—the result being that both children manifested the local and general symptoms of small-pox, the first child being more covered with the eruption than the second. Can we not find it easy to believe, with Dr. Robert Cory,† that the operator, in his anxiety to get lymph from a "lymphless tubercle", recollected some of the variolous matter which had been placed there a few days previously. What had dried on the surface might be remoistened by the "serosity" obtained by puncturing the papule, and then be gathered on the lancet by the "scraping" described as practised. Anyhow, the Commission considered that these two children, in the Hôpital de la Charité at Lyons, had had small-pox conveyed to them by their operations; and they were thereby deterred from carrying on their experiments in that manner any further.

Now, we can compare and contrast the doings and conclusions of the Commission with those of Gassner, Ceely, Badcock, etc.

The Commission operated on seventeen oxen, and did not, in any one of them, succeed in producing anything like a vaccine vesicle; nevertheless, they considered that they had successfully variolated every animal. It appears that, unfortunately, they had not made themselves acquainted with the details of Ceely's doings, and especially had not seen his plates; moreover, they seem never even to have heard of the more extensive experiments of Badcock. The "minute reddish papules" on the cows, which the Commission thought successes, Ceely and Badcock considered failures; and the (typical) successes of the latter occurred but seldom: with Ceely, only twice in I know not how many trials; with Badcock, only thirty-seven times in more than two hundred trials; with Gassner, once after ten failures; and similarly with most other attempts in this country.

The Lyons Commission had water-colour drawings made of the appearances in their experiments, and advertised an atlas of plates to be copied from them. This atlas, however, I am informed by the intended publisher, was never issued. The Commission consisted of nine eminent men; and, during their two years of office, they conducted a great variety of experiments bearing on vaccination—a large number of oxen, horses, donkeys, etc., being placed at their disposal, as also the resources of the Veterinary College. It is, therefore, not surprising that their conclusions are accepted and approved by most pathologists on the continent, and even by a few eminent men in this country, who are insufficiently informed concerning the researches of Ceely and Badcock. One of our intended visitors here (Dr. Warlomont of Brussels) has kindly presented me with a copy of his Report on Vaccination, as rendered to the Belgian State this year; and in this I see that he adopts the views of M. Chauveau and his fellow-labourers.

In conclusion, I have to thank you, gentlemen, for your patience in listening to my discursive account of this subject. I wish the performance had been undertaken by somebody else, who would have done it more ably, and with the full justice which I believe it deserves—thereby raising to a becoming height of respect in the minds of his countrymen the vaccination experiments of John Badcock; but, *Magna est veritas et prævalebit*.

P.S.—Since the above was read at Ryde, M. Pasteur's remarkable communication on Chicken Cholera and Splenic Fever, as communicated to the International Medical Congress in London, has appeared in the journals.

The resemblance between M. Pasteur's experiments and those of M. Thielé (by which he declares he artificially reduced small-pox to cow-pox without passing the small-pox through the cow) is so striking, that I here briefly append M. Thielé's account of the process.

He says: "Take some human small-pox lymph, and keep it between waxed glasses for ten days; then moisten and dilute it with cow's milk, and with this inoculate a child. The lymph from this child is again to be kept between waxed glasses for ten days, then diluted with milk, and transferred to another child; and so on—the same process being repeated to a tenth child. By this time, the disease will have become as benign and non-infectious as cow-pox, the successive ten children having manifested it in a gradually milder form, the secondary fever and the secondary pustules around the inoculated part having gradually ceased to occur; and thenceforth the lymph may be propagated directly from child to child (without keeping or milk-dilution) just as in ordinary vaccination."

The above was published in 1839, in *Henke's Zeitschrift für die Staatsarzneikunde;* and is quoted by Mr. Simon in the Blue-book on Vaccination in 1857. How closely analogous is it to M. Pasteur's plan of keeping, and diluting, over and over again, with chicken-broth, a drop of the blood of a fowl dying of chicken-cholera, and then using it, by inoculation, to produce a mild substitute for the natural deadly disease!

OBSTETRIC MEMORANDA.

TREATMENT OF *POST PARTUM* HÆMORRHAGE.

In the JOURNAL of November 22nd, a very interesting case of *post partum* hæmorrhage is related by Mr. Belfield of Bristol, in which the severe symptoms were treated by the injection of the perchloride of iron and the use of the other well known and duly accredited remedies. The case came to a fortunate conclusion, and Mr. Belfield is to be congratulated on the result. My object in writing is not to criticise in an adverse spirit what was done or left undone in this particular case, but to point out to those readers of the JOURNAL who are interested in the treatment of similar cases that, if they will put their patients, who are known to be liable to flood at the termination of their labours, through a preparatory course of treatment of which iron is the basis, they will find their patients in a much more satisfactory position, and themselves saved a great deal of trouble and anxiety. My rule is to submit patients who are liable to flood to a course of treatment extending over one or two months preparatory to delivery; to give iron in combination with an alkali where the patient is thin and unable to digest much fatty food, and with an acid when the patient is stout or the body covered with fat. Before the introduction of the treatment, by Dr. Barnes, of the perchloride injection, we had to rely on pressure, cold, and ergot. I found on many occasions that pressure of the abdominal aorta by the forefinger of the right hand was by far the easiest and quickest method of checking the hæmorrhage; and that pressure and friction of the uterus threw it into a state of spasm, which expelled the clots, and allowed the flooding to go on unchecked. In such cases, ergot and opium were given in combination [illegible] seemed to effect the desiderated uniform and regular [illegible] abdominal aorta, I infer that it is not made use of so frequently as my experience teaches me it deserves. As regards the general question of [illegible] during the process of parturition give rise to it; and, secondly, [illegible]

fective or deranged action of the nervous system, and a want of tone and power in the muscular fibres of the uterus. The first of these causes is to be combated by attention to the details of the delivery, and the second by putting the patient in a healthy state before parturition by preparatory treatment. JOHN BASSETT, Birmingham.

SURGICAL MEMORANDA.

ON ENTROPIUM.

THERE is, as is well known, a kind of looseness of the tissues of the eyelids of old people that eventuates in the inversion of all the lashes. The whole row is inverted, touching the eye. The affection often seems to cause but little uneasiness, but may become very troublesome. It is, however, rarely as troublesome as distichiasis, where the hairs assume all sorts of irregular positions.

The old method was to cut out a strip of skin and muscle all along the lid. This was a tedious, painful, and often not very successful operation. It occurred to me that anything that would cause sufficient contraction of the superabundant lax tissue of the lid would cure the deformity, without the necessity of a tedious operation. I have now used my own method six times with perfect success. In one case, I did the little operation twice. The method consists of pinching up a piece of skin with a small pair of toothed forceps, and tying it with a piece of silk. It is too simple to be dignified with the name of an operation. It, however, must be done at exactly the right spot, or will fail. The tighter the knot, the less the pain. The slough soon comes off; and the healing process, whilst going on gradually, everts the lid by the contraction that takes place.

WM. SQUARE, F.R.C.S., Surgeon to the Plymouth Royal Eye Infirmary.

DISLOCATION OF BOTH HUMERI INTO THE AXILLÆ.

THE following case occurred in my practice in September 1880; and I have failed to find any record of a similar injury.

J. M., a labourer employed in the construction of a new pier at Fairlie, was standing on the framework of a pile-driving machine, when the axle of a pulley at the base, upon which the chain which raises the ram, weighing thirty-six hundredweight, turns at right angles, broke; and the chain, springing upwards, caught him under one arm, threw him aloft, and he fell to the ground on the other arm. On examination, Dr. Macdonald, who assisted me at the time of the accident, observed that the right humerus was dislocated into the axilla. The man complained of great pain and difficulty in lying in the recumbent posture, and felt easy when he sat with the body bent forwards. Although several methods and considerable force were employed, reduction was not effected until he was anæsthetised. Subsequently, my attention was directed to the abnormal position of the elbow of the left arm, which was found to be similarly dislocated; therefore, the chloroform was again administered, and reduction easily accomplished.

WILLIAM A. CASKIE, M.A., M.B., etc., Largs, Ayrshire, N.B.

ACUTE OBSTRUCTION OF THE SMALL INTESTINE.

J. B., aged 34, a tramcar conductor, was attacked with violent cramping pain in the abdomen on the night of August 14th. He had a desire to micturate, but was unable to do so. I was summoned early in the morning to visit him; and on my arrival he requested me to pass a catheter, as he considered he had been suffering only from retention. Before yielding to his entreaty, I made an abdominal examination, and saw there was no distension over the bladder or pain in that region; but pressure excited intense pain in the mid-umbilical and epigastric zones. His pulse was 112; temperature 101.2°; no vomiting; thirst, and pinched facial expression. I passed a full-sized silver instrument, but only about three ounces of urine was withdrawn. I then administered an enema of warm water and soap, using a long tube, and succeeded in bringing away a quantity of fæces from the large bowel; but the proceeding did not afford any relief. I directed hot fomentations to be employed externally, and gave belladonna extract and opium in combination internally. Iced milk and barley-water were resorted to to allay thirst. I had not an opportunity of seeing him again until 9 P.M., when I found him collapsed, and suffering from stercoraceous vomiting, which condition he had been in nearly all the afternoon. His abdomen was now tympanitic, respirations hurried, extremities cold; and he died within an hour without rallying. He was ill altogether twenty-three hours. A *post mortem* examination could not be obtained, so that the exact seat of incarceration or obstruction could not be ascertained. A careful examination for hernia revealed nothing abnormal.

I merely record this to show that suppression of urine was a most marked symptom from the commencement; for although it has been noticed in obstruction of the larger gut, and supposed to depend on collapse or incarceration, in this case, which I presume was a very acute strangulation of the small intestine, it was present from the beginning, and long before the stage of collapse or shock had arrived.

P. J. LENIHAN, L.R.C.S.I., Salford.

STRANGULATED HERNIA DURING MENSTRUAL PERIOD: OPERATION: RECOVERY.

K. P. aged 35, married, complained of some sickness of stomach and backache on Thursday, March 3rd. The patient stated that these were the usual symptoms for some hours before the menstrual flow appeared. The pulse and temperature were normal; the tongue was clean, and the bowels had been moved in the morning. She was directed to remain in bed and ordered a draught of bismuth and morphia. The vomiting ceased immediately. The next day the patient felt quite well. The menstrual flow was established during the night. On March 5th the vomiting returned, slightly fæcal in character, there was pain in the lower part of the abdomen, and on examination a small femoral hernia was discovered. Taxis was immediately applied, but having failed, and the symptoms becoming urgent, an operation was advised; and in about two hours afterwards, the patient having been brought under the influence of chloroform and the taxis again having failed, I exposed the hernia in the usual way. The stricture was found to be very tight, and inside the sac. The sac and external wound were brought together with prepared catgut ligature, and dressed with antiseptic gauze. The patient made a good recovery.

The point of interest in this case appears to be the causation of the rupture. Did the menstrual vomiting cause it? And the hint it would seem to furnish is, not to accept cotemporaneous menstrual vomiting as a combination so entirely in the nature of cause and effect, as to render a careful examination uncalled for.

W. P. HOURIGAN, L.R.C.P.Ed.
Freshford, Kilkenny.

INJURY OF HAND BY EXPLOSION OF DYNAMITE.

IN connection with a case of suicide by dynamite reported in the JOURNAL of July 30th, 1881, the following may be of interest.

On July 20th, 1880, a Chinaman, aged 50, was "fishing" in one of the tributaries of the Canton river with dynamite cartilages, and exploding them in the water; then collecting the stunned fish, when one burst in his right hand. The injury was terrible. The whole of the muscles of the palm and little finger were raised from the base of the first phalanges in a discoloured mass, and thrown back as far as the wrist-joint and to the left; while the muscles of the thumb formed a similar "flap" on the radial side, leaving the metacarpal bones quite bare. The integument of the fingers and back of the hand was unbroken; but that on the former was shrivelled up, leaving the last phalanges exposed. The arm was swollen, but uninjured. Very little blood was lost; and the patient, though at first stunned, subsequently walked home, a distance of a mile. I saw him nine days afterwards, he in the meantime having kept the wounded hand covered with an application of *excreta bovum;* and, with the assistance of Dr. O'Brien, amputated above the wrist. The tissues of the arm were quite healthy, but the arteries excessively small. The stump healed well.

WILLIAM HARTIGAN, M.K.Q.C.P., Hong Kong.

MEDICAL PRACTITIONERS' FEES FOR EVIDENCE.—At the Metropolitan County Court of Bloomsbury, this week, the case of Whiteford *v.* Fitzgerald was heard before Mr. Judge Bacon, in which the plaintiff, a medical man, of 117, Albany-street, W., sued the defendant to recover the sum of two guineas for professional services rendered as a witness in January and February last, in the case of Fitzgerald *v.* Butler, in which the plaintiff recovered £18 for having one of his ribs fractured, and in which case the present plaintiff gave medical evidence. After the plaintiff had stated his case the learned Judge said the claim could not be allowed, whether the plaintiff attended on subpœna or at the simple request of the defendant. His Honour was then informed that after action brought, the defendant's solicitor had sent the plaintiff a postal order for one guinea. The court was then informed that in the case of Whiteford *v.* Smith, heard in this court in December, 1878, his Honour had allowed the same plaintiff two guineas for his attendance at the Marylebone police court for similar evidence given there. His Honour, however, ruled that the plaintiff in the present instance was not entitled to recover, and gave judgment in favour of the defendant, but without costs.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. BARTHOLOMEW'S HOSPITAL.

POPLITEAL ANEURYSM: LIGATURE OF FEMORAL ARTERY: GANGRENE: AMPUTATION: RECOVERY.

(Under the care of Mr. WILLETT.)

[FOR the notes of this case we are indebted to Mr. HARRISON CRIPPS, Surgical Registrar.]

Charles A., aged 43, a fishmonger, was admitted, under the care of Mr. Willett, on June 13th, 1881. The patient stated that, about two months earlier, he had first noticed a throbbing in the right leg, but not until three weeks before admission had he ever noticed any tumour; he then found on the ham a small lump, about the size of a chestnut. This had gone on increasing since; but he had been able to continue his work until within a few days. No history of syphilis could be obtained; but it was admitted that he had been a hard drinker. He was a big, burly, fairly healthy-looking man, who, however, bore traces of his irregular mode of life. There was a systolic cardiac murmur, and in the right popliteal space was a soft swelling, nearly the size of a fœtal head; it pulsated, but was not well defined; pressure on the femoral artery, or on the tumour, caused almost complete disappearance of the tumour, which returned when the pressure was removed. The right knee, measured over the patella, was sixteen and a quarter inches, the left thirteen and a half.

The condition of the patient, both as to his general health and as to the local affection, was so pressing that immediate interference soon became necessary. Mr. Willett accordingly, on June 16th, determined to tie the femoral artery. The operation was performed with antiseptic precautions, and the ligature used was of kangaroo tendon. When brought back to the ward after the operation, the patient was noisy and talkative; he complained of pain in the limb, and the leg below the bandages was red in patches. At 9 P.M., he had a rigor, the temperature rising from 99.6° before, to 103.2° after, the rigor; during the night he became violently delirious. On June 17th, the day after the operation, he was still wandering a little; he complained of pain in the leg; the toes were white and cold, and the limb, as high as the knee, was livid. On the following day, it was noted that the toes were white and completely devoid of sensation; while the instep, heel, and leg, as high as a point four and a half inches below the knee, were of a colour better described as reddish-blue than as livid. Gentle pressure in the middle of the leg did not cause the discoloration to disappear. The parts were warm, probably owing to the cotton-wool in which they were wrapped, and the hot bottles by which they were surrounded. The delirium had ceased, and the temperature was not raised. On June 20th, his general condition was excellent; sleep and appetite good; pulse 90, and of good quality; temperature not raised. The portion of the limb which had undergone the gangrenous changes above described was now quite cold and insensitive; but at the border line, between the living and the dead parts, there was exquisite sensitiveness of the former, with the exception of the toes and the lower part of the dorsum of the foot, which retained the white tallowy-look they had tended to assume from the first, with here and there a dark-blue vein showing through the skin. The gangrenous portion of the limb was of a faint purple-indigo colour, but not in the least swollen or œdematous. There was no sign of any inflammation about the line of junction between the living and the dead parts, which was well marked, however, by the contrast in colour. On the following day, a slight redness was perceptible at a point near the line of junction. Redness increased on June 23rd; he experienced some pain, and had had a restless night in consequence. On June 27th, the redness along the line of junction had become strongly marked, and there was slight swelling. The gangrenous parts, with the exception of the foot, were now of a dull olive green. On July 4th, there was as yet little offensive smell about the limb; the epithelium at the line of junction was not yet ulcerated through. Pulsation had returned in the vessels below the ligature. Carbolated lime was used for covering the limb, to prevent decomposition. On July 11th, the separation was nearly complete at the posterior part; on the anterior part, exactly at the line of junction, was a deeply marked line, one-eighth of an inch wide, in which white pus could be seen shining through the cuticle. On July 13th, the limb was amputated through the lower third of the thigh. The stump did well, and the man made a good recovery. He was discharged on August 23rd.

REMARKS BY MR. HARRISON CRIPPS.—The gangrene following ligature of the femoral admits of simple explanation. It is due to a local starvation of the part, the blood-supply being insufficient to maintain the vitality of the limb. Probably, the simple occlusion of the main artery [illegible] the anastomosing circulation being sufficient to maintain vitality. When, however, the patient has a diseased heart, or is weakened by other causes, there remains, after occlusion of the main channel, insufficient power to drive blood through the collateral circulation. It does not generally happen that all the parts below the ligature die, for it is sometimes the toes only that suffer, and in most cases the gangrene is limited to the parts below the knee.

The question of amputation in these cases is of great interest and importance. Immediate operative interference is seldom called for; for the cause of this gangrene is wholly distinct from the spr[illegible] grene following an injury, while it closely resembles mortific[illegible] ing from embolism. The part already dead does not immediately affect the living, and will only spread so far as the circulation is obstructed—at which point a natural line of demarcation will form. As a rule, there is remarkably little constitutional disturbance, and this only becomes manifest when inflammation about the line of separation takes place. When this line of demarcation is once formed, some surgeons (fearing the extent of the inflammatory mischief at that time arising) deem it desirable to amputate the limb through the living tissue—thus securing a clean and uncomplicated wound. It necessitates, however, an amputation at least some inches higher than the point selected by nature for separation, and the patient is exposed to the risks of an amputation when, admittedly, his arterial system is in a degenerate condition. On the other hand, it is doubtless desirable to remove from the patient a large decomposing mass, which makes nursing a difficulty, and surrounds him with a deleterious atmosphere. If the decomposing member be removed—not by an amputation through the living part, but by cutting through the dead tissue, as close to the living as can be performed without risk of interfering with the sound tissue—a stump is produced covered by an inch or two of sloughing tissue. Such a stump admits of being easily washed and dressed with antiseptic materials, and the dead parts will ultimately spontaneously separate. The stump thus formed by nature is occasionally as good as can be made by the surgeon; and, even should it require subsequent trimming, a future operation may be undertaken, of a less severe nature than the primary amputation would have been. No doubt, there must be some risk in leaving a stump covered with a layer of putrescent material; yet, this is only what occasionally happens to flaps in ordinary amputation.

DERBYSHIRE GENERAL INFIRMARY.

RECURRENT [illegible]
SUBSEQUENT AMPUTATION.

(Under the [illegible])

[FOR the following notes we are indebted to Mr. C. H. HOUGH, late House-Surgeon.]

In July 1878, Mrs. C[illegible] was under the care of Mr. Curgenven, suffering from a tumour in the middle and anterior aspect of the left thigh, which proved upon removal to be a spindle-celled sarcoma.

In December 1879, the patient was again received into the Infirmary, the growth having recurred; it then occupied much the same position, was freely movable, but more extensive. It was [illegible]

On admission for the third time, on October 2[illegible] stated that, about six months after the last operati[illegible] small lump at the lower angle of the cicatrix; this had rapidly increased to a considerable size. The growth was found to occupy the anterior femoral region, ex[illegible] within three inches of Poupart's ligament. It was more or less circumscribed, and was [illegible] extent of the tumour was seven inches, transversely five inches. I was painful, and excessively tender. Mr. Curgen[illegible] amputation at the [illegible] was performed on November 13th, 1880. Owing to the [illegible] amount of covering [illegible] external aspect [illegible] for the control [illegible] in the usual way [illegible] lost. The [illegible] tied with catgut [illegible] antiseptic principles. [illegible] the stump was firmly [illegible]

On examination of the thigh and tumour after removal, the growth

was found to have involved the surrounding structures to a considerable extent, lying close to the bone, but not affecting the periosteum. The femoral vessels were closely attached, and were lying in a deep groove upon the anterior aspect of the tumour. Microscopically, the growth presented the usual appearance of a spindle-celled sarcoma.

BRISTOL GENERAL HOSPITAL.

SARCOMA OF GROIN: EXCISION: MULTIPLE RECURRENT GROWTHS.

(Under the care of Mr. NELSON C. DOBSON.)

J. W., aged 37, a seaman, was admitted on October 22nd, 1880, with a large tumour in the right groin. He first noticed a small lump in this situation in the preceding January. Some time in the following summer he presented himself with what was at that time thought to be an enlarged inguinal gland, about the size of a small walnut; no cause for the enlargement could be found. He again went to sea, and did not again present himself until October. A tumour was then found to occupy the base of Scarpa's triangle, and to extend up to Poupart's ligament; it measured in the vertical direction six inches, and in the transverse seven and a half inches. It was of a soft and semifluctuating consistence, and enlarged veins coursed over its surface; it pulsated, but there was no *bruit*, and the pulsation was evidently due to contiguity to the femoral artery. Pressing deeply down above Poupart's ligament, some fulness in the pelvis could be detected; but this was not thought to be glandular, but only due to upward pressure of the tumour. On puncturing with an exploratory needle, the tumour proved to be intensely vascular, and nothing but blood escaped. His family and personal history was free from taint. He was healthy and robust-looking. There were two small subcutaneous tumours on the right side of the thorax.

On October 28th, under antiseptic precautions, the tumour was removed by a vertical incision laying bare the femoral sheath for three inches, and following the tumour up the cervical canal for a short distance. One of the small tumours from the side of the thorax was also removed. The large tumour was very soft in consistence, with pigmentary patches here and there; it was fairly encapsuled, and not difficult (considering its size and position) to remove. Microscopically, both the large and the small tumour were identical, consisting of round-celled sarcoma, with scarcely any appreciable intercellular substance. He made a speedy recovery.

On November 19th, he presented himself, looking well, but there was a little suspicious thickening of the cicatrix; and in addition, scattered over various parts of his chest and abdomen, there were seven small subcutaneous growths. These growths were interesting from their situation, taken in connection with the pigmentary (melanotic) patches in the original sarcoma.

In March 1881, he again presented himself; all the tumours were increased in size, and his general condition was considerably worse; but the multiplicity of the tumours precluded further operative interference.

BEQUESTS AND DONATIONS.—The Leicester Infirmary has received £6,878 9s. 3d. under the will of Mr. Creswell Creswell.—Mr. Philip Hewitt, a native of Langport, Somersetshire, now residing at Boulogne-sur-Mer, has given one thousand guineas to the Bridgwater Infirmary, in augmentation of the reserve fund.—Mr. Edward Henry Chandler, honorary secretary of the National Hospital for the Paralysed and Epileptic, has bequeathed £100 to it conditionally upon a memorial service being read and a sermon preached annually, in memory of his late sister Johanna; £1,000 upon trust for the Ladies' Samaritan Society of the hospital; numerous legacies to the matron and *employès* of the hospital and the convalescent branch; and the residue of his estate to the general funds of the hospital.—Mrs. Eliza Fall, of George Street, Hanover Square, has bequeathed £200 each to the British Home for Incurables and the National Hospital for the Paralysed and Epileptic.—Mr. Henry Dodd, of the City Wharf and of Rotherfield, Essex, has bequeathed £150 each to the London Hospital and the London Truss Society.—Mr. William Edgcumbe Rendle, of Redcliffe Gardens, has bequeathed £100 each to the Devon and Cornwall Hospital at Plymouth and the Hospital for Incurables at Putney.—The Rev. Samuel Paynter has given fifty guineas to the Royal Hospital for Diseases of the Chest.—Mr. W. B. Cregoe, Colmore, has given £200 to the General Hospital; £100, in addition to an annual subscription of £5 5s., to the Orthopædic and Spinal Hospital; £100, in addition to an annual subscription of £5 5s., to the Free Hospital for Sick Children; and £100, in addition to an annual subscription of £5 5s., to the Queen's Hospital—all at Birmingham.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 23RD.

A. W. BARCLAY, M.D., President, in the Chair.

CASE OF EXCISION OF A GRAVID UTERUS WITH EPITHELIOMA OF THE CERVIX; WITH REMARKS ON THE OPERATION OF PUBELL, PRUND, AND PORRO.

BY T. SPENCER WELLS, F.R.C.S.

IN this case, an uterus with malignant disease of the cervix, and containing a fœtus at the sixth month, was removed through the divided abdominal wall, and the patient recovered. She was thirty-seven years old, mother of five children, and six months pregnant. Her cervix uteri was invaded by a mass of epithelioma. The uterus was extirpated entirely on October 21st. The incision in the abdominal wall was eight inches long. The uterus was brought out through the incision, and separated from the bladder after tying the main arteries on each side; the liquor amnii and fœtus were removed through the anterior uterine wall; the vaginal attachments were separated all round; the uterus was removed; all bleeding vessels tied, and the communication between the vagina and peritoneal cavity closed by sutures; and the abdominal wound was closed in the usual way. Phenol spray, and all the usual antiseptic precautions, were adopted. The various steps of the operation were described, and several modifications were suggested as improvements in future operations. A full account of the operation will be found in the JOURNAL of October 29th, page 714. The patient was progressing favourably. The uterus, preserved in the Museum of the College of Surgeons, was shown at the meeting. Total extirpation of the uterus, both by the hypogastric and vaginal methods, and by a combination of the two methods, was briefly discussed. It was believed that this was the first case on record where excision of a gravid cancerous uterus had been followed by the recovery of the patient. Similar cases must be rare, but total extirpation of a cancerous uterus where pregnancy did not complicate the case, would hereafter much more frequently become the subject of anxious consultation.

Dr. GRAILY HEWITT said that he shared the responsibility of advising the performance of the operation. The patient was in a lamentable state of weakness, and had not slept at night for some weeks; she had severe continuous pain in the hypogastric region. The disease had implicated the cervix uteri to a considerable extent, but was strictly limited to it; and there was a very characteristic cord of indurated tissue. With regard to operation, three courses suggested themselves: 1. Induction of premature labour and excision of the cervix; 2. Excision of the uterus and cervix; 3. Allowing the pregnancy to go on to full term. Of these, the last was dismissed as unadvisable on account of the weakness of the patient, and because the disease was making rapid progress, and it was not at all certain that delivery could be effected *per vias naturales* after two months—during which time, also, the patient would be subjected to the debilitating influence of the spreading disease. As regards the other plans, Mr. Wells expressed himself so hopeful of success by total extirpation, that the operation was advised. Even if labour had been induced, and the diseased cervix excised, the patient would have been exposed to much risk. The operation appeared to be a difficult one; the uterus was very thin, and was not easily removed from the bladder. The chief difficulty seemed to be the avoidance of the ureters. In the ordinary Porro's operation, these were more easily avoided than when the whole uterus and the cervix were removed.—Dr. W. S. PLAYFAIR said that the patient first came to him complaining of leucorrhœal discharge. He found epithelioma of the anterior part of the cervix, and advised that labour should be induced, and that the epithelioma should then be dealt with. This, however, was delayed; and the disease in the meantime made rapid progress. In such cases, complete excision unquestionably gave the best chance of recovery. But cases of pregnancy complicated with cancer were very rare; and the important question was, as to excision of cancer affecting a non-gravid uterus. He had thought much on this. As to epithelioma limited to the cervix, in ordinary circumstances, and when seen early, it could be dealt with without the risks attendant on abdominal section, by Dr. Marion Sims's method of excising and scraping away the whole of the diseased mass, and then applying chloride of zinc so as to produce a slough. He had done this in five or six cases with very satisfactory results. The operation was attended with much less risk than abdominal section, but it did not prevent the subsequent adoption of this, if necessary. On the other hand, in medullary cancer affecting the body of the uterus, abdominal section would be of the greatest importance. Accurate diagnosis,

however, was a matter of extreme difficulty; and fixation of the uterus, which was the diagnostic point, itself indicated that operation was inadmissible. He had met with a case in which, when first seen, Freund's operation might have been performed; it was, however, delayed for a fortnight, within which time the uterus became fixed, and an operation could no longer be proposed with safety. He had also seen, a month ago, with Dr. Matthews Duncan, a case in a pregnant woman, in which there was severe hæmorrhage, thought at the time to be, perhaps, from malignant disease. Since then, labour had come on spontaneously; and now, on again seeing the patient in consultation, he had found the disease too far advanced for operation. He believed the surgical operation to be the easiest and simplest. Great credit was due to the late Dr. Blundell for recognising the importance of removal of the uterus, and performing the operation.—Dr. MATTHEWS DUNCAN thought that Mr. Spencer Wells's operation should cause admiration, that it was shown to be possible to extirpate safely a gravid uterus with the cervix in a state of malignant disease. But, possibility was one thing, and advisability another; and, to decide the latter, more experience was wanted. He had studied the records, at home and abroad, of operations for removal of uterine cancer. In cancer of the cervix, extending to the body of the uterus, there had been considerable success; in cancer of the supravaginal portion of the cervix, the cases had generally done well; but, in common cancer of the cervix, the operations had been very unsuccessful. Mr. Wells's operation had the advantage of being done without waiting for delivery, and of thus avoiding the intrinsic perils of labour.—Mr. KNOWSLEY THORNTON believed that, in tying the spermatic arteries, Mr. Wells had also tied the left uterine artery. If it were possible to tie off the ovaries and spermatic arteries, and then fearlessly cut down, the uterus could be readily drawn out; and there would be necessity for only a few ligatures, the abundance of which was a disadvantage in Freund's operation. The extension of the disease into the body of the uterus showed how unavailing any partial removal would have been. He had seen cases where the disease spread so rapidly that only a week elapsed before the idea of operating had to be abandoned. He thought that drainage should be employed in all such cases as those described by Mr. Wells; and he would suggest that, during the operation, the surgeon who had charge of the abdominal portion should have nothing to do with the vagina. His experience of Dr. Marion Sims's operation had not been so favourable as that of Dr. Playfair.—Mr. DORAN observed that the greatest importance must be attached to the significance of induration round the lower part of the uterus. In this case, Dr. Playfair had observed no induration; but a few weeks later, during the operation, slight hardening was detected. Examined microscopically, this hardened tissue was found infiltrated with leucocytes—a condition commonly seen in tissues adjacent to a cancerous growth, but not at first involving cancerous infection. If the growth be removed, with as much of the infiltrated portion as possible, then the leucocytic infiltration remaining behind generally disappeared. This, at least, was observed in other organs. But cancerous infection of the hardened tissue was very rapid: hence it appeared that the early detection of hardening was the indication for immediate operation, and not for the abandonment of all attempts to remove the disease.—Dr. HARRIS, of Madras, had met there with a case of cancer of the cervix uteri, in a woman aged 26, in whom he had removed, in succession, portions of the cervix and uterus, and at last excised the uterus itself *per vaginam*. The woman, however, lived only three days. He preferred the vaginal operation.—Dr. BANTOCK congratulated Mr. Wells on his success. He had operated for removal of a cancerous uterus, in circumstances of much difficulty, on a very stout woman. The uterus was readily separated from the bladder, and the ureters were easily avoided. He had been obliged to leave an opening into the vagina, and thought that the effused blood might escape by it. There was, however, a considerable collection of blood in Douglas's pouch, perhaps because the opening had been closed by the intestines. It would have been better to put a drainage-tube into Douglas's pouch.—Dr. HEYWOOD SMITH said that it was important to distinguish between extension of cancer into the vaginal wall by continuity of tissue and communication of the disease from the cervix uteri to the vagina by contiguity. Mr. Spencer Wells had seen Dr. Marion Sims perform his operation. He had seen a more complete sweeping away of everything like disease. The obliteride of zinc produced a slough, which really was the uterus itself, for it had a piece of peritoneum attached to it. The patient died three or four months afterwards, from a return of cancer in the neighbouring parts. If the cancer were at all extensive, a satisfactory result could not be expected from Dr. Sims's method in every case. The question of infiltration of leucocytes was important, if the surgeon could tell whether an induration were merely inflammatory, or a result of the extension of cancer. Perhaps this might be made out by observing whether the induration were branny or softer. No doubt induration might exist, which would not be a bar to the operation. As regarded tying the spermatic and uterine arteries together, he thought that the distance between them was too great for this to be done; and Schröder had told him that he had found it dangerous to attempt to tie the uterine artery, there being risk of also tying the ureter. He thanked those who had most ably assisted him in the performance of the operation.

* See British Medical Journal, Nov. 12, p. [illegible].

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 2ND, 1881.

J. MATTHEWS DUNCAN, M.D., President, in the Chair.

The Late Dr. McClintock.—The PRESIDENT having referred to the loss sustained by the Society in the death of Dr. McClintock, Dr. BARNES proposed, and Dr. PRIESTLEY seconded, the following resolution: "That the Obstetrical Society of London, having learned with deep sorrow the death of Dr. Alfred H. McClintock, one of its Honorary Fellows, hereby records its sense of the heavy loss which this Society, his profession, and science sustains by that event, and respectfully expresses its heartfelt sympathy with his widow and family in the still greater loss which falls upon them." Dr. BEVERLEY COLE, of San Francisco, supported the resolution, which was carried unanimously.

Fibroid Polypus.—Dr. HEYWOOD SMITH showed a large fibroid polypus removed in pieces from a single woman, aged 35. The tumour distended the vagina, and it was impossible to touch the os uteri, or to reach more than halfway up the tumour. About one-fourth of the mass was first removed by steel wire *écraseur*. The perinæum was then incised up to the sphincter, as it seemed likely to give way, and the neck of the polypus divided in the same way. The detached tumour was then divided into three parts by the *écraseur*, and so removed. The tumour weighed 1 lb. 10 oz. The perinæum was united by three sutures, and was found completely healed on the eighth day.—Dr. MURRAY mentioned a case in which he had seen the perinæum ruptured in removal of a fibroid tumour. He would advise previous slicing of the mass.—Dr. BARNES thought Dr. Smith had done right in incising the perinæum. He had seen a similar case in which a ruptured perinæum seemed to be a main factor in producing fatal septicæmia.—Dr. ROUTH mentioned a case in which he had removed a large fibroid in slices. The patient did well at first, but eventually died from tetanus. If the perinæum were not sewn up, or antiseptic injections were not used, in the case mentioned by Dr. Barnes, the fatal result might be accounted for.—Dr. AVELING thought it was undoubtedly proper to incise the perinæum when there was fear of laceration; he would suggest, however, that it might be better to make the incisions laterally.—Dr. WYNN WILLIAMS said that implicit confidence could not be placed in Dr. Heywood Smith's *écraseur*, as he had had a case in which the rivet on which the square button worked broke, when he was many miles in the country, and he had to get an ingenious local watchmaker to rivet it as a fixture.—Dr. WILTSHIRE thought that the perinæum should very rarely be torn or incised during the removal of large uterine fibroids. The growths might be so diminished by cutting portions away either in wedge-shaped masses or otherwise, as to render injury to the perinæum as a rule unnecessary.—The PRESIDENT had known great laceration of the perinæum, even through the sphincter, to occur in removing fibroids. If only a little laceration, as was usual, were expected, he would prefer that the perinæum should take its chance. He did not think incision would afford any appreciable degree of security against septicæmia as compared with laceration. Laceration of considerable extent might be avoided as a rule by cutting up the tumour, especially by the spiral cut, whereby the tumour was, by cutting, made into a long strip.—Dr. HEYWOOD SMITH said that, in his case, it would have been impossible to remove the tumour without injury to the perinæum, as the tumour had already distended the vagina, and the vulvar outlet was small.

Instruments. Dr. [illegible] ments. 1. A pessary for retroflexion or version. The instrument had a shaft and the [illegible] ite or celluloid connected with the lateral arms by segments of watch-spring. 2. A [illegible] attached to the lateral arms by springs turning forward. 3. A gas-cautery [illegible] to any ordinary [illegible]

Case of [illegible]. [illegible] subject. The obstruction arose from the morbidly early establishment of a [illegible] in which [illegible]

and a [illegible] impossible without injury. The cord might be absolutely short, or it might be made relatively short by encircling the neck or other parts of the fœtus. Its length, when stretched, had to be considered as well as that when not stretched. Twelve inches of cord would stretch about two inches before breaking. Most cords would break with gradually applied tension by a weight of about eight pounds. Labour power, if it broke the cord, must, of course, be greater than its tensile strength. When the cord was shortened by encircling the neck, its fœtal attachment was, so far as delivery was concerned, the neck, not the navel; and the measurement from the placental attachment to the neck was about two inches longer than to the navel; hence a greater length was required in this relative shortening than in absolute shortening when the measure was to the navel. Disturbance of mechanism rarely occurred till the child was partly born. The cord must then be torn across, or the placental cord freed by separation of the placenta, or inversion of the uterus might occur, or the fœtus might be born by a kind of spontaneous evolution. In this evolution, taking place after partial birth, the anterior surface of the body was, by rotation, made to look forwards, so as to make the most of the length of the cord. The insertion of the cord was the fixed point. The cord was tight, and passed below the lower border of the symphysis between its two insertions. A cord of twelve inches measured to the umbilicus, or one of fourteen inches measured to the neck, in both cases inclusive of gain by stretching, would permit birth by spontaneous evolution, if it were strong enough. A cord measuring under ten inches when stretched would necessitate rupture or cutting of the cord, or inversion of the uterus, or separation of the placenta.—Dr. BARNES was surprised to hear Dr. Duncan describe the cord as sometimes springing from the upper edge of the placenta. Levret had pointed out long ago that the cord, if it sprang from an edge, always sprang from that nearest the os, and he had himself constantly verified this conclusion. He would submit, as a means of lessening the tension of a cord artificially shortened, the method of compressing the uterus downward during the second stage. Instead of losing time in trying to slip the loop over the head or shoulders, he had found it better to cut the cord at once.—Dr. HICKINBOTHAM mentioned a case in which obstruction from short funis was diagnosed by the fact that, with roomy pelvis, sufficient power, and movable fœtal head, yet no progress was made. He advocated immediate forceps delivery, and prompt division of the cord.—Dr. GERVIS had met with cases of forceps delivery in which the cord around the neck proved both an obstacle to delivery and a cause of danger to the child. He called attention to the advisability of ascertaining, as soon as possible in forceps cases, whether the cord encircled the neck.—Dr. WYNN WILLIAMS had known of two cases, one in his own practice, in which, with shortened cord, the child was forcibly expelled, breaking the cord at its insertion into the child's abdomen, the vessels being drawn almost within the abdomen. Fortunately, he had a tenaculum with him, and succeeded in hooking over the vessels and tying them.—Dr. W. B. ROBERTSON mentioned a case, in which a child had been born five minutes before his arrival. He found the cord of average length and thickness, but severed five or six inches from the umbilicus. Hæmorrhage had ceased, and the child did well.—Dr. BRAXTON HICKS mentioned a case of twins, the cord of the first of which was very short, so that it could hardly be tied and divided. The second presented by the feet, and became arrested when the breech reached the vulva. Chloroform being given, he passed up his hand and found the funis very tense, the umbilicus being stretched up. He divided the funis with Sir J. Simpson's osteotome, and the child was then expelled. The funis was about four inches long. He thought it was the general plan, in case of a shortened funis, to divide it without attempting to tie; the fœtal portion could be easily seized.—Dr. MURRAY, in reference to Dr. Barnes's suggestion to press down the fundus uteri from above, mentioned a case in which partial inversion of the uterus had thus been produced.—Dr. BRUNTON said that it had been stated, as a sign of shortness of the cord, that, if the placental attachment was at the usual place, with every pain there was a depression of the fundus uteri to be seen and felt.—Dr. HAYES inquired whether, in Dr. Duncan's experiments to test the strength of the cord, any note had been taken of the thickness, number, and condition of the vessels. He had never met with inversion of the uterus from pulling on the cord, or from its undue shortness. He thought that, where inversion had occurred with an abnormally short cord, there must have been some other factor in its causation.—Dr. EDIS thought, in some instances, where the cord was twisted several times round the neck, and forceps were employed, as soon as traction was exerted, the undue strain upon the cord interfered with the fœtal circulation, giving rise to convulsive movements on the part of the fœtus. He had witnessed such cases, the child being apparently stillborn, and resuscitated with difficulty, if the delivery were delayed.—The PRESIDENT found the valued criticisms on his paper had reference chiefly to practice, and to this he had no positive objection; but the paper was written with a view mainly to the description of mechanism. He thought Dr. Hayes would find that the variations of thickness of the cord made little variation in its tensile strength; the matter was one that could easily be settled by experiment, and in no other way. He hoped that the rare case of Dr. Murray, and the unique and most valuable case of Dr. Braxton Hicks, would be well recorded in the reports of their speeches. With Dr. Barnes, he concurred in supposing that the cord was, in battledore placenta, at least generally, inserted in the lower border; but it was only supposition, and he knew no physiological reason why it should not be inserted in the upper border.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

OCTOBER 21st, 1881.

J. W. TRIPE, M.D., President, in the Chair.

The Sanitary Condition and Laws of Mediæval and Modern London.—The PRESIDENT read a paper on this subject. He said that a careful view of the legislative measures which were in force in mediæval London, would almost lead to wonder at the prevalence of the pestilences, which more than decimated the population from time to time, as well as the large fires which frequently devastated portions of the city. The laws in existence at this time ought to have prevented both, but were neglected, because the Acts and ordinances were much in advance of the habits and ideas of the population, and therefore they fell into disuse. In the time of the early Norman kings, most of the houses of London were built in a very primitive manner of wood, or mud, and clay mixed with straw, and covered with a thatch of straw or rushes, so that, water being scarce, when a fire broke out, it rapidly extended. An extensive fire in the reign of King Stephen led to an ordinance known as Fitz-Elwyn's Assize of Buildings being issued in King Richard the First's reign. This ordered that party-walls of houses should be three feet in thickness, and sixteen feet in height, and regulated the proportion to be paid by each householder; rain-water gutters were also to be provided; but no law other than private agreement in writing prevented a man from building against his neighbour's windows. The sixteen feet referred to were to admit of two storeys each eight feet in height. The upper was called the "solar", and was the chief room in the house; it was entered by means of a ladder or staircase outside. Above this was a penthouse overhanging the footway, the eaves of which were to be sufficiently high to allow a man on horseback to ride underneath them. The goods sold at the stall or shop were suspended under the eaves, or placed on a board; whilst the stall placed outside the house was not allowed to be more than two feet and a half in width. At this time, few small houses had glazed windows or chimneys, and were therefore cold, dark, and dirty; but early in the fourteenth century these were found in all houses. In the articles of the Wardmote made in the reign of Edward II, it was provided that no chimneys be henceforth made except of stone, tiles, or plaster, under pain of being pulled down, and that all houses within the franchise should be covered with tiles, etc. Overcrowding evidently existed to a considerable extent. In 1580, the time of Queen Elizabeth, it was ordained that every new-built house should have four acres of land. Dr. Tripe then gave an account of the condition of dwelling-houses in the time of Chaucer, and quoted from a letter written in the time of Henry VIII, that "the floors are commonly of clay strewed with rushes, under which lies unmolested an ancient collection of beer, grease, fragments, bones, spittle, excrement of dogs and cats, and everything that is nasty". The upper rooms were, however, boarded; and the above description refers only to those below the "solar". Fitz-Elwyn's Assize regulates the distance "necessary chambers" are to occupy from a neighbour's land. The soil was taken from the pits of the necessary to lay-stalls in other parts of London by nightmen. The streets were narrow, and were much damaged by "middle rows", like that lately removed from Holborn. Sewers are mentioned by Fitz Stephen as existing in the time of Richard I; but these were probably channels in the middle of the streets, which emptied eventually into the Thames. Fishmongers were especially ordered not to cast their slops into these channels. Nothing was to be thrown out of window from sunrise to 9 P.M., under a penalty of 3s. 4d. "Urine-boles and ordure-boles" were to be brought down and cast into the channel. Each person had to pave the street and keep the channel in order in front of his house; and "rakers" were appointed to remove the filth in carts. Dr. Tripe then gave some account of the regulations relating to butchers. In 1361, the killing of animals in the City was prohibited. In the 12th year of the reign of Richard II, butchers were allowed to erect slaughter-houses on the banks of the Thames, and throw the offal into the river; but in

the sixteenth century this was repealed. The first Commissioners of Sewers were ordered to be appointed in the sixth year of the reign of Henry V; and in 1531 a Commission was really appointed, and sewers came into existence, and the whole drainage of London was much improved. The first water-supply to London was obtained at first from the Wallbrook, Langbourne, Thames, and numerous wells. In the reign of Henry I, liberty was given to Gilbert Sanford to convey water from Tybourne by lead pipes into the City. In 1582, Peter Morris attempted to supply water by mechanical means, and in 1608 the New River Works were commenced. The prevailing diseases of mediæval London were then discussed, and it was stated that the deaths in the City probably exceeded the births in number. The number of persons who died from plague was also considered; and Dr. Tripe stated that he could find no evidence of scarlet fever having existed, although the malignant throat-disease of the Mediterranean corresponded with it. Reference was also made to the population and death-rates of mediæval London. In 1665, the population was estimated at 460,000 inhabitants by Graunt, and 650,000 by Sir William Petty. These numbers were not, however, to be depended on, that of Graunt being particularly uncertain. Turning to the sanitary condition of London in 1834, mention was made of the various steps taken by the Legislature to procure the drainage of London, and especially of those areas which were not included in the 23rd Henry VIII, cap. 5. In 1834, while the inhabitants paid sewers rate, none were allowed, without payment of 17s. 6d., to make connection with the sewer, and no one was compelled to drain his house. Since then, improvements had rapidly increased; and in 1855 the Metropolis Local Management Act was passed, giving power to the Metropolitan Board of Works, not only to construct and maintain main sewers, but also to control the construction of local branch sewers to be made by the metropolitan vestries and district boards of works. In addition to much other work, the Thames Embankment had been built, and many street improvements had taken place. The Metropolitan Board has also issued by-laws for the conduct of offensive trades. The passing of the Sanitary Act in 1866 was another important step in sanitary legislation. The local authorities had not, however, availed themselves of their powers under the Metropolis Local Management Act to make regulations for enforcing the proper construction of house-drains. The law regarding the isolation of infectious diseases as it now stood was defective, it having been ruled that the words "without sufficient lodging and accommodation" referred only to the patient, and not to the other occupiers of the house. Legislative measures were also required to compel the registration of cases of infectious disease, and for providing hospital accommodation for such diseases, and protecting those who undertook these duties from legal actions. The statistics of the last forty years did not show any improvement in the death-rate of infants; but the retrospect of deaths from zymotic diseases was somewhat more encouraging. This period of time, however, was too short for any marked improvement in mortality to result. In conclusion, Dr. Tripe expressed the conviction that the faulty construction of house-drains cause much injury to health, but that additional legal power for the abatement of nuisance was less necessary at present than an increased staff in the medical officers' and surveyors' departments to effectually carry out the existing laws.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

FRIDAY, OCTOBER 28TH, 1881.

W. F. WADE, M.B., in the Chair.

Hydrosalpinx.—Mr. LAWSON TAIT showed specimens from two cases of double hydrosalpinx and from two cases of double pyosalpinx, in all of which removal had been successfully performed by abdominal section.—Dr. CARTER also showed a specimen of hydrosalpinx in an early stage, which he had found accidentally in the body of a young woman who had died from chronic valvular disease of the heart.

Morbid Specimens.—Dr. BARLING showed a knee-joint presenting the changes of arthritis deformans in an advanced stage, which had been removed by amputation of the thigh in the General Hospital. The disease was of six months' standing, entirely incapacited the man from work, and was confined to the knee-joint.

Fatty Emboli.—Dr. BARLING showed microscopical sections of the lungs and kidneys taken from a man who had sustained fracture of the thigh, and had died shortly afterwards with symptoms of asphyxia. The specimens exhibited numerous fatty emboli.—Dr. CARTER exhibited sections of lung, prepared by Dr. Rendall, from a case of farcy, in which there were also numerous fatty emboli.

Subastragaloid Dislocation.—Mr. JORDAN LLOYD showed a cast of subastragaloid dislocation. The patient was a carpenter, who, in walking over an unfinished floor, caught his foot in a joist, producing forcible extension of the ankle, followed by dislocation.

Removal of Large Gall-stone from the Intestine.—Mr. H. R. KLEE showed a gall-stone, [illegible] removed by abdominal section from a patient suffering from intestinal obstruction of thirty-six hours' duration, which was previously supposed to be due to strangulated umbilical hernia. The stone was situated in the small intestine, immediately above the ileo-cæcal valve. As it could not be passed onwards by manipulation, an incision was made in the intestine, removal was effected, and the wound afterwards was carefully brought together by a catgut suture. Death took place four days after the operation, but no *post mortem* examination was allowed.

Tricuspid and Mitral Stenosis.—Dr. SAMUEL [illegible] of tricuspid and mitral stenosis from a case of Bright's disease, in which the lesion had existed many years without giving rise to any symptoms.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, NOVEMBER 23RD, 1881.

W. ROSS JORDAN, M.R.C.S.Eng., in the Chair.

Case of Laparo-Enterotomy.—Mr. LAW [illegible] patient upon whom laparo-enterotomy had been performed for intestinal obstruction. The operation relieved all the symptoms, and subsequently the fæces commenced to pass *per rectum*, the artificial anus gradually closing until merely a small fæcal fistula on the right of the umbilicus remained. This, it was thought, would ultimately heal.

Large Vesical Calculus in a Female.—Mr. TAIT [illegible] vesical calculus. The woman from whom it had been removed had, three years previously, been operated upon by another surgeon for vesico-vaginal fistula. After leaving the hospital where she had been treated, all the old symptoms returned. On examination, it was found that a silver wire suture had not been removed, and that the urine dribbled through the stitch-holes. By enlarging these, the suture was removed, and also the stone, for the formation of which it had acted as a starting point.

Specimens.—Mr. BENNETT MAY showed the following specimens: A Cystic Testicle, the result of injury; Sarcomata removed from the Mamma; Parotid Gland; a Phalanx of Great Toe; Two Bursal Tumours.

On One Hundred and Ten Consecutive Cases of [illegible] since November 1880.—This paper was read by Mr. LAWSON TAIT. The following is an analysis of the cases: exploratory incisions, 14; one ovary removed for cystoma, 38 (2 deaths); both ovaries removed for cystoma, 9; removal of parovarian cysts, 4; removal of both ovaries and Fallopian tubes, 21 (2 deaths); opening and draining of pelvic abscesses, 11; hepatotomy, 4; hysterotomy, 4 (2 deaths); Cæsarean section, 1 (mother died, child living); extraperitoneal cysts (peritoneal cavity not opened), 2 (both died); enterotomy for intestinal obstruction, 2. The mortality was 8.2 per cent. The author stated that no operation undertaken for tumour had been left incomplete. Three factors were thought to have contributed to success, viz., increased personal experience, discontinuance of the use of the clamp, and improved conditions under which operations were now performed, the cases being sent earlier for operation and cysts not so frequently tapped. In some cases drainage had been found to be of essential service. Listerism had been discarded as doing more harm than good. In patients suffering with suppurative peritonitis, Mr. Tait advocated laparotomy and free drainage of the abdominal cavity.—A discussion followed the reading of the paper, in which the following took part: Dr. Bassett, Mr. Thomas, Mr. Chavasse, Mr. Ker, Mr. Jordan Lloyd, Mr. May, Dr. Simon, Dr. Robinson, Mr. Ross Jordan, Mr. [illegible]

A CHEMICAL DEFINITION OF LIFE. [illegible] HAM. From various [illegible] also with Infusorial, [illegible] that living protoplasm possesses in an eminent degree the property of reducing the molecular [illegible] when death occurs. "[illegible] the mysterious phenomenon denoted by the name of 'Life' depends essentially on [illegible] science we explain these 'groups in motion,' these [illegible] nomena, as aldehyde groups, [illegible] different and better mode of explanation.

REVIEWS AND NOTICES.

ARMY MEDICAL DEPARTMENT. REPORTS FOR THE YEAR 1879. Vol. xxi, pp. 208. Presented to both Houses of Parliament. London: 1881.

[FIRST NOTICE.]

THE annual Parliamentary Blue-book on the health of the army was issued two months ago. Though appearing late in the year 1881, the report is only brought down to the end of the year 1879. It is, moreover, shorn of one of its former sectional parts—the Report of the Head of the Medical Branch of the War Office, or Appendix, in which, in previous volumes, reports on the progress of hygiene and papers on miscellaneous subjects by some of the medical officers of the army have appeared. We are informed that the authorities who rule in such matters decided that this portion of the army medical Blue-book was not to be presented to Parliament, neither on the present occasion nor in the future; but that separate volumes, with the medical report appended to them as heretofore, will still be published for the use of those who may be specially interested in the subjects usually embraced in this particular section of the work. The saving effected by this retrenchment, under such circumstances, must, after all, be a petty one; for, if the appendix is to be printed in a certain number of the published volumes, it would cost little else but the price of the paper for it to be printed in all.

The average annual number of troops serving in the British army during the year 1879 is shown in the tabular summary on the first page of the statistical report to have been 164,642. This number only includes the troops of corps that are recruited in Great Britain; it does not include the soldiers of regiments enrolled for special stations abroad, nor coloured troops, such, for example, as the Royal Malta Fencible Artillery, the West India regiments, the Gun Lascars of Ceylon and Hong Kong, and the native army of India. The commissioned officers are also excluded from the average strength of "troops" shown in the report, thus differing from the usual arrangement in corresponding continental statistical tables; but, although not taken into account in the general strength of the troops, nor in the statistical report of the part of the army which was serving in the United Kingdom, the numbers of officers stationed abroad, and the diseases and deaths among them, are shown in the statistical reports from foreign stations. Out of the total 164,642 non-commissioned officers and men tabulated in the report, there were 192,483 admissions into hospital, or a proportion of 1,169 per 1,000. Of the patients thus treated, 3,367 died, which gives a ratio of 20.45 per 1,000 of the average annual number of troops; while 3,994 were discharged from the service as invalids, or 24.25 per 1,000 of the strength. The ratios of deaths, and of men discharged as invalids, shown in the report itself, are 20.00 and 24.32 per 1,000 respectively; but, as stated in a foot-note, in making these calculations, 3,680 men detached from their regiments have been added to the number given as the average annual strength of the troops. All these detached men belonged to corps serving in Great Britain. The conditions under which the 3,680 men were detached are not explained; but it may be presumed that a large proportion of them were absent on account of previous illness, for 84 deaths took place among them in the course of the year. This mortality, being at the rate of 23.83 per thousand, is considerably above the average of deaths among the troops stationed in foreign climates, taken together with those at home. But this high rate of mortality among the detached men becomes still more remarkable when it is compared with the death-rate among the other troops serving in the United Kingdom, where the 84 deaths among the men absent from their regiments occurred. The average annual strength of the troops serving in the United Kingdom is shown in the report as 80,700, and the number of deaths among the troops present with their corps as 553, or 6.85 per 1,000; while, as before stated, among the 3,680 men absent from their corps, the number of deaths was 84, or at the rate of 23.83 per 1,000. It seems strange that no statistical account or explanation is given of the circumstances under which the men were detached from their regiments, among whom so considerable a rate of mortality is recorded.

The ratio of deaths among the whole body of troops, both those serving in foreign stations as well as those serving in Great Britain, during the year 1879, being tabulated, as already mentioned, as 20.00 per 1,000, it will be serviceable to compare this with the corresponding ratios of some previous years. In 1878, the proportion was 12.17 per 1,000; in 1877, 9.55; in 1876, 11.03; in 1875, 12.47 per 1,000; while the average ratio for the ten years preceding the annual period embraced in the report, from 1869 to 1878 inclusive, was 12.51 per 1,000. There has consequently been a very noticeable increase in the death-rate in the army during the year 1879, as compared with the death-rate during a series of preceding years. But it is necessary to associate with the figures showing this death-rate those showing the proportion of men disabled for service, and consequently discharged from the army as invalids. It has been already mentioned that the proportion of men discharged as invalids in 1879 was 24.32 per 1,000. In 1878, the number was 28.09 per 1,000; in 1877, 22.71; in 1876, 21.63; in 1875, 19.80 per 1,000; while during the ten years from 1869 to 1878 inclusive the average was 22.25 per 1,000 of the strength. It thus appears that the ratio of "invaliding" men out of the service during the year 1879 was lower than it was in the year 1878, but was higher than it was in any of the other years referred to, and higher also than the average of the preceding ten years. On the whole, the difference in the number of men discharged as invalids in 1879 was by no means so great, when compared with preceding years, as the difference in the death-rate already mentioned. The death-rate was not materially increased among the troops serving in the United Kingdom; and the causes of it must, therefore, be looked for in the reports from some of the foreign stations, which we shall notice hereafter. At present we propose to call attention to some of the leading facts shown in the portion of the report which relates to the United Kingdom.

Among the troops quartered in Great Britain, the admissions into hospital were 66,347 in number, being at the rate of 822 per 1,000 among the 80,700 men present with their respective corps. The average duration of each case of sickness treated in hospital was 18.66 days, which amounts to the same as if the whole force of 84,380 men, the strength including the detached men, had been upwards of a fortnight—15.34 days—in hospital. The number of deaths, men absent as well as those present with their regiments being included, was 637; the death-rate being, therefore, 7.55 per 1,000 of the total strength. Compared with the year 1878, the sickness among the non-commissioned officers and men of the army serving in the United Kingdom, as shown by the number of admissions to hospital, was 9.7 per 1,000 higher in 1879; but the death-rate was only 1 per 1,000 higher than in 1878. It is no longer possible to specify the particular diseases for which the men were treated in hospital, or under which the deaths took place; the special tables which used to furnish this information in the Army Medical Reports having been suppressed in the volumes which have appeared for several years past. The largest number of admissions is shown under diseases of the cutaneous system, 8,960; local injuries, 8,275; diseases of the digestive system, 8,257; and of the respiratory system, 7,818. The greatest number of deaths—viz., 235—occurred under the heading of tubercular diseases, the admissions being 900; while next in number were 137 deaths among the admissions for diseases of the respiratory system. Among the admissions into hospital were 147 cases under the head of "poisons", followed by 9 deaths. The kind of poison is only referred to in two instances, these being cases of suicide by cyanide of potassium. Fifty-three deaths occurred under "injuries", general and local; and the report mentions that 15 of these were suicidal. The proportionate numbers of troops of different ages who were serving in 1879 in the United Kingdom are not shown in the report; but one of the tables shows the ratios of the deaths which occurred among the troops according to age. The ages are arranged in quinquennial periods from 20 years and below to 40 years and upwards. From this table it appears there was a very marked and constantly increasing rate of mortality with increase of age among the soldiers, far greater than the influence exerted by age has been found to be at corresponding periods of life among men in civil life. Among the troops, the mortality is stated to have been 3.60 per 1,000 of the strength under 20 years of age, *i.e.*, practically between 17 and 20; 4.94 between 20 and 25 years; 6.87 between 25 and 30; 11.20 between 30 and 35; 17.50 between 35 and 40; and 23.73 per 1,000 from 40 to 45 years. The deleterious effects of night-duties and broken rest may probably be the chief factor in producing this marked deterioration of the constitutional powers of resistance to disease in men at the prime of life, and hygienically so well cared for as the soldiers who form the subjects of the foregoing observations; but the topic is one which seems worthy of full investigation. The table is given without any comment in the report. It would be interesting to compare the rates of mortality at the different ages above given in the army at home with the mortality in a similar series of ages among other men regularly exposed to night-duties; as the men of the police force, for example.

Three subjects are treated upon at some length in the course of the remarks on the health of the troops serving in the United Kingdom in 1879—viz., the subject of vaccination, of the prevalence of venereal disease, and of the recruiting of the army; and from each some points of general interest may be culled.

The efficacy of vaccination in preventing the occurrence of small-pox in the army continues to be shown in the Report of the Army Medical Department for 1879. Out of the 80,700 men serving in the United Kingdom, the admissions into hospital for small-pox were only 6—at Dublin 5, and at Aldershot 1; and no mention is made of any one of these having terminated fatally. Primary vaccination was performed in 302 soldiers; revaccination in 21,060. The tables show that when the vaccination or revaccination was performed with fresh lymph, or from arm to arm, perfect vaccine pustules resulted in a considerably larger proportion than when preserved lymph was used; and that complete failure occurred especially in cases of revaccination when the preserved lymph was employed. There is a partial indication of the extent to which vaccination is neglected in certain classes of the civil population in one of the tables. Out of 23,449 recruits examined and found fit for service by army medical officers, 21,431 were found to bear marks of vaccination; 874 had marks of small-pox; while 1,144 had neither marks of small-pox nor of vaccination. The proportion, therefore, of men who had neither had small-pox nor had been vaccinated, was nearly 5 per cent. The class from whom the recruits came consisted of labourers, manufacturing artisans, mechanics, shopmen, and clerks. The information under this head might be rendered more complete, and would be of proportionately greater public interest, if the condition as to vaccination of all the recruits examined were recorded, whether found fit or unfit for the service. The field of observation would be thus largely increased; for 42,668 men were medically inspected—36,297 by army surgeons, and 6,371 by civil medical practitioners. The report states that no information as to vaccination is available respecting the men primarily inspected by the civil practitioners. Surely the information could be readily obtained, if required, in the printed forms which, it is presumed, all surgeons who examine recruits have to fill up.

The number of men who presented themselves for enlistment in the army was somewhat less than in 1878. In 1878, the number was 43,867; in 1879, it was 42,668. But the examination seems to have been conducted more strictly, or else the recruits were of an inferior stamp; for the ratio of rejections was higher in 1879 by 64.31 per 1,000 than it was in 1878. Out of 36,297 men examined by army surgeons, 12,848, or 354 per 1,000, were rejected at the primary inspection; and out of 6,371 men examined by civil practitioners, 1,288, or 202.16 per 1,000, were rejected at the first examination. Between the numbers rejected in 1877 and 1878 there was only a difference of about 5 per 1,000. On secondary inspection of the men, 1,341 more were found unfit; so that, out of the 42,668 men who sought enlistment, 15,477, or 362.73 per 1,000, were declared to be unsuitable for military service. England and Wales furnished by far the largest number of men—viz., 29,061, or 681 per 1,000; Ireland came next, with 8,957 men, or 210 per 1,000; while Scotland furnished the least number, 4,150, or 97 per 1,000. The proportions are almost identically the same as in the previous year. A few recruits were natives of British colonies or foreign countries. An improvement in the education of the men seeking to enlist is shown in the returns, as compared with the previous year; there being an increase in the proportion of men "able to read and write", and a decrease in the respective proportions of men "able to read only" and "unable to read". There was also an improvement in the ages of the recruits. Taking all the recruits together, the average age for the year was 20.32 years. The largest proportions appear between the ages of 18 to 20 years, and 20 to 23 years of age. The principal causes of rejection among the men who were not accepted, arranged in their order of frequency, were muscular tenuity with general debility, defective vision, diseases of the heart, varix, syphilis, malformation of chest and spine, and hernia.

The Army Medical returns continue to bear witness to the influence of the Contagious Diseases Acts in repressing the prevalence of venereal diseases. Similar statistical tables, compiled from quarterly venereal returns sent in by medical officers, are furnished in this, as in previous annual reports, showing the number of admissions for primary venereal sores and gonorrhœa at the stations where the Contagious Diseases Act is in force, and, for purposes of comparison, at other stations where it has not been applied. These returns show that in the fourteen stations under the Act, where the total average annual strength amounted to 42,646 men, the admissions into hospital for primary venereal sores numbered 2,005, or 47 per 1,000; while the admissions for gonorrhœa were 2,939, or 69 per 1,000. On the other hand, in the stations not under the Act, in which the average annual strength was only 18,058 men, the number admitted to hospital for primary sores was 1,943, or 108 per 1,000; and the admissions for gonorrhœa 1,719, or 95 per 1,000. The contrast between the amount of disease in the two sets of stations is thus most strongly marked, and all the more noticeable when it is remembered that the stations under the Act are constantly subject to the influx of troops from the unprotected stations. The average result for the last ten years is that, where the Acts were in force, the admissions for primary venereal sores have been 44 per 1,000, and for gonorrhœa 80 per 1,000; in the large stations where they were not applied, the hospital admissions for primary sores were 101 per 1,000, and for gonorrhœa 97 per 1,000. In London, in 1879, the number of admissions into hospital for primary venereal sores amounted to 173 per 1,000 of the mean strength of the troops; in Manchester, to 205; in Dublin, to 117; in Sheffield, to 132; and in Belfast, to 124 per 1,000—all these being places in which the Contagious Diseases Act is not applied; while the highest number at any of the stations to which the Act is applied was 77 per 1,000 at the Curragh Camp in Ireland. At the large garrison town of Portsmouth, the number of hospital admissions for primary venereal sores was only 27 per 1,000, and in the previous year only 15 per 1,000. The loss of military service owing to primary venereal sores at the stations under the Act, and at the contrasted stations, for a series of years, is exhibited in a special table on the subject. In the year 1879, the millesimal proportion of men constantly in hospital under treatment for primary venereal sores at the stations under the Act was 3.61, while at the stations not under the Act the ratio amounted to 8.25 per 1,000 of the strength. This is very nearly the average of the last ten years. During this period, the loss by men being under treatment in hospital for this disease at the fourteen stations under the Act was 3.48 per 1,000; while at the fourteen other large stations not under the Act the loss was more than double as much—viz., 8.04 per 1,000. With such statistics in evidence, based as they are on accumulated facts, of the correctness of which, from the manner in which they are furnished, there cannot be any honestly reasonable doubt, it becomes difficult to understand how figures can be quoted, whatever other arguments may be urged against the application of the Contagious Diseases Acts to the garrisons in which troops are quartered, in support of the opposition to them, as those who wish to put a stop to the Acts sometimes do.

Our remarks on the lately published army medical Blue-book have already exceeded the limits we proposed for them, and we must postpone observations on matters relating to the troops who were serving on foreign stations in the year 1879 to a future occasion.

THE NATURE AND TREATMENT OF RABIES OR HYDROPHOBIA. By THOMAS M. DOLAN, L.R.C.P.E., etc., Physician to the Halifax Fever Hospital. Second Edition. London: Baillière, Tindall, and Cox. 1879.

Mr. DOLAN'S work has been favourably received, as all earnest attempts to deal with the "backward" subject of rabies and hydrophobia deserve to be. The publication possessed the great merit of being opportune. The public mind was at that time still agitated by too frequent announcements of painful deaths due to the disease. Any new book on hydrophobia would, under such circumstances, be eagerly perused, even within a wider circle than that of the profession. Unfortunately, new discoveries do not spring up to suit the caprice of epidemics, or the increased longing for information to which they give birth; neither is it easy to plant a new idea in so crowded a field as that of the literature of rabies and hydrophobia.

The preface to the book does not lead us to expect any novel theory or observation; neither do we come across any strictly original matter throughout the volume, although the title almost conveys a promise of more light. The work is essentially one of compilation, with perhaps less of critical study than the professional reader would expect. That the truly scientific matter should form but a nucleus in a mass of lighter reading, is doubtless a fault of the subject itself rather than of the author; it is unfortunately true that, if stripped of all which is not strict fact, our present knowledge of the disease would fit in a very small compass. A good collection of cases, well observed and fully described, would have been a welcome and useful contribution to the literature of the subject; such a collection is, however, not to be found in the book under review. Most of the cases are disappointing, both in their want of arrangement and in their dearth of particulars; in most instances incubation, duration, treatment, and result, are alone specially mentioned. The absence of definite information concerning the march of the symptoms (whence a clear estimate of the nature of the case can alone be derived) is especially felt in reference to the instances of alleged recovery. Among the latter, not a few fail to convey the conviction that they were cases of true rabies. Much scepticism still survives as to the [illegible] contribution to the short list of cases of undoubted success. The curability of rabies, both in man and in animals, is a subject of [illegible] to have claimed at least one chapter in a special treatise. We

regret that it should have been too briefly dismissed. The absence of any cogent evidence on this point is but imperfectly compensated by the hopeful tone which is one of the characteristics of the book.

The lesser defects of the work are mainly the outcome of the original mode of its publication as a periodical contribution to a weekly journal. The author has, however, blended a creditable array of valuable statistics and of scientific matter with much that is interesting—nay, entertaining. This feature, together with the easy style adopted throughout, will render the perusal of the book attractive, not only to the professional reader, but to many who look less for scientific than for general information.

NOTES ON BOOKS.

What to do in Cases of Poisoning. By WILLIAM MURRELL, M.D., M.R.C.P., Lecturer on Materia Medica and Therapeutics at the Westminster Hospital, etc. London: H. K. Lewis. Dr. Murrell truly says, "few things can be more painful than to be called in to a case of poisoning, and not to know what to do". In this little book, plain and straightforward directions are given for the treatment of the commoner poisons. The tables were originally drawn up by Dr. Murrell for his own guidance, and there can be no doubt that they will be extremely useful to others. It is a little handy pocket-book, which contains a series of extremely practical and accurate directions for the application of antidotes in cases of the treatment of poisons from the now great variety of poisonous agents which are apt to give rise to fatal symptoms. It is the handiest and most complete of the kind that we have ever seen.

WE have received from the Church of England Temperance Society an excellent sheet almanac for distribution in cottages, at the rate of 6s. per 100. The object of this valuable Society, of which the Queen is patron, is the promotion of habits of temperance, the reformation of the intemperate, and the removal of the causes which lead to intemperance. The Society consists of two sections, the following being the membership declarations. Section A: General—"I recognise my duty as a Christian to exert myself for the suppression of intemperance; and having hereby become a member of this Society, will endeavour, both by example and effort, to promote its objects". Section B: Special—"I hereby agree to abstain from the use of alcoholic liquors as beverages so long as I retain the card of membership". The General Secretary is Mr. Alfred Sargant; and the office is Palace Chambers, Bridge Street, Westminster, S.W. The other publications forwarded include a Report on Church Temperance Work, by the Bishop of Durham and others, and a Discussion of the Subject: "Is Alcohol a Food or a Physic?", by Mrs. Ernest Hart, which has been delivered at various mothers' meetings in the metropolis, at the request of temperance societies and clergymen, and is now reprinted from the *Church of England Temperance Chronicle*, and is being extensively distributed, in pursuance of temperance work, by the Society in a cheap form.

The Index Catalogue of the Library of the Surgeon-General's Office, U.S.A. Authors and Subjects. Vol. II, 4to., pp. 990. Washington: Government Print.—This second volume of the greatest medical bibliography ever published includes 12,459 authors' titles, representing 4,934 volumes, 9,810 pamphlets, with 11,550 subject titles of separate books and pamphlets, and 37,310 titles of articles and periodicals. It has been compiled under the direction of Lieutenant-Colonel and Surgeon J. S. Billings, and is an honour to the American nation. It will be found of the highest utility to medical writers, and is indispensable to public libraries, or for any complete literary research on medical subjects.

GOATS' MILK.—At a recent meeting of the British Goat Society twenty-three new members were elected, including Major-General Burnaby, M.P., and Dr. Lett. It was reported that the president, the Duke of Wellington, was personally taking action in his own neighbourhood to promote the keeping of goats. Dr. Henry Morrison stated that he had induced some of the working-class at Hounslow to keep goats. A letter was read from Dr. Lett, medical officer for Wadingham district and Caistor Union, Lincolnshire, stating that during the last two years he had endeavoured to popularise goat-keeping among the labouring classes in his medical district, and for that purpose had gratuitously lent goats and given milk in suitable cases of debility among hand-fed infants. He added that he was keenly alive to the good which the society might do in encouraging goat-keeping for the supply of milk to not only the poor, but all classes of the community.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, NOVEMBER 26TH, 1881.

AN UBIQUITOUS POISON.

AN interesting communication on the continuous absorption of lead in our daily food has been presented to the Paris Academy of Medicine by M. Armand Gauthier. He gives in detail the methods he used to find and estimate the lead in the food ingested by the consumers of tinned vegetables, fish, *foie gras*, shell-fish, meat, drinking-water, and artificial aërated waters. He arrived at the conclusion that the daily consumption of alimentary substances, preserved in tin cases soldered with lead alloys, introduces very appreciable quantities of lead in a continuous manner into the animal economy. He found that the aliments which were the most heavily loaded with the toxic element were substances rich in fatty matters, and especially fish—notably those preserved in oil. The vegetables only contained very minute quantities of lead. Meat takes up very varying doses of lead; these being greatest when the soldered surfaces are extensive, and when the alloy with which they are in contact contains more lead, and when the substance preserved is of a fatty nature. Potable waters, by remaining in leaden reservoirs or even in lead pipes, dissolve a small proportion of the metal. They may be drunk with perfect safety when they have only passed through lead conduits, without having had the opportunity of becoming mixed with the air therein contained. The so-called seltzer waters—that is to say, those artificially charged with carbonic acid—may contain extremely varying quantities of lead, which are larger when the vessels in which they are contained have been kept lying down. Beverages and acid condiments, especially white wines and vinegar, slowly absorb a minute quantity of lead compounds from the sides of the glass bottles in which they are contained.

M. Gauthier laments the fact that lead invades us at every point, envelopes us, and penetrates into the animal economy. He points out that our dwellings are painted with white lead, which, however, is far from being necessary; that our furniture is occasionally coated with the same material; that the materials with which we clothe ourselves, and the foot-coverings we wear, are frequently impregnated with preparations of lead. Our culinary utensils are covered with an alloy of lead; our earthenware vessels are varnished with a boro-silicate of lead; our glass utensils contain from 40 to 100 per cent. of their weight of the oxide of the same obnoxious metal. M. Gauthier is of opinion that this condition of things contains a true latent and insidious danger, which, from the poisonous nature of lead, and in some cases the intolerance shown to this metal even in small doses, becomes certain and continuous. This danger becomes more definite in the case of certain preserved foods than in others; for instance, in fatty substances, which may contain large amounts of the metal. These particular forms of tinned food may, M. Gauthier thinks, be accompanied by considerable danger. He owns that no cases of death from poisoning by the use of tinned provisions, or of water conducted through lead pipes, have yet been recorded, and that it may be argued that small doses of lead are doubtless only partially assimilated and partially tolerated by the animal economy; so that there is really no necessity to give any attention to a substance of which the effects from small doses are not evident. To these objections, however,

he answers that the small doses of lead which are found in much of our daily food accumulate into a weight worthy of notice. The very smallness of these doses ensures the absorption of the poison. Lead, in all its forms—carbonate, sulphate, oxide, etc.—is assimilable: and it is now demonstrated that, even in minute quantities, none of these insoluble combinations can be indefinitely introduced into our organs (whence they are only eliminated with the very greatest difficulty) without influencing them unfavourably, and bringing on a certain deterioration. M. Gauthier further insists that lead is a metal the more to be distrusted because its first effects are slow, obscure, insidious, and easily confounded with those of other debilitating agents. He points out the length of time during which the cause of the dry colic of Poitou, and of the colic of hot countries, has been under discussion. Likewise, if the effects of lead, taken even in very small doses, may sometimes manifestly break out with all the symptoms of a confirmed lead-poisoning; nevertheless, as a rule, it is necessary that a considerable dose of the toxic agent must be absorbed, in order to produce these acute or chronic poisonous effects. M. Gauthier states that, as a result of his observations on workmen in lead-works, and from the facts embodied in his report, he has arrived at the conclusion, that the toleration of the animal economy for lead and its preparations is very variable, and that daily absorption of lead may continue to an almost indefinite extent, without bringing on these classic accidents of lead-poisoning which alone are held to be characteristic.

In this point of view, M. Gueneau de Mussy's very instructive observation gives very important numerical information. At the château of Claremont, thirteen persons, out of thirty-eight, who had drunk the same water impregnated with lead, were poisoned. This water contained fourteen milligrammes (about 0.2 grain) of lead per pint. Taking, as a minimum, the consumption of each of the inhabitants of the Château as a pint of water daily, it is seen that twenty-five persons out of thirty-eight, or 66 per cent., were able to absorb fourteen milligrammes of lead daily, without being noticeably poisoned. M. Gauthier believes that even this limit may be exceeded. He states that he has seen, in the Parisian lead and minium works, overseers who had lived for years in a medium loaded with lead-dust, which they absorbed by the mouth, the nostrils, and the cutaneous surface, and who had never shown symptoms of confirmed lead-poisoning, such as colic, affection of the brain, lead-palsy, etc. They none the less, however, showed that *ensemble* of symptoms which has been noted at the outset of lead-poisoning, but which is also found in the course of a number of poisonings of metallic origin, or from very various diseases, such as cancer, chronic affections of the liver, remittent and intermittent fevers, etc.—when the phenomena of assimilation and of the reproduction of the tissues are enfeebled, and organic life is weakened; such as a high degree of anæmia, with anorexia and frequent dyspepsia, emaciation, pale or earthy colour of the skin, depression of muscular power, and sleeplessness. These are the principal symptoms which denote the suffering condition of the animal economy before the lead-poisoning proper declares itself. Their cause in workmen who manipulate lead is patent, but they would remain very obscure if their antecedents were not known. M. Gauthier, therefore, asks if these signs are found wanting in the midst of those populations, who, as he has pointed out, have for some years past adopted an alimentation and habits, whence unavoidably results the continuous absorption of small doses of lead in their daily food. He asks if it is prudent to persist in these practices; and insists that the incessant repetition of this cause of weakening of the animal economy cannot be harmless, and should not be neglected. In the great majority of cases of lead-poisoning, the lead penetrates by the lung, but more especially by the digestive tube. It is there dissolved as a chloride and an albuminate, and penetrates into the animal economy by the intestinal capillaries. If it be not in too large a proportion, it passes through the liver and reaches the blood, whence it is diffused through the various organs. When there is little of it, it is soon eliminated by the urine, the skin, the mucous membrane, and the epithelium—not without having injuriously affected the animal economy, in the same manner as all toxic substances. This abnormal condition shows itself by the comparatively slight symptoms which have already been described. The signs of poisoning by small doses, such as we absorb every day, are thus limited to those already pointed out. But, if these doses be increased, the lead is partially deposited on the mucous coats of the stomach and intestines, which it slowly penetrates, as by imbibition, inducing by its presence an irritative process, which may end in sclerosis; whilst the smooth fibres of the intestine slowly undergo a state of fatty degeneration at several points, according to Kussmaul and Meyer. That portion which does not become attached to the digestive tube reaches the liver, becomes partially deposited there under the form of albuminates or insoluble biliary salts, and produces the hepatic retraction pointed out by M. Potain—a phenomenon attributed to the spasmodic contraction of the vessels. Another portion of the lead, which the liver has not been able to arrest in its passage, penetrates into the blood, and thence into the nervous system, which assimilates a portion of the poison, and of which the injury is made manifest by cerebral symptoms, insomnia, hyperæsthesia, and lead palsy—finally locating itself in the bones. It is so much the more slowly eliminated from these various organs, in so far as the dose of poison, in penetrating more deeply into them, has diminished their intolerance of it and their power of elimination, by acting on the central nervous system, the *ensemble* of the vital functions; and, by altering the intimate structure of the kidneys, partially prevents the extremely important elimination of the poison by the urine. It is in this manner that the lead accumulates in the animal economy; but M. Gauthier does not believe that it is retained there, as some have asserted, up to the time when the dose of poison becomes sufficient to provoke the explosion of the lead-poisoning. The facts of daily and continuous absorption of a considerable dose of lead, without distinctly characteristic symptoms even at the end of a long period of time, are absolutely opposed to this theory. So long as the quantity of lead which remains unassimilated remains equal to that daily absorbed, lead-poisoning, properly so-called, does not make its appearance. The lead circulates slowly, becoming assimilated and eliminated in nearly equal quantities, until the day when an increase in the dose of the poison, an arrest in the elimination, an affection of the kidney, a weakening of the vital reactions, an exhaustion of the tolerance of the animal economy, allow the phenomena of acute or chronic lead-poisoning suddenly to declare themselves.

EXTIRPATION OF THE UTERUS.

THE successful case which Mr. Spencer Wells brought forward at the last meeting of the Royal Medical and Chirurgical Society, and the animated discussion which it provoked, must inevitably turn the attention of British surgeons once more to a subject compared with which ovariotomy appears as a question of minor surgery. During the meeting, reference was frequently made to the researches of Olshausen, who, in a recent number of the *Berliner Klinische Wochenschrift*, has discussed the relative merits of operating by gastrotomy or from the vagina, for total extirpation of the uterus. He bases his opinion on ten cases of his own, so that his arguments will bear the weight of a greater experience than can be claimed by any English operator. Not forgetful of the fact that it is mainly to the British surgeon, who has ust successfully undertaken this operation under desperate circumstances, that surgery is indebted for the development of that department of the operative art which has made extirpation of the uterus possible, we must consider, with the attention it deserves, the personal record of Dr. Olshausen's experience. The chief dangers which beset the patient after operation are sickness, hæmorrhage, [illegible], and serious damage to the ureters and other organs, through laceration or unintentional incision in ligatures. The hope must not yet be entertained that a complete success will ever be [illegible]. Even if the innumerable proposals for improving the operation by detail are of

much importance. Rydygier and Billroth advocate the isolation, by careful search and dissection, of the uterine artery. Bardenheuer recommends separate transfixion of the lower segment of the broad ligament, and lays great stress upon the maintenance of warmth by artificial means, as well as on drainage of the abdominal cavity. Breisky is in favour of a preliminary separation of the vaginal wall from the uterus. Olshausen warns surgeons against attaching too great importance to Bardenheuer's successful results after drainage, and believes the practice to be prejudicial in ovariotomy, removal of pedunculated fibroids, and supravaginal amputation of the uterus; for, in such operations, it is more important to remove all sources of infection at once from the peritoneum, than to take steps for the complete escape of all subsequent secretions. He admits that conditions, with regard to drainage, are somewhat different in total extirpation of the uterus, where the vagina must, of necessity, be laid open. The results of operating through abdominal incision are not brilliant. Up to the end of 1880, 94 cases are recorded, with but 24 recoveries. Out of Olshausen's 10 cases, 4 were performed in this manner, only the first recovering; and, in this case, malignant disease recurred in five months, and death followed sixteen months later. The remaining 3 died of shock. Forty-one cases of total extirpation of the uterus from the vagina are recorded, 29 recovered, including 3 where the operation was not performed for cancer. Olshausen's 6 cases all recovered; they have already been described elsewhere. Referring to matters of detail, he recommends complete disinfection of the vagina by plugs of wool dipped in a five per cent. solution of carbolic acid, and a preliminary scooping away of soft fœtid material from the seat of disease. After cutting the vaginal wall, so as to leave a wide margin to the new growth, the divided vessels must be carefully secured, and the bladder must be separated from the uterus, from below upwards, with two fingers forced between those organs; after thus separating the uterus, it is advisable to plug its cavity. The broad ligament should be secured by passing round its base a thin soft-iron wire, introduced through the cannula of a strongly curved trocar; then a silk-ligature is passed through the ligament laterally, external to the wire. Much judgment is required in deciding how far the ligament must be cut away on the distal side of the ligatures; if the stump slough, it matters little, provided that every care be taken to keep the vagina clean after operation; indeed, sloughing is rather advantageous if a trace of new growth be left behind. Olshausen leaves Douglas's pouch open, after freely washing it out with a two per cent. solution of carbolic acid. The sutures are removed about the seventh day; drainage need not be continued longer than eight days. It is, he repeats, in just such an operation as this that drainage is actually efficient, since, in these cases, blood and secretions come into contact with but a limited and accessible part of the peritoneal cavity; and it must be maintained as effectually as possible during the last few days before it is dispensed with, since, when the opened surfaces of peritoneum are about to close, that is just the time when the peritoneal cavity must be left free from fluids that may cause infection.

Professor Olshausen considers that the operation is only justifiable in cases of malignant growths, particularly when accompanied by prolapsus uteri. The main question before deciding on an operation is, how far the disease has progressed; enlarged glands, evidences of parametritis, and great impairment of the mobility of the uterus, manifestly counterindicate its removal. In short, the opinions of so experienced an authority as Professor Olshausen, with regard to a new operation of so great severity, may be summed up in this manner. Should the operation be undertaken, then the surgeon must act, as Lucan said that Julius Cæsar was wont to act, on the principle that nothing is done while anything remains to be done. Experience can alone teach the numberless matters of detail which must be attended to in individual cases. Still, in many instances, it is far safer, both as regards the life of the patient and the credit of the operation, to modify the principle, and to consider that nothing should be done if there be the least likelihood that anything cannot be done.

THE PHYSICIAN'S APPLICATION OF CEREBRAL LOCALISATIONS.

We last week referred to some of the more striking results which have rapidly followed the researches of Fritsch, Hitzig, and Ferrier, and the line of application of the last research of Gerald Yeo, in connection with the cerebral discoveries of Ferrier, and their utilisation for surgical cures of cerebral injuries and disease by aid of the antiseptic methods of Lister and his followers. In this connection, it will be interesting to add a summary note of some of the highly important additions to medical knowledge and to precision in the diagnosis and treatment of brain-disease by Dr. Charcot. The eminent physician of the Salpêtrière and eloquent professor of pathology in the Faculty of Paris, Dr. Charcot, received lately the Montyon Prize of the Academy of Medicine of Paris for the advancement of medical science and practice, on account of the value of his studies and lectures on "localisations in the diseases of the brain and spinal cord". In speaking on this subject at the Academy, Professor Vulpian, the Dean of the Faculty of Medicine, pointed out how largely the medical knowledge of the diseases of the brain and spinal cord has been able to draw from the facts discovered by experimentation, and how much may yet be expected from the certain solution of yet doubtful problems as to which certain data are required.

To M. Charcot is incontestably due no small part of the honour of this fresh progress in cerebral pathology. He had already brought into prominence a fact, previously pointed out by Ludwig Türck, that unilateral lesions affecting the posterior region of the portion of the peduncular radiating fibres, known as the internal capsule, caused more or less complete paralysis of sensibility in the various parts of the opposite side of the body. M. Charcot submitted several facts of this nature to a very searching analysis, and was thus able to trace out a complete history of one-sided loss of sensation, which shows itself under these conditions; it is his teaching which has endowed clinical medicine with this new element of diagnosis. Shortly after the first publications on the effects of excitations or experimental lesions of the grey matter of the brain, M. Charcot directed his attention to the pathology of that cortex. Up to that time, it was generally believed that morbid lesions limited to the superficial grey matter of the brain had but a very slight effect on motility, or even that they had no direct constant effect on the movement of the various parts of the body. M. Charcot soon perceived that, even if there be any foundation for this opinion with reference to a large part of the extent of the superficial grey matter of the brain, it is inaccurate when it concerns lesions affecting the regions which, in the human subject, correspond to those which Fritsch and Hitzig, and Professor Ferrier, have observed to be in the monkey endowed with excito-motricity. These lesions, in man, which he was led by Ferrier's researches to study in the relation of the given symptoms to their cerebral topography, constantly induce more or less diffused paralysis in the opposite side of the body; according to the situation occupied by them, there is either complete one-sided paralysis, or paralysis limited to one part of the body, to a limb, to the face, or to the tongue, etc. In the same way, irritative lesions of these same regions may give rise to convulsions of various forms, frequently epileptiform, which sometimes contort the whole of the opposite side of the body, and sometimes show themselves in an isolated manner in the arm, the face, etc., also on the opposite side.

Dr. Hughlings Jackson had already published some interesting indications, before Ferrier gave his to the world, on the relations which may exist between certain forms of epileptiform convulsions and the lesions of determinate regions of the grey substance of the brain; but they had not attained the degree of precision and certainty which are displayed in the whole series of M. Charcot's studies, based upon the application of these topographical and physiological data to clinical symptoms and pathological conditions. The medical researches carried on by Professor Charcot have induced a considerable scientific movement in France and abroad, and have been extensively confirmed in all parti-

culars. It is not medicine alone that has profited by the important facts of which we owe the knowledge to M. Charcot; surgery has found in them valuable data for the diagnosis of the situation of certain traumatic lesions of the cranium and brain. Physiology itself, which had served as guide to the clinical investigations, has likewise reciprocally profited by these researches. The observations of Ludwig Türck and of M. Charcot have made known the path taken by the cerebral peduncles in the white substance of the brain; the sensitive fibres which place the centres of perception in relation with the cut surface of the skin, and with the various parts endowed with sensibility. On the other hand, M. Charcot's researches have indicated that the grey substance of the human brain presents, in the ascending frontal and ascending parietal convolutions of both sides, regions which may be compared, in reference to the effects of exciting them or of their lesions, to those corresponding with them in the vicinity of the fissure of Rolando in the monkey, or on the sigmoid convolutions of the dog and cat. Finally, if these researches have not furnished irrefutable arguments to the doctrine of functional cerebral organisation, they have at least shown that in man, as in the mammalia, the nerve-fibres, whose function it is to transmit to the various parts of the body voluntary motor impulses, start from certain determinate points of the grey matter of the brain. A destructive lesion of one of these points should, therefore, by producing a solution of continuity of the fibres which emanate from it, destroy the motility of those parts of the body to which they transmit, by more or less direct ways, the orders of the will. It is also easy thus to understand how an irritative lesion of this same point brings on a condition of convulsion in the corresponding parts of the body. The functional part played by the fibres in question is even more important in man than in animals; for, in man, lesions of certain departments of the grey cerebral substance result, not in a more or less marked paresis—as occurs, for instance, in the dog—but a true paralysis of a very complete character, and very analogous with those which are usually induced by changes in the motor peduncular layers. The work of Hughlings Jackson and of Charcot—leaders of the school of nerve-pathology in their respective countries—has been in strict correlation and interdependence with the work of Fritsch, Hitzig, and Ferrier. They have been with the first to appreciate critically, and to apply at the bedside, the physiological teachings of the laboratory. Among surgeons, Lucas-Championnière in France and Macewen in Glasgow have been equally prompt and successful.

DR. E. H. FITZ HENRY has passed the examination of Officier de Santé for the Maritime Alps, and has commenced practice in Mentone.

Twenty thousand dollars, and promises of large additional sums, have been received by the Garfield Memorial Hospital Committee.

DR. CARPENTER'S Free Physiological Lectures to Teachers are for the future to be given at Cowper Street Middle Class School, City Road.

AT the last meeting of the Statistical Society, the Society's Howard Medal of 1881 was presented to Dr. Frederick Pollard of Liverpool (by proxy, he being unable to attend personally) for his essay on "Jail Fever".

AT the Lancaster Town Council this week, a communication was read from Mr. James Williamson, of Ryelands, Lancashire, handing over a public park for the use of the town. Including a maintenance fund of £10,000, the total cost of the park will be £23,230, the whole of which is defrayed by Mr. Williamson.

A GROCER named Proctor, carrying on business in Winstanley Road, Battersea, has been summoned for selling, to the prejudice of the inspector, adulterated butter and coffee. The clerk of the Board handed in the certificates of the analyst, showing that the sample of coffee contained ninety parts of chicory, and that the other sample was not butter at all. The defendant was fined 5s. with 12s. 6d. costs in each case.

AT a Convocation of the University of Oxford holden on November 22nd, Samuel D. Darbishire, M.A., M.B., of Balliol College, was elected one of the coroners for the University, in the room of the late Mr. F. Symonds. Dr. Darbishire is one of the Physicians to the Radcliffe Infirmary, and has recently been elected a member of the Oxford Town Council.

A FATAL quarrel has occurred between two of the inmates of the Cambridge County Lunatic Asylum. A young man named Warwick, and an elderly individual named Taylor, it appears had a dispute, when the latter dealt his opponent a blow in the face. This so enraged the latter, that he struck Taylor violently with his fist on the head, killing him on the spot.

THE Rev. Mr. H. Dodwell, who is incarcerated in the Broadmoor Lunatic Asylum, for shooting at the Master of the Rolls, has made an application to the Court of Queen's Bench, through Lord Chief Justice Coleridge, the President of the Court, for a writ of *habeas corpus ad subjiciendum*, such writ to be directed to the Right Hon. Sir Wm. Harcourt, and Dr. William Orange, Superintendent of Broadmoor Lunatic Asylum.

THE Registrar-General's returns show the annual rate of mortality last week in 20 large English towns to have averaged 22.4 per 1,000. In London 2,738 births, and 1,636 deaths were registered, and the annual death-rate, which had steadily increased the six preceding weeks from 16.6 to 22.4 per 1,000, was last week 22.3. The deaths included 27 from small-pox, 41 from measles, 49 from scarlet fever, 23 from diphtheria, 43 from whooping cough, 3 from typhus fever, 35 from enteric fever, and 13 from diarrhœa.

WE are informed that the Marquis of Lorne, Governor-General of Canada, and Her Royal Highness the Princess Louise, the Marchioness of Lorne, have signified their intention of being present at the ceremonial opening of the exhibition and competitive testing of grates and other apparatus for the prevention of the production of smoke, and smokeless fuel at South Kensington on November 30th, at 3 o'clock P.M. The heads of the learned societies, many of the foreign ministers, and persons eminent in science and art will be present on this occasion. A private view will follow the ceremony. Cards may be obtained on application to Mr. W. R. E. Coles, Honorary Secretary of the Smoke Abatement Exhibition, South Kensington.

WE call the attention of our members to the fact that, at the next meeting of the East London and South Essex District of the Metropolitan Counties Branch, on Thursday, December 15th, at 8.30 P.M., at the new Town Hall, Hackney, Mr. Timothy Holmes will open a discussion on the Metropolitan Provident Dispensary System. This is a question on which considerable and growing interest is felt not only in the medical profession, but among the public generally, who look to medical men for information, suggestions, and criticism on the subject of the uses and abuses of provident dispensaries. All members of the Metropolitan Counties Branch are entitled to attend the meeting; and any gentleman interested in the question will be gladly introduced by Mr. Frederick Wallace, the Honorary Secretary of the District Branch, as a visitor for the evening.

WE are glad to find that many of our members are procuring publication in local papers of Professor Humphry's excellent address on vivisection, in moving the resolution in favour of it which was unanimously passed at the last general meeting of the British Medical Association. This course is calculated to place the facts before the public mind, which has hitherto been greatly influenced by the gross and active misrepresentations of persons associated with the Anti-Vivisection Society—many of them well-intentioned, no doubt, but still, for the most part, either scientifically ignorant, fanatically prejudiced, or crotchety beyond conviction. It is well that the truth and sense of this matter should be calmly placed before the general reader in the reasonable and thoughtful words of the accomplished Professor of Anatomy in the Uni-

versity of Cambridge; and we commend this example to all our readers. Medical men, naturally being well known as authorities on this subject in their neighbourhood, and having opportunities of personally explaining the subject to the editors of local papers, will do well to place this document in their hands, with suitable explanations, and to request its publication in such papers.

[illegible] AND THE LONDON HOSPITAL.

THE Board of the London Hospital have dismissed Dr. E. B. Aveling from the post of lecturer on comparative anatomy at the medical school of the hospital. Dr. Aveling made a statement of the progress the class had made during his conduct of it, concluding with the assertion that the real reason for his dismissal was his avowal of certain religious and political views of an unpopular nature.

[illegible] AGAINST HOSPITAL AUTHORITIES.

THE newspapers are once more occupied this week with articles having the unsatisfactory heading: "Charge against hospital authorities". These things always appear in epidemic outbreaks, the occurrence of one such charge having always a good deal to do with the making of similar charges by other persons; too much importance need not therefore be attached to the fact that a considerable crop of complaints against hospital management has recently and rapidly sprung up. On the other hand, hospital authorities will be very unwise if they continue to acquiesce in a state of things which is productive of so much mischief, and which is indicative of palpable defects in hospital management. The medical officers of a hospital must consider themselves especially interested in bringing this state of things to an end, for it undoubtedly reflects on the general medical conduct of the hospital, and shows that the arrangements for the reception and treatment of the patients in the out-patient department are not what they ought to be. This, however, is not a new view to medical officers of hospitals; it arises from various causes, to all of which we have many times referred, and for which it is not difficult to indicate the remedies. The first defect is overcrowding of the casualty department and the out-patient department. This has a doubly bad result. In the first place, really serious and deserving cases do not receive the attention which they require; they are treated hurriedly, and on a system which necessarily comes to be more or less one of hurried routine; and in the next place, undeserving objects get as much attention, and are treated at as great a length of time, as those which have a better claim on the charity of the public; and this want of discrimination is demoralising, as well as wasteful of the resources of the hospital. Another immediate result is, that the work, being excessive in amount and, however large, trivial in character, is left in the hands of senior students, who have not the experience, and cannot be expected to exercise the serious judgment, necessary from time to time in deciding whether the "casualty" should be treated as an out-patient or taken to the wards. It is not a less serious difficulty that, in many hospitals, the house-surgeon or dresser of the week has no resident superior to whom he could refer any cases of doubt or of serious character. We hold it to be an essential requirement of good hospital management, that the house-surgeons and house-physicians should be subject to the responsible direction, and able to refer to the more matured judgment, of a senior resident medical officer experienced in the treatment of hospital cases, and in the principles and details of the medical administration of hospitals. It is an absurdity, that young men of twenty-two, just emerged from the period of pupil-age, unlearned in administration, not yet sobered by the serious responsibilities of life, should be put in sole charge of large "casualty" departments, and should be left to treat, during the greater part of the day, all chance comers and all acute and urgent cases. To expect them to decide when they should do their work, how quickly they should attend to it, what should be done with doubtful cases, which cases should be admitted and which sent away, is to expect a wisdom and an experience such as can rarely be found at such an age. It is high time that the frequently recurring public scandals arising out of this neglect on the part of the hospital authorities should come to an end; and that the means should be furnished of giving a much better answer to the charges so frequently brought against the hospital authorities before coroners, than any which it is at present possible to give.

THE CHARGE AGAINST ST. BARTHOLOMEW'S HOSPITAL.

THE particular charge against St. Bartholomew's Hospital to which we refer above, and which was further detailed in Thursday's papers, is still undergoing investigation, and is not yet completed. Enough is, however, apparent to show that the patient in this case received early attention, not only from the house-physician, but from one of the physicians of the hospital; and, in any case, it is plain that there can be no charge, against the hospital, of want of attention.

THE GARFIELD HOSPITAL.

IN furtherance of the project to erect and maintain a national hospital in memory of President James A. Garfield, the executive committee having the matter in charge have issued an appeal to all pastors of churches to aid in the good work. According to the *New York Medical Record*, the institution is to be established in the district of Columbia, and is to be known as the Garfield Memorial Hospital. "It will be", says the appeal of the Executive Committee, "a provision for the relief of human suffering, from the cup of which he drank the bitterest dregs; and, in the breadth of its human charity, it will fitly typify the noble nature and exalted aims of the hero and martyr. The hospital is designed to be as wide in its scope of beneficence as was the kindly heart of the dead President in its outstretch of human sympathies. It will be open to those needing its aid and ministrations without regard to class, caste, creed, or colour. To be a sufferer in need of help wil be the only passport required to enter its doors and secure its aid. Such an institution, founded in the cause of charity, and bearing the name of 'Garfield', appeals to the generosity of every one, and to every one the appeal is made." At the suggestion of the Committee, indorsed by a representative pastor of each religious denomination in Washington, a request was issued to all pastors to set apart Saturday and Sunday, November 5th and 6th, or the nearest available days, for discourses and collections in all places of worship throughout the land in aid of the hospital fund. The Washington clergy, Protestant, Catholic, and Hebrew, joined with the Committee in this appeal. Gen. W. T. Sherman is Chairman of the Committee; and among the members are Secretary of State Blaine, ex-Secretary of the Treasury Windom, Gen. G. D. Swaim, A. S. Solomons, the Hon. Josiah Dent, Justice Arthur MacArthur, James Gilfillan, Treasurer of the United States, Dr. J. M. Toner, Dr. E. Smith Townsend, Dr. F. A. Ashford, Dr. S. C. Busey, Dr. J. Ford Thompson, Dr. W. G. Palmer, Henry A. Willard, John W. Thompson. James H. Saville, Lewis J. Davis, Reginald Fendall, E. Frank Riggs, W. G. Metzerot, and H. M. Hutchinson. Treasurer Gilfillan has consented to act as treasurer of the fund, and all contributions should be sent to him. Small gifts will be acceptable as well as large ones.

ANTIVIVISECTIONISTS AT HOME.

THE meeting of the Society for the Abolition of Vivisection, at Willis's Rooms, on the 21st instant, might have been a meeting for the Abolition of Vivacity, so utterly dull and lifeless was it. Its promoters must have incurred considerable expense in sending special invitations to men eminent in science, and to the medical profession in the metropolis, requesting them to attend the meeting, and discuss with them the moral and philosophical questions involved in the practice of submitting animals to painful experiments for scientific purposes. These invitations were, of course, regarded in much the same light that invitations from the inmates of Earlswood, to members of the University of Cambridge, to meet and discuss with them the religious aspects of the differential calculus, would have been by their recipients; and so only about sixty gentlemen and a few ladies assembled at Willis's Rooms on the momentous occasion. The chair was taken by the Rev. C. W. Grove, President of the Society for the Abolition of Vivisection; and medical science was represented by Dr. Nichols and Dr. Walker, who unhappily differ from Virchow and Pasteur, Jenner, Paget, Lister,

and John Simon; and declare painful experiments on animals to be unnecessary and unlawful. Their judgment would necessarily send a thrill of consternation—a sudden conviction of sin, as the first step towards repentance and conversion—throughout the medical profession, were it not that Dr. Walker ably played the part of that prophet whose memory is inseparably connected with a humble animal which he bestrode, and who effectually blessed those he had been sent for to curse. With great clearness and appropriateness (considering the recent proceedings at Bow Street), he showed the dangers and difficulties of trepanning in former times; and proved to demonstration the necessity of a series of experiments on living animals, such as those which Dr. Gerald Yeo has undertaken with the co-operation of Dr. Ferrier. So great, he said, were the dangers of surgical interference with the skull in former times, that Professor De Morgan had held that the operation of trepanning must be abandoned. What more convincing proof, then, could be adduced of the value of experiments on living animals than the fact that, by the sacrifice of a few monkeys, the diagnosis of suitable cases has been made more accurate, and these dangers had been dissipated; so that the operation of trepanning, or its equivalent trephining, will now be performed in numerous cases in which it could not previously have been attempted, with the certain result of saving many lives, and sparing much suffering. It might be shrewdly suspected that Dr. Walker is a vivisectionist in disguise; and we feel sure that the medical profession will forgive any little dissimulation in which he may have indulged on that score, in view of the signal service which he has rendered to scientific truth. To start forth as the champion of antivisection, and, in a few well chosen words, to vindicate for ever the justice and necessity of painful experiments on living animals, carrying an adverse meeting along with him, as he did, was a feat of strategy and of forensic skill of which Dr. Walker may well feel proud.

A VOLUNTEER HOSPITAL CORPS.

For some time, the idea of the formation of a volunteer hospital corps has been mooted among the students of the University of Durham College of Medicine; and, in furtherance of the project, a meeting was held on October 28th, Dr. Mears presiding. A large number of the students attended, and resolutions were passed appointing a Committee —consisting of Dr. Mears, and Messrs. C. H. C. Milburn, F. W. Gibbon, and D. J. P. McNab — to carry the project into effect, and engaging the students to support the movement. As the Committee were at first unable to see in what way the full strength of a bearer-company, on the model of the Army Hospital Corps, might be made up, although nearly sixty students had given in their names, they waited on Lieut.-Colonel Potter, C.B., of the First Northumberland Artillery, who evinced great interest in the matter. He pointed out that there were two plans open, viz., for the corps to be attached to a regiment, such as his own, detachments being lent to other regiments; or for the corps to be independent, having for its *cadre* the students of the College, the strength being made up by drafts from the regiments in the district. The former plan, at the time, appeared the more feasible, as Colonel Potter kindly undertook all negotiations with the War Office; and, at the same time, offered the use of the drill-hall and other advantages to the corps. No reply has as yet been received from the War Office; but, whatever it may be, there can be little doubt, from the interest taken in the matter in the district, that the movement will be ultimately successful.

UNEQUAL JUSTICE.

The action of the inhabitants of Fulham, in procuring from the courts an interlocutory order of injunction to shut up the Small-pox Hospital, has not only been altogether without injury to their own immediate interests, but has involved their inflicting their small-pox patients on other parishes. "Since the injunction was granted," says the medical officer in his report, "your board has had to remove to the Metropolitan Hospital at Stockwell cases of small-pox that have occurred in this district outside a mile radius of the Fulham Hospital."

THE ROYAL SOCIETY.

The Royal Society medals for the present year have been awarded by the Council as follow:—The Copley medal to Professor Karl Adolph Wurtz, of Paris, For. Mem. R.S., for his discovery of the organic ammonias, the glycols, and numerous other investigations which have exercised considerable influence on the progress of chemistry: the Davy Medal to Professor Adolf Baeyer, of Munich, for his synthesis of indigo; a Royal medal to Mr. Francis Maitland Balfour, F.R.S., of Cambridge, for his numerous and important contributions to animal morphology, and more especially for his investigations respecting the origin of the urogenital organs and the cerebro-spinal nerves of the vertebrata, and for his work on the development of the elasmobranch fishes; a Royal medal to the Rev. John Hewitt Jellett, of Dublin, for his various mathematical and physical papers, more especially for his researches in chemical optics and his invention of the new and delicate analyser by which they were carried out.

TYPHUS IN MARYLEBONE.

The medical officer of health for Marylebone referring in his monthly report to the recent outbreak of typhus fever in Charles Street, Lisson Grove, thinks it will be a great mistake to suppose that the demolition of the houses will have an appreciable effect in staying future epidemics. The only way the outbreak, he believes, would have been successfully grappled with at the outset was by conveying the inhabitants of the affected houses to a bathing and disinfecting establishment, and cleansing themselves as well as their clothes, while applying a similar process to their rooms. But this, he thinks, cannot be done under the law as it stands.

A LUNATIC ASYLUM SCANDAL.

The inquiry into the death of David Pulham, an inmate of the Borough Lunatic Asylum, which has lasted for four days, is now terminated. It was sworn that death was caused by rupture of the bladder, and the *post mortem* examination revealed the evidence of a violent kick in the back, from which it was alleged the rupture ensued. Several witnesses testified to the deceased being brutally treated by Hughes, against whom the jury returned a verdict of manslaughter, and added a rider declaring that the two doctors of the asylum were guilty of negligence in the early part of the case, but not sufficiently to accelerate in any way the cause of death. The jury, however, considered them to some extent excusable on account of the inadequacy of the medical staff to meet the requirements of an institution having nearly seven hundred inmates. They further declared that the rules of the asylum, which allowed warm clothing to be taken from the suffering patients and thinner clothing substituted, required immediate revision. Comment was also made upon the fact that the night attendants each had two hundred and sixty patients under their charge, and were on duty from eight at night till six next morning, and that the day attendants were on duty fourteen hours a day. The jury felt that more attendants should be immediately engaged to lessen the present overworked hours, and in conclusion they recommended that the details of this case, together with the whole management of the institution should be made the subject of further inquiry by the Lunacy Commissioners. Further inquests in connection with the asylum are announced.

CERTIFICATION OF CAUSES OF DEATH.

The causes of 60,784, or 96.7 per cent., of the 62,859 deaths registered last quarter in England and Wales were certified by registered medical practitioners, and 6142, or 5.6 per cent., by coroners in inquest cases. The causes of the remaining 4030, or 3.7 per cent., of the deaths were uncertified. The proportion of uncertified deaths showed a further decline from that which prevailed in the three preceding quarters; in the Metropolis it did not exceed 1.0 per cent., whereas it averaged 4.2 per cent. in the rest of England and Wales. The percentage of uncertified [illegible] was last [illegible] and 1.1 in Wiltshire and Hampshire; whereas the [illegible] ranged [illegible] in the other [illegible]

ties to 6.0 in Dorsetshire and Westmorland, 6.8 in Durham, and 7.7 in Cornwall. It is noteworthy that the proportion of uncertified deaths in Dorsetshire was nearly six times as large as that in the adjoining county of Wilts. In Wales 10.1 per cent. of the deaths were uncertified; the proportion being 10.3 in North Wales and 10.0 in South Wales. In the twenty English towns the proportion of uncertified deaths averaged 2.1 per cent.; while it did not exceed 1.0 in London, it averaged 3.1 in the nineteen provincial towns. The percentages of uncertified deaths in the nineteen towns ranged from 0.5 and 0.6 in Portsmouth and Nottingham, to 4.6 in Sunderland, 5.1 in Sheffield, and 5.5 in Wolverhampton. These proportions showed a further general decline from those prevailing in recent months; they, however, were somewhat higher in Bristol, Wolverhampton, and Newcastle-upon-Tyne.

ARTISANS' DWELLINGS ACT.

On the subject of the Artisans' Dwellings Act, the *Daily News* records a striking proof of the difficulty there is in getting rid of unwholesome dwellings, as given at the Clerkenwell Police Court. By a strange irony of fate, Lord Derby, Sir Stafford Northcote, and two other gentlemen, in their capacity as trustees of the Peabody Fund, were summoned "for allowing certain premises owned by them to be a nuisance, and unfit for human habitation." They were of course represented by their solicitors, and the plea urged was a curious proof of the cumbrous working of the Artisans' Dwellings Act. The condemned houses are three in number, and are situated in Chapel Place and Marchmont Place, near Brunswick Square. Dr. Lovell, medical officer of health, said he had reported the unhealthy condition of these houses to the Metroplitan Board of Works in 1876—five years ago. An inquiry was then held, and the houses were pronounced unfit for habitation. All the world would expect that, when they had been thus officially and authoritatively condemned, the proprietor would be ordered to rebuild them. But that is not how things are done in London. That would be confiscation, interference with proprietary rights, and all that sort of thing. So the houses are still let, and there have been twenty cases of typhus and typhoid in them, with four deaths, within the last few months. The proprietor was probably bought out at the public expense, and in some way, not stated yesterday, the houses came into the hands of the Peabody Trustees. They wished to pull them down; but under the Artisans' Dwellings Act they must have the permission for their removal of the Home Office. Now the Home Office will only give this permission for fifteen houses at a time; and not then, as we understand, till it is shown that all the denizens have found new homes. So these houses, condemned in 1876, are still standing and still inhabited at the end of 1881, and cannot even yet be pulled down. It requires a magistrate's order even to shut them up.

VIOLENT DEATHS.

The deaths in England and Wales referred to different forms of violence were 4212 last quarter, and were equal to an annual rate of 0.64 per 1000 of the estimated population, and to 3.8 per cent., of the total deaths. In the twenty large towns the deaths from violence were equal to an average annual rate of 0.77 per 1000, the rates in the several towns ranging from 0.37 and 0.41 in Sheffield and Portsmouth, to 0.94 and 1.20 in Manchester and Liverpool.

ZYMOTIC DISEASES IN LONDON.

The fatal cases of small-pox in London last week were 7 below the average. The number of small-pox patients in the Metropolitan Asylum Hospitals were 452 at the end of the week, including 78 in the Convalescent Hospital at Darenth. The new cases of small-pox admitted to these hospitals during last week were 77. The fatal cases of scarlet fever, which had been 95 and 49 in the two preceding weeks, further declined to 40 last week, and were 33 below the average; 15 were recorded in the South and 10 in the North groups of registration districts. The 43 deaths from whooping-cough exceeded the average by 4; they included 10 in the East and 11 in the South groups of districts. The 35 deaths from measles were 13 below the average; 10 occurred in Greenwich. The 15 deaths referred to diphtheria showed a decline of 8 from the number in the previous week, although they exceeded the average by 4. The 9 fatal cases of typhus showed an increase upon recent weekly numbers, and were more than double the corrected average; 3 of these deceased typhus patients had resided in Marylebone, 2 in Whitechapel, 2 in St. George-in-the-East, one in Paddington, and one in Bermondsey. The deaths referred to enteric fever, which had been 53 and 35 in the two previous weeks, further declined to 33 last week, but exceeded the average by 7; 3 were of residents of Islington and 3 of Hackney. The Metropolitan Asylum Fever Hospitals contained 62 typhus and 136 enteric fever patients on Saturday last, both numbers showing an increase upon those in the previous week.

METROPOLITAN WATER-SUPPLY.

From Dr. Frankland's report upon the quality of the waters supplied to the metropolis by the various water companies, during October, we learn that the quality of the Thames water supplied by the five companies drawing their supply from that source maintained the improvement that has prevailed since March last. The water sent out by the West Middlesex, Grand Junction, and Lambeth Companies bore evidence, however, of inefficient filtration. The improvement in the quality of the Lea water delivered by the New River and East London Companies was also maintained, and the samples had been efficiently filtered.

CORONERS' INQUESTS.

At a time when medical men are, very properly, insisting upon the necessity of a *post mortem* examination being made, and an inquest held, on the body of every person dying suddenly without medical advice having been sought before death, attention may be drawn to a case reported in the *Lincoln Gazette* of November 12th, where a medical man, having acted in opposition to the almost universal opinion of the profession, drew upon himself perhaps unlooked for, and certainly disagreeable, consequences. From the published report of the case, it appears that, on the 4th instant, the groom of a medical man in Lincoln was suddenly seized with hæmoptysis during the absence of his master, and died in a few minutes at midday, in the presence of a female servant, and an Edinburgh undergraduate on a visit at the house. The man was sixty-four years of age, and had been under treatment for a bronchial affection, though not off work. His master, acting with uncommendable haste, took steps for the immediate burial of his servant, having certified as the cause of death hæmoptysis, following bronchitis; whilst, in a subsequent letter to the coroner, when an inquest had been ordered, he attributed the death to the rupture of a large blood-vessel (probably aneurysm). The body was accordingly buried as that of a pauper on the following day. Subsequently, the guardians reported the facts to the coroner, Mr. Lowe, who ordered the body to be exhumed, and a *post mortem* examination made. The surgeon, in excuse for the extraordinary haste displayed as to burial, stated that he had nowhere to put the body except his surgery, that the corpse began to decompose rapidly, and that the man had no friends that would have him, so far as he knew. He also appealed to what appears to be a bad practice—viz., that usually, when he was able to certify in cases of sudden death, the coroner did not consider an inquest needful. The exhumation and *post mortem* examination took place six days after death, and five days after burial. The body even then exhibited externally only "the usual signs of approaching decomposition"; so that, on this score, the great haste displayed in securing burial appeared to have been uncalled for. Death was found to have resulted from old tubercular disease of the right lung, ulcerating perforation of the bronchial tube, and consequent rapid and copious hæmorrhage. There was no aneurysm. Of course, no medical treatment could have availed to avert death; and there were no suspicious circumstances beyond the extraordinary haste displayed in disposing of the corpse. The jury at once returned the only verdict possible under the circumstances, "Death from natural causes"; but they and the coroner

informed the master of the deceased of their regret that he did not communicate with the authorities; and, whilst making every allowance for him under the circumstances (the illness of his wife), and exonerating him from blame in other respects, they regretted his inadvertency in not communicating with the coroner or the friends of the deceased. The gentleman to whom this severe rebuke was administered frankly admitted his error, and expressed his regret for it. There is no reason to think he acted with any intentional inhumanity; and we trust that his frank acknowledgment of his error will secure him from in any way suffering further from his inadvertency. The lesson to be drawn from this case will not, we trust, be lost on the medical profession. This case may serve to disabuse what appears to be a popular misconception—that, for the exhumation of a body, the order of a Secretary of State is necessary. No such order appears to have been obtained in the Lincoln case; and hence it may, perhaps, be assumed that the coroner's order is sufficient to secure exhumation.

THE MYSTERIOUS DEATH OF A GOVERNESS.

SOME doubt has been thrown upon the accuracy of the verdict of the jury in the case of the young woman Perry, who was supposed to have committed suicide by taking strychnia contained in a bottle of rat-poison. It has been ascertained that no rat-poison containing strychnia is sold in bottles at any of the oil-shops in Seymour Place, the street in which the servant-girl Loder stated that deceased bought the bottle of rat-poison. The only rat-poison there sold in bottles is that known as phosphorus paste. At the chemist's, threepenny packets of vermin powder containing strychnia are kept, but the rules are so stringent that these packets are only sold to a person with a witness, and the name of the purchaser is taken. No trace can be found of a young lady having purchased such a poisonous compound in the neighbourhood, and it is believed that it would be most difficult, if not impossible, for a young person like the deceased to procure strychnia.

THE EXETER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.

A CASE was recently tried at the Exeter County Court, which is of some interest to medical men who hold club appointments. Mr. Cheese is medical officer to the Exeter Friendly Societies' Medical Association. One of the rules of the Association is that "patients, if unable to attend the dispensary, must give notice, if possible, to the medical officer before ten o'clock, so that they may be visited at their own homes"; and other rules provide for the settlement of any disputes that may arise. On July 15th, Mr. Cheese received a message at one o'clock in the afternoon, asking him to attend a Mrs. Hussey, a member of the Association. He inquired whether the case was urgent, said he had already been in that part of the city where Mrs. Hussey lived, and offered to send medicine when he heard the nature of the case. This message Mrs. Hussey considered "impertinent"; and a second message was sent to Mr. Cheese, stating that, if he did not come at once, another medical man would be called in. Upon this, Mr. Cheese visited the patient; but, unfortunately, he made no inquiry into her symptoms, told her that there was not much the matter, and that there was no reason why she should have required a special visit. Mrs. Hussey was highly offended, and sent for another medical man—Mr. Brash. This gentleman found her weak and feverish; and, to make a long story short, she was confined to her bed for two months by an attack of typhoid fever. Mr. Hussey did not take the regular means appointed by the rules for bringing his grievance before the Committee of the Association, but made a claim for £5 7s. 6d.—the amount paid to Mr. Brash for his attendance on his wife. This claim was disallowed, and hence the case came before the county court. His Honour considered that Mrs. Hussey was seriously ill; and that, in such a case, the rules of the Association were technicalities which must be set aside; and the jury found for the plaintiff, with costs. We can hardly agree with His Honour in thinking that the rules of a medical association are mere technicalities. They are intended to provide for serious cases, as well as for slight cases; and they would have been sufficient to regulate the attendance in Mrs. Hussey's case; but, unfortunately, Mr. Cheese created an unfavourable impression upon the minds of the jury by not inquiring more closely into her symptoms. The counsel for the defence, thinking that the rules had been set aside rather lightly, desired to appeal; but His Honour refused the request.

YELLOW FEVER.

AT British Guiana, several deaths of Europeans from yellow fever are reported to have occurred during the past fortnight, and no news received of any lull in the epidemic, or signs of its permanent abatement. At Jamaica, in consequence, it is said, of disorganisation and mutiny among the European troops in that island, arising from the yellow fever, two hundred men and seven officers of the 2nd West India Regiment, had been suddenly ordered to Barbadoes. At Barbadoes, there has been a succession of heavy rains, especially in the country districts, and the weather in consequence cooler; and it was hoped this would have a beneficial effect on the health of the colony. There is reported to be a manifest abatement of the yellow fever, there being no authenticated case within the capital for two weeks. The European troops continued to suffer heavily, and deaths were daily reported from the several detached camps until the day before the mail departed, when the *Orontes* called and removed them from the island. At Trinidad, no fresh case of yellow fever seems to have occurred among the European residents, though there are reported to have been numerous cases among the coolie labourers on some of the estates along the East Road, there being twenty-five down with it in the hospital at "Aranguery" estate. The sickness is mostly on low-lying plantations. The temperature has become cooler, and hopes are felt that the epidemic will soon die out.

RESIGNATION OF M. VULPIAN.

THE accession of the French *savant* M. Paul Bert to the office of Minister of Public Instruction in the French Cabinet has been commemorated in the medical world by the resignation of M. Vulpian as Dean of the Paris Faculty of Medicine. M. Vulpian, feeling that he and M. Bert would be at variance concerning the organisation and administration of affairs in the Faculty, anticipated events by tendering his resignation when the nomination of M. Bert to the Ministry was ratified. His resignation has been accepted. M. Béclard, Professor of Physiology at the Paris Faculty of Medicine, has solved the difficulty of finding a successor by accepting, to the unanimous satisfaction of all his colleagues, the post of Dean of the Faculty. The Minister of Public Instruction has ratified the nomination, and the Paris medical students may be congratulated that their late distinguished Dean is worthily succeeded by so able and amiable a head as Professor Béclard.

VAGINAL EXTIRPATION OF THE UTERUS.

THIS operation, which Olshausen prefers to removal of the uterus by abdominal incision, and which has its advocates in this country, as the discussion at the last meeting of the Royal Medical and Chirurgical Society sufficiently proved, has recently been performed in America by Dr. Fenger. The patient was the mother of nine children, and, eight months after her last confinement, was brought for consultation to Dr. Fenger. He found that the frequent attacks of vaginal hæmorrhage and the fœtid discharge for which she sought relief were due to an ulcerated epitheliomatous growth of the cervix. Total extirpation of the uterus was decided upon; and Dr. Fenger adopted the vaginal method, as less dangerous than Freund's operation. On September 19th, 1881, the patient was placed in the lithotomy-position; the walls of the vagina were held apart by two Simon's specula, and the uterus drawn down by strong vulsellum forceps. A circular incision was made into the healthy vaginal mucous membrane around the cervix. The hard cancerous tissue of the enlarged neck was carefully dissected from the rectum; and the bladder had to be opened in order to clear away all suspected tissue, and then closed with eight sutures. The entire posterior reflexion of the vagina on to the cervix was opened; the fundus then pushed forwards and drawn down into the

vulvar orifice. The lateral ligaments were secured with antiseptic silk; the uterine arteries were tied separately. The ligaments were cut off close to the uterus, which was then taken away. The rent in the peritoneum was closed by twelve silk sutures; the broad ligaments were stitched to the mucous membrane of the vagina. Irrigation by a weak solution of thymol was kept up continuously for a week, after which a double drainage-tube was inserted. Four weeks after the operation, the patient was able to walk, and had a very good appetite. The wound in the bladder left a small vesico-vaginal fistula, which, the *Chicago Medical Review* informs us, was healing spontaneously a fortnight ago.

THE SURGICAL TREATMENT OF CANCER OF THE ŒSOPHAGUS.

THE animated discussion on this subject at the last meeting of the Clinical Society, reported at page 817 of the BRITISH MEDICAL JOURNAL for November 19th, will help to render the surgical treatment of œsophageal cancer more precise than heretofore it has been. The discussion arose on a paper read by Mr. Reeves at the preceding meeting, in which the author detailed the history of two cases of cancer of the œsophagus, both of which he had treated by gastrostomy. He then proceeded to lay down certain principles of treatment, and thought œsophagostomy a preferable operation, because of the great mortality after gastrostomy, and also because of the more frequent occurrence of malignant stricture in the upper portion of the tube. Whilst even in cases where the stricture was as low down as the manubrium sterni, Mr. Reeves thought œsophagostomy was indicated as a preliminary or exploratory operation; that the little finger or sound might be passed through the narrowing for the purpose of dilating it; and that if the stricture was found to be impermeable, gastrostomy might then be performed. Œsophagostomy, Mr. Reeves asserted, had never led to the death of the patient. Various suggestions for the safe performance of the operation were also noticed in the paper. The discussion being deferred, Mr. Golding-Bird commenced it at the next meeting by presenting brief abstracts of five cases of cancer of the œsophagus, in four of which he had performed gastrostomy. His cases showed that the chances of giving relief were inversely as the length of time the patient had suffered. One man had lived for five months after gastrostomy; he was sixty-six years of age, but his symptoms (dysphagia) had only existed for two months. All the other cases had much longer histories. Peritonitis had only been encountered once, and was then due to an accident in feeding, not likely often to recur. He advocated early recourse to gastrostomy, before the patient's digestive and recuperative powers generally were enfeebled by the malady. The operation should be done with all the cautions which Verneuil and Howse had introduced into the procedure, and which included the stitching of the wall of the stomach to the abdominal opening by two circles of sutures about an inch apart, and the deferring of the opening of the stomach for about four or five days after such stitching. In Mr. Golding-Bird's experience, in that of Dr. Goodhart, and of Mr. Lister, the cancer was usually situated at the lower part of the œsophagus, and even if it could be felt high up, one could not be sure how far it extended below; so that Mr. Golding-Bird considered gastrostomy with precautions at an early stage of the disease far preferable to œsophagotomy. Mr. Durham offered a third suggestion for treatment, viz., the feeding of the patient through an elastic catheter passed into the stomach from the mouth, and allowed to remain there for about four or five days, until, in fact, it was necessary to remove it and introduce another. This alternative plan of treatment he had adopted in several cases with happy results. In one case a No. 7 catheter could only at first be passed, whereas after four months the patient was wearing a No. 12 catheter. Dr. Krishaber, at the recent International Medical Congress, had advocated the passage of the catheter through the nostril; the policy of this modification was combated by Mr. Durham as being more disagreeable than the wearing of a "nice little pipe in the mouth." He thought that if feeding through a tube could be accomplished, it should certainly be attempted before either œsophagotomy or gastrostomy was performed. Other speakers took part in the discussion. Dr. D. Powell warned the users of the catheter against the dangers of the passage of the instrument from ulceration, elsewhere than into the stomach; but Dr. Andrew Clark and the surgeons who subsequently spoke, almost all advocated the use of the catheter as long as possible. And this would seem to be the outcome of the discussion: that the catheter should be used where at all possible, and that for several reasons; first, to feed the patient; secondly, to dilate the stricture; and, thirdly, to arrest the growth of the cancer, as often happens when its surface is no longer irritated by the constant passage of food across it. When the catheter can no longer be passed, the alternative lies between œsophagotomy and gastrostomy; and of these, the latter operation would appear to be held at present in somewhat the better repute. But, whichever procedure is determined upon, its performance should not be deferred; it should be done whilst the patient has yet in him the strength which may enable him to undergo and recover from the operation.

CHOLERA AT MECCA.

THE result has unfortunately realised the predictions of M. Fauvel, to which we called attention recently in connection with his article in the *Revue d'Hygiène*. The experience of the most recent epidemic manifestations of cholera had always shown that the decisive moment, and that which is most to be feared, is the period at which the pilgrims from the various countries of Europe, Asia, and Africa, are massed together during three days in the valley of the Mina, and at Mecca. The exposure to the sun, in a limited space, of an innumerable quantity of animals immolated as sacrifices; voluntary fasting, fatigue, and privation, engender a frightful state of insalubrity; and it is then that the germs of cholera, brought by the pilgrims from India, make ravages among the Mussulmans of Europe, Egypt, and Syria, who do not possess the relative immunity of individuals coming from the endemic countries. On October 15th, 25,221 pilgrims had already disembarked at Hedjaz, of whom 10,000 were Indians and Javanais, 4,000 Egyptians, and 3,000 Mogrebbins. The great *fêtes* of Courban-Beiram commenced on November 3rd. Up to that date, only 12 to 15 deaths from cholera each day were announced around Mecca; on the 3rd, 55 deaths were announced; on the 4th, 215; on the 5th, 214; on the 6th, 300; on the following day, 500. These figures are probably much below the truth, for usually women are not counted. On November 6th began the return of the pilgrims; and since that date, of course, the number of deaths reported from Mecca have been much less. According to a recent official despatch from Mecca, there were 75 deaths from cholera at that place on the 11th, 70 on the 12th, and 47 on the 13th. At Djeddah, there are said to have been 24 deaths on the 11th, 6 on the 12th, and 8 on the 13th. We have nothing to fear from the inland caravans; it is by the transport ships that this pestilence is capable of invading Egypt, and then Europe. The Ottoman Government has taken steps, it is said, for the departure from Constantinople, on October 30th, of the ship *Babel*, carrying three battalions of soldiers, ten physicians, and medicines. It has prescribed quarantine at El-Oudej and at El-Tor; but this quarantine is not very efficient against that most powerful agent in the East, *baksheesh*. The French sanitary agents in Egypt and in the Mediterranean ports have received very strict injunctions; and it may be hoped that this year again cholera will not reach the African border of the Red Sea; that is to say, its first stage towards invading Europe.

PROGRESS OF DENTAL SURGERY.

DENTAL surgery has of late years progressed in parallel lines with the general advance of surgical processes; and, although little watched by surgeons generally, it is interesting to notice that the latest advances in surgical principles and practice are very promptly applied by professional dentists. M. Martin has recently published in the *Lyon Médical* an interesting study of the results of trephining the roots of the teeth as a mode of treatment of chronic alveolo-dental periostitis. This is a well known disease, and is usually easily diagnosed. It is this affection which gives rise to phlegmonous abscesses of the alveolar

border or of the face, and to those mucous or cutaneous fistulæ which are well known for the difficulties which their cure offers. These fistulæ frequently leave deforming cicatrices on the face. Alveolo-dental periostitis sometimes gives rise to extensive necrosis of the maxillary bones. It is the very extremity of the root which is diseased, and which is attacked by a lesion perfectly defined in its symptoms and in its pathological anatomy. Until lately, the treatment consisted almost exclusively of removal of the tooth. Dr. Magitot now advises what he calls the dental graft by restitution. The following are his ideas on the subject. Chronic periostitis of the end of the root of the tooth, complicated by neighbouring lesions, such as phlegmonous abscesses, denudation, and necrosis of the maxillary bones, with simple or multiple fistulæ, should not be considered to be beyond the resources of conservative treatment. The treatment consists in the resection of the affected part of the tooth after temporal removal, followed by its immediate transplantation, or grafting by restitution. The result of the cure is cessation of all the symptoms, definite consolidation of the organ, and re-establishment of its vascular connections and use. The operative proceeding of dental grafting includes three stages: (1) total and slow removal of the diseased tooth with a lever, avoiding any fracture of the tooth or of the alveolus; (2) resection of the extremity for the diseased roots; (3) immediate reimplantation of the tooth in its alveolus. M. Martin proposes section of the summit of the tooth by trephining, and relates six cases of cure. According to him, chronic periostitis of the extremity of the root of the tooth, which has now for some time been treated by reimplantation, may with advantage be treated by direct resection of the extremity of the root within the alveolus. This method is as easy to carry out, as rapid as reimplantation, and less painful; and no retentive purpose is necessary to ensure its success. The method is applicable in cases where reimplantation is of doubtful success. The operation is performed by means of a trephine with a small crown, which resects the radical extremity in the alveolus without extraction. Cure takes place by granulation of the alveolar cavity.

MADRID AND THE INTERNATIONAL CONGRESS OF 1883.

Dr. de Tavera writes, in the *Journal de Médecine de Paris*, a new journal recently founded by Dr. Lutaud and some colleagues, which promises to have an useful and brilliant career, on the subject of the medical resources of Madrid in relation to the proposal, which was much discussed in London, of making that city the probable meeting-place for the next, or for an early, meeting of the International Medical Congress. It was mentioned at the Congress that an invitation had been received from Madrid, and that the probable place of meeting would be either Madrid or Copenhagen. Dr. de Tavera states that Madrid has, indeed, almost the right to be the theatre of the next Congress, and that the Spanish capital possesses great resources, which will enable it worthily to fill the part which would be confided to it. It is difficult, he observes, after London, to follow the path which has there been traced. The English metropolis is immense; its great resources, and especially English hospitality, were powerful elements, which gave to the seventh Congress a splendour which it would be difficult to surpass. Madrid, however, with its splendid climate, its chivalrous customs, and the hospitable habits of the Castilians, will know how to receive its guests, with the same magnificence which characterised the brilliant fêtes of the centenary of Calderon. It was reported that the King of Spain had intimated to the Executive Committee in England that he would receive with pleasure the next meeting of the Congress in Madrid. If the Congress should meet there, Don Alfonso, who is young and enthusiastic, would take an active part in it; and he would certainly be seen at the meetings of the Congress, listening to the communications, and assisting in the discussions, as Don Pedro of Brazil did in the various capitals of Europe. A great deal is said about Spaniards and their customs, but they are not really well known. People are very willing to think that there are in Madrid only *toros*, and *toreros*, *chulos*, and the *manolas*. This is a mistake. The Spaniard, who is by habit silent and not given to noisy talk, thinks, works, and progresses, and his studies, his progress, and the name of the most illustrious Spaniards lie hidden behind his country's frontiers; and he is not particularly concerned whether the rest of the world knows of him, not from egotism or indifference, but because the revolutions and political dissensions which have agitated Spain since the beginning of the century have doubtless contributed to this isolation. Dr. de Tavera adds that Madrid, which is a city of 400,000 inhabitants, possesses about 23 medical journals, and 2,178 pupils inscribed in its Faculty of Medicine in 1878-79.

DELIVERY [illegible].

Dr. Weil of Haguenau describes, in the *[illegible] de Strasbourg*, No. 9, 1881, a curious case of a woman, twenty-three years of age, well formed, who had given birth on the 16th June 1877, to a robust boy, whom she suckled for eleven months. Delivery proceeded rapidly, lasting about an hour. When she became pregnant for the second time, she was delivered on the 6th September 1880, under the following circumstances. She was walking in the evening of the 5th September, and returned home about 11 o'clock to sleep; about 3 o'clock in the morning, she awoke, feeling the necessity of passing urine; she arose and seated herself for the purpose. She uttered at once a cry, called her husband, and told him that a child was born, and begged him to send for a doctor. Dr. Weil saw the woman within ten minutes after this scene; she was still in the same position; she was carried to bed, and there was no hæmorrhage. On examining the urinal, it was found to contain the child and the after-birth. The infant was of the female sex, weighing about ten pounds. It was removed from the vessel, and the cord tied. Nearly half an hour was needed to remove the clots and the mucus which obstructed the mouth of the air-passages of the infant; the placenta was completely expelled. The woman made a quick recovery. Probably this woman had uterine contractions which did not awaken her (as she slept soundly), and the apparent necessity of urinating, which awakened her from her sleep, was nothing less than a strong uterine contraction.

THE MICROPHYTE OF [illegible].

M. Gibier of Savigny has made a recent communication on this subject of much interest to the Société de Biologie. Acute pemphigus he describes as a parasitic disease of an infectious character. The microphyte of pemphigus is a bacterium, consisting in the adult condition of a series of individuals disposed in strings, two-thousandths of a millimètre in breadth and four to forty-thousandths of a millimètre in length, consisting of from two to twenty individuals joined together at the points of contact. In the young state it is formed of rounded granulations, like those which constitute rods, isolated or grouped. This bacterium is found in the fluid of the fresh bullæ. It is destroyed when the contents of the bulla becomes purulent. They are found also in the fresh urine, and the cultivation of this urine or of the fluid of the bullæ allows of the reproduction of the bacterium. The infectious disease which characterise this bacterium does not appear to be contagious, at least according to the experiments of the author on animals.

PLEURO-PNEUMONIA IN [illegible].

In 1880, pleuropneumonia existed in 51 counties in Great Britain, the number of outbreaks being 1,052, against 1,549 in 1879. The number of cattle attacked during 1880 was 2,765 against 4,414 in the previous year, at the end of which six remained diseased. During 1880, 2,681 cattle were slaughtered, and 88 died. One outbreak which occurred on the premises of a Dairyman [illegible] area during the latter part of the year, where there were 76 animals on the premises, is worthy of notice. The disease continuing to carry off large numbers of the cattle week after week, one of the inspectors of the Privy Council visited the premises, and ascertained that the whole of the herd was kept in a large shed, in which [illegible] ventilation. Though the disease had existed therein for some months prior

to the inspector's visit, all the animals were still kept in the same shed, without any attempt having been made to divide the herd for the purpose of isolation. The disease continued to develop among these animals, until 56 of them were slaughtered; but it was not until four months had elapsed after the first appearance of the disease in the shed, and the number of animals had been reduced from 76 to 23, that the local authority ordered the slaughter of the rest of the herd.

IN the *Analyst* for September last appears an interesting paper on the "Figures or Patterns which Fats assume" when melted and dropped upon water-films. The various figures are somewhat minutely described, and seem to be identical in the case of the same fat when temperature and other conditions are carefully attended to. But the most important point which Mr. Wynter Blyth seems to have placed beyond dispute is this. Whilst genuine butter yields films in which no crystalline appearance is perceptible, all the so-called butterines seem to exhibit distinct minute crystals when cooled from fusion upon water-films. This would appear to be as trustworthy and withal as rapid and inexpensive a method of detection in cases of suspected fraud, as could well be desired. In another portion of the same number of the *Analyst*, under the heading "Butter-Substitutes", we find a quotation from "an agricultural contemporary", alluding to Dr. Lyon Playfair's speech upon this subject in the House of Commons on April 1st of this year. Dr. Lyon Playfair, in his speech, takes the economic and scientific view of the case; and argues that, if the substitutes sold as butter be equally palatable and equally nutritious with butter made from cream, it should be a matter of indifference to the public whether the article of food in question be manufactured from cream or from some other source, especially as the price of the substitute for butter is always less than that of the genuine article. Our "agricultural contemporary", however, looks at the question from a commercial point of view, and (in the interests of the British dairy farmer) objects to the sale of butter-substitutes as butter, and at a lower price than that article; arguing—and, no doubt, the argument is a weighty one—that many consumers, did they but know the true source of the cheap "butter", would prefer to buy the much more expensive genuine product. The omniscient legislator, seeing the force of both these "positions", will find himself in a dilemma. Shall he, as our "agricultural contemporary" suggests, put coin in the pocket of the British dairy farmer by making it illegal to sell "butter substitutes" under the title of "butter"? or, on the other hand, shall he benefit the British consumer by allowing him to remain in happy ignorance of the nature and source of the cheap, though (as Dr. Lyon Playfair points out), at the same time, wholesome, nourishing, and palatable "substitute", which that "dangerous thing, a little knowledge", would probably cause him to discard at all costs?

PREVENTION OF HAY-FEVER

SOME years ago Professor Helmholtz, in a letter to *Nature*, which we published, gave an account of a remedy he had found for "hay-fever". This was simply to treat the part of the nose, which seems to be the seat of the trouble, with solution of sulphate of quinine, by pouring it into the nose with a pipette, while lying on a sofa with the head turned upside down. Mr. J. B. Hannay, of Cove Castle, Loch Long, N.B., writes to the same journal, that, having had the most enjoyable part of summer destroyed by hay-fever ever since he can remember, he has tried every remedy he has heard of, including internal doses of arsenic, and he has found them all to fail. Professor Helmholtz's method only gives him relief for ten minutes or so, and cold water does the same. He has tried solutions of sulphate of zinc and tannin, and many other astringents, but all to no purpose. As many others knew that he was experimenting upon himself in this matter, he has had several patients trying all the remedies that he has tried, and he can therefore say with certainty that no remedy yet published will cure hay-fever. He has, however, succeeded in finding a method which is a really effectual cure; and as he knows that many are rendered miserable during the most enjoyable part of the year, he hastens to give them the benefit of the result of his inquiries. One thing which misled him was, that his eyes were often very much inflamed and pained during an attack, and he often tried remedies for his eyes (which have sometimes gone wrong when he had no hay-fever) when they were only affected in sympathy with his nose. He found that the only thing required was to prevent the entrance of the pollen grains into the nose. When there were not many in the air, as during or after rain, it was simply necessary to stop the nose with a spring clip. He used a piece of brass or steel ribbon bent double, and having only sufficient spring to close the nostrils without undue pressure. This caused the patient to breathe by the mouth, but one soon became accustomed to the inconvenience. He found that to stop the nostrils with cotton-wool was far too irritating, especially as those afflicted with hay-fever were so owing to the tenderness of the internal coating of the nose. When going amongst hay a further precaution should be taken, viz., plugging the lacrymal ducts. He used for this purpose dumb-bell shaped pieces of glass, which were easily slipped into the ducts, and could be removed when wanted. Thus protected, any one who was troubled by hay-fever could go into the camp of the enemy and stir up hay in a field with as much impunity as one not troubled with this "sixth sense." The season for hay-fever had nearly passed, but he hoped that the publication of this note would be the cause of relief to many during next summer, and on that plea he asked its publication, and he hoped that medical men in the South of England, where hay-fever was common, would give it a trial and report upon it next summer. In Scotland, hay-fever was practically unknown.

SUPPURATION WITHOUT MICRO-ORGANISMS.

A CONTRIBUTION of great importance will be found in the October number of Virchow's *Archiv*. Dr. Uskoff of Cronstadt has made experiments which appear to prove that suppurative inflammation can occur independently of micro-organisms. He injected small quantities of distilled water, milk, oil, pus, and turpentine into the subcutaneous cellular tissue of dogs, and examined the tissues microscopically a few days later. He found that the injection of bland fluids, such as water and milk, caused no suppuration, provided that only a gramme or two was injected, but that large abscesses formed when several grammes were introduced. The injection of turpentine, especially when not diluted with oil and carbolic acid, produced, in most cases, large abscesses, containing pus which was entirely free from micro-organisms. From this, Dr. Uskoff concludes that, although micro-organisms may in many cases be the proximate cause of suppuration, morbid process may exist entirely independently of them, being due to chemical irritation, as when turpentine is used, or to damage of tissues, as in cases where a considerable amount of water is forcibly injected. We intend shortly to refer at greater length to this most important subject.

ENTERIC FEVER IN INDIA.

THE much debated subject of the prevalence of enteric fever in India, about which many divergent opinions have been promulgated, receives discussion in a recently published report by Dr. Pinkerton on the civil hospitals and dispensaries of Bombay. Dr. Pinkerton says that the fever at Bombay is never, so far as he knows, epidemic, but is endemic, much the same as it is in the large cities of Europe. A very large number of deaths are annually recorded by the health-officer of the city under the heading of "remittent fever"; but Dr. Pinkerton thinks there is some reason to believe that the so-called remittent fever is often really enteric fever, as he has found in the dead-house the enteric lesions in cases which had been registered in the hospital cases as "remittent" fever. All fevers remit more or less, and it is probable that there is such a disease as the so-called malarial remittent fever; but his experience leads to the belief that many of the fatal so-called remittent fever cases on record were, in fact, enteric fever. He agrees with Surgeon-General Gordon that the fever which we now call enteric was known and described in India by the old writers, but it was never recognised as a specific fever. It was deemed to be always a malarial

or climatic fever, and called remittent fever. Assuming that there is such a disease as malarial remittent fever, then the older writers fell into the same error as writers on typhus before the date of the differentiation of enteric fever. In Bombay city, during the third quarter of 1880, no less than 1,447 deaths are recorded as caused by the so-called remittent fever, and only two by enteric fever; but there is no evidence in favour of malarial origin than there is of specificity. It is very probable that many of the 1,447 cases were enteric fever, while many were only symptomatic fever of pneumonia and other acute diseases. Dr. Pinkerton regards the opinions of the old writers on Indian diseases as of no account in taking this question into consideration, because they were under the belief enteric fever did not exist, and that the remittent fever which they observed was always a climatic malarial disease. There is no evidence that any of the cases in Bombay arose from contagion. They were all treated in the ordinary wards, and no one connected with the hospital got the disease; but there is yet abundant reason to fear that the means of independent origin are common enough in Bombay city, and, indeed, all over Western India, even although, as yet, there are only a few common sewers in use in Bombay, and none at all anywhere else in the Presidency. Cesspools abound, and fæcal matter is not uncommon in open spaces and along the shores of the Island of Bombay. Dr. Pinkerton says, sensibly enough, that it would be utter folly to relax the efforts made in India to obtain clean soil, pure water, and pure air, in the supposition that the disease now recognised as enteric fever is due to irremediable climatic causes. He is perfectly certain that cases of so-called malarial remittent fever have been proved in the dead-house to be enteric fever; and he is also sure that what is now called enteric fever has existed over fifty years in Bombay, where it is known as the "Twenty-one days' bad Bombay fever".

A NEW MEDICAL ASSOCIATION IN BERLIN.

On the 7th of February last, a numerously attended meeting of the medical profession took place in Berlin, in order to found a new society, to be called the "Verein für innere Medicin". Professor Leyden, on whose invitation they had come together, welcomed the assembled company; and indicated that the object of this gathering, to form a new society, was solely the need of providing a clearer field for the discussion of medicine proper, as distinct from surgery, etc., and not from any hostility to the already existing societies. At the first ordinary meeting, Professor Frerichs presided; and Professor Leyden delivered a long address on the aims and objects of this new society. Here all medicine and all pathology were to meet; this was to be the uniting point of all the streams of practical and theoretical knowledge which flow from the great Berlin *cliniques*. The protocols of the various meetings, which have since then taken place, which lie before us, show what a fair start this young society has made. Already have been read in its hearing many important and interesting communications; and the well known and honoured names of Frerichs, Leyden, and Fräntzel, its three presidents, give every promise of a success which will be immediate. Assuredly the members of the British Medical Association will welcome with every cordiality such an attempt as this to stir up zeal in the discussion of medical topics. Nothing can be of greater value than the free expression of views of different minds on so difficult a subject, and nothing more healthy than the feeling of emulation which such discussion excites. The time-honoured Medicinische Gesellschaft of Berlin has done good work for many years. In it have been, for the first time, given forth many of the most important utterances of German medical science, or, indeed, of the medical science of this century; and within its walls have gathered, from month to month, many of those whom all Germany and the civilised world have delighted to honour. May it go calmly on its way, true to its old traditions, and prosperously; and may, at the same time, this new Verein für innere Medicin, more special in its objects, and more limited in its aims, do much real honest work, in bringing together the wealth of scientific knowledge regarding medicine proper which the Berlin school possesses, and in diffusing it abroad to all quarters of the world.

ELASTIC GELATINE CAPSULES.

The Boston Medical Journal mentions that one of the prettiest novelties of the materia medica exhibition of the Massachusetts Medical Society this summer, were samples of elastic capsules containing various nauseous and oily medicines. They are composed of gelatine and glycerine, and have about the consistence of the hectograph pad. They are almost as elastic as India-rubber, and seem also as tough. Stretching them considerably does not rupture them, neither does doubling them up, in the case of the larger ones; yet the coating is thin, easily dissolved, agreeable to the taste, and, so far as the writer could see, perfect. Their pliability makes it possible to swallow very large doses at once, a great advantage in regard to economy as well as convenience. They are made up to the capacity of half an ounce for cod-liver oil, and are said to go down as easily as oysters.

MOUNTAIN-DISEASE.

Dr. Blaschko of Berlin contributes an article in Eulenberg's recent *Handbook on Public Health*, with the above title. Here are brought together diseases whose geographies at least are widely opposed. In ascending mountains, during balloon-ascents, and from prolonged working in the depths of the earth, this "mountain-disease" may occur. This grouping of diseases is to us quite a novelty. The all-pervading fact, which our author regards as sufficient to permit such an arrangement, is a deficiency of oxygen, leading to diminished arterialisation of the blood. The miners in the Gothard tunnel suffered, as our readers know, from an affection which closely resembled Egyptian chlorosis, attributed to the leech-like action of dochmius duodenalis (sclerostoma duodenale). In the stools of the suffering miners, and in the intestines of the dead, worms were found. The worms are quite like dochmius, but are called anchylostoma by Dubini, who first described them in Milan in 1838. Drinking-water is the probable means of communication. Sappers and miners may become weak and anæmic, and suffer from diarrhœa after prolonged work; this is usually largely attributed to bad hygienic conditions. It must be regarded as extremely doubtful whether the worms are anything more than occasional producers or necessary companions of the symptoms manifested by miners.

THE GERMAN UNIVERSITIES.

According to the German University Calendar for the winter session 1881-82, there were 4,883 students of medicine, surgery, and pharmacy in the twenty-one universities of Germany during the summer session lately ended. They were distributed as follows: Berlin 576, Bonn 187, Breslau 295, Erlangen 113, Freiburg 300, Giessen 101, Göttingen 151, Greifswald 316, Halle 190, Heidelberg 147, Jena 85, Kiel 119, Königsberg 175, Leipsic 455, Marburg 158, Munich 545, Rostock 60, Strasburg 171, Tübingen 164, and Würzburg 473.—In the Swiss Universities of Basel, Bern, and Zürich, the numbers were respectively 100, 148, and 150.

THE FLUORIDES IN MEDICINE.

Dr. J. M. Da Costa gives, in the *Archives of Medicine* for June, 1881, the results of his observations on the effects of fluorides. The sodium salt was found to produce, even in three-grain doses, such excessive nausea and vomiting that its use had to be discontinued. Both the ferric fluoride and the ferrous fluoride were at different times employed; the latter proved the more pleasant, and was more thoroughly tested. With reference to the potassium fluoride, these results were obtained. It was first given in a case of subacute rheumatism, with considerable pain, in doses of five grains every third hour. It produced a most decided effect on the pain, without causing drowsiness or showing any influence on temperature. The urine was increased, and the specific gravity lowered; but this may have been owing to the greater amount of water taken, in consequence of the thirst. At the end of the second day there was nausea, with loss of appetite, and the medicine was discontinued. The pains returned, and at the patient's own request, a few days subsequently, the fluoride was resumed, in five-grain doses every third hour, and continued for three days, with [illegible] influence,

on the pains, but with, finally, the nausea and epigastric distress, which compelled its discontinuance. No hypnotic properties were observed from its employment. In a second case of rheumatism, more acute than the first, five grains were given every third hour. The pains were greatly lessened, but the gastric uneasiness was caused as in the first case, and also occasional burning pain and, once, vomiting. On the third day the bowels became loose, and the medicine was abandoned. But the patient missed the relief from pain, and asked that the salt should be resumed. This was done; yet, as after a few days some gastric distress was noticed and a loss of appetite, it was finally stopped. During its adminstration the flow of urine was greatly increased, the patient drinking, however, a considerable quantity of water. Before the salt was given, three pints of urine were passed daily; on the second day, six pints, on the third day, five pints; the specific gravity was lowered. Dr. Da Costa thinks that the fluorides are not well enough tolerated by the stomach to be really useful additions to practical medicine.

SCOTLAND.

MILK-EPIDEMIC IN ABERDEEN.

MANY of those who suffered from the milk-epidemic in April last feel extremely dissatisfied with the report of the Commissioners appointed by the Board of Supervision to investigate the matter; and we are informed that several meetings have been held to ascertain if any further steps ought to be taken in the matter. As we pointed out in these columns at the time, the report was anything but satisfactory; indeed, the desiderata in the Commissioners' report are so numerous, that the only surprise is that a more searching inquiry was not demanded sooner. A correspondence between the secretary acting on behalf of the sufferers, and the secretary to the Old Mill Reformatory—which supplied the milk—has been published in the local papers; but we are not aware what further steps it is proposed to take.

ZYMOTIC DISEASES IN SCOTCH VILLAGES.

IN the village of Chapelhall, in the Monkland district, there has been an outbreak of fever, which has already resulted in several deaths. In the district of Ladybank, the public school has had to be shut up for a fortnight, owing to an outbreak of measles, which had led to the absence of two-thirds of the scholars. The same disease is also very prevalent in the fishing villages on the northern shores of Loch Howm, Island of Skye, believed to have been introduced into the district by the females who have returned from the employment of herring-curing in other places. At Langholm, an outbreak of typhoid fever caused the local authority, through their sanitary inspector, to request the School Board of that place to discontinue the use of a certain drain, and to make other drainage arrangements.

ST. ANDREW'S UNIVERSITY.

ON Monday last, Sir Theodore Martin was installed as Lord Rector of the University of St. Andrew's, to which office he had been elected last year, after a contest in which the majority of the students supported him in preference to Mr. Freeman, the historian. The ceremony took place in the old Parliament Hall, and was very well attended. The Lord Rector was accompanied by Principals Tulloch and Shairp, by the Senatus Academicus, the Lord Lieutenant of the county, etc. The Vice-Chancellor of the University, Principal Tulloch, presided, and, after an opening prayer delivered in Latin, he read the certificate of Sir Theodore's successful election, complimented the new Lord Rector on his accession to office, and wished him well in the discharge of his duties. Thereafter, Sir Theodore delivered his inaugural address, in which he referred to the conditions of education long ago in Scotland, and what it had enabled Scotland to achieve; the defects of the Scottish school system, notably when he himself was a scholar, and had to spend many long hours for six years at Latin and Greek, which by another system could have been done as successfully and more easily in a much shorter period of time, and thus have left more time and inclination for other studies. He then referred to the conditions of university life, and advocated the desirability of getting students to work by inducing them to take an interest in their studies, rather than by the mechanical method of cram. He also spoke in favour of a judicious combination of scientific and classical education, and spoke warmly of the advantages of classical studies in reference to politics, and as models of style. He exhorted the students to work and learn, and to become cultured gentlemen; concluding a valuable and instructive address (which was very well received and frequently applauded) with the lines from the end of one of Thackeray's Christmas books.

"C[illegible] wealth of [illegible]
[illegible]
[illegible]
[

dents of medicine were engaged. The income for the year was £7,214, and was received from subscriptions, legacies, and students' board money. It was agreed to start a medical mission at Damascus, if £300 *per annum* could be procured for that purpose.

THE GLASGOW UNIVERSITY BOTANY CLASS.

WE understand that Dr. Balfour, formerly Professor of Botany in the University of Edinburgh, has presented to the University of Glasgow a gold medal, which is to form one of the prizes in the botany class of that University. On one side of the medal is an excellent likeness, in profile, of the venerable professor who presents it; while the other bears the scroll, with the Scotch thistle underneath, "University of Glasgow, Class of Botany. For Herbarium". The medal is to be given each year to the University student who collects the best herbarium.

THE AYR AUTHORITIES AND VACCINATION.

IT is satisfactory to find that the authorities in Ayr are moving in the question of enforcing the Vaccination Act. It seems, from a report made to the parochial board of the town, that, owing to the fact of proceedings not having been taken for many years against defaulters, there are hundreds of unvaccinated children in Ayr. It has now been decided, and very properly, to enforce the Act, and proceedings are to be taken at once against defaulters.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending November 12th, it appears that the death-rate in the eight principal towns during the week was 22.9 per 1,000 of estimated population. This rate is 0.9 below that of the corresponding week of last year, but 1.8 above that of the previous week of the present year. The lowest mortality was recorded in Paisley—viz., 14.0 per 1,000; and the highest in Perth—viz., 29.6 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.5 per 1,000, or 0.3 below the rate for last week. Scarlatina was the prevaling epidemic, and was most fatal in Edinburgh. Acute diseases of the chest caused 128 deaths, or 6 less than the number recorded last week. The mean temperature was 49.5°, being 9.3° above that of the week immediately preceding, and 3.9° above that of the corresponding week of last year.

THE HEALTH OF GLASGOW.

THE returns of the medical officer of health for Glasgow for the fortnight ending November 13th show that there were 450 deaths registered, showing a death-rate of 24 per 1,000 living. The mean temperature was 45.6° Fahr. There were 97 fewer deaths this year, or 3 per 1,000 of the population. More than half of this diminution is in the zymotic class of diseases, the remainder in diseases of the lungs and miscellaneous diseases. The number of deaths from pulmonary diseases was 162, representing a death-rate of 8 per 1,000 living, and 35 per cent. of the total deaths. The deaths from fever numbered 10, all being from enteric fever. There were 29 deaths from infectious diseases of children, viz., 13 from scarlet fever, 10 from measles, and 6 from whooping-cough. The number of cases of fever registered were 59, viz., 53 of enteric fever, 5 of typhus, and 1 undefined. There were also 218 cases of measles, 109 of scarlet fever, 29 of diphtheria, and 18 of whooping-cough, registered, of which 41 were removed to hospital, and the remainder kept under observation at home.

SIDMOUTH. In his last quarterly report to the Sidmouth Local Board, Dr. Pullin reports birth and death rates of 27. and 13.3 per 1000. No deaths had occurred from zymotic disease, nor had any been registered from that cause since the commencement of the current year. Measles of a "strongly-developed but manageable type" had been prevalent, but the disease indicated a speedy subsidence. In his report the Health Officer points out the urgent need of additional water-supply for some parts of the district, and especially for that portion known as Easter town, where some three hundred persons are dependent upon a single hand-pump, remotely situated from most of them.

IRELAND.

THE bazaar and fancy fair, for the benefit of the Hospital for Women and Children, Cork, which will be held this week, promises to be unusually attractive; and we have little doubt but that it will prove a decided success, and greatly increase the funds of a very deserving charity.

STATISTICAL SOCIETY OF DUBLIN.

MR. NEILSON HANCOCK, Q.C., has been elected President of this Society, in succession to Dr. Mapother; and Lords Ardilaun and Monteagle, Mr. Justice O'Hagan, Mr. Commissioner Litton, Q.C., Dr. Grimshaw, Registrar-General, and Mr. William Findlater, M.P., Vice-Presidents.

CORK FEVER HOSPITAL.

THE Cork Corporation are about to take steps to have this institution made an auxiliary to the Union Fever Hospital, and have invited the co-operation of the Cork Board of Guardians to promote that object. A committee of the guardians has been appointed to confer with the committee of the Town Council, and with the trustees of the Fever Hospital, on the subject. It is not intended to make any change in the institution; the chief object to be gained is, that portion of the expenses may, for the future, be divided between landlords and their tenants.

FEVER IN QUEENSTOWN.

A GOOD deal of typhus fever prevails at this seaport town, and, as the overcrowded condition of the lodging-houses for emigrants has been mentioned as the cause of the outbreak, a deputation from lodging-house keepers waited on the Queenstown Town Commissioners last week, in reference to the matter. That any overcrowding existed, or that any case of fever emanated from these houses, was denied; but Dr. Brodie, Inspector under the Local Government Board, who happened to be present, stated that, in a very respectable lodging-house in the town, there were five double beds in one room, and that the owner of the house admitted to him that three persons often slept in each of the beds. The proposed by-laws for the regulation of common lodging-houses will be put into operation without unnecessary delay; but in the meantime all the other provisions of the Public Health Act as to these dwellings should be immediately acted upon.

DUBLIN HOSPITALS BOARD.

DR. GORDON has been appointed by the Lord Lieutenant a member of the Board of Superintendence of the Dublin Hospitals subsidised by the State, in the place of the late Dr. McClintock.

BELFAST HOSPITAL SUNDAY FUND.

HOSPITAL Sunday at Belfast will, it is thought, be held this year upon next Sunday, being the last Sunday in November; but the various churches,—177—appear to be very far from being unanimous on the subject; and in reply to a recent circular from a committee interested in the movement requesting that the collections should be made on this day, but twenty-eight replies were received. The success that has attended the setting apart of one week-day in the year for public contributions in some of the principal towns in England has been so great, that it has been recommended that arrangements should be made for having a similar movement carried out in Belfast next year.

THE LATE DR. HAYDEN.

THE students of the Catholic University Medical School have appointed a committee for the purpose of getting up a memorial of their late highly respected professor. Resolutions of regret at his death, and of condolence with the bereaved members of his family, have been adopted by the Senate of the Royal University, the Medical Society of the King and Queen's College of Physicians, and the Professors of the Catholic University Medical School.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

LAST week, the stated quarterly meeting of the Committee was held in Belfast, presided over by Dr. Moore, in the absence of the President, Dr. T. H. Purdon. It was reported that the grants recommended by the Branch had been duly distributed to the widows and orphans by the parent Society. It was resolved that the annual meeting of the Belfast Branch should be held on the first Wednesday in February 1882. After the transaction of the ordinary business, Dr. Arnold, J.P., proposed that the best thanks of the Branch be tendered to Alderman Whitaker, and his partner, Walter Wheeler, Esq., for placing their chambers at the disposal of the Society, free of all charge, for many years. This was unanimously adopted, and the meeting sparated.

DUBLIN UNIVERSITY BIOLOGICAL ASSOCIATION.

THE opening meeting of this flourishing students' Association was held on November 18th, in the New Buildings, Trinity College. The Rev. Professor Haughton, M.D., was in the chair, and there was a large attendance of hospital physicians and surgeons, who had been invited by the Council, as well as of students. The President of the Association, Professor Purser, M.D., delivered an inaugural address on "The Pathology of Phthisis".

THE ARMY MEDICAL DEPARTMENT IN AN EMERGENCY.

A RECENT coroner's inquest in Dublin shows—if the circumstances as reported in the daily press be correct—that the recent changes in the Army Medical Department do not work so well for the soldier and his family, especially in the case of large garrison towns, as the advocates of the new system would wish. About 1 A.M. on the 17th inst., the infant child of a corporal of a regiment quartered at the Royal Barracks, Dublin, was suddenly attacked with convulsions. The father went at once to seek medical aid, but was informed that there was no medical officer in the barracks, in which, we may incidentally mention, are quartered a large number of cavalry and infantry soldiers and their families, numbering over one thousand persons. Although the child was dying, he was, of course, prevented by the sentries from leaving barracks to find a doctor outside, without obtaining leave. At length, after the lapse of about three-quarters of an hour, he succeeded in his endeavour to leave the barracks, and proceeded to Arbour Hill Hospital, but was informed that there was no doctor there at that time. He then looked for a civilian doctor; but, not finding one, went to the Royal Infirmary, Phœnix Park. Here, he found the orderly medical officer for the garrison, who at once accompanied the father back to the barracks. But, on their arrival, they found the child dead. The medical officer deposed that he believed that, if he had seen the child a quarter of an hour sooner, he might have saved its life. The child's death was due to convulsions arising from dentition. The coroner commented very strongly on the monstrous state of things by which a large military population are shut up at night and deprived of all medical aid in cases of emergency. What would be the consequences, he asked, if an accident, attended with hæmorrhage, occurred? He trusted that the authorities would see the necessity of remedying this objectionable state of things. The jury also added a rider to their verdict, expressing their astonishment at finding there was no medical officer resident in these very large barracks.

DR. STEEVENS'S HOSPITAL.

THE usual annual grant from the Corporation of Dublin to this hospital of £200 has not been presented for this year. No public explanation of the reason for this withdrawal has, as far as we know, been given; but the recent action of the governors, resulting in the closure of the medical school in connection with the hospital, whereby the efficiency and use of the latter as a means of instruction has been considerably restricted, may have had something to say in influencing the Corporation. The loss of the grant will be particularly felt by the hospital at this time, as a considerable portion of its revenue is derived from the rents of lands, some of which, we are told, are unpaid, and others lowered by considerable abatements. We should not be at all surprised at the annual Government grant of £1,300 which the hospital receives being also reduced in consequence of the closure of the school, as it was in consequence of its connection with the hospital that the grant was raised to the present figure.

THE DUBLIN ORTHOPÆDIC HOSPITAL.

THE fifth annual meeting of the subscribers to this institution was held last week; the Right Hon. the Lord Mayor of Dublin in the chair. The report stated that during the year 45 intern cases were received into the hospital, making, with 27 cases in the institution at the commencement of the year, a total of 72 cases under treatment. The number of outdoor cases treated in the dispensary was 5,075. There was no death. The expenditure for the year was £767 16s. 2d., which left a balance to the credit of the institution of £108 3s. 11d.

EXCISION OF THE SCAPULA.

MR. F. ALCOCK NIXON, one of the surgeons of Mercer's Hospital, Dublin, removed the entire right scapula, with a large and rapidly growing tumour attached, from a country lad about sixteen years of age, last Saturday. The tumour was a small round-celled sarcoma, weighing over four pounds. There was very little hæmorrhage during the operation, the scapular arteries having been secured previously to their division, and the subclavian being kept well in control. The patient rallied promptly from the shock of the operation, and, up to the time of writing, has gone on most satisfactorily. We believe that this is the first occasion on which the entire scapula has been removed in Ireland at one operation. All the other excisions of the scapula that have been recorded in Ireland, three in number, in which the bone has been removed piecemeal for necrosis, have also been performed in Mercer's Hospital, by the senior surgeon, Mr. O'Grady.

HEALTH OF CORK.

DR. JOHN WALL, medical superintendent officer of health, in his report for the four weeks ending November 5th, states that 29 cases of typhus fever, 13 of simple continued fever, 9 of scarlatina, 21 of measles, etc., were reported by the medical officers of the local dispensary districts as having come under their notice during that period. The total number of registered deaths amounted to 139 (including 32 dying in the workhouse, and therefore outside the borough, who formerly had resided in the city), and of these, 15 were due to infectious maladies, and 31 were of infants under one year. During the four weeks, 153 births took place, being equal to 25.38 per 1,000 of the population. The annual death-rate per 1,000 inhabitants gives a total ratio of mortality of 23.05, but, if the deaths occurring in the workhouse be deducted, the urban death-rate will then only amount to 16.98.

NAPPER COTTAGE HOSPITAL TESTIMONIAL FUND.

A MEETING of the Provisional Committee, appointed on October 20th, was held, on the 17th instant, at Mr. F. B. Hallowes', Redhill, Surrey. All the members were present. Several letters, expressing sympathy and offering support to the committee, were read; and the following resolutions were unanimously adopted.

1. "That a Permanent Committee be formed, and that all cottage hospital surgeons throughout the kingdom be invited to be members, together with some leading members of the profession, and laymen who have taken an active part in organising or managing cottage hospitals in different localities."

2. "That the following gentlemen be appointed officers of the Provisional Committee, *ad interim:* Joint Honorary Secretaries: Mr. Henry C. Burdett; Dr. Charles Parsons; Dr. J. Herbert Stowers: Honorary Treasurers: Mr. Malcolm Morris and Dr. Holman; and that these, together with the Chairman (Mr. F. B. Hallowes), Dr. Lanchester, Mr. Chaldecott, and Mr. T. M. Butler, do form a subcommittee to carry out the resolutions of this meeting."

3. "That the first meeting of the Permanent Committee shall be called by the secretaries, as early as possible, at some convenient centre in London to be fixed by the subcommittee. The Provisional Committee shall then hand over its powers to the Permanent Committee, and the Provisional Committee shall cease to exist."

A subscription list was opened, and sums varying from £1 1s. to £10 10s. were given at the meeting.

DEFENCE AND PROMOTION OF SCIENCE.

On the occasion of the recent prosecution of Professor Ferrier by members of the Antivivisection Society, a considerable number of offers were received from eminent medical men, and others, offering large contributions, if necessary, to defray the expenses of Professor Ferrier's defence. Among those who hastened to volunteer this mark of sympathy were Sir James Paget, F.R.S., Sir William Gull, F.R.S., Mr. Bowman, F.R.S., Mr. Erichsen, F.R.S., Mr. Lister, F.R.S., Sir J. Risdon Bennett, F.R.S., Dr. Wilks, F.R.S., Dr. Pavy, F.R.S., Dr. Matthews Duncan, Dr. Pye-Smith, Dr. Hermann Weber, and Dr. Shepherd; and, foremost among men of science, was the illustrious Charles Darwin, who was amongst the first to volunteer any necessary aid. The British Medical Association, however, had meantime decided to instruct their own solicitor to undertake the defence, and to carry it out at the expense of the whole Association; and therefore the funds so volunteered were not required for this purpose. It is, however, now thought desirable that the subscriptions thus offered, and any further subscriptions which may be offered, should be used to form a defence fund for the purpose of providing against any such further annoyance or persecution which may be inflicted upon physicians and physiologists in the lawful prosecution of their studies for the increase of knowledge and the benefit of mankind; and further, for the purpose of taking such steps as may be thought necessary to answer and counteract the erroneous statement so freely circulated by the antivivisectionist societies; and otherwise for taking steps for meeting the interference which those societies propose, in the prosecution of necessary biological research, and of furnishing adequate information to the public of the facts of the case. Towards the first object, that of defending Professor Ferrier, we believe that something like £1,500 were already guaranteed, several of the individual subscriptions amounting to £100 each; and it is now proposed to raise a fund which shall be fully adequate for the important purposes in view. The names of the committee to be formed will be announced shortly. Meantime, communications may be addressed to Dr. Lauder Brunton, F.R.S., 50, Welbeck Street, Cavendish Square.

SMALL-POX AND FEVER HOSPITALS.

The Royal Commission, just appointed, and which we were last week enabled to announce, will inquire respecting the nature, extent, and sufficiency of the hospital accommodation for small-pox and fever patients in the metropolis; whether the hospitals should be under one authority; and whether the hospitals under the managers of the Metropolitan Asylum District should be continued. The operations of the Acts relating to the establishment of hospitals for small-pox and fever patients will also be considered, and suggestions made on any matter bearing upon small-pox and fever hospital accommodation generally. The names of the Commissioners, which we announced at the time, have now been gazetted. Mr. Nathaniel Baker has been appointed Secretary to the Commission.

THE BACILLUS OF TYPHOID FEVER.

Whether infectious diseases depend on the development of micro-organisms in the living body may be considered to be the great question of modern pathology. Notwithstanding the difficulties attending the investigations to which it leads, this question is being answered in the affirmative by a constantly increasing number of investigators. Micro-organisms, and more especially the so-called cocci or spheroids, are so minute and so difficult to distinguish from other accidental granules of various kinds, that their alleged existence in a tissue or a fluid may usually be received with a certain degree of scepticism. Dr. Creighton's demonstration that products of coagulation in some cases had undoubtedly been mistaken for bacteria, gave strong encouragement to this scepticism, and in this country, for a time, probably gave a check, if not to the progress of investigation in this direction, yet to the publication of its results. But the facts clearly ascertained, and above all the complete knowledge which had been acquired regarding the bacillus of anthrax, were too striking and too suggestive to permit Dr. Creighton's criticism to have more than the legitimate effect of showing the necessity for extreme care and caution. If products of coagulation are liable to be mistaken for bacteria, that is no reason why it is to be concluded that bacteria may not be the active *contagia* of disease, although it is a good reason why observations which seem to point in this direction should be carefully scrutinised.

But when it has been shown beyond cavil that bacteria do exist in the living body in certain contagious diseases, it still remains to show that their presence is intimately associated with the existence of a specific disease. This is a branch of inquiry that at present engages many experienced observers; and, although it involves problems which are difficult to solve satisfactorily, we seem at last to be approaching solid ground in another of the diseases in which it has been claimed that a specific malady is associated with the development of an organism. Professor Eberth, of Zürich, has recently published a series of observations which strongly corroborate the statements with which, in this country, we are familiar, regarding the dependence of typhoid fever on the development of a micro-organism. In the 81st volume of Virchow's *Archiv*, he has shown that in this disease the intestinal mucous membrane, the mensenteric glands, and the spleen, contain rod-bacteria, differing, as he believes, from organisms found in the body in other conditions. In a recent number of the *Archiv* (Vol. 83, 3 Heft) he adduces further evidence to the same effect, the observations being controlled by examinations of these tissues in cases of death from other diseases. In eleven such cases, including deaths from various septic processes, the bacilli of typhoid fever were not found; nor were they found in thirteen cases of phthisis, in some of which there was extensive ulceration of the intestinal mucous membrane.

Eberth's later paper reports on seventeen cases of typhoid. The bacilli which he regards as distinctive were found in six cases, and were missed in eleven. In the six cases the number of bacilli was in inverse proportion to the duration of the disease. In the case of shortest duration, eleven days, it is noted that in the mesenteric glands, in each section, ten to twenty masses of bacilli were found, sections from the spleen also containing them in large numbers; whilst in that of longest duration, forty-three days, none were found in sections from the spleen, and in fifty sections from the mesenteric glands only two masses of bacilli were observed.

These bacilli appear in shape and size not to differ from ordinary rod-bacteria; but Eberth believes that they differ from them in their small capacity for taking on the staining of hæmatoxylon, methyl-violet, and Bismark-brown.

Their form and dimensions are shown in the accompanying wood-cut, which is copied from Eberth's paper.* On the other hand, eleven



cases are given in which no bacilli were found: a negative result of the greatest importance, which, if we accept Eberth's theory, it is difficult to understand.

It is impossible to over-estimate the importance of these investigations. The subject is doubtless one which is still occupying competent investigators. Professor Eberth's paper is calculated to stimulate workers in our own country who have already distinguished themselves

* The methods [illegible] on the Continent and [illegible] in England, of illustrating the [illegible] of [illegible] is, I am [illegible] to [illegible] to [illegible] simply to give the number [illegible]

in this field, to continue their observations in reference to typhoid, under the safeguards which more extended experience in the study of bacteria has made available.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary.*

BRANCH MEETINGS TO BE HELD.

BATH AND BRISTOL BRANCH.—The second ordinary meeting of the session will be held at the Bristol Museum and Library, on Wednesday afternoon, November 30th, at a quarter-past four o'clock; David Davies, L.R.C.P. Edin. Dr. Henry Marshall will propose the following resolution: "That this Branch hereby records its entire disapproval of the opinions expressed by the Readers of Addresses at the Annual General Meeting of the Association at Ryde in reference to consultations with homœopathic practitioners." The following communications are expected: 1. A Case of Litholapaxy, by Mr. W. H. Harsant; 2. A Case of Myoma Uteri, by Dr. C. Steele; 3. Seven Cases of Ovariotomy, by Dr. J. Greig Smith; 4. A New Form of Stem-Pessary, by Dr. J. G. Swayne.—E. MARKHAM SKERRITT, R. S. FOWLER, Honorary Secretaries.—Clifton, November 1881.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the West Kent District will be held at the West Kent General Hospital, Maidstone, on Friday, December 16th, at 3 P.M. Members wishing to read papers or show specimens are requested to communicate with the Honorary Secretary as soon as possible.—A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will take place at the Greyhound Hotel, Croydon, on Thursday, December 8th, at 4 P.M.; M. C. Dukes, M.D., in the chair. The following communications, etc., have been promised. 1. Dr. M. C. Dukes: A Case of Nævus of Scalp successfully treated by Vaccination. 2. Mr. Jonathan Hutchinson: Some facts in reference to Diseases of the Tongue. 3. Dr. G. Ernest Herman: On the Treatment of Dysmenorrhœa by Dilatation of the Cervical Canal. 4. Dr. W. Rosser: A Case of Removal of Foreign Body from the Female Bladder; with specimen. Dinner will be provided at 6 P.M. precisely; charge 7s., exclusive of wine. Gentlemen who propose to dine are particularly requested to inform me two days previously.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, December 15th, at 8.30 P.M., at the New Town Hall, Hackney, when Mr. Timothy Holmes will open a discussion on the Metropolitan Provident Dispensary System.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, E., November 22nd, 1881.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Belfast Royal Hospital, Belfast, on Thursday, December 15th, at 12 o'clock noon. Members wishing to read papers will please communicate with JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace, Belfast.—November 21st, 1881.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.—The next meeting of the above District will be held on Tuesday, the 29th instant, at the New Kentish Hotel, Tunbridge Wells; Mr. Benjamin Rix in the chair. Meeting at 3.30 P.M. Dinner at 5.30 P.M.; charge 6s., exclusive of wine. The following papers have been promised. 1. Mr. Clement Lucas: On the Principles for regulating Taxis in cases of Hernia. 2. Mr. Manser: On the Removal of a Foreign Body from the Bladder by Median Operation. 3. Dr. Rankin: Scirrhus of the Pylorus. 4. Mr. Abbot: On Wire-Drains in Surgical Operations. 5. Dr. Johnson.—T. JENNER VERRALL, Honorary Secretary, 95, Western Road, Brighton, November 21st, 1881.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.

THE first meeting of the session was held on Wednesday, November 9th, at the house of Dr. Henty, Camden Road; the President of the Branch, Mr. EDWIN SAUNDERS, F.R.C.S., in the chair.

Secretary.—Dr. T. Stretch Dowse resigned the office of secretary, and Dr. G. W. Potter was appointed to succeed him. The meeting recorded its high sense of the value of Dr. Dowse's services as secretary to the district.

President's Address.—The PRESIDENT, after a graceful allusion to the pleasure he experienced in presiding at the opening meeting of the District Branch, announced as the subject of his address "The Medical Holiday." He contrasted the preholiday period of moderate work, rare relaxation and deference to public opinion, with the eager haste and strenuous toils of modern days, in which the choice lies between a frequent holiday and the abrupt termination of all labours by exhaustion of the nervous system; and he pointed out the advantages of travel and of contact with other minds, and varying scenes and circumstances. He characterised the present age as one of "brilliant scientific discovery", and thought that the annihilation of distance by steam and electricity contributed much to the progress of mankind, increased their intellectual pleasures, and hastened the advent of a higher civilisation. He concluded an eloquent address by eulogising warmly the Secretary-General and the "accomplished President" of the Medical Congress of 1881; the success of which, he said, was largely due to the admirable organising genius of the former, and the refined and elevating utterances of the latter.

Typhoid Fever and Diphtheria.—Dr. HENRY read a paper on the Etiology and the Modern Treatment of Typhoid Fever and Diphtheria. With regard to the treatment of the former, Dr. Henty, whilst showing a familiar acquaintance with various methods practised in this and other countries, inclined to Dr. Bristowe's view, that each case must be treated on its merits, and that a judicious management of symptoms and complications would probably best commend itself to the thoughtful physician.—An interesting discussion ensued.

CORRESPONDENCE.

HYDROPHOBIA.

SIR,—Mere justice to myself compels me to address you on the subject of several articles contained in your JOURNAL of this day's date respecting hydrophobia. I wish that the writers of those articles should refer to a paper of mine, contained in the *Nineteenth Century Review*, on Hydrophobia and Rabies; or to a reproduction of the same paper in a little volume published for me by Messrs. C. Kegan Paul and Co., and obtained for the sum of 3s. 6d.—I am, Sir, yours faithfully,

THOMAS WATSON.

16, Henrietta-street, Cavendish Square, W.,
November 19th, 1881.

A SCIENCE DEFENCE ASSOCIATION.

SIR,—As so many gentlemen are anxious to show their sympathy with Dr. Ferrier by offering their guineas towards a testimonial, I think I shall not be causing him any displeasure by suggesting that, after his expenses are paid, all additional subscriptions should go towards forming a Defence Association, and in this way furthering the cause which Dr. Ferrier has so much at heart.

It is high time that the profession, and indeed the scientific world, should bestir itself. The Government, and Parliament too, I am sorry to say, seem to be influenced on some matters of legislation by the amount of pressure put upon them and the intensity of the clamour made around them. If this be so, they must know that there is another side of the question, and that they cannot ignore a large and important section of the community. Any number of petitions could be forwarded to Parliament by medical men and the scientific bodies of England, who should demand nothing less than the abrogation of the present law, and, in its stead, the granting of a license to all engaged in experimental studies, and which should give them perfect liberty of action. But more of this anon. I take up my pen now to stimulate further subscriptions towards the formation of a Defence Association.—

Your obedient servant, SAMUEL WILKS.

Grosvenor Street.

SUBSCRIPTION TO DR. FERRIER.

SIR,—Everyone will be pleased to see that the suggestion first made in your columns is to be carried out, and that a subscription will be at once started for the purpose of presenting a testimonial to Dr. Ferrier. Such a testimonial is wanted, not only as an expression of sympathy with Dr. Ferrier, but as a practical demonstration of the fact that the scientific world, and particularly the medical profession, are determined to support those workers whose lives are devoted to the pursuit of truth; and to protect them, so far as may be, from the very real persecution to which—one is ashamed to say—they are even at this present day liable at the hands of bigots, fanatics, and pseudo-humanitarians. The testimonial might also be made the occasion of a public expression of the united opinion of the profession as to the necessity of vivisection in physiological research; and the mind of the public might be at the

same time enlightened as to the real value of the antivivisection agitation which it is certain is exciting much prejudice in many persons who have no means of learning the other side of the question. Will you permit me to suggest that it would be well to appoint a committee to promote these objects, and to give wider publicity to the matter than is possible through the influence of your paper alone, great as is its circulation. I enclose a contribution to the proposed fund.—Your obedient servant, HENRY SEWILL.

6, Wimpole-street, Nov. 19th, 1881.

NOTIFICATION OF INFECTIOUS DISEASES IN EDINBURGH.

SIR,—I regret that your correspondent did not mention a note which appeared in the *Scotsman* newspaper, in which I said that the sanitary inspector was not sent to make a diagnosis, but to ascertain the name of the medical attendant, to whom I at once wrote. The evidence I received from that gentleman was the basis of the prosecution—not any evidence afforded by the sanitary official.

No appeal has been entered, and the medical practitioner in question has regularly notified his cases since the trial, which was forced on the authorities by his declining any compromise.

It will be interesting to your readers to learn that, since our Act came into operation, in November 1879, upwards of 9,000 intimations have been sent in by the profession, and that the case to which you allude is the only one in which any objection has been made.

Our experiment in Edinburgh is important, and at the same time delicate. It has proved highly successful, so far as prompt dealing with infectious diseases is concerned; but it would long ere this have been seriously imperilled had such practices been followed as are hinted at in your correspondent's paragraph.—I am, etc.,

HENRY D. LITTLEJOHN, M.D., Medical Officer of Health.

Public Health Office, Police Chambers, Edinburgh,
November 19th, 1881.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

The Medical Faculty University College.—Bequests to Liverpool Charities.—Liverpool Medical Institution.—Cases at Royal Infirmary and Local Hospitals.

THE winter session of what was the Liverpool Royal Infirmary School, but is now the Medical Faculty of University College, Liverpool, was commenced, under most favourable auspices, on the 3rd ult. Lord Derby presided with his usual ability, and his address was marked throughout by that strong common sense which characterises most of his utterances. He alluded to the large amount of gratuitous work which was too readily expected by the public from the medical profession, but which was, his lordship remarked, most willingly rendered. He gave excellent advice to the students; and summed up—concisely, yet significantly: "Respect your profession, and respect yourselves." There was a large attendance of the public in the small concert-room of St. George's Hall, where the opening ceremony was held, and where it is hoped, at no distant date, members of the British Medical Association from far and wide will meet. There has been a marked increase in the number of students, notwithstanding the fact that the fees have been raised. The number of new names exceeds forty; and between eighty and ninety students are engaged in dissecting. The quality of students would also appear to have improved, as well as the quantity.

At the annual meeting of those interested in the Hospital Sunday and Saturday movement, it was announced that, although the amount of church and chapel collections had this year fallen off to the extent of £89, the results of Hospital Saturday showed an increase of £352. The Mayor (Alderman W. B. Forwood) remarked that, since the commencement of the movement, in 1870, the sum of £92,000 had been raised. He regretted that so many of the medical charities were in debt, but had much pleasure in announcing that a legacy of £16,000 would soon be distributed among the Liverpool charities; of which the hospitals and dispensaries will have their share.

In his inaugural address at the opening of the Medical Institution [illegible] associate, Mr. Reginald Harrison) brought forward the important and practical subject of the use of the ambulance in civil practice. That portion of his address which relates to this has been published, and is very interesting. He shows very clearly the deficiencies of the present [illegible] tends to aggravate, and even cause, a compound fracture. Contrasted with this is given the admirable arrangements provided by the New York Hospital Ambulance Service, which are well calculated to supply what is so great a want in English towns and cities. A subcommittee of the Medical Institution is to inquire into the subject; and it is to be hoped that it may result in this large city being provided with proper ambulances, which at present it greatly needs.

At the Royal Infirmary, there has been a large increase in the numbers of students attending clinical lectures. In the surgical wards, within the last few weeks, four cases of lateral lithotomy have been successfully performed. In one instance, that of an old man, Mr. Harrison removed, along with a very large stone, the hypertrophied middle lobe of the prostate. On October 11th, he tied the left subclavian artery for axillary aneurysm, and the patient has made a steady recovery. Very considerable difficulty was experienced in ligaturing the vessel, owing to the height to which the clavicle was pushed up by the aneurysm. The operation of radical cure for hernia by complete removal of the sac has been performed several times by Mr. Banks during the last few months, with very satisfactory results; and, in the last three cases of strangulated inguinal hernia under his care, the sac has been dissected out and cut clean away, as part of the ordinary operation for the relief of strangulation. About a fortnight ago, Mr. Banks amputated at the shoulder-joint for a large cartilaginous tumour of the humerus, which recurred on the site of a similar growth that he had chiselled away from the bone about three or four years ago. The patient is almost well. In the Thornton Wards, Dr. Wallace has added a further series of abdominal operations for ovarian and other tumours. He still adheres to the use of the strictest antiseptic precautions. His last operation for ovariotomy was performed on the 31st ult., and the patient has apparently been but little disturbed by the operation; the temperature only once reaching 100°, on the occurrence of reaction.

At the Lock Hospital, Mr. McCheane had recently in his wards a man with sloughing bubo, involving the whole of the left groin, and of great depth. It soon yielded to treatment; a generous diet, perfect rest, and the local application of iodoform ointment causing it to fill up healthily; and the patient left perfectly well. The same gentleman has now under his care a man suffering from a very severe attack of tertiary syphilis, involving the nose and tongue. The patient has suffered more or less from syphilis for nine years, and is not able to bear a larger dose of iodide of potassium than ten grains. Mr. Frederick Lowndes has under his care another case of tertiary syphilis in a man in whom the primary attack occurred only nine months ago. He is able to take forty-grain doses of the iodide with great benefit.

At the Royal Southern Hospital, Mr. Paul has several interesting cases under his care, among which may be mentioned a case of cancer of the rectum in a man aged 50, involving the lower two inches and a half of the bowel, but not its whole circumference. It was removed, by the operation recommended by Mr. Harrison Cripps, on October 26th; and the wound is now healing rapidly, the temperature never having been above 99°. There is also a case of more extensive cancer of the rectum in a man aged 25, in which the disease is already encroaching on the bladder, and will probably soon render colotomy necessary. In the female ward is a case of villous tumour of the bladder, of several years' duration, which has been often removed, but with only temporary relief, as the bladder-wall is too seriously involved with the growth to admit of its complete extirpation. A male patient, aged 49, also presents symptoms of bladder-disease; but the diagnosis has not yet been established between villous tumour and adenoma of the prostate projecting into the bladder. In each case, Mr. Paul proposes to cut into the bladder and attempt to remove the disease. There are two cases of successful transplantation of skin; one, in a man, from the calf of one leg to the front of the ankle of the other, for a severe burn, the result of stepping into molten metal; the other, in a boy, from the abdomen to the elbow, for contraction of the arm after an extensive burn. Recently, a leg was amputated by the method recommended by Mr. Walter Whitehead, and the stump resulting from the operation is certainly an improvement upon the ordinary one. The flaps are cut as for Teale's operation, only laterally, instead of anteroposteriorly; the long flaps being taken from the outside. This procedure is, of course, only suited to the middle of the leg. In another case, of older date, both legs of a woman, aged 72, were removed, one through the knee, and the other in the lower third, for a tramway accident. The patient made a good recovery. In addition, there is a case of lateral lithotomy, and some of extensive removal of malignant tumours.

[illegible]

HOSPITAL AND DISPENSARY MANAGEMENT.

THE MARSTON GREEN COTTAGE HOMES.

THESE Homes represent a very important experiment, and the first annual report, which has recently been forwarded to us, is a paper of considerable value. The Cottage Homes at Marston Green were erected by the Birmingham Board of Guardians in order to separate the children who came under their care from the adult pauper population, and to place them under conditions more favourable to the development of their physical powers and to the improvement of their moral character. The memorial stone of the Homes was laid in October 1878. The work was pushed on rapidly, and by the end of 1879 the following buildings were completed, namely:—Fourteen cottages, seven intended for boys and seven for girls, each of them affording accommodation for thirty children, with rooms for father and mother; superintendent's house, in which also resides the school assistants; boys', girls', and infants' schools for a total of four hundred and twenty children; infirmary, general stores; carpenter's, tailor's, shoemaker's, painter's and tinman's shops; bakehouse and flour store; and a large swimming bath. The removal of the children from the workhouse commenced in January 1880, the cottages were gradually filled up, and by the close of the following month the foster fathers and mothers had settled down to their new, and in most cases unaccustomed, duties.

During the year the discouragements have been less than might have been expected. The material and physical improvement of the children has been so marked as to be in itself sufficient justification for the adoption of the Cottage Homes system. The educational progress has not been quite up to the standard of the former schools. This was in a great measure due to the interruption of the studies during the removal to and the settling down at the Homes. The Committee, however, confidently expect that in the future the results attained in the Schools will form one of the most encouraging features of the work. The industrial training of the children may be said to be in a very satisfactory state. The land finds employment for a considerable number of them. The Committee remark upon the successful manner in which the land has been prepared for irrigation and cultivation, which, in respect of the first estate purchased, is now in a state of great productiveness. It is the desire of the committee, that, as far as practicable, boys should be fitted for useful trades, and that the girls should be efficiently trained for domestic service. Such girls as are eligible are therefore placed for a time under the supervision of the matron with a hope that by these means the Homes will eventually gain a reputation for sending out satisfactory servants. The Committee make it their aim to take a personal interest in the children; and they endeavour, as far as possible, to befriend those who go forth from the institution, until they arrive at maturity.

The report contains the written opinions of various persons who are well able to judge of the value of this experiment; and their testimony is unanimous in favour of the excellence of the Marston Cottage Homes, and of the good results which may be anticipated from the "family system".

THE WEST CHESHIRE PROVIDENT DISPENSARY.

THE second annual meeting of this institution was recently held at the Queen's Hotel, Birkenhead. Mr. Vacher, medical officer of health for the borough, and president of the dispensary, occupied the chair. In his opening address, Mr. Vacher quoted a recent speech of Lord Derby, in which that nobleman stated that the amount of gratuitous assistance given by the medical profession to those who were unable to pay for it far exceeded anything that was bestowed or demanded in any other line of life. He maintained that it was not creditable to the public that gratuitous medical relief should be expected to the extent it was, and that it should be confined to the cases of those who needed hospital treatment, and those whose destitution brought them within reach of the Poor-law Guardians. Those who could not afford the ordinary medical charge could for the most part afford the few shillings a year found sufficient to assure medical aid on the provident principle. The industrial classes themselves had taken the initiative in this movement, and their great benefit societies had made the "club-doctor" part of their system. Clubs, however, were for the most part for men only, and provision was necessary to meet the cases of their families. Turning to the particular institution before them, he pointed out that the West Cheshire Provident Dispensary had no first capital to provide buildings, but had to hire and furnish a house, at a cost of £38 15s. The first stock of drugs cost about £30, and the first year's printing, stationery, etc., £28. To this must be added £42 11s. 6d. for rent, coal, gas, and water, which brought the first year's expenses up to little less than £130. Towards this they had received donations to the extent of £65 18s.6d., and a benefit performance realised £11 5s. 6d. They therefore began the second year in debt, which still remained unliquidated.

The secretary, Mr. Alfred Judd, read the report, which stated that during the past year the new members enrolled numbered 396, and the contributions of members amounted to £149 16s. 2d., as against £107 17s. 7d. in the previous year. The number of prescriptions dispensed during the year was 2664, the midwifery cases numbered 20, and the teeth extracted 114. The committee had secured premises for a north-end branch at Laird-street, where the wants of the members in that thickly populated locality would for the future be attended to. It was hoped, also, to establish a branch at Tranmere. The balance-sheet showed a total receipts of £204 17s, 8d., including donations, £20 16s. 6d., benefit performance at the theatre, £20, and concert, £2 3s. The expenses were £204 4s. 10d., including medical fees £80 2s. 7d., and drugs and dispensing £59, there remaining a balance in hand of 12s. 10d.

DARENTH ASYLUM FOR IMBECILE CHILDREN.

THE work of training the imbecile children of the poor of the metropolis, commenced nearly seven years ago, continues, and makes good progress. From the sixth report which has been issued, we learn that, during the past year, one hundred and forty-three patients have been received, twenty-seven have died, and ninety-five have been discharged, of whom seventy-eight were transferred to the adjoining asylum, which has been opened for the reception of adult imbeciles. Five hundred and eighty-six have been under treatment during the year, and the number of children resident on the 31st of last December was four hundred and sixty-four. It is interesting to learn that two boys and two girls have been sent out recovered, and that five cases have sufficiently improved as to be taken care of by their friends, at whose request they were discharged. The general health of the patients has been good; but Dr. Fletcher Beach regrets that so many epileptic, helpless, and very young children continue to be sent in by the parishes. A table, giving the assigned causes of mental disorder in those who have been admitted, is worthy of notice. It shows that, together with certain predisposing causes—such as insanity, imbecility, and paralysis of the parents—there are often fright and worry of the mother during pregnancy, and epilepsy, injuries, and diseases of the brain of the child. When such predisposing and exciting causes are present, little wonder can be felt that so many imbecile children exist. Dr. Beach remarks: "Not until the parental stock is improved, and their habits of life as well—an occurrence which may possibly ensue from the better diffusion of the laws of health—can we expect much diminution in the number." Meanwhile, we are glad to know that everything possible is done to improve the condition of those who, from no fault of their own, are born into the world suffering from mental and physical weakness.

THE WEYBRIDGE PROVIDENT DISPENSARY.

THE second annual Report of this institution gives a very satisfactory account of its progress. The committee are able to state that the number of provident members, both from the Weybridge and Oatlands districts, has continued steadily to increase. The provident members subscribing at the close of the year, to which the accounts refer (September 30th, 1881), number nearly one thousand, about two thirds of whom reside in Weybridge, and one third in Oatlands. These large numbers are sufficient proof of the benefit conferred by the Dispensary upon the poorer inhabitants of the neighbourhood, and the esteem in which the institution is held by them. The committee tender their thanks to the honorary members for their subscriptions, amounting to £115; and they are glad to say that, by the help of the special donations they have been enabled to extinguish the deficit in last year's account. At the close of the year £171 2s. 3d. were divided between the two medical officers. Altogether the inhabitants of Weybridge and the neighbourhood deserve great credit for the spirited way in which they are carrying out these provident arrangements.

PRESENTATION TO MR. T. R. C. DOWNES.—The retirement of Mr. Thomas R. C. Downes of Winslow, Shropshire, from the active practice of his profession, after forty years of indefatigable work, has been chosen by his many friends as a fitting occasion on which to present Mr. Downes and his family with an admirable portrait of that gentleman, as a mark of their particular regard and esteem. The portrait, which cost a hundred guineas, is from the studio of Mr. J. Hanson Walker of Kensington, and pronounced by his friends to be a pleasing and speaking likeness.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE sixth annual meeting was held on October 14th; Mr. S. W. NORTH of York, the president of the association, in the chair.

The report of the committee for the past year referred to the increasing number of members. Four meetings of the association had been held during the year, at which papers had been read and interesting discussions had taken place. Among these was a combined meeting of the Northern Counties, the North-Western, and the Yorkshire Associations, held in York in April last. The subject then considered was that of infant mortality due to diarrhœa. Drs. Ballard and Parsons, medical inspectors of the Local Government Board, were present, and took part in the discussion.

The following were elected officers for the ensuing year—viz.: *President:* S. W. North, M.R.C.S., York. *Vice-Presidents:* T. Scott, M.D., Ilkley; H. Butterworth, Bradford. *Committee:* S. Drew, M.D., D.Sc., Chapeltown, Sheffield; J. Farquhar, M.D., Pudsey; E. B. Hicks, Easingwold; J. Hardwicke, M.D., Pudsey; E. B. Low, M.D., Helmsley; T. Britton, M.D., Rotherham; R. B. Low, M.D., Helmsley; T. Britton, M.D., Halifax; T. W. Hime, M.B., Sheffield; W. Sykes, M.R.C.S., Mexboro'. *Secretary and Treasurer:* J. Mitchell Wilson, M.B., Doncaster.

The secretary was directed, in the name of the association, respectfully to request the President of the Local Government Board to allow the printed reports of the medical inspectors of the board, in so far as they relate to outbreaks of disease, to be purchased in the same way as Parliamentary papers. The association, strongly impressed with the value of these reports, desires to use them in the interest of the public and that service which they would desire to render as effective and helpful to the public weal as lies in their power.

The PRESIDENT thanked the members of the association for reappointing him president, and congratulated them on the favourable results which had followed upon the passing of the Public Health Acts, particularly the lessened death-rate from zymotic diseases, due, in no small degree, to the efforts of the medical officers of health.

Papers on the Influence of Drinking-Water in Originating and Spreading Fever were read by Mr. W. SYKES (Mexboro'), and Dr. MITCHELL WILSON (Doncaster). Mr. Sykes specially adverted to the fact, that many people are in the constant habit of drinking water largely polluted with fæcal matter, and yet do not suffer from typhoid fever. This immunity, he thought, may be due to one of two causes: either that the fæcal matter does not contain the specific germs of enteric fever, or that the persons using the water are protected by previous attacks of that disease. From the evidence of several cases in his practice, Mr. Sykes was strongly in favour of the specific origin of typhoid fever; and believed, with Liebermeister, that the decomposition of organic substances is not of itself sufficient to produce the disease. Dr. Wilson gave the details of an outbreak of typhoid fever he had recently investigated, due to specific infections having reached the common water-supply. The peculiarity of the outbreak was, that the water was not obtained from a well or cistern, but from an iron pipe, which tapped the water from the sandstone-rock, which, in that district, is found very near the surface. The infected excrement was known to have been thrown into a privy, one hundred yards from the outlet of the water; but fissures in the rock were traced from that point in the direction of, and close to, the privy in question. A discussion followed the reading of the papers.

RULES FOR THE SANITATION OF HOUSES.

A GOOD plain series of rules for the sanitation of houses, which every medical man and every householder can understand, and, if he be wise, enforce, is a matter of considerable value. In the extremely interesting and important series of practical lectures which Mr. Hellyer has, during the last Session, delivered for the National Health Society, at the rooms of the Society of Arts, he summarised the application of the principles of house-drainage in such a fashion as to form a very useful and easily comprehensible practical code. These rules, as reported in the Sanitary Journal, and which the whole of this useful and practical course has been published in brief, would read thus.

1. Pure water shall be supplied to every house for dietetic purposes, and where this water cannot be drawn direct from a constant supply, it shall be stored in cisterns easily accessible for cleansing purposes; such cisterns shall be so placed that no vitiated air can reach them, either from the house, water-closets, or ventilating-pipes—from waste-pipes, soil-pipes, or drains.

2. No draw-off cock to any sink or "fitting", other than a water-closet, shall be supplied from a cistern fitted in a water-closet, or standing in a place where any contaminated air can reach it, or from a cistern or service-pipe which also supplies a water-closet.

3. Every drain shall be trapped off from the sewer by a self-cleansing intercepting sewer-trap, fixed in every case outside the house, and where the mouths or inlets of such traps cannot be left open to the atmosphere, air-induct pipes should be taken into the drain immediately on the house side of such traps.

4. No drain shall enter the walls of a detached or semi-detached house.

5. In a line of houses, as in terraces and streets, where it is impossible for the drain to reach the soil-pipes without coming inside the house, such drain shall be of cast iron, heavy water-main strength, and this pipe shall be "Barffed" or coated with solution, and laid in a brick trench, or fixed on the face of the basement walls, and its joints well caulked with lead. The drain shall be so ventilated that not a foot of it shall be without a free circulation of air through it.

6. Every drain from a house shall be so ventilated that no stagnant air shall remain in any part of it; and where this cannot be done by air-shafts, ventilating pipes shall be fixed, and the drain divided into sections, and its branch drains, when of great lengths, localised so as to ensure ventilation in the entire system of drainage.

7. All soil-pipes, where practicable, shall be fixed outside the house, with their discharging ends exposed to the atmosphere—either directly by emptying into open traps, or indirectly by foot ventilation; and such pipes shall be carried up to the highest points of the roof full-size, for proper ventilation, having their terminals well removed from all openings into the roof or house.

8. All dirty-water wastes from sinks, baths, lavatories, etc., shall discharge themselves with open ends into intercepting traps fixed outside the house, and such pipes shall be continued up through the roof full-size for ventilation.

9. All clean-water wastes from cisterns, cistern-safes, etc., shall be kept separate from other wastes, and shall discharge with open ends into the atmosphere, well away from all drain-traps or places where any bad air can reach them.

10. All wastes or overflow-pipes from safes under water-closets, baths, etc., shall be kept separate from other waste-pipes, and shall be made to discharge in the open air.

11. Every sanitary "fitting" fixed inside a house where foul matter, or contaminated water, is passed into it, or from it, shall have its waste-pipe trapped off from the house, and such trapping shall be made immediately under such "fitting".

12. All traps fixed inside the house shall be self-cleansing; and no trap which fouls itself, or is not easily flushed out, shall be used on the drainage outside the house.

13. All traps to water-closets, slop-sinks, sinks, baths, lavatories, etc., which can have their water siphoned out by the use of any fitting upon a pipe in connection with them, or by the use of themselves, shall be ventilated, to prevent such siphonage, and also to allow of the branch pipes being ventilated.

14. No sanitary fitting shall be fixed which will not allow a good flush of water to be sent through it to cleanse it and its belongings, to prevent any pipe from it—be it a waste-pipe, soil-pipe, or drain—from getting unwholesome.

15. Every house shall be provided with proper and efficient means for flushing out the whole of its drainage.

16. The walls inside water-closet seats, the floor, and the walls of water-closets, should be made air-tight, to prevent any odours in them passing to any room adjoining, through a crevice, crack, or opening.

17. The rooms of water-closets should be well ventilated, so that a constant change of air may take place in them.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

LEICESTER.—The most remarkable feature in the death statistics of this town during 1880 is as usual, the mortality from diarrhœa. Last year there were 398 deaths from this disease, a number in excess of 1879 by 310, and an increase of 142 on the average for the past ten years. Dr. Johnston does not in his present report deal anew with the question of the causation of the disease, having almost exhausted the subject in previous reports; but he says, "Past local experience of the disease has taught sanitary officers to regard it as a rule that diarrhœal fatality in the summer months is proportionate to the degrees of heat [illegible] exception to this rule, for, on carefully comparing the weather condi-

tions in the summer of that year, with similar returns for 1876 and 1878 it appears that with lower temperatures and higher degree of atmospheric humidity, the diarrhœal deaths in 1880 were much more numerous than in either of the years referred to". He adds, "the rapid diffusion of disease, together with the high degrees of prevalence it attained to amongst persons of every age, clearly point to the operation of common causes, the more immediate of which will be found, if I mistake not, to consist of fungoid impurities in the air, derived from the putrefaction of animal refuse matter". Irrespective of the mortality from diarrhœa, the death-rate compares favourably with other large towns similarly circumstanced; the deaths from zymotic causes were 779, or 26 per cent. of the total. After diarrhœa, measles was the most fatal zymotic, causing 166 deaths, scarlet fever coming third with 119. In the first quarter of the year, 21 out of the 51 fatal cases of measles, took place among the children of the workhouse; a mortality due in the main to insufficient means of isolation. Of the scarlet fever deaths, 27 occurred in the borough fever hospital. The fatal spread of this disease in the last quarter of the year Dr. Johnston ascribes mainly to the attendance at school of children from infected houses. Typhoid fever was fatal in 51 cases; the fatality increased in the third quarter of the year at the time that diarrhœa was epidemic. Dr. Johnston attributes many of these deaths to impure water, whilst he holds foul air to be responsible for the remainder. The fever hospital was of great value as a means of isolation, and especially so during the epidemic of scarlet fever, no less than 230 persons being admitted suffering from that disease. The total number admitted was 283, 47 being from erysipelas, 5 from typhoid, and one from small-pox. During the year 28 deaths occurred in the hospital, and with the exception of one case of typhoid, all were confined to the scarlet fever wards. Dr. Johnston's elaborate comparative tables of mortality and street lists constitute, as usual, a valuable addition to his report.

LUTON.—There were 236 births and 124 deaths registered in this borough last quarter, giving annual rates of 39.3 and 20.6 respectively per 1,000. Fifteen deaths were from phthisis, and 13 from other diseases of the respiratory organs. Twenty-two deaths were referred to the principal zymotic diseases, 20 of which were from scarlet fever alone. This latter disease broke out in a large private school, which was speedily closed. The fever is now subsiding; but Mr. Sworder thinks that small thanks are due to the public, whose carelessness with regard to the spread of infectious diseases is notorious. One case of small-pox was imported into the borough from Deptford, and was isolated in the fever-ward of the infirmary; the mother of the patient being paid three guineas as compensation for keeping her shop closed for a week.

LUTON RURAL DISTRICT.—Mr. Morcom's report for 1880 is for six months only, as his appointment only commenced on July 1st, 1880. During the last half of that year, there were 107 deaths, of which diarrhœa caused 13, and scarlet fever 9. This last disease spread from a neighbouring village, but Mr. Morcom assigns no reason for its prevalence. The prevalence of diarrhœa, he thinks, is due to "improper feeding amongst infants, many of the mothers going to work during the day, leaving their infants at home to be improperly fed and badly cared for". Two deaths were caused by diphtheria, but, upon inquiry, Mr. Morcom could discover no satisfactory reason for the outbreak. With the exception of a casual allusion to the water-supply, the sanitary condition of the district is dismissed by the remark that "it is at present very satisfactory".

EALING.—In his report on this district for the months of August and September, Mr. Patten reports the occurrence of 28 deaths. In August, 16 were recorded, three of which were due to infantile diarrhœa. Of the twelve deaths registered in September, one was due to diphtheria. A small amount of scarlatina was present, but the attacks were mostly of a mild type, as evidenced by the absence of mortality. Mr. Patten states that the hot-air disinfecting apparatus has demonstrated its efficiency; but, happily, it has been but little required.

INFECTIOUS DISEASES.

DR. RANSOME, the [illegible] of the Registration of Infectious Diseases Committee, has forwarded [illegible] for publication.

[illegible] Peter's Square, Manchester, November 14th, 1881.

Sir,—From a notice of a meeting of your Health Committee, published in the *Liverpool Daily Post* of November 11th, I learn that a scheme for the early notification of infectious disease is meeting with opposition from an influential portion of the medical profession in Liverpool. As Chairman of the Registration of Disease Committee of the British Medical Association, whose scheme appears to have been adopted by your Committee, I should be glad to attempt some justification of this scheme, and of its adoption by the members of the Association in the year 1876, at their meeting at Sheffield.

I am myself inclined to think that the best justification of the undertaking [illegible] that [illegible] I mentioned, at the meeting in Sheffield, but that, also, at every subsequent meeting at which the subject has been discussed, it has always been received with cordial assent. Moreover, at the last great meeting of the Association at Ryde, the manifest favour with which the plan of the Association was received by medical men from all parts of the kingdom, proved that no alteration has taken place in the general approval of the profession. The scheme has further been ratified by the Social Science Association in its Joint Committee, and it has formed the subject of memorials addressed by both Associations to Government authorities.

It may be desirable, however, again to point out, as briefly as possible, some of the reasons that have induced those of us who are interested in the public health thus to urge forward a compulsory notification of infectious disease.

1. There is happily no reason to doubt the assertion made by one of the opponents of the measure at your meeting (Dr. Hamilton), "that medical men will do all in their power to prevent the spread of infection". We have, indeed, good reason to be proud of our profession for the constant efforts that they make in this regard; but, unfortunately, it is quite out of the power of any private medical man to do all that is necessary, in many cases, to prevent infection. This, indeed, is the very ground of our action. At all times, medical men have been thus endowed with public spirit, and yet epidemics have spread almost unchecked. Even medical officers of health, with all the powers of the law at their backs, have confessed themselves utterly unable to cope with an outbreak of infectious disease, unless they receive early notification of its outbreaking. Hence it is that further legislation on the subject is now being called for on all hands.

2. It is, indeed, hopeless to expect that mortality returns will suffice to give sufficiently early intimation of the presence of an epidemic disease. In the words of the Report of the Royal Sanitary Commission, "in nearly all cases of epidemic and contagious diseases, time is lost before the deaths, few in number in comparison with the cases, begin to attract attention. In many instances, weeks have elapsed before the existence of widely prevalent and preventable diseases has become known to any efficient sanitary authority. Thus the best opportunities have been lost, both of ascertaining the origin of epidemics, and of preventing or limiting their spread. The chances of suppressing an outbreak of disease is in direct proportion to the speed with which it becomes known to a sanitary authority; and it is only by a systematic registration of all cases, whether fatal or not, that the speediest information can be obtained."

3. The statement "that the anticipated advantages to the public health have not followed the adoption of similar clauses in other towns" must not go forth unchallenged. Assuredly, the medical officers of health of these places, who are the best judges on the point, will not endorse the opinion.

4. But the Committee of the British Medical Association was well aware that, for the successful carrying out of a prompt notification of infectious disease, the cordial co-operation of the medical profession is essential. Accordingly, in the plan of procedure drawn up by them and submitted to the Association, the greatest care was taken both that the interests of medical men should be respected, and that their relations with their patients should be interfered with as little as possible. It was arranged, therefore: 1. That the nature of the disease should be formally declared by the medical attendant to the householder, or person in charge of the case; 2. That the duty of sending on the notice to the medical officer of health should rest with the householder or person in charge; and, 3. That a fee should be paid for the certificate given by the medical attendant.

It will be observed that thus no more trouble is given to the medical man than is absolutely necessary; and that the confidence between him and his patient is in no way disturbed. Moreover, with regard to the threatened abstention of patients from sending for a medical attendant, I would point out that this would not entirely protect the householder from the law; and, in all probability, the general public would not only acquiesce in its provisions, but would soon eagerly avail themselves of them. In a very short time, it would come to be understood that, as soon as a health-officer had taken an infected house under his care, people were safe from infection so long as they adhered to his regulations; and we should find that, instead of the long delay in the restoration of public confidence that now occurs, the clean bill of health given by the health-officer would be eagerly sought for, and would be received with confidence; and thus that there would be far less interference with trade than is now the case, owing to the doubt and suspicion remaining after the cause has been removed.

Lastly, it cannot be too strongly pressed upon men's minds that, by arming their health-officer with full powers for meeting and staying an epidemic, the occasions for the exercise of those powers will become fewer; and thus not only will there be less mortality and less disease, with its heavy consequences, but there will also be much less need for the troublesome interference of the guardians of the public health.—I am, sir, yours respectfully, A. RANSOME, Chairman of the Registration of Disease Committee of the British Medical Association.—To the Chairman of the Health Committee, Liverpool.

OBITUARY.

JOSEPH McCAROGHER, M.D.,

CONSULTING PHYSICIAN TO THE CHICHESTER INFIRMARY.

ON November 5th, in the ninety-fourth year of his age, died, at Chichester, Joseph McCarogher, M.D.Edin. 1818, L.F.P.S.Glasg. 1807. Dr. McCarogher began his professional career as a surgeon in the navy. On his retirement, he was granted a pension, which he received till his death. He married the eldest daughter of the late Admiral Sir G. Ommaney, and afterwards settled in Chichester, where he held the position of councillor and alderman uninterruptedly during fifty-four years, and took a prominent part in municipal affairs. He was elected to the civic chair three times, and was appointed a justice of peace for the city in 1837. He held the office of Honorary Physician to the Chichester Infirmary from 1826 to 1866; and, on his resignation, he was unanimously elected a consulting physician to that institution. As a medical practitioner, Dr. McCarogher was skilful and judicious, and acquired a considerable practice in Chichester and the neighbourhood. He was at all times hospitable and kind, and gained the confidence and affection of a large circle of patients and friends.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at a meeting of the Court of Examiners on the 17th instant.

Messrs. Henry B. Gingell, Liverpool; Thomas Johnston, Portarlington; Alfred O. Kricht, L.S.A., Tewkesbury; Charles A. Morton, Canonbury; Thomas J. Watson, Spalding, Lincolnshire; William A. Lexwell, B.A.Cantab, Worcester; Alexander Muir; Lieut. C. Green, Chatham; Percy H. Gaudion, Lincoln; John Hepworth, Kidderminster; William F. Peck, L.S.A., New Cross, S.E.; Charles Steenson, Maidstone; George Brash, Chesterfield; and Arthur Lockwood, Low Ardsley, Dewsbury, Yorkshire.

Fourteen candidates were rejected.

The following gentlemen passed on the 18th instant.

Messrs. Ernest C. Colville, Eastbourne; Oswald Giles, Oswestry; Sidney C. Gunn, Wednesbury; William R. Pedley, Hanworth, Middlesex; Herbert F. Sieveking, Manchester Square; George P. Longman, Southampton; Harry C. Lloyd Pell, N.W.; Ernest W. Humphry, Albert Street, Hyde Park; Cosmo E. Cooper, Reading; Edward L. Williams, L.S.A., Cosham, Hants; Arthur R. Rackham, Norwich; Charles Wray, Marston, Yorkshire; Arthur T. Sewell, Shefford, Bedfordshire; William H. Kempster, M.B.Durham, Batley; and James Hague, Leigh.

Seven candidates were rejected.

The following gentlemen passed on the 19th instant.

Messrs. Walter C. Daniels, Forest Hill, Oxford; J. S. Trendell, Fulham; Frederick Stewart, Norfolk; Robert F. Bell, Bell's Beach Wall, Dublin; Archibald G. Andrews, Wolverhampton; David P. Harris, Watling Street, E.C.; Thomas C. S. Sanders, B.A.Cantab, Lower Belgrave Street; Henry L. Lawes, B.A.Cantab, Hendre, Carmarthen; Edgar Elliott, Wimborne, Dorset; Robert Scott Allen, Lancaster; Francis E. Manston, Dulwich, Surrey; Frederick J. Ingoldby, Shepherd's Bush; William C. Adams, Regent's Park Road; Ernest W. Berman, M.A.Cantab, L.S.A., Gloucester Street; William H. W. Strachan, Penge; Thomas E. Carter, Uxbridge; Henry S. Wood, M.B.Melb., Paddington Road, S.E.; and Henry C. Bevan, Tal-arn, Glamorganshire.

Seven candidates were rejected.

The following gentlemen passed on the 21st instant.

Messrs. W. Sidney Wheeler, Wimpole Street, S.W.; Henry W. Dodd, Hyde Crescent, N.W.; Percy Pope, Woodridings, Pinner; Ernest G. A. Walker, Retford, Notts; Charles J. Pugh, L.S.A., Hobart Town, Tasmania; Frank Hewlett, Dulwich; Gerald Nicholson, Winchester Place; Alfred G. C. Pearson, Streatham; Joseph Pollard, M.A.Cantab, L.S.A., Hitchin, Herts; Theodore H. Waller, Bedford; George L. Webster, L.S.A., Portsdown Road, S.W.; Francis H. Unsworth, L.S.A., Derby; Albert T. Coombe, Gloucester Road, N.W.; and Sidney Davies, Anerley, S.E.

Eight candidates were rejected.

With this meeting the examinations for Membership of the College for the present year were brought to a close.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 17th.

Lindsay, Arthur, Bishopthorpe, York.
Mitra, Jogendra Nath, 22, Keppel Street, W.C.
Pye, Sidney Percival, Camden Street, N.W.

The following gentleman also on the same day passed the Primary Professional Examination.

Mayo, John, London Hospital.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, November 7th, 8th, 9th, and 10th, 1881, the following candidates were successful.

[illegible]
Jones, Henry Kelly, Edward Hyde Parker, Arthur Alexander Joseph, Michael Cahill, William Lane M'Cormac, Joseph Francis O'Connor, Patrick de Basterot Skerrett.

[illegible]

The following Licentiates of the College, having complied with the by-laws relating to Membership, were admitted Members of the College.

Lieutenant-Colonel Alexander Macdonald, M.D.Dubl., and F.R.C.S.I., Lieutenant-Colonel Army Medical Staff; William Mercer Pare, Surgeon R.N., Bantry, County Cork.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BACONY PARISH HOSPITAL, Glamorgan.—Medical Officer. Salary, £[illegible] per annum. Applications to Dr. Cox, Medical Officer, Llanbradach, Glamorgan.

DUBLIN AND IRISH AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Officer. Salary, £200 per annum. Applications to Mr. N. Udall, 12, St. Paul Street West, Burton-on-Trent, by November 30th.

BURY ST. EDMUNDS.—Qualified Assistant [illegible] practice. Salary, £[illegible] per annum. Apply to [illegible], Watling Street.

CENTRAL LONDON OPHTHALMIC HOSPITAL, [illegible]—Assistant Surgeon. Applications to Dresser.

CHARING CROSS HOSPITAL, Strand.—Assistant [illegible] by December 1st.

CYRUS.—Two Assistant [illegible] Salary, £150 per annum. Applications to the Assistant Private Secretary, Colonial Office, London.

DARLINGTON HOSPITAL, [illegible] annum. Applications to [illegible]

DENTAL HOSPITAL, [illegible]—Dental Surgeon. Applications by December 12th.

GENERAL INFIRMARY, [illegible] SHEFFIELD EYE INSTITUTION.—[illegible] Applications by [illegible]

CLINICAL HOSPITAL AND DISPENSARY, [illegible] Medical Officer. Salary, £[illegible] per annum. [illegible] by December [illegible]

KENT COUNTY ASYLUM, [illegible] Medical Officer. Salary, £[illegible] per annum. Applications to M.D., Superintendent, by November 30th.

LOWESTOFT FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Surgeon. Salary, £[illegible] per annum. Applications to [illegible] Lowestoft, by December 1st.

METROPOLITAN DISPENSARY, [illegible] Dispenser.—Salary, £[illegible] per annum. Applications by November 30th.

MIDDLESEX COUNTY LUNATIC ASYLUM, [illegible] Medical Officer. Salary, £[illegible] per annum. Applications by November 30th.

NORTH DUBLIN UNION, [illegible] Medical Officers. Salary, £[illegible] per annum each. Applications by November 30th.

NORWICH FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant House Surgeon. Salary, £[illegible] per annum. Applications by [illegible]

READING AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary, £[illegible] per annum. Applications to S. Griffin, Secretary, 9, Alfred Street, Reading, by November 30th.

ST. MARY'S HOSPITAL, Paddington.—Medical Superintendent and Registrar. Salary, £[illegible] per annum. Applications by December [illegible]

VICTORIA HOSPITAL FOR CHILDREN, [illegible] Assistant Physician. Applications to the Secretary [illegible]

MEDICAL APPOINTMENTS.

BOOTH, T. C., M.R.C.S., [illegible] Children, Gartside Street, Manchester, *vice* R. C. Birch, L.R.C.P., resigned.

FOX, T., L.R.C.P., appointed Physician to the North West London Hospital, 20, Kentish Town Road, N.W.

GRAY, C. L., M.R.C.S., appointed Assistant Surgeon to the Royal Sussex, Eye and Ear, and St. Leonard's Infirmary, *vice* D. W. Duke, L.R.C.P., resigned.

GRAY, W. Forest, M.R.C.S., appointed Medical Officer to the Maternity, Dorchester, *vice* John Good, M.R.C.S.Eng., superannuated.

GREEN, A. L., L.R.C.S., appointed to the North West London Hospital, 20, Kentish Town Road, N.W.

HYDE, Frederick A., M.R.C.S., appointed Physician to the Medical Officer to the Jersey General Dispensary, *vice* W. G. Reid, M.B., resigned.

JONES, D. R., L.S.A., appointed Medical Officer to the Carmarthen Workhouse, Abergwili.

LYON, G. I., M.B., [illegible] Basis, Perthshire, Poor-law Medical Service, [illegible]

MURPHY, John, L.&L.M.K.Q.C.P.I., L.R.C.S.I., appointed Assistant Physician to the Meath Hospital, Dublin.

OLIVER, H. G., M.D., C.M., M.R.C.S., appointed [illegible] Dispensary, [illegible]

PAGE, W. J., M.R.C.S., appointed House Surgeon to the General Hospital, [illegible]

SMITH, W. I., M.B.[illegible], appointed Medical Officer to the Middlesex County Asylum, Hanwell, vice [illegible], M.D., resigned.

WILSON, H. F., M.R.C.S., appointed Assistant Medical Officer to the Parkhurst Asylum.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

LOWE.—At Lisson, Bury, on the 20th November, the wife of H. F. Lee, M.D., of a son.

MARRIAGE.

WHITE—[illegible]—On the [illegible] Rev. Arthur [illegible], M.A., Vicar of St. [illegible], Wakefield, to Alice, eldest daughter of the late [illegible], Esq., of Stanley, Wakefield.

DEATHS.

CHRISTISON.—On November [illegible], at Ashley Terrace, Edinburgh, Margaret Cowie, the beloved wife of Professor Christison, M.D., LL.D., in the [illegible] year of her age.

COWIE.—On the 19th November, 1881, at Ashley Terrace, Edinburgh, Margaret Cowie, M.D., M.R.C.S., aged 39.—R.I.P.

Sir Massey Lopes has given £1,000 to the new building fund of the South Devon and East Cornwall Hospital, with a request that one of the wards may be named after his residence, the Maristow Ward.

Dr. George Holt, the medical officer of the Leamington Amalgamated Friendly Societies' Medical Association, has committed suicide by swallowing a quantity of prussic acid. He had held the appointment for a few months.

Western Infirmary, Glasgow.—The following gentlemen have been appointed Resident Assistants in this infirmary for six months, beginning November 1st:—*House Physicians*:—John M. Young, M.A., M.B., C.M.; John M. Hunt, M.B., C.M.; Edgar Haydon, M.B., C.M.; George Dickson, M.B., C.M. *House Surgeons*:—J. Macpherson Lawrie, M.B., C.M.; Anstruther Davidson, M.B., C.M.; Fred. H. Clarke, M.B., C.M.; James W. Grange, M.B., C.M.

Public Health.—The annual rate of mortality last week, the forty-sixth week of this year, in twenty of the largest English towns, averaged 20.6 per 1,000 of their aggregate population. The rates of mortality in the several towns were as follow: Norwich 17, Leeds 17, Bristol 17, Plymouth 18, Sheffield 18, Bradford 19, Birmingham 19, Leicester 19, London 19, Oldham 19, Newcastle-on-Tyne 20, Wolverhampton 21, Portsmouth 21, Nottingham 22, Manchester 23, Salford 23, Sunderland 24, Brighton 25, Liverpool 26, and Hull 27. The highest annual death-rates per 1,000 from scarlet fever were 13.8 in Hull, 4.4 in Nottingham, and 2.4 in Brighton; from measles, 3.1 in Liverpool, and 1.7 in Manchester; and from "fever", 1.2 in Portsmouth, and 1.0 in Brighton. The 26 deaths from diphtheria in the twenty towns included 15 in London, and 6 in Portsmouth. In Hull, 41 more fatal cases of scarlet fever were recorded, making no fewer than 470 that have been recorded since the beginning of July. The 11 deaths from measles in Manchester included 10 in the Crumpsall Workhouse. Small-pox caused 14 more deaths in London and its outer ring of suburban districts, and 2 in Salford; no fatal case of this disease was registered in any of the eighteen other large provincial towns. In London, 2,623 births and 1,434 deaths were registered. The deaths were so many as 302 below the average. The annual death-rate from all causes, which had been equal to 22.4 and 22.3 per 1,000 in the two preceding weeks, declined to 19.5 last week. At Greenwich, the mean temperature of the air was 49.0°, and 7.3° above the average. The mean exceeded the average on each day of the week. The mean degree of humidity of the air was 87, complete saturation being represented by 100. The general direction of the wind was S.W., and the horizontal movement of the air averaged 15.8 miles per hour, which was 3.5 above the average. Rain fell on Wednesday and Friday, to the aggregate amount of 0.18 of an inch. The duration of registered bright sunshine in the week was equal to 33 per cent. of its possible duration. The recorded amount of ozone exceeded the average, especially on Tuesday, Thursday, and Saturday.

Health of Foreign Cities.—The following statistics, deduced from a table in the Registrar-General's last weekly return, afford useful indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate, according to the most recent weekly returns, averaged 32.6 per 1,000; it was equal to 26.7 in Calcutta, 28.4 in Bombay, and 36.2 in Madras. Cholera caused 22 deaths in Calcutta and 3 in Bombay, and 5 fatal cases of small-pox were reported in Madras. The death-rate in Alexandria was equal to 30.0, and showed a considerable decline from the rates in recent weeks; the recorded deaths included 3 fatal cases of typhoid fever. According to the most recent weekly returns, the average annual death-rate in twenty European cities was equal to 26.3 per 1,000 of the aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 20.6. The rate in St. Petersburg showed a further increase to 40.8, and the 524 deaths included 26 from typhus and typhoid fevers, and 15 from scarlet fever. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 18.1, the highest being 20.8 in Copenhagen; 3 fatal cases of diphtheria were recorded in Stockholm. The Paris death-rate was equal to 27.2, and the deaths included 54 fatal cases of diphtheria and croup, and 40 of typhoid or enteric fever. The usual return from Brussels is again absent from the table. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the rates averaged 22.1, and the highest was 23.3 in Amsterdam, where 2 fatal cases of scarlet fever were reported. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 27.1, and ranged from 21.4 and 21.8 in Berlin and Hamburg, to 29.3 and 32.1 in Buda-Pesth and Breslau. Small-pox caused 16 deaths in Vienna and 13 in Buda-Pesth; diphtheria showed fatal prevalence in Berlin and Dresden. The death-rate in two large Italian cities averaged 26.4, and was equal to 28.5 in Naples and 21.7 in Venice; measles caused 16 and enteric fever 15 deaths in Naples. In four large American cities, the death-rate averaged 25.4; it was 21.5 in Philadelphia, 22.6 in Brooklyn, 27.5 in Baltimore, and 29.3 in New York. Scarlet fever and diphtheria caused a considerable mortality in New York, Brooklyn, and Baltimore; 6 fatal cases of small-pox were recorded in Philadelphia.

Obstetric Aphorisms.—Dr. H. Webster Jones, of Chicago, as chairman of the Committee on Obstetrics, closed his report to the Illinois State Medical Society with the following sayings. With these as his guide, in the opinion of the *Michigan Medical News*, the practice of the obstetrician of to-day would furnish less work for the gynæcologist: 1. An intelligent confidence once thoroughly established between patient and physician does much to banish the terrors of the lying-in room. 2. It is possible to foresee and prevent the occurrence of the almost fatal form of eclampsia gravidarum. 3. Cleanliness is especially next to godliness, in the case of the accoucheur. Its absence renders one liable to professional homicide. 4. The modern midwifery must not be meddlesome, but must be mediatorial in the sense of palliating suffering, expediting nature's processes by well proven means, and removing scientifically all inexplicable, accidental or morbid states and conditions. Idleness is no longer an approved qualification for a degree of obstetrics. 5. The hand is the best utertine dilator. 6. The forceps should never be employed until the os uteri is dilated or dilatable, and then not unless the membranes have been ruptured and labour delayed unnaturally for at least an hour. Every practitioner should become skilful in their use, and they should never be left at home for fear of temptation. 7. Unnecessary and avoidable delays in labour are fruitful sources of gynæcological practice. They promote inflammation and sepsis. 8. The patient's hopeful confidence, and the physician's industrious attention, actually contribute to the physiological elements of labour. Anæsthetics here, are, to say the least, superfluous. 9. Bi-manual aid in effecting the deliverance of the placenta, is not only proper but advisable. Skilfully rendered, the cry of "uterine inversion" becomes no longer a bug-bear. 10, The continuous and intelligent counter-pressure over the fundus uteri during the child's exit, the delivery of the placenta and the period of frequent oscillation, be that a shorter or a longer time, is a safeguard never to be neglected. 11. Pursuant to the same end, the application of the bandage and its continuance, as long as the uterine globe can be felt and embraced by it above the pubis, contributes not only to comfort, but to speedy involution. After the seventh day, close pressure must be interdicted. 12. Puffiness of one ankle, with tenderness of the corresponding groin, and an abnormally quickened pulse, with or without copious sweating, noticed within the first ten days after labour, betoken the presence of phlebitis, and the possibility of embolism or thrombus, and resultant sudden death. 13. The duties of an obstetrician are not concluded until a careful examination, from six to eight weeks after parturition, proves the integrity of all the organs concerned.

The Revenue from Patent Medicines.—A return just issued shows the number of licences to sell patent medicines taken out during the year ending the 31st of March last to have been 18,754, for which there was paid the sum of £4688 10s. The revenue derived from stamps for patent medicines during the same time amounted to £139,762 18s. 10½d., which represented 17,198,442 stamps of different values.

Merthyr Tydfil.—Mr. Dyke's report on this district, for the third quarter of the present year, shows an alarming mortality from scarlet fever, no fewer than 68 deaths having been reported during that period. The epidemic first appeared in the first quarter of the year, and gradually spread over the whole of the district—causing, from January 1st to the end of September, 99 deaths. Of the 68 which occurred during last quarter, 21 (nearly one-third) were those of children above four years of age and not over seven years of age. Mr. Dyke urges upon his authority the necessity of the closure of infant schools in the infected districts, and of a strict examination of those children admitted to the upper schools—instancing, in support of his recommendation, two striking proofs of the cessation of the epidemic during the holidays of the children, and of its recurrence when children from an infected house were admitted to the schools. The general death-rate of the district was equal to 23.0 per 1,000; 33 per cent. of the total deaths (281) being of children under five years of age. Consumption caused 11 per cent. of the total mortality.

No fewer than 2,800 unwholesome houses have been pulled down in Edinburgh since 1867, and over half a million have been spent since that year in city improvements. In 1863 the death-rate was twenty-six per thousand per annum; now it is twenty per thousand.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2, o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th. F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Routh: On the necessity of adopting a different mode of Burying Bodies the subject of Infectious Disease. Dr. Gilbart Smith: A case of Hæmorrhage into the Mesentery.

THURSDAY.—Harveian Society of London, 8.30 P.M. First Harveian Lecture, by Dr. Alfred Meadows: Menstruation and its Derangements.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS relating to editorial matters should be addressed to the Editor, 161, Strand, W.C.; letters relating to business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE VERDICT TESTIMONIAL.

SIR,—Permit me to acknowledge the receipt of the following contributions in respect of the above testimonial, and to say that I have transmitted the cheque to Berlin. If any reach him before the 15th, I shall be happy to receive them, and forward faithfully,

J. S. BRISTOWE.

11, Old Burlington Street, W., November 17th, 1881.

	£	s.	d.		£	s.	d.
Sir Thomas Watson, Bart.	5	5	0	Dr. [illegible]	1	1	0
T. B. Aveling, Esq.	1	1	0	Dr. C. E. Buckeridge	1	1	0
Dr. Eye Smith	1	1	0	Joseph Lister, Esq.	2	2	0
Dr. W. H. [illegible]	1	1	0	Dr. M. Watson	1	1	0
Dr. Sawyer	1	1	0	Dr. A. R. [illegible]	1	1	0
Mr. Yeeles	2	2	0	From Mr. [illegible] (per Dr.			
Dr. F. Edmunds Clarke	1	1	0	Dr. [illegible]	17	17	0
John Simon, Esq.	1	1	0	Dr. A. B. St. [illegible]	1	1	0
Dr. [illegible]	2	2	0	Dr. C. [illegible]	1	1	0
Spencer Wells, Esq.	5	5	0	Dr. P. [illegible]	1	1	0
Dr. C. T. Williams	1	1	0	Dr. Norman Walker	1	1	0
Dr. W. M. Ashby	1	1	0				

A CASE FOR ARGUMENT.

SIR,—I am a country practitioner, and do not [illegible] charities, and I have [illegible] section, or perhaps I ought to have done. Consequently, I am not alarm I now learn, from your report of the proceedings against Professor Ferrier, at the Bow Street Police Office, that it is no longer lawful in this country to perform any experiment on a living animal without having a licence, or to keep any animal experimented on alive after the cessation of the experiment without certificate, in addition to a licence. Now, sir, for upwards of forty years, ever since I passed College and Hall, I have been in the habit of performing, at short intervals, in the privacy of the lying-in room, a decidedly painful experiment on a living animal (for I suppose a new-born baby comes under that category) with a view to the establishment of respiration. I confess at once that I have no licence for this experiment, and that it has frequently been performed with the [illegible] of keeping the subject of it alive after its cessation, although no certificate sanctioning such a procedure had been obtained. Were I brought up before the magistrates, I should defend myself by arguing that, at the incession of the experiment, the subject of it was not truly living, but only a lump of tissue possessing potential vitality; but to my professional brethren I must needs admit that this would be a technical [illegible], not to say a [illegible], for [illegible] operation is often resorted to merely to strengthen and confirm the respiratory process when it is already established, and when a [illegible] would amount to infanticide. That the operation is an experiment cannot be denied; for it is often undertaken in great uncertainty as to its result, or the advantages arising to accrue from it, and that it is painful must be admitted, if [illegible] squalling coupled with cutaneous erythema, are to be regarded as signals of pain. Now, sir, what I want to know is, Do I stand in any peril if I continue to perform this experiment without a licence? Am I liable to penalties if, having no certificate, I keep the infant alive after its cessation? and may my excellent coadjutor Mrs. Mugford get into trouble for standing by with a smile on her expansive countenance, and taking an interest in the experiment? If [illegible] absolutely necessary, will a gun-licence do, a gun being an instrument specially designed for the performance of painful experiments [illegible]? I am, sir, your obedient servant,

OBSTETRICUS OBFUSCATUS.

MEDICAL ETIQUETTE.

SIR,—Would you kindly inform me whether, in the following case, I acted in an [illegible] manner? [illegible]

A stranger, lately arrived, and living in the neighbourhood, and previously not having employed any medical man, had his child taken ill with convulsions. He sends his servant to the nearest medical man, A., with instructions, if he is not at home, to proceed to B., and ask him to come down at once. A [illegible] with the message, and B. went. While there [illegible] A. had been sent for, and [illegible] been, considers B.'s conduct unheard of in claiming the case as his own. The patient is an entire stranger to all three. I enclose my card and address; and remain, yours faithfully,

B.

*** We [illegible] B.'s statement [illegible] in all [illegible] we think that he was [illegible] in attending the patient.

SIR,—I should like to have your opinion, and that of any professional brethren, as to whether I acted correctly or not under the following circumstances.

Mr. Brown, whom I have attended for many years, marries Miss Green, all of [illegible] I am [illegible] the husband." I need scarcely add that, after this, he consulted his wife's doctor.

I am, yours obediently,

*** Our correspondent acted with dignity.

SIR,—A. and B. are partners; the district union appointment, together with the [illegible] I am [illegible] to his share of all the proceeds of the business. The fees for vaccination, and any [illegible] a large [illegible]

SIR, I am [illegible] faithfully,

Byer Green, Bishop Auckland, November 19th, 1881.

*** [illegible]

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

operations performed on these monkeys were performed by Professor Yeo, who had Ferrier did was to take part in the observations made upon these monkeys, at the recent Medical Congress, without, apparently, causing them any fresh pain whatever. Under these circumstances, of course, the prosecution failed. But we think the public will see with dismay that licences are still granted enabling medical men to take away parts of the brain of the higher animals, and then to keep them in that mutilated state for the purposes of psychological experiment."

by Sir James Ingham yesterday, seems to have been entirely misunderstood. It was not a charge of cruelty, nor an attempt to suppress the practice of vivisection for purely scientific purposes, but was simply a charge of performing these experiments without a licence. It was dismissed solely on the ground that the operation was performed by Professor Yeo, who held a licence, and not by Professor Ferrier, who had not taken one. The excitement which the prosecution seems to have produced, both on the side of the medical profession and on that of the opponents of vivisection, is altogether needless. The trial has proved that Lord Carnarvon's Act does not prevent the performance of operations in which pain is inflicted on the lower animals in the interest of science, provided that the operator has received a special licence to make the experiments. Such a licence would never be denied to scientific men of the standing of Professor Yeo or Professor Ferrier; and the public would be quite willing that they should be allowed great freedom of action. Professor Ferrier's discoveries respecting the functions of the brain, and especially in showing that many of those functions are localised, have been, and are likely to be, of great value to mankind. Whether they can be made without the infliction of cruel suffering on dumb creatures we are not informed. It is certain that considerable pain has been inflicted, and that the great mass of civilised mankind read of such infliction with a sense of horror and indignation which no certainty of scientific gain will ever repress. It is of no use to be angry with the public for this sentimentalism, and scientific men will be wise if they contrive to conduct their experiments in a way which will enable them to show, when they are challenged, that every possible precaution against cruelty has been taken."

The *Weekly Dispatch* writes as follows: "The antivivisectionists have not been very wise in their proceedings against Professor Ferrier. If they can show that the law is broken by students who, even it may be in the honest pursuit of knowledge, deal cruelly with the animals on which they experiment, good service will be done by the exposure, and public sympathy will go with those who bring the cruelty to light. None but shallow sentimentalists, however, can object to scientific investigations, wisely and humanely carried on, by which, with a minimum amount of pain to an animal here and there, discoveries are made which are calculated to immensely reduce the amount of pain caused by preventable disease. Even the antivaccinationists are not so silly as to base their complaint against vaccination on the small amount of trouble and discomfort to which an infant is subjected in order to protect it from great risk in after-life. Yet that is the sort of argument used by the antivivisectionists, who would stay all physiological research, by which millions of lives may be prolonged, and all sorts of grievous diseases may be averted, merely because now and then a dog or a monkey is made to suffer rather more than it otherwise would in dying. In the present case, the antivivisectionists altogether failed in their charges against Dr. Ferrier. The only effect of their proceedings was that a parcel of vulgar medical students hooted them unmercifully, and perhaps took home a lesson as to the way in which, if they are so minded, they may prosecute very cruel and very useless experiments with impunity."

The *Times* did us the honour, thereby rendering great service to science and reason, of reproducing in its columns the entire leader which we published on Saturday last, reviewing the nature and results of Professor Ferrier's researches.

The *Standard* had also an excellent article on the subject, on the side of reason and truth, and reprobating the attack upon Professor Ferrier, and through him upon physiologists at large.

MANIPULATION OF THE SCAPULA IN DISLOCATION OF THE SHOULDER.

SIR,—In your impression of October 15th, I see an observation of Dr. Illingworth's respecting "The Manipulation of the Scapula in Dislocation of the Shoulder", and the ease with which he restored the head of the humerus into its normal site. This has been an incentive to my recording my two last reductions, with ease to myself and comfort to my patients, without resorting to the old-fashioned "heel in the axilla" plan, which is, to say the least of it, rough and clumsy, and, in my mind, attended with greater difficulty than the method I am about to explain, and which I do not for one moment record as being novel, but as being easily carried into execution without the aid of a second person. Though my cases are but two in number, they were typical so far as that there was complete dislocation of the head of the humerus into the axilla, occurring, in both instances, in strong and well-developed young men.

The patient, being completely stripped as far as the upper part of the body is concerned, is either made to lie on a couch or a bed, or he can be, from my last experience, easily manipulated in a sitting posture. Take, for example, dislocation of the left shoulder. The left wrist is grasped with the left hand, and the arm gently abducted; the fingers of the right hand are then firmly pushed between the head of the humerus and the wall of the thorax, when, with a sweep of the arm across the body, the head of the bone is easily lifted, and slides into the glenoid cavity.—Yours truly, E. T. T.

PILOCARPIN IN SKIN-DISEASES.

SIR,—I am at present trying the hypodermic injection of pilocarpin in a very chronic case of psoriasis, and, it seems, with beneficial results. I also purpose to commence the same plan of treatment in a case of the rare cutaneous affection, lichen ruber. May I ask, through your columns, if any of your readers have tried pilocarpin in skin-complaints, and what have been the results?—I remain, sir, yours, H. S. PURDON, M.D.

60, Pakenham Place, Dublin Road, Belfast, November 10th, 1881.

candidates. They were required to answer at least four, including one of the first

of the entire Upper Jaw-bone. 3. What circumstances would lead you to suspect the Glottis? What are the risks which it entails, and what treatment would you adopt? Whitlow, and their complications. What treatment is appropriate to each? 5 Describe the probable course of Syphilis during the first year from the date of infection, in the absence of treatment; giving carefully the probable dates and duration of the various symptoms. 6. What symptoms would lead you to suspect an

The following were the questions on the Principles and Practice of Medicine. 1. State exactly the physical signs of the different recognised varieties of disease of the Aortic and Mitral Valves; and enumerate and discuss the consequences of would you recognise its presence? And how would you discriminate its several Belladonna, Aconite, Indian Hemp, Strychnia, Elaterium, Colchicum, Arsenic, tions of each of them.

M.B. form suggested.

POST MORTEM EXAMINATIONS.

SIR,—May I ask you if you would kindly give me the benefit of your long experience, and express an opinion on the following case? I occupy the position o resident surgeon to a metropolitan hospital, and, in the course of my duties a short time back, admitted a man suffering from a fractured thigh and other injuries. A fortnight after admission, the patient suddenly died, and I applied to the coroner for an order to make a *post mortem* examination, as I was quite unable to account for the cause of death. This was refused; and as, at the inquest, I stated my inability to connect the man's injuries with his sudden death, the jury insisted (much against the coroner's wishes) on an adjournment, in order that I should make an examination. The usual order was sent me, and, at the adjourned inquiry, I showed that death was due to old-standing heart-disease, and the formation of a clot in the pulmonary artery. On applying for the usual fee for making the *post mortem* examination, I was refused, on the ground that the deceased man died in the hospital.

What I wish to consult you upon is, whether I am entitled to claim a fee for a coroner's order to make a *post mortem* examination, quite irrespective of whether an individual dies in or outside the hospital. I am, moreover, informed that, had another medical man received the order under similar circumstances, he (although in no way connected with the hospital) would also be refused any payment for the services rendered.

The amount of remuneration received by the junior members of the profession in return for the great amount of work required of them, is already so small, that I arduous and dangerous duties which are entirely outside their official work. As several surgeons of public institutions whom I have consulted have been unable to give me a decided answer on this subject, I have ventured to apply to you, as the chief authority of the British Medical Association, to which I have the honour to belong.—I am, sir, yours, G. REKAB.

*** Our correspondent's case is a very hard one, but we much fear that he has for; by the 6th and 7th Gulielmi IV, Chapter 89, Section 5, the following appears: "Provided also, and be it further enacted, that, when any inquest shall be holden on the body of any person who has died in any public hospital or infirmary, or in any building or place belonging thereto, or used for the reception of the patients thereof, or who has died in any county or other lunatic asylum, or in any public infirmary or other public medical institution, whether the same be supported by endowments or by voluntary subscriptions, then, and in such case, nothing herein contained shall be construed to entitle the medical officer who may have been to attend the deceased person, as a medical officer of such institution as aforesaid, to the fees or remuneration herein provided." We have said that the case is a hard one, because it is within our knowledge that coroners have repeatedly granted fees to house-surgeons and physicians of metropolitan hospitals, when required under their order to make *post mortem* examinations, or to attend and give evidence in their courts; and it is in all probability due to the persistence of our correspondent (in opposition to the convenience of the coroner) to give evidence, without facts to guide his judgment, that has led to the refusal in the case before us. Our correspondent, however, has unwittingly raised a question which should be dealt with, and would be if our hospital surgeons and physicians were true to themselves and to each other. It is, Why should honorary surgeons and physicians be debarred from receiving a fee for their evidence, etc.? We are aware that, at the time the Act was passed, the late Mr. Thomas Wakley, to whom it was owing that the measure legalising payment to medical witnesses was introduced, encountered the most determined opposition from the economists of that day; and only succeeded in getting the Bill through at all by allowing this particular amendment to be passed. We have heard him state that the principal objection made by the opponents of the measure was this, that, if such restriction were not introduced, honorary surgeons and physicians from public institutions would be multiplying inquests indefinitely. Seeing that the Act has been in existence about forty-five years, is it not time to take some public action whereby these gentlemen should be relieved from this gratuitous stigma on their honour, and from the disabilities arising therefrom?

M.B.—It is a common practice to exhibit diplomas at meeting rooms. It would be hard to say that the custom is unprofessional.

Unqualified Assistants.

Sir,—Two considerations appear to indicate the desirability of promoting the discussion of the question of employing unqualified assistants at the present moment. These are: *a*. The deliberations of the Medical Commission. *b*. The rapidly progressing development of medicine as a profession, which calls for the early settlement of the question.

Now, since the final settlement of this question appears likely to take place at the hands of those who have no personal interest in, nor, in the majority of instances, any experience of, the unqualified assistant system, at the hands of medical M.P.'s and hospital professors—it is of the utmost importance that those more immediately concerned, viz., the general practitioners, should express their views on the matter. The complicated nature of the question calls for an arrangement of matter.

A foundation may be laid for these observations by enunciating the most common grounds (*a*) against, (*b*) for, the unqualified assistant.

A. *Arguments against* (to which are added a few comments). *a*. They are generally incompetent men. This, of course, is a distinct wrong to the public, which, under the guarantee afforded by the principal's qualifications, is liable to have foisted upon it incompetent and unreliable attendance. (This proposition must be refuted or verified, according to the collective observations and experiences of the medical profession.) *b*. The employment of unqualified assistants abates the stimulus to qualify. This, on the other hand, is an injury to the profession, which has a right to take all necessary steps to ensure a high standard of proficiency in its members. (Against this, it may be urged that it enables poor men of ability to qualify, who would otherwise be compelled to abandon the intention. Among the leaders of our profession are to be found more than one to whom the attainment of his present position would have been out of the question, but for the aid rendered by an unqualified assistancy.) *c*. The system is unfair to qualified assistants. (As now permitted, it is. I believe, however, it would be remedied by adoption of the reform suggested below. Those who are absolutely incompetent to qualify would be removed; and, for the rest, those who were able to comply with the conditions would not be likely to look upon a mere unqualified assistantship as a satisfactory goal.

B. *Arguments for.*—*a*. It is antecedently desirable that the profession should have a probationary office, comparable to the diaconate in holy orders, and the articled clerks high in the legal profession. *b*. Such an office is no more than the due of poor men of ability. (*See* comment on A *b*, *supra*). *c*. It is desirable for the profession itself, that its ranks should be able to be enriched (as those of most other occupations are) by the addition of much genius and intellect which must otherwise (A *b*) be lost to it. Those men of eminence in the profession who have, so to speak, risen from the ranks by their own industry and ability, should, in common justice, hesitate before kicking away the ladder by which they themselves ascended, and so preventing a repetition of that which, in their own case, has proved a boon to the public, the profession, and themselves. This argument applies *à fortiori* to the still larger number of general practitioners of ability and skill, whole valuable and valued services to the community depended at one time on the same conditions. *d*. General practitioners require such men to dress cases, assist in emergencies, dispense, and help at operations, just as the hospital staff require the same assistance in dressers and clinical clerks. What applies to one condition applies equally to the other, and I venture to think that the arguments for and against are interchangeable in the two cases. *e*. The system tends to the public good, by enhancing the practical efficiency of medical men. Many a man learns, in his unqualified assistancy, points of practical importance, ethical conduct, or tact and management, which he might never acquire after years of mere hospital training. *f*. Lastly, among unqualified assistants, there are many men of special ability and skill. My present assistant is a man whom, for culture and ability, I would not exchange for the run of junior qualified men; a man of considerable scientific attainments; a diligent student of London, Sheffield, and Paris; the author of more than one book, and many articles in standard magazines on subjects of a quasi-medical bearing; a member of several learned societies; and one whose name, were I to mention it, would be known to many of the most advanced scientific thinkers of the day.

On reviewing these two sets of arguments, the question presents itself, Are we to retain or abolish the office of unqualified assistant? If it were necessary to adopt one or the other course as it stands, I think I should deem it necessary to cast my vote for the retention of the office. But let us see if a course be not possible by which the disadvantages of group A may be obviated, while the advantages of group B may be retained. The [illegible] might be done by instituting a practical examination of a modified character, which should purge out the dross, while retaining the ore.

I suggest that the examination be open to (*a*) registered students of, say, four sessions; (*b*) those who have completed a pupilship to a general practitioner. It may be asked: Granting the proposition so far as class (*a*) is concerned, is it desirable to extend it to class (*b*)? I reply "Yes"; for, to deny it to them is to imply that the general practitioners are, as a body, (*a*) incompetent judge of proficiency; or (*b*) dishonest and untrustworthy. The first imputation is a special insult to the examining boards, and a general one to the profession. The second is to suppose the same practitioners, as a class, to be less conscientious and less concerned for the welfare of the profession, than the hospital teachers, who possess similar powers; and the question can only be regarded in the light of a gratuitous insult to the main body of the profession.

There is yet another reason; which is, that the R.C.S.Lond. and R.C.P.Edin. both [illegible] pupilage, practically, as the [illegible] part of their curriculum. Whether this be right or wrong, it remains so, it demands the adoption of the course under consideration.

Lastly, what is to be done with the men already practising as unqualified assistants? They must either be registered at once, or admitted, *sine curriculo*, to the [illegible] for this, as in all the [illegible] due regard must be paid, and preservation secured, to existing lawful interests; and these are "lawful" [illegible] by law; such [illegible] of the examination [illegible] practising (and [illegible] tantamount to partial [illegible].

A General Practitioner (P.A.Cantab).

[illegible]

In connection with Dr. Pigeon's Bill on Vivisection, at the last meeting of the British Medical Association, it is worthy of note that Dr. Markham, in his address in Surgery, makes reference to over one hundred experiments, which have been carried out by physiologists during the last year. In the latter category would fall the standard work of the country on physiology, and which is read by all our medical students, and, of course, by the best part of the [illegible]. How necessary must it be that our physiologists should be able to carry on their researches by such experiments as may seem desirable to them.

Legislation doubtless has done good service in stopping indiscriminate vivisection, but we may hope that it may yet be proved to the greater number of those who still support the Antivivisection League that physiology, in conjunction with anatomy and histology, forms the only basis for true medical science, and that to stay its progress is to lessen very materially the means for advancing our knowledge for dealing with disease. Every [illegible] who make a [illegible] of the Society and Hospital [illegible] should be [illegible] to see that they might suffer in some future illness through the retrograde action of their employers. Could they only be given a vision of the sick-room of that member of the Royal family, who, taken with scarlet fever in the days when physiological knowledge was so scanty indeed that he was dosed by the Court physician with a decoction made from red berries, was covered over with scarlet-coloured blankets, his pillows being cased in scarlet, and his bed closely surrounded with scarlet curtains, they would thank their stars that they lived in these days; and perhaps would generously hope that, for the sake of future generations, physiologists would still further be able to advance the treatment of disease.—I am, sir, yours faithfully, W.

Burial Reform.

Sir,—As a nation, England is lamentably behind foreign nations in matters of [illegible] æstheticism. We lack the attribute of ideality, fail to cultivate the poetical faculty, and regard change with suspicion. These characteristics account for many of our shortcomings as a people, and tend to encourage a most objectionable spirit of conservatism. Hence, we jog on complacently in the old paths, regard reform as revolution, and pursue time-honoured practices with stubborn persistency.

The highest medical and sanitary authorities in Europe and America concur in the opinion that the proper disposal of the dead constitutes one of the most urgent questions of the day. So repugnant to sense and sentiment, so disrespectful to "poor mortality", so fraught with danger to the living, is the common mode of burial, that an entire change in the system of sepulture is insisted upon. Chemical analysis has demonstrated that morbid gaseous substances, combined with a greater or lesser amount of organic matter, become widely diffused in the neighbourhood of cemeteries. Consequently, the atmosphere becomes poisoned, and, to such a degree, that greasy layers are deposited on adjacent things. Such products of decomposition are not simply offensive, they exercise an injurious influence. Hence arise epidemics, fevers, troubles of the digestive organs, intestinal fluxes, from the actual introduction of putrescent matter into the circulation, and other evils familiar to general practitioners. In a report of the French Academy of Medicine, it is stated that diphtheritic diseases have raged in the vicinity of such famous cemeteries as Perè-la-Chase, Montmartre, and Mount Parnasse, such outbreaks having their origin in putrid emanations from these charnel-houses.

For some time past, certain funeral reforms have been introduced. There is a disposition on the part of many persons to dispense with much of the undertakers' dismal trumpery, to discard plumes, hat-bands, etc., and unseemly parade. Even a society has been established in connection with the Church of England, with the view of simplifying funerals, and making them more in harmony with ancient Christian usage. Still, the great point in a thoroughly effective mural reform is almost overlooked. People are still wedded to solid coffins, even leaden ones being frequently added to those of oak and elm. The ordinary receptacle for the dead is, indeed, the head and front of the offending. It constitutes what Mr. Seymour Haden, in his communications to the *Times*, aptly terms "the *fons et origo mali*", or "the tangible and material agent in the production of all the evils which it is the object of these letters to remedy". As the leading journal not long since pertinently observed: "If our mode of burial were changed after the fashion Mr. Seymour Haden has recommended, if iron or leaden coffins were done away with, and if earth were simply restored to earth, there would be the least possible room left for offence prospectively or subsequently". The London Necropolis Corporation were the first to initiate this sensible sanitary reform, which is sure, in time, to become universally adopted.—I am, sir, yours truly, Sanitas.

A Succession of Cyanotic Infants.

Sir,—On October 3rd, I attended a woman in her fifth labour, which terminated naturally as far as the mother was concerned. Immediately on the expulsion of the child, I proceeded to ligature the cord. The child, which to all appearance was healthy and well formed, began to assume a [illegible] appearance [illegible] gave a convulsive gasp. I removed the ligature, and allowed about thirty drops of blood to escape, which had the desired effect. I had difficulty in maintaining respiration artificially, which had to be carried on for nearly three quarters of an hour. On calling again, later in the day, the child's hands, feet, nose, and ears were quite blue. The whole body gradually assumed a bluish-purple hue, and death ensued twelve hours after birth. The certified cause of death, "cyanosis". I made inquiries about the four previous labours. In three, she had been attended by a woman, and in each case the child became very dusky in colour, and died immediately; in the fourth case, she was attended by a professional man, and the child lived three months, but at times exhibited cyanotic symptoms.

Can any of your readers offer any suggestions to be observed in case the woman should again become pregnant, either having regard to treatment previous to the expected time of confinement, or any variety of procedure immediately after birth? Any suggestions will be very acceptable. I am, sir, yours, etc.,

M. [illegible] M.A.

Inspection of Nuisances.

Sir,—Some months ago, under the head of Dundee Notes, I [illegible] in the *Journal* as to the selection of [illegible] men, in many cases, [illegible] the head of the sanitary staff, who [illegible] guardian of the parish, and by him alone are dustmen guided, or rather I should say in a great measure taught [illegible] I find [illegible] that is to say, when a nuisance has been made known, the inspector marches to the spot, and makes a report. This [illegible] will [illegible] read [illegible] the appointment [illegible] of such [illegible] business [illegible] streets [illegible] cease. [illegible] duties. [illegible]

42, Queen [illegible]

GENERAL PRACTITIONERS AND PREVENTIVE MEDICINE.

Sir,—Those who are desirous of [illegible] practice freed, as far as possible, from it [illegible] and [illegible] by the [illegible] and [illegible] by [illegible] will [illegible] by the perusal of the following card, which I have had printed for the admission of the public to the scheme. It is the result of long and careful deliberation, in which, I suppose, all the [illegible] have [illegible] but at the [illegible] of the JOURNAL have any suggestions to make on this practical aspect of the question, I shall be glad to receive them.

"*Medical Providence, or the Prevention and more effectual Treatment of Disease.*—A system of Medical Practice whereby attendance and advice are always available, in health or [illegible], for a definite annual sum. Annual fees [illegible] to 40s. for each individual, according to circumstances. Extras excepted. Medicine included or not included, according to agreement. The extras are:—Midwifery, fractures, dislocations, serious injuries resulting from accident, and surgical operation involving much trouble or requiring special skill. Every person residing at a greater distance than one mile from the house of the medical attendant will be expected to pay [illegible] for every mile or fraction thereof [illegible] Fees to be paid quarterly or half-yearly in advance. Extras to be paid [illegible] to agreement, either as per account, in the usual way, or by [illegible] as the patient values the services rendered, or conscientiously feels he can afford to pay. Client will be visited as often as may be necessary [illegible] vantages of the scheme, and they will be at liberty to come to the medical attendant for information and advice on all matters pertaining to the health, whenever occasion may require. No person can be admitted to the scheme who is ill at the time of application, except on payment of a whole or half year's fee, according to the case, in addition to the ordinary subscription. Some cases of established chronic ailment, especially in advanced life, will be liable to a higher fee. A reduction is made in the rates for more than four members of one family residing together. The fees agreed on are subject to annual revision."

These provisions are, I trust, sufficiently elastic to suit a variety of circumstances. To those who have read my previous description of the system, their advantages will, I think, be obvious, while the pecuniary results will be found to be fully equal to those of the still surviving professional custom of a less enlightened age.

It is so pertinent to my subject, that I cannot conclude without asking you to let me protest against the growing tendency of members of our profession to give preventive advice in season and out of season, asked or unasked, without fee or reward. I do not wish them to keep silence as to prevention. To teach the people how to avoid disease is, I maintain, not only a function, but the highest and most useful function of our profession. Is it not, therefore, the most worthy of reward? The principle by which a man is paid in an inverse ratio to his usefulness is one which it would be hard to vindicate either on public or professional grounds. It would surely be well to remember that we have a duty to ourselves and to our medical brethren as well as to the public; and I submit that the free lectures now being given by medical men in various places, the professional letters to the newspapers, and the frequent paragraphs in a medical contemporary, all intended to convey instruction to the public on the preservation of health, are a distinct infringement of that duty. The prevention of disease is a natural development of medical science, and the spread of knowledge on the subject is one of the necessities of the times. We must not, therefore, try to limit our exertions in this direction. Let us rather increase them; but let us see that we are paid for them. All this is provided for in a comprehensive manner by the system I am advocating, and by no other means with which I am acquainted.—I am, etc.,

W. F. PHILLIPS.

St. Mary Bourne, Andover, Hants, October 3rd, 1881.

SWEATY HANDS.—I shall be obliged to anyone who will tell what to do for a man whose hands (palms) sweat so much that he is unfitted for household service.

WILLIAM OGLE, Derby.

MEDICAL OFFICERS TO EMIGRATION STEAMSHIPS.

SIR,—The Board of Trade, in its wisdom, has very properly thought fit to appropriate the medical officers attached to the various emigration steamships sailing from ports in the United Kingdom, and no one can hold such a position without a formal appointment, signed by an official of the Board. Is it too much to ask the Board to look a little after its own, and to instruct its medical inspectors to report confidentially upon the accommodation, or lack of accommodation, afforded by the steamship companies generally to their medical officers? It may surprise the Board, as it did myself, to discover that the cabin assigned to the surgeon is, in most cases, inferior to the one given to the chief steward, and is almost always as inadequate to his professional requirements as it is unfit for an official weighted with the gravest responsibilities. I inclose my name and address.—Your obedient servant,

A PASSENGER.

Turnham Green, November 12th, 1881.

SEA-SICKNESS.

SIR,—As attention has recently been called to sea-sickness and its remedies in your correspondence columns, allow me space for a few observations on the theory of it.

1. Anæmia of the brain is unquestionably a cause of vertigo, nausea, and vomiting. Witness the occurrence of all three in hæmorrhage, and, in weakly habits, when the erect position is suddenly assumed in the morning.

2. Where the anæmia of the brain is not the result of a physical cause such as hæmorrhage or position, irritation of the vagus is the great means of producing it, partly by inhibiting the heart, partly by the depressor branch causing dilatation of the splanchnic arteries, and so withdrawing blood from the brain to the abdominal viscera.

3. The phenomena of sea-sickness are produced by all motions which imitate the sensations we have, when sick and giddy, from some cause having its seat within the body. The sensation of the floor sinking beneath the feet, and the rising and falling of the walls of the room, or their spinning round, are especially connected with giddiness and nausea; and these are the motions which are most liable to produce sea-sickness. It is not necessary that there should be any descent of the body to produce nausea. I once got inside a water-wheel, and set it in motion by walking up the buckets. Of course, I did not change my position, but my standing was continually going away from under my feet, and the wheel was whirling round me as the room appears to do in giddiness. I found that, in a very short time, intense nausea was produced.

4. I conclude that sea-sickness is a case of the "association of sensations". We associate the sensation that the walls of the room or other ordinarily fixed objects are moving, with the sensation of sickness; and, when the walls actually do move, the sensation of sickness is produced. I believe that it is the vagus which is thus sympathetically irritated; and that it is the nerve of sea-sickness, just as it is the nerve of epilepsy. In the latter case, the inhibition of the heart's action is complete, and a convulsion fit is produced.

The [illegible] action of the vagus by the bromides and atropia, and, at the same time, to get the association between [illegible] broken partly by an effort of the will, but still more by having the mind directed to [illegible]—Yours, etc.,

A. W. W.

SIR,—Can any of your numerous kindly recommend a good Practitioner [illegible] France, tolerably easy of access, for a boy about sixteen, where he could learn the language thoroughly? If they could [illegible] I am, yours truly,

A MEMBER.

COMMUNICATIONS, LETTERS, etc., have been received from [illegible] C. Steggall, Jersey; Dr. A. R. [illegible] London; Oliver Sedgwick, [illegible]; Mr. T. Jones, [illegible] don; Mr. R. Dacre Fox, Manchester; Dr. MacMunn, Wolverhampton; Mr. T. Bryant, London; Dr. R. Saundby, Birmingham; Mr. T. Annandale, Edinburgh; Dr. Markham Skerritt, Clifton; Dr. F. M. Pierce, Manchester; Dr. G. Buchanan, Edinburgh; Mr. Joseph Bell, Edinburgh; Dr. Philipson, Newcastle-on-Tyne; Dr. Galabin, London; Mr. John Wood, London; Dr. Herman, London; Dr. A. W. Edis, London; Dr. Drummond, Newcastle-on-Tyne; Theta; Dr. Rabagliati, Bradford; Mr. A. Jackson, Sheffield; Mr. T. Jenner Verrall, Brighton; Mr. F. Wallace, London; Mr. W. Tomlinson, Beverley; Mr. H. A. Reeves, London; Mr. R. Winder, Bolton; Dr. Bacon, Fulbourn; Dr. M. Thomas, Glasgow; Mr. Reginald Harrison, Liverpool; Mr. W. E. Nourse, Brighton; Dr. Wolfe, Glasgow; Our Dublin Correspondent; Mr. F. Eve, London; Dr. Orlebar, London; Dr. W. Newman, Stamford; G. F. M.; M. D.; Mr. Charles Roberts, London; Mr. T. R. Fendick, London; Mr. T. Wells Hubbard, Tunbridge Wells; Dr. Murrell, London; Mr. H. Lewis Jones, London; Dr. W. P. Mears, Newcastle-on-Tyne; Mr. William H. Platt, London; Mr. Charles H. Collins, Bristol; Mr. Henry Sewill, London; Dr. G. W. Potter, London; Dr. Spencer Smyth, Forest Hill; Sir Thomas Watson, London; Mr. J. K. Burt, Kendal; Dr. R. E. Carrington, London; Dr. Farquharson, Aberdeen; Mr. G. H. Younge, Chatham; Dr. R. Bruce Low, Helmsley; Mr. W. C. E. Taylor, Scarborough; Our Aberdeen Correspondent; B. M. A.; Mr. E. H. FitzHenry, Mentone; Mr. G. F. Hodgson, Brighton; Mr. G. O. McKane, Spennymoor; Dr. Finny, Dublin; Mr. J. Ferguson, Perth; Rusticus; Mr. A. W. Dowding, London; Dr. E. L. Fenn, Richmond; Mr. A. Hallowes, Maidstone; Dr. W. J. Mackie, Surrey; Dr. W. Smith, London; Mr. J. L. Whitmarsh, London; Mr. Louis Baillon, Nottingham; A.; Omega; Dr. Henry D. Littlejohn, Edinburgh; Mr. Morrant Baker, London; Mr. Francis Mason, London; Dr. W. H. Day, London; Dr. Crichton Browne, London; Dr. Long Fox, Clifton; Dr. Churton, Leeds; Dr. B. Foster, Birmingham; Mr. Furneaux Jordan, Birmingham; Dr. Clifford Allbutt, Leeds; Mr. T. Jones, Manchester; Mr. T. Holmes, London; Sir H. Thompson, London; Dr. F. T. Roberts, London; Dr. Buzzard, London; Dr. Biss, London; Mr. R. Davy, London; Mr. J. W. Hulke, London; Sir Joseph Fayrer, London; Mr. Bellamy, London; Mr. F. A. Southam, Manchester; Dr. Whipham, London; Mr. H. T. Butlin, London; Mr. H. H. Clutton, London; Mr. T. Spencer Wells, London; Mr. H. W. Page, London; Dr. Ross, Manchester; Dr. S. Mackenzie, London; Mr. J. N. Porter, London; Dr. G. Johnson, London; Dr. Hughlings Jackson, London; Mr. A. E. Barker, London; Mr. Knowsley Thornton, London; Dr. Fincham, London; Mr. Rushton Parker, Liverpool; etc.

BOOKS, ETC., RECEIVED.

The Student's Hand-Book of Chemistry. By H. L. Greville, F.I.C., F.C.S. Edinburgh; E. and S. Livingstone. 1881.

Perfect Way of Diet. By A. Kingsford. London: Kegan Paul and Co. 1881.

Zoological Atlas. By D. McAlpine. N. and A. K. Johnstone. 1881.

Lectures on Diseases of the Chest. By E. F. Ingal, A.M., M.D. London: Sampson Low and Co. 1881.

A Manual of Histology. By T. E. Satterthwaite, M.D. London: Sampson Low and Co. 1881.

Lectures on the Physical Examination of the Mouth and Throat, with an Appendix of Cases. By G. V. Poore, M.D., F.R.C.P. London: J. E. Adlard. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,, ...	20 ,,
,, 26 ,, ,, ...	25 ,,
,, 52 ,, ,, ...	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

REMARKS
ON
FOUR CASES OF LARYNGEAL DISEASE.*

By EDWARD WOAKES, M.D., London,
Senior Surgeon to the Hospital for Diseases of the Throat, Golden Square.

In compliance with the request of the secretary to bring before this Society some cases of laryngeal disease, I have selected the following as suitable for the purpose; of these, two afford instances of acute laryngeal disease of extreme urgency supervening in the course of general illness. They are such as might confront the practitioner in any department of his profession, and are calculated to enforce the necessity of a laryngoscopic examination for securing exact diagnosis, where, without its aid, the most alarming symptoms would be unintelligible, or would be referred to organs quite unrelated to them. The remaining examples are special and surgical in their general bearings. The diagrammatic illustrations appended to each case were, in the first instance, roughly sketched from the patient at the time of treatment.

Case 1. *Paralysis of the Abductor Muscles of the Vocal Cord.* This case occurred in a young woman aged 20, a pupil at a training institution for governesses. She attended December 10th, 1880, and, as she entered the room, it was easy to predicate the nature of her illness from the noisy, almost stridulous, character of her breathing. She presented, further, the anomalous symptom of aphonia, a condition in no respect due to, and very rarely associated with, paralysis of the abductor muscles. Her companion gave the following history of her illness. In May 1880, she had a mild attack of diphtheria, but recovered perfectly, with the exception of not being so strong as previously. She had latterly been preparing for an examination, but did not consider herself overworked. On November 22nd, her present illness commenced with loss of voice, which she attributed to cold, but since this, her breathing had gradually become more difficult, and accompanied with stridor; the latter being, till quite recently, more or less intermittent. She was well nourished, and the functions were generally normal, except her taste, which was defective; the catamenia were progressing at the time of application.

December 10th. On inspection, the palate and fauces were markedly anæmic, but showed no indication of paresis. In the laryngoscopic image, the right ventricular band was swollen somewhat, and the vocal cords were closely and persistently approximated in the median line, and were slightly injected. The aperture between them would scarcely admit an ordinary visiting card edgewise (Fig. 1), and this was

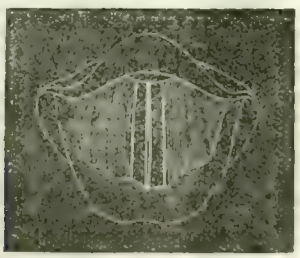


Fig. 1.

all the breath-way she exhibited. The respirations were short and rapid, each inspiration being accompanied with stridor. The upper extremities were mottled, indicating impediment to the circulation; but on the whole she exhibited much less distress than the objective state of the larynx would have led one to expect. She would not consent to come into the hospital, so she was ordered a vapour of benzoin to inhale, and to take ten minims of tincture of nux vomica every four hours in water. I urged her to call on me the following morning.

December 11th. She came accordingly. The state of the larynx was the same as on the previous evening. While examining her with the laryngoscope, I noticed on one occasion a momentary widening of the glottis, such as is represented in Fig. 2, and which occasionally happening explained the comparative absence of extreme urgency in her condition. The paralysis was subject to variations. Still her condition was one of great danger, and I considered it expedient to explain thus much to the superintendent of the institution of which she was a pupil.

In the evening of this day, she was brought in a cab to the hospital, her breathing having become worse during the day. She was put to bed. On examining the chest, the laryngeal stridor was heard generally over the lungs. This latter accompanied expiration and inspiration, but varied a good deal in degree. There were considerable duskiness of the face, some mottling of the surface, and marked action of the alæ nasi, but no such indications of extreme dyspnœa as are afforded by depression of the supraclavicular fossæ and intercostal spaces. She asked for something to be done to relieve her breathing. Pulse varied from 88 to 100; temperature 99.8°; respirations 50. An inhalation of chloroform mixed with steam was given, after which the same momentary widening of the glottis was observed. The subject of tracheotomy was discussed with my colleagues, who agreed with me that some elements of hysteria about the patient warranted a tentative course. She was given an insufflation of morphia and a dose of sesquicarbonate of ammonia to each ten minims of the tincture of nux vomica. She was watched carefully through the night.

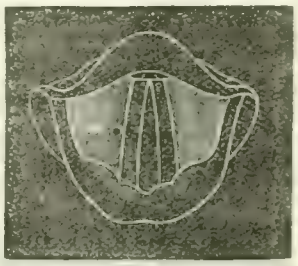


Fig. 2.

December 12th, A.M. She had passed a fairly comfortable night; there was no change in the laryngeal image, the cords remained as at first; but neither was there any exacerbation of her condition. Temperature 97°; pulse 90; respirations 44. The stridor was decidedly less marked. With the view of gaining time, and in pursuit of the tentative treatment of her case, I gave her half a drachm of peroxide of hydrogen largely diluted. In the afternoon, after taking two or three doses of this drug, the respirations fell to 24, temperature 97.75°, and the glottis was perceptibly more patent. She was ordered to continue the peroxide through the night.

December 13th. Abduction was now restored. From this date, she became rapidly convalescent, and, being desirous of going into Devonshire for her holidays, she left for this purpose on December 17th. The voice, however, was not yet restored.

Remarks.—I have called this case one of paralysis of the crico-arytenoidei postici muscles, which are the abductors of the vocal cords, after endeavouring fairly to weigh the only alternative explanation of the condition presented by this patient, viz., that of persistent spasm of the adductor muscles, the crico-arytenoidei laterales. And I have done so because such a continuance of spasm is unknown in the experience of laryngology, or at any rate is unrecorded in the literature of the subject, so far as I know it. Complicated as the case was with aphonia, which was doubtless functional, and hysterical in its source (for there was no evidence of paralysis of the thyro-arytenoidei interni muscles to account for this symptom), one is compelled to fall back upon hysteria as the exciting cause of her perilous condition; for, whether the patient were the subject of paralysis or of spasm, while it endured she was none the less slowly suffocating. In what the exact nature of the hysterical impression consisted, would occupy too much time fully to discuss on this occasion. Briefly expressed, my own view of the case is, that the superior laryngeal branches of the vagus distributed to the larynx had been impaired by the attack of diphtheria the patient had experienced a few months previously. The nutritive vessels of these nerves presented, as regards the entire economy, the parts of least resistance, and, therefore, would most readily yield to vessel-dilating impressions proceeding from regions implicated in the excitement of menstruation. Such an undue state of dilatation, when it occurs in the nutrient vessels of a nerve, is equivalent to a suspension of the conductive functions of its fibrillæ, which are, so to speak, regulated by the pressure of blood contained in the nerve-sheath. This at any rate is what I understand by functional paralysis, and its manifestation is of frequent occurrence in the regions with which we are now concerned. The idea of supplying oxygen to the blood, through the stomach, by means of the peroxide, to supplement the attenuated breath-stream, was suggested to me by an experience of its efficacy in a case of whooping-cough complicated with excessive bronchial secretion, which occurred to me when I was practising in the country some years ago. This patient was rescued from a semi-comatose condition by drinking Barth's oxygen-water, a preparation which, I regret to say, is not now

* Read before the Harveian Society.

obtainable. The peroxide is a valuable substitute, however, though requiring to be cautiously administered. I should certainly recommend recourse to it whenever it is desired to gain time, in simply obstructive states of the air-passages.

CASE II. *Acute Œdema of Glottis occurring in the course of Chronic Pulmonary Disease.*—Mrs. H. G., aged 60, was admitted into the Throat Hospital, for chronic bronchitis of two years' duration, on October 11th, 1880, being sent from St. Leonard's for that purpose. There were coarse mucous *râles* over the chest generally, but no dulness on percussion; copious opaque mucous expectoration, at times having a purulent character; the breathing, quiet when at rest, became short and hurried on exertion; very slight changes of temperature also brought on dyspnœa. On laryngoscopic examination, the larynx generally was seen to be injected, while the ventricular bands and arytenoid cartilages were somewhat swollen. She was well nourished, inclining to fat, and in other respects fairly healthy. She was ordered an expectorant mixture, to which was added 3 grains of iodide of potassium and 20 minims of compound spirit of ammonia. She was also directed to inhale vapor pini sylvestris night and morning.

October 15th. She had progressed favourably to this date, and the expectoration were considerably diminished in amount. This evening, an erysipelatous looking swelling appeared on the left cheek, extending upwards to the orbit. She complained of increased dyspnœa.

October 16th. She was much worse; dyspnœa urgent. The laryngoscope disclosed an acute œdema of the larynx, most marked in the left arytenoid cartilage and the cushion of the epiglottis, both of which were enormously swollen, producing a very marked degree of stenosis of the larynx (Fig. 3), and sufficiently accounting for the dyspnœa.

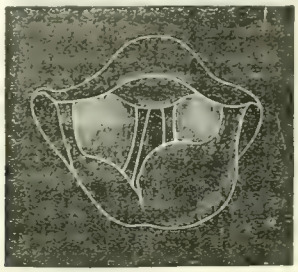


Fig. 3.

She complained of great pain in the throat, aggravated when she attempted to swallow. I scarified the œdematous parts, and directed her to suck ice constantly. In the course of two hours, very little relief to the dyspnœa having ensued, I gave her an insufflation of morphia (quarter-grain). The ice was ordered to be continued, and the morphia to be repeated later on if necessary.

October 17th. She passed a fairly comfortable night, the morphia not being repeated till the morning. The swelling of the glottis was considerably less, and she breathed more comfortably. This sudden attack of œdema of the larynx being regarded as partaking of the erysipelatous character of the swelling of her left cheek, she was ordered half a drachm of tincture of sesquichloride of iron in an ounce of water every four hours.

October 18th. She was better. The morphia insufflation was repeated night and morning for a day or two longer; afterwards only when the pain or cough returned to a troublesome extent. The ice was discontinued, as it had ceased to be of service.

October 21st. Her larynx was now restored to its former state, *i.e.*, some enlargement of the ventricular bands and left arytenoid, as on admission. It was painted daily with solution of perchloride of iron (one drachm to one ounce). The erysipelas of the face had disappeared also. This attack left her very weak, and the bronchorrhœa increased; for this reason, she remained an inmate of the hospital till November 15th, when she returned home, having had no relapse of her laryngeal condition, and, for the time, being much improved generally.

REMARKS.—The state of this patient's health was strongly suggestive of a tuberculous taint, an opinion which receives support from the laryngoscopic appearances; the smooth, solid-looking, pale red enlargement of the ventricular bands and arytenoid cartilage seen in her larynx being, perhaps, the most frequent aspect presented by tubercle of this organ, in its initial stages. The sputa indicated a bronchorrhœa rather than a bronchitis; and, iodide of potassium being recognised as perhaps the most useful agent for diminishing this secretion, it was prescribed accordingly. In attempting to estimate the causes which led up to the erysipelatous outbreak in her cheek and larynx, I am not without a suspicion that the iodide, by lowering vascular tension, may have been an essential factor in its production. Œdema of the glottis admits of no delay in its treatment, and, with regard to the course pursued in this case, it is only necessary to say that, in my hands, scarification has not proved very serviceable. Ice is useful; but morphia, applied topically by means of the insufflator, acts like a charm, both by allaying pain, and also, as I think, by its influence as a vessel-contractor.

CASE III. *Papillary Growth on each Vocal Cord: Removal by Endolaryngeal Operation.*—Charles B., aged 23, a railway servant, presented himself on June 15th, 1880. He stated that, for a month or more, his voice had been hoarse; he experienced a difficulty in talking, accompanied by a sense of fatigue. He had nothing further to communicate except that, four or five years previously, he had attended at the hospital under similar circumstances, and "had something taken out of his throat", since which time he had remained well until the time above stated.

June 15th. On examination, the fauces were red and very irritable. The laryngoscopic mirror was scarcely tolerated; but I was able to make out a condition of laryngeal catarrh, and what appeared to be a neoplasm or growth, protruding between the anterior commissure of the vocal cords. He was prescribed vapour of benzoin, to inhale night and morning, and solution of chloride of zinc was applied on a brush to the interior of the larynx. Subsequently, the little mass above referred to resolved itself into two distinct warty-looking growths, attached one to each cord, nearly opposite to each other, and about one-eighth of an inch from their anterior ends. They were situated very close to the free edge of the cords, moved freely with these, and occasionally one or other would disappear below them. They were more or less pedunculated, and about the size of a hemp-seed—that seated on the right cord being the larger of the two. (Fig. 4.)

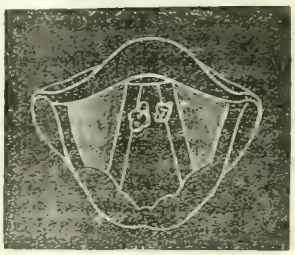


Fig. 4.

After devoting five or six weeks to subduing the irritability and catarrhal state of the pharynx and larynx, which was largely maintained by the man's beer-drinking habits, on July 23rd I passed a conical sponge-bougie, attached to a central steel stem, as recommended by Voltolini, with the object of attempting to rub off the growths. The case appeared well suited for making trial of this method, owing to the comparatively recent manifestation of the disease. I found no difficulty in using this instrument; in fact, the ease with which it can be manipulated proved, in this case at any rate, a delusive attractiveness. It entirely failed in producing any impression on the growths, though its introduction secured the purpose of accustoming the interior of the larynx to the presence of a foreign body, and so prepared the way for the introduction of the intralaryngeal forceps of Dr. Mackenzie. These latter, notwithstanding their apparent disproportion to the objects to be entrapped by them, are, as far as my experience is concerned, the only reliable instruments to secure the removal of such growths as this patient presented. Selecting an instrument with cutting blades, having an antero-posterior action, and of dimensions proportioned to the undersized faucial space presented by the patient, I proceeded, with the aid of the laryngeal mirror, to accustom the larynx to its presence. This process was carried out twice a week until the organ became perfectly tolerant of the manipulations of the forceps within it.

August 6th. A small portion of the right growth was brought away; but the greater portion eluded the instrument by slipping beneath the vocal cords. On August 24th, I managed to secure the entire substance of the right growth between the blades. Solution of chloride of zinc was applied as usual after each introduction of the forceps, and no ill effect occurred to the larynx. A minute speck on the right cord, indicating the site of attachment of the growth, was and still is visible.

This deliverance appeared to the patient to justify a return to his potations. Consequently, nothing further was attempted in respect of the removal of the remaining growth till towards the end of October, when he agreed to restrain his habits, and again go into training with the view of getting rid of it. This preliminary process occupied fully five weeks longer; at the end of which time, the larynx being sufficiently quiescent,

the second growth was removed in the same way as the first. He only attended twice afterwards; the larynx was perfectly sound, and the voice rapidly recovered.

REMARKS.—The foregoing case illustrates the recurrent tendency of papillomatous growths—inasmuch as the patient's history shows a previous attack of the disease, and its cure by operation. It would seem as if, in subjects predisposed to such occurrences, a very slight amount of irritation, such as was presented by the catarrh of this man's larynx, will suffice to start into activity the process of papillary development. The case further shows the tendency of these neoplasms to arrange themselves symmetrically. The result tends to justify recourse to the endolaryngeal operation. Certainly, such a serious operation as thyrotomy—dangerous as it sometimes is to life, and disastrous as it nearly always is to subsequent vocalisation—would have been unjustifiable in this instance. Therefore, if we are to exclude the endolaryngeal operation in every case, as some laryngologists assert, this patient, and all afflicted in a similar degree, would be placed beyond the pale of surgical assistance.

The difficulties inherent to the foregoing case arose from the situation of the growths at the anterior aspects of the vocal cords, where they are least accessible, and from their tendency to dip below the cords during the excursions of the latter. The chief hindrance, however, was that acquired by the intemperate habits of the patient, which maintained his faucial region in a perpetual state of irritability.

CASE IV. *Syphilitic Stenosis of Larynx.*—M. A. G., aged 46, married, applied at the hospital on July 30th, 1880. She stated that she had suffered with her throat for nearly twelve years, during which time she had experienced a good deal of treatment from laryngologists, always with benefit. Latterly, she had neglected medical treatment, and her symptoms had increased severely; they were: dyspnœa, dysphonia, great pain in the throat, and extreme prostration.

On laryngoscopic examination, the glottis appeared completely choked with an irregular mass of hyperplastic tissue. It was difficult to understand how respiration was carried on, but, on causing her to make a forced inspiration, an irregular slit, triangular in shape, became evident; it was about a quarter of an inch long by one-fifth of an inch wide at its base, and tapered to a point in the direction of the anterior commissure of the cords. This narrow breath-way was probably larger than it appeared in the mirror, because the posterior portion of the obstruction, contributed by the implication of the interarytenoid fold in the hyperplastic process, is situated in a plane superior to the latter portions, which were derived from the ventricular bands. The outgrowth from these latter completely obscured the vocal cords—so that it was not easy to say whether or not these were involved in the disease. At the anterior aspect of the larynx, the lateral growth had coalesced, so as to form a sort of web, which no effort at inspiration would cause to yield. (Fig. 5.)

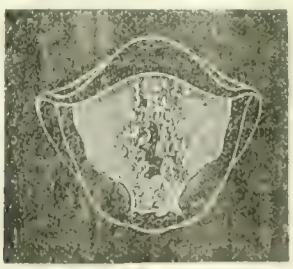


Fig. 5.

The voice was reduced to a hoarse whisper, and the dyspnœa prohibited any but the gentlest locomotion. Altogether, her condition was such as to render recourse to tracheotomy a very near probability. As, however, the tissue presented the appearance of comparatively recent granulation, and the history showed its syphilitic origin, I determined to try the effect of dilatation. For this purpose, I chose Voltolini's conical sponge (described in the previous case), as this admitted of the simultaneous topical application of such medicaments as were calculated to reduce the new tissue. The first solution employed was sulphate of copper (fifteen grains to one ounce). With this the sponge-dilator was lightly saturated, care being taken to remove any excess which might fall into the trachea, when the instrument was pressed into the narrowed glottis. The treatment was commenced

July 30th, 1880. The patient was directed to draw her tongue well forwards, and to hold it firmly in that position by means of a handkerchief. Guided by the laryngeal mirror, the thin end of the sponge-wedge was inserted into the glottis, and the thicker portion forced well into the gap. The proceeding was painless, and relief to the breathing (consequent on the stretching of the obstructing tissues) was decided. This treatment was carried out twice a week; but it is unnecessary to follow its details further than to say the rima enlarged considerably, so as, at any rate, to give her such a breath-way as to remove any immediate anxiety respecting her safety.

October 19th. I made the following note of her own words: "Can breathe more freely, and can walk three miles without fatigue." From the commencement of the treatment, she took five minims of the tincture of iodine in one ounce of water thrice daily, and inhaled iodine vapour intermittingly. In November, this was exchanged for inunction of mercurial ointment.

December 20th. Finding the state of affairs at a standstill, I substituted solution of perchloride of mercury (one minim to one ounce) for the copper. Its necrotic effect upon the new tissue was shown immediately afterwards, by the ashy colour which the surface assumed wherever it came into contact with the sponge. As this application caused pain, lasting several hours afterwards, it was followed by an insufflation of morphia (quarter of a grain); after which no inconvenience followed the proceeding.

1881. January. The solution of perchloride of iron was increased in strength to two grains to one ounce. She had now become so tolerant of its use that the stronger fluid caused no pain, and the morphia was dispensed with.

February. The benefit at first accruing from the perchloride of mercury application was not maintained, so that a return was made to the copper solution, which, on the whole, has proved most serviceable. Fig. 6 represents the maximum improvement attained up to the present

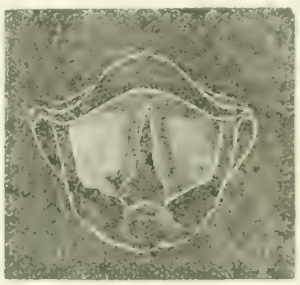


Fig. 6.

date. It will be observed that, notwithstanding the enlargement of the breathing space, abduction is greatly impaired, the cords remaining nearly in the cadaveric position. They are still red, thickened, and irregular, and scarcely distinguishable from the adjacent ventricular bands. There is no movement in the crico-arytenoid articulations.

The patient is still under treatment, and the case is so far incomplete. The method successfully adopted to ward off the immediate urgency of tracheotomy, by the combination of dilatation with topical applications, in the manner detailed, comprises some features of sufficient novelty and interest to justify me in laying these details before you.

DR. WILLIAM HENRY KESTEVEN has been appointed Sheriff this year for the City and County of Exeter.

INFANTILE MORTALITY.—Mr. John Henry Lowe, Medical Officer of Health for Wolverhampton, writes in his report, November 9th, 1881:—"It is a source of great regret that I am obliged to revert to the number of deaths of children under five years of age, which is excessive, there having been six hundred and forty-eight, and of these four hundred and three had not completed twelve months. Deplorable as it is, there seems scarcely any means that can be adopted to arrest it; and although all sanitary authorities alike feel that something should be done yet none as yet have been able to touch the root of the evil. Many assign as the different causes, errors of diet, and delicacy of infants. Doubtless these have their place in the list of infantile mortality; but I am still constrained to add that it may in the main be traced to the scourge of this country—drunkenness—for, where do we find premature birth, marasmus, inanition, atrophy, tabes mesenterica, diarrhœa, and convulsions most prevalent, but in the wretched squalid hovels of the drunkard, the dissipated and the indolent. What is required, therefore, is, to rouse the mothers to a stern sense of their maternal duties, counselling them to become cleanly and industrious, and then as a natural consequence, every blessing and care to their offspring will follow in its train."

HYSTERICAL ANALGESIA IN CHILDREN.

BY THOMAS BARLOW, M.D., F.R.C.P.,
Assistant Physician to University College Hospital, and to the Hospital for Sick Children.

Of late years, the observations of M. Charcot and others have led them to insist on the importance of anæsthesia, and alterations in the special senses, as indications of hysteria. The soundness of these conclusions has been challenged; and there are those who consider the alleged anæsthesia, and other sensory defects, either as feigned disease or the results of expectant attention. Now, with respect to colour-blindness, deafness, and the like, there is certainly the difficulty that we are dependent on the statements of the patient. The same objection applies to anæsthesia. But, without considering the statements of patients at all, it will be admitted that in some people there is absence or deficiency of response, by way of movement or expression, to a stimulus, which, in a normal healthy person, would be a painful one.

The special aim of this paper is to draw attention to the fact, that such absence or deficiency is not confined to young women who are domiciled in the wards of a hospital, where they are objects of repeated experiment and demonstration; but that it can be found even in very young children, who manifest other signs of the hysterical neurosis.

It may be safely admitted that, although the elements of feigned disease and expectant attention cannot be absolutely excluded in the consideration of children, they are less likely to embarrass us in them than in adults. For example: a little boy, aged two years and nine months, had the skin between the roots of his fingers pricked with a needle, precautions having been taken that he should not know what was to be done. He neither winced nor withdrew his hand. Is it likely that such a child would have pretended not to feel the prick? When subsequently one side of his face was pricked, there was the slightest possible play of the features. When the other side was pricked, he cried. There was no reason to suspect any organic brain-disease at all. The boy had been brought on account of fits, which were unquestionably of the hysterical type. They had followed upon a fall, which had not bruised him, but had frightened him.

In the following cases, the analgesia was tested by the prick of a pin, the pinch of a pair of dressing forceps, and the application of strong faradism. Great differences were noted in the degree of analgesia and in its distribution. In the most marked case, strong faradism was tolerated with complete indifference on one side; while a moderate current applied to the other side elicited an expression of pain, although not a loud one. The application of strong faradism for many minutes, on a second occasion, at length brought out a slight expression of discomfort. In another case, strong faradism was tolerated with perfect indifference when applied to either leg. This was continued for a quarter of an hour, and there was gradual return of sensitiveness, and at length some expression of slight discomfort. In another case, some distress was shown directly faradism was applied, although a needle had been pushed into the skin without the child withdrawing the limb. In a fourth case, the needle was tolerated for several minutes, and then the limb was slowly withdrawn, but without any cry.

As to distribution, although more marked on one side than on the other, my impression is that, in most of the cases, there was some general defect. Generally, the analgesia was more marked in the limbs than on the face. As to sex, six of the cases occurred in girls, two in boys. The youngest case was two years and nine months old, the eldest eleven and a half years.

In all the cases, there were symptoms, either related or observed, which strongly pointed to the existence of hysteria. In one case, there was paraplegia, which had lasted for nine months without any wasting, and which gradually cleared up after the use of faradism for a quarter of an hour. In the others, there were fits, which in several cases had followed what may be called a moral shock.

With respect to the fits, it is doubtful whether there was in any case loss of consciousness, although in some of them the patients fell down suddenly as though they had been shot. In most cases, there were co-ordinated movements. Opisthotonos and to-and-fro movements of the trunk were marked features. Movements of the eyelids were noted, but no facial distortion; and in no case were the fits one-sided, as far as I could see or learn.

The analgesia had not, I believe, been tested in these children before they were brought to the out-patient room; but the mother of one (a girl aged five and a half years) showed no surprise when she saw the results. She remarked, indeed, that the child had never "seemed to feel like other people". A few days before coming, she had had her arm scorched, over a patch about three inches long, without crying at all. On a former occasion, her thigh had been deeply cut by a piece of broken pottery, when scarcely any distress was shown. The consideration of these cases will, I believe, lend support to the view that, in the hysterical neurosis, there is a torpid condition of the sensory part of the brain. In extreme cases, this may involve the centres of the special senses; whilst, in the very slight cases, the only abnormality may be more or less blunting in the appreciation of ordinarily painful impressions. The sensorium of the hysterical patient may, no doubt, be awakened by many peripheral stimuli—the best of which, in my experience, is cutaneous faradism. The importance of analgesia in practical medicine appears to me, I confess, to rest entirely on the fact that it is a valuable aid to the diagnosis of hysteria. It hardly seems to merit special treatment. Vigorous but well regulated exercise of mind and body, which will rouse the nervous centres into healthy activity, seems to me the only therapeutic measure worth trying.

CASE I.—F. U., a female child aged 11½, came under observation as an out-patient in November, 1876. She was brought on account of peculiar fits, which had commenced, according to the mother's statement, shortly after the child had been knocked over by a dog two years before. There was no injury beyond a few scratches, but the child was greatly frightened. There was no fit then; but she looked very pale afterwards, became very dark round the eyes, and strange in her behaviour. In addition to singing and dancing fits, and the repetition of hymns and prayers for a long time continuously, she very soon developed attacks, of which the main features were nodding and grimacing; picking at her clothes; violent to-and-fro movements of the trunk; attempts to bite anybody who restrained her; and, finally, falling down as though she had been shot. Occasionally after this she slept, but more frequently screamed out with some delusion—such as that a man with a white sheet was coming to her, and the like. After these attacks were over, she invariably complained of being cold and sat by the fire, and she often asked for food. Generally, after the fit, she used to go out to micturate. When she walked into the out-patient room, she looked a pale, listless, expressionless, languid girl; but there was nothing else worthy of note about her. I found that, all down the right side of the body, and also on the left cheek, there was complete analgesia, so far as the prick of a pin and pinching were concerned. She did not wince in the least when a single-celled Stöhrer's faradic battery was applied on the left side, whilst a moderate current to the right side caused her to wince. She was unable to localise the spot where she was pinched on the right side, but she had no difficulty when the left side was pinched. Gentle pinching of the right arm and leg made the skin red, but no such effect followed a similar pinch of the left arm and leg. There was no difference, so far as muscular contraction to faradism was concerned, on the two sides, and there was not the slightest sign of contracture or paresis anywhere.

On roughly examining the child's field of vision, I found it considerably limited; but equally so, I believe, all round, and to an equal amount on the two sides. Firm pressure on the right inguinal region did not bring out any sign of distress, and nothing abnormal was felt here. Above the middle of the left Poupart's ligament, an olive-shaped body, with its long axis parallel to the ligament, was felt. It was slightly elastic and movable; moderate pressure over it made the child flinch. I believe this body was the left ovary, and that was the independent opinion of several others who examined the child. A few days afterwards, on the suggestion of my friend, Dr. Allen Sturge, I faradised the right arm and leg for a short time, and after this the child was able to localise pin-pricks. She now winced a little when pinched, but not so much as when the other side was pinched. The faradism was continued, and after several minutes she began to feel it painful, and then it was found also that she withdrew her arm and leg away after a pinch or pin-prick as well as when the other side was irritated. Her sensory centres were awakened. At no time, when I saw her afterwards, was the analgesia present. Two months afterwards, she began to have what her mother called blind fits. Sometimes, for a whole day, she would find her way about entirely by "groping". She was brought one day to the out-patient room in one of those blind fits. Of course, it was impossible to say whether she really saw or not. When I held up my fingers, and asked her how many there were, she immediately began to feel with her hands as a blind person might. A moderate faradic current was applied about the forehead and temples, and she was soon able to give correct answers; and, instead of "groping" home, she walked in an ordinary way. On two or three occasions subsequently, the same treatment was efficacious.

In the middle of March, her blind fits ceased. I did not, I am sorry to say, examine her at that period for achromatopsy; but in one respect this was more satisfactory, because I learned from the mother subse-

quently that, at one time, the child made very frequent mistakes in colour; that she had bought a black reel of thread for a white one, and seemed surprised when told of her mistake; and that she had made some other blunders. When last seen, in April 1877, her general nutrition was improved. She had no analgesia; her field of vision was natural, and so was her perception of colours. She had had, however, one or two attacks of globus, and she still complained very often of coldness. The mother stated that at no time had there appeared any sign of menstruation.

CASE II.—Ellen T., aged nine years and a half, was brought for fits, from which she had suffered for four years. In these fits she fell down as though she had been shot. Sometimes she worked with her hands, but more often there were no movements at all, and they were almost momentary. She never bit her tongue, and never slept after them. We assumed at first that these fits were epileptic; but bromide of potassium had not the slightest effect upon their character or frequency. At a subsequent period, although she was stated to have had no fewer than thirty-five fits the day before—and, during the previous thirteen days, never fewer than twenty-five in the day—I was struck with the fact that there was no sign of dementia, or paralysis, which would have been almost inevitable in true epilepsy. I saw one of her fits, in which she simply fell down momentarily, as though she had been shot.

I have seen other cases of that character which were indubitably hysterical, and which ceased directly the patient was taken into hospital. In one of them (a patient under the care of my colleague, Dr. David Lees), such fits could be induced at will, by making a sudden sharp noise close to her ear.

In this case, the absence of dementia, coexistent with such a long continuance and great frequency of fits, suggested their hysterical nature. It was found that both arms and both legs were analgesic; and that she allowed the needle to be pushed into the skin, between the digits, without wincing in the least.

CASE III.—A boy, aged 9, a church chorister. He was brought on account of fits, in which he suddenly fell down in church without any twitching, and which were not followed by any coma, or paralysis, or loss of intelligence. He was a healthy boy, but with a face of rather refined feminine type—what would be called an interesting child. He was found to be absolutely tolerant of the application of a needle down one side of his body, and almost absolutely tolerant on the other side; but he could localise the position of the needle-prick perfectly, and knew when he was being pricked, although it did not give him any trouble.

CASE IV.—A girl, aged 9, was brought on account of paralysis of both legs, from which she had suffered for nine months, without any affection of sphincters or wasting or rigidity of limb. She was absolutely tolerant of every kind of stimulus applied to the lower limbs. A double-celled Stöhrer at full power caused no sign of distress, although it brought the muscles into marked relief. Faradism was continued for a quarter of an hour, and at the same time the child encouraged to try to make efforts. At length she began to wince a little; and by degrees the paralysis entirely disappeared, and she became able to walk naturally.

CASE V.—Emily P., aged 8, was brought to the hospital in July 1877, on account of fits, which, it was said, she had been subject to for two years. In most of them, she began by dancing with both feet, and then she fell down, struggled violently, and screamed. When in the out-patient room, she had a fit; she fell down, grasped my arm, and kicked out with her feet vigorously. The pupils remained unchanged; but the eyelids quivered. There was no facial distortion, and the duration of the whole fit was not more than one minute. After she came round, she was found not to flinch in the least to pin-prick; but she told her mother that her arm was being pricked, and after a few minutes withdrew it. She was able to tell colours correctly.

CASE VI.—Jane K., aged 5½, was brought to the hospital in December 1877, because she had been queer for about a fortnight. She had lost her appetite, made frequent mistakes as to the taste of things, complained of pain about the left breast. She had had [illegible] three weeks; but the mother [illegible] part of it. On [illegible] should be bitten; and the child seemed fairly nourished, although a little pale. There was something [illegible] and for this reason [illegible]. It was found that pricking her arm [illegible] by my attempt to withdraw the part [illegible]. When [illegible] pricked, there was the slightest possible play of features. When the right cheek was pricked, she cried a little.

grate without crying at all. I saw the scar (three inches long) left after this injury. On a former occasion, the mother stated that the child had cut her thigh very deeply with a piece of broken pottery, and had manifested only very slight distress.

CASE VII.—Mary S., aged 3, was brought to the hospital on November 12th, 1877, on account of fits, to which she had been subject for three days. She had been left during the day at a *crèche;* and on the evening of the 9th, when her mother went for her, she found her exceedingly pale. There was some reason to believe that she had been shut up in a closet; but this was not absolutely certain. On going home, the child screamed a great deal; and during the next three days had repeated fits, in which she clenched her hands, threw her head back, arched her back, worked her eyelids, and screamed out "Mammy" continually. It was found that she was analgesic all over to the prick of a pin. She neither cried nor withdrew her limbs. A week afterwards, the analgesia was still present, and it was noticed that she had very frequent quivering of the lids. After this, she had chicken-pox, and subsequently only one very slight fit. When brought again, she was quite cheerful in her aspect, and the analgesia and quivering of the lids had disappeared.

CASE VIII.—Edmund H., aged 2 years and 9 months, previously healthy, in May 1880 fell from the sofa on to the floor. He did not lose his senses, neither was he bruised. The same night, he had a fit, of which his mother gives a very vague account; his legs, it appeared, moved a great deal, but not his hands; and he was brought to rights immediately by a bath. Since this, he had had four faints, according to her account, in which he suddenly fell down, but did not twitch. When seen, he was a healthy-looking boy, but obviously a very self-conscious one. He did not cry in the least, or object to being examined; but, on the two occasions that he was seen, he kept his hands before his face, unless they were held down. There was no reaction to pin-prick applied to any part of either upper limb. When the left cheek was pricked, there was the slightest possible play of features. When the right cheek was pricked, he cried a little.

A NOVEL MODE OF APPLYING PLASTER-OF-PARIS BANDAGES.*

By W. NEWMAN, M.D.Lond., F.R.C.S.Eng.,
Surgeon to the Stanley Infirmary.

I WISH to bring under the notice of my fellow-associates a mode of applying plaster-of-Paris bandages which, so far as I know or have read, has not hitherto been described or recognised in this country; and the more, indeed, may this be said, for in the report, now before me, of the discussion at the Royal Medical and Chirurgical Society on the "use of plaster-of-Paris bandages in the treatment of simple fractures", held on June 14th, I do not find that any speaker referred to this plan.

Before giving the description, let me add that this special mode is due to the thought and care of M. Denis Dumont, Senior Surgeon to the Hôtel-Dieu at Caen, in Normandy. In a casual visit to Caen last month, I found my way to the hospital, and was especially struck with the good results of these bandages in several cases I saw.

The material employed is a coarse-meshed muslin (tarlatane in France, crinoline or coarse book-muslin in our drapers' shops at home); cost about threepence per yard. A piece of this of sufficient length is taken and folded into a long bandage, having from sixteen to twenty-four thicknesses of the material, according to the requirement of the special case, and varying in width from two to three fingers' breadth. It is desirable, the folds being so numerous, that a loose thread tacking should be run along the free edges, to preserve the shape of the bandage and provide against unfolding.

Before proceeding further, the bandage should be soaked for a few minutes in water, [illegible] is liberally introduced in the process of manufacture of the material.

The plaster-of-Paris should be mixed with water (an equal bulk of each seems to be the most satisfactory proportion), in a large, rather shallow, bowl. As the mixing proceeds, the finely powdered plaster should be dredged on the surface of the water until it is exhausted. A

[illegible]

this is done. The desideratum is to have a bandage of very definite thickness, thoroughly and equally saturated with liquid plaster.

It will render the further description more easy, if the reader will think of the bandage thus prepared as affording, at the pleasure of the surgeon, either a narrow but thick band, or, when opened out by removal of the basting thread, a flattened, much wider, or expanded portion.

The narrower portion of the bandage permits application in simple ring or in figure-of-8 fashion around the terminal part of the fractured limb; and the wider expanded portion, carried upwards on the sides of the limb, furnishes a perfectly firm and well-moulded support to the injured part. A layer of wadding may be placed round the limb, so as to secure any projecting point from undue pressure, before the bandage is applied; or most commonly it will be found sufficient to rub the limb over with a fairly thick coating of oil or simple ointment. The plaster bandage will then not adhere to the skin.

I will speak first of the mode of application in simple fractures of the forearm. The arm, as is usual, must be placed in position between pronation and supination, and extension must be kept up so as to maintain the fractured ends of the bones in their proper relation one to the other. The middle of the bandage is applied to the front of, and then round, the wrist-joint. A ring is formed in this way, embracing firmly the lower end of the radius. One end of the bandage is now carried from behind between the thumb and finger, and downwards in its expanded portion over the anterior face of the forearm; while the other half of the bandage is taken directly from the ring over the wrist upwards over the posterior surface of the forearm.

Two long but narrow and rather strong bits of wood are now applied, one on each face of the forearm, with tolerable firmness; and a few turns of tarlatan bandage, *without plaster*, must be applied over these, to keep the whole framework in place until the drying and hardening of the plaster be fully completed. The advantage from these temporary wooden splints is, that the middle portion in length of each expanded portion is thus bent inwards, so as to correspond to the normal interval between the radius and ulna.

If there be simple fracture through the carpal end of the radius, the encircling ring is placed round the hand over the metacarpo-phalangeal joints; and the moulding of the wider portions of the bandage is commenced almost at once, so as to give support to the point of injury.

When the plaster is perfectly firm, the outer encircling bandage and the wooden splints are removed. A simple tie, elastic or other, will then suffice, if placed round the arm not far from the elbow, to keep the plaster framework in close apposition to the limb.

If simple fracture of the fibula, or of the tibia and fibula, transverse and without tendency to displacement, be in question, the bandage, prepared as above, is at once put on. The middle and narrow portion of the bandage is placed to correspond with the lower third of the leg posteriorly; the ends are brought round in front, and a complete close-fitting ring is so made; then they are brought down, each one over the corresponding malleolus, and crossed beneath the foot; finishing, finally, by the close application of the expanded portions, one on each side of the limb, nearly or quite up to the head of the tibia.

The best rule for the width of these expanded portions seems to be that, in the midline, both anteriorly and posteriorly, a vacant space of two fingers' breadth should be left between the corresponding edges of the plaster bandage.

Should the fracture of the leg be oblique, with more or less of riding and displacement, an ingenious adaptation of the plaster bandage is employed. To the leg itself a plaster bandage, as above named, is applied, with this variation only, that, before the crossing of the narrow portion is made beneath the foot, a roll of bandage is placed in close contact with the sole, and over this the crossing is managed. When the plaster has set, the bandage is taken away, and a projecting yet quite firm stirrup is left beyond the foot. This plaster bandage, so-called "extenseur", is covered with a layer of oil or simple ointment, and then an outside framework is arranged.

A long bandage is taken, soaked in plaster as directed. Between the layers a short piece of wood is slipped, to make an outer stirrup about three inches below that attached to the leg. The bandage is carried up outside the leg on each side to a point above the knee, and each side-prolongation is stiffened by the insertion of a piece of wood of the required length. The ends of the bandage are wound round the lower third of the thigh, so forming a complete ring, and enclosing the upper ends of the lateral wooden supports. This appliance is known as the "contre-extenseur".

The coating of oil or grease prevents any adhesion of the two bandages at the points where they are in contact. To complete the fixing, when the plaster shall have thoroughly set, the two stirrups, superior or foot attachment, and the inferior or outer framework, are tied together by a band of strong elastic. The extension so obtained will maintain the fractured ends of tibia and fibula in their proper place.

M. Dumont has applied plaster bandages on the above principles to cases of morbus coxarius; to fractures of the thigh, leg, and arm, simple and compound; and to cases of joint-disease when extension or absolute fixation is desirable, with an unvarying good result. As yet, beyond notices in the local medical journals, the only publication which treats at length of this method appears to be a published thesis, *Du Plâtre en Chirurgie*, by Dr. Cyrille Broulon, published by M. A. Parent, Paris, 1880.

When at Caen, I saw the application of this plaster to a case of disease of carpal bones in a child; several cases of fracture of the carpal end of the radius, in each one of which, I may remark in passing, the movement of the fingers was from the first day perfectly free, complete, and unrestrained; a simple fracture of both tibia and fibula; and a case of extensive caries of the tarsal and metatarsal bones, which had been safely conducted to a good firm ankylosis, with perfect repair of several old sinuses. Since my return home, I have applied the plaster in four cases, all still under treatment; viz., fracture of the tibia and fibula, not quite firm, fragment of imbedded necrosed bone still remaining; talipes varus, sometime after division of tendons; carious disease of the lower end of the tibia, where, after free gouging, some fragments still remained; and chronic hydrarthrosis of the right knee-joint, where complete apparatus, extension, and counter-extension seem to promise well.

The especial advantages which may fairly be claimed for this mode of using plaster-of-Paris may, I think, thus be summed up. There is no covering up of the fracture or injured joint. The support, with proper care in the application, is abundantly firm from the first moment; secondary displacement, even with a restless patient, is impossible. The materials are inexpensive, and not difficult of use. The need for complicated apparatus in the treatment of the majority of fractures is done away with; and the comfort and convenience, especially to those of us who practise in the country, will, I believe, be found to be very great.

I would only add that I am very sensible of the difficulty of putting into print an accurate and reliable description of the mode in question; but I shall be very glad to make the details as clear as I can (with the aid of some rude sketches) to any one who may think well to favour me with a letter of inquiry. I am but endeavouring to bring into notice an improvement which is wholly due to the careful inquiries of one of our profession—the genial and courteous surgical professor at the Hôtel-Dieu of Caen.

DUPUYTREN'S CONTRACTION OF THE FINGERS.

By A. S. MYRTLE, M.D., Harrogate.

THE following remarks are based on a long personal acquaintance with this deformity, as well as considerable professional experience. These contractions are very common, and cause much inconvenience. The subject of them cannot wash himself with comfort; wear gloves; shake hands; carry stick or umbrella; take hold of anything; or enter into many most desirable games like his neighbours, or on equal terms, if he makes the attempt. If medical, he finds great difficulty in making certain physical examinations, and in the performance of many surgical operations. This is particularly the case with the accoucheur, whose crooked fingers are always in his way; and, in *turning*, for instance, prove a source of acute suffering to himself, as well as to his patient. Such being the case, it is almost incredible that an affection so frequently met with, even among medical men, involving so many inconveniences, should have been so thoroughly misunderstood—so utterly neglected by the profession at large. For above thirty years, I have asked the advice of physicians and surgeons in my own case—men of the greatest repute, and I have met with scores of fellow-sufferers who have done the same in their cases, with the following result. Dr. A. examines the fingers most thoughtfully, and gives his opinion: "Ah, I fear nothing can be done, leave your fingers alone, I would not meddle with them"; or, "I see, gout; you know what to do as well as I can tell you: soak your hand in a solution of carbonate of soda, take a course of iodide of potassium, and drink Vichy water". "Do not allow any operation; you know Syme's opinion about that: worse than useless. Nothing but accidental and forcible rupture ever did good in such a case". Surgeon B. advises you to grin and bear it; and, if the fingers get very much more inconvenient, why, then, have them amputated. Now, this is no overdrawn description of the counsel we unfortunate cripples have received, and do receive, at the hands of our medical and surgical advisers; and it clearly shows that the profession

is, at this date, utterly ignorant of the pathological changes which constitute this contraction, or of the scientific method of treating it. This ignorance appears all the more incomprehensible, when we think of the clear light thrown on the nature of palmar and digital contractions by the teachings of Dupuytren, in 1832; by Goyrand's dissections, in 1834; by Partridge's, in 1844; and by the very full account given by Mr. Adams of London, before the members of this Association, in 1875; and by his publications, in 1876 and 1878. The writings and illustrations of these men show, most conclusively, that the changes brought about in the palm of the hand and fingers are entirely dependent on changes which have taken place in the bands of fascia, common to both; that the tendons with their sheaths, the joints with their coverings and ligaments, are not implicated; and that, although these may have remained in a state of fixity, more or less complete, for a long period of years, they resume their natural position, and capacity for action, as soon as the contracted bands are divided. It is to this fact that operative procedure of the right sort owes its success, as, if the joints and tendons were involved or materially altered in any way, subcutaneous division of the contracted fascial bands would prove of little advantage, even in recent cases.

Two forms of contracted fingers are met with: the one traumatic, clearly traceable to some local injury; the other idiopathic. The former may occur in one finger only, or be confined to one portion of the palmar fascia. It may be found at any time of life, and is in all essentials the same as those contractions which can be traced to no visible cause; and are, therefore, spoken of as constitutional or idiopathic. These are generally met with after middle life; one or more fingers may be the seat of contraction, the third finger being most commonly affected; the forefingers and thumbs are very rarely implicated, although I have seen the forefingers and thumbs of both hands firmly closed—the hands presenting the same attitude as if prepared for boxing.

During the development of contraction of the fascia very little is noticed, as far as symptoms go. A little pain in the line of contraction, increased on any attempt at extension; this leads one naturally to keep the finger, if anything, flexed, especially during sleep. By-and-by, nodules appear, at first soft and tender to the touch, then firm, elastic, and painless. Gradually the finger gets more and more bent until it is brought, more or less, close to the palm; the skin immediately over the affected bands, in the course of years, becomes adherent to them, and assumes a puckered appearance, exactly like the cutaneous adhesions we so often see in cancer. The contractions gradually reach their limit in a period varying from one year to six. During their progress we have no very active symptoms, and the fingers can be used, as far as it is possible, without pain, and with no increase to the mischief going on.

What is the nature of this peculiar affection? Most authorities—among the number the late Sir William Fergusson, Sir James Paget, and Mr. Adams—speak of it as a form of gout; but I see no reason why gout, already supposed to be at the bottom of every aberration from health, should be saddled with Dupuytren's contraction of fascia; and my reasons for objecting to its being in any way connected with gout are the following. 1. It is never met with among women. Mr. Adams writes: "I have never seen it in women." Now, gout is very partial to the fair sex. 2. Many of the worst cases I have met with (my own among them) cannot boast of having a single gouty progenitor, and never exhibited a symptom of gout ourselves, although we have been affected with fascial mischief for fifteen, twenty, and thirty years, and some of us are over seventy-four. 3. Remedies which are known to have a specific power over the gouty diathesis have no influence here; even a long course of mineral waters and baths, which would remove old-standing and considerable gouty and rheumatic swellings, fail to produce the slightest amelioration. And, lastly, the very mode of dealing successfully with contracted fingers, by division, with subsequent mechanical extension, is a plan which even Mr. Adams would not venture to adopt in cases of enlargement, stiffening, and contraction from gouty deposit. Still, I am constantly met with the remark: "But you must allow that this thing runs in families". Most certainly; but, will you tell me what does not run in families? Stealing and lying do, extravagance and drunkenness; yet no one would ever dare to ascribe the conduct of the thief, liar, spendthrift, or drunkard to his being a victim to gouty hereditary tendencies; and, the sooner we give up the gouty theory regarding the nature of these contractions, the sooner shall we see our way to dealing with them successfully, and in their early stage.

If they are not gouty, what are they? Inflammatory? I think not, because they are unaccompanied by any of the ordinary symptoms of inflammation, or its results. The evil, whatever it is, is confined to the one structure; it does not extend to neighbouring tendons or joints, and is not destructive in any way or sense. The contracted fasiculi are capable of being restored to their normal condition, and, with their restoration, the nodules disappear; and tendons and joints, which have remained useless for many years, are found to be perfectly healthy, and capable of resuming their natural functions. Such being the case, I am inclined to view these contractions as examples of simple hypertrophy of the tendino-fibrous bands which compose the palmar fascia, or its digital branches.

As regards treatment, I have little to say. There is only one safe and successful course open to the surgeon; and that is: subcutaneous division of constricted bands, with subsequent mechanical extension. The operation is by no means so easy as one would imagine; it involves great caution, and a highly educated touch. One must grope about with the knife in the dark, and divide every fibre of the tightened band separately—all the while the knife may be very close to most important structures, the division of which might be followed by very serious consequences. For further information on everything pertaining to contracted fingers, I must refer to Mr. Adams's treatise; and I would further advise everyone suffering from them to place themselves under his care, as I can bear witness to the marvellous success he has met with in dealing with some very old and complicated cases. For my own part, I owe him a debt of gratitude for the patience, skill, and kindness I received at his hands; and, when opportunity offers, I shall again submit myself with the greatest confidence to his treatment. My hand presented greater difficulties to the operator than he had previously encountered. I was under his knife for forty minutes, and then he had to desist, on account of a portion of skin, opposite the metacarpal joint of the ring-finger, giving way. The operation, therefore, was only partially successful; but, incomplete as it was, the amount of comfort and freedom my hand has received is greater than I ever looked for.

SURGICAL MEMORANDA.

CASE OF GUNSHOT WOUND OF SUPERIOR MAXILLARY BONES.

THOMAS H., aged 14, was brought to me on the morning of July 12th, 1881, at 3.30 A.M. His companion said he was very much afraid he had shot him, about half an hour before, with a revolver, but that he could see no wound. The boy, who looked a little pale, and was apparently bleeding from his right nostril, said he did not think he was shot, but that his nose was hurt. He had walked from the scene of the accident, about a mile and a half distant. After I had cleaned away the blood from his face, I found that the bleeding proceeded from a small wound just below the ala of the right nostril. I could see no wound of exit, and, on introducing a probe, I found that the wound ran slightly backwards and towards the left side for about two inches and a half. There was no wound of the roof of the mouth or floor of the nose. There was slight oozing of blood from the wound, and I found the canine tooth and the first bicuspid on the left upper jaw loose. I also found over these teeth the wall of the antrum projecting forwards, as if driven out by the bullet. The boy did not appear to be suffering much from shock. After I had probed and dressed the wound, he complained of feeling faint; I therefore had him covered up warmly, and gave some aromatic spirit of ammonia. When he revived I dressed the wound, after first syringing it out with carbolic lotion (one in thirty), with strips of lint dipped in carbolised oil (one in twenty), and had the patient removed home, a distance of about three miles. I saw him again the same evening, and found his temperature only 99.5°; pulse 75. I ordered him to be kept quiet, and fed on slops.—On July 13th, the temperature was 99°. The wound was discharging bloody pus. It was syringed with carbolic lotion.—On July 17th, he had continued well; and wanted to get up. Temperature 98°. I extracted the canine tooth on the left side. The end was broken off the fang of this tooth. Lotion injected into the wound of entrance came out through the socket of the tooth.—On July 19th, the external wound had closed. There was a discharge through the socket of the tooth.—On July 21st, I made an incision over the enlargement on the wall of the antrum, and found a fracture of the bone.—On July 30th, I extracted the first bicuspid tooth of the same side.—On August 2nd, three small pieces of bone had been discharged through the sockets of the teeth extracted. The boy continued well, with the wound discharging through the sockets of the teeth, until September 1st, when he began to complain of great pain in the wound, especially over the seat of the fracture. I therefore decided to attempt to remove the bullet. Accordingly, on Saturday, September 10th, with the assistance of Mr. Bertram Greene, resident pupil, Antrim Infirmary (who kindly acted as dresser for me through the entire case), I cut down upon the bone, just over the seat of fracture on the left

maxilla. On reaching the bone, I removed a small loose portion; and then, passing a pair of forceps into the cavity of the antrum, seized the bullet, which was lying loose. The bullet, when extracted, weighed three drachms and a half, and had lost thirty grains in its passage. I could not find in what position the revolver was held at the time of the accident; but it must have been held, evidently, on a level with the boy's face, from the direction of the bullet-wound. The bullet was a conical ball, 250 Eley's make of revolver-bullets. The case went on quite well. A small piece of lead was discharged about two days afterwards; also some small pieces of bone, before the opening completely closed. The bullet must have had just strength enough to fracture the wall of the antrum, but not to pierce it. It is very remarkable, that throughout the whole case the temperature never rose much above the normal; nor were there any bad symptoms, which might have been expected after the passage of so large a ball through bone in nearly the whole of its course. The boy has quite recovered.

GEORGE ST. GEORGE, L.K.Q.C.P.I., L.R.C.S.Ed., Lisburn.

THE IMMEDIATE ARREST OF BLEEDING FROM THE NOSE.

As the inventor of the nasal plug, exhibited in April last at the Royal Medical and Chirurgical Society, I may perhaps be permitted to say a few words with reference to the article by Dr. Spender on the above subject.

When the idea first occurred to me of arresting epistaxis by means of an India-rubber bag, I was not aware of any other instrument of the kind being in existence. As soon as it was completed, and just before its exhibition at the Royal Medical and Chirurgical Society, I heard of and obtained from Paris an instrument similar to the one recommended by Dr. Spender, with this exception, that the bag is not spirally twisted round the tube, but simply tied on at both ends.

I think anyone, on comparing the two instruments, will see that they are totally different. Mine consists of an India-rubber bag, of the length of the nose, compressed in the middle, so that the two enlarged ends plug respectively the anterior and posterior nares. The narrowing in the middle is made for the purpose of allowing the pressure to be as little as possible on the inferior turbinated bone. It is passed into the nose by a probe hitched on the under side. To the anterior extremity is attached the tube (with stop-cock) by which it is inflated. (I have sent one to Dr. Spender, as I gather from his article that he has not seen one.)

I will now enumerate the advantages which I claim for my instrument. It causes less pain when *in situ*, on account of the greatest pressure being at the ends, and not in the middle, on the inferior turbinated bone. It cannot be pulled out or blown out while sneezing (as, I believe, the other can be). After insertion, and having been filled with water, it holds more water by about one-fourth, proving that the cavity of the nose is more occupied, especially at the ends, where the pressure is needed, and therefore better plugged. I have the authority of Mr. T. Holmes, the "distinguished surgeon" referred to, for saying that he is of opinion my invention is superior in construction to any he has seen. It is made by Messrs. Walters and Co., of Lambeth Palace Road, and is called the "Inflating Nasal Plug".

H. C. HOWARD, M.R.C.S., Clapham.

SUPPURATION OF THE MASTOID CELLS: OPERATION.

MRS. X. aged 68, called upon me April 20th, 1876. She was deaf to high pitched sounds; a watch on both sides was inaudible on contact. Conversation was heard fairly well. It was not, however, on account of the deafness solely that she had applied to me. For two months she had been under treatment for naso-pharyngeal catarrh, accompanied by pain, more or less constant, in the left ear and left side of the head, worse when she was recumbent. Sleep and appetite were both defective. On examination, the left mastoid process was slightly reddened (a blister had been recently applied), but was not tumid, nor did the auricle project more than usual. The auditory canal was normal; the drumhead, very slightly hyperæmic, was yellow, opaque, and pulsatile, evidently from the presence of fluid in the tympanic cavity. Both Eustachian tubes were impervious to the catheter and Politzer's bag. Temperature 99.4°. She was ordered quinine, night-draughts of morphia, frequent steaming of the auditory canal, and a pad of cotton-wadding over the ear. In four days she called again, no better. Temperature 99.6°. The pain in fact was much greater, and the condition of the ear unchanged. I incised the left drumhead freely: only one or two drops of muco-purulent fluid followed the knife. A few days later she came again; the pain was acute, incessant, she had vomited several times, and looked very haggard. Temperature 99.2°. The incision through the drumhead had failed to afford relief, and the discharge had been very slight. The skin over the mastoid process was just perceptibly swollen, and a little tender on firm pressure; but the complaint of tensive throbbing pain in this region was so great, that I decided to make an incision. Selecting a spot half an inch behind, and on a level with, the centre of the external meatus, I cut down to the bone, and proceeded to trephine three-fourths of an inch deep till the mastoid cells were reached, upon which, odourless pus welled up immediately. The cavity was washed out with a warm solution of carbolic acid, a drainage-tube was inserted, and directions were given to irrigate three times a day with a similar solution at a temperature of 100° Fahr. The result was very good; the pain ceased the next day, the tube was removed in about a fortnight, the wound closed entirely in three weeks, the appetite and health improved, and she made a rapid recovery. During the last week, the injections trickled into the pharynx. The disease was evidently a primary abscess of the mastoid cells, the entrance to which was probably unusually small, and therefore readily occluded by a slight swelling of the lining membrane. The surface-signs were however, so meagre, so exceedingly slight, that one might reasonably have accused oneself of temerity in operating, at this stage at least, had there not been some encouragement to do so from the facts of, 1, presence of fluid in the tympanic cavity; 2, the negative results of the incision into the membrana tympani; and, 3, above all, the insupportable pain in the head.

T. H. PINDER, Honorary Surgeon to the Institution for Diseases of the Ear, Manchester.

OBSTETRIC MEMORANDA.

TREATMENT OF *POST PARTUM* HÆMORRHAGE.

THE following case presents in its incidents a close parallel to that of Mr. C. W. Belfield, recorded in the JOURNAL of October 22nd.

I was called at 5 A.M. to attend Mrs. G., at four miles' distance, in her ninth labour. Her husband told me that in her last two labours she had flooded copiously, and that my father, Dr. S. H. Steel, had cautioned him to call me in time. On my arrival at 6.15 A.M. I found the os uteri fully dilated, the passages soft and yielding, and the head well down in the pelvis, but pains were unfrequent and feeble. I administered 20 minims of liquid extract of ergot (U. S. P.) and waited for an hour. The ergot had no effect, the patient lying without pain or complaint of any sort. In the meantime, in the expectation of flooding, I prepared a solution of three or four drachms of the solid perchloride of iron in ten ounces of water, and placed beside it a Higginson's syringe, attached to an uterine tube, ready for use. I also attached a large swab of cotton-wool to an uterine sound. A further dose of twenty mimins of the ergot producing little or no effect, I applied the short forceps, and the head was easily delivered. I disengaged the forceps just before the head was born. Grasping the uterus for twenty-five minutes after the birth of the child, I then endeavoured to "express" the placenta; but, for the first time in my experience, failed to disengage it by this method. Introducing my hand, I found the placenta firmly adherent, and began, therefore, to detach it from the walls of the uterus. I had succeeded in disengaging about half, when a rush of blood took place, which, pouring over the side of the bed, filled to overflowing a chamber-utensil placed to receive the placenta. I promptly disengaged the remainder of the placenta, and, clearing the uterus, carried the tube of the Higginson's syringe to the fundus, and the nurse at once began to inject the iron solution. For a few seconds a rush of returning solution mixed with coagula took place, the hæmorrhage being only slightly checked. I then plunged the swab into a stronger solution of the perchloride, and thoroughly swabbed out the uterus, which contracted immediately, the flow of blood being effectually staunched. During the whole time, I had kept the uterus in the grasp of my left hand. The rush of blood did not occupy more than from one to two minutes at the outside. Retaining my hand on the uterus for twenty minutes longer, I felt it relax and increase considerably in size; I therefore again cleared it out, and repeated the swabbing process. I administered a full dose of ergot (thirty-five minims) when the head was born, and another full dose when the relaxation just mentioned took place. I left the patient two hours afterwards, comfortable, though very much prostrated, the uterus being firmly contracted. The patient made a very good recovery, without a bad symptom.

I feel sure that, if I had not prepared the perchloride solution and swab, and had them ready for use, the patient's life could scarcely have been saved, so sudden and frightful was the hæmorrhage.

REMARKS.—It may be questioned if in this case it was good practice to detach the placenta when it was found fully adherent; but it seems

certain, from the woman's antecedents, that the natural contractions of the uterus, had they come on, would have been imperfect, and that flooding would have occurred under any circumstances. The point of interest is the addition of one case more in confirmation of the immense value of Dr. Barnes's method of controlling the most desperate cases of uterine hæmorrhage.

W. Duns Steel, M.B.Lond.

EMPHYSEMA IN PARTURITION.

J. S., aged 20, a strong, healthy-looking girl, was taken in her first labour on November 13th, 1878. On my arrival, I found the head presenting, the membranes entire, and the os fully dilated. The pains were regular and strong; and, after about half an hour, I ruptured the membranes. The pains continued strong, and the head advanced till it occupied the brim. For nearly three hours, very little progress was made, though the head still advanced slightly, the pains being regular and strong. About this time, I noticed that the young woman's face was swollen; also the left eyelids were nearly closed. She soon complained of difficulty of breathing, and said she thought she should be choked. On placing my hand on her chest, I found considerable swelling on both sides; the swelling extending up both sides of the neck and face, and soon reaching above the temples. The swelling was soft and puffy, with the characteristic crepitation of emphysema. As there was now great distress, and no chance of labour being completed naturally (the head being still in the cavity of the pelvis), I decided to effect delivery as quickly as possible. I was some distance from home, and had no long forceps with me; but, fortunately, having craniotomy-scissors and blunt hook in my bag, after some difficulty I procured delivery. The girl was much exhausted, her face being swollen beyond recognition at the completion of labour. After this, no further swelling took place. She remained in about the same state for two days, when the emphysema began to subside, and by the eighth day had disappeared. On the tenth day, she was sitting up in a chair with her clothes on, and was able to take solid food. After this day, she made a rapid recovery.

J. S., being again *enceinte* in 1880, and attended by a medical man in charge of my practice, by my advice was delivered of a living child by the use of long forceps. I hope, if my patient has two more years' "rest from her labours", and then is once more hourly expecting, she may be safely delivered without instrumental assistance.

T. Wells Hubbard, Tunbridge Wells.

CLINICAL MEMORANDA.

UNUSUAL CAUSE OF DEATH IN SCARLET FEVER.

E. J., aged four years, was seized with a moderately severe attack of scarlet fever on October 21st. On the fourth morning, the temperature had fallen from 104° to 102°. It continued to average 102° in the evening until the end. The entire surface of the fauces speedily assumed an ashen, sloughy appearance. There was a copious ichorous discharge from the nose. The cervical glands were but very slightly enlarged throughout. The pulse ranged from 110 to 130. This condition continued until the evening of November 1st—the twelfth of the fever—and, as no disease was found in the heart or lungs, the case did not appear hopeless. Next morning, however, I was hastily summoned at 4 A.M., and found that the patient had suddenly lost from the mouth about two ounces of dark non-aërated blood. Hæmorrhage recurred at 6 and 9 A.M., and 2 P.M., the last attack being very severe, and immediately fatal. Some minutes later, blood still flowed from the mouth and nostrils. The drugs given were steel and chlorate of potash, to which quinine was afterwards added, brandy, and, when hæmorrhage set in, ergot, with gallic and sulphuric acids. Gargles, containing carbolic acid and Condy's fluid, were also used. I was surprised at the existence of sloughing sufficient to cause irremediable ulceration of important vessels (which, I presume, was the source of the bleeding), without corresponding glandular swelling. The frequent practice of swabbing the throat with strong styptics or antiseptics would, if adopted, have inevitably hastened death.

Chas. H. Cattle, M.D.Lond., Nottingham.

St. Thomas's Hospital.—The following appointments have been made. *Assistant House-Physicians:* Senior, S. W. Sutton, M.B.Lond., L.R.C.P., M.R.C.S.; Junior, A. E. Wells, L.R.C.P., M.R.C.S. *Assistant House-Surgeon:* E. F. White, M.R.C.S., L.S.A. *Resident Accoucheur:* W. A. Duncan, M.D., L.R.P., M.R.C.S., L.S.A.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

GUY'S HOSPITAL.

[illegible]

(Under the care of Mr. R. Clement Lucas.)

G. C., aged 10, a native of Jersey, was first admitted under the care of Mr. Lucas on January 20th, 1876. His father and mother and two brothers were living; three brothers and two sisters had died. He had suffered from measles and other diseases of childhood.

About a year before admission, he had fallen on his right hand, but did not strike the elbow. Two months later, the arm felt stiff, and movements became difficult. The elbow then became swollen, red, and painful. He consulted a medical man, who applied a rectangular splint. Abscesses formed about the joint, some of which were opened, others allowed to discharge, and the sinuses of those remained.

Condition on Admission.—The patient was a thin fair-complexioned boy, with large eyes and long eyelashes. His right arm was in a semiflexed position, and there was very slight passive motion in the elbow. The forearm was immovably fixed in a position between pronation and supination, and much wasted. There were several sinuses about the joint, discharging pus. He was ordered cod-liver oil and steel-wine, and the arm was fixed on a rectangular splint.

March 22nd. The boy's general health having improved, whilst the joint remained in much the same condition, Mr. Lucas proceeded to perform resection. A longitudinal incision was made over the back of the joint, and, the triceps being detached from the olecranon, the joint was more freely opened; the periosteum and muscles were then stripped from the condyles of the humerus, and the ends of the radius and ulna, and lower extremity of the humerus, were removed by means of a hand-saw. Considerable oozing took place from the inflamed tissues. Carbolic dressings were used, but the case was not treated antiseptically. A straight splint was at first applied. The joint was found filled with pulpy granulations, and the cartilage was almost entirely destroyed. The articular ends of the bones were also found infiltrated with soft pulpy material.

March 23rd. Temperature 98.6°; pulse 120.

March 24th. The wound was dressed for the first time. Temperature 99°; pulse 118.

March 28. The pulse and temperature were normal.

April 7th. An interrupted right-angled splint was to-day applied.

April 21st. He was able to move his arm slightly.

April 25th. The arm could be extended until it was nearly straight, and flexed almost to a right angle. The wounds were healing.

May 12th. The splint was altogether left off.

May 29th. The arm was moved every day, and the muscles were galvanised.

June 5th. Pronation and supination were good. Two or three sinuses still remain unclosed.

June 8th. He felt ill. Temperature 100.3°; pulse 170. There was a red blush below the bend of the elbow. The tongue was furred.

June 9th. The redness had extended. Temperature 100.4°; pulse 160, He was transferred to the erysipelas ward.

June 10th. There was erythematous erysipelas spreading from the elbow. He was ordered a calomel powder, and a mixture containing iron and chloric ether. Temperature 99.8°; pulse 112.

June 12th. The erysipelas was spreading down the forearm. Temperature 100.2°; pulse 96.

June 18th. The erysipelas had subsided.

June 26th. The arm was moved every day, but had become stiff and painful, and extension was difficult.

July 13th. Movement in the joint had increased.

July 18th. Erythematous erysipelas had again appeared about the elbow. Temperature 103°; pulse 128.

July 19th. The erysipelas was spreading up to the shoulder and down the forearm. The skin was hot and red; the [illegible]. Temperature 103.4°; pulse 128.

July 20th. Temperature 102.8°; pulse 130.

July 21st. Temperature [illegible]; pulse [illegible]. He was better.

July 22nd. The redness was subsiding; but the forearm was still œdematous. Temperature 103.6°; pulse 100.

July 24th. There were some pustules on the arm. Temperature 98°; pulse 100.

July 25th. The erysipelas was again spreading. Temperature 101.6°; pulse 104.

July 27th. The swelling was less; the tongue cleaner. Temperature 98.5°; pulse 100.

July 30th. The swelling had completely subsided. There was no elevation of temperature.

August 1st. He was transferred to Job Ward. The arm was very stiff.

August 4th. Mr. Lucas moved the arm. Flexion was very painful. Some sinuses were discharging. There was an inability to extend the elbow.

August 8th. He was carrying leaden weights to aid in extending the arm.

August 18th. The arm was still stiff, but movement therein was increasing.

August 25th. He was dismissed from the hospital.

September 1st. He was readmitted into the hospital on March 6th, 1879. After leaving the hospital in 1876, he remained under the care of Dr. Wills in Jersey, who advised him to bathe the elbow in sea-water, from which he derived much benefit. A year later, an abscess formed above the elbow, and was opened; and, shortly afterwards, another formed and discharged; since which time the elbow had remained fixed.

The condition of the right elbow now was that of an excised joint resulting in ankylosis. It was soundly healed, and completely fixed at an angle of 100°. There were many scars of old abscesses above the elbow, both in front and behind. Slight pronation and supination could be effected, but this took place entirely at the wrist-joint.

History of the Disease in the Left Elbow.—About twelve months before admission, he began to suffer pain in the left shoulder and elbow; and, for about three months, he had been losing the use of the arm, and the elbow commenced to swell. Abscesses afterwards formed and discharged.

On admission, the left arm was wasted, and flexed at an angle of 100°. There was considerable elastic swelling about the elbow. Two inches above the elbow was the scar of an old wound, and there was another on the outer side of the olecranon. There was very slight pronation and supination, and only slight flexion and extension. Movement caused great pain. There was considerable heat, but no redness about the joint.

March 18th. The patient being placed under chloroform, Mr. Lucas proceeded to excise the joint through a longitudinal posterior incision. Care was taken to strip the periosteum from the olecranon process, together with the expansion of the triceps tendon. The periosteum, which was much thickened, was also easily stripped from the lower extremity of the humerus before the condyles were sawn off. The joint was found filled with pulpy granulations, and the cartilage for the most part destroyed. A caseous cavity was found in the upper end of the ulna, which probably indicated the place where the disease commenced. The head of the radius was also inflamed, and its cartilage separated. The operation was performed antiseptically, and carbolic dressings were employed. The arm was afterwards placed at a right angle on an anterior piece of bent metal. About 6 P.M., there was considerable oozing of blood, and the house-surgeon reapplied the dressings. The patient had a morphia injection at night.

March 19th. Temperature 98.4°; pulse 100.

March 20th. The wound was dressed under the spray. Temperature normal.

March 25th. He sat up for the first time since the operation. There was but little discharge.

March 31st. The drainage-tube was removed. His general health was good.

April 1st. The elbow was still swollen. There was slight redness over the upper end of the radius, but very little discharge. The wound was granulating from the bottom.

April 2nd. An abscess at the head of the elbow, probably caused by the pressure of the splint, was opened.

April 9th. The abscess had healed. The arm was placed on an iron side-splint, with a movable joint at the elbow. The position of the arm was changed daily.

April 12th. The movement of the elbow had much improved. He could straighten the arm without pain.

April 20th. The arm was now taken off its splint, flexed and extended daily. Pronation and supination were also exercised. After being freely moved, the arm was put up on a straight splint for one day; and on the following day, after exercise, it was secured to a rectangular splint.

May 6th. The arm was now carried one day in a sling, and the next on a straight splint.

May 20th. The sinuses were still dressed under the spray. Considerable thickening could be felt in the position of the condyles of the humerus indicating their reproduction from the periosteum.

May 27th. The spray was discontinued. He was allowed to use the arm freely, and rest the forearm in a sling when tired.

June 6th. A small abscess which had formed on the inner side of the joint was to-day opened under the spray.

June 13th. The arm was loosely bandaged, so as to allow movement of the joint. It was dressed under the spray.

July 11th. There was very little discharge from the sinus. He had greatly improved power of flexion and extension, but very little voluntary power of pronation and supination.

August 9th. He was discharged from the hospital, there being still one sinus unhealed. He had good power of flexion and extension, but pronation and supination caused pain, and required passive movement.

A short time after the patient left the hospital, Mr. Lucas received a note to tell him that the sinus was closed, and that good movement had been preserved in the false joint.

Re-admission, October 1880.—The patient was again admitted in the autumn of last year, on account of an abscess situated over the upper part of the left humerus. This was occasioned by a man who caught him by the legs and pitched him on to his shoulder. The abscess opened, and a sinus remained, which was eventually cured by splitting up the sinus and applying a splint to prevent movement of the muscles. The condition of his elbows at this time was as follows. The right elbow remained soundly healed and firmly ankylosed at an angle of 100°. The left elbow presented a much more satisfactory condition. The condyles of the humerus had been completely reproduced, so that the normal width of the joint at the elbow was preserved. To a certain extent, too, the olecranon process was restored. The movements of the false joint were almost as complete as in a normal elbow. Flexion and extension could be carried to the full, and the hand could be placed with ease to the back of the neck. The movements of pronation and supination had also been preserved. The patient was shown to the members of the Hunterian Society on October 13th, 1880.

REMARKS.—This very delicate and unfortunate boy, after disintegrating disease of both elbow-joints, is still fortunate in having the free use of both hands, whilst one elbow is fixed at a favourable angle, and the other is capable of the most extensive movements. The less favourable result obtained after the first excision is to be attributed, in part, to the long time that the disease had existed, giving rise to numerous abscesses, destruction of the soft parts around the joint, and wasting of the muscles before the operation; and, in part, to the severe and recurrent attack of erysipelas which delayed his convalescence. The boy, moreover, was too young to understand the value of movement to submit readily to the pain induced by it. In the second operation, it will be observed, every effort was made to preserve the periosteum; and though abscesses had formed around the joint, and the joint itself was disintegrated, the soft parts were in a less unfavourable condition than in the other case, and the muscles less wasted. Mr. Lucas is of opinion that, as soon as it can be ascertained that the cartilage is so far injured by disease as to necessitate ankylosis if left to a natural cure, excision should be at once performed. Delay only exhausts the patient, and causes wasting of the muscles, whilst the soft parts around the joint become more and more riddled by abscesses. Of the value of subperiosteal excision, so far as it can be carried out, Mr. Lucas has little doubt; and he maintains, that the reproduction of the form of the natural joint after operation is what every surgeon should attempt to obtain. But it should be remembered that, with the periosteum preserved, there will be a greater tendency to ankylosis, to prevent which passive movements must be early begun and long persevered with. The success of the second excision was in great measure due to Dr. Wills, of St. Helier's, who, after the boy left the hospital, continued and encouraged the boy in these movements.

PRESENTATION TO MR. A. FRASER.—On November 28th, Mr. Alex. Fraser, M.B., the Assistant Lecturer on Anatomy in the Medical School of Owens College, Manchester, was presented by the students with an illuminated address and microscope, in appreciation of the zeal and efforts which Mr. Fraser has shown, during the time of his connection with the school, in aiding the students in their anatomical studies. The microscope is a magnificent instrument, by Zeiss of Jena, and has eight objectives, from A to F; and is also fitted with extra diaphragms, condensers, camera, and micrometer. Its value is about £35, and a plate bears the following inscription: "Presented to Alex. Fraser, Esq., M.B., by the students of the Owens College Medical School. November, 1881."

REPORTS OF SOCIETIES.

EPIDEMIOLOGICAL SOCIETY.

WEDNESDAY, NOVEMBER 2ND, 1881.

GEORGE BUCHANAN, M.D., President, in the Chair.

Add. to Epidemiological Knowledge.—The PRESIDENT read an address on this subject. The Society, entering on the thirty-first year of its life, had experienced difficulties, and attained success. That greater concern was now felt about scarlatina, typhus, small-pox, etc., than at the time of the Society's creation, and that public bodies and their officers competed with it in their interest for the problem studied, was a result to which the Society had contributed in a foremost degree. The Society must identify itself with statesmen, geographers, and with travellers, and must obtain help from collateral sciences. The best example of indebtedness to physical science might be taken from the lessons that the physicist had taught of the characters of infection. At the foundation of the Society, there was but a half formed recognition of the fact that every disease of the epidemic class has a material of its own. From the microscope in the hands of Dr. Beale, the Society soon came to know of the existence of particulate matter in infective liquids; but it was not until the resources of the physicist had been applied to separate out the particle from the fluid, that any conclusion could be formed about the inherence of the quality of contagiousness in the one or the other element of the infectious liquid. The method of diffusion was used by Chauveau to such liquids, and first to vaccine lymph; the soluble was separated from the particulate, and the potency of the lymph was found to be in the particulate only. It was soon found that other contagia like small-pox exhibit the same quality. At this time, the pathologist had been cautiously tracking other lines of research; and, so long ago as 1841, a happy inspiration led Dr. Farr to insist upon the use of the word "zymotic" as best expressing the character common to epidemic, endemic, and contagious diseases; and in 1848-49, Dr. John Snow had satisfied himself that the best explanation of the phenomena of cholera and its spread was to be found in the existence of a specific cholera-"cell", capable of passing into other bodies, and producing cholera in them. Further, Dr. W. Budd reached the judgment alike for diseases propagated through air and for those communicated by water, that "the contagious agent which issues in the excreta is the fruit of its own prior reproduction within the already infected body". The President then referred to Schroeder and Pasteur's researches in putrefaction and fermentation, which had led to the further discovery of germs as essential for the production of contagion, as the organisms they had found were necessary to produce fermentation. For years before this period, the suggestion that particulate contagium must almost of necessity be contagium vivum, had been one that had its attractions for the botanist. What if it should be the reproductive matter of some vegetable thing? At one time, it did seem that the genesis of cholera would be found in that direction. Dr. Sanderson's critical examination of Professor Hellier's experiments had relegated to the domain of the unproved this promising vision; but still the materials of some contagia might have another habitat, perhaps in a known but not yet recognised alternative form. The President pointed out some of the interesting and important consequences that followed from the doctrine which would regard the material of infectious disease as something in its essence, having a place and mode of life beyond the infected body. One of these was the possibility that was appearing of being able to cultivate that material outside the body, in ways that should give it different degrees of potency. This he illustrated by describing the researches of Sanderson, Koch, and Klein. In 1879, Dr. Sanderson found that the cultivation of anthrax in the body of rodents modified the poison, so that the subsequent inoculation of a bovine animal did not destroy the life of the latter, but protected it from subsequent attacks of disease. At the same time, M. Pasteur made out for the disease called fowl-cholera the same quality of cultivatibility by multiplication of its bacilli in inorganic, but not vitalised, liquids. We could not help having before us the dazzling prospect of being able to offer to men and animals the protection of a trivial disease against each more fatal disease; to achieve what M. Pasteur called the vaccination of animals against the several contagious contagia. But perhaps as valuable were the indications which were being gained of possible means of preventing epidemic disease in other ways. Suggestions arose of material of contagion having, like tapeworm, an alternative mode of life outside the animal body, or in one animal body having a different sort of existence from that in the other animal body. What if the material of cholera, or of yellow, or of enteric fever should have another habitat than as a contagium, and there exist, having no power of producing disease until its conditions were changed, but then altering its mode of life, and becoming the active material of disease in animals into whose bodies it was introduced? What if it could be recognised in its other fashion of life, and destroyed, or the conditions necessary for its development prevent? In 1875, Dr. Klein recognised, in a particle peculiar to enteric fever, a microphyte which had been identified by Professor Cohn of Breslau as occurring in the water of a well at Breslau, and the district of the city supplied by that well had long been famous for the amount of enteric fever in it. The relation between milk and outbreaks of enteric or scarlet fever or diphtheria, had been thought of as a mere affair of disease entering milk-cans by the aid of water used in washing, or of hands used in milking cows. It might turn out that the disease-producing milk had received some organism that, under other conditions of life, would have been impotent; or such organism might have been derived from the body of the cow herself. Indeed, the hygienist was coming to suspect that he might often have to do with organised material not far developed from perfectly non-specific germs. With regard to this question, the President concluded by referring to the inquiries of Dr. Ballard at Welbeck and Nottingham, where strange maladies attacking a number of people were traced to some common article of food.

The Progress of Micro-Pathology.—Dr. G. C. [illegible] read a paper on this subject. After alluding to the great importance which the question of the relation of micro-organisms to disease had recently assumed, the speaker enumerated the various affections in which their occurrence had been noticed. He then gave a brief summary of the researches of Pollender, Brand, Davaine, Klebs, Sanderson, Cohn, Koch, Greenfield, Pasteur, and Toussaint, in anthrax and splenic fever, showing how gradually our knowledge of the life-history of the bacillus anthracis was obtained. Special reference was made to the "protective inoculation" of modified virus, as recommended by Pasteur and Toussaint in France, and by Sanderson and Greenfield in this country, as well as the criticisms on the method recently published by Koch. The process adopted by the latter for "pure cultivation", to prevent the unchecked mixture of the original bacillus, micrococcus, etc., stock, with accidentally introduced aërial germs, was to grow them on media rendered semi-solid by gelatine instead of liquids. Gaffky's experiments, on the cultivation of aspergillus and other "moulds" by this method, were referred to, as tending to show that Grawitz's results on the development of "moulds", ordinarily harmless, into toxic products, were due to contamination of the fluids used. In septicæmia, the researches of Billroth, Klebs, Rindfleisch, Coze, Feltz, Davaine, Sanderson, Lister, and many others, were enumerated; and the recent observations of Semmer and Krazewski, on the protective inoculation of a modified virus in that group of affections, were noticed. Bacilli, bacteria, and micrococci, were also mentioned as the supposed causes of erysipelas, diphtheria, variola, vaccinia, enteric fever, malarial fevers, leprosy, scarlatina, and several other complaints; whilst the researches of Obermeier, Carter, Heydenreich, and others, on the occurrence and the connection between relapsing fever and the spirillum in the blood, were alluded to. In infectious pneumo-enteritis of pigs, fowl-cholera, and glanders, as well as other infectious diseases of animals, the presence of microphytes was referred to. In conclusion, the author of the paper expressed his opinion that the reason for admitting the micro-organisms to be the causes of the diseases in anthrax, pneumo-enteritis, fowl-cholera, and some forms of septicæmia, were as strong as those for holding the trichina spiralis to be the cause of trichinosis. In the other affections, when the malady was communicable by inoculation from one person or animal to another, and the same organism was present in the blood or tissues of both, he was, while inclined to admit the organisms as causes of disease, obliged to look upon the case as not absolutely settled till cultivation and inoculation experiments have been made. The [illegible] by Koch, Dember, and Loeffler, as to the real conferring of immunity against the original malady by protective inoculation, were next discussed; and the writer of the paper felt obliged to refrain from a full acceptance of Pasteur's results, till the question of the non-recurrence of anthrax after one attack was definitely proved.—In the discussion which followed Dr. Henderson's [illegible] Dr. Cudlipp, Dr. Vandyke Carter, and [illegible].

VACCINATION.—Mr. A. S. May, [illegible] Hill District of Lewisham Union, has received £17 1s., for the fourth time in succession, for successful vaccination in his district.—The Local Government Board has awarded to Mr. [illegible] for the seventh time, a [illegible] district.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, NOVEMBER 7TH.

THOMAS ARNOLD ROGERS, M.R.C.S.Eng., President, in the Chair.

SPECIMENS were exhibited and casual communications read by Messrs. S. J. Hutchinson, J. R. Mummery, Charles Tomes, and Lawrence [illegible].

The Causes of Dental Caries, Constitutional and Local.—Dr. B. W. RICHARDSON [illegible] on this subject. The present widespread prevalence of dental caries was, he said, a matter of more than mere professional, it was of national, importance. For some years past, he had noted on his clinical records the condition of the teeth of the patients who came before him, and the result of these inquiries had astonished him not a little. He found that, of over four thousand persons, of both sexes and of all ages, over 80 per cent. were affected, more or less severely, with dental caries; whilst it was rare to meet with a person in whom both sets of teeth were altogether free from the disease. He believed also that it was now more prevalent amongst the young than it was twenty-two years ago, when he commenced medical practice. For such a general prevalence of disease, general causes must be looked for; and there were two such which he believed to be of chief importance—viz.: hereditary syphilis and dyspepsia. With regard to the first, he quoted the statements of Professor Gross and Dr. Holland, respecting the proportion of the adult population of the United States and Great Britain, respectively, who acquire the primary disease—estimated in each case at about one in eight. Contracted in adult life, syphilis did not materially affect the teeth; but the hereditary constitution bequeathed by it was undoubtedly indicated in the next generation by disease of the teeth, and by a constitutional condition in which caries was readily developed. It was hard to say whether dyspepsia should be placed before or after syphilis in point of importance. The form of the disease which produced the greatest amount of evil was that which was induced in the first months of life by improper feeding. In children who were deprived of their natural food, the tissues generally were imperfectly constructed; and, although in the case of those which were constantly undergoing renewal some of this harm might be redeemed, in the case of such structures as the teeth, made for the whole of life in a few short months, perfection was impossible if the start was bad. Dr. Richardson did not think that the strumous or the tuberculous diathesis produced of itself any tendency to caries; nor did he find that the epidemic diseases of children had any such effect. Passing on to speak of local causes, he mentioned four—viz.: the action of heated fluids taken into the mouth, the action of acids upon the teeth, deficient cleanliness of the teeth, and exposure of the teeth to the action of certain chemical substances incidental to certain special occupations. He believed, however, that these causes were comparatively of slight importance; that caries was rarely of purely local origin, though, when there was a low state of nutrition within the tooth, very slight external causes would produce serious results. In conclusion, he urged upon members of the dental profession the importance of impressing upon all with whom they came into contact the necessity of leading a more natural life, if they wished to exorcise the terrible disease which was demoralising civilised humanity, and of assisting to promulgate the natural law, that it was the duty of every mother, of whatever rank, to nurse her child, and gradually to lead its vital steps into healthy independent existence.—A prolonged discussion followed.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THURSDAY, NOVEMBER 3RD.

CHARLES HOLTTUM, F.R.C.S., in the Chair.

Sarcomatous Tumour (Cystic) of Left Testicle.—Mr. WACHER showed microscopic specimens and the tumour, which he had removed from a man twenty-two years of age. A pinch to the testicle a year previously first drew the patient's attention to it. The enlargement was uniform and painless; no affection of lymphatic glands could be detected.

Congenital Malformation of Left Forearm.—Mr. WACHER exhibited a little girl whose forearm terminated in a conical stump, about an inch from the elbow-joint. The mother, when six months advanced in pregnancy, was frightened by a rabbit flying at her hand, which she quickly withdrew.—A discussion followed as to whether the case was one of intrauterine amputation, or merely an instance of arrested or defective development.

Case of Intussusception.—Dr. BOWLES related this case. It occurred in a child, and Dr. Bowles believed he reduced it by manipulation, with one finger in the rectum and the other hand outside the abdomen. He advocated a trial of this means in the early stage of a case, insisting on the importance of early diagnosis, and the danger of being led astray by the nervous phenomena. Suddenness of attack, screaming, vomiting, and writhing were considered suspicious, and the passage of blood *per rectum* diagnostic. In the case mentioned, a distinct tumour, somewhat indefinite in form, in the right iliac region, was felt. Injections were condemned; but the introduction of water by gravitation, whereby the exact amount of pressure could be gauged, was not objected to.—Dr. EASTES mentioned a case he had reduced by inflation.—Dr. TYSON related a case where oil was found after death in the abdominal cavity.—Mr. TREVES did not believe an intussusception could be felt outside.—Mr. REID considered the passage of pure blood as very diagnostic.—Dr. BELL remarked how intussusceptions came down lower in time, especially in young children, and were then within reach *per rectum*.

Cherry-Stone from Vermiform Appendix.—Mr. WHITEHEAD REID exhibited microscopic specimens and drawings, which showed ligneous cells, filaments, and spiral vessels, similar to corresponding slides prepared from a cherry-stone preserved in brandy; these proved the "foreign body", shown at the last meeting, and mentioned on page 575 of the JOURNAL for October 1st, to be a "cherry-stone".

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, NOVEMBER 2ND, 1881.

EDWARD LUND, F.R.C.S., President, in the Chair.

Transposition of Aorta and Pulmonary Artery.—Dr. ASHBY showed the heart of an infant aged seven months, with transposition of the aorta and pulmonary artery. The child had been under observation nearly from birth till its death. Immediately after birth, it was pale, but shortly after, according to the mother's account, became blue. When first seen, it was an emaciated, pale child, with blue lips and tongue. Its movements were sluggish. No *bruit* was detected. It died of exhaustion, and had never really flourished. At the *post mortem* examination, it was found that the aorta arose from the right ventricle, and the pulmonary artery from the left. The large veins were normal. There was a patent foramen ovale, which had allowed of the passage of blood from left auricle to right; and an incomplete interventricular septum, which evidently permitted blood to pass from the right ventricle to the left.

Case of Phlegmasia Dolens.—Dr. WALTER mentioned the case of a girl aged 14, who had been admitted into St. Mary's Hospital for phlegmasia dolens following parturition. The labour had been normal; but the child did not survive its birth long. The disease ran an ordinary course, both legs being attacked; but the patient was convalescent in six weeks. The feature of interest in the case was the early age at which the girl's generative functions were fully developed. The catamenia commenced at 12, and from the age of 13 she was in the habit of having frequent sexual intercourse. The girl's parents were both English.

Micrococci in Urine.—Dr. W. ROBERTS exhibited specimens under the microscope of micrococci-chains from the urine of a patient suffering from hæmaturia. A description of this organism, and of the case in which it occurred, is given in the BRITISH MEDICAL JOURNAL for October 15th, 1881, p. 624.

Brain-Disease simulating Bulbar Paralysis.—Dr. ROSS showed the brain of a man who during life suffered from loss of facial expression, imperfect articulation, and slight difficulty of deglutition; the symptoms being like those of progressive labio-glosso-pharyngeal paralysis. The patient had suffered eighteen months previously from a slight attack of hemiplegia with aphasia, but recovered his speech in three months, with the exception of the articulatory difficulty. There was no difficulty, therefore, in recognising during life that the symptoms were due to a cerebral lesion. After death, the anterior half of both lenticular nuclei were converted into cyst-like cavities containing fluid. A small portion of the knee of the internal capsule was involved in the lesion on the left side; and a streak of secondary degeneration was traced on that side through the crus, pons, and anterior pyramid of the medulla oblongata. The degenerated fibres occupied the internal margin of the anterior pyramid of the medulla, and appeared to bend back in the median raphé to reach the bulbar nuclei of the opposite side.

Adherent Pericardium and Mediastino-Pericarditis.—Dr. LEECH read a paper on adherent pericardium and mediastino-pericarditis.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, NOVEMBER 12TH, 1881.

WILLIAM STOKES, M.D., President, in the Chair.

Mitral Stenosis.—Dr. CHRISTOPHER J. NIXON exhibited the thoracic and abdominal viscera of a young woman, aged 25, who had suffered from rheumatic fever three years ago. The signs of extreme mitral narrowing were very well marked when she came under observation,

and they were followed by general dropsy and ascites. There was no hæmoptysis, but œdema of the lungs hastened her death. From the slow dying, serous fluid was effused into the pericardium. The cavity of the left ventricle of the heart was diminished, but its walls seemed to be hypertrophied. The left auricle was the seat of an endocarditis; its capacity was enormously increased. There was exaggerated stenosis of the mitral orifice, with calcareous degeneration of the anterior flap of the valve ("diaphragmatic mitral valve"). The right ventricle was hypertrophied, but not dilated. The right auricle was greatly dilated. No hæmorrhagic infarctions were detected in the lungs, but there was sanguineous engorgement of them and of the spleen. The liver presented the peculiar appearance known as "nutmeg liver". The capsules of the spleen and kidneys were thickened. There was a general subacute peritonitis, which had been latent during life.

Necrosis of the Tibia.—The PRESIDENT showed two examples of necrosis of the tibia. The first occurred in a lad, aged 15, who was suddenly attacked with pain and swelling about the middle of the left leg. An abscess formed, and numerous sinuses gave exit to a sanious watery discharge. The limb was at last amputated by a modified supracondyloid operation, and the lesion was found to be acute necrosis of the tibia with immunity of the fibula. The epiphyses at both extremities of the bone shared in the disease. Firm ankylosis had occurred at the knee-joint and at the ankle, welding the tibia to the astragalus. The second case was that of a boy, aged 9 years, who had been kicked on the shin. The entire diaphysis of the tibia was stripped of its periosteum, and was carious.

Fracture of Metacarpal Bone of the Thumb.—Dr. E. H. BENNETT exhibited a series of united fractures of the metacarpal bones—the entire number of specimens of these injuries which the collection of the School of Physic contained. All had been obtained in the same way from the dissecting-room, and the collection so far might be considered representative of the group. Having referred to the opposing opinions of Boyer and Malgaigne as to the relative frequency of simple fracture in particular bones of the carpus, the former assigning the first place to the fifth, the latter to the first; having also referred to the uncertainty of authors as to commonest position of fracture in the particular bones, he directed attention to the facts revealed by his collection. They were examples of fractures of the shaft of the third and fifth from the same hand, one of the shaft and one of the base of the fifth, both from right hands, and five of the first metacarpal, all of the right side. As far, therefore, as this series could determine the question of relative frequency, the first metacarpal was that most commonly fractured, the fifth next. A point of much greater trust and importance was that, in each of the five metacarpal bones of the thumb, the fracture was the same, and placed in a position not hitherto described; the plane of the fracture passed obliquely through the proximal extremity of the bone, detaching the palmar projection with the greater part of the articular surface. In all the specimens, the dorsal surface of the bone was entirely free of implication in the fracture; and in all, the union had occurred with but little displacement of the fragment. It is also interesting to note that all these first metacarpals belonged to the right side. In the living, this injury must readily escape recognition, for the exposed dorsal surface of the bone is not altered in length, and but a trivial projection backwards, such as the swelling following the injury, almost masked, occurs. The importance of a correct diagnosis of the injury was illustrated by a case observed by Dr. Bennett in the living, in which he had verified the existence of this lesion as the result of a fall, in which the ball of the thumb had been struck violently against the ground. In this case, although there was a rapid union of the fracture, with an almost inappreciable deformity of articulation of the metacarpal with the trapezium, still at present, nearly eighteen months since the injury, the hand was so far lame, that it was weak in grasping such objects as required a wide gape of the thumb—a tumbler, for instance, or such like.

NEW METEOROLOGICAL STATIONS.—The Wolverhampton Sanitary Committee report that, at the instance of Dr. Ballard, the Government inspector, who was instructed by the Local Government Board to make inquiry as to the unusually large mortality from diarrhœa which occurred throughout the country in 1880, they have caused two stations, with suitable instruments, to be erected by the borough engineer—one in the park, and the other in Brickkiln Street—with the view of making and recording daily observations, which, in conjunction with those which are being made in other parts of the country, are expected to throw considerable light on the occasional prevalence of zymotic diseases, especially of diarrhœa, and to show how they may be controlled. Inspector Blanton and the park keeper—supervised by the borough engineer—are charged with making daily observations.

REVIEWS AND NOTICES.

MORBID PERSPIRATIONS. By L. [illegible]. London: Baillière, Tindall, and Cox. 1880.

DES SUEURS MORBIDES. Par L. BOUVERET. Paris: J. B. Baillière et Fils.

WHILE the skin and its functions are implicated to a greater or less degree in a large proportion of general diseases, acute and chronic, our knowledge regarding its behaviour in such cases is of a somewhat indefinite and meagre character. Numerous carefully observed and accurately recorded cases are scattered throughout journals, transactions, and clinical lectures; but there has been little or no attempt to bring these together and co-ordinate them into something like a system. M. BOUVERET has done this. He makes no pretence to originality, his work consisting mainly in classifying and arranging the scattered material lying at his disposal. This he has done well; and the result, if we mistake not, is a work which will be read by many with considerable interest.

The first chapter is devoted to an account of the anatomy and physiology of the sudoriparous apparatus, in which is fully discussed the nervous supply of these parts. On this account is largely based his second chapter on the action of the nervous system on the sweat-secretion—a chapter embodying much careful reading, thought, and observation. The conclusions he brings out by numerous illustrative cases are these. 1. There are special nerve-fibres ruling the sweat-secretion. The irritation of these nerve-fibres—pathologically in neuralgia, acute and subacute neuritis; experimentally in excitation of the peripheral end of the divided sciatic nerve of an animal—produces excessive secretion; while their division or paralysis caused suppression of the secretion, and retardation of the artificial sweating produced by pilocarpin. Here he details the interesting experiments made by M. Straus on cases of facial paralysis. In a series of these cases, M. Straus excited general sweating by an injection of pilocarpin in the epigastric region, local sweating by injections in symmetrical parts of the face; and, in all cases of peripheral paralysis, he found that the sweating on the affected side was delayed. 2. While the facts advanced apparently indicate the presence of excito-secretory fibres, there would seem also to be inhibitory fibres. Section of the sympathetic trunk causes, in animals, perspiration on that side of the face, while correspondingly, in man, paralysis of the sympathetic is accompanied by hemidrosis. Excitation of the cut end in animals checks secretion; while similarly, in man, during the irritative period preceding paralysis of the sympathetic, *e.g.*, by pressure, the excessive secretion fails.

In the third chapter, M. Bouveret discusses ephidrosis, hyperidrosis, chromidrosis, and hæmatidrosis; under the first of which—local excess of secretion—he enters into the question of the existence of local subsidiary centres presiding over sudation, an existence rendered probable by M. Straus's exciting a purely local sudation by local injection of pilocarpin.

The fourth and fifth chapters of the work are devoted to the perspirations occurring in acute and chronic diseases. In the fourth chapter, are discussed also the physical and chemical characters of morbid perspirations and the mechanism of perspiration in various acute diseases. The prognostic and diagnostic value of perspiration as a symptom is also noted, *e.g.*, the night-sweating in pleurisy as a symptom of empyema. The perspirations of anæmia in its various forms, of rheumatism, gout, obesity, etc., are fully discussed and illustrated. Under diabetes and chronic Bright's disease, he points out the danger that may arise from forcing the action of the skin and bowels, and so diminishing the renal secretion which contains a proportionally larger amount of excrementitious matter; and he cites examples of uræmia resulting from severe purgation and warm baths. While there is no doubt a certain amount of truth involved in this caution, it is to be noted that, in diminishing the amount of renal secretion, *e.g.*, in diabetes, we by no means always diminish the amount of sugar secreted by the kidneys.

Finally, M. Bouveret discusses at length the character and origin of phthisical sweats. These, he says, are not unfrequently of a secondary nature, secondary, for example, 1, to hectic fever, indicating quinine; 2, to disordered digestion; 3, combined with diarrhœa, and thought by some to be complementary to it, best treated with the tribasic phosphate of lime; or, lastly, it may be reflex from coughing. The great cause, however, is the marked weakness of the system generally, and this sinks to the lowest just before waking.

Under the head of treatment, M. Bouveret says that, with the exception of "critical" perspirations in acute diseases, almost all perspirations ought to be treated. For example, in acute rheumatism the

profuse perspiration may be a source of weakness, apart from the actual disease. While he mentions such drugs as agaric, rhatany, tannate of quinia, oxide of zinc, etc., he would use almost exclusively in all cases the sulphate of atropia in pill, as recommended by Ringer and Fothergill. This he finds to check the weakening perspiration of acute disease, and no less effectually the colliquative sweating of phthisis, and that, too, without producing any of the toxic effects of the drug, except, perhaps, slight dryness of the throat. He would commence the first day with a dose of about 1-150th of a grain, given about two hours before the perspiration is expected. On the second day, he would give two pills, at an interval of two hours, and with this dose he would persevere for six days, after which he would increase it if it remained without effect. In addition to this, he would use cold vinegar lotions, and would enjoin the patient, in phthisis, to avoid drinking in the after part of the day, and to wear cotton next the skin.

ANNALS OF CHEMICAL MEDICINE, INCLUDING THE APPLICATION OF CHEMISTRY TO PHYSIOLOGY, PATHOLOGY, THERAPEUTICS, PHARMACY, TOXICOLOGY, AND HYGIENE, vol. ii. Edited by J. L. W. THUDICHUM, M.D. London: Longmans and Co. 1881.

IN offering his first volume to the public, Dr. THUDICHUM expressed the hope that those fellow-workers and others who share his views as to the aid which chemistry can lend to medicine, would assist him either by contributing to his annals, or otherwise. The response to this invitation has evidently, so far, been but scant, for, beyond a short article by Dr. Thudichum's son, apparently all the contributions to the second volume are from the editor's, or rather author's, own pen. The *Annals*, therefore, does not constitute by any means a perfect record of the progress of chemical medicine, although the volume is occupied for the most part with excellent matter, and treats, as will be seen, of many important subjects.

The first article in the work before us has reference to the chemical constitution of the nitrogenous principles of the brain, as distinguished from the phosphorised constituents, and is of peculiar interest. The author shows that, when phrenosin, for example, is decomposed by dilute sulphuric acid or baryta-water under pressure, it splits up by the assimilation of the elements of water into a substance which is here termed sphingosin, neuro-stearic acid, and cerebrose (a kind of sugar), thus: $C_{41}H_{79}NO_8$ (phrenosin) + $2H_2O$ = $C_{17}H_{35}NO_2$ (sphingosin) + $C_{18}H_{36}O_2$ (neuro-stearic acid) + $C_6H_{12}O_6$ (cerebrose). From the analytical data, in short, it becomes evident that the nitrogenised principles of brain-matter are conjugated compounds, which yield as cleavage products what is perhaps an isomeric form of stearic acid, a sugar, and other substances the exact natures of which are not yet demonstrated. These latter may be amidated fatty acids, although Dr. Thudichum thinks otherwise. If they possess the constitution just mentioned, they would probably yield the free fatty acids on continued exposure to the decomposing agency above described, although the conditions of the experiment might require intensification. From what has been stated, it is apparent that a number of intermediate compounds are obtainable in course of decomposing such substances as phrenosin and cerebrin; and Dr. Thudichum's researches bear out this idea. For example, he has obtained a substance which he calls æsthesin ($C_{35}H_{69}NO_3$) and this is in all probability derived from phrenosin by the detachment of cerebrose only. Again, we have psychosin ($C_{23}H_{45}NO_7$), which decomposes into cerebrose and sphingosin.

It seems to us that, while the fatty acid which Thudichum has obtained in prosecuting these researches undoubtedly presents in this state certain differences of character when contrasted with ordinary stearic acid, it yet has not been sufficiently studied to pronounce absolutely regarding its actual constitution. And, further, we must protest against the introduction into chemical science of an unlimited number of such names as sphingosin. This particular name was adopted "in commemoration of the many enigmas which it presented to the inquirer". But, whatever these enigmas might have been, the constitution of the substance itself is not yet ascertained, and it would be better perhaps to indicate it at present merely by its empirical formula. Again, the substance $C_{23}H_{45}NO_7$ (psychosin) would be better referred to as a compound cerebroside, without giving it a specific name carrying no chemical information with it. Although this matter of names is not all-important, it is of sufficient importance to deserve serious consideration in these days of infinity of compounds.

It is to be remarked that, in dilating on the purple (Pettenkofer) reaction which phrenosin and other substances give with strong sulphuric acid, the author makes no reference to certain other investigations which have been recently placed on record concerning the general subject. From considerations of space, we are bound to skip over many matters of great interest in this first article.

The second article summarises the researches of a number of chemists who have attempted to gain a knowledge of the constitution of gelatin and allied substances by means of the method which has been so successfully employed by Schützenberger operating upon albumin. Gelatin is converted into the insoluble form known as collogen by heating it to 130°, and Hofmeister finds that, when this product is boiled with water sufficiently long, or better, with dilute sulphuric acid, it splits up as follows: $C_{14}H_{24}N_4O_{10}$ + $3H_2O$ = $C_{14}H_{24}N_{10}O_{22}$ + $C_{47}H_{70}N_{14}O_{19}$; that is to say, it is decomposed into two smaller molecules, designated semiglutin and hemicollin, just as albumin is known in the earlier stage of its degradation to yield hemiprotein and hemialbumin. The exact history of the final stages of decomposition has yet to be ascertained for the most part. In connection with this subject, a subsequent chapter on the decomposition products of casein, albumin, etc., may be read with advantage.

The colouring matter of the rods and the cells of the choroid coat of the retina forms the next subject considered in the *Annals of Chemical Medicine*, and Dr. Thudichum criticises "visual substance", as it has been termed, out of existence.

The essay on opium-smoking is attractive, and in it the popularly received opinions as to the results of this habit are contested, the conclusion arrived at being that the practice, when properly conducted, is devoid of evil, and, for the purposes of medical science at least, pregnant with good.

The sources of urea found in the animal body receive attention in the form of a descriptive summary of various experiments, and, similarly, the author adduces a number of observations on the nature and functions of the inorganic constituents of food, tissues, and liquids. In connection with this last-mentioned subject, scurvy and rhachitis come in for dissertation.

The article on phosphorescence of organic and organised bodies is extremely readable, special attention being directed to the fact discovered by Radziszewski, that lophin ($C_{21}H_{18}N_2$) exhibits this property at and below 10° C. Altogether, however, this summary of researches conducted by others is somewhat out of date, neglecting as it does all the more recent researches on the oxidation of the terpenes, while giving undue attention to older and less correct observations. The active oxygen about which Dr. Thudichum writes has no more existence than "visual substance". Instead of active oxygen being formed when terpenes undergo aërial oxidation, an additive organic peroxide is produced, and this, under suitable conditions, gives rise to the secondary formation of hydric peroxide.

The note contributed by Dr. Thudichum's son is of an analytical character, and confirms the existence of acid calcium glycero-phosphate as first obtained by Thudichum and Kingzett.

Articles 13 and 16 may be taken together, since, to a certain extent, they both relate to the inorganic compounds which accompany the principles of brain-matter as ordinarily extracted. To get rid of phosphates of the earths, copper, etc., it is generally necessary to swell the brain-principles in water, and to reprecipitate the emulsions by hydrochloric acid. It was owing in part to the neglect of such precaution that Dr. Gamgee was led into error and conflict with Dr. Thudichum on a recent occasion. As a matter of fact, the sixteenth article is practically a review of Dr. Gamgee's text-book of Physiological Chemistry, which is characterised as a production "humiliating to scientific literature".

The views of Voit concerning circulating and organised albumen receive some attention in the volume under notice, and, in another part of the book, we find a summary of observations bearing on those albuminous constituents of the blood which contribute to the formation of fibrin.

There is also a valuable chapter on the biliary acids of the ox, man, the hog, and the goose. This chapter contains a description of original work, a good deal of which, however, has been published before in another form. It is impossible to shut one's eyes to the merits of Dr. Thudichum's latest literary production, although the book consists of a number of essays from one mind if not from one pen, rather than of a series of contributions recording the progress made in chemical medicine since the date of his first volume.

In reading through the book, one is struck from time to time with the fact that those subject-matters which are obviously related to each other might have been arranged more in sequence than they are found. Apart from these considerations, the *Annals of Chemical Medicine* constitutes a well written and interesting work, calculated to advance the cause which the author evidently has at heart. There are one or two places in the book where certain investigations which ought to have been referred to are not mentioned, and this is the more regrettable, because the author is the first to cry out against any fellow-worker who may overlook, ignore, or incorrectly describe his own researches.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

THE CLINICAL THERMOGRAPH.

Mr. W. B. Bowkett of the Leeds Fever Hospital has, with the assistance of Messrs. Salt and Son of Birmingham, succeeded in elaborating an instrument which furnishes, by a continuous curve, a permanent record of the variations in the body-temperature. The construction of the instrument is as simple as it is ingenious; enclosed in a vulcanite case is a metallic vessel, rigid and unyielding, about three inches in diameter, and one-third of an inch in depth. In connection with this is a curved hollow tube or spring, much smaller in size, but similar to that used in the Bourdon steam-gauge. One end of this tube is fixed to the vessel, with the chamber of which it communicates; the other extremity is closed, and is in connection with a simple lever movement, increasing a first motion some three or four times. The whole is filled with liquid and hermetically sealed; any increase of temperature causes the contained liquid to expand; the vessel being unyielding, the expansive force influences the tube only (which is rendered elastic by its form) in such a manner as to cause the end in connection with the lever to recede from its position of rest, and the lever is thus moved upon the recording surface. The recording surface consists of a disc of cardboard, set in motion by watch-work occupying the centre of the instrument. The dial makes one revolution in twenty-four hours, and is divided by concentric circles into degrees of temperature, and by twenty-four radiating lines into spaces representing as many hours.



A facsimile is here given of a continuous record from a case of phthisis.

The general form of the instrument is seen in the drawing below.



The flat under-surface is applied to the body, the other portions of the instrument being protected by a metallic vulcanite case. It is usually applied to the abdomen, being held in position by a broad band of non-conducting material.

AN ADDITION TO THE BINAURAL STETHOSCOPE.

Sir,—I beg to introduce to your notice a method which I have devised, by which any binaural stethoscope may be converted, at a nominal cost, into an instrument very nearly as good, and in some respects more convenient than that described by Mr. Irwin Palmer.

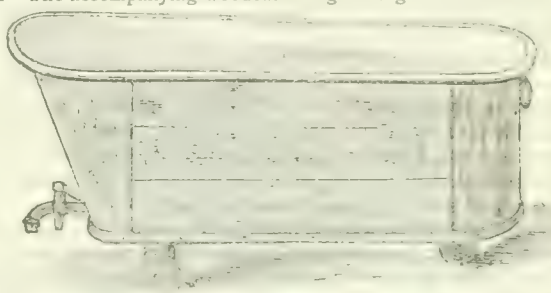
I propose to do away with the movable index, which is always liable to be broken, or to catch in a person's dress, and to substitute a line engraved on the limb of the stethoscope itself. The dial is a simple segment of a circle, of sheet brass, having at the small end two holes, through one of which the screw of the hinge passes, and through the other a small screw, completing the connection with the limb which does not carry the index. The dial is placed rather in a different position to the one in Mr. Palmer's instrument.

Messrs. Walters and Co., of 12, Palace Road, Albert Embankment, have succeeded in carrying out my idea to my complete satisfaction, and are prepared to fit a properly graduated dial, at a short notice, to any stethoscope, at a cost of two shillings.

Geo. A. Herschell, M.B.Lond., St. Thomas's Hospital.

ALLEN'S HOSPITAL BATH.

This bath, which is manufactured by J. Allen and Son, 21, Marylebone Lane, W., is 5 ft. 6 in. long, and made of strong tinned iron. It is japanned inside and out, and fitted with a large draw-off tap, and a drainer-plate over the same. It is mounted on a wood bottom with iron wheels, having India-rubber tyres, so as to be noiseless for ward use. The accompanying woodcut will give a good idea of the bath.



We believe the bath is being much used for [illegible] which is very prevalent just now, and is a good form of hospital bath.

BACK-REST.

Sir,—A very simple bed-, or rather back-rest, has just come under my notice; and, as its component parts are to be found in almost every house, or can be procured at a trifling cost, it will, I think, be of use to many of us who have to deal with the poorer part of the community.

It consists, first, of a [illegible], or, as it is called in household, a back-towel, which is made of rough unbleached linen, about half a yard wide, and from two to three yards long, the ends of which are strongly sewn together. This is passed over the patient's back, and carefully spread out from the scapulæ to the hips. The part of the towel in front of the patient is then attached, by means of a broad leather strap and buckle, to the rail at the foot of the bedstead. This strap can be drawn up at pleasure, so as to keep your patient either sitting upright or in the semirecumbent posture. The support given is equal; and the part of the towel in front of the person will hold a luncheon-tray very nicely, as, the more he presses back, the better is the rest for it. Such a contrivance would, I think, be very useful for a case of fracture of the leg, or the earlier days after labour, the more so as all the articles are easily to be had; and anything by which we can help those of our patients obliged for a time to keep their beds, is a boon we, in health, can scarcely estimate. T. Rowing Fendick, L.R.C.P.Edin.

52, Fore Street, E.C., November 22nd, 1881.

[illegible] recommends the following method of hardening the spinal cord for microscopic sections.—Place the cord in a four per cent. solution of bichromate of ammonium for three weeks, then in a [illegible] gum for three days, and for three days more in alcohol. Sections may then be cut with great facility. They should be placed in water to prevent curling. They are then immersed in a saturated solution of picric acid for twenty-four hours, and coloured with carmine for about twenty minutes, the picric acid having [illegible]

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 3RD, 1881.

A GRAVE SOCIAL PROBLEM.

ONE of the most delicate and important social problems of modern times is to decide in how far children should be warned against certain forms of vice, to the temptation of which it seems almost inevitable that many of them should be exposed. Whilst, on the one hand, it is urged, with some plausibility, that the necessarily vague and mysterious warnings of parents and guardians may directly tend to the suggestion of evils which might otherwise have remained unknown; a rival section of theorists hold, with no less tenacity, that the teachings of physiology will speedily cut the Gordian knot.

As in most discussions, there is much of valuable and suggestive argument to be met with on both sides of the question; and it is not improbable that the truth may be eventually found to lie midway between the two hostile camps. In order, however, that anything really effective can be worked out of this neglected field of inquiry, we must guard, in the first place, against the exaggerations of some of the earlier medical authors, who narrated, in connection with the practices to which we refer, a series of results so manifestly out of harmony with fact, that public opinion fell a ready prey to the second fallacy, and denied both the frequency of the evil and the permanently bad effects which it produced. Now, as regards the medical bearings of the question, we must allow that, although the influence of these practices on the future of the sufferer are by no means so terrible as Copland and others have described, it is impossible to establish, not only a frequent drain, but a violent nervous shock, at a very critical period of life, without serious injury to growth and development; and that such injury is being inflicted on the rising generation in some of the more pretentious of our public schools, is an assertion which we feel sure the head-masters of these important institutions would be the last to deny. Rather would they come to us for aid to uproot the parasite which has so deeply eaten its insidious way into the heart of their system, and which all their skill and energy, and high-toned singleness of aim, has not yet been able to suppress. Both they and we ought to feel deeply indebted to the Rev. J. M. Milson, Principal of Clifton College, for the manly and outspoken utterances contained in his presidential address to the Education Society. Mr. Milson's antecedents render his opinions worthy of special respect; for, whilst serving under Dr. Temple, the greatest of modern educational chiefs, he devoted great attention to the teaching of natural science; and, as the active and progressive director of a hospital then recently started in Rugby, his mind was strongly directed to matters medical from the hygienic standpoint. As an outcome of his observation and reflection, he is convinced that physiological teaching, specialised to meet this particular class of cases, would be comparatively useless, really because bad habits have usually been acquired at preparatory schools, and because it is extremely difficult to see on whose shoulders the burden of such extremely difficult instruction ought to fall. To give a little boy of eight or ten an elaborate lecture on the structure and functions of the genital organs would not only be absurd, but probably injurious; and although parents may interpose a general word of warning before their children leave home, those who are afterwards to be *in loco parentis* will find it very difficult to reopen the subject with any chance of success. The fact is, that hardly anyone possesses the requisite training for such a task. Our physiological text-books, dealing, as they largely do, with the mechanical and physical results of modern experiment, wisely place facts before us without inquiring too curiously into their bearings on other branches of study; and, if we turn to manuals of medicine for aid, we will find most of them adopting the golden mean of silence. A study of the pages of Acton and those various authorities who have specially dealt with these questions shows us how difficult it is to avoid an exuberance of detail, and a certain unsavoury suggestiveness of style, which places their books outside the pale of ordinary readers, and even gravely diminishes their scientific value. Being placed in this dilemma, then, that their medical advisers have received no sufficient training for a task which many of them would view with natural, if unfortunate, repugnance, and that they themselves feel an insuperable difficulty in conveying their warnings without entering into repulsive and suggestive detail, we cannot feel surprised that public-school masters prefer to trust to their own moral influence, and to that high tone of manly and gentlemanly feeling which Mr. Milson so well describes. That hard physical exertion greatly lessens the tendency to sensual excitement is well known; but, were it better appreciated by the general public, we should not hear of fathers lamenting their son's proficiency in cricket and football, rather than in Latin and Greek. And, in this relation, the modern practice of our public schools, whereby every boy not physically disabled is forced by the heads of houses to take part in the regular seasonable games, is founded upon a strict, if unconscious, application of the best physiological teaching.

In our very largest educational establishments, the difficulty must be felt of establishing that direct social and personal relation between master and pupil which constitutes the ideal or "Tom Brown" type of public-school life. In that specially toned atmosphere, hero-worship prevails, and the boy looks upon his master as a being not far off perfection, whose approbation he courts, and whose displeasure, or, still worse, whose contempt, is to him the most grievous of earthly calamities. We all remember the beautiful description by Dean Stanley of the awe and bitter feeling of sorrow which followed the announcement of Arnold's sudden death at Rugby; and we can well understand how absolute must have been the command of such a man over the sentiment as well as the intellectual side of the youthful mind. Mr. Milson's advice is couched much in the spirit of Arnold.

"A boy should be taught to regard all dirty talk as being low and ungentlemanly, only fit for cads. He must be told that any offence will be followed by a whipping. It is better, with young lads, to treat these faults as disgusting than as sinful; to consider them as a disgrace to the school, rather than as a defilement of the temple of the Holy Spirit. The boys whose temperament exposes them to these faults are usually far from destitute of religious feelings. There is, and always has been, an undoubted coexistence of religiosity and animalism."

Common-sense principles like these are far more likely to gain the desired end than a dependence on purely religious teaching, or on physiological instruction given in the half-vitalised fashion which naturally results from the communication of superficial and third-hand knowledge. We can scarcely expect thoughtless boys, brimming over with vigorous health and keen animal spirits, to measure their actions carefully by the standard of Carpenter or Michael Foster, when they too often see their seniors living in glaring defiance of many of the laws of health.

Not long since, we had the opportunity of talking over this subject with the experienced head-master of one of our best smaller schools; and he told us of the excellent results obtained by direct and careful supervision of the boys under his charge. Wherever he happens to be during term-time, whether in the playground, or in the chapel, or in the class-room, his watchful eye is always on the look out; and, being intimately acquainted with the faces of all, he is able to detect the

early stages of a condition of things with which experience has made him perfectly familiar. If any lad droop in health and spirit without sufficient cause, if he mope or pine without actually being ill, the case is considered one for inquiry, and a careful investigation is made. Suppose an assistant-master comes to him, and says: "I can't make out what is the matter with So-and-so; he has grown pale and listless, his memory is much worse than it used to be, and he seems to take no interest either in work or play. He says there is nothing the matter with him, but there is no doubt that he is quite a different boy from what he was six months ago." This report is speedily followed by a summons to the head-master's study, who addresses the offender in something like the following terms. "Mr. —— has mentioned to me that you are not doing so well as formerly, although that you are not specially ill; and I can perceive a change in your appearance within the last few weeks. Now, if you know of any reason for this, tell me at once, or think the matter over a little, and come back again to-morrow, when we can have another talk." Usually, the boy makes a clean breast of it at once; and, after a full and kindly explanation of the evil tendencies of his present course, promises an amendment, which is, in most cases, satisfactorily carried out. If, on the other hand, he decline to confess, and be slow to reform, he is very plainly told that such a contaminating influence can no longer be permitted to remain in the school; and this threat is duly carried out in the very rare cases where bad practices have obtained an ungovernable hold over the lad's moral nature. By these means, and by the earnest co-operation of an experienced staff, our friend has succeeded in stamping out an evil which at one time threatened his establishment, and which is making some thoughtful parents gravely argue whether the possibly exaggerated benefits of a public school training may not impossibly be counterbalanced by the danger of acquiring habits, which may leave their permanent and disastrous impress on the mental and physical development of after-years. We hold that the vast size of some of our more fashionable schools is an unmixed evil, as preventing any effective supervision on the head-master's part, or the possibility of his personal and direct influence being felt by all; and we would urge on trustees the propriety of not permitting the growth consequent on success to go beyond the emolument necessary to attract teaching quality of the very best kind.

We have already referred to the necessity of a due alternation of work and play in the curriculum; and a gymnasium and swimming-bath afford admirable means of physical training when the usual games are out of season. But, in addition to this, careful attention must be directed to dormitory accommodation; and the plan occasionally adopted of having folding bedsteads in the studies cannot be too earnestly condemned on sanitary grounds. Cubicles of little stalls, shutting off detached portions of the general sleeping room, may be defended on the ground of comfort; but perhaps, on the whole, nothing is so wholesome as a good-sized apartment, freely open from end to end, and furnishing space for as many beds as the cubic space will allow. In this way, and perhaps only in this, can we ensure that moral as well as physical ventilation shall obtain its due meed of attention.

THE ETIOLOGY OF GENERAL PARALYSIS.

Dr. Grieve, the Medical Superintendent of the Colonial Lunatic Asylum at Berbice, has contributed to the curious little journal, printed in the hospital under his care, some valuable observations on general paralysis of the insane, which are worthy of a wider circulation than they are likely to obtain in their present vehicle of publication. Trained in the asylums of this country to the recognition of general paralysis, and intimately familiar with its symptomatology and differential diagnosis, Dr. Grieve has been on the watch for it since going to Berbice, some years ago, and expresses his conviction that it is impossible that any instance of it amongst his patients can have escaped his notice; and yet, out of 700 lunatics who have passed under his care and treatment, only one has been affected by general paralysis. Of 13,115 lunatics admitted into county, borough, and State asylums, registered naval and military hospitals, and licensed houses in England and Wales during 1880, 969 were general paralytics. It would, therefore, appear that, while with us about seven per cent. of all lunatics received into asylums in this country labour under general paralysis, at Berbice only one-fourteenth per cent. suffer from that disease. The lunatics at Berbice are, of course, of various nationalities and races. Creoles and East Indians make up about four-fifths of the asylum population, the remaining fifth being composed principally of Chinese and Negroes. Europeans are only in the proportion of one and a half per cent. of the total number of inmates of the asylum, and yet the only case of general paralysis seen by Dr. Grieve in its wards was in the person of an European. Dr. Grieve's experience certainly affords striking confirmation of the belief, long entertained, but hitherto perhaps on somewhat insufficient grounds, that the coloured races enjoy an immunity from the most formidable of all the varieties of mental disease. If they are not wholly free from general paralysis, its occurrence amongst them is evidently an incident of great rarity.

Inquiring into the meaning of this singular exemption of the dark races of mankind from a scourge by which the white races, or at least some white races, are now grievously afflicted, Dr. Grieve proceeds by a process of exclusion, and sets aside, one by one, explanations which suggest themselves, but which prove inapplicable. Climatic conditions will not, he says, account for the rarity of general paralysis in British Guiana; for the coloured population of the United States, living in a very different climate, is also exempt from the disease. Neither will ethnical tendencies explain it, for the Hindoo and Negro alike participate in freedom from this pathological blight. Nor yet can differences in social habits, and especially in regard to intemperance in drink and sexual indulgence, be accepted as the solution of the problem, for no one knowing the people of British Guiana can pretend that they are exceptionally abstinent. The labouring classes there are quite as much given to alcoholic and sexual excesses as are the corresponding classes in England; and therefore their exemption from general paralysis cannot be ascribed to their avoidance of those irregularities of living, which some writers have pronounced the chief factors in the causation of general paralysis. Others, again, have supposed that general paralysis has a syphilitic origin; but a visit to the general hospital at Berbice will satisfy that syphilis is widely prevalent in the colony in some of its most aggravated forms; and that tertiary affections, including cerebral and nervous diseases, are common enough. These, however, cannot be confounded with general paralysis; while their existence demonstrates that that malady is not absent because syphilis is not there to pave the way for it.

There is, however, one alleged cause of general paralysis, Dr. Grieve goes on to point out, which scarcely operates on the population of British Guiana: and that is mental excitement. An element essential to the production of the malady must be wanting in British Guiana. But all its supposed causes may be shown to be present there as intensely as elsewhere, except this one cause, viz., severe mental strain, which is so common in busier and more striving communities; and Dr. Grieve conceives, therefore, that he is justified in holding that the population around him is saved from general paralysis by the mental stagnation which often lands them in dementia.

Dr. Grieve's views as to the etiology of general paralysis, founded on his studies at Berbice, are quite in accord with those of Dr. Crichton Browne, set forth in his monograph on general paralysis in the sixth volume of the [illegible]. Dr. Crichton Browne there says that the most conflicting notions as to the etiology of general paralysis have been advanced and defended; but, if we take such of these notions as are worthy of serious attention, and view them together, we shall find that they may be generalised as excessive functional activity of the brain. "There may, perhaps, be a diathetic basis to the disease—upon that we shall not now enlarge—but it seems that there has always been some unwise expenditure of brain-power to set the morbid process going. The expenditure may have been through the immoderate exertion of the muscular apparatus, through

the indulgence of the sexual passion or of anger, through inordinate ambition, through unfettered imagination, through uncontrolled grief, through intellectual overwork sustained by stimulants or narcotics; but, through whatever channel it has occurred, the waste has always been there. There has been excessive functional activity of some district of the cerebral cortex, with excessive hyperæmia of that district—hyperæmia identical with the active congestion of glands and membranes when their functional activity is exalted."

Dr. Grieve has made an useful contribution to the history of general paralysis, and we look to him for further observations of a similar character in his singularly interesting field of professional labour.

THE INTERNATIONAL MEDICAL CONGRESS.

Dr. Eustache has published, in the *Journal de Science Médicale de Lille*, an elaborate account of his experiences in London during the Congress. His contribution is now to be obtained as a separate pamphlet at Baillière's, Paris, named "Les Vacances du Médecin". It chiefly consists of a kind of amplification of the daily programmes which, in imitation of a custom long in use at the annual meetings of the British Medical Association, were issued during the sitting of the Congress; and it is not so much the work, as the recreation of the congressists that is discussed at length. Dr. Eustache discusses all kinds of social questions appertaining to England from the usual familiar French point of view. He is enthusiastic about the cordiality with which the foreign visitors were received into the very families of their London brethren. "Much", he says, "has been written about the private life of English families, about the traditional *home* in the bosom of which reigns the frankest cordiality and the warmest intimacy. All that has been said on this subject is certainly below the truth; and we, admitted nearly every evening into this domestic sanctuary, shall never forget how we were received, nor the sweet gratification we experienced in this reception." He sighs over the bad but dear hotel apartments to which he had to return every night after quitting these scenes of British domestic felicity; and considered that certain West End thoroughfares, through which he passed on such occasions, were more discreditable to the great centre of professional philanthropy and social reform than Billingsgate itself. Like a true philosopher, he had previously visited that great fish-market, so his comparison is based on actual observation; it is very desirable that those who write social articles in magazines, and likewise those who extol English notions of morality at the expense of the French, would imitate Dr. Eustache in this respect. He was much puzzled by the innumerable leagues and associations which abound in London; we mean, of course, those self-constituted bodies of irresponsible persons who make themselves public by advocating interference with other people's affairs, or by obstructing legislation for the only forms of State interference which can be of use to the community, and must be enforced for its benefit. Not only was his attention turned to the antivivisection agitation, but he was invited to a Malthusian Congress as well. He extols the sumptuousness of our dinners, but regrets the lack of water and bread, "two articles of diet almost unknown amongst our amiable neighbours, but rendered an absolute necessity to us, through their daily use". He preferred visiting the hospitals and seeing sights, to listening to the afternoon-speeches at St. James's Hall, which "he knew he could read in English or in French at any time". The completeness of the arrangements for the education of students in the great hospitals—Guy's, St. Bartholomew's, and St. Thomas's—excites his admiration. The collections in the Tower of London appeared to Dr. Eustache a good example of our love for preserving what is old; some remarks, *more Gallico*, on an equestrian model of a queen, in the armoury, involves that which "Sneer" in Sheridan's *Critic* so much dreaded—"scandal about Queen Elizabeth". Dr. Eustache, with hundreds of his fellow-visitors, managed to see nearly all "sights" of this kind, and yet to assist as well at all the morning sessions of those sections in which they were most interested. As our readers know more about the sectional meetings and the London hospitals than a foreigner could know, we need not enter into Dr. Eustache's remarks on the more essential features of the Congress. We are obliged to him for his pamphlet, since, professedly representing the doings and experiences, not only of himself, but of hundreds of his fellow-visitors, he shows how much can be done in one week by a traveller who desires to gain a fair superficial knowledge of the historical, social, and special professional characteristics of a foreign capital.

THE INTERNAL USE OF THE PERCHLORIDE OF IRON AGAINST HÆMORRHAGES.

Last February, in a discussion concerning ferruginous medication in the Paris Hospital Society, M. Lereboullet objected to the untimely use of perchloride of iron internally against all sorts of hæmorrhages. He criticised the assertions of those physicians who, using and abusing this method, attribute to it unreservedly a certain hæmostatic power. Having encountered sundry objectors, among whom was one who declared himself a champion of the perchloride of iron administered as a hæmostatic by the mouth, he undertook new researches on this question, and induced M. Guestre to make it the subject of his inaugural thesis. He has not been able to discover any observation absolutely proving the arrest of hæmorrhage by ferric chloride administered internally. M. Noël Gueneau de Mussy says it seems that perchloride of iron has, under these circumstances, a hæmostatic action; and the majority of competent authors are not more affirmative than he. In a memoir on this subject, M. Cervello of Palermo has demonstrated, by experiments on animals, that the perchloride of iron is absorbed by the stomach in a state of ferric salt—that is to say, of protochloride—and that it remains dissolved in the blood by the aid of albuminoid substances; that, moreover, the physiological action produced by its absorption consists in slackening the beating of the heart, and diminution of the amplitude of the pulse. He has ascertained the same results with the administration of ferric chloride. M. Guestre has experimented upon himself by taking a certain dose of perchloride, and making a series of sphygmographic tracings of his radial pulse before and after taking the medicine. Then, having taken at the outset, at intervals of an hour, two doses of fifty centigrammes (7½ grains) of perchloride of iron, and then one-third of a gramme (5 grains), he was able to ascertain beyond doubt the diminution of the amplitudes and of the dicrotism of his pulsations, and, at the same time, the slackening of the action of the heart; he swallowed subsequently, in the same way, another salt of iron, the ferricopotassic tartrate, and was enabled to ascertain, at the end of an hour, the slackening of the pulsations; an hour afterwards, the pulse became thready, but rather rapid. From all these experiences, it would appear that analogous results are obtained with all the salts of iron, and that the hæmostatic action attributed to perchloride of iron belongs to all the ferruginous salts. Moreover, clinical results show that, in purpura in particular, a larger number of cures are recorded without the employment of perchloride of iron than with the administration of this medicine. And when one remembers the excellent effects of ipecacuanha against hæmoptysis, of ergotine in hæmorrhages, and, on the contrary, the often injurious effects of perchloride in gastrorrhagia, is it not logical to protest against the abusive employment of this substance as a hæmostatic, at least through the stomach?

M. Vigier, in the course of the subsequent discussion, observed that, chemically, perchloride of iron has, for a long time, been prepared by the action of hydrochloric acid on hæmatite; and, under these circumstances, the solution is always acid, and the more so because, in the course of time, a yellow oxychloride is deposited in the bottle in which it is preserved, and a large amount of the acid thus becomes free; it is, under these conditions, an energetic caustic. It may be obtained pure and scrupulously neutral by means of a current of chloride in a solution of protochloride of iron. The perchloride forms with the blood a chloro-albuminate of iron, which tends to disaggregation, so that the plug obtained by these means in the arterial wound is of doubtful efficacy. In the stomach, it unites with albuminoid substances to form a magma which, when attacked by the gastric acids,

yields the persalt of iron in the blood in a state of protosalt; after the perchloride has been swallowed, only the effects of the protochloride are observed.

M. Dujardin-Beaumetz agreed that, when taken internally, perchloride of iron cannot pass into the blood as such, being acid, but is transformed into protochloride; but it renders valuable services against hæmorrhages with anæmia, such as purpuric hæmorrhage.

Dr. Constantine Paul believes in the efficacy of perchloride of iron as being indisputable in hæmorrhagic chlorosis. In other cases, its depressing action on the pulse can but be useful for the purpose of hæmostasis. In the summing up of the discussion, M. Lereboullet observed that the main conclusion to be derived from his observation is not that perchloride of iron is useless, but that it is not a specific against hæmorrhages, which should be employed to the exclusion of the other salts of iron.

A CHILDREN'S ward is to be added to the Gravesend and Milton Dispensary, and the Earl of Darnley has given a site for the purpose.

HIS Royal Highness the Prince of Wales has been graciously pleased to signify his intention of presiding at the anniversary festival to be held in aid of the Victoria Hospital for Children in the coming year.

DR. W. R. SMITH of Cheltenham has been selected as Secretary of the Collective Investigation Committee of the British Medical Association.

IT is thought that a number of the leading medical men in London intend to ask Sir John Lubbock to bring in a Bill for the repeal of the Vivisection Act.

WE regret to learn that Sir James Paget is compelled, by delicacy of health, temporarily to desist from active work, and to take a brief holiday in the South of France, from which, it is fully anticipated, he will shortly return recruited and strengthened for his important public and private duties.

DR. EDGAR SHEPPARD has resigned his appointment of medical superintendent at Colney Hatch Asylum, after more than twenty years' term of office, and is succeeded by Dr. W. J. Seward, one of the assistant medical officers.

THE Registrar-General's report for Ceylon for 1880 states that no less than 21.29 per cent. of the deaths in the island during that year were caused by fever, and 24 per cent. of the whole total of deaths from that disease occurred in the pestilent North-Western Province.

ARRANGEMENTS we hear are being made by the St. John's Ambulance Committee with several of the leading railway companies for the formation of "railway centres", which will be managed by small local committees at the respective London termini, classes being held at the country and other stations as opportunities occur.

MM. GRASSET and Amblard of Montpellier have carried out a considerable series of experiments on the effect of atropia and emetine on the heart. Among the various conclusions they have drawn from the experiments is that, while atropine accelerates the movements of the heart, they are slackened by hæmatine.

THE *North American Review* of this month contains four very interesting articles on the surgical treatment of President Garfield, by Dr. William A. Hammond, Dr. John Ashhurst, jun., Dr. J. Marion Sims, and Dr. John T. Hodgen, on which we shall next week publish some further comments.

THE Exeter Town Council is at last relieved from considerable anxiety with regard to the sum of £11,000, which had been expended without authority from the Local Government Board. The board has sanctioned £40,000, but has cautioned the council against future irregularities.

AN official return of the deaths from cholera in the Bombay Presidency since the 1st of January last shows the total number of fatal seizures to have been 14,282 out of 30,996 cases. According to the *Bombay Gazette*, the disease had early in the present month entirely disappeared throughout the Presidency.

A MEETING of two hundred and fifty physicians was held at Copenhagen on the evening of November 28th, at which a resolution was adopted approving the proposal to hold the next International Medical Congress in 1884, at Copenhagen, and proffering a cordial welcome by the Danish medical profession to their foreign colleagues on that occasion.

AT a recent meeting of the Burial Committee of the Hull Corporation, the chairman reported that some men who had been putting in order a disused burial-ground in Castle Street, came upon a large number of bodies of stillborn and other children, buried about three or four inches below the surface. In all, between twenty and thirty bodies were found, some in boxes and some unenclosed.

THE use of horse-flesh in the manufacture of German sausages is stated to be the last discovery of the Poplar District Board of Works, who have determined to employ a special inspector to detect such cases. "If", says the *Echo*, "the manufacturers would only honestly call their sausages by the right name, we do not see why they should be hindered. A horse is certainly a cleaner animal than a pig."

SMALL-POX in an epidemic form was absent from the Hyderabad Assigned Districts during last year. The total number of deaths registered from this disease was 39, against 71 in 1879. This improvement is attributed to the vigorous mode in which vaccination has been carried on in Berar since 1868. The natives themselves now admit the power of vaccination to prevent small-pox; but they are remarkably indifferent to the disease.

AT the monthly meeting of the Committee of the British Medical Benevolent Fund, held on November 29th, there were twenty-six applications for relief. Grants were made to sixteen, amounting in the aggregate to £176. Five cases were postponed for further inquiries, and five were, for various reasons, considered ineligible. For one of the applicants, a widow with several children, not qualified under the laws of the charity, £9 was subscribed by the members of the Committee and one or two friends, which will be distributed by the chairman in weekly instalments of £1.

THE Vestry of St. Marylebone has been considering once more the question of the utilisation of the disused burial-grounds by converting them into public gardens and recreation-grounds. The Rev. C. J. Phipps, M.A., rector, explained that the churchwardens could not proceed in the matter without the concurrence of the Vestry, for want of funds. On the motion of Mr. Boulnois, J.P., a committee of the Vestry was appointed to confer with the vicar and churchwardens, with the view of carrying out the scheme set forth by the churchwarden.

THE total number of lunatics in the county and borough asylums in England and Wales on the 1st of January last was 41,335, consisting of 230 males and 309 females of the private class, and 18,427 males and 22,389 females who were paupers. The aggregate recoveries, as compared with the total admissions (deducting transfers), were in the proportion of 37.7 per cent. for males and 43.8 per cent. females, or 40.8 per cent. for both sexes. The mortality of the year, calculated on the average daily numbers resident, was 9.50 for both sexes. It is worthy of notice, that so low a death-rate has not been shown since 1859. There were 4,498 deaths amongst the 50,175 inmates of all descriptions of lunatic asylums, twenty of which were caused by suicide. *Post mortem* examinations were in 1,050 only of these deaths, which shows a falling off much to be regretted.

At a recent meeting of the Linnean Society, Dr. Cobbold pointed out the danger of drinking unfiltered water, and related the following circumstances. A gentleman, who had been on a shooting expedition in Egypt, incautiously drank some canal-water without using a pocket-filter, and consequently became infested with an internal parasite, *Bilharzia haematobia*. Some hundreds of the ova taken from a drop of urine were exhibited at the meeting, during the course of which they were hatched under the microscope, and the larvæ appeared under the form of cone-shaped ciliated infusorial animalcules. These, of course, would easily be overlooked in drinking water, and would give rise to hæmaturia.

The *Nineteenth Century* of this month contains articles by Sir James Paget, Professor Owen, and Dr. Wilks, on the subject of vivisection, which we commend to the perusal of our readers. It has for some time been felt to be desirable that some such statement of fact and argument relating to experiments upon animals should be published by highly authorised medical men as an antidote to the ignorant ravings with which the public are plentifully favoured on the other side. It is, perhaps, too much to expect that a due estimation will be made by antivivisectionists of the relative weight to be attached to the opinions of men such as Paget, Owen, Wilks, John Simon, Pavy, Lauder Brunton, Fraser, on the one hand, and Dr. Nichol and Dr. De Noe Walker on the other; but, at least, some impression will be produced on intelligent people generally by the weighty words of the most eminent representatives of medicine and biological science, backed, as they are, by the profession at large.

The Smoke Abatement Exhibition at South Kensington, instituted by the joint committees of the National Health and Kyrle Societies, was opened on Wednesday, November 30th, by the Lord Mayor and Sheriffs, in the presence of an assemblage, in the Albert Hall, of upwards of 4,000 persons, including Sir Joseph Hooker, Mr. Leckie, Right Hon. H. Childers, M.P., Right Hon. G. J. Shaw-Lefevre, M.P., Lord Aberdeen, Sir Henry Thompson, Messrs. Frankland, F.R.S., Siemens, F.R.S., Chandler Roberts, F.R.S., Drs. Corfield, Norman Lockyer, F.R.S., Marshall, F.R.S., Hicks, F.R.S., the Baroness Burdett-Coutts, Lords Aberdare, Delawarr, Mount-Temple, Captain Douglas Galton, Mr. George Godwin, F.R.S., and a great number of others. Mr. Ernest Hart, the Chairman of the Joint Committee, read a report, of which we have not space to give any portion, describing the origin, objects, and arrangement of the Exhibition. The Lord Mayor, Mr. Shaw-Lefevre, Mr. Childers, Lord Lorne, Lord Aberdare, and Sir Henry Thompson spoke in favour of the objects of the Exhibition, and testified to its importance to public health; and a private view was then had of part of the Exhibition. The improved grates, stoves, and heating, lighting, and ventilating apparatus are shown in action; and the Exhibition is one of great and varied interest. We shall next week give a further account of the matter, which is one of much hygienic importance.

UNIVERSITY OF LONDON.

The Senate have appointed a meeting of Convocation to be held on Tuesday, January 17th, 1882, when a list of three persons is to be nominated, in order that it may be submitted to Her Majesty for selection therefrom of a Member of the Senate. All propositions of candidates must be sent to the Clerk of Convocation on or before Tuesday, January 3rd. Members of Convocation wishing to bring forward any business at this meeting are required to give to the Clerk specific notice in writing, dated and signed, of such business, not later than Tuesday, December 27th, 1881.

THE BLANE MEDAL.

The gold medal founded by the late Sir Gilbert Blane, Bart., has just been awarded to the undermentioned medical officers of the Royal Navy, on the recommendation of the Director-General of the Medical Department, and of the Presidents respectively of the Royal Colleges of Physicians and Surgeons, viz.: Fleet-Surgeon Belgrave Ninnis, M.D., M.R.C.S.Eng., of H.M.S. *Garnet*, and Staff-Surgeon Alexander McDonald, M.D., L.R.C.S.Ed., of H.M.S. *London*. The medal, which is a very fine one, has a capital likeness of the donor in bold relief on the obverse; and, on the reverse, a wounded sailor falling into the arms of a comrade. The name of the recipient is engraved round the legend.

HOSPITAL SUNDAY FUND.

A meeting of the Council of the Hospital Sunday Fund has been held at the Mansion House, Bishop Claughton presiding. Cardinal Manning and others were present. The annual report was read and adopted. The total collection on the last occasion was said to be £31,856, as compared with £30,423 in 1880, and £26,501 in 1879 the largest collection since 1873. There had also been a considerable increase in the number of contributing congregations. By the courtesy of the late Lord Mayor, the Secretary's office was restored to the Mansion House, where it was located from the institution of the fund till 1878. The surgical appliance branch of the fund was allowed 2 per cent. of the gross annual receipts. This year, the proportion was £640 in round numbers. Of the sum collected last year, £27,402 went to ninety-four hospitals, and £2,513 to fifty dispensaries. The working expenses had amounted to £1,054, or a trifle over 3 per cent. of the gross receipts. A vote of thanks to the clergy and ministers for their co-operation closed the proceedings.

HOSPITAL SUNDAY IN CUMBERLAND AND WESTMORLAND.

Hospital Sunday has now been established for twelve years in these two counties, and the total amount obtained in this period is £11,611. In the present year, the institutions which share in the benefits of the collections divided £1,262. The Cumberland Infirmary received £495; the Whitehaven and West Cumberland Infirmary, £334; the Silloth Sanatorium, £217; the Carlisle Dispensary, £110; and the Carlisle Fever Hospital, £94. The total expenses for the year were only £13 2s. 6d. The Committee, in their report, regret that Dr. Barnes, who first started this important movement in Cumberland, and who for twelve years has been Secretary, has felt compelled to retire, owing to press of other engagements. He is succeeded by Dr. A. Macdougall of Carlisle.

THE VIRCHOW CELEBRATION.

The public celebration of the sixtieth birthday of Professor Virchow, and of the completion of the twenty-fifth year of his professorship, took place on November 19th, in the Berlin town-hall. In the morning, he received at his residence the congratulations of the medical faculty through the dean, Professor Westphal; of Dr. Sydow, on the part of the scientific senators; of Professor Roloff, representing the Royal Veterinary School; and of numerous deputations from German and foreign societies and political comrades. The principal event of the proceedings of the evening was the presentation of the deeds of the Virchow Institution for the promotion of Scientific Research, especially in its bearing on the Knowledge of Man. In the large dining-room of the town-hall, which was tastefully decorated, there assembled the *élite* of the learned and scientific world of Berlin, as well as numerous citizens, including many ladies, together with the University professors and members of the medical profession. The proceedings began at half-past seven, when Dr. Virchow, with his wife and daughter, entered the hall, a band playing the march in *Tannhäuser*, and was conducted to the seat of honour prepared for him. The assembly having given cheers for His Majesty the Emperor, Professor Bastian, president of the Berlin Anthropological Society, addressed a few hearty words of congratulation to Professor Virchow; after which the deeds of the Virchow Institution were handed over by Herren Bastian and Friedel. The sum collected amounted to 65,000 marks (£3,250), which had been given by more than 3,000 subscribers in Germany, Austria, Switzerland, Holland, England, Russia, Sweden, and America. Deputations were received from the Berlin Medical Society, from Amsterdam, from the Universities of Würzburg, St. Petersburg, Frankfort, Berlin, Vienna,

etc.; from the Anthropological Societies in Munich, Hamburg, Kiel, and Berlin; and from various other scientific societies. A deputation also attended from Schivelbein in Pomerania, the birthplace of Virchow, and announced that it was intended to place a votive tablet, with a suitable inscription, on the house in which he was born. Professor Stokvis, on the part of the deputation from Amsterdam, presented 3,300 marks which had been collected in Holland; and among those who took part in the proceedings were Professors von Langenbeck, Bardeleben, Oscar Liebreich, Henoch, Hartmann, Witmack, Ascherson, Schwendener, and Kny, of Berlin; von Rienecker of Würzberg, Colley of Casan, Rühle of Bonn, Trendelenburg of Rostock, Ranke of Munich; Drs. Rosenthal of Würzburg, Schoelles of Frankfort, Graf of Elberfeld, Rintel of Berlin, Krause of Hamburg, G. von Bunsen of Berlin; and Fräulein Mestorf of Kiel, representing the Anthropological Society of that city. Having ascended the tribune, Professor Virchow expressed his thanks in a few hearty sentences, addressing in turn the deputations; and ended by expressing his gratification at the establishment of the institution, and his resolution to use it during his life for the object for which it was provided. The proceedings then came to an end; and the company dispersed in the rooms of the building for refreshment and conversation.

SANITARY INSPECTORS IN GREAT BRITAIN.

THE announcement of the award of the prize of £200, offered by the Rev. E. Wyatt Edgell for an essay on the Range of Hereditary Tendencies in Health and Disease, will be made by the adjudicators at the first ordinary meeting of the institute for the session 1881-82, which will be held on Wednesday, December 7th, at 7.45 P.M. The inaugural address will be delivered by Dr. Alfred Carpenter.

ACTION FOR RECOVERY OF FEES.

ON November 16th, in the Edmonton County Court, an action was brought by Mr. J. Lloyd Whitmarsh, of New Southgate, to recover £26 14s. for medical attendance on Mr. Wingrove; his wife, Lady Francis; his brother-in-law, Earl of Traquair; and a Mrs. Morrell, a nurse in the establishment. It is reported in the *North Middlesex Chronicle* of the 19th ult. It would appear from the report that, whilst attending her ladyship, he was requested by the defendant, on the 18th of February of the present year, to see his brother-in-law, who was very unwell from rheumatic fever; that, his accommodation being unsatisfactory, Mr. Whitmarsh advised his removal to a hospital. The defendant, however, would not hear of this; whereupon Mr. Whitmarsh devoted all his time and skill to the care of the case. On March 4th, the young man died. During the illness, the advice of Dr. Garrod was solicited, and his fee of £7 7s. was paid by the defendant. The defendant's residence was three-quarters of a mile from the plaintiff's house; and it appeared that a charge of 5s. was made for each visit, in addition to the charge for the medicines supplied. The claim was resisted on the grounds that the charges were excessive, that the medicines charged for had not been supplied, and that the defendant had not authorised the attendance. Three medical gentlemen resident in the neighbourhood were called to show that the charges were fair and reasonable; whilst one, Mr. R. Dunn Smith, went into the witness-box and did not hesitate to state that they were excessive. In the course of the defence, the defendant alleged that Mr. Whitmarsh had said to him that he had "a nice quiet place at Southgate for young fellows to come to if they did not wish their friends to know, and that he thought of having some circulars printed"; but the defendant brought no proof that any such conversation had ever taken place; and, on inquiry, it was found that Lady Frances, who, he alleged, overheard the same, was too ill to be present; whereupon the judge observed "that it was very unfortunate". At the conclusion of the judge's summing up, which was eminently impartial, the jury retired to consider their verdict, and, on returning into court, stated that a minority of their number objected to the full amount claimed being paid. Ultimately, the defendant offered to pay £20, with costs on the higher scale. This having been accepted, and a verdict entered for the amount, the judge, as reported in the local paper, addressing the defendant, said: "By your offer, you practically admit that plaintiff's claim is a proper one; and let me tell you, sir, in open court, that a more mean and harsh attack than that which you have made against a professional man was never uttered in a witness-box. For you to have imputed such a foul charge against an innocent man, is a disgrace to the name of a gentleman. I say with the greatest confidence, that plaintiff leaves this court without a stain upon his character." We congratulate the plaintiff on the success of his suit, and consider that he is entitled to the thanks of the profession for the gallant stand he made; but we demur to his assertion that medical men are entitled to charge according to the rental of the houses in which they live—an opinion to which the judge very properly objected. It is not improbable that this unfortunate statement had much weight with some of the jury in leading them to pronounce for a smaller amount than that claimed. General practitioners, in going into the county or the higher courts, should carefully consider all that they are going to say, and should be neither provoked by cross-examination nor by anything else into the expression of an opinion which may, as in this instance, be used against them.

A LUNATIC ASYLUM INQUEST.

UNDER this heading, we reported last week the facts of an inquest held on the body of David Pulham, an inmate of the Birmingham Borough Lunatic Asylum, which resulted in a verdict of manslaughter against the attendant Hughes, who was committed on the coroner's warrant. On Monday last, the prisoner was brought before the borough magistrates, and committed for trial to the next assizes, bail being allowed. The evidence was much the same as that given before the coroner.

DEATH OF MR. THOMAS GREEN.

WE regret to hear of the death of Mr. Thomas Green, the Superintendent of the Birmingham Borough Lunatic Asylum, at the advanced age of eighty-one years. The cause of death is stated to be pneumonia, acquired from a chill caught during his attendance at the recent inquest at the asylum; and we fear that, to the anxiety and worry connected with that case, this sudden termination of an useful life must be to a large extent attributed. Mr. Green had been Medical Superintendent of the Birmingham Borough Asylum since its establishment in 1850, previously to which he was in practice in the town, and had the care of the lunatics under the charge of the Poor-law authorities. During his whole term of office, he performed his duties with extreme faithfulness and efficiency; but it is only too likely that, for some time, his advancing age had made him somewhat less able than in former years to fulfil all the onerous and responsible duties of an asylum superintendent. The age for retirement had come; but, unfortunately, the way was not open to him. Circumstances compelled him to remain in harness to the last, and he died doing his duty. We can only regret that there should be any reason to believe that the faults of a system for which he was not responsible should have surrounded the close of his life with trouble and anxiety.

GASTROSTOMY.

ON Tuesday last, at University College Hospital, Mr. Marshall performed the operation of gastrostomy upon a man aged 65, who was the subject of malignant disease of the œsophagus; it would be more correct to say, perhaps, that the first step of the operation was taken on that day, but that was by far the most serious step. The stomach was stitched to the abdominal walls by sutures which passed through the peritoneal and muscular coats of the stomach, and through the parietal peritoneum, but did not penetrate the gastric cavity. In four or five days after the date of operation, the final step, which consists in opening the stomach, will be taken; by postponing this, it is possible to maintain the wound in an aseptic condition until after the peritoneal adhesions have become firmly organised.

ELECTION OF PROFESSOR OF PHYSIOLOGY AT OXFORD.

MR. H. N. MOSELEY, M.A., Fellow of Exeter College, is reported to have been elected to the Linacre Professorship of Physiology, in succession to the late Dr. Rolleston. Mr. Moseley, whose name is well known, and who was chosen from among several candidates, was the Radcliffe Travelling Fellow in 1869, and is a F.R.S. The professorship is endowed with a stipend of £800 a year from the revenues of Merton College. Mr. Moseley, at present Assistant-Registrar of the University of London, has made himself known to comparative anatomists and zoologists as a worker of great merit and originality. Mr. Moseley has not had the experience in teaching human physiology and anatomy which is possessed by other of the candidates; but, on the other hand, he is, we believe, fully convinced of the great importance of attaining an adequate attendance, at the University, of young men destined for the medical profession, and of attracting them thither by such rigorous courses of anatomy, physiology, and the fundamental parts of medicine and surgery, as will enable them to pass the first years of their curriculum satisfactorily in the University. If we are not misinformed, Mr. Moseley laid stress on this view in his letter of application, and pledged himself to the endeavour to carry out such arrangements in a satisfactory manner. His appointment, therefore, may be accepted as an omen of that brighter future of the lost medical school of Oxford, which we have so earnestly evoked, and for which the medical profession is anxiously looking. It is universally acknowledged that the existing contrast between the remissness of Oxford in the performance of its duties to physic, and the splendid activity of Cambridge, is too great a reproach to the former University for it to permit this stigma to endure. The misapplication of the great endowments for medical purposes which Oxford possesses is too glaring an abuse not to call urgently for early remedy. In the appointment of Mr. Moseley, and in the part which he is prepared to take in the restoration of the teaching of human anatomy in the University, and in the creation of a new chair of physiology, shortly to be made and filled up, we see the promise of an early dawn of a brighter day for medicine in the University, and consequently for a more fruitful usefulness for the labours of those who teach biological science in the University, as well as a more active scientific impulse to the work there. We shall watch with anxious interest the development and fruition of these hopes in the near future.

AMBULANCES.

MR. JAMES H. CROSSMAN, writing to the *Times* on the subject of ambulances, and referring to the letter of Sir Edmund Hay Currie on parish ambulances, says it shows the necessity and importance of a proper ambulance-wagon system being organised in the metropolis in connection with the different hospitals. He was glad to say that such a system was about to be commenced, through the public spirit of Mr. Buxton and the House Committee of the London Hospital, to whom and to Sir Sidney Waterlow Dr. Howard addressed himself on this subject, at the suggestion of, and with letters of introduction from, Mr. Ernest Hart, to whom he in the first instance applied for counsel and assistance in bringing the New York ambulance system into operation in London. An ambulance-wagon, constructed under the superintendence of Dr. Benjamin Howard of New York, and from his own designs, would in a few days be finished, and connected with the London Hospital; and it was expected that the wagon would be so admirably adapted for the conveyance of persons suffering from severe accidents, that the example would be followed by the other hospitals. Dr. Howard's scheme, set forth and published in the BRITISH MEDICAL JOURNAL, is to unite the hospitals with the different police-stations within their respective districts by telephonic communication, so that, when accidents occurred in any street, the police would immediately apply to the nearest hospital for its ambulance-wagon, which, provided with a medical or surgical attendant, would arrive on the spot in a few minutes, and the person injured would be conveyed to the hospital or his own private residence. If such a plan, he argues, could be carried out succesfully, human beings would be regarded as of great a value as property is by the fire-brigade, and the ambulance-wagon would have the same facility given to its progress through the crowded streets as is allowed to the fire-engine on its way to save property.

THE GENERAL HOSPITAL, BIRMINGHAM.

AFTER thirty-four years of active and devoted service as surgeon to the charity, and as a clinical teacher in its school, Mr. Alfred Baker has resigned the office of Senior Surgeon to the General Hospital, Birmingham. Mr. Oliver Pemberton now heads the working surgical staff. The vacant surgeoncy will be keenly contested by Mr. William Archer and Mr. T. F. Chavasse, both of whom have already done good work for the hospital since their appointment, at the same time, as assistant-surgeons, when the staff was enlarged a few years ago. Either of these gentlemen would well fulfil the duties of the full surgeoncy. For the office of assistant-surgeon, there would be no lack of good local candidates.

THE DANGERS OF FOOTBALL.

AT a football match on Saturday last between the teams of Middleton Rangers and Higher Crompton, Horsman, a young man twenty years of age, was thrown by one of the Crompton men, who fell heavily upon him, and fractured his spine; he died shortly afterwards. The Rugby rules were used.

IRREGULAR MEDICAL ADVICE.

AN inquest was held at Weston, Bath, on November 22nd, on the body of a workman named James Waters, aged 33, in the employ of the Bath Gas Company, who died suddenly on the previous Sunday, not having been attended by a medical man. The evidence went to show that the deceased had suffered for the past three months with pains in the chest and bowels, and that he had been treated by "Professor Boyes" (of Bath and Bristol), who, on being sworn, said he had treated the deceased for indigestion, and had given him sarsaparilla and iodide of potassium. The statements on his labels with reference to his medical degrees, he admitted were untrue, and that he held no diploma whatever, he being of opinion that "anything might be put on paper". Mr. F. King Green, and Dr. Fox, who had made the *post mortem* examination, stated the cause of death to have been hæmorrhage of the bowels, resulting from enteritis; and concluded by expressing their opinion that, "while the medicine did no harm, the man's life would doubtless have been prolonged had a qualified practitioner been consulted". The jury returned a verdict in accordance with the medical evidence, that deceased died from inflammation of the bowels, the immediate cause being hæmorrhage into the bowels, the consequence of long-standing disease; and the jury expressed their regret that proper medical assistance had not been obtained, as, perhaps, under better treatment, the man's life would have been prolonged.

POISONING BY MISTAKE.

A CASE of poisoning, through the mistake of the unqualified assistant of a medical practitioner, is reported from Poplar. Three children, named respectively Charles George Chant, aged two years and ten months; Ernest Baxter Chant, aged seven months; and George Wm. Clark, aged 9 years, living at Poplar, are alleged to have met their deaths through a mistake committed by Mr. Harvey's assistant. It appears that, on the evening of the 24th, the mother of the two Chants went to Mr. Harvey's for the purpose of getting two powders for her two children. An assistant served her, and the powders were plainly marked, one "child three years", and the other "child seven months". The two powders were administered, the elder child taking his in some jam, the other being given as it was; and the children were put to bed a short time afterwards. The mother and father were "horrified to perceive that both children were looking very strange about the eyes and mouth", viz., "eyes fixed and staring, mouth and cheeks much pinched". Drs. Cross, Hughes, and Humphreys were in attendance; but all efforts were of no avail, and the

two children died the next day. On the same day, the mother of the boy Clark got a powder from Mr. Harvey for her son, who was complaining of sore-throat, and he, too, died. The *post mortem* examination showed death in each case to have been produced by morphia. The assistant, in his evidence, admitted that, outside the cupboard in the surgery where the poisons were kept, was a bottle containing morphia, "of the same colour and size as the one from which he took the cooling powders". "Possibly he mixed up morphia instead of the fever-powder; and, if he did so, he did it by mistake." The mistake was made "quite unintentionally"; but some of the labels on the bottles were illegible. A verdict of death from misadventure was returned; and the jury reprimanded the assistant (who acknowledged that he was unqualified) severely for his carelessness. The *Echo* says: "Mr. Cavan may think himself fortunate in getting off so easily. Men have been committed for manslaughter on lighter grounds.....The least that can be asked is that poisons should not be kept in unlabelled bottles, of the same colour and size as more harmless preparations, and sold to the public as 'teething powders'."

LEAD-POISONING.

A QUESTION which interests public health was judged the other day in one of the French law-courts. M. Gill, a manufacturer of pottery, directed three young girls to sift the materials used in making the enamel. They were all three out of health soon after they began to work at the factory. The medical men considered that the symptoms indicated lead-poisoning. They were treated for this malady from one to three months; and M. Gill was warned that they had carelessly scratched themselves. The court condemned M. Gill to pay a fine of £4 for giving the girls such a task under the circumstances, and £1 for every time he had offended against the laws which regulate the employment of minors in factories. According to the *procès-verbal*, he had broken the laws eighteen times; consequently, his fine amounted to £22.

THE GERM-THEORY.

THE *Halifax Guardian* of November 26th publishes a report of an extremely interesting lecture by Mr. T. M. Dolan, on Disease-Germs, or the Practical Value of Recent Researches on Micro-Organisms. Mr. Dolan concluded his very interesting and eloquent lecture by a discussion on the subject of experiments on animals, in the course of which he observed:

From the time of Hunter, even to the present day, surgeons have derived valuable assistance from experiments on animals; they have learned to operate on man; how to make themselves more useful to man. Pasteur, Chauveau, Klein, Koch, Buchner, Bollinger, Klebs, Toussaint, Grawitz, and Cohn, have enriched medical literature with new facts on the cure and nature of disease. These contributions they could not have made without the performance of experiments on living animals. These are all foreign names. Can I give English names? I can only mention Sanderson, Greenfield, Lister, and Ewart against them. Why? Because the Vivisection Act is almost prohibitory. The limitations, says Simon, "under which these licences are granted, and the trouble, delay, and friction which necessarily to some extent, and in fact often to an intolerable extent, attend the obtaining of any of them, are practically little better than prohibition."

THE CHOLERA IN ARABIA.

A REUTER'S telegram from Alexandria states that the Sanitary Commission has received a letter from Djeddah, dated the 12th instant, stating that the cholera at that place is now on the decrease, and that only one European has succumbed to the disease.—Cholera is stated to have broken out in Jembo, the port of Medina.—A newspaper correspondent, writing from Alexandria, says: In consequence of the existence of cholera at Mecca, the Egyptian Government have instituted fresh and satisfactory precautionary regulations in view of the return of the Mecca pilgrims, and they will be immediately published. Three quarantine stations are established in the Red Sea, and sanitary guards are placed on the Suez Canal. About a thousand Egyptian troops and Bedouins are attached to the quarantine stations. Two steamers are specially devoted to the quarantine service, and the Egyptian Government's steamers plying in the Red Sea will call at the quarantine stations when necessary. An efficient medical staff exists at the quarantine stations in the Red Sea.

PUBLIC HEALTH IN SPAIN.

El Boletin de Estadistica Demográfico-Sanitaria of Spain and the adjacent isles gives the following statement for the month of August. In the four weeks of this month, the number of births registered was 35,529, of which 33,465 were legitimate, and 2,064 illegitimate. The number of deaths was 41,915, thus proving a diminution in the population of 6,386. The proportion of births was 27.50 per 1,000 *per annum*, and the death-rate 32.46. The greatest number of deaths were of children under one year old, viz., 15,477; under five years, the deaths were 9,641; giving a total, per 1,000 deaths, of 599.27. This is undoubtedly attributable to intestinal catarrh, infantile cholera, and dysentery, diseases which are greatly aggravated by the hot weather, causing 7,209 deaths, or 171.98 per 1,000. There were only 11,303 deaths registered from infectious diseases (8.74 per 1,000), despite the hot season being generally favourable to the spreading of such diseases. In sixteen provinces only, the number of births exceeded that of deaths; and those that figure highest are Palencia and Avila, which show respectively 52.70 and 66.32 per 1,000 inhabitants; while the province of Jaen stands lowest in the scale both in births and in deaths, the former being 13.01, and the latter 15.80, per 1,000. The death-rate of Madrid, compared with other capitals of Europe, stands highest, as the following will show: Madrid, 37.38; London, 20.67; The Hague, 17.16; Berlin, 26; Geneva, 14.69; Vienna, 19.89; Copenhagen, 18.59; St. Petersburg, 36.05; Brussels, 24.96; Bucharest, 15.21; and Alexandria, 21.32. The above quotation from the *Correspondencia* indicates an unsatisfactory state of the sanitary (?) state of Spain, despite its truly fine climate. Notwithstanding the sanitary condition of Madrid, its soil, its altitude, and its water-supply the purest in the world, and abundant, and without the slightest connection with the drainage or sewage of the city—the death-rate is enormously high.

THE PLAGUE.

A DISEASE, said to be the bubonic plague, is reported to have made its appearance at Witze (district of Lazistan) on the shores of the Black Sea. Five deaths are reported there from this malady in ten days. The Governor has established a cordon, preventing any communication with the town. Doctors have been sent thither to make a report, and the Government of Trebizond have instituted quarantine in the neighbouring districts.

DIARRHŒA AT RANGOON.

IN a recently published blue-book on the health of British Burma, Dr. Griffith, the Civil Surgeon of Rangoon, gives an interesting account of an outbreak of diarrhœa there at the time cholera was prevalent in the province. During the first seventeen days of October, ten patients had complained of slight and brief diarrhœa, and two or three had been attacked with dysentery. This number among about six hundred people, and in a month when bowel-complaints are not uncommon, was not excessive; but the experience of the succeeding eight weeks showed that this peculiar brief diarrhœa was the result of epidemic causes, and, in fact, was connected or contemporaneous with the advent of cholera. The diarrhœa was peculiar, and differed from mere ordinary forms of bowel-complaints. It commenced without apparent cause, and was generally brief in duration, lasting from a few hours to a week or ten days, seldom or never longer. It was painless and free from any sensation of irritant matter within the bowels; but the evacuations produced large and exhaustive; they were [illegible] and more or less serous, and, when feculent, seemed to pass readily into a state of fermentation. The early part of October was [illegible], but towards the middle of the month the weather was muggy and close, the prevailing wind from [illegible] and a little [illegible] daily. The

day on which the first case appeared was particularly oppressive, the air damp, foggy, and sultry, and just such a day as might be expected to aggravate pestilential miasmata. The vigilance of the officials and all connected with the different mills in which the disease made its appearance was, throughout the epidemic, keenly directed to purification in the dormitories and persons of the patients; ventilation was attended to, and disinfectants profusely spread about the wards. The coolies were also compelled to draw water from the hydrants, and they were warned not to drink tank water. Dr. Griffith cannot but regard this thorough system of purification at the critical juncture when it was employed, and the precaution about the drinking water, as fortunate suggestions, and as more immediately connected than any other circumstance with the decline of the epidemic.

CHOLERA IN JAPAN.

THE news which reaches us from Japan continues to be disastrous. Cholera has appeared at Yunyi; a Japanese youth has been struck down by it in a few hours. At Namenohua, there are several cases, two of which have ended fatally. Kagoshima has always been the parent spot. This time, it was Kagoshima which ushered in the outbreak of cholera; in the previous outbreaks, Kagoshima had the same fatal precedence. New hospitals have been constructed just at the entrance of the roads, and a good many cholera-patients are being treated in them. This is a little reassuring; it is an indication that Government authorities exercise surveillance.

NEW UNIVERSITY FOR HUNGARY.

HUNGARY, which already possesses two Universities—Buda-Pesth and Klausenburg—is about to be endowed with a third. According to a recent Ministerial report, which has been presented for the Royal approval, Buda-Pesth has a great throng of students, from 3,000 to 3,500. Klausenburg is far less successful in this respect. According to the Ministerial report, Pressburg offers many advantages, and has many claims to be the seat of an University. It is well-endowed with high schools, legal academy, and important libraries, and, what is especially valuable for the faculty of medicine, it possesses seven hospitals, with 800 beds. Pressburg has already once before possessed an University, which was founded by Mathias Corvinus in 1467, but fell into decay, after a very short career of not more than twenty-three years, under the pressure of the wars with the Turks.

ANTISEPTIC SURGERY IN CALCUTTA.

BY direction of the Government of Calcutta, Drs. MacLeod and Raye, first and second surgeons to the Calcutta Medical College Hospital, have included in the annual report on the Calcutta medical institutions the results of their experience in the practice of antiseptic surgery. Dr. MacLeod states positively that the prevalence of hospitalism has been very decidedly less in the year 1880 than formerly; that hospitalism has decreased with the increased use of antiseptics is, he holds, indisputable. Other influences may have been in operation, but he attaches to these a secondary value. Not one of the cases in which he has succeeded in carying out strict Listerism has manifested any sign or form of septic infection. Short of rigid Listerism, however, the modified antiseptic or disinfectant plan of treatment must, he thinks, exercise an advantageous influence on the patient by way of diminishing the risk of septic infection, and a still greater on the ward and hospital by way of preventing contamination of the atmosphere, etc., with septic impurities. But he believes that the practice of strict antiseptic surgery confers other very substantial advantages: that it reduces mortality, diminishes suffering, and accelerates repair and recovery. When it succeeds, local inflammation and general febrile disturbance are absent, and the natural reparative processes are fulfilled without hindrance. On the whole, the experience of the past year has impressed Dr. MacLeod with a conviction of the immense value of strict antiseptic surgery in procuring the recovery of persons afflicted with wounds or sores, and preventing the occurrence of conditions regarding cure and preventing death. He has come to consider it a sacred and imperative duty to endeavour to prevent every tract of surface, whether wound or sore, from becoming the seat of septic change. In slight cases, the process is easy and inexpensive; in severe, it requires greater trouble, and involves more cost. It is impossible, however, in the most trivial case, to be sure that septic contamination of the wound may not result in profound and fatal septic infection; on that account, he teaches and practises, in every surgical case, as close an approach to absolute Listerism as possible; and, looking to the comparatively unfrequent change of dressings, the speedier convalescence, and the diminished consumption of alcoholic stimulants, he thinks that the strict pursuance of antiseptic surgery does not, on the whole, materially add to the cost of treating patients in the surgical wards. Dr. Raye holds on this subject somewhat different views from his colleague. He does not adduce the evidence on which he has formed his opinion, but he thinks that Listerism has not yet established its claim to infallibility, or the precise degree of its superiority over other treatment; that the amount of its debt to other concurrent improvements is unsettled; but that, even in the minds of men who are not moved by enthusiasm, it has proved itself to have a very high value, though, in a class of cases which might by some people be taken as crucial, Listerism has not yet appeared to advantage. These opinions, though widely divergent, are not necessarily contradictory; and it would be well to have put on record the experience of other Indian medical authorities with regard to this most important question.

SCOTLAND.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

THE fourth lecture was delivered by Dr. Stirling, in Arbroath, on Tuesday evening, to a very large audience. The digestive processes, as they occur in the mouth and stomach, were specially described, and the chemical changes undergone by the food were shown by a number of experiments on "artificial digestion". Special attention was directed to the influence of the nervous system on the various digestive processes, and the reciprocal influence of the state of the digestive apparatus on the nervous system. The various causes that lead to derangements of the digestive system in children were pointed out, and graphically described. The influence of the brain on digestive processes was aptly illustrated by a reference to the every-day proverbial philosophy bearing on digestion.

MILK-EPIDEMIC IN ABERDEEN.

AS we indicated last week, a large number of the "sufferers" proposed to take action in this matter. Over two hundred, out of a total of three hundred and twenty-two sufferers, have petitioned the Home Secretary to order a "supplementary investigation", in the interests of the public safety, and in justice to themselves. Although the Commissioners state, in their report, that the milk supplied by the Old Mill Dairy Farm was poisonous, they did not express an opinion how the water, which undoubtedly must have been added to the milk, had come to be poisonous; or how the poison contained in the water had come to be mixed with the milk. The memorial to the Home Secretary adverts very strongly to one glaring fact, which is ignored by the Commissioners—viz.: "That there was a *daily excess* in the number of pints of fluid used in, or sold from, the institution, under the names of 'cream', 'milk', and 'skimmed milk', *over* the number of pints yielded by the cows." The memorial states that this excess was very considerable indeed, and amounted to about twelve imperial gallons of fluid daily. On these and other grounds, the request is made to the Home Secretary to appoint one or more physiologists to conduct a supplementary inquiry.

SCIENCE LECTURES IN ABERDEEN.

MR. G. J. ROMANES, F.R.S., delivered a lecture, on November 23rd, under the auspices of the Philosophical Society. The subject of the lecture was "Jelly-fish". After describing shortly the zoology, structure, and development of the jelly-fish, the lecturer directed espe-

cial attention to the physiology of the nervous system of these animals, remarking that in them we had the earliest traces of a differentiated nervous system; and hence experiments on them might be expected to give us precise information with regard to the action of nerve-tissue in its most primitive form. Interesting experiments on the effects of "cutting" various portions of the bell, and excising nerve-ganglia, were detailed. A short reference was made to the effect of various poisonous agencies on these animals; and, in almost all respects, the actions of the poisons used were the same as those produced on higher animals.

THE WESTERN INFIRMARY, GLASGOW.

THE seventh annual meeting of the supporters of the above institution was held on November 24th, when the annual report, which was of a very satisfactory nature, was approved. From this report it appears that, during the year, 14,456 out-door and 2958 in-door patients had been treated, giving a total of 17,414. The average daily number of patients in the hospital during the year was 264, and the average period of residence of each was thirty-five days. The number of deaths was 223, or 8.4 per cent. of all the cases treated to a termination; but, if the cases which died within forty-eight hours of admission are deducted, the death-rate will be reduced to 6.9 per cent. Compared with last year, there has been an increase of 1674 out- and 713 in-door patients, and the larger number of the latter are due to the increased accommodation made available by the opening of the new wards, which were built by the handsome benefaction of the late Mr. Freeland. The ordinary income of the year has been £13,216, and the expenditure £14,139, the deficiency being made up by the supplementary fund.

THE RECENT SEVERE STORM.

THERE have just been published, by Professor Grant, some observations made at the Observatory, Glasgow, on the recent storm of November 21st, which go to show that it was one of the most violent with which Glasgow has been visited for many years. The indications of the self-recording meteorological instruments of the Observatory place this beyond a doubt. The intensity of the storm was felt about 6 A.M. on November 22nd, when the force of the wind, measured by Osler's anemometer, was equivalent to a wind-pressure of forty-eight pounds on the square inch; and this was confirmed by Robinson's velocity anemometer, which showed that the wind was travelling, for a few minutes about that time, at the rate of nearly eighty miles an hour.

LEITH DESTITUTE SICK SOCIETY.

DURING the past year, 523 adults, and 474 children, have been relieved by the Leith Destitute Sick Society. At the annual meeting of the institution, held on Monday, Dr. Macnair submitted the report containing the details of the management for the year. The balance in the bank at present is £265, as compared with £72 at the end of last year; this favourable increase being due to a legacy of £250 left to the Society by the late Mr. Wm. Muir of Inystruinch. At the meeting, office-bearers were appointed, Provost Pringle being appointed President.

UNIVERSITY OF EDINBURGH.

PROFESSOR Sir Wyville Thomson has intimated to the Senatus of Edinburgh University his resignation of the Chair of Natural History. Sir Wyville was appointed to the chair on the resignation of Professor Allman in 1870. During that time, he has twice had prolonged leave of absence, the first occasion being when, owing to his acquirements, he was appointed to the charge of the *Challenger* expedition. During the first year of his absence, his lecture duties were performed by Professor Victor Carus, and, during the subsequent two, by Professor Huxley. His second absence was unfortunately caused by illness; and, during the last two years, Professor Alleyne Nicholson of St. Andrew's lectured for him. Two Vans Dunlop Scholarships, each of the value of £100 annually, and tenable for three years, have been awarded: one to Mr. Eustace G. Pilgrim, for passing the most distinguished preliminary examination; the other to Mr. B. E. Jastrzebski, who obtained the highest percentage in botany, chemistry, natural history, and anatomy, after attending a course of lectures on these subjects. The Tyndall Bruce Bursary, £25, was gained by Mr. Diarmid Noel Paton in pathology and materia medica. A Grierson Bursary of £20 was gained by Mr. M. S. Altounian in botany, chemistry, and zoology; and another of the same value in materia medica and pathology by Mr. Harold F. Watkins; while a first year's Grierson Bursary of £20, tenable for three years, was conferred on Mr. R. H. Mitchell, a preferential candidate. An important prize, the Neil Arnott one in Natural Philosophy, open to medical students, and worth £40, was gained by Mr. Cosmo Innes Burton.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending November 19th, it appears that the death-rate in the eight principal towns during the week was 22.3 per 1.000 of estimated population. This rate is 1.4 above that of the corresponding week of last year, but 0.6 below that of the previous week of the present year. The lowest mortality was recorded in Aberdeen—viz., 17.7 per 1,000; and the highest in Perth—viz., 29.6 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 4.4 per 1,000, or 0.9 above the rate for last week. Thirteen deaths from scarlet fever were registered in Edinburgh. The deaths from diphtheria and measles in Glasgow likewise require to be noted. Acute diseases of the chest caused 122 deaths, or 6 less than the number recorded last week. The mean temperature was 46.7°, being 2.8° below that of the week immediately preceding, but 14.3° above that of the corresponding week of last year.

THE GLASGOW MORTALITY RETURNS.

DR. RUSSELL, medical officer of health for the city, has issued his report on the mortality of Glasgow for the quarter ending June 30th last. According to the report, the average death-rate of Glasgow in the second quarter of the year for ten years was 28, while for this year it is 25. The mean temperature of the quarter was slightly above the average of ten years, and the rainfall was fully one inch less. Compared with the seven other principal towns of Scotland (the mortality of whose entire population was 20.4), the death-rate of Glasgow was highest of all. The mortality of Glasgow for the quarter was also higher than that of twenty large English towns; but, as compared with twenty-two European cities, it was less than twelve of them. Of the total number of deaths during the quarter (3,214), consumption and acute diseases of the lungs, as usual, head the list with a mortality of 1,199. There were only 59 deaths from fever, and one from small-pox.

HEALTH OF EIGHT PRINCIPAL SCOTCH TOWNS.

DURING the month of October there were registered in the eight principal Scotch towns the deaths of 2,136 individuals, of whom 1,128 were males and 1,008 females. Allowing for increase of population, this number is lower by 222 than the average of the same month for ten previous years. The death-rate of the individual towns were, per 1,000 of the population—Aberdeen, 14; Dundee, 17; Paisley, 19; Edinburgh, 21; Greenock and Leith, 23; Glasgow, 24; and Perth, 25. Forty-five per cent. of all the deaths (963) were of children under five years of age, and the respective percentages of the different towns were—Perth, 21; Leith, 31; Paisley, 35; Edinburgh and Aberdeen, 43; Dundee, 48; Glasgow, 49; and Greenock, 51. Zymotic diseases caused 16.6 per cent. of the mortality; scarlet fever being the most fatal of these, having alone caused 74 deaths, of which 29 occurred in Glasgow, 23 in Edinburgh, and 12 in Dundee. Of 37 deaths from fever, 2 were registered as typhus, 34 as enteric, and 1 as simple continued fever. Nineteen deaths from fever occurred in Glasgow alone. Diarrhœa caused 50 deaths, whooping-cough 44, diphtheria 40, measles 27, croup 20, and metria 19. Sixty-two deaths were due to apoplexy and 43 to paralysis, 130 to cardiac diseases, 54 to hydrocephalus, and 70 to premature birth-debility. Phthisis pulmonalis contributed 206 deaths, equal to 9.6 per cent. of the entire mortality, while inflammatory affections of the respiratory system (other than those already mentioned)

contributed 20.6 per cent. Of 91 deaths due to violent causes, 2 were suicidal. Three persons died over 90 years of age, the oldest being 96. During the month, the mean barometric pressure was greater by 0.230 inch, the barometric monthly range greater by 0.560 inch, the mean temperature less by 2.3 deg., the mean humidity less by 4, the rain depth less by 0.70 inch, and the wind-pressure greater by 1.26 lb. than the average of the same month during the previous twenty-four years. The lowest mean temperature (44.4 deg.) was at Edinburgh, and the highest (46.2 deg.) was at Aberdeen.

HEALTH OF EDINBURGH.

SUBSEQUENTLY to the municipal elections (which resulted in the withdrawal of Councillor Gowans, who had for a considerable time discharged the duties of Convener of the Health Committee of the Edinburgh Town Council with ability and energy), Councillor Clark was appointed Convener of the Health Committee; and on Tuesday, in submitting the report of the medical officer of health for the month of October, he stated that, of thirty deaths which occurred in the southern suburbs, not one was due to fever, or anything requiring sanitary supervision. During the month, the death-rate in the New Town was 17.58, in the Old Town 23.11, and in the southern suburbs only 11.8. Last week the mortality was 20 per 1,000, and there were 13 deaths from zymotic diseases, no less than 9 of these being from scarlet fever; 6 of them occurred in the New Town, and 3 in the Old Town. At a Town Council meeting on Tuesday, Councillor Reid was called to order for commenting on the recent case between the medical officer of health and Dr. Bowie, but declared his intention of giving notice of the matter.

IRELAND.

ONE death from small-pox was registered last week in Belfast, and one also in Waterford, where the disease continues to spread.

THE bazaar which was held on November 10th, and following day in the Queen's Arcade, Belfast, in aid of the Ulster Hospital for Sick Children, realised a sum of £559 0s. 3d.

THE Public Health Committee of the Corporation of Cork have recommended that a public analyst be appointed at a salary of £100 a year, with a fee of 10s. 6d., for each analysis in excess of £100 made for the Corporation.

DR. JOSEPH M. REDMOND, one of the temporary physicians to Cork Street Fever Hospital, and Demonstrator of Anatomy in the Catholic University School of Medicine, has been appointed physician to the Mater Misericordiæ Hospital in place of the late Dr. Hayden. Dr. Redmond has held the position of assistant physician for a considerable time.

ENTRIES IN THE DUBLIN MEDICAL SCHOOLS.

THE following is the return of the number of students in the Dublin medical schools, as furnished by the Anatomical Committee to the Inspector of Anatomy, for the current session :

School of Physic, Trinity College	216
Royal College of Surgeons	140
Ledwich School	221
Carmichael College	159
Catholic University School	100
Making a total of	836

In the JOURNAL of December 11th last year, p. 939, we gave a tabular statement of the entries for the past five years. A comparison of this with the present return shows that the total number of students returned is 12 less than the number last year; that Trinity College School has increased by 24, the Carmichael by 10, and the Catholic University School by 6; and that there has been a falling off to the number of 43 in the School of the Royal College of Surgeons, and of 9 in the Ledwich School.

DUBLIN OBSTETRICAL SOCIETY.

THE opening meeting of the forty-fourth annual session of this Society was held last Saturday evening, in the King and Queen's College of Physicians. The President, Dr. John A. Byrne, delivered an address. He referred to the losses by death which the profession had sustained during the last year, alluding particularly to the late Dr. McClintock, an ex-President of the Society. Referring to the proposal which had been made for the amalgamation of the Medical, Surgical, Pathological, and Obstetrical Societies of Dublin, he declared that the result of such a step would be, that the interests of each would suffer. The tendency which men had to devote themselves to special branches, and the undoubted good results which had flowed from it would, in his opinion, be defeated. The progress of medical knowledge was so rapid and continuous, that it would be impossible for everyone to keep pace with it in every branch, and there would not be the same inducement for members to exert themselves in a general association as they had in societies devoted to the subjects in which they took special interest. Touching the representation of obstetric medicine on the General Medical Council, the President said that Dr. McClintock was the first representative of their branch of medicine on it; and he trusted that, in filling up the vacancy caused by his death, the Government would appoint a representative of their branch. After a vote of thanks to the President for his address, Dr. Kidd moved, and Dr. Denham seconded, the following resolution: "That we desire to record our deep sense of the loss sustained by this Society and the profession at large in the death of Dr. Alfred H. McClintock, one of the most distinguished, energetic, and active of our members, whose many contributions to our *Proceedings* and other writings have, by their high scientific and literary merit, added much to the reputation of the obstetric school of Dublin; and that we beg also to express our deep and heartfelt sympathy with his family in their bereavement." Dr. Beverly Cole, of San Francisco, supported the resolution in the name of America. He said that there they, of the same tongue, speaking and reading the same language with those whom he addressed, were as familiar with what Dr. McClintock had done as they were. Nowhere were his great worth and merits more keenly appreciated than they were in America. The following officers were elected for the ensuing year: *President*, Dr. John A. Byrne; *Vice-Presidents*, Dr. Macan and Dr. Kinkead; *Treasurer*, Dr. Cranny; *Secretary*, Dr. Roe; *Committee*, Dr. Churchill, Dr. Denham, Dr. Kidd, Dr. J. R. Kirkpatrick, and Dr. Purefoy.

THE VICE-REGAL VISIT TO THE NORTH.

LAST week, His Excellency Earl Cowper visited the Queen's College, Belfast, and was received by the President and officers of the College. The President read an address, in which allusion was made to the benefits conferred by the institution by the training of students, and the hope was expressed that, although the dissolution of the Queen's University in Ireland had deprived it of its distinctive status as an university college, it would still retain its *prestige*, and ever advance in its proud educational position. The vice-regal party also inspected the Royal Hospital and the Nurses' Home. The students attending the Queen's College had a torchlight procession in honour of the illustrious visitors, and the grotesque costumes added considerably to the effect produced.

HOSPITAL FOR WOMEN AND CHILDREN, CORK.

THE bazaar and fancy fair in aid of this charity was held last week, and it is believed that a very handsome sum was obtained. The institution is the only special hospital for women and children in the South of Ireland, and was first opened in 1874. The three objects of the charity are: 1. To provide for the reception, maintenance, and medical treatment of women and children during sickness, and to furnish advice, and if possible medicine, to those who cannot be admitted to the wards; 2. To afford opportunities for the training of women, for the better nursing of women and children during sickness; 3. To promote the advancement of medical science with reference to the diseases of women and children. There are now twelve cots in

the hospital, three of which are supported by anonymous friends, and one by Dr. Lloyd, who was so gratified with the working of the hospital, on visiting it 1877, that he gave the necessary funds. The hospital, however, requires to be enlarged; and, should the bazaar held last week prove as decided a success as its friends wish, it is the intention of the committee to remove it to some more commodious building in a healthier locality.

DWELLINGS FOR THE LABOURING CLASSES.

THE Corporation of Dublin have declared the Labouring Classes' Lodging Houses and Dwellings' Act, 1866, in operation in Dublin. This Act gives the Corporation power to build dwellings for the labouring classes, and to borrow money from the Board of Works for that purpose. The necessity for such buildings in Dublin is obvious, and has been insisted on time after time as one of the chief means of combating the high death-rate of the city. Private enterprise has already done a good deal in this direction; but there is much yet to be accomplished if only the Corporation will do the work on a sufficiently extensive scale. Dr. Cameron, the Superintendent Medical Officer of Health, suggests that not less than £50,000 should, in the first instance, be obtained as a loan under the provisions of the Act.

EXCISION OF THE SCAPULA.

THE boy whose scapula, as we reported last week, was excised in Mercer's Hospital, is now convalescent. We were misinformed in stating it as our belief that this was the first case in Ireland in which the entire scapula had been removed. In each of the other three excisions referred to as having been performed in the same hospital, the scapula was, we have since learned, removed not piecemeal but entire, and in a single operation. These cases, however, have not yet been published. In one of them the limb was removed along with the scapula. All have done well. The first of this series of operations was performed on January 20th, 1874. The head and part of shaft of the humerus on the same (the right) side had been resected nearly three years previously. The patient, a sewing-machine mechanic, aged 17, recovered with an excellent limb, and able for all under-shoulder work. The second case was that of a male, aged 27. The right scapula was removed, and the limb amputated on October 11th, 1875. The head and part of the shaft of the humerus had been resected a short time previously. The patient is known to be now alive and in good health. In the third case, that of a male aged 25, the left scapula was removed on January 31st, 1878. The head and part of the shaft of the humerus had been resected some months previously. The result was recovery. The patient was lately heard of, and was reported to be able to do the work of a farm labourer as well as his comrades.

AMPUTATION AT THE HIP-JOINT.

ON Monday last, Mr. Stokes performed this operation at the Richmond Surgical Hospital, on a young man, aged 22, on account of a recurrent tumour of the thigh of very large dimensions. Davy's lever was employed to restrain hæmorrhage, and it answered admirably, only three or four ounces of blood having been lost during the operation. This was done under eucalyptus spray, a solution of eucalyptol being also employed in dressing the wound. So far, the case is going on well.

BELFAST ROYAL HOSPITAL.

THE annual ordinary meeting of the subscribers of this hospital was held on November 21st, presided over by the Mayor of Belfast. It was stated that the expenditure, although brought down to the lowest point consistent with efficiency, was still about £8,000 *per annum*. In order to meet this, it had been necessary from time to time to draw upon donations and bequests. The subscriptions from working-men during the year had considerably decreased. The Committee of Management, in their report, remarked that the present position of the laundry under the fever-wards, and the general arrangements connected with the same, were most unsuitable for such a large establishment. All debts for the past year had been paid; but this had only been effected by applying the entire proceeds of the bazaar held in December last, amounting to £1,073; and also by using a portion of the invested funds, to the extent of £1,310. During the year ending August 31st, 1,656 new cases were admitted to the wards, which, with 106 cases remaining from the previous year, made a total of 1,762 persons treated as in-patients during the twelve months. Of these 704 were medical and 1,058 surgical cases. One hundred and eighty-nine surgical operations were performed, with a mortality of 9, equal to 4.7 per cent. In the out-patient department, 10,811 patients were under treatment, and 218 minor operations were performed. After considerable discussion, it was determined to utilise the balance of the Bryson bequest in erecting the laundry on the Throne lands; and further to authorise the Board of Management to apply so much of the invested funds as might be available towards the payment of the monthly accounts, by a sum not exceeding £500.

SURGICAL SOCIETY OF IRELAND.

THE opening meeting of this Society for the session 1881-82 took place on the 25th ult., in the College of Surgeons. Mr. Chaplin, President of the College and of the Society, delivered an address on the working of the Contagious Diseases Act, with which he has practical experience as Visiting Surgeon to the Lock Hospital for the Curragh. Mr. B. Wills Richardson, who has been one of the honorary secretaries of the society for, we understand, nearly twenty-five years, has resigned; and Mr. W. Thompson has been elected in his place. It is proposed to present a testimonial to Mr. Richardson, in recognition of his long and valuable services to the Society.

REGISTRAR-GENERAL'S QUARTERLY REPORT.

THE births registered during the quarter ended 30th September last amounted to 31,421, being equal to an annual ratio of 1 in every 40.8, or 24.5 per 1000; and the deaths to 17,958, affording an annual ratio of 1 in every 71.4, or 14.0 per 1000. The returns for the quarter show an unusually favourable state of the public health; thus the birth-rate was 1.3 per 1000 above the average, and the death-rate was lower than it has been since 1876. The registrars' notes, both in urban and rural districts, were generally of a favourable character, and the outbreaks of infective diseases few in number, and not of a very grave character. The number of deaths returned as having resulted from the principal zymotic diseases was 1580 or 8.8 per cent. of the total deaths, a number equal to a rate of 31 in every 100,000 of the population. This was 1477, or 48 per cent. under the number for the corresponding quarter of last year, and shows that the low death-rate from infectious diseases alluded to in last report still continues. Small-pox caused 11 deaths as compared with 76 in the third quarter of 1880, and with 13 in the June quarter; but the occurrence of several cases of small-pox which did not prove fatal is referred to by registrars in the North-Eastern division, where the disease shows a tendency to become epidemic. Measles caused 35 deaths, against 53 the previous quarter, and scarlatina 267, or a decrease of 24, but the disease seems to be widely spread over Ireland both in urban and rural districts. To diphtheria 66 deaths were attributed, to whooping-cough 230 against 384, while diarrhœa caused 424 deaths as contrasted with 1023 for the corresponding quarter of the previous year. As regards fever, this disease still prevails in many parts of Ireland, and the continued prevalence of typhus in Munster is probably the most serious feature in the returns for the quarter. The three forms—typhus, typhoid, and simple continued fever—caused 547 deaths. There were 581 inquests held during the quarter, a number equal to 1 in every 31 of the total deaths registered.

DONATIONS AND BEQUESTS.—The Lady Harriet M. Scott Bentinck has given £1000 to the general fund, and £300 to the Samaritan fund, of the North London Hospital for Consumption. Mr. Horatio Bebb, of Gloucester-place, Portman-square, has bequeathed £100 to St. Mary's Hospital. Mr. R. C. L. Beavan and Mr. William Leatham Barclay have each given £50 to the North-Eastern Hospital for Children. "F. A." has given (per Messrs. Dalton and Jessett) £50 to University College Hospital. Mr. Edward Hamer Carbutt, M.P. for Monmouth and the district, has given £50 to the Newport Infirmary and Dispensary. The Rev. Frederick Reade has given £35 5s. 8d., the proceeds of a collection at his church, to the Hospital for Women.

THE CHARGE AGAINST ST. BARTHOLOMEW'S HOSPITAL.

An inquest was held at St. Bartholomew's Hospital on Wednesday, November 16th, concerning the death of Mr. W. Booth, aged 41, a medical practitioner, residing at 50, Spencer Street, Goswell Road. Mr. W. H. Cross watched the case on behalf of the hospital authorities. Deceased, who had been in practice about five weeks, was said to have been in excellent health up to Thursday morning, when he complained of a slight sore-throat. He got worse, and kept his bed. On Friday, he was attended by Dr. Cliffe, but growing worse, Dr. Cassidy of 82, Guildford Street was sent for. On Saturday afternoon, by the advice of Dr. Cliffe, deceased was removed to St. Bartholomew's Hospital, accompanied by Drs. Cassidy and Sherrard. Dr. Cæsar Sherrard of Lavender Hill, on being called, stated that, on arriving at the hospital with the patient, he asked for the house-physician, when he was told by the nurse, the only person present, that he must wait for the surgery porter, of whose return she knew nothing. He made inquiries of students and porters for the house-physician, but could hear nothing of him. Witness asked for a warm room into which the patient might be removed; the room shown him had four doors in it, the window open, and the wind blowing half a gale. He asked the porter if, in a large hospital like that, there was not a better room for the admission of a serious case, and received a negative answer. Witness then had the window closed up, the deceased was admitted, and the doors were shut, but they were constantly being opened by students. He then sent for the house-physician, stating that the case was urgent. In answer to the coroner, he said that the patient was kept in the cab at the hospital-door for quite a quarter of an hour before being admitted to the surgery, and it was twenty minutes more before the physician came. Witness asked that, as this was a special case and the patient would require to inhale steam, he should be placed in a separate ward, or at least placed in a corner of the ward, but the nurse said neither could be supplied. Witness also stated that deceased was not seen by physician till long after he had been sent into the ward.

Dr. Cassidy gave similar evidence, that deceased had been kept waiting a long while in the surgery, and that no attention was paid to his recommendations in the ward.

The inquest was then adjourned, Mr. Cross observing that the case would be shown to be quite different when the other side was heard.

On the inquiry being resumed, on Wednesday, November 23rd, Henry Stuchbury, beadle to the hospital, stated that, when about to send for the house-physician at Dr. Sherrard's request, when deceased was admitted, he met Large, a porter, who asked him to help to carry deceased on a stretcher, but Dr. Sherrard said that he could walk in. Witness and the nurse in the dispensary both testified that less than three minutes elapsed from the time Dr. Sherrard asked for the porter till the arrival of the porter Large, who confirmed the evidence of the beadle. After deceased had walked into the surgery, witness placed him on a chair before the fire, and closed the windows; the house-physician came when he was sent for, without five minutes' delay. Deceased was then carried to ward, where Dr. Sherrard asked if there was a private room; the sister replied there was not, but that the bed next the fireplace was ready, and was a good warm one. It took about a quarter of an hour to transfer deceased from the cab to the ward, including the delay in the surgery.

In reply to Dr. Sherrard, the witness said that when the patient was being taken out of the cab, he (Dr. Sherrard) complained that he had been kept waiting a quarter of an hour. He denied that Dr. Sherrard had complained while in the surgery of the house-physician not coming.

Mr. Cross pointed out to the witness that Dr. Sherrard on the last occasion had distinctly sworn that he had complained in the surgery. The witness said he should firmly maintain the contrary.

Again replying to Dr. Sherrard, witness said that from the time the house-physician saw the patient to the time he started to carry him up to the ward four or five minutes elapsed, but he was not quite sure as to a minute or two. He admitted that he had heard Dr. Sherrard complain of the lack of porters, and that the second man had replied that it was because it was operation-day.

Mr. H. Smith, house-physician, swore that he went at once to see deceased when the porter sent for him; deceased was quickly sent into the ward, and received every attention. Witness visited him frequently, brought Dr. Duckworth to see him, and considered at the time that deceased was suffering from bronchitis and chronic kidney-disease; there was slight œdema of the larynx, but tracheotomy was out of the question. Drs. Sherrard and Cassidy had behaved with great want of courtesy; had they made arrangements before bringing deceased to the hospital, no delay of any kind would have occurred. Dr. Duckworth and Mr. Spicer, clinical clerk, supported Mr. Smith's evidence. Mr. Moutray, who had made a *post mortem* examination at the request of the court, found extensive pulmonary mischief and advanced renal disease; the larynx showed signs of old specific mischief, but not of any acute condition. The removal of deceased to hospital, when in such a condition as he must have been shortly before death, was unjustifiable. Dr. Sherrard then stated that, for his own part, he did not wish any more evidence to be brought forward. He would withdraw the charge as far as the death being mainly due to the action of the hospital authorities, but he would not withdraw the charge of accelerating the death.

The inquest was resumed on Wednesday last, November 30th. Euphemia Sinclair, sister of "John" ward, was settling the diet-list, which it is her duty to send to the steward's office, when deceased was brought into the ward: hence she remembered the time of day clearly, as, in discharge of the above duty, she was bound to a fixed time; it is between four and five o'clock that the list is sent. Dr. Cassidy, following the nurse, Mary Price, spoke to witness, stating that deceased was suffering from laryngitis, that tracheotomy might have to be performed at any moment, and that "we have been kept three-quarters of an hour in the surgery". Dr. Sherrard, appealed to by his friend in order to confirm that statement, said, "Forty minutes", looking at his watch. Dr. Cassidy also said, in the hearing of witness and deceased: "He's dying; and, if he dies, by G—d, I'll have an inquest." The house-physician visited the patient at half-past four, twelve minutes after deceased had entered the ward and had been put to bed. He returned with Dr. Duckworth, and they prescribed for deceased. He saw deceased several times in the night; the last visit was at 11.30 P.M., when he gave directions, which were promptly carried out. The night-nurse, Pitt, took great care of deceased, who died at 8.10 AM., after restlessness and delirium. At the end of the sister's examination, Dr. Sherrard withdrew his complaint about the patient being long in the ward before he was seen, but maintained it took three-quarters of an hour to get him there from the cab. Witness stated deceased objected to the inhalations prescribed, and had no spasms nor dyspnœa, but complained of severe pains in the back; deceased said he would not allow tracheotomy, as it was not his throat that troubled him. The nurses, Price and Pitt, gave confirmatory evidence that abundant attention was bestowed on deceased in the ward; that he had no spasms; and that he expressed an opinion that his friends had sent him to the hospital for tracheotomy, but he would not allow that operation to be performed on him. Dr. Cassidy complained that his diagnosis had been doubted; but Mr. Moutray's necropsy, notwithstanding that gentleman's interpretation of it, confirmed his opinion that death was due to laryngitis and œdema of the glottis. Dr. Duckworth, on being appealed to, confirmed Mr. Smith's diagnosis in every particular. Dr. Sherrard stated that he had desired this inquiry to be made purely as a public duty.

Mr. Langham, deputy coroner, in summing up, stated that complaints against hospitals always require thorough investigation, both on account of the public, who might otherwise lose faith in these great charities, and on behalf of the officers of the hospitals, out of common justice to them. Charges made by medical men particularly required investigation. It was doubtful whether deceased was in a fit state to be sent to hospital. Mr. and Mrs. Bott, friends to the deceased, were taking great care of him. It was for the jury to decide whether there had been undue delay. Mr. Langham strongly objected to the conduct of Drs. Cassidy and Sherrard; to the expression made use of by the former to the sister of "John ward", and to certain offenisve remarks which he made respecting the house-physician, who had behaved with great calmness, had maintained from the first that the patient was not in a fit state to have been transferred to the hospital, and, lastly, was a most experienced gentleman, having held the appointment of house-physician to the Brompton Hospital for Consumption before he entered into similar duties at St. Bartholomew's. It appeared to Mr. Langham that there was not the slightest reason to believe there had been inattention on the part of the authorities; and the offensive remarks above alluded to, which Mr. Langham deprecated in stronger terms a second time, constituted the most painful part of the evidence. The jury retired for one hour and fifteen minutes, and then found a verdict of "Death from natural causes"; adding their opinion, that it would have been better if the friends of deceased had made arrangements with the hospital authorities before taking him to St. Bartholomew's, as some of the medical witnesses had observed; that there had been delay in getting deceased into the ward, but that in the ward he had received every attention; and that they recommended that an additional porter should be stationed in the entrance hall. Mr. Cross promised to bring the recommendations of the jury before the hospital authorities. The proceedings then terminated, the third day's sitting having lasted from two to seven o'clock.

MR. CHARLES DARWIN AND THE DEFENCE OF SCIENCE.

THE following is an extract from a letter of Mr. Darwin to Dr. Lauder Brunton, dated November 19th.

Dear Dr. Lauder Brunton,—I saw in some paper that there would perhaps be a subscription to pay Dr. Ferrier's legal expenses in the late absurd and wicked prosecution. As I live so retired, I might not hear of the subscription, and I should regret beyond measure not to have the pleasure and the honour of showing my sympathy and admiration of Dr. Ferrier's researches... ...

We mentioned last week that a number of eminent medical men, among whom are Sir William Jenner, Sir James Paget, Sir William Gull, Sir J. Risdon Bennett, Mr. Lister, and many others, have also spontaneously expressed their desire to take part in such proceedings as it may be thought desirable to take, in order to prevent the recurrence of unjust attacks upon biologists and medical men, and other men of science, who may, in the prosecution of their studies, become subject to interference by the opponents of experiments upon animals under the existing law. With this view, and with the further object of putting into an accessible form the information on the benefits which experimental physiology confers upon the art and practice of medicine, and the advancement of the science of healing, arrangements are in progress for the formation of an extended association of medical men, biologists, and other men of science, and those interested in the advance of knowledge and the alleviation of human and animal suffering. Circulars will shortly be issued, inviting members of the medical profession, physiologists, men of science, and others, to join such an association; meantime, communications may be addressed to Dr. Lauder Brunton, F.R.S., 50, Welbeck Street. We may mention that subscriptions already offered for the purpose range in amount from £100 to one guinea.

THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

THE latest Quarterly Return of the Registrar-General relates to the *marriages* of 100,460 persons in England and Wales during the three months ending June 30th. These were equal to an annual rate of 15.5 per 1,000, which was 1.0 below the average rate of the corresponding period of the preceding ten years, but was above the marriage-rates of the second quarters of the years 1879 and 1880. The return deals with the *births* and *deaths* of the three months July, August, and September. The *births* registered in this period were 215,586, and 3,437 fewer than in the corresponding quarter of last year. The annual birth-rate did not exceed 32.8 per 1,000, which was 1.8 below the average, and was lower than in the third quarter of any year since 1860. The *deaths* registered during the three months in England and Wales were 109,956; the natural increase of population was consequently 105,630. But, as 72,665 British (including 46,388 English) emigrants left the country during the same period, whilst the number of immigrants is not recorded, the *actual* increase of the population cannot be ascertained. The temperature in the first three weeks of July was considerably above the average; the weather in the latter part of the month was very variable; while it was for the most part wet, cold, cloudy, and unseasonable, throughout August. The first half of September was cold, while the weather was moderately fine during the remainder of the month. The rainfall at Greenwich during the quarter was 8.19 inches, which was three-quarters of an inch below the average. There was however, a considerable excess in August.

The 109,956 deaths during the quarter showed a decline of 21,285 from the number in the corresponding period of 1880. The birth-rate was 16.7 per 1,000, being 2.9 below the average. In the third quarter of 1879, the death-rate was 16.3. With this single exception, the rate last quarter was lower than in any summer quarter since civil registration commenced in 1837. The low death-rate implies that more than 24,000 survived the three months who would have died had the death-rate corresponded with the average rate in the forty-three preceding corresponding quarters. The 109,956 deaths included 57,099 of males and 52,857 of females.

In the fifteen and a half millions of persons living in towns, the death-rate was equal to 18.5 per 1,000; in the rural population of about ten and a half millions, the rate was 14.2 per 1,000. In the twenty largest towns, including London, the death-rate averaged 20.5 per 1,000, and was 2.7 below the rate of the third quarter of 1880. The highest rates were, 25.3 in Liverpool, 26.2 in Hull, and 26.5 in Leicester, due in great measure to excessive zymotic fatality, which also showed a considerable excess in Stoke-upon-Trent, St. Helen's, and Gateshead. The 109,956 deaths included 29,765 of infants under one year of age, 54,516 of children and adults aged between one and sixty years, and 25,675 of persons aged upwards of sixty years. The rate of infant mortality, measured by the proportion of deaths under one year to births registered, was equal to 138 per 1,000, as against 179 per 1,000 in the ten preceding corresponding quarters. It is satisfactory to learn that, excepting the summer of 1879, infant mortality was lower last quarter than in the third quarter of any recent year. The rate was as low as 66 and 67 in Herefordshire and Wiltshire respectively, whilst it ranged upwards to 188 in Warwickshire, and 216 in Leicestershire, the county of unenviable notoriety for excessive infant mortality. In London, this mortality was 191, whilst it was 239 in Nottingham and 325 in Leicester. The rate of mortality amongst persons aged between one and sixty years was equal to 9.3 per 1,000, or 1.3 below the average. Amongst persons aged upwards of sixty years, the annual death-rate averaged only 52.3 per 1,000, and was 3.1 below the average. There was thus a satisfactorily low rate of mortality at all ages, equal to 15 per cent. below the average; the decline was 18 per cent. amongst infants, 13 per cent. amongst children and adults under 60 years, and 5 per cent. amongst persons aged upwards of sixty years.

The zymotic mortality was thus distributed: 8,307 deaths attributed to diarrhœa, 3,535 to scarlet fever, 2,031 to whooping-cough, 1,705 to fever, 1,341 to measles, 674 to small-pox, and 629 to diphtheria. There were 18,222 deaths attributed to these causes, giving a death-rate of 2.77, against an average rate of 4.21. The 8,307 deaths from diarrhœa corresponded to an annual rate of 1.26 per 1,000, against an average of 2.27 in the ten preceding summer quarters. Once only—viz., in 1879—was the rate lower; it was then only 0.73. The lower rate in the past quarter was doubtless due to the cold weather that prevailed through August and September, and which more than counterbalanced, so far as the production of diarrhœa was concerned, the burst of excessive heat and high diarrhœa mortality of July. The diarrhœa death-rate was 2.67 in Leicestershire, 5.4 in Leicester, 3.6 in Nottingham, and 3.2 both in Leeds and Yarmouth; it was also high in Chiswick and Prittlewell. The deaths from scarlet fever, whooping-cough, fever, and measles were all below the average, though there were outbreaks of each of these diseases in various districts. Thus scarlet fever prevailed in Hull, where it caused a death-rate of 5.8; in Merthyr Tydfil the rate was 4.5, in Nottingham 2.8, and in Leicester 2.1. The highest death-rates from whooping-cough were 1.4 in Leicester and in Colchester, and 1.1 in Birmingham and in Halifax. The 1,705 deaths due to fever corresponded to an annual rate of 0.26, against an average of 0.44. Once only in the preceding ten summers was the rate so low; viz., in 1879, when it was also 0.26. The highest death-rates from measles were at Liverpool, Portland, Harwood, and Barnsley. The 674 deaths from small-pox were higher than in any summer quarter since 1871 and 1872. Of the 674 deaths, 522 occurred in London and its outer ring; there were 34 deaths in Lancashire, 15 in Yorkshire, and 9 at Wokingham. The 629 deaths from diphtheria gave an annual rate of 0.10, against an average of 0.09. In Portsmouth, the rate was as high as 1.44.

Mr. GALSWORTHY, vice-chairman, has been elected chairman of the Metropolitan Asylums Board, in the place of the late Dr. Brewer; and Sir E. Currie has been elected vice-chairman. The fever-statistics presented to the board showed a decrease of thirty-five in the total number remaining under treatment as compared with those of the previous fortnight, and the small-pox an increase of fifty-one.

CINCHONA BARK. During the past year a new kind of cinchona bark is said to have been discovered in the neighbourhood of Buccaramanga, Province of Santander (United States of Colombia), which contains about two per cent. of quinine, and is free from all other alkaloids. This bark was brought into the market under the name "Cuprea" bark. Reports from Colombia state that two rival companies, with about 1700 labourers, are working these districts. It is estimated that a labourer can collect 20 lbs. of fresh bark; 7 lbs. of fresh yield 3lbs. of dry bark; hence the 20 lbs. of fresh yield 8.57 lbs. of dry. The daily production of 1700 labourers is therefore, on the average, 14,500 lbs. of dry bark, or about 145 bales, each 100 lbs. At first these reports were thought to be exaggerated, but time has shown them to be correct, since the actual arrivals [illegible] bale.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT. A meeting of the West Kent District will be held at the West Kent General Hospital, Maidstone, on Friday, December 16th, at 3 P.M. Members wishing to read papers or show specimens are requested to communicate with the Honorary Secretary as soon as possible.—A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.—The next meeting will take place at the Greyhound Hotel, Croydon, on Thursday, December 8th, at 4 P.M.; M. C. Dukes, M.D., in the chair. The following communications, etc., have been promised. 1. Dr. M. C. Dukes: A Case of Nævus of Scalp successfully treated by Vaccination. 2. Mr. Jonathan Hutchinson: Some facts in reference to Diseases of the Tongue. 3. Dr. G. Ernest Herman: On the Treatment of Dysmenorrhœa by Dilatation of the Cervical Canal. 4. Dr. W. Rosser: A Case of Removal of Foreign Body from the Female Bladder; with specimen. Dinner will be provided at 6 P.M. precisely; charge 7s., exclusive of wine. Gentlemen who propose to dine are particularly requested to inform me two days previously.—J. HERBERT STOWERS, M.D., Honorary Secretary, 23, Finsbury Circus, E.C.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held on Thursday evening, December 15th, at 8.30 P.M., at the New Town Hall, Hackney, when Mr. Timothy Holmes will open a discussion on the Metropolitan Provident Dispensary System.—FREDERICK WALLACE, Honorary Secretary, 96, Cazenove Road, E., November 22nd, 1881.

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.—The first meeting of the present session will be held at the Lambeth Infirmary, Brook Street, Kennington Road, S.E. (near Elephant and Castle), on Friday, December 9th, at 4 P.M.; Sir Joseph Fayrer, K.C.S.I., M.D., in the chair. The following papers will be read. On an Acute Form of Malignancy (with specimen): Richard Barwell, Esq., F.R.C.S. On Quackery, Ancient and Modern: H. Nelson Hardy, Esq. Members desirous of bringing forward cases, or exhibiting specimens, are requested to communicate with the Honorary Assistant Secretary.—ROBERT J. W. OSWALD, Honorary Assistant-Secretary, 245, Kennington Road, S.E.—November 30th, 1881.

METROPOLITAN COUNTIES BRANCH: NORTHERN DISTRICT.—The next meeting of the District will be held at the house of Dr. Williamson, 44, Mildmay Park, Highbury, on Thursday, December 15th, at 8.30 P.M. Dr. Stephen Mackenzie will read a paper on Purpura; its Varieties and Causes. Dr. Edward Woakes will read a paper on The Etiology of Diphtheria; its Contagium; the Occurrence of Sudden Death in it: re-considered.—GEO. W. POTTER, M.D., Honorary Secretary, 12, Grosvenor Road, N.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Belfast Royal Hospital, Belfast, on Thursday, December 15th, at 12 o'clock noon. Members wishing to read papers will please communicate with JOHN MOORE, M.D., Honorary Secretary, 2, Carlisle Terrace, Belfast.—November 21st, 1881.

GLASGOW AND WEST OF SCOTLAND BRANCH.—There will be a meeting on Thursday, December 15th, in the Royal Infirmary. After the transaction of business a demonstration will be given by Dr. William Macewen, embracing illustrations of Cranial Surgery; Results of a modification of the Subperiosteal Method of Resection of the Elbow; and Remarks on some points in the immediate Treatment of Wounds. —JOSEPH COATS, Secretary.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

THE eighty-first meeting of this District was held, at the Kent and Canterbury Hospital, on Thursday, November 3rd; C. HOLTTUM, Esq., in the chair. Thirty members and two visitors were present.

Papers.—The following papers were read.

1. Mr. Wacher: Cystic Sarcoma of Left Testicle.
2. Mr. Wacher: Congenital Malformation of Left Forearm.
3. Dr. Bowles: Case of Intussusception.
4. Mr. Whitehead Reid: Cherry-stone from Vermiform Appendix.

Dinner.—Seventeen members dined at the Fleur-de-Lis Hotel.

Instruments were exhibited at the meeting by Messrs. Mayer and Meltzer.

CORRESPONDENCE.

THE PHYSICAL MATURITY OF MAN.

SIR,—In the JOURNAL of November 19th, there is a paragraph referring to a paper read by Mr. J. T. Danson at the Statistical Society, giving his conclusion, from some observations made on prisoners, "that men in this and other European countries do not attain physical maturity till 30 years of age". If this opinion had been published at the time it was expressed (January 18th, 1881; I was present when the paper was read, and have a copy before me now), I should have allowed it to pass unquestioned; but, having since then tabulated an immense mass of statistics of height, weight, chest-girth, and strength, collected by the Anthropometric Committee, Dr. Beddoe, and myself, I have arrived at a different conclusion. Mr. Danson bases his opinion on the fact that statistics of the height and weight of prisoners in a Liverpool gaol show that a slight but decided increase takes place up to 30, or rather 29, years of age (for, strange to say, the averages of all his observations are exactly the same at 25 and 30); and he concludes that this increase of stature and weight is due to *growth*. But in this belief I think he is in error: an error, however, which is common to the majority of French and American writers on this subject. The result of my tables (which will be published in detail in the forthcoming report of the British Association) is, that the slow increase in the average height and weight does not stop at 30, but in the case of stature goes on up to 60 (as far as our statistics go), and in the case of weight up to 80 years. The chest-girth follows the curve of weight up to 45 (as far as we have any data); but the strength attains its climax at 27½, following the curve of weight up to this age, after which it rapidly falls away. At 35, the strength is the same as at 22½; at 45, the same as at 21½; and at 55 (the extent of our observations), the same as at 19½ years. Now the increase of stature and bulk, which my tables show goes on up to 60, cannot be due to growth; and it is probable that the increase which Mr. Danson, Dr. Baxter, and others find between 25 and 30 is due to the same cause. This cause I believe to be the elimination by disease and death of the smaller and feebler members of the community in increasing numbers as age advances. We must, indeed, place a mortality-table by the side of our statistics of the living, if we are to understand their due significance. It is impossible to determine the exact period of maturity in man by measurements of several different persons; and this question can only be set at rest by following the growth of the same individuals from year to year until it ceases. Judging from my own observations, and from various facts which it is not necessary to give here, I believe that very little growth in height takes place after the age of 21, and that it entirely ceases before 25 years of age. I think the age of 23, fixed by Dr. Beddoe many years ago, may safely be accepted as the age of full growth in man, if my explanation of the above facts can be accepted. It was a great surprise to me to find that the physical proportions of the population, taken in the aggregate, went on increasing; and this fact disposes of the popular notion that "little wiry men" have the best health and live longest. All things being equal, it is obvious that to possess good physical proportions, and to "laugh and grow fat", are the best guarantees of long life.—Your obedient servant,

CHARLES ROBERTS.

Bolton Row, Mayfair, W., November 22nd.

CONJOINED TWINS.—One of these rare cases occurred lately in the out-department of Queen Charlotte's Lying-in Hospital. The children are females of eight months. They are broadly united in front from the manubrium sterni to the umbilicus, and there is but one common funis. Below the funis and above the sternum both are perfectly formed. Though still-born, they were undoubtedly alive shortly before delivery. They measure 14 inches, and the two weigh but 5 lbs. They are equal in size, and owing to the broad attachment are perfectly parallel, face to face. The first head that presented, owing to delay in the second stage, was delivered with forceps; this brought the other head forcibly against the abdominal wall above the pubes, and there being still obstruction to delivery, a monster was easily diagnosed. The children being small, delivery was completed in the following order: first head, shoulders, back, breech, then the four legs, after which the body, thorax, arms, and head of No. 2. The specimen will be shown by Dr. Percy Boulton, at the December meeting of the Obstetrical Society.

MILITARY AND NAVAL MEDICAL SERVICES.

THE MEDICAL SERVICE OF INDIA.

WE observe that an article in this JOURNAL, with the above heading, written some time ago, has greatly agitated the *Madras Standard*. We must first put our contemporary right on a point of some importance. The article in question was neither written nor "inspired" by any one having the smallest personal interest in the matters discussed, still less by any of the medical officers now or at any time connected with the Madras Medical College, or the administration of the Madras Medical Service in any of its branches.

It was quite impossible, in discussing the question of the unlimited admission of natives of India and Eurasians into the medical service of that country, to exclude considerations arising out of race. Race prejudices were not invented for the occasion; and they are not, we fear, to be got rid of by a few high-sounding phrases. It must be remembered that the antagonism of race is by no means confined to Englishmen. All the world knows that a Hindoo, with any pretension to caste, loathes contact with one of our race; if the shadow of a white man fall upon his food, he deems it tainted, and will not partake of it. Disguise it as we may, this is a thousand times a greater barrier to free social intercourse between the races than the pride or *morgue* of the haughtiest Englishman. It is not an easy thing for one of the governing race to stomach the fact that his coloured fellow-subject regards him as unclean, or to seek intimate social intercourse with those who so regard him. When we protested against swamping the Indian Medical Service with natives, we had this antagonism of race present to our minds; and we must now put the matter very plainly, and say, since the declaration is forced upon us, that it is not, we think, unnatural that the mind of an Englishman revolts at the notion of his wife having to depend, in her hour of utmost need, upon medical assistance from a gentleman who, however accomplished in his profession he may be, must, if he adhere to the precepts of his faith, regard his patient as ceremonially unclean, and something more.

We are not disposed in any way to forget what is due to our fellow-subjects in India; and we are anxious to see justice done to them in every particular. In arguing against the introduction of too large a proportion of natives and Eurasians, we were but cautioning the Government against a danger which is far from imaginary. An officer of great distinction, and much experience in the field, conversing on this subject with the writer of this article, thus expressed himself: "The natives of India are not the stuff out of which *military* surgeons are made; and, if the authorities believe that they are the men to behave as did Landon and Cornish on Majuba Hill, and die at their posts, they are terribly mistaken." We would remind our contemporary that it is one thing to show tenacious memories at competitive examinations, and quite another to perform the duties expected from English surgeons in modern war.

As regards Eurasians, nothing was more remote from our intention than to speak with disrespect of them, whether they be the sons of warrant officers or not. But we must take facts for our guidance; and we must still hold that culture, knowledge, and sympathy with the modes of thought, manners and customs of cultured English ladies and gentlemen, on the part of those who have to minister to them in the most delicate of all relations, are only second in importance to professional knowledge. In conclusion, we must add a word on the subject of remuneration—the emoluments of the European and the Native in India.

In our contemporary's opinion, India "is far from being unhealthy". Long may our contemporary find it so; but, in spite of Dr. Druitt's valuable judgment on the point, quoted by the *Standard*, we must demur, and say that the experience of the English in India, from the days of first occupation until now, does not bear out the statement. The English medical officers who go to India are not educated for next to nothing in Government schools; and the frequent trips they are obliged to make to their native land in search of health and relaxation, are not made without a heavy demand on their purses; and, above all, the fact that, in this "healthy country" of India, their children cannot be reared, but must be sent to Europe to live and be educated, surely ought to count for something when the question of emolument is under consideration.

THE ARMY MEDICAL SERVICE.

SIR,—As your leading correspondent [illegible] Army Medical Department, it is perhaps well to [illegible] popular.

The warrant of [illegible] (Para. 13): "A surgeon shall be promoted [illegible] completing twelve years' full-pay service". In no part of the warrant is it stated that, on the occurrence of vacancies in the rank of surgeon-major (through half-pay retirements, promotion, etc.), surgeons shall not be promoted thereto, even if they have not completed twelve years' service. Now, with the exception of one surgeon who had been on half-pay, the last batch of surgeons promoted was in October 1880. The surgeons who are at present at the top of the list being surgeons of April 1871, will not be promoted till April 1883 if twelve years' full-pay service is a necessarily qualifying condition, but this is not stated in the warrant. Why, therefore, instead of waiting till April 1883, should not surgeons be promoted as vacancies occur to the rank of surgeon-major? It would tend to popularise the service; and as only reductions in the rank of surgeons-major would be filled up by surgeons, it would cause no increase of expense to the State.—I am, sir, A SURGEON.

*** There is no doubt that the Army Medical Warrant of 1879, while conferring on surgeons a title to promotion after twelve years' full-pay service to the rank of surgeon-major, does not in any way prevent a surgeon from being promoted to that rank at an earlier period than twelve years. But as the number of surgeons-major is already considerably in excess, in proportion to the number of surgeons in the army medical ranks, it is not at all likely that the War Department will assent to the promotion of any surgeons before they have twelve years' service, unless under very exceptional circumstances.

WHEN the Army Medical Department was reorganised after the time of the Crimean War, a regulation was made that a roster of service should be kept, and be open for inspection, at the office of the Director-General; and this was done for many years. It was aftewards removed from the public room, and placed in charge of the officer at the head of the medical branch of the Director-General's office. This arrangement was approved by the committee who inquired into the grievances of the medical officers in July 1878, the plea being, that it had been ascertained army agents were in the habit of acquainting themselves with the state of roster for the purpose of negotiating exchanges between medical officers. As the Under Secretary of State of the War Department was President of this committee, there is no likelihood of any alteration being made in the arrangement.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

NOTIFICATION OF INFECTIOUS DISEASE.

SIR,—I beg to forward a copy of a letter addressed by me to the Chairman of the Liverpool Health Committee with reference to Dr. R[illegible] letter to him published in your last issue. I beg you will have the kindness to insert it in the BRITISH MEDICAL JOURNAL.—Yours, etc., A. H. [illegible], M.D., F.R.C.S.I.

[illegible] Ley Place, Dublin, November 26th, 1881.

Copy "[illegible] Ley Place, Dublin, November 26th, 1881.

"To the Chairman of the Health Committee. SIR,—I have to-day seen the BRITISH MEDICAL JOURNAL of this day, copy of letter addressed to you by Dr. A. R[illegible] some, respecting proposal to make notification of infectious disease compulsory in Liverpool. Not having before me the proceedings at Liverpool which gave occasion for this letter, I am at this moment unable to discuss them, but I hasten to controvert [illegible] two of Dr. Ransome's statements. He says that at the last meeting of the British Medical Association at Ryde, the manifest favour with which the plan was received proved that no alteration has taken place in the general approval of the profession'. As a member of the British Medical Association present at that meeting, I assert—1. That the general approval of the profession is a complete myth; 2. That the great majority of the [illegible] in England neither know of nor understand the proposed notification system; 3. That the effort of the Social Science Congress at that meeting to obtain approval of [illegible] notification was [illegible] discussion and inquiry was at that meeting peremptorily quashed by the chairman, and that a [illegible] and without any understanding of the matter by those present. As I warmly sympathise with the objections to the proposed notification system urged on behalf of the public and the profession, I think it my duty to remove from your mind any misapprehension which may exist as to the attitude of the [illegible] men in reference thereto.—I am, sir, yours truly,

"[illegible] H. [illegible] M.D., F.R.C.S.I.

THE NORTH WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

SIR,—I [illegible] Association of Medical Officers of Health [illegible] Vaccination, [illegible] F.S.S. [illegible]

100, King Street, Manchester, November 26th, 1881.

[illegible] North Western Association of Medical Officers of Health [illegible] respectfully represent [illegible] bodies, [illegible] Riding of the county of York. That your memorialists, having evidence that certain epidemic diseases, as scarlatina and typhoid fever, are not unfrequently [illegible] mises, with ability to close their premises till the removal of the infected animal or [illegible]

4. That samples of milk be taken for analysis from time to time from all licensed venders in a district, and not merely from those against whom specific complaints have been made. Your memorialists therefore earnestly pray that these proposals of your memorialists may have your careful attention. And your memorialists will ever pray, etc.—(Signed on behalf of the North-Western Association of Medical Officers of Health) G. A. Kitson, President; Francis Vacher, Honorary Secretary.—November 4th, 1881.

OBITUARY.

HENRY J. YELD, M.D., SUNDERLAND.

It is our painful duty to record the untimely death of Dr. Henry John Yeld, the Medical Officer of Health of Sunderland. Dr. Yeld was born in 1834, and graduated with high honours at Glasgow. For some years he practised in Sunderland, his native town, and was surgeon to the infirmary there. In 1873, relinquishing private practice, he was appointed medical officer of health for the borough, and public analyst; and subsequently he received the additional appointment of medical officer of health to the port. In these capacities he rapidly gained for himself one of the highest reputations in the public health service. He was the second President of the Northern Counties Association of Medical Officers of Health. His numerous contributions to our own and other journals on public health matters were of a high order of merit; and in the discharge of his public duties he was conspicuous for combining, in somewhat rare but happy combination, untiring energy, and a bearing at all times and above all things considerate and conciliatory. In addition, he identified himself with every charitable and philanthrophic scheme set on foot in his native town; and especially, by public lectures and other means, he endeavoured to foster habits of temperance and sobriety amongst the working classes. About four years ago, he unadvisedly, as it was thought by some of his colleagues, undertook the administration of the department dealing with the removal of refuse in his borough. He had previously presented to the corporation a valuable report on the subject, written after an inspection carried out in most of the large English towns; and his avowed object, and the one that doubtless induced him to undertake this additional duty without further fee or reward, was to bring about a change from the old midden system in vogue to some more wholesome plan of disposal. In this, however, he was disappointed. Not only did financial considerations stand in the way of the change he hoped for, but the additional expenditure incurred in administering the old system on a less grossly unsatisfactory plan than heretofore caused the estimates of his department to be considerably exceeded—a circumstance which caused him great anxiety. Other causes operated to bring about a condition of nervous depression and exhaustion; and, although to the last he presented to his friends the picture—said by the old Stoic philosophers to be worthy of the gods—of a good man bearing up against adverse circumstances, yet the time was to come, no doubt during passing aberration of intellect, when the "ills we know not of" seemed preferable to those so urgently pressing upon him. He had not been well on Thursday, November 17th; and the following morning one of the female domestics of his household took breakfast to his room. Returning a few minutes later, she found that her master had stabbed himself in the throat with a knife taken from the breakfast-tray, in so terrible a manner that life was even then fast ebbing away. To his widow and to his four children the loss is a terrible and irreparable one; to the town and to his friends it has seemed for the time overwhelming. Yet, if troubles have overwhelmed his temporal state, those who knew him will feel that his goodness cannot wholly perish; that his virtues will remain "as a crown on the world's head lying, too high for its waters to drown".

The remains of Dr. Yeld were interred in the Sunderland Cemetery, the funeral *cortége* being attended by the members of the corporation and of the board of guardians, by a large number of the medical profession, and by representatives of certain of the learned societies to which the deceased belonged.

RICHARD T. GORE, F.R.C.S.Eng., BATH.

We regret to have to announce the death of Mr. Gore of Bath. The deceased gentleman commenced his medical career in London by entering himself as a pupil at St. Bartholomew's Hospital, and completed his course by passing the examination at Apothecaries' Hall in 1820, and that of the Royal College of Surgeons in the following year. His first connection with Bath goes back to an early date, and his name will be identified with many of the most noteworthy events in its past history. A few years after he had commenced practice, he entered into partnership with the late Mr. George Kitson, who was Mayor of Bath in 1831. In 1843, he became a Fellow of the College of Surgeons; and in 1844 he accepted the appointment of Surgeon to the United Hospital, a post which he held up to within two months of his death. He sat as a member of the Bath Municipal Council from 1838 to 1853, and was elected an alderman shortly afterwards. It is stated that the Chair of Comparative Anatomy in University College, London, was offered to him, and declined. Mr. Gore is said to have been "ever a quiet diligent reader and an enthusiast in science", who thought and spoke clearly, and possessed the rare faculty of formulating his thoughts in the simplest and most direct language. Among his published writings is a translation of Blumenbach's *Elements of Natural History* (1 vol. 8vo.), published in 1825, and a year later Professor Carus's *Introduction to the Comparative Anatomy of Animals* (2 vols. 8vo.).

MEDICAL NEWS.

UNIVERSITY OF LONDON.—M.B. Examination, 1881. Pass List.

First Division.

Atmaram, Anundrao, B.Sc., University College.
Ballance, Charles Alfred, St. Thomas's Hospital.
Barron, Alexander, Liverpool Royal Infirmary.
Bassett, Henry Thurstan, Guy's Hospital.
Bredin, Richard, Liverpool Royal Infirmary and Guy's Hospital.
Chisholm, William, B.A.Sydney, University College.
Clark, Charles Alfred Dagnall, St. Bartholomew's Hospital.
Clarke, Ernest, St. Bartholomew's Hospital.
Collier, Mark Purcell Mayo, St. Thomas's Hospital.
Collins, William Job, B.Sc., St. Bartholomew's Hospital.
Davies, David Samuel, St. Thomas's Hospital.
Dickinson, Thomas Vincent, St. George's Hospital.
Griffiths, Philip Rhys, University College.
Harper, James, St. Bartholomew's Hospital.
Heath, William Lenton, St. Bartholomew's Hospital.
Hodgson, John, Manchester Royal Infirmary.
Horsley, Victor Alexander Haden, University College.
Lane, William Arbuthnot, Guy's Hospital.
Maguire, Robert, Manchester Royal Infirmary.
Maudsley, Henry, University College.
Mott, Frederick Walker, University College.
Rake, Beaven Neave, Guy's Hospital.
Rice, Bernard, St. Bartholomew's Hospital.
Routh, Amand Jules McConnel, University College.
Salter, John Reynolds, University College.
Savill, Thomas Dixon, St. Thomas's Hospital.
Sawtell, Tom Henry, St. Bartholomew's Hospital.
Squire, John Edward, University College.
Stonham, Thomas George, London Hospital.
Walters, Frederick Rufenacht, St. Thomas's Hospital.

Second Division.

Atkinson, John Mitford, London Hospital.
Chaffey, Wayland Charles, St. Bartholomew's Hospital.
Crisp, Thomas, St. Thomas's Hospital.
Davidson, John, King's College.
Drysdale, Alfred Edgar, University College.
Hall, Ben, St. Bartholomew's Hospital.
Hoole, Henry, Charing Cross Hospital.
Laurent, Eugène Arthur, University College.
MacDonald, Greville Matheson, King's College.
Marsh, George Ryding, Guy's Hospital.
Sanders, Charles, St. Bartholomew's Hospital.
Silk, John Frederick William, King's College.
Smith, Henry, St. Bartholomew's Hospital.
Smith, John, Guy's Hospital.
Sutton, Samuel Walter, St. Thomas's Hospital.
Swale, Harold, St. Thomas's Hospital.
Sykes, William Ainley, St. Bartholomew's Hospital.
Tait, Edward Sabine, St. Bartholomew's Hospital.
Thomas, Walter Duncan, St. Bartholomew's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, November 24th.

Clarke, Albert Bleckly, Chatteres, Cambridgeshire.
Gordon, Edward, Hazel Grove, Stockport.
Woolfson, Louis Estevan Green de, Holles Street, Cavendish Square.

The following gentleman also on the same day passed the Primary Professional Examination.

Power, Charles Frederick, Manchester School of Medicine.

MEDICAL VACANCIES.

THE following vacancies are announced :—

ASHBY DE LA ZOUCHE UNION, No. 2 District—Medical Officer and Public Vaccinator. Salary, £20 per annum. Aplications by 3rd December.

ASHBY DE LA ZOUCHE UNION, No. 3 District. Medical Officer and Public Vaccinator. Salary, £26 per annum. Applications by December 3rd.

BECKITT HOSPITAL AND DISPENSARY, Barnsley—House-Surgeon. Salary, £150 per annum. Applications by December 14th.

BURTON-ON-TRENT UNION—Medical Officer and Public Vaccinator. Salary, £40 per annum. Applications by December 5th.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's Inn Road, W.C.—Assistant-Surgeon. Applications by December 6th.

CHARING CROSS HOSPITAL, Strand—Assistant Physician. Applications by December 3rd.

DENTAL HOSPITAL, Leicester Square—Dental House-Surgeon. Applications by December 12th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Applications by December [illegible].

GENERAL INFIRMARY, Gloucester, and GLOUCESTERSHIRE EYE INSTITUTION—Ophthalmic Surgeon. Applications by December 7th.

GENERAL HOSPITAL AND DISPENSARY, Douglas, Isle of Man—Resident Medical Officer. Salary, £[illegible] per annum. Applications to the Secretary by the 5th December.

GLASGOW MATERNITY HOSPITAL—Out-door Accoucheur for the Eastern District. Applications to A. Forbes, Secretary.

ISLE OF MAN GENERAL HOSPITAL AND DISPENSARY, Douglas—Resident Medical Officer. Salary, £90 per annum. Applications by December 5th.

LINCOLN GENERAL DISPENSARY—Resident Medical Officer. Salary, £150 per annum. Applications by December [illegible].

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch—Assistant Medical Officer. Salary, £150 per annum. Applications by December 13th.

NORWICH FRIENDLY SOCIETIES' MEDICAL INSTITUTE—Salary, £120 per annum. Applications to W. C. Brundell, Messrs. Dawson Brothers, Pitt Street, Norwich.

ST. MARY'S HOSPITAL, Paddington—Medical Superintendent and Registrar. Salary, £150 per annum. Applications by December 3rd.

STAMFORD HILL, STOKE NEWINGTON, AND CLAPTON DISPENSARY—Resident Medical Officer. Salary, £105 per annum. Applications to the Honorary Secretary, Dispensary, Stoke Newington, by December 7th.

SOMERSET AND BATH LUNATIC ASYLUM, Wells—Junior Assistant Medical Officer. Salary, £100 per annum. Applications to Dr. Wade, Medical Superintendent.

SUNDERLAND BOROUGH [illegible] and Public Analyst. Salary, £[illegible] per annum. Applications to the Town Clerk's Office, 22, Fawcett Street, Sunderland, by December 7th.

TOTNES UNION—District Medical Officer for No. 4 Berry Pomeroy District. Salary, £[illegible] per annum. Applications by December [illegible]th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Assistant Physician. Applications to the Secretary by December 12th.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House-Surgeon. Applications to the Secretary, December 12th.

MEDICAL APPOINTMENTS.

DUNCAN, W. A., M.D., appointed Resident Accoucheur to the St. Thomas's Hospital.

GULLIVER, G., M.B., M.R.C.P., appointed Assistant-Physician to St. Thomas's Hospital, *vice* W. S. Greenfield, M.D., appointed Professor of Pathology in the University of Edinburgh.

HADDEN, W. B., M.D., M.R.C.P., appointed Demonstrator of Morbid Anatomy to St. Thomas's Hospital, *vice* R. W. Reid, M.D., resigned.

HAYNES, S. W., M.B., appointed House-Surgeon to the Birmingham General Dispensary.

[illegible] Jones, M.B., appointed Assistant Medical Officer to the Rubery Hill Asylum, Bromsgrove.

MONEY, A., M.B., appointed Medical Registrar to the Hospital for Sick Children, Great Ormond Street, *vice* J. Abercrombie, M.D., resigned.

MUIR, W., M.B., appointed Assistant Obstetric Physician to the Glasgow Maternity Hospital.

[illegible], L.R.C.P.I., appointed Assistant Physician to the Mater Misericordiæ Hospital, Dublin.

PURDIE, R., M.B., appointed Resident House-Surgeon to the Gateshead Dispensary, *vice* J. G. Robertson, M.B., resigned.

TRUMAN, C. E., M.R.C.S., appointed Assistant Dental Surgeon to the Dental Hospital of London, *vice* D. Hepburn, L.D.S.

[illegible], W. [illegible], F.R.C.S., appointed Surgical Registrar to the [illegible] Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

[illegible] November 17th, at [illegible] de Spagna, Rome, the wife of Edward Dunsford, M.D., of [illegible], of a daughter.

MARRIAGE.

[illegible] November 17th, at [illegible], by the Rev. [illegible], the Rev. [illegible], to [illegible], daughter of the late [illegible], Esq., of [illegible], and of Mrs. [illegible], of [illegible], Kent. [illegible], W. H. Rowe, [illegible], M.D., F.R.C.P.I., [illegible], to [illegible], daughter of [illegible], Esq., of [illegible], and granddaughter of the Rev. [illegible], Minister of [illegible].

CHARING CROSS HOSPITAL. The following appointments have lately been made. Henry Primrose Corbould, L.R.C.P.Lond., M.R.C.S.Eng., Resident Obstetrical Officer, *vice* F. J. Gribbon; Charles R. Crane, M.R.C.S.Eng., L.S.A., Resident Surgical Officer, *vice* F. E. Taylor; C. R. C. Lyster, M.R.C.S.Eng., Resident Medical Officer, *vice* T. B. Baker; M. Eiloart, M.R.C.S.Eng., Assistant Surgical Officer, *vice* H. K. Morse; C. A. Wigan, L.S.A., Assistant Medical Officer, *vice* C. R. C. Lyster.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities may be derived from the following facts, deduced from a table in the Registrar-General's last weekly return. In the three principal Indian cities, the death-rate, according to the most recent weekly returns, averaged 31.2 per 1000; it was equal to 25.0 in Bombay, 28.9 in Calcutta, and 35.3 in Madras. Cholera caused 21 deaths in Calcutta and 2 in Bombay, and 7 fatal cases of small-pox were reported in Madras. The death-rate in Alexandria was equal to 34.4, and was higher than in preceding weeks; 6 fatal cases of typhoid fever were recorded. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 25.9 per 1000 of the aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 21.7. The rate in St. Petersburg was equal to 37.4, and the 480 deaths included 27 from typhus and typhoid fevers, and 12 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 20.3, the highest being 20.6 in Copenhagen; measles caused 5 deaths in Christiania. The Paris death-rate was equal to 26.3, 43 deaths being referred to typhoid fever, 48 to diphtheria and croup, and 13 to small-pox. The death-rate in Brussels, during the fortnight ending the 12th ultimo, averaged 23.2; the deaths included 5 fatal cases of measles. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the average death-rate was 21.0, and the highest was 24.5 in Amsterdam, where 3 deaths from enteric fever were reported. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.0, and ranged from 22.9 and 23.0 in Vienna and Berlin, to 28.3 and 29.2 in Munich and Prague. Small-pox caused 17 deaths in Vienna, 12 in Buda-Pesth, and 3 in Prague; diphtheria showed fatal prevalence in Berlin and Hamburg. The death-rate in Naples and Venice was equal to 28.4 and 32.4 respectively; typhoid fever caused 20 and measles 6 deaths in Naples. In four large American cities, the death-rate averaged 25.5; it was 19.5 in Philadelphia, 25.6 in Baltimore, 25.8 in Brooklyn, and 28.0 in New York. Diphtheria and scarlet fever showed fatal prevalence in New York and Brooklyn, and small-pox caused 13 deaths in Philadelphia.

NYMPHOMANIA CURED BY DOUBLE OOPHORECTOMY.—The *North Carolina Medical Journal* for June 1881 contains the report of a case by Dr. T. B. Wilkerson. Miss N. P., of Virginia, aged 19, of a nervo-sanguine temperament, with a disposition to melancholia on the father's side, a well-developed brunette, highly educated, and wealthy. Menstruated first at fifteen years of age; the flow was regular for eight or nine months, after which time there was a cessation of the discharge, the patient suffering from amenorrhœa. At the age of sixteen, there was a return of the monthly molimen, attended with severe neuralgic dysmenorrhœal symptoms. The continuance of these symptoms did not seem to impair the general health; the appetite was good, but the bowels were generally constipated. She was fond of dancing, and ever ready to engage in the various innocent amusements of the young, with no marked desire for the company of men, but always maintaining a modest dignified demeanour. About the age of seventeen, just prior to one of her monthly periods, she attended a gathering of young people, necessarily being thrown into the society of young men for several days and nights. After the subsidence of the flow, she became morose and irritable, easily disturbed by the least noise, complaining of a dizzy buzzing feeling in the head. She would frequently break forth from this deep sombreness into wild hysterical laughter; her conversation became lascivious in character; she grew disobedient to her parents, finally ignoring her mother and father; she became a raving maniac, with sexual ideas always in the ascendant. There was a destructive tendency manifested toward everything surrounding her. This lady had been subjected to the best medical treatment obtainable for two years without any benefit. Battey's operation was proposed, and, with the consent of the parents, the operation was performed on August 10th, 1880. The upper surface of the ovaries presented a pale and corrugated appearance; the lower part was of a deep pinkish hue. There was little shock and no nausea. Small doses of opium, quinine, and carbolic acid were administered, and but little food was allowed for the first forty-eight hours, small pellets of ice being given when desired. The patient was confined principally to a milk-diet with lime-water during the after-treatment, and small quantities of iced champagne occasionally. At the expiration of three weeks, she had [illegible] recovered from the effects of the operation. There was a gradual change for the better in the mental condition; this improvement continued; and, three months after the date of operation, sanity was perfectly restored. She has remained perfectly well.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M. St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M. University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2 o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx; W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Gilbart Smith will give notes of a case of Hæmorrhage into the Mesentery. Dr. Isambard Owen will read notes of two similar cases. Dr. Habershon: Cold Shock in its Action on the Branches of the Pneumogastric Nerve. Dr. Dowse: Some Points in the Differential Diagnosis of Intracranial Disease, General Paralysis of the Insane, and Tabes Dorsalis.—Odontological Society of Great Britain, 8 P.M. Mr. Coleman: The Economical Methods of Preparing and Administering Nitrous Oxide. Casual communications by Messrs. Verrier, Pedley, etc.

TUESDAY.—Pathological Society of London, 8.30 P.M. Specimens to be shown: Dr. Norman Moore: Joints from a case of Gout. Dr. Wickham Legg: Tissues of a Patient with Hæmophilia. Mr. Lawson Tait: Specimen of Hydro- and Pyo-Salpinx. Mr. Eve: Calcified Adenoma of Scalp. Dr. Pye-Smith: Cirrhosis of Liver in a Child. Dr. Bedford Fenwick: Diseased Suprarenal Capsules. Mr. A. P. Gould: 1. Bones from Genu Valgum; 2. Case of Lateral Asymmetry. Mr. A. Barker: 1. Fracture of Femur; 2. Congenital Dislocation of Hip; 3. Spinal Caries. Dr. Goodhart: Specimens of Ulcerative Endocarditis. Mr. Shattock: Adenoma of Scalp.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens will be shown by the President, Mr. Thornton, Dr. Percy Boulton, Mr. Outhwaite, Dr. Herman. The following papers will be read. Dr. Godson: Five Cases of Spasmodic Dysmenorrhœa associated with Sterility, successfully treated by Dilatation with Graduated Metallic Bougies. Dr. Herman: A Case in which Dilatation of the Cervical Canal was followed by Removal of Sterility. Mr. N. W. Jastreban: On the Normal and Pathological Anatomy of the Ganglion Cervicale Uteri. Dr. W. S. Playfair: On Trachelo-raphé or Emmet's Operation.—Epidemiological Society of London, 8 P.M. Dr. Cobbold will read a paper on Filaria Sanguinis Hominis, sent by Dr. Wykeham Myers; followed by a short paper of his own on the same subject.—Hunterian Society, 7.30 P.M., Council Meeting. 8 P.M., Dr. Francis Warner: A Case of Empyema treated by Antiseptic Drainage. Dr. F. C. Turner: A Case of Cerebral Hæmorrhage.

THURSDAY.—Ophthalmological Society of the United Kingdom, 8.30 P.M. Mr. R. J. Pye-Smith: Case of Glaucoma cured by Eserine. Dr. Gowers: 1. Sequel to a Case of Cerebral Tumour; 2. Tabetic Neuritis; 3. Case of Axial Neuritis in Spinal Disease; 4. Case of Hemiopia in Locomotor Ataxy. Mr. G. E. Wherry: Case of Paralysis of Fifth and Facial Nerves in a young Child. Dr. Stephen Mackenzie: Case of Acute Vascular Disease of the Heart. Mr. Hutchinson: Case of Diabetic Cataract. Mr. C. E. Fitzgerald: Unilateral Exophthalmos. Living specimens at 8 o'clock—Mr. Mules: General Retinal Periarteritis. Mr. Nettleship: 1. Cystic Tumour of Eyebrow; 2. Diabetic Retinitis. Mr. Cowell: Case of Retinitis Pigmentosa.—Abernethian Society, St. Bartholomew's Hospital. Mr. S. Paget: Vegetable Pathology.—Harveian Society of London, at the Society's House, Harveian Lecture. Dr. Arthur Mee on Menstruation and its Derangements.

FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. W. H. Bennett: A Case of Talipes Equino-varus treated by Resection of a Portion of the Tarsus. Mr. T. H. Tatum: Two Cases of Myxœdema. Mr. W. H. Kesteven: A Case of Unilateral Xanthopsis. Dr. [illegible].

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

VIVISECTION.

SIR,—I lecture to a class on animal physiology. Does the Vivisection Act forbid the showing the circulation in a frog's foot under the microscope?—I am, etc.,
R. C. C.

*** If the experiment be in *no sense* "calculated to give pain", it does not come under the Act. This can hardly be said of the demonstration of the circulation in a *living* frog's web to a class, which, no doubt, would cause the frog some inconvenience, and thus might legally be brought under the Act, and therefore requires a licence and a special certificate "C"; and if chloroform be not used, certificate "A" must also be in the possession of the teacher, in order that he be strictly within the terms of the statute. If the animal be kept alive for a second experiment, certificate "B" is also necessary. The circulation can, however, be shown with a pithed, *i.e.*, dead frog.

THE [illegible] OF [illegible] DEPARTMENT.

WE are informed by a member of the legal profession that a coroner has the power to order a body to be disinterred within a reasonable time after death where no inquisition has been held, or where the first inquisition was insufficient. The "reasonable time" would seem to be before the body has become decomposed; for if he orders a body to be disinterred after decomposition has set in to such an extent that no good could be attained by its examination, he is liable to be amerced. The coroner has power to order exhumation only where information has come to him that death took place from other than natural causes. We suppose that a reasonable suspicion that the death was not from natural causes would be a sufficient justification to a coroner to order an exhumation; and it would be impossible to put a limit to the period at which it might not afford evidence of the cause of death.

PROFESSIONAL.—It cannot be right to include in the hospital staff of any cottage-hospital any other than registered and qualified practitioners. The primary condition of appointment to the medical staff of any public institution is qualification and registration.

LIFE-ASSURANCE COMPANIES.

SIR,—A medical man, who has been twice bitten by insurance offices, would be glad to be informed of the names of a few of the leading and reliable offices where he could, with some amount of safety, invest his money by way of insurance. He is induced to seek information through the JOURNAL, owing to his utter want of confidence in insurance agents as a class.—I am, etc.,
A SUBSCRIBER.

*** The following are among old-established offices of good repute: Atlas (established 1808), 92, Cheapside; Clerical, Medical, and General, 13, St. James's Square; Crown Life (1825), 188, Fleet Street; Guardian (1821), 11, Lombard Street; London Assurance (1720), 7, Royal Exchange; Norwich Union (1808), 50, Fleet Street; Provident (1806), 50, Regent Street; Royal Exchange Assurance (1720), Royal Exchange; Rock (1806), 15, New Bridge Street; Union (1714), 81, Cornhill.

SCHOOLS FOR DAUGHTERS OF MEDICAL MEN.

SIR,—Would you be good enough to inform me whether there are any charitable schools for the daughters of medical men? I mean schools where girls are educated, boarded, etc., free of or at little expense. I am anxious to ascertain this, as a medical man has just died here, leaving a wife and six children (all girls) almost unprovided for.—Your obedient servant,
E. D. TOMLINSON.
Burnley, November 23rd, 1881.

SIR,—Can any reader of the JOURNAL substantiate as a fact, what I have always believed to be true, that Dr. Pagan, who was in practice not many years ago in Edinburgh, had the whole of the outer part of one ear shaved away by a cannon-ball at the battle of Waterloo, when he was a young army surgeon, without causing deafness on the injured side?—I am, sir, yours, etc.,
T. A.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

THE BRUSSELS DEGREE.

THETA and other correspondents will find information respecting the examination for the Brussels degree in the BRITISH MEDICAL JOURNAL for 1880, vol. ii, pages 38 and 114; also in the *London Medical Record* for September.

SIR, Will any member please to suggest the best and simplest form of tonsil guillotine?—I am, etc., B. X.

DEPARTURE OF THE COURT FROM BALMORAL.

THE *Dundee Advertiser* of November 23rd says: "After dinner, and while Her Majesty was on the way from the committee-room to the royal saloon, Dr. Paterson, Bridge of Allan, was presented to the Queen by Sir Henry Ponsonby. Dr. Paterson, assisted by his youngest daughter (Miss Alice Maud), then presented Her Majesty with a basket of beautiful orchids, containing between two hundred and three hundred spikes, comprising different species. The Queen, who graciously received the present, said: 'I am much pleased, Dr Paterson, to accept this basket of lovely orchids from you'. At the same time, Miss McCaskie, grand-daughter of Dr. Paterson, presented Princess Beatrice with a basket of orchids. The handle of the basket was neatly intertwined with sprigs grown in Dr. Paterson's garden."

CORRECTION OF AN ERROR.

SIR,—In the JOURNAL of November 5th (page 751), it is stated that an immense infirmary is to be erected at Fulham. This is an error. This infirmary, of which the foundation-stone was laid by our chairman, Mr. Spofford, is being erected at Croydon, near to the workhouse.—I am, yours faithfully,

ALFRED GEORGE ROPER, late Medical Officer to the Croydon Union Infirmary.
57, North End, Croydon, November 7th, 1881.

PROFESSIONAL ADVERTISING.

SIR,—The enclosed are being left at different people's houses; this particular one was left at one of my patients, who gave it to me.—Yours truly,

SCAVITER IN MODO.

"Dr. Chas. Low, Surgeon and Accoucheur, 2, Bellevue Villas, High Street, South Norwood. As many of the working classes are not always in a position to pay the usual fees for medical attendance during illness, Dr. Low will, for their benefit, see them at the above address, two hours daily. Mornings, 9 to 10; evenings (Saturdays excepted), 8 to 9. Saturday evenings, 5 to 6. Fee (restricted to these hours only), advice and medicine, 1s."

TOBACCO.

SIR,—I am one of those who indulge in the baneful(?) habit of smoking, which I commenced at the age of eighteen. I am now forty-three, and have continued the practice since I commenced, and do not intend to give it up. I manage to get through four or five ounces per week of very nice tobacco, and do not at present show any signs of decay, either mentally or bodily. I awake every morning with a clear unclouded brain, a clean tongue, a light heart, and a very good appetite—this last is conspicuous at every meal. The question is, What is over-indulgence? Probably if Mr. Brown smoked two pipes after 8 P.M., it would be over-indulgence, and might make him very ill. I smoke, I dare say, ten or a dozen pipes between that and 12, and do not feel at all the worse for it, and do not believe I shall. I watched, with great satisfaction, the clear blue clouds that emanated from my pipe as I read Mr. Brown's onslaught, stating what King James had said respecting "the black stinking fume thereof"; and the odour was grateful to my nose and the noses of most people who came near to it, and who cannot smoke, but envy me. It is not dangerous to my lungs, neither is it harmful to my brain, in my humble opinion; and, so far from being to me a lazy and pernicious habit, it is then I am most busy with my pen, and that pen is not an idle one. To quote the words of King James as the words of wisdom is absurd. If he is the same King James I have in my mind, he was more fit for a schoolmaster, and overindulged himself with cockaleekie and porridge.

I will concede this much to Mr. Brown: that, in some cases, one ounce of tobacco per week is an overindulgence, which becomes hurtful to some people; and three or four ounces per week is, perhaps, an overindulgence, but not hurtful to another person. I also agree with him that it is an injurious practice for boys.

For my part, I think that far more injury is caused to those who convert their stomachs into swill-tubs, than to those who indulge in the soothing influence of the fragrant weed, provided they use a kind of tobacco that is not strong.—I am, etc., HONEYDEW.

SIR, In Mrs. Brassey's interesting diary of her voyage in the *Sunbeam*, she says of the Canoe Indians, that they came alongside shouting, "'Tabaco, galléta (biscuit)', which was given them in exchange for skins; and they then took off those they were wearing, and clamoured for more tobacco; and, finally, the woman with them parted with her sole garment in return for a little more tobacco". I presume, sir, this must have been a luxury to them, and that these poor savages had hardly acquired the habit in their youth; yet, singularly, they liked and clamoured for the tobacco. It seems to me to be regretted that educated men should, in their zeal for any cause, allow themselves too dogmatically and sweepingly to denounce and condemn those who may differ from them, and enjoy what they may happen to dislike; and though, doubtless, excess in smoking is injurious, the same as excess in anything else, yet, in moderation, and considering that it is enjoyed more or less by most nations and people all over the world, it can hardly be so fatally injurious as to deserve the strong language used in its condemnation. Is it not a pity that we go to extremes? and this appears also to apply to the question of total abstinence as well; for to state so vehemently and persistently that alcohol is a poison, and class it in the same category as opium and strychnia, can hardly advance the cause in the eyes of sensible thoughtful men, who, however much they may regret and condemn drunkenness, cannot, in the face of what they see and know, admit that, if the drinks are pure and unadulterated, which they ought to be, and are used in reason and moderation, that they deserve to be so termed.—I am, etc., C. J. H.

SWEATY HANDS.

SIR,—If Dr. Ogle refers to Binger's *Therapeutics*, under the head of belladonna he will find: "Many healthy adults are troubled with profuse sweating of the hands, especially noticeable at the tips of the fingers and the ball of the thumb. Belladonna liniment rubbed into the hands three or four times a day, will often gradually diminish, and sometimes completely arrest, this annoying affection".—I am, etc.,

WILLIAM CLEBORN, M.D.(T.C.D.)
97, Bradford Street, Birmingham, November 25th, 1881.

PREVENTION OF HYDROPHOBIA.

SIR, In the BRITISH MEDICAL JOURNAL of November 19th, you have reports of several cases of hydrophobia. Is there not an apathy, so far as the stamping out of this dreadful malady is concerned? No efforts have been made to do so. Had the deaths from it been amongst horses or cows, something would have been done ere this, but the human animal is cheap. I would advocate that something be done to endeavour to extinguish it, either by muzzling of dogs as of old, or by any other effective method. Formerly, when muzzling was more common than it is now, the disease was supposed to be a myth; now it is a dreadful reality; and the seeming hopelessness of curing it adds to its terror. You will do good work if you turn your attention towards this subject.—Yours truly,

M. THOMAS, M.D.
Royal Infirmary, Glasgow, November 22nd, 1881.

SIR,—Your JOURNAL for November 19th containing a good deal about hydrophobia, the present seems a fitting opportunity to say a word on the subject.

First, why should the caustics recommended to be applied to the bite be nitrate of silver, nitric acid, etc., rather than potassa fusa? For the action of the two former caustics is chiefly on the surfaces with which they come into contact, whereas potassa fusa penetrates more into tissue, destroying it, together with any virus or other organic matter. It has to be borne in mind that, in treating a dog-bite, we are trying to neutralise or destroy a virus that we cannot recognise by any organ of sense, and the rate of absorption of which we do not know. Therefore, I think that, since it appears necessary to apply a painful and severe caustic, we may as well, when not unsuitable, use a caustic like potash, which destroys some depth of tissue, in the hope (since we cannot see what we are doing) of more surely annihilating all the virus.

Secondly, as to treatment, I particularly note Dr. Ruxton's case (whatever its true nature) successfully treated with cannabis Indica. He used the tincture; the extract was used, without success, by Mr. Cæsar Hawkins in a case treated by him, and recorded in his *Contributions to Pathology and Surgery*, vol. i, page 74. Thirst is a great evil and source of distress in these cases. Wet sheet packing, warm or tepid, judiciously done, may be a valuable means of giving relief by absorption of fluid through the skin, besides other benefits; and should not be lost sight of.

Thirdly, the increasing frequency of cases of hydrophobia is a matter demanding speedy and real attention. Surely all the dogs in England, however valuable, are not worth the sacrifice of, every now and then, a human life, and that by so horrible a death. Here we have, in this one JOURNAL, nine or ten cases of the disease, seven of them witnessed by one gentleman in only two years. Mr. Cæsar Hawkins, lecturing in 1844, calls it a rare disease; says it is just twenty years since a case of hydrophobia was admitted into the hospital (St. George's); and states that he could recollect only two previous cases. Dr Cloves formerly spoke of its rarity; and most practitioners of that date noticed the same, many having never seen a case. Well, it is for the profession to give proper warnings to the community; to point out the increasing frequency of hydrophobia; to direct the attention, both of the public and the legislature to it, that both, in their separate ways, may do everything to discourage the keeping of dogs. But, though we cannot see risks run without giving warning of them, here our duty stops. We have no concern or business to make an agitation or a controversy about it, or to urge or enforce our warning, should the public not be willing to take it. Having done our duty by speaking on all proper occasions, it is not for us to thrust our warnings on the public. Recent utterances about vaccination, the Contagious Diseases Act, and vivisection, with their acrimonious controversies, show us that it is a false position for the medical profession to assume to act as if it had a greater interest in the prevention of disease than the public have. It is no duty of medical men, more than other citizens, to insist upon preventive measures; and we should always so speak and act, as, while doing our work fully, to cause no misconception about the attitude of the profession. I think that we damage ourselves in the eyes of the public by becoming partisans in any of these controversies. By so doing, we make men think that we are seeking some interest of our own; then the public uses language respecting us which need not here be characterised. It is time that this should cease; that we no longer let zeal outrun discretion in forcing improvements on mankind; that we confine ourselves to giving plain warnings and statements of facts, and leave the public to please themselves.—I am, sir, yours faithfully, W. E. C. NOURSE, F.R.C.S., late Surgeon to the Brighton Children's Hospital.
Exeter, November 23rd, 1881.

CRACKING OF THE TEMPERO-MAXILLARY ARTICULATION.

SIR,—In reply to Mr. Malley's question, p. 846, allow me to direct his attention to Mr. Charles White's remarks on similar cases (BRITISH MEDICAL JOURNAL, September 18th, 1878, p. 499). Mr. White effected cures by the use of the constant current. I am, etc., MEDICAL DIGEST.

TREATMENT OF DIPHTHERIA.

SIR,—There is a good deal of talk and writing about diphtheria at the present time; so, after some years of experience of this complaint, I should like to offer a few but practical remarks on the subject. Diphtheria is certainly a disease *sui generis*, contagious, dangerous, and constitutional, with well marked membranous deposit on the tonsils and surrounding parts; beginning as a rosy rash, then assuming a pale ashen colour, and in the malignant form presenting a black hue. The treatment is to begin by isolating the sufferer in the highest and most convenient floor in the house; and I have found the most efficient drugs and nourishment to be the following: Chlorate of potash with tincture of perchloride of iron as a mixture; Condy's fluid applied to palate, tonsils, etc., by a spray-producer. Diet: milk, beef-tea, and port wine as a stimulant. In this trying malady, one ought to be too generous rather than too homœopathic in medicinal doses. *Ex dat qui cito dat.*—I am, etc., T. WELLS HUBBARD, M.R.C.S.Eng., L.M., L.S.A.Lond.
Tunbridge Wells.

A. N. (Rhyl).—We do not select practitioners for recommendation to patients.

METALLIC SPRINGS FOR TOOTH PLATES.

SIR,—I had occasion, in a case of peculiar difficulty, to use the ordinary gold spiral springs to retain in their position a set of teeth, for a patient who was so awkward and clumsy that he broke one or both of them every second day. I therefore had the springs made of steel wire, with the most satisfactory results.

The fact that steel wire is not materially altered by chemical action in the mouth was demonstrated by Mr. Walter Coffin at the International Medical Congress, where he referred to numerous cases in which steel had been used for regulating teeth, and showed plates that had been so worn for many months. If these facts were more generally known, and the special qualities of the various steels possessed by steel recognised more fully by our profession, I am sure that steel would soon supersede the use of all other metals for these purposes.—I am, sir, faithfully yours, NATHL. STEVENSON.

, Wimpole Street, Cavendish Square, W.

CAN BROMIDE OF IRON BE DANGEROUSLY POISONOUS?

SIR,—On reëstablishing the use of bromide of iron, my attention was called to a paragraph at page 612 of the *National Dispensatory* (Ed. 1879), as follows. "There is not the slightest evidence of its ever having been used in medicine, and, as it would probably be a violent poison, it ought never to be used internally." Acting on the advice given in Napheys's *Medical Therapeutics*, page 27 (seventh edition), I have given it "in increasing doses, beginning with never less than five drops for a child," and running up the dose rapidly to twenty drops three times a day, with the best effects, and without any symptoms of poisoning. Yours obediently,

SAMUEL S. D. WELLS.

Royal Naval Hospital, Haslar, November 28th, 1881.

A DOCTOR'S WIDOW. A the child is beginning to walk, the case ought to be treated. Bandaging the foot carefully to a splint in the proper position would probably suffice.

THE ROYAL UNITED HOSPITAL, BATH.

SIR,—The recent election of surgeon to the Royal United Hospital, Bath, has led to some comments in the BRITISH MEDICAL JOURNAL of October 29th, as to the advisability of electing assistant physicians and surgeons to that institution. You say it "would inevitably lead to the development of a greatly increased out-patient departments; this, with the safeguard in force, viz., that no patient may come a second time without a note of recommendation, is very unlikely to happen. At present, the out-patients are supposed to be seen by the physicians and surgeons; but this has been done only in a very irregular manner, the great bulk of the work having been done by the house-surgeon, *i.e.*, on the surgical side. The house-surgeon is elected annually, and is therefore often very young and inexperienced. Sometimes, as a matter of favour, he is re-elected for a second year; so, just as his opinion is becoming of some value, another takes his place; surely, this state of things is not satisfactory.

The appointment of officers for this work alone would have several advantages:

1. In leading to the work being done in a more regular way, and would thus less often be left to the house-surgeon and students, and would thereby prove an advantage to the patients and students, and would add to the reputation of the hospital. It is not fair to the patients to be seen chiefly by the house-surgeon, an officer who is so constantly being changed, and one, therefore, who varies very much in his professional knowledge and abilities.

2. These junior appointments would have also the effect of training men to fill the posts of physicians and surgeons. At present, men are appointed surgeons without any surgical experience, beyond having been, perhaps, house-surgeon to the institution fifteen or twenty years previously, time enough for the best man to get out of practice and forget his surgery. I am, etc., L.R.C.P.

DR. A. SAMELSON'S query has been forwarded to the Secretary of the Open Spaces Committee of the Kyrle Society, who will be able to afford him full information on the subject.

SUDDEN DEATH.

AN inquiry has been held into the death of John Douglas, a weaver, of Carlisle, aged 47, who died suddenly on Friday, November 25th. Dr. Walker, who made a *post mortem* examination of the body, found that there had been inflammation of all the serous membranes of the body. The left cavity of the heart and aorta were both filled with an organised clot, probably arising from inflammation of the internal membranes of the heart. This would impede the flow of the blood through the aorta. There was very little blood in the heart, and he did not think that the cause of death was the obstruction of blood through the main artery. Probably the heart, by the existence of this clot in the left ventricle, was paralysed in its action, and death would take place by fainting. He believed that the deceased died from natural causes. Other evidence was given, and the jury returned a verdict in accordance with the results of the *post mortem* examination. The coroner stated that, during the seven years he had acted as coroner for the city, this was only the third case of the kind that had come before him. It was rare that such a form of death came under his observation.

A QUESTION OF FEES.

SIR,—Will you kindly advise me, through the medium of your paper, what I should charge for my attendance in the following case? At mid-day I received a telegram from an old patient of mine, a lieutenant-general, who was staying at Southsea, desiring me to see him immediately in consultation with his medical attendant there. I immediately went down, but was unable to return the same night. About a week later, I went down to Southsea, and brought him back with me to town. Southsea is about eighty-five miles from Kensington. The patient is dead. He has no relative. He has left a considerable amount of money. He was in the habit of paying me five shillings per visit. His executors want my bill, so I shall be glad of an early reply, under the pseudonym of CASH.

LUMINOUS PAINT.

SIR,—It may interest some of your readers to learn that Balmain's luminous paint is quite a success as a means of making the "night bell" conspicuous. The plate of mine, which is about four inches in diameter, is distinctly visible at night at a distance of ten yards; and when one is close to it, it looks as if it were made of ground glass and a feeble light shining through.—Very truly yours,

Stourport, November 22nd, 1881. G. F. M.

ATTENDANCE ON FAMILIES OF MEDICAL MEN.

SIR,—I think, with Dr. Blackburn, that this subject should be more accurately defined than at present, and that gratuitous services should be limited to the family chargeable upon a professional brother; in fact, to cases where the fees would come out of his own pocket. Surviving relatives enjoying an ample unearned income from real property are not entitled to accept such services without paying the usual fees.

Some years since, I attended for many months a retired Indian surgeon, well known to the profession, who was dependent upon my visiting him regularly at a fixed hour night and morning, in order to prevent his suffering the horrors of retention of urine. Upon no occasion did I fail to visit him at 10 P.M., in order to introduce the catheter. He specially stipulated that I should charge him fees, just as if he were not a medical man, inasmuch as he had surplus property, and every one for whom he cared was amply provided for. He died somewhat suddenly, and the relatives—persons who had neglected him and quarrelled with him while alive—took possession of everything, unceremoniously dismissed a faithful housekeeper on whom this aged gentleman had been greatly dependent, and, as to myself, though aware of the sacrifice of time and personal convenience at which my services had been rendered, they sent me, "as a present", a trumpery old silver lancet-case, and never even thanked me for my services. My present impression is, that were such a case to occur again, I should send in a claim in the usual way to the executors.—Faithfully yours,

JAMES EDMUNDS.

Grafton Street, Piccadilly, November 12th, 1881.

TO ANTIVIVISECTORS: THE LAST RESOURCE.

THE *Chicago Medical Review* has the following: "A gentleman called to consult a physician relative to a certain form of mental malady. The latter wrote him a prescription. As the patient was going away, the doctor called him back. 'By the way, sir, should I my prescription afford you relief, please let me know, as I am most anxious to make that known to you, and I recently have had an invalid under my relief.'"

DR. CORNAGLIA'S "Skeleton Respirator" for antiseptic purposes is manufactured by John Whyte, No. 66, Upper Sackville Street, Dublin. It is silver plated, and costs 5s. 6d.

SIR,—I should be much obliged if anyone could inform me if there is any general account published of the life-history of bacteria and other organisms supposed to be connected with contagious diseases; or, if not, what are the best monographs on the various kinds, and where they are to be procured.—I am, etc., M.D.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Wolfe, Glasgow; Dr. Parsons, Dover; Dr. Wyckoff, Brooklyn; Dr. Stevenson, London; Mr. R. Slade, Puddletown; Mr. E. H. Rose, Patricroft; L.R.C.P.; Dr. Rabagliati, Bradford; Dr. Duncan J. Mackenzie, Glossop; Dr. Ashby, Manchester; Dr. Thomas, Swansea; Dr. J. K. Spender, Bath; Our Aberdeen Correspondent; Dr. Barnes, Carlisle; Dr. Ward Cousins, Southsea; Mr. C. R. Crane, London; Mr. Nettleship, London; Dr. S. Rees-Philipps, Exeter; Mr. Watson Cheyne, London; Dr. Clement Godson, London; Dr. R. Liveing, London; Mr. G. Cowell, London; Mr. A. E. Durham, London; Dr. R. Cory, London; Dr. Charlton Bastian, London; Dr. H. Simpson, Manchester; Mr. W. Whitehead, Manchester; Dr. Glynn, Liverpool; Dr. Dreschfeld, Manchester; Dr. Grainger Stewart, Edinburgh; Mr. W. H. Platt, London; Dr. A. Davidson, Liverpool; Dr. H. Kelly, Taunton; Dr. Herbert Vachell, Cardiff; Dr. L. Atthill, Dublin; Dr. J. S. Bristowe, London; Dr. William Murrell, London; Mr. Malcolm Morris, London; Dr. Eddison, Leeds; Mr. Bartleet, Birmingham; Dr. Braidwood, Liverpool; Dr. Macnaughton Jones, Cork; Mr. Shirley Murphy, London; Dr. U. Pritchard, London; Mr. John Croft, London; Dr. Duffey, Dublin; Mr. W. B. Dalby, London; Dr. McCall Anderson, Glasgow; Mr. Paul Swain, Plymouth; Mr. J. N. Porter, London; Dr. A. H. Jacob, Dublin; Mr. A. Newbold, Rhyl; Dr. T. Churton, Leeds; Mr. W. D. Newton, Exeter; Qui merui palmam ferat; Mr. S. D. Wells, Haslar; Mr. W. H. Browne, Hull; Mr. H. M. Kennedy, Penrith; Mr. W. Arnison Slater, London; Dr. Broadbent, London; Mr. W. Black, Manchester; Dr. G. W. Potter, London; An Old Hospital Student; Mr. R. H. Nicholson, London; Dr. W. A. Brailey, London; Dr. C. Harrison, Lincoln; Mr. G. Stanger, Nottingham; Dr. W. Clibborn, Birmingham; Dr. Joseph Coats, Glasgow; Dr. Clement Dukes, Rugby; Mr. H. Lewis Jones, London; Dr. John Alexander, Glasgow; Dr. J. Lynham, Galway; Dr. Latham, Cambridge; etc.

BOOKS, ETC., RECEIVED.

A Practical Treatise on Hernia. By J. W. Warren, M.D. Second and Revised Edition, fully Illustrated. London: Sampson Low and Co. 1881.

The Wild Garden. By W. Robinson, F.L.S. London: Garden Office. 1881.

Kinetic Jottings, with Remarks. By Professor A. Georgii. London: H. Renshaw. 1881.

An Index of Surgery. By C. B. Keetley, F.R.C.S. London: Smith, Elder, and Co. 1881.

Monaco, the Beauty-Spot of the Riviera. By Dr. T. H. Pickering. London: Fleet Street Printing Works. 1881.

Good Things. Leeds: Goodall, Backhouse, and Co. 1881.

Ophthalmic and Otic Memoranda. By D. B. St. John Roosa, M.D. London: Trübner and Co. 1881.

Cutaneous and Venereal Memoranda. By H. G. Piffard. London: Trübner and Co. 1881.

Eczema, and its Management. By L. D. Bulkley, M.D. London: J. and A. Churchill. 1881.

Transactions of the Clinical Society. London: Longmans, Green, and Co. 1881.

Outlines of Naval Hygiene. By J. D. Macdonald, M.D. London: Smith, Elder and Co. 1881.

A Digest of the Law relating to Public Health. By G. F. Chambers, F.R.A.S. London: Stevens and Sons. 1881.

Thirty-Ninth Report to the Legislature of Massachusetts for the year ending December 31st, 1880. Boston. 1881.

Convalescent Cookery. By Catherine Ryan. London: Chatto and Windus. 1881.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,,	20 ,,
,, 26 ,,	25 ,,
,, 52 ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

the tube, becomes saturated with



with cotton-wool saturated with
drawn on into a second chambe
By this means the vapour inhale
If desired, other medicaments ca
vapours by adding them to the w
—*The Lancet* Reports.

A great advantage of this inh
catarrh, but that after its use the
of the weather than before, the c
inhalers. It is not necessary, th
in respect to exposure or chan
"Burroughs" apparatus. Pric

To the best of our knowledg
perfect purity of the combined
passage of either acid or alk
thereby greatly impair the ben

"THE BURROUGHS INHAI
for inhaling chloride of amm
ammonium is brought in n
surfaces of the passages of th
of inhaler."—*The Medical P.*

"The Burroughs Inhaler
ammonium contains three se
one for the acid, and one for
is perfectly neutral, and c
perties. The third, or wate
that in it other medicaments
combined with the sal-amm
trivance, and laryngologists
Specialist Report.

REPORTS UPON THE EXTRAC

By the Highest

"KEPLER EXTRACT OF MALT
in our columns; it is a well-made
improved Extract of Malt has now be
this country, where malt extracts a
favourably spoken of by physicians b
digestive properties, and as being
prepared at a very low temperature, i
its flavour spoiled in the preparatior
enjoyed a very considerable reputatio
America; and it is probable that,
more familiar with them, they will, t
place of animal oils, such as cod-liver
borne by the stomach, and which it
Combined with cod-liver oil, Malt
nutritive powers of the oil and to rend
can recommend the Kepler Extract
quality indeed."—*The British Medica*

"The best known, and in this cou
malt. Kepler's Extract of Malt is a
peutics as was the introduction of cod
remedies for atonic dyspepsia, and is
tion and other wasting diseases. Kep
and may be used with confidence."

"Kepler Malt Extract, the sterling
for it very general employment by the
have on more than one occasion drawn
perties of Malt Extracts. Their great

:OD-LIVER OIL COMBINED

T OF MALT.

t. Extract of Malt.)

itable combination of the finest
Kepler" Extract of Malt. The
rm so thoroughly disguised as to
te and fastidious taste.

lated.

in nitrogenous elements, or flesh-
o-hydrates, or fat-producers, this
ı the highest degree, and its use is
:rease in strength and weight.

t an oil in an emulsified form pos-
simple oil. In many cases of
m just as taken, and *en masse*.
oil is wasted, and the digestion
assimilate the oil.

:ard event is all but impossible.
nulsifying process by which the
n each other, so as to be readily
:stions a fat already emulsionised
stem is unequal to dealing with
.f Cod-liver Oil the emulsifying
:les, as water, sugar, and gum,
th Extract of Malt this lessen-

he highest medical authorities
able to Cod-liver Oil in medi-
agent for Cod-liver Oil, the
at the same time rendering it

ıe opinion that greater bene-
:s of the 'Kepler' Emulsion
ı from twenty-five pounds of
ɜ than this, in cases of weak
o aggravate, but which the
e Extract of Malt being a

Cod-liver Oil, is the most
ɜ have yet seen for adminis-
ınd Circular Report.
uised. Its nutritive powers
ısy of digestion."—*The Bri-*

d-liver Oil also deserves praise.
of Cod-liver Oil, but to a degree
ıably will find any difficulty either
lical Times and Gazette Report.
eeable taste of the Oil. Many could
Oil."—*The Lancet* Report.

ntioned in these Notes and Reports
Dispensing Chemists and Wholesale
ırld, or from the European Depôt of
7, Snow-hill, London, E.C. The
ır Australia: Felton, Grimwade, and
s, Sydney and Brisbane. New Zea-
Co., Dunedin, Auckland, Wellington,
: B. G. Lennon and Co., Port Eliza-
Reinet; E. W. Wells, Grahamstown;
India: Bathgate and Co., Calcutta;
. Also may be obtained in Greece
Italy, from N. Siminberghi, Rome;
Venice; Groves or Roberts and Co.,
·der and Co., Vienna. In Hungary,
In Germany, from Gehe and Co.,
lacre, or Delchevalerie, Brussels In
penhagen. In Holland, from A. W.
ce, ftom Roberts and Co.; Swann,
ɜ Pharmaciens. In Switzerland, from
a. Trial specimens will be presented
ın request, and, if for foreign countries,
any shipping agent in London. In
ı that you saw these notes in this

REMARKS
ON
THE TREATMENT OF GUNSHOT-WOUNDS OF THE ABDOMEN IN RELATION TO MODERN PERITONEAL SURGERY.*

By J. MARION SIMS, M.D., LL.D., ETC.

THE death of President Garfield by the assassin's bullet has excited an intense interest in the public mind, throughout the civilised world, in the subject of gunshot-wounds. It was at first supposed that the ball had perforated the liver and traversed the peritoneal cavity; but, as death did not occur in two or three days, it was then thought that it had been deflected down behind the peritoneum in the right iliac fossa. The *post mortem* examination alone revealed the true course and position of the missile. The wound was, then, not one of the peritoneal cavity; it was a flesh-and-bone wound, as much so as if the ball had perforated the thigh and shattered the femur. The President's case is, therefore, excluded from consideration here, as I propose to speak only of shot-wounds involving the peritoneum. Besides, I have elsewhere (*North American Review*, December 1881) given my opinion of the President's wound and its treatment.

The great military surgeons of the day have long felt dissatisfied with the do-nothing system of treating shot-wounds of the abdomen. Longmore and Legouest, Langenbeck and Nussbaum, and, in our own country, Gross and Woodward, Otis, McGuire, and others, have all plainly indicated by their writings the probable future treatment of such wounds.

Does the recent progress of peritoneal surgery lead to a better treatment of gunshot-wounds of the abdomen? is the pressing question of the day, and must be solved sooner or later.

Ovariotomy is the parent of peritoneal surgery. It is based on certain fixed principles, essential to success, which do not belong to it alone, and cannot be monopolised by it. They belong to all operations involving the peritoneum, and to all organs contained in its cavity; and the governing principles of the one must govern all operations of the other.

Peritoneal surgery is a new domain, just opened to the profession at large by a few bold pioneers, who, in science as in the physical world, go before and blaze the way for us to follow and take possession.

The principles essential to success, which guide us in all these operations, were neatly formulated by Mr. Spencer Wells at the meeting of the late International Medical Congress. They are:

1. All hæmorrhages must be promptly controlled by pressure, ligature, or hæmostatic forceps. This principle is common to all operations.

2. The peritoneal cavity must be thoroughly cleaned after operation, and before the abdominal incision is closed. This is the great lesson taught by Thomas Keith, and followed by all successful operators.

3. The abdominal incision, usually in the middle line, must be properly closed.

Twenty years ago, Spencer Wells performed some experiments on the lower animals to prove the importance of uniting the divided edges of the peritoneum at the time of uniting the edges of the parietal section; and, as the propriety of this had lately been questioned, he thought it worth while to bring his pathological specimens from the Museum of the College of Surgeons before the late International Medical Congress, to demonstrate anew the great truth, long ago fully proven. But, independently of Spencer Wells's timely philosophic experiments on the lower animals, we have the best reasons, clinically, why we should always reunite the severed edges of the peritoneum. If the edges of the peritoneum are not embraced in the sutures that close the abdominal section, a raw surface is left on the inner face of the wound, which immediately adheres to the subjacent parts. If it happens to adhere to the omentum, well and good; but if to intestine, the result may or may not be fortunate. For, if the adherent intestine happen to be convoluted in such way as to obstruct the bowel, a fatal result may follow; and we cannot afford to risk the possibility of such accidents. Hence the necessity of uniting the divided edges of the peritoneum. Clinical experience furnishes still another argument why we should always unite the divided edges of the peritoneum. I have seen three cases in which the edges of the peritoneum were firmly united, while the parietal wound gaped widely open. Thus, if the peritoneum had not been closed, there would have been no union whatever in the line of abdominal incision.

There is another principle in peritoneal surgery which is still *sub judice*, and that is—

4. Drainage or no drainage. Chassaignac was the first to demonstrate the importance of drainage in general surgery, and no one now pretends to dispute its value. He was the first to point out the source and dangers of septicæmia and pyæmia, and at the same to designate a preventive in his *tubes à drainage*.

The precepts and practice of Chassaignac are now accepted and acted upon every day and everywhere, but the name of this great French surgeon seems, for the moment, to be forgotten in this relation. In general surgery, complete drainage is essential to successful results. We cannot now dispense with it, whether we use antiseptics or not. If, then, drainage is so important in general surgery, why should we be so much afraid of it in peritoneal surgery? There is no special danger in introducing a glass drainage-tube into the peritoneal cavity at the lower end of the abdominal incision; for it immediately becomes sacculated, and thus nature protects the peritoneum against the presence of a foreign body in its cavity. If there be no bloody serum to drain off, the tube can be removed in a few hours; but if there be any serum, it soon makes its appearance at the surface, and is readily absorbed by sponges placed to receive it.

The drainage-tube is now wholly excluded by Spencer Wells, Thornton, and many others, on the theory that Listerism renders the peritoneal effusion aseptic, and therefore that its absorption will not be attended with danger. But is this always so? In my early operations I occasionally saw cases where the accidental discharge of bloody serum through the external wound gave prompt relief of urgent symptoms, and led to speedy cure. All other operators have had a like experience. With me, these were before antiseptics and drainage-tubes. But even now, under the best antiseptic precautions, are not such cases met with occasionally?

In December 1878 I assisted my friend Mr. Spencer Wells with an ovariotomy in the suburbs of London. The case was a very bad one. Knowing full well its difficulties and dangers, he had wisely procrastinated the operation to the latest moment compatible with safety to his patient. Adhesions in the bottom of the pelvis were universal and very strong, and it was difficult to arrest the exudation of blood. When the external wound was being closed, Mr. Wells saw that there was some exudation still going on; but, thinking that Listerism had rendered it aseptic, he had no fears for the result. The patient did well for about thirty-six hours, when she became rapidly septicæmic, and fears were naturally felt for her safety. Fortunately, just at this juncture, bloody serum was found exuding from the lower angle of the wound. Mr. Wells then removed some of the sutures, and opened the wound a little; there was a free discharge of septic fluid, and the patient made a rapid recovery.

Now, I do not pretend to say that this patient would necessarily have died, if nature had not so unerringly pointed out the method of immediate relief to urgent symptoms. She might possibly have safely eliminated all this septic fluid; and then, again, she might not. But of this I am sure: if the drainage-tube had been used at first, the poisonous bloody serum would have been drained off as it was extravasated, and there would not have been the least cause of alarm for the safety of the patient.

The only valid objection that can be urged against the drainage-tube in abdominal surgery is, not in its immediate danger, but in its ultimate tendency to develop ventral hernia. And this is a serious objection, which we, who advocate its use, must learn to obviate. This is a problem to be worked out, and I am sure it can and will be done. But till then it is better, in doubtful cases, to risk the production of ventral hernia, with all its inconveniences, than to risk the life of the patient.

So much for principles of treatment governing all important peritoneal operations. Now let us see what has already been accomplished in this department of surgery in the last ten years, and then we can determine with greater certainty what we may reasonably expect in the next.

A review of this sort may be irksome for some of you, but, as my argument depends wholly upon what has already been done with such wondrous success in the domain of peritoneal surgery, I must be allowed to state the premises from which my conclusions are drawn.

Extirpation of the uterus for bleeding fibroids was a legitimate [illegible] surgery. At first, it was done by accident, then intentionally. The early operations were not successful; but now, Kaberle and Péan on the Continent, and Spencer Wells and Thomas Keith in

* Read before the New York Academy of Medicine, October [illegible], 1881.

England, can boast of magnificent results; and already it is an accepted operation in properly selected cases. Péan's peculiar method of operating is by removing portions of the tumour, *morcellement* (as he terms it), till it is small enough to be easily turned out of the abdominal cavity. He then makes a pedicle of the cervix, and secures it in the lower angle of the abdominal incision, as we formerly did with the pedicle in ovariotomy.

The late Dr. Wright of Cincinnati, the most successful operator in our country, tied the broad ligaments separately, amputated the uterus, then scooped out the cervix funnel-shaped, and brought together the opposing surfaces antero-posteriorly, united them by suture, and dropped the stump back into the peritoneal cavity, and closed the wound. Thus the amputated cervix was covered over with peritoneum, which protected the viscera against the dangers of adhesion to a raw cut surface.

Schröder of Berlin does the same, not knowing he had been preceded by our countryman, Dr. Wright.

And now comes Zwann of Holland (International Medical Congress), who greatly modifies Péan's method of operation. He makes the abdominal incision large enough to draw the tumour out of the cavity at once. After this, he then rapidly introduces three or four temporary sutures, closing the incision sufficiently to prevent the prolapse of the intestines. He next encircles the pedicle with a strong elastic cord, on the principle of Esmarch's bloodless method. He then amputates the tumour just above the cord, and finishes the operation, as Péan does, by transfixing the pedicle antero-posteriorly, securing the ligatures one on each side, and bringing it out at the lower angle of the wound and fixing it there. After this, the abdominal incision is neatly brought together by sutures. The advantages claimed by Zwann are: 1. Facility of operating; 2. Protection of abdominal organs against sudden chill; 3. Prevention of prolapse of intestines; 4. Bloodlessness of operation.

One of the most important advances in peritoneal surgery in connection with bleeding uterine fibroids is Battey's operation to bring about the menopause. It is likely to be substituted entirely for the more formidable operation of extirpation. It is less dangerous; it promptly arrests the bleeding. The fibroid growth begins immediately to decrease, and in some instances it has wholly disappeared.

Freund's operation of extirpating a cancerous uterus by abdomino-vaginal section has not fulfilled the expectations of its author.

Spencer Wells has recently performed successfully a Freund-Porro operation, extirpating a pregnant uterus at the sixth month, in which the cervix was cancerous (BRITISH MEDICAL JOURNAL, October 29th, 1881).

Bantock has also lately extirpated with success a cancerous uterus by Freund's method. These gentlemen have greatly simplified the operation (*ib.*, November 12th, 1881).

Half a century ago, or more, Blundell suggested the removal of the cancerous uterus by the vagina, and performed the operation. The Blundell vaginal operation has recently been performed successfully by Professor Beverly Cole of San Francisco. He separated the cervix uteri from its attachments with a Paquelin cautery, pulled down the uterus, secured the broad ligaments, and removed the uterus by a comparatively bloodless operation.

Dr. Lane of San Francisco, late Professor of Surgery in the University of the Pacific, has performed this operation successfully. So has Dr. Clinton Cushing of San Francisco. Thus we see Blundell's operation for extirpating the uterus through the vagina has so far been monopolised by the surgeons of San Francisco.

Extirpation of the spleen cannot be claimed as an offshoot of ovariotomy. According to statistics worked up by the late Dr. Otis of the Army Medical Museum, Washington (*Medical and Surgical History of the War*, etc., part second, surgical volume, page 152), the spleen has been extirpated between 1549 and 1849, sixteen times with but one death; and, between 1849 and 1869, ten times with five deaths. The deaths were from hæmorrhage, immediate or secondary.

Splenotomy has lately been done by Péan, Spencer Wells, Martin (of Berlin), and others. I assisted at Spencer Wells's last operation. The patient died of secondary hæmorrhage. The spleen weighed ten pounds, and there were three pounds of blood in the peritoneal cavity. In this operation, it is important to tie the pedicle in segments, to guard against the possible slipping of the ligature.

Extirpation of the kidney by the lumbar region has been often done successfully. Martin (of Berlin) has removed the kidney six times by abdominal section, with four recoveries. The operation has been done by others.

[*To be continued.*]

MEDICAL MAGISTRATE.—Dr. Leeper has been appointed a justice of the peace for Fermanagh County.

OBSERVATIONS
ON
EXCISION OF THE KNEE IN EARLY LIFE.

BY WILLIAM STOKES, M.D.,
Professor of Surgery, Royal College of Surgeons, Ireland.

IN a contribution to Operative Surgery, published by me in the *Dublin Medical Journal* some years ago, in which special attention was directed to the operation of resection of the knee-joint, I mentioned that the procedure was one which all reflecting surgeons must admit to be still *sub judice*. The statistics of this operation then quoted went far to justify this remark; so unfavourable were they, that some surgeons of ability and experience went so far as to advocate an abandonment of the operation altogether. Though there are few, if any, who would go so far as this in the direction of complete abandonment, yet still surgical opinion is in a curiously unsettled condition in reference to the merits of the procedure. In illustration of this, I may mention the opinion of one or two authorities of eminence who have recently written ably on this subject. Mr. Holmes maintains that "excision of the knee is one of the indispensable resources of surgery, and is useful in all three classes of cases—viz., in those where otherwise amputation would be indicated; in those where expectant treatment might succeed, but is dubious; and in cases of vicious ankylosis". Mr. C. Macnamara, on the other hand, is of opinion that "excision of the knee will year by year become less frequent in our hospitals". Mr. Mac Cormac has stated truly that there is no operation "about which controversy has more hotly raged". In Germany, also, the same wide difference of opinion in reference to the merits of resection is observed. Recently, Kœnig, of Göttingen, has stated, at the congress of German surgeons in Berlin, in a communication on Early Excision in Tuberculous Disease of the Joints, that it was only when the general condition of the patient was seriously implicated, or when there was any danger of the occurrence of this, that resection should be done. I am glad, however, to observe that a doctrine so questionable did not meet with general acceptance; Dr. Hüter in particular, a surgeon of well-deserved repute, attaching a much higher value to the functional results of resection in such cases than the author of the paper did.*

These opposite views, I think, fairly represent the existing state of surgical opinion on this important topic. I cannot think, with Mr. Holmes, that the operation should ever be regarded in the light of a substitute for amputation, as the indications for the latter should never be those for the former. In other words, if the injury or disease be of such a nature as to indicate amputation, resection should hardly be contemplated. As regards, however, the question of adopting the operation as a substitute for any less formidable method of procedure, including expectant treatment, the comparative merits of these can, I think, fairly be contrasted. Doubtless, if cases in which ultimately resection may be indicated are obtained at a sufficiently early stage of the development of the disease, and expectant treatment can be efficiently carried out, a limb as useful, and an ankylosis as firm, may at times possibly be obtained in after-resection. The unfrequency of the operation among the wealthier classes must, to a great extent, be attributed to the fact that, in dealing with them, the joint-disease comes under observation at an early stage of its development, and so much more facility in carrying out expectant treatment exists; though I have no doubt that even among them many a limb has been sacrificed to a too exclusive reliance on a surgical inactivity which at times is the reverse of masterly. Among the poorer classes there are several reasons why expectancy, if I may use such a term, is impossible, or almost so. Among them may be mentioned the difficulty of keeping patients a sufficient length of time in hospital; the want of confidence that is observed among the poorer classes of patients in any course or plan of treatment, the effects of which are not soon apparent or tangible; and, lastly, that surgical advice is, as a rule, seldom sought for until the disease, whether it be in the bone or in the soft structures, is firmly established in the joint. In truth, we do not, as a rule, see the case until the line is passed that separates the stage where absolute rest, brought about by fixing the limb with gypsum, silicate of potash, starch or paraffin bandages, leather or poroplaster splints, or some other of the many recently introduced methods, all of more or less efficiency, combined with generous diet and general antistrumous treatment, may be of service in bringing about a cure. In fact, in the vast majority of cases we find the disease, not in an incipient stage, but having already taken

* *London Medical Record*, June 15th, 1881.

a firm and secure grip on the joint. What is the usual history of such cases? The mother observes that her child limps, and that there is a little "swelling" on the inside of one of the knees. At first she thinks there is nothing serious in it, there being "no delicacy in her family". After two or three weeks a neighbour probably is spoken to about it, who perhaps recommends a bread-and-water poultice, and comforts the mother by assuring her that the child will "grow out of it"—an opinion, I am sorry to say, which I have known on more than one occasion to be endorsed by medical opinion. Another neighbour recommends linseed-meal, while a third has heard that "sea-wrack" poultices are certain to succeed. Thus precious time is lost, and, after six or eight weeks of this ever-varying and useless treatment, the mother, finding the child growing worse, brings her to the district dispensary. Here the medical officer probably recommends rest, cod-liver oil, iodide of iron, blisters, or iodine, etc. But, in the present constitution of our Poor-law system, no means exist for efficiently carrying out any such line of treatment; and, if they did exist, it is very doubtful if they would be availed of by the classes that seek for dispensary relief. The child, becoming steadily worse, is finally brought to one of our metropolitan hospitals; and if Mr. A., the surgeon, who properly diagnoses gelatinous pulpy thickening of the synovial membrane, with probably ulceration of cartilage and condylar osteitis, be a believer in, and advocate of, the so-called expectant treatment, what then probably takes place? The child is admitted, and leather or poroplastic splints are carefully fitted, or a gypsum or starched bandage, or some other mode of rigidly fixing the limb, is applied. Moderate extension, perhaps, is also advised, and the usual antistrumous remedies are given internally. Things go on fairly well for perhaps two or three months, and then the patient's friends begin to be dissatisfied that the child is not yet up and about, and one of them has heard that Mr. B., another metropolitan surgeon, has frequently cured much worse cases in a fortnight. At once the idea seizes hold of the mother that she has made a mistake in taking her child to Mr. A., and the patient is soon transferred to another surgeon and another hospital. In this way one method of treatment after another is tried, and found to be ineffectual; the case goes on from bad to worse, until ultimately the last resource of amputation is arrived at. This account is no exaggerated and varnished tale, but a plain and truthful statement of what I have learned from my own experience to occur in a large proportion of cases that have come under my observation.

The condition which, in my experience, constitutes the majority of cases that lead eventually to the necessity for knee-resection in early life, is that to which the terms granular, gelatinous, or pulpy thickening of the synovial membrane, have been respectively applied. This condition, as a rule, is a sequela of either an injury or a low form of inflammation, one which comes on without any assignable cause, and is the visible sign or outcome of that to which, for want of a better term, we designate a strumous, scrofulous, or tuberculous diathesis. It was this disease that the older surgical writers looked upon—and, I think, with much reason—as incurable. Cases—which, however, are few and far between—have been recorded by Brodie and others in which recovery has been alleged to have taken place under the combined use of rest, pressure, and general "expectant" treatment. I think it doubtful, however, that such cases were true examples of the strumous form of pulpy degeneration, but that they were probably those in which the change in the serous membrane occurred as the result of acute or chronic traumatic synovial inflammation. I have had unusually large opportunities of studying the strumous form of this disease among the ill-clad and ill-nourished poor that seek relief at the hospital to which I am attached; and my conviction and belief is that this form of synovial degeneration, once fairly established, is not amenable to any form of expectant treatment, but is, in fact, the first act of a drama, the tragical termination of which is, as a rule, destruction of the joint.

When, in the essentially strumous form of the disease, the morbid action has advanced much beyond the synovial limit, and extensively engaged the other soft structures of the joint, and caries perhaps is also present, then the chances of success after resection, especially if the patient be anæmic and badly nourished, are largely diminished. The wound may heal without suppuration (thanks mainly to antiseptic after-treatment), the patient may leave the hospital, and the case be looked upon as a successful result; yet I have seen instances in which, eight, ten, or twelve months after the operation, there was distinct evidence of a return of the carious disease, indicated by abscess-formations and sinuses leading down to softened denuded bone—a condition which soon indicates amputation. This course of events I have not witnessed when the operation was undertaken at an early stage of the development of the disease.

The question was recently the subject of an interesting discussion at the Berlin Congress, as to whether there is evidence of articular tuberculous disease being either a primary or secondary phenomenon, the outcome of a dyscrasia; in other words, whether tuberculosis, more particularly as regards its articular manifestations, is primarily local, but, as shown by Klebs, transmissible, and capable of producing, like cancer or syphilis, a general infection, is still a mooted and much-debated point. The latter view I am disposed to accept, and do so mainly from a clinical standpoint. The practical bearing and importance of determining the truth of this contention is obvious; for, assuming that the localisation theory be correct, then there is little that can be said against the early-resection aspect of the question, and removal of the joint before there is time for any of the secondary phenomena to develope themselves, is perhaps, even among the classes in which expectant treatment can be efficiently carried out, the best course that can be adopted for the patient.

Opponents to this operation, performed for the removal of the strumous form of gelatinous pulpy thickening, hold the opinion that the treatment by incision, injection, and drainage, fulfils all the requirements of resection, and is devoid of its risks. From this view I feel bound to express my unqualified dissent. The constitutional risks of a suppurative inflammation of the knee-joint, or of any large articulation, are only too well known to every practical surgeon to require proof to be given on my part; and, assuming that the patient resists the dangers attending this procedure, is his condition a better one than it would have been had a resection been performed? I think not. The object in both cases is to get a firm viscous or fibrous ankylosis; but what has the patient to go through before this is obtained, after the treatment by incision and injection? All the immediate and remote dangers of protracted suppuration; then necrosis and separation of the articular cartilages; and, lastly, the very protracted process of gradual fixation or ankylosis—circumstances that cannot be regarded as trivial in dealing with the class of patients whose cases suggest the adoption of such treatment, and who are, as a rule, delicate, ill-nourished, anæmic, and debilitated by previous long confinement and protracted suffering.

In addition to the alleged risks of the operation, it has been stated as an objection, that the limb after excision is always more or less atrophied, short, and often deformed. This view does not coincide with my experience or with that of my colleagues. I have quite recently had an opportunity of seeing three children on whom I performed resection, and in two of them there was hardly any perceptible shortening, and in none of them was there any atrophy or deformity. I believe the explanation of this to be that, the cases having been operated on at an early stage of the development of the disease, only a very thin slice of the articular ends of the bones was removed, and the osteogenetic function of the epiphyses, therefore, practically uninterfered with. In none of these three cases, nor in any of the examples that have suggested these remarks, have I seen either atrophy or deformity. These two latter conditions were doubtless often seen formerly, and can easily be accounted for by the essentially faulty method of after-treatment that was adopted—one not yet altogether abandoned, but adhered to by a few wilful practitioners with an obstinacy that is singular but not instructive. The continuance of a septic system of wound-dressing, and keeping the limb in a clumsy wooden box—soon a nidus for vermin and filth of every description—for months, and without any efficient means of keeping it fixed and immovable, would of themselves be sufficient, indirectly at all events, to bring about these unhappy results, the frequent occurrence of which formerly has doubtless done much to bring the operation into an ill-deserved disrepute. I have a painful but vivid recollection of the dressing of cases of excision of the knee during my pupilage, and in the early years of my hospital career. On opening the box, the limb was found in a bath of pus, the lining-pads soaked with it, and the air about the patient filled with the sickening stench that ever attends large purulent collections. Then the saturated limb, and wadding, and greasy dressings, and all the other antique paraphernalia of ignorance, prejudice, or both, were removed, to be immediately replaced by similar dressings. This process used for a long time to be of daily occurrence, one always attended with trouble and anxiety to the surgeon, with pain, physical and mental irritation to the patient, and always with disturbance to the limb, and necessary retardation to the process of union. My colleague, Dr. Corley, has informed me that he remembers a case that occurred while he was a student, in which the after-treatment—one similar to what I have above described—extended over a period of sixteen months. In truth, all the recommendations and teachings of twenty years ago are found to be faulty. Instead of an extensive H-shaped incision, we adopt a single semilunar one. For making the bone-sections, the so-called [illegible] has been superseded by a small-bladed resection one, by which a perfectly plane surface [illegible] can much more easily be made. Instead of a [illegible] we use a gypsum bandage of the [illegible] construction; and, instead of dressings of lint and grease, we avail ourselves of the phenol dressings of Lister, one of

the greatest boons to surgery that this century has produced, if not the greatest.

I have spoken of the daily dressings of these cases that were formerly necessary. What is now the case? I find that three or four dressings are, in the great majority of cases, sufficient during the healing of the wound. In one of my last cases, two dressings would have been sufficient; for, on dressing it the third time, I found, not only everything perfectly aseptic, but the wound healed, and I regretted much that I subjected the patient to an unnecessary disturbance. In truth, there is no such test-case for illustrating the value of antiseptic surgery as excision of the knee-joint. It is much more so than ovariotomy, or any of the other operations connected with abdominal surgery.

There are many circumstances which militate against immediate union being obtained after a resection of the knee. In the first place, the cases requiring so formidable an operation are, as a rule, in a condition of great physical exhaustion consequent on long confinement, and probably protracted suffering, of both mind and body. The wound that is made is of necessity large; the operation, when done with the necessary care, occupies a considerable time. Two large freshly cut bone-surfaces are made, between which union is to take place; and, lastly, there is the great difficulty of keeping, no matter what appliance be adopted, the limb absolutely at rest during the process of union. As a proof of the great difficulty of getting ready union that used to be experienced, I may mention that formerly six, eight, ten months, or even longer, elapsed before union used to take place; and consultations frequently occurred, previously to operation, as to whether the patient would have strength to endure so protracted a suppuration. Now, as a proof that matters are completely revolutionised in this respect, I may mention that, in eight out of these twelve cases of knee-joint resection, union took place without the formation of a single drop of pus. Doubtless we now know better how to produce immobility of the limb during the process of union—a factor of an importance only second to antisepticism in promoting rapid, firm, and efficient union in these cases. Any movements between the freshly divided bone-surfaces, even though unattended with pain, or any obvious inconvenience to the patient, are, in truth, of serious moment. "By displacing," as Mr. Coppinger has observed, "and wounding the newly formed tissue by which repair is accomplished, they directly interfere with the reparative process itself; while, secondly, they favour the absorption of septic material by causing ruptures of the delicate granulation-films, to which Mr. Savory has prominently alluded, and on which so much depends as a material safeguard against infection". My experience quite coincides with his, that it is impossible to exaggerate the injurious effects in some manner produced by even slight movements of the bones, or displacement of the deeper portions of the wound.

The value of perfect fixation in promoting primary union is well exemplified, as Lister has pointed out, in the operations for hare-lip and in breast-excisions. On the other hand, in operations in which it is impossible to get perfect immobility, such as excision of the hip-joint, I have never seen primary union, nor am I aware of any case in which it has been obtained.

The method of fixation of the limb adopted in the Richmond Hospital is a modification of that of Dr. P. H. Watson, and it appears to me to fulfil, as perfectly as need be, all the required conditions. I may mention that the suppuration is not applied usually until some hours after the operation, when all oozing has subsided. An antiseptic bandage having been applied to the leg first and subsequently to the thigh, two metallic splints, made of common hoop-iron, are applied on the anterior and posterior surfaces of the limb, and then are fixed, first on the leg and subsequently on the thigh, by gypsum bandages applied in the ordinary manner, care being taken to leave the portion of the limb near the situation of the wound open, so as to allow the application of antiseptic dressings without any disturbance of the limb. I consider this method of fixing the limb far superior to any others with which I am acquainted, and it has the merits of cheapness, simplicity, and thorough efficiency. An objection has been made to the use of gypsum, on the ground of its liability to become softened by the action of the spray during the dressing of the wound. If, however, ready union take place, and the wound remain aseptic, the dressings will be so few in number that no apprehension need be felt in reference to the alleged probabilities of softening. If, on the other hand, frequent dressings be required, then it is quite easy to protect the apparatus by painting over the portion of it in the neighbourhood of the wound a solution of dammar resin in ether, or, what is perhaps more available and equally efficacious, paraffin.

There is an accident that has happened in connection with two or three of my cases of resection which, when it has occurred, has at the time been a source of much anxiety to me. I allude to hæmorrhage, not at the time of the operation, but, as a rule, some hours subsequent to it. This has, in all the cases in which it occurred, necessitated reopening the wound. The hæmorrhage in all my cases I found not to come from any vessels capable of ligation or torsion, but from the freshly divided surfaces of the bones, which, previously to and at the time of the operation, were in a very hyperæmic condition. The method I adopted for checking the bleeding was to place a pledget of lint, soaked in a solution of chloride of zinc, between the bones for some minutes. The reopening of the wound, and application of the chloride of zinc compress, was done always under spray and all other antiseptic precautions; and no subsequent trouble was experienced, nor was the asepticity of the wound interfered with. The accident, though it can scarcely be placed among the "surgical calamities"—to use an expression of Sir James Paget—is certainly one which must ever be a source of grave trouble to the surgeon, and of possible danger to the patient. For some time, I have thought that the hæmorrhage was a reactionary one, and connected with, and to a great extent depending on, the application of Esmarch's bandage. Mr. Teale of Leeds has recently informed me that the accident has occurred on more than one occasion in his hands; and so convinced is he and his colleagues that it depends largely on the use of the elastic bandage, that in resections of the knee-joint it has been altogether abandoned in the Leeds Infirmary.

From the preceding remarks, the following propositions may I think be laid down.

1. Excision of the knee should not be looked upon as a last resource, but should be undertaken, if possible, before any profound organic changes take place.
2. Expectant treatment, to be efficient, must be undertaken at an early stage of the disease, and extend over a period of at least two years.
3. No better result than ankylosis can be looked for by this method.
4. In a patient with a predisposition to secondary tuberculous developments, the possibility of the recurrence of the disease after expectant treatment must be borne in mind.
5. In cases attended with prolonged suppuration, the chances of the occurrence of visceral, especially renal disease, must not be lost sight of.
6. Where the skin is unbroken, the disease limited, an efficient method of fixation applied, and a rigid system of antiseptic dressing of the wound adopted, primary union may, in the majority of cases, be anticipated.
7. When these latter conditions are fulfilled, excision of the knee-joint cannot be longer regarded as the formidable procedure it was formerly held to be.
8. The alleged unfavourable results of excision of the knee-joint in early life are opposed to more extended clinical experience.

A CASE OF SCIATIC NERVE-STRETCHING IN LOCOMOTOR ATAXY: WITH REMARKS ON THE OPERATION.

By JOHN CAVAFY, M.D., F.R.C.P.,
Assistant-Physician to St. George's Hospital.

THE ordinary medical treatment of locomotor ataxy is so unsatisfactory, and the prospect of even temporary benefit is so problematical, that any novel therapeutical method which holds out to us some reasonable hope of improvement is worthy of careful consideration and trial. Among the well-known symptoms of the disease are the so-called "lightning-pains"; these are often sufficiently severe to cause great suffering, and have demanded for their palliation the administration of anodynes, especially the subcutaneous injection of morphia. Although we may by this means control them in great measure, and render the patient's life more endurable, the necessity of constantly increasing the dose, and the establishment of the opium-habit with all its attendant miseries, constitute grave objections, and may even do more harm than good in some cases.

The operation of stretching large nerve-trunks is free from these objections, and has proved so efficacious in neuralgia that it was *primâ facie* probable that the pains of ataxy would also yield to this procedure. Accordingly, a little more than two years ago, Langenbuch of Berlin operated in this manner on a patient in whom the pains of ataxy were of great severity, and found, as he had anticipated, that the pains were abolished by the operation; but he also found, to his great surprise, that the characteristic ataxic movements of the lower extremities had disappeared. It is open to considerable doubt whether this first case was really one of locomotor ataxy; but the operation has since been performed several times on undoubted cases, and with results which have

been in some measure beneficial in the majority. I shall presently refer to the various published cases; but, before doing so, I will give a short account of a patient under my own care on whom the operation was done.

John A., aged 48, a clerk, was admitted into St. George's Hospital on December 29th, 1880, under Dr. Barclay, who was kind enough to transfer him to me. *Family History.* His father died at the age of 60; his mother, aged 45, of "decline"; and four brothers of consumption. *Personal History.* The patient had rheumatic fever at the age of 13. When nineteen years old, he contracted syphilis—*i.e.*, a hard sore appeared about three weeks after connection; but he did not remember any secondary symptoms. He married at the age of 20, and has had four healthy children. He told us that he had committed great sexual excesses before his marriage, but that he never felt the worse for them. Smoking and drinking disagreed with him, and he was always very moderate in these respects. His general health was robust, and he was much given to athletic exercises. In January 1877, he fell from a trapeze, and struck his back. He was much shaken, but was able to get up and walk home, and experienced no ill results from the accident. In the following June he had, for the first time in his life, an epileptiform seizure, preceded by giddiness, profuse sweating, and trembling, and followed by drowsiness. He had had five similar attacks subsequently, the last having occurred a month before his admission. During the time which had elapsed since the first fit (three years and a half), he had been gradually losing strength in his legs, and especially co-ordinating power, so that he soon became practically unable to walk in the dark. He had not noticed any modification in the sensation of the soles, but had frequent feelings of numbness and tingling extending over the whole left side of the body, and more particularly affecting the lower extremity. These sensations were always most marked before a fit, and were most probably of the nature of an epileptic aura. Shooting, darting pains, suddenly passing down the legs from the groins and thighs, had been frequent, and at times very severe. There had been several intervals of remission; but he had had them for the last six months nearly without interruption, although not so severely as on former occasions; they had latterly been accompanied by sharp constrictive pains round the waist. He had often suffered from "bilious attacks", with vomiting and epigastric pain, coming on suddenly without apparent cause, and subsiding in a few days. The bowels had been obstinately constipated, micturition slow, and sexual power abolished. *State on Admission.* He was a well-nourished, muscular man, with grey hair. The heart and lungs were normal; the urine free from albumen and sugar. The legs and thighs were well formed, and there was no wasting. They were moved freely in all directions as he lay in bed, and strongly extended when pressure was made against the soles. He knew their position in bed accurately, and there was no delayed sensation of pain when the soles were pricked. On getting him up, he was quite unable to stand without being supported on both sides; and, when he attempted to walk, the legs were brandished about in an irregular and purposeless manner—one foot frequently knocking against the other, and the heels being forcibly stamped on the floor. There was no ataxy of the upper extremities. The various reflexes were carefully examined by Dr. Myers, with the following results: sole and cremasteric absent on both sides; knee-jerk (patella tendon tap, quadriceps tendon tap, and depressed patella tap) absent on both sides; ankle (front tap, muscle tap, tendon tap, and clonus) also wanting on both sides. Sensation was also examined; and it was found that in the calf two points were not distinguished unless they were more than nine inches apart, and on the dorsum of the foot four inches apart. There was no inequality in the two legs. The pupils were equal and strongly contracted; they did not dilate in the dark, but did so, though not to the normal extent, during distant vision. Near and distant vision were normal, except for presbyopia, which was not excessive for his age. Ophthalmoscopic examination was impossible. *Treatment.* From his admission to January 15th, 1881, he was given bromide and iodide of potassium; perchloride of mercury was then added, and continued for a month, the only result being slight salivation. Fluid extract of ergot was next tried, and also proved of no service; there was not the slightest improvement in his condition. The pains, however, did not trouble him much till March 2nd, when they returned with great severity, and soon afterwards I determined to try the operation of nerve-stretching. *Operation.* This was performed on March 9th by Mr. W. H. Bennett, as follows. The patient being etherised, the left sciatic nerve was exposed at the lower border of the gluteus maximus by an incision about two inches in length. The nerve was then raised from its connections by passing the index finger beneath it, and dragged forcibly out of the wound, being raised about two inches above the skin. It was then grasped firmly between the finger and thumb, and the central end very strongly pulled upon. The peripheral portion of the nerve was not stretched more than was rendered necessary by the raising of the nerve from its bed. The operation was performed antiseptically, the wound being brought together with silver wire. It showed remarkably little tendency to heal, and no attempt at union by first intention took place. On March 17th, some irritation from the carbolic dressings occurred, which necessitated their discontinuance. On removing the sutures, not the least union had taken place, the wound immediately gaping almost like a recent incision. Granulation followed very sluggishly, the granulations being weak and flabby, requiring continual local stimulation. The wound was still partially unhealed on April 20th (six weeks after the operation), when he was sent to the convalescent hospital at Wimbledon. *Result.* The effect of the operation on his pains was decidedly beneficial; they ceased entirely until April 2nd, when they reappeared in the left leg and thigh (operated side), but much less severely, and only lasted a few days. In other respects, however, there was not the slightest improvement. The spinal myosis persisted; the reflexes were about as before; sensation unchanged; he could stand no better; and the atactic movements of the legs were as marked as ever. *Conclusion.* He remained at Wimbledon in the same state until May 24th, on the afternoon of which day he suddenly uttered a moaning cry, became unconscious, and had a series of epileptic fits, affecting chiefly the left side of the body; he then became comatose, and died the same evening. *Post Mortem Examination* showed no affection of the thoracic and abdominal viscera. The brain also appeared healthy to the naked eye, but was not minutely examined. The spinal cord showed a patch of opaque adherent membranes in the lower dorsal region, and the posterior columns of a reddish-grey tint; it was put into a mixture of chromic acid and spirit, but, unfortunately, not well preserved. Microscopic sections, however, show extensive degenerative changes, most marked in the lumbar portion. The postero-median and postero-external columns are in a state of advanced sclerosis, the neuroglia being much thickened and increased, and the nerve-tubes atrophied. The same changes are present in a lesser degree in the posterior part of the lateral columns.

[*To be continued.*]

ON THE TREATMENT OF STRICTURE BY STRETCHING.

By REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

If we put aside cases of organic stricture of the urethra, which are remedied by the occasional passing of a bougie, there yet remain a certain proportion where such treatment is insufficient. To take an example: a patient, having neglected the early indications of stricture, is seized with retention; with difficulty a small catheter is passed, and thus the urgency of his symptoms are met. It often happens that retention recurs, and all the difficulties attendant upon the first catheterism have to be gone over again, with, probably, considerably more spasm superadded. To meet such cases, immediately or remotely, a variety of expedients are practised. Of these, I may mention continuous dilatation, or the tying of an instrument into the bladder; internal urethrotomy; perineal section; and rupture, as employed by Holt. All these have for their object the passing of a full-sized instrument into the bladder, without which none of them can be regarded as satisfactorily completed.

For some time, I have occasionally been employing for this object a process which I think is best described under the term "stricture-stretching". In using this phrase, I do not wish to be understood as advocating the use of either a new instrument, or new treatment. I merely desire to state how I have applied well-recognised principles with equally well-known means. Stricture-stretching, as I endeavour to carry it out, is very closely in imitation of the process to which gloves are submitted by the salesman after the purchase has been made. Into each stall of the glove the glove-stretcher is introduced, in order that the fingers may the more readily pass in. If the manipulation be dexterously done, neither are the seams split, nor is the kid torn; if clumsily, a rent and a false passage for the finger is the result.

So much for the simile, now for the reality. The stretcher I employ is that much abused but valuable instrument, Holt's dilator; and the stretching is effected quite slowly, by the introduction of successive sizes of dilating rods, until the dimensions required are obtained. All this is to be done at one time, with or without an anæsthetic, according to circumstances. I almost invariably have the patient placed under ether, as it is important that the process should be slow enough to permit of the tissues stretching without tearing. I do not think we fully recognise the extent to which the urethra is capable of being dis-

tended. Dr. Otis of New York has recently demonstrated the truth of Sir Everard Home's observation: "That the urethra is everywhere much larger than had been supposed, exceeding the size of the largest bougie in use in a very great degree."* And what is true of the healthy urethra will be found to apply, though in a less degree, to the strictured one.

The adaptations in Holt's dilator, specially fitting it for this purpose, may be briefly stated. In the first place, there is attached to it a pilot bougie, which, in cases of tight or tortuous strictures, will be found invaluable. Though the pilot bougie may not be necessary for all cases where stretching is to be employed, yet, as this treatment is intended for some of the worst forms of the affection, it is as well to be prepared for every contingency. If the pilot bougie be not required, a round-top screw takes its place. Then I have increased the number of dilating rods to eight, so that the process of stretching may be gradual; and, in order that there may be no jerking as the several rods are introduced, a spiral spring controls the separation of the two portions of the instrument, instead of a screw.

The size of the dilator, before a rod is introduced, is No. 3, English gauge; the largest dilating rod brings it up to rather over No. 12—so that, between these two extremes, we have seven gradations in size. If the stricture is so tight as not to be capable of receiving the dilator, dilatation by means of filiform bougies must first be employed until the required size is obtained. Other instruments, divulsors and screw-dilators, as they are termed, have been invented for a similar purpose; but all I have seen are open to two objections: 1. They either tear or pinch with their sides the mucous lining of the urethra; 2. They are too large for use, except for strictures of the largest calibre. One of the best divulsors I know of is that adapted by Dr. Samuel Gross of Philadelphia. It is provided with an index at the handle, which shows precisely the extent to which divulsion has been carried.

A word or two in reference to the use of the instrument I employ for stretching. The patient being placed under ether, in the recumbent position, the dilator, with or without the pilot bougie, is passed fairly into the bladder, and then the rods are slowly and gradually introduced until a full size is obtained. The process generally occupies from ten to thirty minutes, according to the resistance, care being taken not to tear, and so cause hæmorrhage. I then withdraw the dilator, and pass a catheter, for the purpose of removing any urine that may be there. I usually give a dose of Fleming's tincture of aconite immediately after the stretching has been practised, and require the patient to remain in the house for twenty-four hours. A full-sized bougie is then passed every third or fourth day, until the patient has learnt how to conduct this operation himself, when he must be enjoined to continue this practice.

It will be seen that this proceeding differs essentially from what is so well known as Holt's operation. In the one, the object to be attained is stretching; whilst, in the latter, it is rupture. It is the only plan of treatment by which the strictured urethra is at once brought up to a full capacity, without break of tissue.

In conclusion, I would remark that I am not recommending this as a panacea, or as prejudicing other proceedings to which reference has been made; but as a safe and an efficient expedient for meeting immediate difficulties, and simplifying future treatment. If, in all cases of retention occurring with tight stricture, the use of this, or a similar instrument, followed the passing of the catheter, both patient and practitioner would be none the worse for the knowledge, that, whatever spasm might temporarily do, at all events there was a way to the bladder which had been made without any structural detriment, capable of admitting a No. 12 bougie. The dilator, as adapted for this purpose, was shown by Messrs. Krohne and Sesemann, in the International Medical and Sanitary Exhibition.

* *On the Treatment of Strictures.* Third Edition, p. 24.

ROYAL INSTITUTION.—The forthcoming arrangements for the delivery of Lectures at the Royal Institution will include the usual Christmas course of six lectures, to be given this year by Professor R. S. Ball, the Astronomer Royal of Ireland, on the sun, moon, and planets (with illustrations by the electric light, etc.); eleven lectures by the new Fullerian Professor of Physiology; four lectures by Professor H. N. Moseley on corals; four lectures by Dr. P. S. Sclater on the geographical distribution of animals; and three lectures by Professor Tyndall. The Friday evening meetings will begin on January 20th, at 8 P.M. Dr. W. Huggins will give a discourse on comets. Succeeding discourses will probably be given by Mr. R. S. Poole, Professors Odling, Frankland, J. G. McKendrick, and W. E. Ayrton, Captain Abney, Mr. A. Tylor, Mr. J. W. Swan, Mr. W. Spottiswoode, and other gentlemen.

ON A CASE OF CONSERVATIVE SURGERY.

By THOMAS ANNANDALE, F.R.S.E.,
Regius Professor of Clinical Surgery in the University of Edinburgh.

IN the *Edinburgh Medical Journal* for June 1865, I published an account of the dissection of an arm, and illustrated the appearances met with by means of a woodcut, reproduced in Fig. 1. This arm was



Fig. 1.

sent to me by the late Dr. Fiddes of Jamaica, with the history that several years before the patient's death he had excised the entire radius for disease. A good recovery resulted, and the man was able to follow his employment, as a ship's pilot, until shortly before his death. The dissection of the arm showed that there had been no reproduction of the excised bone, but the hand had become turned round towards the radial side of the forearm, and its carpus articulated with this aspect of the ulna, which bone had become hollowed out at the point of articulation. The knowledge obtained by the history of the patient and by the dissection of his arm enabled me to practise the following conservative operation with success.

J. R., aged 34, mechanic, was admitted into the Edinburgh Royal Infirmary on the 15th November 1880. In May 1878, the patient fell and injured his left wrist. The accident was followed by swelling and pain, which symptoms were treated by various medical men by the application of splints and soothing lotions. After a few months of this treatment, he returned to his work; but the wrist remained swollen and stiff. One year after the accident, he noticed that the swelling was decidedly increasing in size; and, on seeking the advice of a surgeon, he was told that there was a tumour growing from the bone, and that a fracture of the bone had taken place in consequence. An operation was performed, and the tumour, together with some fragments of bone, was removed, and he returned to his work in about a month. Two weeks after this, the swelling again appeared; and, on applying again to his surgeon, he advised him to have the hand and wrist amputated. Before submitting to this proceeding, the patient came to Edinburgh to seek my opinion on his case; and, at first sight, I was inclined to agree with his own surgeon, and also recommend amputation. The condition of the disease, when seen by me, was as follows. There was a soft, lobulated tumour, of the size of a large cricket-ball, springing from the tissues on the dorsal and radial aspects of the wrist. The tumour involved the skin, and was firmly connected with the lower end of the radius for an extent of nearly

three inches, this portion of bone being partially destroyed and somewhat expanded. The lower end of the ulna was not implicated, and the extensor tendons were stretched over the tumour. As far as could be ascertained, the growth was confined to the parts mentioned, and no glandular enlargement could be detected. The movements of the wrist were very slight, but the fingers had fair movement.

In considering the treatment of the case, I had to take into account the fact that, in order to remove the disease without amputation, nearly four inches of the lower end of the radius, together with the tumour and skin over it, would require to be taken away; and also that, if a corresponding portion of the lower end of the ulna were excised so as to allow the carpus to become connected with the divided end of the radius, the result would be an useless and flail-like hand. Remembering the condition of the parts in Dr. Fiddes' case, I decided to try to save the hand by removing the lower end of the radius and the tumour, and then bringing the hand round, so that the carpus might make an articulation with the radial portion of the lower end of the ulna.

On November 19th, I performed this operation, taking special care to avoid as much as possible any injury of the extensor and other tendons. As all the affected skin required to be removed, a sore of the size of two half-crowns remained after the operation. The operation was performed with careful Listerian precautions, and the hand and arm were placed upon an angular splint, specially made for the purpose of keeping the hand in the position referred to.



Fig. 2.

On January 7th, 1881, the antiseptic dressing was removed, as the wound was small and superficial. Careful movements of the wrist and fingers were commenced about a month after the operation, and these were regularly continued.

On February 14th, the patient left the hospital with the wound quite healed. His fingers had considerable mobility, and he had also some power of flexion and extension at the wrist.

In July of this year, the patient returned to show the result. The hand, fingers, and wrist had improved much in strength and mobility.

A cast of the hand and wrist was taken at this visit, and the illustration shown in Fig. 2 is a careful copy of it.

PRESENTATION TO DR. P. O'CONNOR.—A meeting was held at the West Derby Union Workhouse, on November 24th, for the purpose of presenting a handsome writing-desk to Dr. P. O'Connor, by the officers of the workhouse. A second presentation was made, through the master, by the inmates of the union hospitals, with which Dr. O'Connor has been connected as resident medical officer for nearly three years.

A NEW AND RELIABLE OPERATION FOR THE CURE OF WEBBED FINGERS.

By ARTHUR T. NORTON, F.R.C.S.,
Surgeon and Lecturer on Surgery at St. Mary's Hospital.

C. K. was sent to me by Mr. Moore of Chiswick. The boy, one of four children, was about four years of age, and had the three inner fingers of the left hand webbed together. No relative had suffered from the same deformity. The operation which I performed can be best explained, and, indeed, can only be understood, by referring to the diagram.

A tongue of integument was cut from between the knuckles, and another, corresponding in shape, and position, and size, on the palmar surface. These tongues were then raised by dissection, and the webs cut through. The knife was then carried back so as to sever all the tissues as far back as the bases of the tongues, and a little superabundant tissue was removed. Next, the apices of the tongues were sewn together, and lint, dipped in cold water, applied. The flaps or tongues united by the first intention between the little and ring fingers, but one of the pair between the ring and middle fingers sloughed at its apex from its suture. The cause of the sloughing was incomplete section of the tissue between the fingers up to the base of the tongues, the result of which was too great tension, and consequently giving way, at the suture. However, even in this case, the tongues separated only a very short distance, and the interspace rapidly healed, so that there was no redevelopment of the web.



A drawing of the hand was taken after the operation, by which it will be seen that, in the case of the middle and third finger, a little more tissue might have been removed with advantage after the raising of the tongues, in order to bring the line of the natural web into proper position. The healing of the fingers progressed rapidly in the middle finger and on the outer side of the ring finger. Between the ring and little fingers the healing was not so rapid, because the web between these fingers was thick and narrow, so that, after its section, a larger surface was denuded.

The points to be considered in performing the operation are these. 1. The tongues should be cut thick, so that their vascular supply may be complete, and the chance of their sloughing reduced to a minimum. 2. They should be cut rather narrow, with judgment; otherwise, they are compressed laterally and bulge upwards at the margins, instead of lying in adaptation to adjacent tissues. Such compression, of course, interferes with their circulation. 3. The tissue between the knuckles is to be cut back, or, if necessary, cut away, so that the apices of the tongues shall lie well in contact with each other without tension. 4. The tongues must be of sufficient length, so that there shall be no tension

when the suture is applied; they had better be too long than too short. 5. The apices of the tongues are very small, so that a very small needle should be used to carry the suture. 6. In shaping the tongues the line of the natural web should be carefully observed. If the tongues heal by first intention, no web can redevelop. There is no reason whatever why union by the first intention should not invariably take place if the above points are remembered whilst performing the operation, and thus one of the most troublesome and unsuccessful of operations is converted into one of the most simple and most certain of success.

RHEUMATIC FEVER WITH PERICARDITIS: HYPERPYREXIA: TREATMENT BY COLD: RECOVERY.

By J. MAGEE FINNY, M.D.Dub., F.K.Q.C.P.I.,
Visiting Physician to, and Lecturer on Clinical Medicine in, the City of Dublin Hospital.

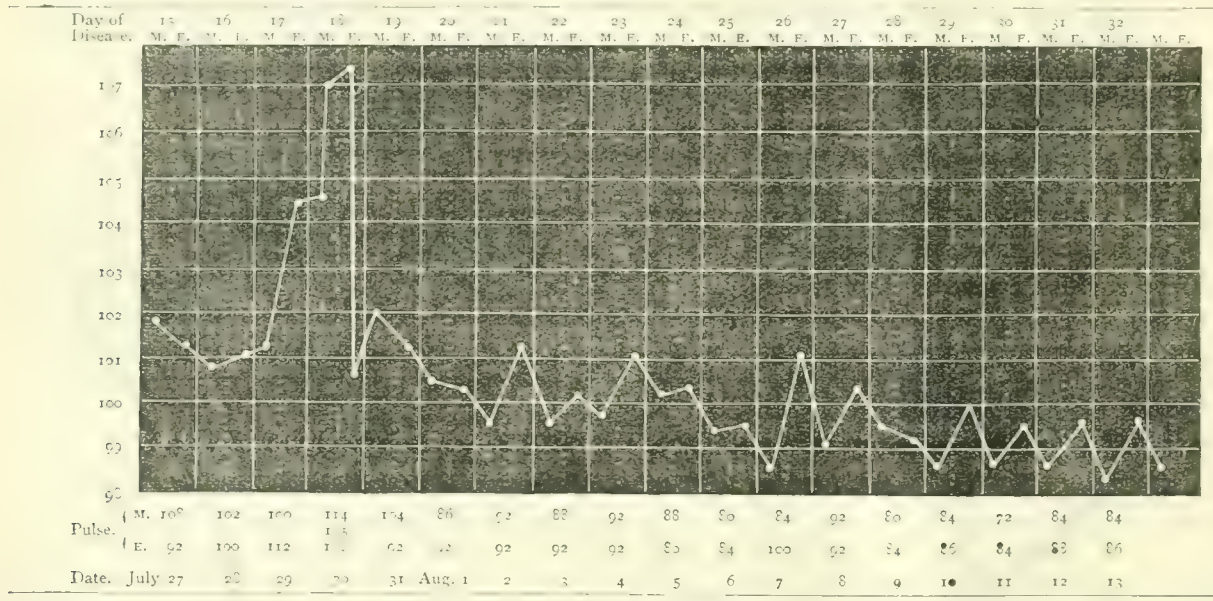
MARY L., aged 37, a mother of five children, was admitted to hospital on July 27th, 1881, suffering from well-marked arthritic rheumatism, the ankles, knees, and elbows being chiefly engaged. She was ill for about a fortnight before admission. Careful examination failed to detect any cardiac complication. Pulse 108; temperature 101.8°. She was ordered salicin in fifteen-grain doses every fourth hour; the patient was placed between blankets, and the painful joints were wrapped in wadding covered with gutta-percha tissue. Relief followed the treatment, though not in so marked a degree as had occurred in other cases similarly treated, and the temperature fell a degree in twenty-four hours. On the third day, the temperature in the morning was higher by .5° than the preceding night, and much pain was complained of in the left ankle. The salicin was then ordered to be given every third hour. At this time, there was noticed occasionally a third sound with each movement of the heart, presystolic in time, and resembling a reduplication of one of the sounds. Its locality was towards the base, in the left parasternal line. This sound was better marked in the evening, and was considered to be pericardial in nature. The following morning (July 30th), the temperature showed signs of a tendency to rise, having gone up rapidly from 101.2° on the morning of the 29th to 104.4° in the evening, and 104.6° this morning, and the pulse from 100 to 114. The abnormal cardiac sounds had also assumed a more decidedly frictional character, confined to the apex of the pericardium. As it was evident that no good had been obtained from salicin, it was stopped, and instead, five grains of quinine were given at once and ordered to be repeated every third hour; and six leeches were applied to the præcordium.

At 5 o'clock P.M., my resident pupil, Mr. Law, finding that four five-grain doses of quinine had been taken without producing any effect on the temperature, gave twenty grains, dissolved in a little hydrochloric acid and water; it was not, however, retained, being vomited at once. The patient was now partly unconscious, wandered in her mind, complained of no pain, while her face and lips were flushed of a purplish tinge; the respiration was shallow and rapid; the temperature in the axilla was 107°, and pulse 136. I was communicated with, and I saw her at 5.20 P.M., when the heat had increased by a fifth. The cardiac phenomena had not increased; but, as the heart was beating 136, it was not possible to speak positively as to the presence or absence of the friction-sound. Percussion showed there was no effusion. As it was evident that the patient was in imminent danger of dying of hyperpyrexia, I proceeded at once to apply cold in the following manner; the cold bath being kept in readiness in case it became necessary to employ it.

The patient was stripped of the blanket covering her, gradually from above downwards; and towels wrung out of water, in which stood a large block of ice, were assiduously applied, one after another, first to the head and neck, then over the front of the thorax, next over the abdomen, then the thighs and legs. By the time the last cloth was applied, the first had become warm, and it was replaced by a cold towel, and so on with each. In ten minutes, the temperature fell half a degree, and, after this process was continued for forty minutes, the temperature had fallen from 107.2° to 103.8°, and the pulse from 136 to 120. The face and lips had lost their flushed appearance, and the patient made complaints of feeling cold. The iced cloths were placed quite irrespectively of the inflamed pericardium or the joints. The temperature was observed every ten minutes by a thermometer placed in the axilla, which had been kept closed by the approximation of the arm (the parts being fat). The patient was then well dried, and fresh blankets were placed under and over her. At 9 P.M., the patient was very much inclined to sleep, answered questions dreamily, and appeared to have little or no recollection of what had happened. She vomited three times in the last two hours. Temperature 100.6° in the axilla, and 101° in the rectum. Pulse 108°. At 10 o'clock P.M., the temperature in the axilla was 101°; and the bowels, which were very free all day, were moved unconsciously at this time. The patient slept well during the night, and on the morning of July 31st the pulse was 96, and the temperature 102°. The tongue was coated with white fur; she had slight sordes on the teeth; and she complained chiefly of pain in the right foot and ankle. There was no effusion into the pericardium; and, at the base, the friction-sound was slightly audible, presystolic in time. The heart was acting strongly. During the last twenty-four hours, the bowels had been moved six times, and they continued free all through the day, until checked by starch and opium injection at 9 P.M. A sleeping-draught was given, and she had a good night. There had been no return of hyperpyrexia. Temperature 100.4°; pulse 92.

August 1st. The pericardial sounds had disappeared, and the first sound was quite clear, loudest at the apex. The urine was examined, and found to be alkaline and phosphatic, and free from albumen.

From this day forward, the patient uninterruptedly progressed to



recovery, on August 30th, the pains being chiefly confined to the right ankle and knee; the fever-heat ranged from normal in the mornings, to 101.4° (the highest on four occasions) in the evenings, and the pulse from 80 to 100.

REMARKS.—The case exemplifies in part the failure of salicine to relieve pain, prevent pericarditis, or act as a febrifuge. Three drachms were taken daily for two days; and on the third, the day of the first high temperature (104° in the evening), two drachms were administered. This dose I have generally found adequate, in cases where it suited, to relieve pain and reduce the temperature, although Drs. Maclagan, Ringer, and others advise much larger doses, and more frequently repeated. It is a matter for consideration if the diarrhœa, which lasted for two days (July 30th and 31st), and the alkalinity of the urine on August 1st, were in any way connected with the drug. Ringer suggests the possibility of the latter, though he gives no grounds for the suggestion. The chief interest of the case lies in the hyperpyrexia, and the instantaneous benefits derived from cold applications. The assiduous application of towels wrung out of cold or ice-cold water —a method suggested by Dr. Sydney Ringer—has the following advantages over immersion in the cold bath. 1. The means are ready at hand on every emergency, and can be used without any delay, and without assistants. 2. They do not alarm the patient or his friends. 3. They can be applied without the exposure necessary in a bath, and the pain and fatigue consequent upon being lifted in and out of a bath, and being dried before returned to bed. 4. The reduction of the temperature can be more readily watched and more accurately gauged by cold cloths than by immersion in a bath, and seems to be quite as prompt. In the case given above, it fell from 107.2° to 103.8° in forty minutes (the pulse coming down from 136 to 120), and it continued to fall to 100.6° during the subsequent three hours. Another, and not the least point of interest, lies in the absence of any ill consequences to the inflamed pericardium or joints by the application of external cold.

DERMOID OVARIAN TUMOUR IN A CHILD AGED SEVEN YEARS: OVARIOTOMY: RECOVERY.

By J. KNOWSLEY THORNTON, M.B., C.M.,
Surgeon to the Samaritan Free Hospital for Women and Children.

ON April 5th, 1881, I was asked by my friend and colleague Mr. Meredith to see, with him, a little girl seven years of age, the subject of a large abdominal tumour. The patient had been brought from the United States to this country by her parents for further advice; several distinguished physicians who had seen her in the States having given an unfavourable prognosis, both as to the nature of the tumour and as to the advisability of attempting its removal.

We found the right side of the abdomen occupied and much distended by a firm elastic tumour, some parts of which were as hard as bone, while others were quite soft. No distinct fluctuation could be made out. The tumour was most prominent to the right of, and above, the umbilicus; but it occupied the whole of the right side of the abdomen. A narrow band of clear percussion was found between the liver and the tumour, between the pubes and the tumour, and far back in the right flank. The left side of the abdomen was everywhere clear; and along the left upper border of the tumour some distended coils of intestine could be traced, apparently adherent to the mass. The tumour possessed considerable mobility; so that, when the patient turned on to her left side, its position became more central, and the clear area in the right flank was increased. The general health of the little patient appeared very good; and she suffered little, if any, pain or inconvenience from the tumour.

History.—The mother first noticed increase of size in the summer of 1880; and there was then, just above the pubes, a central mobile tumour about the size of an orange. On October 13th, 1880, while running on the grass, the patient fell forward on her abdomen. The fall was not a violent one; but it was followed by some immediate collapse, and subsequently by severe general peritonitis, which began to subside at the end of a fortnight. When the tympanitic distension had quite passed off, a hard tumour was found, nearly filling the right lateral half of the abdomen. Careful measurements showed that this tumour steadily increased in size for some time, and then became almost stationary. Careful examination and consideration of the case led Mr. Meredith and myself to exclude the question of renal or hepatic tumour, and incline to the view that it was ovarian; but we could not decide whether it was a dermoid tumour or a malignant growth—the general health of the child, together with the history, seeming to us to suggest the more favourable view; while the rapid growth and peculiar outline and varying consistency made us fear the possibility of its proving to be a mixed sarcoma. We advised that a careful antiseptic puncture should be made in the softest portion of the tumour, and that further proceedings should be guided by the information thus obtained. We also advised that Sir James Paget should be asked to see the case with us; and he accordingly joined us next day, and agreed with us both as to alternative diagnosis, and to the advisability of making an antiseptic puncture. Two days later, Mr. Spencer Wells joined us in consultation; and, Mr. Meredith having administered bichloride of methylene, I punctured with a No. 3 trocar under the spray, and obtained a few drops of glairy mucoid fluid, which we all thought to be probably ovarian. The ovarian granule-cells were found under the microscope; as were also some large round granular cells, which did not aid us in our diagnosis.

It was now agreed, in a consultation in which Sir James Paget and Mr. Spencer Wells took part, that an exploratory incision should be made antiseptically; and that, if the tumour proved to be malignant, nothing more should be done.

I entered in my case-book the following diagnosis: 1. Dermoid ovarian tumour, probably with twisted pedicle, and certainly with rupture and consequent adhesions; 2. Sarcoma of ovary, bone-cartilage, etc., alternating with small cysts.

On April 14th, Mr. Meredith again administered bichloride of methylene; and, in the presence of Sir James Paget and Dr. Meyer of Copenhagen, and with the kind assistance of Mr. Spencer Wells, I performed ovariotomy. Commencing with a three-inch incision above and to the left of the umbilicus, but nearly in the median line, I gradually extended it to six inches, and exposed a dermoid ovarian tumour covered with adherent omentum. Tapping yielded some colloid material mixed with lumps of white fat. Having enlarged the trocar-opening, I introduced my hand, but could not reduce the size of the tumour much, as the cysts were numerous and small, and my hand everywhere encountered large masses of bone. Having gradually cleared the tumour of numerous masses of adherent omentum, some very close to intestine, and divided some very dense adhesions to the parietes on the right side, and temporarily secured them all with Wells's pressure-forceps, I raised the tumour out of the abdomen, and exposed a long, thin, and broad pedicle to the left of the uterus, doubled up, but not twisted. I transfixed it with No. 3 silk; and, tying the inner loop first, to save loss of blood, I tied the outer half separately. I then carried one loop round the whole, and, cutting off the ligatures close to the knots, cut away the tumour. Numerous fine silk ligatures were applied on the omental, mesenteric, and intestinal adhesions, including the appendix cæci; and a large mass of adhesions on the right parietes was treated by a ligature run in and out, and tied up bag-mouth fashion. Altogether, there was a good deal of exposure to the spray and sponging. The right ovary and uterus were quite healthy. The wound was closed with a dozen fine silk sutures, and my usual carbolic gauze dressing was applied. The tumour weighed 4 lbs. 3 oz.; the operation lasted one hour. The patient had ten minims of tincture of opium in a little starch administered by the rectum as she was placed in bed. The temperature was then 97.0°, pulse 120, respirations 36. There is little to record in the after-progress of the case. The temperature remained over 100° Fahr. for two days, and then gradually fell to normal on the third day, and did not again rise above 99.0°.

The catheter was used for the first twenty-four hours. Tincture of opium and bromide of potassium were given *per rectum*, as indicated by the condition of the patient. The only period during which the case gave any anxiety was during the third twelve hours after the operation (*i. e.*, the afternoon and evening of the first day). During this time, the skin was inclined to dry; the patient was restless, and suffered a good deal from mucus in the chest, which was with difficulty expectorated; the temperature for four hours was 102.4°, the pulse 130 to 140, respirations 36. Hot water used as an emetic cleared the lungs, and the other unfavourable conditions rapidly subsided. Flatus passed well from the first, and there was very little sickness; but for some days I thought it well to feed by the rectum. On the third day, she began to enjoy milk, and on the fifth began solid food. The bowels acted after an enema on the sixth day. The wound was dressed for the first time, and all the sutures removed, on the tenth day; the patient was out of bed on a couch on the fifteenth day; and two days later she was allowed to sit up and to walk about.

The case is interesting, as one of a very small number on record in which an ovarian tumour has been found in so young a child, and the still smaller number in which ovariotomy has been performed. It was an unusually difficult one as regards diagnosis; the balance of probabilities was, however, in favour of its being a dermoid ovarian tumour. The result of the operation proved the w[illegible] which we arrived, to make an exploratory incision. It would, indeed, have been a calamity, if the little patient had been allowed to die without

any attempt at operative interference. It is worthy of note that, in the recorded cases in young children, the tumours have been, as in this case, dermoid, and probably congenital.

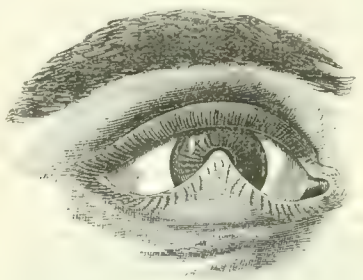
I have recently heard that my little patient is in all respects strong and well.

A CASE OF COMPLETE SYMBLEPHARON SUCCESSFULLY TREATED BY OPERATION.*

BY ANDERSON CRITCHETT, M.A.CANTAB.,
Ophthalmic Surgeon to St. Mary's Hospital, and Lecturer on Ophthalmic Surgery at St. Mary's Hospital Medical School.

I AM induced to bring the following case before the notice of the profession on account of its comparative rarity, and because, until within a recent period, when Mr. Pridgin Teale of Leeds suggested his ingenious method of conjunctival transplantation, complete symblepharon was found to be practically incurable.

J. S., aged 19, was admitted to St. Mary's Hospital on the 20th of June last. His right eye presented the appearance figured in the accompanying sketch, which was made before his admission. The



centre of the lower lid was firmly and extensively adherent to both the cornea and sclerotic, so that there was a condition of complete symblepharon; and it was impossible to pass even the finest probe between the attached surfaces. The movements of the globe were consequently extremely limited, causing a painful dragging sensation, and the eye was practically useless. The cause of this condition was an extensive burn from lime, which the eye had sustained nine years previously. I felt sure that any attempt to separate the lid from the globe without covering the raw surfaces with some protecting membrane would inevitably result in a firmer and more contracted adhesion than before. I therefore determined to adopt, with some slight modifications, the method of conjunctival transplantation which Mr. Teale had not only suggested, but successfully practised.

The patient having been placed under the influence of an anæsthetic, I carefully dissected the lid from the cornea and sclerotic, continuing my incision as far as the retrotarsal fold. I then separated two flaps of ocular conjunctiva, the width of each being rather more than a quarter of an inch, and I was careful not to include the subconjunctival tissue. The first flap, taken from the inner and upper surface of the eye, was gently brought round and across till it covered the raw surface on the sclerotic, and was united with very fine silk sutures to the cut edge of conjunctiva which had been created by the original incision. The second flap, taken from the outer surface of the eye and at a lower level than its fellow, was made to cover the wound in the sulcus at the bottom of the lid, and was there fixed *in situ*. I had still, however, to unite the free conjunctival edges on the upper and inner surface of the lid; and this proved somewhat difficult to accomplish, owing to the wide separation between the opposing margins. By slightly freeing from its attachments the conjunctiva which lined the lower lid, and being ably seconded by my assistants, who carefully approximated the borders of the wound with forceps, I at length succeeded in uniting the cut edges of the conjunctiva. This led to a slight puckering of the lid, but the parts rapidly accommodated themselves to the situation, so that, in the course of a few days, this condition was no longer apparent.

The result of the operation was to secure a complete and permanent separation of the lid from the globe of the eye to the normal extent. In effecting this object, I found it desirable to insert no fewer than nineteen sutures, composed of the finest silk; and this of necessity rendered the operation somewhat tedious.

* The patient was shown, six weeks after the operation, in the Ophthalmic Section of the International Medical Congress.

The patient made an excellent recovery, the parts uniting rapidly and completely; and the globe has regained its natural powers of free movement.

The points of difference between my operation and that originated by Mr. Teale are: in the first place, that I dissected the adherent lid in its entirety from the surface of the cornea, instead of, as he recommends, commencing my incision at the corneal margin, and so leaving part of the lid adherent to the cornea; and, secondly, that I accomplished my object partly by transplantation and partly by co-aptation.

THERAPEUTIC MEMORANDA.

IS SALICYLIC ACID A SPECIFIC FOR ACUTE RHEUMATISM?

THE fact that great divergence of opinion exists with regard to the effects of salicylic acid in the treatment of acute rheumatism, induces me to call special attention to this question, and to ask whether, in those cases in which—after a sufficiently large dose—the remedy has appeared to fail, or unpleasant symptoms have followed its administration, these may not have been due to the use of artificial salicylic acid, prepared from carbolic acid, and possibly contaminated with carbolic acid or with paraoxybenzoic acid? The artificial acid is, I believe, largely used in various London hospitals; and possibly the use of this preparation instead of the true acid, obtained from oil of wintergreen, may explain the difference. I have been careful not to prescribe the artificial acid; and, after nearly five years' experience of the effects of the true acid, and since giving it in sufficiently large doses, I am thoroughly satisfied with the results, regarding it, in fact, if given in a proper fashion, as much a specific for acute rheumatism as quinine is for ague. At Addenbrooke's Hospital, I prescribe it in doses of twenty grains every hour until the head is affected and the patient's joints can be moved without pain. The dose is made up into six pills, with a little glycerine and pulvis acaciæ. From eighty to one hundred and twenty grains must generally be given, before the physiological effects show themselves. The following day the same amount is usually administered; and, after the temperature has declined to the normal point, forty-five to sixty grains are daily administered until all risk of a relapse has passed away. With such an experience, then, I should be glad to see full reports of cases in which unpleasant symptoms—such as sickness, collapse, etc.—have followed the administration of the *true* acid, in doses such as I have above mentioned, for I must confess myself to be somewhat of an unbeliever in their existence.

P. W. LATHAM, M.D., F.R.C.P., Downing Professor of Medicine in the University of Cambridge.

SALICYLIC ACID IN ACUTE RHEUMATISM.

OF late years, few subjects have received more attention than that of the administration of salicine, salicylic acid, and salicylate of soda, in acute rheumatism. I believe we may safely conclude that the efficacy of these drugs, especially the last, in rheumatic fever, is now fully established. There have, however, lately come under my care several cases in which these remedies have not only proved useless, but positively injurious; and I have, therefore, been led to the conclusion that we should not prescribe them indiscriminately, or without taking into consideration the nature of the case and the constitution of the patient before us.

The following is a good example of one of the classes of cases in which salicylate of soda is not applicable, or at least in which it should be used with extreme caution. In February 1880, J. C., aged 22, came under my care suffering from acute rheumatism with endocarditis. The patient was of a slight build and delicate constitution, and had had a previous attack of the disease; but it had not left any organic lesions behind. When I saw him, the joints were only slightly affected; and pyrexia was not very marked, the temperature being only 101.5°. He, however, complained greatly of oppression about the chest, of difficulty of breathing, and of considerable tenderness over the præcordia on stethoscopic examination. On auscultation, there was heard a distinct systolic murmur over the apex; and this was also distinguishable in the left axilla, and at the inferior angle of the left scapula. As the disease had only appeared two days previously, I placed him on fifteen-grain doses of salicylate of soda. From this time, low typhoid symptoms began to manifest themselves, and on the third day of treatment he appeared in an almost moribund condition. He was semicomatose, had low muttering delirium, and presented all the other symptoms of the typhoid state—viz., dry brown tongue, rapid feeble pulse, subsultus tendinum, etc. With very little hope of

seeing the patient alive at my next visit, I ordered warm turpentine fomentations to be constantly applied over the chest, and prescribed a mixture, containing in each dose three grains of sulphate of quinine and fifteen minims of tincture of muriate of iron, to be taken every third hour. The effects of this treatment were almost magical. At my next visit, the patient was perfectly conscious, and showed an interest in all that was going on around him, and most of the unpleasant symptoms had disappeared. From this time he made a rapid recovery, and went from under my care apparently quite convalescent.

Since that time, I have had several cases somewhat similar to the above, and none of these would bear salicylic acid in any shape or form. I have, therefore, been led to conclude that this remedy is inapplicable in cases of acute rheumatism with cardiac complications. It is easy to imagine why this should be the case; for we know that salicylic acid is a powerful depressant; and, moreover, that this depressant action is especially exerted on the muscular fibres of the heart. As these are already weakened by inflammatory action, they are entirely unable to bear the additional strain thrown on them by the administration of a medicine which powerfully lowers their tone. The symptoms above described were due, I believe, to inability on the part of the heart to distribute the blood through the systemic vessels.

Salicylic acid and its compounds should also be administered with caution in cases of rheumatic fever occurring in debilitated and anæmic subjects, as here it may produce an amount of depression which will render the patient unable to struggle against the disease. In sthenic cases, however, where the joints are acutely affected, the pyrexia marked, and where no cardiac symptoms are present, this is the remedy, above all others, which is most useful. It lowers the temperature, relieves the pain, and overcomes the disease in a much shorter time than any other medicine with which I am acquainted.

G. Harrison Younge, Army Medical Department,
Fort Pitt, Chatham.

ERGOTINE.

May I be allowed to call attention to the value of a solution of ergotine (1 in 50) as a local application in facial erysipelas? In an outbreak of that complaint which occurred in my practice a few months back, the relief to heat and pain, the reduction of swelling, and the rapid subsidence of the disease, were most remarkable. I therefore venture to suggest its trial at the hands of other members of the profession.

Kenneth W. Millican, B.A.Cantab., L.R.C.P.Ed.

CLINICAL MEMORANDA.

ALCOHOL IN THE URINE.

Mr. G. S. Johnson, in a communication on the frothing of albuminous fluids, published in the Journal of November 19th, inquires whether alcohol may be separated as such in the urine secreted by healthy kidneys by normal individuals. Some years ago, I repeatedly tested this point, using as a test the solution of bichromate of potash in strong sulphuric acid, recommended by Dr. Anstie in his work on *Narcotics and Stimulants*. This solution gives a bright green coloration in the presence of minute proportions of alcohol. I was repeatedly struck with the rapidity with which I obtained the reaction after the ingestion of moderate amounts of alcoholic liquids; for, ten or fifteen minutes after swallowing a glass of beer, I rarely failed to get it. I was aware at the time that the urine sometimes contains a substance which will reduce chromic acid in the same way as alcohol, but guarded against this by check experiments. This is, doubtless, far from proof of the actual presence of alcohol; but, such as it is, I have thought it worthy of mention.

Robert E. Carrington, M.D., St. Thomas's Street, S.E.

BACILLUS MALARIÆ.

In describing the results of Dr. Sternberg's investigations on the above, you remark, "He thinks that the particular proof of an organism in malaria, which has been furnished by Klebs and Tommasi-Crudeli, has been discredited by his own observations" (Journal, November 19th, 1881). I made an observation some time ago which, however, supports the views of Klebs and Tommasi-Crudeli, and from the presence of an organism in the blood of a human subject suffering from malarial poisoning.

A young African traveller, recently returned, was seized with a shivering fit in my room. Knowing that he had had intermittent fever, I begged a drop of his blood. Suitable precautions were taken against the accidental admission of any extraneous substance, either on the needle, glass-slip, or cover-glass. On examining the blood with a one-sixteenth immersion, the bacillus malariæ was seen most distinctly, not only by myself, but by the patient, and a medical friend who happened to drop in soon after. I may mention that the cold was followed by the hot and sweating stages, so that there was no doubt as to the nature of the disease.

Charles A. MacMunn, B.A., M.D., Wolverhampton.

SCURVY IN PRIVATE PRACTICE.

In connection with Dr. Eade's case of "Scorbutic Spinal Hæmorrhage" published in the Journal of November 19th, and illustrating his concluding remarks on the greater frequency of scurvy in private practice than generally supposed, I have had two well-marked cases in twelve months, in addition to two of a doubtful nature.

Case I.—My patient, whose symptoms were most conclusive, was in comfortable circumstances; but the vegetable portion of his diet was almost exclusively rice, bread, and corn-flour, etc. Intermuscular infiltrations in the calves of his legs were well marked, in addition to sponginess of gums, purpuric spots, etc. The treatment consisted of lime-juice.

Case II had suffered from lassitude and general *malaise* for about two weeks before I saw her. The local signs were sponginess of and bleeding from the gums, with general maculation, but best marked in the lower extremities; in addition to some large ecchymoses. These symptoms attracted her attention one day before she consulted me. The fault in her diet appears to have been an excess of salt meat and too small proportion of vegetables. The treatment was turpentine and a more vegetable diet.

Of the doubtful cases, in one there was a frequent recurrence of ecchymoses on the legs and thighs for some weeks, the patches varying in size from one inch to two inches and a half in diameter. There was general lassitude and disinclination for exertion, with some local pains and aching. As I could not discover any error in diet, and my patient was plump, though rather anæmic, I diagnosed it as purpura. The treatment was strychnia and sulphuric acid.

Case II differed from a case of purpura hæmorrhagica which occurred in my practice, in the state of the gums in the former, while in the latter there was an absence of the large ecchymoses; but there was considerable hæmorrhage from all the mucous orifices of the body, and hæmaturia. I could only trace it to suppressed menstruation. The treatment consisted of a mixture of turpentine, ergot, and gallic acid. Recovery followed.

W. J. Mackie, Turvey, Beds.

SURGICAL MEMORANDA.

MID-FEMORAL OSTEOTOMY.

On Tuesday, November 22nd, I operated, for the seventh time, by the method to which I have given the above name. The subject was a young man, aged 18, with bad knock-knees. The internal condyles were very slightly elongated, but the internal tuberosities were much overgrown laterally; they knocked together during progression. I divided the femoral shaft just below its middle, and the deformity was easily corrected, and with scarcely any visible compensating deformity at the part operated on. I have straightened six other cases of severe knock-knees and bow-legs by the same plan, and can strongly recommend it, in preference to all others, for the following reasons. 1. The bone is divided nearly at its smallest part; therefore, 2, the operation is more quickly done. 3. The deformity is readily corrected, and the large callus, which forms when supracondyloid osteotomy is performed, and which looks very ugly just above the joint, is avoided. 4. The effusion into the joint, which sometimes follows supracondyloid osteotomy, is, of course, avoided, as the section of bone is quite away from the suprapatellar pouch of the synovial membrane. 5. Recovery is quicker, as there is less bone-tissue to repair, the section of the femoral shaft at the seat of operation being about one-half less than that just above the condyles. 6. Multiple osteotomies for the correction of knock-knees and bow-legs are done away with; because, if the shaft be divided at the point of junction of the two curves (which, in bad bow-legs, are anterior and external), the double deformity, *i.e.*, the curving at the lower half or so of the thigh, and the extrorsion at the knee, can be overcome. There is now no need to defend osteotomy as an operation, as it has become as common as it is safe; but it may help still more to generalise it, if I repeat that 97 per cent. of my operations have been done without antiseptic precautions; and, seeing that I come second (as I believe) in the number of osteotomies done by any one surgeon, and as only four cases have been temporarily retarded by sup-

puration, which was caused through having to change chisels, and consequent bruising of the soft parts, nothing more need be said in order to make the operation still more popular. A trial of mid-femoral osteotomy will convince any one of its advantages over other methods.

H. A. REEVES, 6, Grosvenor Street, W.

THE RADICAL CURE OF HYDROCELE.

I DESIRE to bring before the readers of the BRITISH MEDICAL JOURNAL a procedure, which of late I have practised with complete success, as a means for effecting the cure of hydrocele. Having tapped the cyst with a short but rather large trocar and cannula, when the flow of liquid ceases, I charge a long but slender silver spoon or spatula with a small quantity of finely powdered iodoform, and slip it through the comparatively wide cannula into the cavity of the tunica vaginalis, or cyst, as the case may be. A few movements of the spatula will serve to bring the iodoform into contact with different portions of the cyst wall, and, in the event of the tumour having been of large size, a second, or even third, spatulaful of iodoform may be introduced, care being taken to apply some of the powder to the upper and lower extremities of the cyst. After withdrawal of the spatula, the cannula is to be removed, when the puncture may be closed by holding the skin pinched between the finger and thumb for a few minutes.

The patient experiences but little pain either during or subsequent to the operation; and, although it is not desirable that the scrotum should be subjected to rough usage, yet it is by no means necessary to keep the patient confined in his room. From my experience of the iodoform treatment, I fully anticipate that all who may give it trial will find this method to contrast favourably with the sometimes uncertain, often painful, and always disagreeable injection of an iodine solution; whilst, as for the German plan of laying open the cyst-cavity, and drawing it under antiseptic dressings, I consider the measure an unnecessarily severe one, quite uncalled for in the vast majority of cases.

P. J. HAYES, F.[illegible].S.Ed.,
Surgeon to the Mater Misericordia Hospital, etc.

OBSTETRIC MEMORANDA.

FLUID PRESSURE APPLIED TO THE REDUCTION OF RETROVERSION OF THE GRAVID UTERUS.

THE efficacy of fluid pressure applied to the reduction of inverted uterus was first practically demonstrated by Dr. Tyler Smith in 1868, and since then has been successfully adopted by others. The same principle may with equal benefit be applied to the reduction of some cases of retroversion of the gravid uterus. This I first carried out at the London Hospital; and it has been recently repeated by Mr. Hunt, obstetric assistant at Guy's Hospital. A woman aged 23, pregnant three months and a half, was admitted under my care for retention of urine. Sixty-four ounces were drawn off. The uterus was acutely retroflexed, the body being locked under the promontory. Reduction by taxis appearing to demand an undue amount of force, one of "Barnes's bags" was passed into the rectum, and distended with water. In one hour, it was found that the uterus was completely restored to its position. She went her full time, and was safely delivered. In this case, perseverance in the taxis would probably have entailed so much uneven pressure on the uterus as to have led to abortion and metritis. The sustained, equable, diffused water-pressure accomplished the reduction gradually, smoothly, and safely. "Plus fait douceur que violence".

ROBERT BARNES, M.D., Harley Street.

SURGEON-GENERAL Alexander Wright, retired, Bombay Army, died on the 22nd November, at Lasswade, aged 71.—Surgeon-Major Adam Taylor, of the Bengal Army, died at Delhi on the 21st October, aged 47.—Surgeon-Major E. A. Trimmell, of the Madras Medical Department, died at Madras on October 20th, aged 86.

Mr. SPENCER WELLS.—We learn from the *Union Médicale* that on November 12th several of the chief hospital surgeons of Paris gave a banquet at Brébant's restaurant to Mr. Spencer Wells. This act of international fraternity was originated by Dr. Worms. Not only was Paris represented on this occasion; Dr. Leardet, of Rouen, was also amongst the company. Professor Gosselin, in a happily-improvised speech, rendered homage to the great services which Mr. Spencer Wells has rendered to humanity by demonstrating "the possibility and the opportunism of that splendid operation, ovariotomy"; at the same time he offered the thanks of his compatriots for the large and cordial hospitality with which the French medical profession met in London at the time of the recent Congress.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

ST. THOMAS'S HOSPITAL.

CASE OF PARALYSIS AGITANS: CONDITION OF THE TENDON REFLEXES: REMARKS.

(Under the care of Dr. ORD.)

[Reported by Dr. W. B. HADDEN.]

E. P., aged 62, a widow, was admitted on January 14th, 1881. She believes that her present illness was caused by a severe fright, which she sustained on seeing a violent quarrel between her son and daughter. About a year afterwards, she suffered from carbuncles at the back of the neck, and at this time her attention appeared to be seriously called to the affection. She was admitted under the care of Dr. Bristowe. It was then noted that the tremors involved chiefly the left leg and the arms, especially the right. The head and lower jaw were unaffected. The tremors ceased when the patient attempted to execute muscular movements and during sleep. She moved slowly, with the head inclined forwards, staggered, and would fall unless supported. The characteristic immobile expression of the face was present. She complained much of pain and stiffness of the joints, especially on movement, and of a constant burning pain at the lower part of the back and in the epigastrium. The urine contained an excess of phosphates, but there was no evidence of any organic disease. The morning temperature was usually normal, but in the evening there was a diminution almost constantly of 1°.

On admission under Dr. Ord, she stated that the tremors first affected the left leg, and then gradually involved the left arm. About a year afterwards, the right arm began to tremble, but the right leg was said to be unaffected.

On examination, it was observed that there were rhythmical tremors of both upper and lower extremities. The tremors were very evident when the patient was lying in bed, and increased in frequency under the influence of emotion. During sleep, and on attempts to execute movements with the affected members, the tremors ceased. The thumbs and index fingers, which were extended and apposed, constantly moved one over the other, as though the patient were rolling something between them. The hands presented the attitude assumed whilst writing, the fingers being flexed at the metacarpo-phalangeal joints. The head was inclined forwards on the sternum, but not affected by the tremors; the sterno-mastoids were rigid and contracted. There was a constant peculiar grinding movement of the lower jaw from side to side; the tongue was not noticed to tremble when protruded. There were festination, slowness of speech, throbbing pain in the back, and frontal headache. The patient complained of occasional attacks of rigidity and cramps affecting both upper and lower extremities. There was no anæsthesia, and no evidence of organic disease of viscera. The temperature frequently fell somewhat below the normal standard. On examining the tendon reflexes, it was found that the triceps muscles reacted vigorously, but more on the right than the left. The tendon of the extensor carpi ulnaris responded to a very slight stimulation; this also was better marked on the left side. The muscles contracted on striking the lower part of the shaft of the ulna, as well as on direct stimulation of the tendon. The flexors of the wrist were much exaggerated in their action and responded equally well on both sides. On tapping lightly the tendon of the supinator longus or the shaft of the radius in its lower third, this muscle and the biceps could be both seen and felt to contract. The supinator appeared to contract just before the biceps. The reflexes of the knee and tendo Achilles were exaggerated on both sides, but the action was most marked in the right. There was no ankle-clonus, but very decided front-tap contraction, more especially on the right side. The cutaneous plantar reflexes responded more readily than usual.

REMARKS BY DR. HADDEN.—The condition of the tendon-reflexes in this case appears to have an important bearing on the nature of paralysis agitans. The marked exaggeration of the tendon actions in both upper and lower extremities certainly suggest sclerosis affecting probably the lateral columns of the cord. The front-tap contraction, which is with rare exceptions a pathological phenomenon, and frequently the precursor of ankle-clonus, was in this case very evident. Charcot's investigations negative the idea that paralysis agitans is accompanied by a hyperplasia of the connective tissue, such as is seen

in sclerosis. In the cases of Bamberger, Lebert, and Skoda, distinct evidence of such a degeneration was forthcoming, but these changes have been considered by Charcot as distinctive of disseminated sclerosis. Marshall Hall, Parkinson, and especially Oppolzer, have described sclerotic changes in the pons, medulla, and cord in these cases. It is possible that, in some cases, the lateral columns become affected secondarily, and hence the occurrence of the rigidity and cramps so frequently seen in these cases.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

A CASE OF AMBLYOPIC ATAXY.

(Under the care of Dr. FERRIER.)

[FOR the notes of the following case we are indebted to C. E. BEEVOR, M.B., Resident Medical Officer.]

C. J. D., aged 29, was admitted into the National Hospital for the Paralysed and Epileptic, Queen Square, on April 22nd, 1881. He had been in the police force for six months; before this, he was a customs officer for eight years. He had been much exposed to wet and cold; always a steady man. He had been married five years, and had three children, all healthy. He had had no previous illness of importance; he had gonorrhœa once; never had a chancre. There was no hereditary neurosis. His present illness came on seven or eight months ago, with dimness of sight, and for about the last five months he had had shooting pains in the arms and legs; he had also had occasional diplopia; he also suffered from shooting pains above his eyes. He had had heavy dull pains in the back of his head and nape of the neck for about four months. He had noticed for seven or eight months that he bore to the left in walking. He had never experienced any difficulty in walking in the dark. He had never had attacks of vomiting. He thought that, for about the last eighteen months, he had had diminished sexual power and desire.

State on Admission.—The patient was a strong healthy-looking well-developed man. He complained of sharp shooting instantaneous pains in the muscles of the calves and thighs, but not in the joints; the pains left a soreness. He had also shooting pains in the forehead, over both eyes. The shooting pains occurred once every three nights, and about once a fortnight he had a dull aching pain at the back of the head and neck, lasting all day. The eyes had a listless vacant stare, owing to his being able to converge them only very slightly. In looking to the right, the left eye did not move inwards to the full extent; and in looking to the left, the right eye was defective in inward movement, and there was then slight nystagmus. He could elevate the eyes fully, but could not depress them. The size of the pupils was: right = 3½ millimètres; left = 4½ millimètres. They did not react to light, and only slightly to accommodation. There was no paralysis of the face or tongue. The upper limbs were not affected; the grasp of the right hand was = 100 lbs.; of the left = 90 lbs. There were no ataxic movements, when the eyes were closed, in touching the tip of his nose. The lower limbs were well developed, and very muscular; he walked well and sharply, and he sometimes stepped a little more to one side than to the other, but not to the left more than to the right. There was no appreciable difficulty in turning round; he could not, however, walk along a line toe-and-heel, in tight-rope fashion, without staggering. He could stand with his legs closed without swaying about, though he said he did not feel quite steady. The knee-phenomenon (patellar tendon-reflex) was absent on both sides. Plantar, abdominal, and epigastric reflexes were obtained very readily on either side. Cremastive and scapular reflexes also were obtained, the latter slightly. Sensibility was not affected; he localised the slightest touch on his feet and legs, also painful impressions; there was no delay in transmission. He had no numbness in his limbs, or in any part of his body. Sight was very deficient. The right eye could just read 50 Nettleship at six inches, and no further; the left eye could only just tell light from darkness. Ophthalmoscopic examination showed the discs to be greyish and atrophic. He could distinguish a watch held about a yard off either ear. He thought he heard a tuning-fork, placed on his teeth, rather better in the right ear than in the left. There were no cardiac symptoms.

The patient, while in the hospital, did not suffer from shooting pains; and he left the hospital, on June 18th, in much the same condition as regards his other symptoms.

REMARKS BY DR. FERRIER.—This case is a good example of one of the various modes in which locomotor ataxy sets in. While in some, shooting pains, at more or less distant intervals, precede by many years ataxic symptoms proper; and in others ataxy becomes developed to a marked extent, with few or no pains; in others again, as here, the ocular symptoms are the first to obtrude themselves. Double vision, or some difficulty in ocular adjustment, dimness of sight, gradually increasing up to complete blindness, occasional occipital or supraorbital pains, or pains in the limbs, may precede also by several years—in one case, under his care, ten years—the setting in of any perceptible ataxic disorder. The characteristic tabetic papillæ; the ophthalmoplegia of the third nerves; the Argyll-Robertson pupils; the absence of knee-reaction; the occasional shooting pains; and the ataxy visible on movements requiring delicate equilibration, indicate unmistakably the nature of the case. As a further diagnostic point, between this and cerebellar disease, the latter would, according to Dr. Ferrier's experience, be associated with exaggeration of the knee-reaction on both sides.

CASE OF CLONIC SPASMS OF THE NECK AND SHOULDERS TREATED BY LIQUOR ARSENICALIS.

(Under the care of Dr. BUZZARD.)

[FOR the notes of this case we are indebted to C. E. BEEVOR, M.B., Resident Medical Officer.]

J. S., a girl, aged 20, of no employment, was admitted on September 22nd. She gave no history of previous illness. She had not suffered from fits in infancy, nor from rheumatic fever. There was no family history of nervous disease. Two and a half years ago, twitchings of the head to the right began, followed a month later by jerking forwards of the right shoulder. Seven months later, the left side was affected in a similar way. For the last five months, she had had fits; she felt giddy before them, and her legs trembled. At first, they occurred three times a day; lately, about twice a week. They lasted about five minutes. She said she had bitten her tongue in them, was convulsed on both sides, and that after a fit she felt sleepy, and had pain in her head.

She was a very nervous excitable girl, pale but not anæmic; she had almost constant violent movements; the head was jerked backwards by the muscles at the back of the neck and by the sterno-mastoids; both arms were violently jerked forwards, and the shoulders were raised; nevertheless, she could hold out her arms at full length without much movement, and could pick up a pin perfectly well. The body was twisted sometimes to the left. The legs were not affected, and she walked quite well. The patellar reflex was present on both sides, and about normal. There was no ankle clonus. The cutaneous reflex of the soles of the feet was present, but not well marked. There was cardiac disease. Menstruation was regular, and there was no ovarian tenderness.

For about a month, she took sulphate of zinc, beginning with one grain three times a day up to twelve grains three times a day. After this, she said she was quieter, but improvement was not marked; then took liquor arsenicalis, beginning with five minims three times a day, and increased to ten minims three times a day, and the movements gradually became less, and now are hardly perceptible. While in the hospital, she had nine fits.

Dr. Buzzard remarked that the pathology of such cases as these was as yet unknown. They often resisted long and varied treatment. When recovery took place, it was always in the case of a young woman. He referred to a case, far worse apparently than this, which he had seen in private practice in the person of a young lady. In that instance, pressure in the left ovarian region controlled the spasms, but this could not be continued on account of the pain which it caused. A great variety of other treatment was applied in vain, but eventually the disease yielded to the application of a circular blister around the arm.

THE SUDDEN DEATH AT WIMBLEDON.—A correspondent writing to the daily papers, says:—Dr. Lamson, whose name has been mentioned in connection with the sudden death of Mr. John, at Wimbledon, is well known in Servia and Roumania. He had charge of a hospital at Semendria, in Servia, during the Servo-Turkish war of 1876, and was also chief surgeon in charge of a similar institution at Bucharest during the Russo-Turkish war of 1877-8. He was regarded as a skilful member of his profession, and was particularly noted for his skill as a *raconteur* of anecdotes. His father, the Rev. Dr. Lamson, has been an Episcopal clergyman for some years in Paris, and was in the field during both of the campaigns above mentioned, as the agent of a charitable society for aiding the sick and wounded. Dr. Lamson, jun., was decorated in both campaigns for his medical services by the Servian and Roumanian Governments. Dr. Lamson is an accomplished linguist; he has spent many years in Europe, although an American in nationality.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 6TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the Chair.

Joint from a Case of Gout.—Dr. NORMAN MOORE showed the knee, larynx, kidneys, and brain of a man, under the care of Dr. Southey, who died a few hours after admission into hospital. The patient was a plumber, and had had repeated attacks of gout. A deposit of urate of soda was found in various joints, but not in the vertebral joints; the amount of deposit in the knee-joints was very remarkable; and in the right knee-joint a quantity of purulent fluid was found. The kidneys were in an advanced stage of interstitial nephritis. On the left side of the cerebellar hemisphere there was a white plate in the pia mater. This plate contained a trace of uric acid. The bony tissue of the tibia contained no uric acid. No trace of lead could be found in the liver; lead, Dr. Moore observed, probably merely tended to produce gout by checking excretion, and not by any more direct action.—Dr. DYCE DUCKWORTH observed that the relation between gout and lead-poisoning was a very certain and very interesting one. He thought this an interesting case, inasmuch as it was clearly shown that suppuration had occurred in one knee-joint. This was a very rare condition; in some of the other cases on record, the patients had suffered from erysipelas; but in this case there was no history of erysipelas, and therefore it might be regarded as a true case of suppuration in a gouty joint.—Dr. CURNOW said that two years ago he had examined a body in which nearly every joint of the lower limbs contained urate of soda, but in this case there was no suppuration. The vertebral joints, and the joints of the upper limbs escaped. He thought that any suppuration which occurred in gouty joints was an accidental complication.—Dr. MAHOMED wished to know whether any convulsions had been observed. He had noticed that convulsions often occurred in relation with a small hæmorrhage into the pons Varolii, such as was noted in this case. He thought that some primary disease of the kidneys might be at the bottom of the production of the symptoms of lead-poisoning, leading to faulty excretion, and so to accumulation of lead in the system.—Mr. H. MORRIS wished to know whether the metacarpal and phalangeal bones were affected by the gouty deposit. In some cases, pus appeared in joints with very slight cause. In one case he had had under treatment, pus formed in one knee-joint while a long splint was on the limb for the purpose of maintaining it at rest.—Dr. MOORE had not analysed any part of the metacarpal bones, but proposed to do so. Urate of soda was not common in the bone-substance itself. No convulsions occurred during life. There could be no doubt that the fluid in the joint was pus.—The PRESIDENT thought he had often seen urate of soda in bones.—Dr. SOUTHEY said that there were no convulsions during the time the patient was in the hospital under his care.—Dr. SEMON observed that cases of gouty deposit in the larynx were very rare.

Tissues from a Case of Hæmophilia.—Dr. WICKHAM LEGG said that examinations of the tissues in well-marked bleeders were sufficiently rare to deserve record. The tissues, which were obtained nine hours after death, were hardened in Müller's fluid. He had been unable to find any changes in the vessels. Of the five cases on record, in three cases no changes had been found, in two, an increase of the nuclei, and increased transparency of the intima had been observed. There was in this case a well-marked fatty infiltration of the viscera; but to this fact he attributed no great significance, as that condition might have been due to the anæmia consequent on frequent hæmorrhages. In one knee-joint was some fluid blood. He showed a genealogical tree of a bleeder family which went back two hundred years. It attacked the boys, but was transmitted by the girls. The children of a bleeder were generally themselves free from the disease.—Mr. EVE remarked that Mr. Hutchinson had shown that multiple exostose had the same rule of heredity.—The PRESIDENT pointed out that the cause of the hæmorrhages in hæmophilia was probably some slight disturbance of the relation between the blood and the vessels. The fact that hæmorrhages were common in the acute specific fevers seemed to tend in that direction.

Dilatation and Suppuration of the Fallopian Tubes.—Mr. LAWSON TAIT related some cases of the conditions, termed hydro- and pyo-salpinx. In the first case related, there had been dysmenorrhœa for three years; on each side of the uterus was a hard tender mass. Abdominal section was performed, and the ovaries and appendages, which were inflamed and glued together, were removed. In the second case also there was intense dysmenorrhœa. The ovaries were enlarged, and the uterus was large and tender; the ovaries and Fallopian tubes were removed by abdominal section, and the patient made a good recovery. The third specimen was removed from a woman who for five years had been constantly ill; the ovaries and appendages were removed, and the patient made a speedy recovery. The fourth specimen was one met with in the course of an ovariotomy for cystoma. The nature of the cyst was obscure, but it seemed to be a dilated Fallopian tube. The fifth specimen was taken from a woman who had had an attack of pelvic inflammation, and for years afterwards suffered from dysmenorrhœa. A good recovery followed removal of the ovaries and appendages by abdominal section. The sixth specimen was from a young woman with dysmenorrhœa and menorrhagia. Removal of the ovaries was at first declined, but in August last the distended ovaries and appendages were removed; this patient also recovered rapidly and well. Another patient had suffered for many months from constant pain, aggravated at the menstrual periods. In October last, the ovaries and appendages were removed. The Fallopian tubes both contained a large quantity of pus. A good recovery ensued. In another case, there was a clear history of pelvic peritonitis, followed by dysmenorrhœa. The distended Fallopian tubes and the ovaries were removed, and the patient made a good recovery. In another case, there was a history of acute pelvic peritonitis, and subsequently dysmenorrhœa and menorrhagia became prominent symptoms. The Fallopian tubes, which were distended with purulent fluid, and the ovaries, which were large and soft, were removed. She, also, made a good recovery. Summing up the result of his experience, Mr. Tait said that a history pointing to an attack of pelvic suppuration, with the subsequent development of dysmenorrhœa, and frequently of menorrhagia, and of pain on intercourse, was generally to be obtained in these cases by physical examination. Sausage-shaped tumours could be discovered behind or on each side of the uterus. The enlarged tubes were generally firmly attached to the uterus, and their removal was often a matter of very considerable difficulty, so that the operations were often very tedious. He had now performed the operation twenty-two times, and all his patients had recovered from the operation, and had subsequently been free from any symptoms. He thought that all the cases owed their origin to pelvic peritonitis, with adhesion of the Fallopian tube to the ovary, and its consequent occlusion. In one other case, which was not operated on, death was due to rupture of the right Fallopian tube into the peritoneum; this set up severe peritonitis. The operation was followed by cessation of menstruation and by sterility.—Mr. ALBAN DORAN confuted, by means of diagrams, the erroneous notion, maintained in all text-books, that the Fallopian tube ran directly outwards from the uterus, the fimbriæ floating freely from the extremity, excepting the fimbria ovarica, which runs downwards. Nor did the ovary lie transversely in the pelvis entirely below the tube. For the ova to reach the tube, the "morsus diaboli" theory had been accepted. Professor His had shown, what Mr. Doran could confirm from investigation, that the ovary hung with its long diameter almost vertical, close below the brim of the pelvis. The tube ran over its upper border, and then turned downwards over the free border of the ovary. Hence the ovary lay on the fimbriæ, and the ovarian fimbria ran upwards, not downwards. The ripe ova simply dropped into the tube, and might fall at once among spermatozoa, just as a pellet of bread dropped off a bridge fell among a shoal of small fish. A slight attack of pelvic peritonitis might rapidly glue all the fimbriæ on to the ovary; the tube then dilated, and, instead of rising high above the ovary, as would be the case were the usual ideas on the relative position of these structures true, half the dilated tube coiled round the outer side and lower part of the ovary. For the same reason tubo-ovarian cysts lay outside or below the ovary, and never above it; and in cases of fœtation within the outer third of the tube, the ovary lay above the fœtal sac, between it and the inner third of the tube. This morbid condition was frequently taken for ovarian fœtation, simply because the fœtus lay below the ovary. Mr. Doran believed that suppuration of the tube was either of gonorrhœal origin, or due indirectly to the constant irritation of uterine sounds, for many of Mr. Tait's cases had been very frequently examined by numerous practitioners. Mr. Doran indicated, from Mr. Tait's specimens, how intimately the tube and ovary became glued together, and how the mucous membrane of the tube becomes like the lining membrane of an abscess.—Mr. KNOWSLEY THORNTON thought that Mr. Doran was quite right in his account of the position of the Fallopian tube. He thought it would be interesting to know how often this condition of pyo-salpinx resulted in death if left alone. He thought that hydro-salpinx was susceptible of spontaneous cure.—The PRESIDENT had seen two cases in which death from pyæmia appeared to be due to purulent inflammation of the Fallopian tube.—Mr. LAWSON TAIT wished to express his indebtedness to Mr. Doran for his lucid explanation of

the specimens, and fully agreed with him in his account of the relation of the Fallopian tube to the ovaries.

Calcified Adenoma of Scalp.—Mr. EVE showed the tumour and several microscopical sections. In the sections, columns of epithelial cells were seen, with a filamentous stroma; some of the larger columns contained round masses of granular matter, which probably contained the calcareous salts. The father of this patient, a brother, and an aunt all suffered from similar tumours. Dr. Malherbe, of Nantes, had described somewhat similar tumours. Dr. Malherbe had examined Mr. Eve's sections, and had agreed that they showed a condition identical with that to which he had given the name of "calcified epithelioma of the sebaceous glands." Mr. Eve thought that this term had probably been applied without sufficient grounds, for the tumours appeared to have no malignant character. They seemed to him to belong rather to the class of adenomata. He also showed a second specimen of calcified adenoma of the scalp, which had been sent to him by Mr. Reeves. Malherbe maintained that these tumours grew within a sebaceous cyst; and Mr. Reeves said that in his case the tumour was connected with a sebaceous cyst, but that its exact relation could not be determined.—The PRESIDENT observed that, so far as his recollection served, Dr. Malherbe had said that there was true bony tissue in these tumours.—Dr. THIN said that Dr. Malherbe maintained that the calcification occurred in the protoplasm of the cells, and that there was no tendency to ulceration.

Sebaceous Adenoma of Scalp.—Mr. SHATTOCK, who showed this tumour, said that it resembled, on microscopical structure, an ordinary adenoma of the breast. The epithelium was well formed, and closely filled the acini.—Dr. PYE-SMITH observed that the term epithelioma was not used on the Continent to describe a malignant tumour.—Mr. EVES said the tumour he showed was not an epithelioma in the sense usually understood in this country.

Specimens shown by card:

Dr. W. B. HADDEN: Dilated Œsophageal Veins, and Enlarged Follicles in a case of Cirrhosis of Liver.

Mr. FREDERICK TREVES: Attached Fœtus removed from Sacrum (shown previous to dissection).

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 25TH, 1881.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Two Cases of Direct Transfusion of Blood for Hæmorrhage in Typhoid Fever.—Dr. F. A. MAHOMED read a paper on these two cases. The first was that of an unmarried man, aged 26, who was stout, rather bloated-looking, and thoroughly out of condition. He passed through an anxious attack of enteric fever, complicated during the latter part of it by wakeful excited delirium, resembling that of delirium tremens—a complication not unfrequent during the defervescence of the specific fevers, and perhaps more especially liable to occur in persons addicted to the excessive use of alcohol. He relapsed on the twenty-fifth day of his illness; on the tenth day of his relapse, and the thirty-fifth of his fever, he had a severe hæmorrhage, which recurred twice on the following day. Exhausted, anæmic, restless, with cold extremities, and a very small, thready, and often irregular pulse, about 160 per minute, he was evidently fast sinking, when transfusion was performed, with the immediate result of bringing down his pulse-rate from 160 to 144. After this he rallied for a few days, and even gained ground so much as to give great hopes of his ultimate recovery. Six days after the operation, hæmorrhage recurred to a small amount, which caused a sudden change for the worse; one or two more slight discharges of blood soon reduced him to a state of exhaustion, from which he could not recover. He died nine days after the operation, on the nineteenth day of his relapse and the forty-fourth of the fever. The second case was that of a married man, who had a young family dependent upon him. He was twenty-five years of age—a powerful, well-made man, who, during his attack of fever, suffered a probably irrecoverable injury by collapse of a large part of his right lung, while in addition to this he had severe general bronchitis. On the twenty-sixth day of his illness he, too, had a relapse. On the fifth day of his relapse, and the thirty-first of his illness, he also had a severe hæmorrhage; four days later he had three more severe hæmorrhages, and relapsed into a state of complete exhaustion and impending dissolution. On the following day, when he appeared to be *in extremis*, transfusion was performed with the best possible effects; for two days he rallied greatly, when, during the exceptionally cold weather, his bronchitis increased, and he died from the lung complication on the fifth day after the operation, on the fifteenth of the relapse, and the fortieth of his fever. Dr. Mahomed gave some statistics showing that the average frequency of hæmorrhage in enteric fever was about 7 per cent. of all cases, and that about 50 per cent. of these were fatal; that more than half of the fatal cases of hæmorrhage lost their lives as a direct result of the bleeding; and that in these cases more especially the operation might be called for. He estimated that it might prove of service in about twenty cases out of 1,400 cases of enteric fever. Each case must be judged on its own merits, and he would advise its performance whenever the patient was sinking into a dangerous condition, as a direct result of the loss of blood. He claimed that by means of it fatal exhaustion and syncope might be warded off, and time given for the action of remedies; a ready stimulant and food supplied to the heart and tissues; and the danger of destructive ulceration of the intestines during exhaustion and anæmia diminished. He advocated only direct transfusion of human blood by means of Aveling's transfusor, with a small expansion and no valves. He referred to Professor Schäfer's report to the Obstetrical Society in 1879, as proving the uselessness of the blood of the lower animals or saline solutions for this purpose.—Mr. HARRISON CRIPPS, in describing this operation, said that it was difficult to get good statistics with regard to the results of transfusion, the operation having been done for many causes and with many fluids. He would speak of blood in its natural state only, for defibrinated blood was of no use. Moreover, too many instruments had been employed to enable us to get a good knowledge of any one of them. The three chiefly in vogue were Roussel's, the simple tube, and Aveling's apparatus. As regards the first of these, the operation was clumsy; it meant machinery instead of anatomy. The simple tube could act only by gravitation, and was liable to cease to act altogether. Aveling's apparatus, on the other hand, was simple and good; but, as ordinarily sold, the tubes were too large. He found, moreover, that clips were better than stop-cocks. It was best first to expose the vein of the recipient, as it was usually much easier to open the vein of the giver; but it was best only to expose the vein, not to open it. After this, the vein of the giver should be opened; and next that of the receiver, when the two should be immediately connected. The quantity used by him in the case under discussion he estimated at from twelve to fourteen ounces.—Mr. BARKER spoke of a case of pernicious anæmia, where the patient's brother freely supplied the blood. The apparatus leaked somewhere, so that the blood coagulated, and the operation broke down. He then tried defibrinated blood, but that did not do much good.—Dr. COUPLAND asked whether it was better to take the blood from an artery or a vein. In certain respects, arterial blood would seem to be the better; but was a wound in an artery as serious a thing as a wound in a vein? It would not be easy to measure the exact quantity transmitted from an artery.—Mr. PARKER was present at one of M. Roussel's operations, when Mr. James Adams gave from his arm a quantity of blood to a patient in risk of dying on the operation-table. The instrument acted perfectly, but was accidently overturned by a dresser.—Mr. WARRINGTON HAWARD said that it was plain that, in such cases, the simpler the apparatus the better. He had seen M. Roussel and that gentleman had said that with his apparatus the blood was less likely to coagulate; but that was not so. He had tried it in a case of pernicious anæmia under Dr. Cavafy. He encountered no difficulty to begin with; but, after about four ounces had been injected, no more would pass. A coagulum had formed in the apparatus. There was no material gain, but no harm. Further experiments on the dead body showed it to be unsatisfactory; no instrument with valves should be used. He had seen defibrinated blood used, certainly with good effect for the time being.—Mr. PARKER remarked that Roussel had insisted on the necessity of employing pure rubber tubes, as the others tended to favour coagulation.—Mr. W. HAWARD said that the apparatus he used was one of Roussel's own.—The PRESIDENT advocated the use of the ordinary glass syringe, and the injection of normal—not defibrinated—blood. India-rubber, if kept for a time, almost always got out of order. There was little danger to the donor in these cases if antiseptics were used. Many years ago, he had found that coagulation was really due to contact with foreign solid matter. But the blood did not coagulate in the veins.—In reply, Dr. MAHOMED said that he did not think that more than about four ounces of blood had been transfused in his last case; certainly less than ten would do good. In these cases, he did not think it fair that the resident officers, living in a more or less vitiated atmosphere, should be asked to give the blood; and he saw no reasonable objection to having a strong healthy person for this purpose. Opening a vein and introducing a tube was not the same thing as making a longitudinal slit with a lancet. In his case, all antiseptic precautions broke down. A transverse incision was the best. It really did not matter greatly whether the blood taken was venous or arterial; in either case, it had to pass through the lungs before reaching the left heart.

Chromhidrosis.—The PRESIDENT said that Dr. Fox had present an interesting case of chromhidrosis, and he would propose a committee to examine into it. This was accordingly done.

Three Cases of Continued Fever, with Affection of the Spleen, in two of which an Extremely High Temperature occurred before Death, and one of which clinically resembled Enteric Fever.—Dr. T. WILLIAM related these three cases, all of which had come under the author's observation during the past three years. Case I was that of a domestic servant, aged 20, who had enjoyed excellent health, and, save that she was an inordinate meat-eater, was guilty of no excesses. Five weeks before admission into hospital, she was attacked by headache; vomiting and profuse sweats set in about nine days before she came under observation. At this time, she complained of abdominal tenderness. While under treatment, the symptoms were but little altered; and on the thirty-eighth day she was suddenly attacked with severe pain in the left iliac region. So severe was this pain, that she never ceased screaming until her death in the evening. At the necropsy, a few yellowish-white masses of irregular shape were found in the spleen, giving the general impression of infarcts; no other organ showed any appreciable change from the normal condition.—Case II. A domestic servant, aged 21, had been remarkably free from illness, and had never been seriously ill, save when she had chicken-pox as a child. She was in perfect health four days before admission, when she took a warm bath, after which the catamenia appeared, but ceased in about three hours; and she was then attacked by abdominal pain, chiefly in the hypogastrium; and also in the legs and back. She had lost two brothers and a sister from phthisis. After four days' rest in hospital, she was so much better that she was allowed to get up; but eleven days later she was unable to stand, and had fits of alternate laughing and crying; was constipated, and complained of pains at the top of her head. On July 1st, 1878 (eighteen days after admission), her pulse was 104, and the temperature still normal; but she was delirious, and so noisy that she was removed to the separation ward. She became gradually worse, and died on July 11th. The temperature had risen to 109° Fahr. shortly before her death. At the necropsy, a few circumscribed dark red patches were found in the spleen, which contrasted strongly with the general brick-red colour of the organ. Beyond some congestion of the lungs, no other morbid change was found.—Case III. A domestic servant, aged 26, was attacked about November 10th, 1880, with many of the symptoms of enteric fever, and was admitted on November 24th. Next day, several rose-coloured spots were found on the abdomen, indistinguishable from typhoid spots. Diarrhœa persisted; the patient became very weak, and then delirious. The abdomen was tympanitic. On December 1st, the diarrhœa was profuse, pulse 168, and she died in the afternoon. About ten minutes before death, her temperature rose to 108.6° Fahr. At the necropsy, the spleen weighed sixteen ounces; in its substance was a large infarct, partially broken down; the tissue of the organ was diffluent. The solitary glands of the intestines were unusually conspicuous, but no other abnormality was found. The cause of the disease was in each case obscure. Two explanations suggested themselves; viz., blood-poisoning; or local inflammation of, or in the neighbourhood of, the spleen—the weight of evidence pointing rather to the latter. The absence of any history pointing to splenic affection was remarkable; as also was the fact that these three patients were all female domestic servants, and of about the same age. The high temperature which was observed in Cases II and III was noteworthy.—Dr. C. T. WILLIAMS asked if the spinal cord and brain had been examined in these cases.—The PRESIDENT said that many different diseases were produced in animals by organisms, and this was probably the case in man too. He thought that, in such cases, the blood ought to be examined, after having been duly prepared.—Dr. WHIPHAM said that the brain in all, and the spinal cord in one, had been examined, but not the blood.

MANCHESTER MEDICAL SOCIETY: MICROSCOPICAL SECTION.

J. DRESCHFELD, M.D., President, in the Chair.

Hereditary Syphilis and Tubercle.—Dr. J. BURY showed sections of gummata of liver, tubercular ulcer of ileum, and swollen metatarsal bone, from an infant of nine months; also a piece of parietal bone showing a small congested thickened area. The mesenteric glands formed a large suppurating mass. The child was greatly emaciated. Its mother had an extensive syphilitic ulceration of the pharynx. Dr. Bury remarked (1) on the varied manifestations of the bone-lesions in hereditary syphilis, reducible, however, histologically to rarefying, and productive osteitis, the latter being the characteristic type; (2) on the association of tubercular and syphilitic lesions in the same subject.

Pathology of Hydrophobia.—Mr. E. H. HOWLETT exhibited some sections of the spinal cord from a case of hydrophobia. After briefly alluding to a series of cases of hydrophobia, in which four out of five persons bitten by the same rabid dog had died with well marked symptoms, he proceeded to discuss the pathology of the disease by stating that, for a long time, the virus had been known to exist in the saliva of rabid animals. Microscopical examination of saliva would naturally demonstrate the presence of numerous organisms, but such a result was to be expected even in the saliva of healthy individuals. With the view of ascertaining whether any particular form of disease could be discovered in the salivary glands themselves or in the blood, the following experiment was performed. Within an hour and a half of death, portions of the submaxillary, parotid, and sublingual glands, with Stenson's duct, were dropped into test-tubes containing a fine turnip infusion; also the same organs were placed in some dry test-tubes, and the whole series placed in an incubator, where they were kept for several weeks. These test-tubes were exhibited to the Society (eight months after the commencement of the experiment), and it was seen that the solutions remained perfectly bright and clear; and, of the dry preparations, with the exception of the one containing parotid gland, no change beyond the drying up of the tissue occurred. From these results, it was concluded that no organism existed in the salivary glands or blood in hydrophobia which was capable of causing any form of fermentative change. Microscopical examination of the other organs failed to demonstrate the presence of any micro-organism.

Intracranial Aneurysm: Optic Neuritis.—Dr. ASHBY showed sections of the optic papilla and nerve from a case of optic neuritis secondary to aneurysm of the middle cerebral artery, with consecutive softening of the parietal lobe of the brain. The patient, a girl aged 8, had mitral disease with granulations, some cretations on the edges of the valve. The aneurysm was of the size of a large hazel-nut, and was no doubt caused by embolism; there were no infarcts either in the spleen or the kidneys. The optic neuritis during life was characterised by considerable swelling of the disc, and numerous large hæmorrhages. The microscopic sections showed hæmorrhages lying on the retina and between its layers. The cross sections of the optic nerve showed microscopic hæmorrhages in the sheath as far back as the foramen, and distension of the lymph-channels.

The President showed sections of the spinal cord from cases of hydrophobia, showing no pathological changes; and sections of a peculiar form of gouty kidney.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, NOVEMBER 19TH, 1881.

WILLIAM STOKES, M.D., President, in the Chair.

Large Ovarian Tumour.—Dr. G. F. DUFFEY exhibited an ovarian tumour removed by Dr. Atthill. The patient was a married woman aged 40, mother of five children. Her health had always been good until a year ago, when she felt pains in the ovarian region. Menstruation ceased for some months; and, though it recurred once or twice scantily, she believed herself pregnant, attributing to this the gradual increase in her size. She was once tapped two months ago, and a large quantity of dark grumous fluid was removed. On her admission to the Rotunda Hospital, her abdomen was very pendulous, bagging between the thighs. It evidently contained a large multilocular cyst. Her bowels were regular, and the urine was normal. The operation of ovariotomy was performed on November 14th. There were some dense anterior adhesions. The pedicle was long and twisted. The peritoneum was very vascular, and an abundant oozing from it had to be controlled by the actual cautery and the ligature. There was no vomiting from chloroform during or after the operation. In six hours, the temperature rose to 101°; after sixty hours, it rose to 103°, and the pulse to 150; the patient died seventy-two hours after the operation, without pain from first to last. Four hours before death, the breathing became very rapid, the lips were cyanotic, and she complained of great præcordial distress, and restlessness. The necropsy was made forty-eight hours after death. The body was of a pale lemon colour, well nourished. There was only one small spot of pus in the line of the abdominal incision. In the peritoneum, there were yellowish ascitic fluid, clots of blood, and ecchymoses. The intestines were adherent from peritonitis. The omentum was very vascular and injected. The liver was greatly enlarged and amyloid, and so were the kidneys and spleen. The uterus was fixed; its cavity measured 3¾ inches. The right cornu was drawn outwards and upwards. Dilated patulous vessels were found at the cervix, and there was a polypus. The right ovary had been removed close to the uterus. The left ovary was shrivelled and caseous. There were cysts attached to the fimbriated extremity of the Fallopian tube, which arose from either the hydatid of Morgagni or the parovarium. As to the thorax, there were adhesions in the right pleura; the lungs did not collapse, and were emphysematous. The right auricle of the heart was greatly distended with

fluid blood, and so was the right ventricle to some extent. The left chambers were empty.

Pneumothorax.—Dr. C. J. NIXON showed the thoracic viscera of a young woman, aged 28, who had a history of cough and frequent hæmoptysis of a year's standing. Subsequently, an acute attack of miliary tuberculosis set in, pneumothorax occurred, and was followed by subnormal temperatures. The left chest was very prominent. After death, complete collapse of the left lung was found. The heart was in the right chest. There were no evidences of recent pleuritis. A small perforation into the pleura was discovered in the neighbourhood of a large vomica in the left lung. A large cavern also existed in the right apex, and miliary tubercle studded both lungs. The so-called "auscultatory percussion-sound" was well heard over the left side of the chest after death.

Tumour of the Eyeball.—Mr. STORY showed a specimen of melanotic sarcoma of the eyeball.

REVIEWS AND NOTICES.

DRAMATIC SINGING PHYSIOLOGICALLY ESTIMATED. By WALTER HAYLE WALSHE, M.D. London: Kegan Paul, Trench, and Co. 1881.

THIS is a most interesting and instructive little book, which ought to, and we trust soon will, find its way into, the hands of every lover of music, and especially of those members of the medical profession who are often or occasionally called upon to give their opinion as to the musical education of those under their care. The attempt made in this little work, to analyse the very different and intricate factors of which dramatic singing is composed, has, so far as we know, never as yet been attempted in so interesting, clear, and concise a manner as in the present volume. The author, whose accomplishments in a somewhat different sphere of mental work are well known, shows himself perfectly capable of performing the very difficult task he has undertaken, he being, in spite of his repeated modest protests to the contrary, not only an earnest lover of music, not only an excellent observer, but evidently a very accomplished musician. The whole volume is one proof of this statement; but were it necessary to give an example, nothing could better establish its truth than his most graphic description of the impressions conveyed to his mind when he first heard the introduction to *Lohengrin* (p. 123). Having to travel almost throughout the work over entirely new and uncultivated ground, the author all but exclusively depends upon his own observations, conclusions, and estimation; and it is obvious that much will be found under these circumstances—we should say some statement or other on almost every page—which is debatable. This, however, detracts nothing from its value, but, by stirring up the reader's power of comparison and criticism, rather contributes to increase its merits.

There are, however, one or two points which call for special notice. The author justly considers that the different elements which constitute dramatic singing possess different degrees of value; and from this he concludes that it might be possible to fix their relative importance by "the assignment of a *numerical* value to each sub-element". He, therefore, taking zero as a mean which ought to be possessed by every executant, marks degrees of extra perfection by + numbers, and degrees of imperfection by − numbers. Taking, for instance, the facility of transition from the chest-voice to falsetto as an important sub-element, and justly saying that the annoyance to the ear from any notable defect in this regard is greater than the gratification derived from any amount of perfection, he arrives at the following estimation: Maximum, + 2; Mean, 0; Minimum, − 6. This method, however, it appears to us, is, in spite of the author's foreboding self-defence, hardly admissible. The art of music does not coincide with the science of mathematics; and musical qualities are not identical with unchangeable mathematical quantities. The very designation, in fact, of "qualities" shows that we have to do in this question with factors the value of which varies greatly, according to the individual taste of every judge. Whilst for one critic, the "tellingness" of the voice (p. 11) might be the first requisite, another one might with equal right attribute a far greater importance to its "*timbre*"; a third, again, prefers a great volume and mass of tone to any other quality of the voice. Thus, according to individual taste, the numerical value will vary so infinitely, that we consider any attempt at registering after this method the value of the single factors of dramatic singing simply impossible. Moreover, there is the perfectly legitimate æsthetic question whether that should be the effect of the composer's and executant's intentions and efforts, viz., that one should analyse one's own sensations on hearing dramatic singing into a merely mechanical addition and subtraction. And, finally, it must not be forgotten that not only does the individual taste vary infinitely, but also wholesale changes of musical judgment are effected in the appreciation of the single sub-elements of dramatic singing, according to the development of dramatic music altogether within a given period.

Thus, fifty years ago universally, and in this country to some extent even still to-day, everything was sacrificed to the sensual beauty of tone, whilst truly dramatic expression was a matter of comparatively little or no importance. Under the influence of the modern German school, as the author himself admits, the tender melodiousness of the Italian school has become a less and less marked quantity, until the vanishing point is almost reached. Whether this is a very desirable result of modern musical education, we will not venture to decide. But the fact remains incontrovertible, and with this fact, of course, some sub-elements which are indispensable for the older Italian operas—such as, *e.g.*, flexibility of the voice—lose much of their significance; whilst, on the other hand, qualities formerly but little respected, such as adaptation of style to the character portrayed, greatly increase in importance. In other words, Dr. Walshe's formulæ would have to undergo frequent changes, according to the fashion of the day. The foregoing seems enough to show the untenable position of such a mathematical standard; and, as the author admits himself that this must of necessity be arbitrary, we hope that in a second edition this curious scheme will be completely abandoned. The value of his work will certainly not suffer thereby.

Our last remarks as to the preponderance of the German school lead us to the second point in our notice. It seems to us somewhat doubtful whether or not the contents of Dr. Walshe's book will disappoint more than one reader of its title. This title should rather have been "On Italian Stage-Singing", because evidently the author does not use the expression "dramatic" in the sense in which it is in our day commonly understood. To choose almost exclusively *Italian* operas as examples from which to illustrate individual factors of "dramatic" singing, is hardly in concord with the now accepted meaning of the term. What is now called "dramatic" in vocal music is essentially the adaptation of the sounds to the meaning of the words, to the subordination, sometimes even almost complete exclusion, of all other factors. Whether this should be so, we again purposely refrain from dwelling upon. But surely the florid scores of Rossini and the melodiousness of Bellini and Donizetti do not offer satisfactory illustrations for what we call "dramatic" singing now-a-days.

There are a great many other musical points upon which it would be most agreeable to dwell at some length, such as, for instance, the evidently erroneous statement that what may be called "painting in sound" are devices in the main rejected by the great composers of the present period. (How about the overture to the *Flying Dutchman*, the *Feuerzauber*, the *Walküren-ritt*, *Isolde's Liebestod*, etc.? How about the whole principle and the use of the "Leitmotive"?) But, remembering that this review is written for a medical and not a musical publication, we must be satisfied with having pointed out what we consider the two most conspicuous defects in the general arrangement of this otherwise admirable little book.

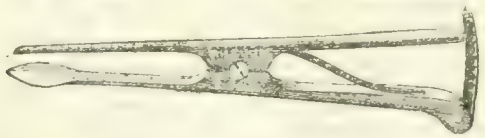
The medical points are, of course, and most rightly, subservient to the author's main purpose, and are therefore more touched upon in the form of suggestions than of positive statements. Every singer and every doctor who happens to be consulted on that point, ought to take to heart what Dr. Walshe says as to the injuriousness of forcing the voice upwards. That excision of the tonsils should have a notable influence upon the extension of the compass of the voice seems to us somewhat doubtful, excellent as no doubt is the removal of enlarged tonsils in its effect upon the quality of the sound emitted. That excess of compass beyond the average standard and in an upward or downward direction signifies "large dimensions of the larynx", we must deny from personal experience, having had the opportunity of examining the vocal organs of a good many of the best known living opera-singers. It is, in fact, impossible to draw any certain conclusion as to the voice from the mere inspection of the healthy larynx, with the exception, perhaps, that the vocal cords of contraltos and baritones are, as a rule, but not invariably, longer and broader than those of sopranos and tenors.

In this necessarily brief notice of what is a most instructive work, we have restricted ourselves to those points which seem to be most open to criticism; their number might be multiplied, but the general value of the book would remain the same. We gladly welcome this little book as a further proof that the respected leaders of our profession can associate high artistic accomplishments with arduous professional duties; and we look forward to many subsequent editions of this most interesting work.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

TRACHEOTOME.

DRS. HALE WHITE and Walter Edmunds have designed a new knife for facilitating the operation of tracheotomy; they call it the tracheotome. One difficulty in the operation is always the introduction of the tube; the operator may pass it in front of the trachea, or miss his opening, and have to make a second, and may lose



valuable time, and only succeed after several attempts. To obviate these difficulties, the knife shown in the accompanying cut has been devised. It resembles somewhat a pair of dressing forceps; at that end of the instrument which is to be introduced into the trachea, one of the blades has, at its lower half-inch, a cutting edge, and is shaped like an ordinary scalpel: the other, narrow and blunt, lies, when the instrument is closed, in contact with the cutting blade, and well behind its edge. At the handle the blades are widely separated, roughened to give the operator a better hold, and connected by a catch and spring, enabling them to be fixed at any degree of approximation. The method of using the instrument is as follows. The trachea having been exposed, either by the cutting edge of this instrument, or an ordinary scalpel, the instrument is held, with the cutting edge upwards towards the patient's chin, and the trachea opened in the usual manner, the instrument is held in position, and its two handles are pressed together, and the two blades thereby separated, thus widening the tracheal opening, the catch holding the handles in the position to which they have been brought. The patient can now breathe easily. The trachea being held widely open by the "tracheotome", the child should be allowed to expel any membrane it can, and the surgeon has ample opportunity of inspecting the back of the trachea, and of removing any loose membrane seen lying there. An ordinary tracheotomy tube can now be introduced with the greatest ease between the two widely-separated blades in the trachea, and they can be withdrawn as soon as the tube is in position. The advantage claimed for this instrument is that the operator never loses his hold on the first opening he makes in the trachea. It is made by Messrs. Millikin and Down.

SCHERING'S PURE CHINOLINE.

CHINOLINE was first discovered by H. Skraup to exist in quinine and cinchonine, and is now being largely manufactured synthetically by the Chemische Fabrik auf Aktien, formerly E. Schering, Berlin. The antipyretic and antiseptic properties of chinoline were studied first by A. Wischnegradsky and C. Salkowsky, and after them more particularly by Jul. Donath (*Berichte Deutsch. Chem. Gesellschaft*, 1881, p. 178 and 1769). The antipyretic experiments were not only conducted on animals, but also on a healthy man. He received on the first day a gramme of chinoline salt, and on the second day 1·5 grammes in three doses of half a gramme each. The individual experienced neither bad taste, smell, nor other strong effect. The urine collected did not show any chinoline, and it is therefore surmised that it was decomposed in the blood by oxidation. In rabbits, subcutaneous injections produced a lowering of temperature to 1·5°, and a considerable slowness of respiration. In sickly organs, chinoline produced the same effects as quinine; and, owing to the absence of the bitter taste of quinine, it was more freely taken. As an antiseptic, chinoline is particularly useful. It preserves blood liquid for twenty-eight days, while milk may be preserved for sixteen days from coagulating. A solution of chinoline will not precipitate albumen. It is stated that, in practical medicine, chinoline has been applied with advantageous results in cases of malaria, whooping-cough, typhoid fever, and many other complaints, as has been shown by the experiences of L. Loewy and C. Salkowsky in St. Petersburg, which were conducted perfectly independent from each other. Chinoline being insoluble in water, its application is more convenient in the form of a salt, such as the salicylate or tartrate. The agents are A. and M. Zimmermann, 21, Mincing Lane, E.C.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 10TH, 1881.

JUBILEE MEETING OF THE BRITISH MEDICAL ASSOCIATION.

THE arrangements for the forthcoming jubilee of the Association are progressing very favourably. Owing to the activity of the President-elect and the local gentlemen, assisted by the President of Council, considerable progress has been made in getting the Sections and their officers arranged. Fortunately, there is abundance of space in the public buildings of Worcester for the several Sections (seven in number); and the civic authorities have been most generous in granting the free use of them for the jubilee week.

The meeting will be held under the presidency of Dr. Strange of Worcester. Dr. Strange, who has been elected to this post of honour on this highly interesting occasion by the unanimous vote of his professional brethren, is universally esteemed and respected throughout the district, and has peculiar claims to the honour. It is due to the initiation of Dr. Strange, that the Worcestershire and Herefordshire Branch, from which this invitation proceeds, was founded. He was the founder of the Worcestershire Medical Society, and it was, we believe, at his instance, that, at the death of Sir Charles Hastings, that Society acquired his medical library, and thus became the important medical centre which it now is for the diffusion of medical knowledge and the promotion of medical interests.

The following is a draft of the programme of the meeting, as at present intended to be carried out.

On Tuesday, August 8th, there will be the usual service, at four o'clock, in the Cathedral, and a sermon by the Dean of Worcester (Lord Alwyne Compton). At eight, the first general meeting will take place, in the newly restored Guildhall, when the President-elect will give an address, which will doubtless be appropriate to the occasion.

Wednesday, August 9th, is proposed to be held as the jubilee day *par excellence*. After the Address in Medicine, to be read by Dr. Wade of Birmingham, the Worcestershire and Herefordshire Branch, with their friends, will entertain the members of the Association at luncheon in the Shire Hall, which is calculated to seat 500 persons. At this meeting, Mr. George W. Hastings, M.P., will read some remarks upon the life and work of his late father, Sir Charles Hastings, the founder of the Association. After luncheon, the bust of Sir Charles, at present being prepared by Mr. Brock, the sculptor, will be presented to the Mayor of Worcester, for preservation in some public place in the city, as a memorial of its late illustrious citizen. In the evening, the usual *conversazione* will be held, at which several unique objects of interest are expected to be open to inspection.

Thursday, the 10th, will begin with the Address in Surgery, which has been entrusted to Dr. W. Stokes of Dublin. Sectional meetings will be held, and in the evening the usual dinner of the Association will take place in the Guildhall.

Worcester is the centre of a very populous district, and some hundreds of medical men will be able to come and go by rail daily, which will very much relieve the expected pressure upon the hotel and lodging-house accommodation.

On Friday, the 11th, after sectional work in the morning, the Association will be entertained in the afternoon by the Lord-Lieutenant of

the county and Countess Beauchamp at Madresfield Court, near Great Malvern.

Worcester is a musical place, and we are glad to find that an endeavour will be made to wind up the work of the week by a performance of sacred music at the Cathedral, in connection with a special service, for which the kind sanction of the Dean has already been obtained by the President-elect. This, we think, will give a very appropriate finish to the jubilee of 1882.

The usual excursions on the Saturday will not be lost sight of. It is too early to speak confidently of the arrangements as to these; but, as the neighbourhood of the "faithful city" abounds in places of interest, both to the antiquary and to the lover of nature, every effort will doubtless be made to utilise them for the entertainment of the visitors. Malvern, Hereford, and the scenery of the Wye can easily be reached on the one side, and Shakespeare's birthplace—Stratford-on-Avon, Warwick Castle, and Leamington, on the other.

MODERN MIRACLES.

A NEW miracle has created a great stir in Dieppe and its environs. A young peasant-girl, who has for some time been giving herself to pious exercises, has for several months past shown the stigmata of the Passion. Like Louise Lateau, this girl sees every week, on Thursday and Friday nights, an appearance of the five characteristic wounds: two on the hands, two on the feet, and one in the side. In the intervals, the marks of the wounds remain, but it is only at the stated periods that blood flows. Obliged to wrap herself up in bandages to collect the fluid, she leaves on the linen large bloody marks, which testify to a somewhat copious hæmorrhage. Intolerable pain supervenes at the level of the stigmata, which cannot be touched without bringing on cries of anguish. In all other parts, the cutaneous surface is absolutely anæsthetic; for, as will already have been concluded, this is a case of hysteria. As an accessory complement of the miracle, it must be noted that, since June last, the girl has not taken any nourishment; this, however, is a tolerably general symptom in neuropathic patients. During the first days of the week, the girl works, being a dressmaker with a fair number of customers; she begins to suffer on Thursday morning, but the blood does not flow until night. On Friday and Saturday, she recovers gradually.

Dr. Hurpy, actuated by a legitimate feeling of scientific curiosity, saw the patient for the first time one Friday morning, and was extremely interested by the phenomena he observed. He had the greatest desire to be present at the actual appearance of the miracle, and, with praiseworthy perseverance, sat up for three nights on Thursdays and Fridays with the girl. He was not, however, sufficiently fortunate to witness the flow of blood, though he was present, it is true, at hysterical ecstatic crises, in which the patient transfigured, as if by angelic visions, held converse with the Virgin, whom she beheld before her; and she continued to utter prophecies for many hours. The fragments of phrases she uttered have been collected and written down during one of these performances; her effusions refer, as usual, to the dangers which await France in the near future, and to the remarkable prosperity which that country will enjoy after this period of probation. Dr. B. Ball of Paris, who relates this incident in the *Encéphale*, June 1881, became greatly interested by the information about this case sent to him by his friend Dr. Hurpy; and, wishing to make a serious investigation into it, in concert with the latter, he went to Dieppe on the 1st of September last. On the same evening, he went to see the girl with Dr. Hurpy; Dr. Chambard, Dr. Ball's laboratory assistant, who took with him some scientific instruments with which to make some experiments on the patient; Dr. Bec, prosector of one of the Paris hospitals; Dr. Cauchois of Rouen; and M. Chevalier, professor of philosophy, as representing the psychological element. Two fresh phenomena were now added to those previously described; a week before Dr. Ball arrived, the bloody traces of the crown of thorns had appeared on the patient's forehead; and pains had been felt on the right shoulder, where Christ carried the cross. It may be imagined how these new miracles had excited the enthusiasm of the spectators. It was also added that traces of flagellation had shown themselves on the back and sides; this latter manifestation, however, was more vague and less distinct than the others.

When the investigating party arrived, at about eleven o'clock at night, at the house of the ecstatic, they found a considerable number of people waiting, who wished to be admitted; but it had been agreed with the family that, in order to give full liberty to the observers, no strangers should be present, with the exception of one friend of the family, a neighbouring landowner. Introduced into the bedchamber of the patient, the party found a fair-complexioned pretty girl, about nineteen years old, in bed, and seeming to be in a calm sleep, except that occasional groans seemed to testify to some unrevealed suffering. The first thing, however, which struck M. Ball was the unexpected abundance of the bloody marks which spotted the forehead of the stigmatised patient, and were evidently intended to represent the crown of thorns. Dr. Ball writes that his enthusiasm was considerably cooled by this appearance. No painter, wishing to represent the Passion, had ever been so prodigal with his brush; and he asked himself how a crown of thorns placed on the head of the Saviour could have produced, not five or six, but twenty or thirty bloody marks, arranged in squares with perfect regularity in three parallel lines. The girl's hands were lying on the counterpane, and were covered with bandages, which were taken off by the investigators. They saw, at the back and on the palm of the hand, on the line of the third metacarpal, a red mark about two centimètres long by two or three millimètres wide. The wound was covered with coagulated blood, perfectly dry, as in the stigmata of the forehead. Uncovering the feet of the patient, the medical men found a nearly identical mark situated on the right, between the first and second metatarsal bones, and on the left between the second and third. Finally, turning the patient on to her side, and removing her clothes, they found a small and somewhat irregular bloody line, elongated in a horizontal direction, and situated between the fifth and sixth left ribs. All these examinations were not made without provoking some resistance from the girl, who seemed to suffer acute pain when the investigators seemed about to touch the stigmata, and she cried out several times: "No, I will not have it; so much the worse!" These obstructive remarks were nearly the only ones uttered by her during the night; the gift of prophecy had obviously deserted her. After these first observations, the party retired into an adjacent room, leaving one person only to watch the patient, so as to give the others notice when the miracle manifested itself. Up to one o'clock of the morning, nothing occurred. Some magnesium photographs were then taken. The patient was very obliging during the operation; although she was, to all appearance, asleep, she took the attitude of the Crucifixion, and turned the palms of her hands outwards. The party had again left the bedchamber, when, towards two o'clock, they were warned that the miracle was about to commence. They hastened, of course, to behold the sight; they found the bandages which enveloped the hands slightly stained with blood, but, on removing them, they were able to ascertain that these small spots were produced by a portion of the clots probably diluted with a little saliva; a drop having thus formed and flowed over the hand. There was no trace of sanguineous exudation on the forehead, feet, or side. Convinced from this moment that this was a case of imposture, the party again retired; the girl turned her face to the wall, and it appeared for the moment as if she were preparing some fresh trick, but it was not so. Seeing that she was too closely watched to be able to play any tricks, she philosophically went to sleep; and whilst the watchers, shivering with cold and weary with fatigue, were perched uncomfortably on their chairs, their interesting charge slept calmly for five hours of perfectly undisturbed slumber. The doctors awoke her at seven o'clock in the morning; at first, she made some resistance, and refused to open her eyes until M. Hurpy, in the name of the parish priest, ordered her to wake up. She dare not resist this powerful invocation; she opened her eyes; and from that moment, her physiognomy, her position, and her conversation were those of a person

in a normal condition. In order to conclude the experiment, it was thought advisable to raise some of the clots, to see what was the condition of the underlying skin. This operation, performed on the forehead, showed that the blood had simply been deposited at the locality of the stigmata, probably by a brush, and that there were no scratches, no erosion of the skin, nor any sanguineous exudation beneath. In the palm and on the back of the hand, the result was different; below the clot, there was found a clean but superficial cut, which seemed to have been made with a penknife (although M. Ball will not positively state what was the instrument used), and only involving the epidermis and the rete mucosum. This examination was not accomplished without a lively resistance on the part of the patient, who pretended to experience acute pain so soon as her stigmata were touched: a perfectly imaginary pain, by the way, for, directly her attention was called off, the wound could be touched without her even being aware of it. Finally, the investigators witnessed an experiment which never fails to make a great impression on the gaping spectators at these performances. At the request of M. Hurpy, and after having said, "I am going, then, to suffer for nothing", or in other words, "I shall not be able to convince these unbelievers", the young girl took a pin, and, plunging it into the wound on the dorsal surface of the hand, brought it out again by the palmar wound. The good easy public, who are not aware that a pin easily makes its way through the tissues, and who are ignorant of the immunity conferred on hysterical patients by anæsthesia, remain convinced that a large gaping opening connects these two wounds, as if the hand had really been pierced by a nail. Before leaving, M. Ball and his party seem to have restored the unfortunate impostor, whose deceptions they had been exposing, to good-temper; and they left her with a recommendation to the mother to give her daughter some doses of bromide of potassium.

RECENT STUDIES IN THERAPEUTICS.

XII.—Resorcin and its Allies.

For the introduction of many new therapeutic agents, we are indebted to the researches of German chemists. Resorcin, for example, has of late attracted considerable attention both as an antiseptic and antipyretic. It was discovered about fifteen or twenty years ago by Hlasiwetz and Barth of Vienna, who obtained it by fusing galbanum resin with potash. Being isomeric with orcin, a substance found in the lichens used for making litmus, and having been first obtained from a resin, it received the name of resorcin. It is also known as resorcenal, whilst its full chemical title is metadioxylbenzene. Its formula is $C^6 H^4 (HO)^2$; and it is isomeric with hydrochinon, a substance recently introduced by Brieger as an antipyretic. Resorcin is now rarely prepared from galbanum, newer and better modes of manufacture having been recently introduced. It is economically obtained by mixing with chalk the wash and mother liquid left in making brazilin from Brazil-wood, evaporating to dryness, and subjecting the residue to dry distillation; or it may be made by passing the vapour of benzol through sulphuric acid, dibenzolsulphuric acid being formed. It is used in large quantities in the manufacture of eosine and other coal-tar dyes.

Resorcin is a neutral crystalline body, soluble in water, alcohol, ether, and, in fact, in all fluids with the exception of chloroform and bisulphide of carbon. It crystallises only from very concentrated solutions, in beautiful little feathery crystals. When quite pure and freshly prepared, it is colourless; but, on exposure to the air, it quickly acquires a pinkish colour. It melts at 210° Fahr., boils at 570° Fahr., and distils without residue. It has a strong, peculiar, sweet, and somewhat unpleasant irritating taste. When thrown on the fire, it burns with a bright flame. A very characteristic test is afforded by dissolving a few grains in fuming sulphuric acid. An orange-red solution is formed, which gradually darkens, and changes after a time, first to greenish-black, and then to pure blue, becoming purple-red on gently warming.

From a consideration of the atomic relations existing between resorcin and phenol, Dr. Julius Andeer of Würzburg was led to suspect that they might have a similar physiological action, and such, on investigation, proves to be the case. A one-per-cent solution of pure resorcin arrests almost all forms of fermentation. Blood, urine, infusion of pancreas, and other substances which ordinarily quickly undergo decomposition, can be kept for an almost unlimited time by the addition of a few grains of this new antiseptic. Even when decomposition has already set in, resorcin speedily arrests it. Wounds of the cornea, conjunctiva, and the mucous membranes, when irritated and inoculated with decomposing organic matter, speedily heal without the production of constitutional symptoms, if cauterised with resorcin. Its application has been found equally efficacious in the treatment of erysipelas and subcutaneous abscess. Dr. Constantine Paul finds that even weak solutions speedily and effectually disinfect typhoid stools. It is a true process of disinfection, he says; for resorcin itself, being odourless, does not act as so many so-called disinfectants do, by substituting one smell for another. Of such great value does Dr. Paul consider resorcin as a deodoriser, that, in diarrhœa, he often uses it as an enema, so as to disinfect the stools before they are passed.

The action of resorcin on the lower animals has as yet been but little investigated; but it would appear from the experiments of Dujardin-Beaumetz and Callais, that, in dogs and rabbits, it exerts a powerful action on the nervous centres, producing epileptiform convulsions. The respiratory movements become rapid and superficial, and usually the heart continues beating for some time after breathing has ceased. Professor Lichtheim of Berne found that in man it produced giddiness and buzzing in the ears, the face became flushed, the eyes bright, and the pulse and respiration were quickened. In from ten to fifteen minutes, the skin became moist, and soon the whole body was bathed in perspiration. It has been said that one of the great advantages of resorcin is that it is destitute of toxic properties; but, from some observations recently recorded by Dr. Murrell, it would appear that, in large doses, it is capable of producing very decided symptoms. The patient was a young woman who suffered severely from asthma. After a few preliminary trials with smaller doses, she was given, during a severe paroxysm, half a drachm in a little milk. She experienced no difficulty in taking it, her breathing became easier almost at once, and in half an hour she fell asleep, sleeping comfortably for three hours, when she awoke free from shortness of breath. The urine passed on the following day was of an olive-green colour, as if carbolic acid had been taken. The same dose was given on two other occasions during a paroxysm, but failed to afford relief. The dose was then increased to a drachm. Immediately on taking the powder, she experienced a decided sensation of giddiness; this was followed by heaviness over the eyes, and drowsiness; the dyspnœa was relieved, and, in a quarter of an hour, she was fast asleep. This was tried on four different occasions, and always with the same result. The pupils were not affected, there was no diplopia, and no tinnitus aurium. The action on the urine was more marked with the larger doses. She was now given a drachm and a half, without the production of symptoms other than those already mentioned. On increasing the dose to two drachms, decided effects were produced. The patient complained that it flew to her head, and she felt giddy, and had "pins and needles" all over. In a few minutes, she became insensible, and was found lying on her side faintly moaning, her eyes closed, and her hands clenched. She was in a profuse perspiration from head to foot; there was complete loss of voluntary power and reflex action, the pulse at the radials was weak and thready, and the temperature in the axilla was only 94° Fahr. Restoratives were applied, consciousness was soon restored, and the temperature gradually returned to the normal. It is stated that the resorcin first used in this case was impure, being contaminated with carbolic acid; but the specimen from which the two-drachm dose was taken had been specially prepared, and contained not more than two or three per cent. of impurity.

Resorcin is not absorbed by the healthy unbroken skin; and, even when rubbed in, it produces no sign of irritation. Hypodermic injec-

tions of a two per cent. solution sometimes give rise to cramps and painful twitchings, but abscesses are of rare occurrence. Therapeutically, it is recommended in a great number of diseases. It is said to be invaluable as a surgical dressing, incised and punctured wounds always healing by first intention when treated with the one per cent. solution. In the form of spray—one-half per cent.—it is claimed for it that it possesses the following advantages over carbolic acid: It is more soluble in water, it is almost destitute of smell, its toxic action is slight, and it is less irritating. It is recommended as a caustic for cancerous and syphilitic sores of the mucous membranes, and it is said that it destroys the diseased tissues thoroughly and painlessly. Given in large doses, it has been used in intermittent fever, but the recorded cases are too few in number to enable us to express an opinion as to its value. As an inhalation, it is recommended in diphtheria and in diphtheritic affections of the throat. A one per cent. solution dropped into the ears arrests the offensive discharge from which scrofulous children so frequently suffer. Its antipyretic action renders it valuable in all febrile diseases; and in Germany it has been freely and extensively administered in typhus and typhoid, in acute rheumatism, pneumonia, erysipelas, and phthisis. The fall of temperature, however, is usually of briefer duration than after the administration of quinine or salicylic acid. It is sometimes used as an injection in gonorrhœa and gleet, and in vaginitis and cystitis. Andeer considers that it is of inestimable value in all affections of the stomach, and especially recommends its administration in gastric ulcer, from its peculiar action on mucous membranes, which heal without the formation of a cicatrix after cauterisation with resorcin. The usual dose for an adult is from fifteen to twenty grains, three or four times a day, but larger quantities are often given. It may be taken in the form of a mixture dissolved in water, and flavoured with a little glycerine and syrup of oranges. It is sometimes given in powder in a wafer or empty capsule. In the case of an overdose, emetics with olive-oil, and a hypodermic injection of atropia, would be the appropriate remedies.

Hydrochinon, another member of this group, possesses even more decided antipyretic properties than resorcin, three grains reducing the temperature very quickly, without the production of any unpleasant symptom. It can be used hypodermically, as it is quite free from caustic properties, and produces no more irritation than so much water. It is recommended that a ten per cent. solution should be employed, and that five or ten minims should be injected into each arm.

Chinoline is another, although a somewhat more distant, relative of resorcin, whose properties have recently been investigated by Dr. Julius Donath of Baja, in Hungary. Its formula is $C^6 H^7 N$, it being the first of a homologous series of eight similarly constituted alkaloids, each member of which differs from its predecessor by the addition of CH^2. It is a transparent, colourless, oily fluid, having a penetrating odour resembling bitter almonds, and a hot pungent taste like peppermint. It is but sparingly soluble in cold water, but dissolves more freely in hot. It mixes in all proportions with alcohol and ether, and is a solvent for sulphur, arsenious acid, and camphor. It is manufactured on a large scale from coal-tar, chinoline and aniline being found almost without other admixture in the last portions of the distillate known as "dead oil". It is an energetic bacteria poison, a one-fifth per cent. solution arresting fermentation in Bucholz's fluid. In the same proportion, it prevents lactic acid fermentation, although it exerts little, if any, action on yeast-cells. It forms several salts, some of which seem destined to play an important part in the treatment of disease. The tartrate and salicylate—specimens of which we have received from Messrs. Schering of Berlin—are both colourless, the former occurring in the form of small acicular crystals, whilst the latter is an amorphous powder. They both have a peculiar pungent smell, and a somewhat irritating, though by no means an unpleasant, taste. From the observations of Dr. Donath, of Dr. Leopold Loewy of Fünfkirchen, and of Dr. Salkowski of St. Petersburg, it would appear that the tartrate of chinoline possesses antiperiodic properties of the highest order; and there is reason to suppose that it will, to some extent, replace quinine, especially as it can be turned out at one-fifth the price, the dose being almost the same. Dr. Loewy records forty cases of intermittent fever successfully treated with the new remedy, besides many cases of neuralgia. The only objection to its use is that it occasionally upsets the stomach.

It must be remembered that, although these remedies are being extensively tried both in France and Germany, we have as yet had but little experience of their use in this country; and, until their physiological action has been more fully investigated, a certain amount of caution should be exercised in giving the larger doses that have been recommended.

Sir James Paget has left for the South of France, to recruit his strength.

Sir William Jenner, President of the Royal College of Physicians of London, has appointed Dr. Long Fox of Bristol to give the Bradshaw lecture at the College. Dr. Fox has chosen as his subject: The Position of the Sympathetic in the Causation of Disease. The lecture will be published in our forthcoming volume.

Dr. James H. Aveling, of Upper Wimpole Street, has been urged by many friends and others with whom he is concerned in the management of charities, to publicly state that he is not the Dr. Aveling (Bachelor of Science, and not a member of the medical profession) whose name is so frequently associated with Mr. Bradlaugh.

Competitors for the Jacksonian prize are reminded that the essays must be sent in to the Secretary of the College of Surgeons on or before Saturday, the 31st instant. The following is the subject for the ensuing year, viz., Wounds and other Injuries of Nerves; their Symptoms, Pathology, and Treatment.

A telegram from St. Petersburg under date of December 6th, says: In consequence of the prevalence of a disease near Batoum presenting symptoms similar to those of the Asiatic plague, the Governor of that place has taken steps to stop land communication with Armenia, and has also ordered an inspection of all vessels arriving at Batoum.

Lord Hartington, in replying to the memorial of the Bombay Municipal Corporation against the appropriation of 15,000rs., towards the cost of working the Contagious Diseases Act in Bombay, from the State police grant, says he will reserve his judgment until he is in possession of the views of the Government of India on the subject.

Messrs. Dickinson of Bond Street are painting a large group-picture of the garden party given by the Baroness Burdett-Coutts to the International Medical Congress in August last. The picture will contain about one hundred of the leading visitors and presidents of sections. No doubt it will be engraved when completed.

Last week, we referred to a case in which Mr. Marshall had undertaken the operation of gastrostomy for malignant disease of the œsophagus. On Saturday last, the stomach was opened, and the case has continued to run a satisfactory course. No symptoms of peritonitis were at any time observed. The patient is now progressing favourably, and receives part of his nutriment through the abdominal sinus.

We understand that Dr. Sheppard, who has been awarded the gold medal at the recent M.D. examination of the University of London, was formerly house-physician to the late Dr. Murchison at St. Thomas's Hospital. Dr. Newsholme, noted as "worthy of the medal", is also an old house-physician at St. Thomas's; and Dr. Dawson Williams, who has been similarly distinguished by the examiners, formerly held a similar post at University College Hospital.

The death of Mr. Hines Vickery, a Stock Exchange veteran, is reported to have occurred under somewhat distressing circumstances. It appears that the deceased gentleman, whose duties had during the week been

more than usually heavy, on retiring to rest on Saturday night, took a dose of syrup of croton-chloral to procure sleep. The opinion of the coroner was in accordance with the medical evidence, that the deceased taking an overdose of this narcotic was the cause of death; and a verdict to that effect was returned.

DR. EDIS brought before the notice of the Obstetrical Society, at its meeting on Wednesday last, an interesting case of pregnancy at the sixth month complicated with extensive epithelioma of the cervix uteri. The Porro-Freund operation was contemplated, but found inadmissible, as the vaginal wall was implicated. The question now was what was best to be done, to induce premature labour, or to allow the patient to go on to full time and perform Cæsarean section? The latter seemed to be the view entertained by the majority of the speakers.

AT a Court held at Windsor on Wednesday, December 7th, Dr. John Kirk, Her Majesty's Agent and Consul-General at Zanzibar received at the hands of the Queen the honour of knighthood, and was invested with the insignia of a Knight Commander of St. Michael and St. George. The honour of knighthood was also conferred upon Mr. William Mac Cormac, late Secretary of the International Medical Congress; Dr. George Birdwood, C.S.I., Assistant Reporter on Statistics, India Office; and Mr. Erasmus Wilson, President of the Royal College of Surgeons of England.

THE College of Preceptors, of which the higher certificates are now recognised by the General Medical Council, the Pharmaceutical Society, and numerous other bodies, has just opened its local examinations, which will be attended by the large number of 7,500 candidates. Three thousand eight hundred and ninety were examined at midsummer, so that the total falls little short of 11,500. This is the largest examination which has ever been held in this country by any examining body. The College has arranged for holding two supplementary examinations in March and September of each year, for the higher certificates required for entrance to the medical profession.

IT is gratifying to learn that the proprietors of the *Birmingham Medical Review*, encouraged by the success it has met with during the ten years of its existence, have resolved to make the experiment of publishing it monthly, so as to be better able to afford a medium for the publication of the numerous and valuable papers read at local societies or written by members of the profession residing in the neighbourhood. Each number is to consist of forty-eight pages, and is announced to contain original articles, reviews of books, cases, reports of societies, and medical news. The cost of the new series will be 1s. each number, or 12s. yearly.

THE exhibition of improved grates and heating apparatus for burning anthracite in open grates, and for consuming the smoke of bituminous coal, which is now open at South Kensington, has been largely visited by medical men, whose interest in this question, which so much concerns the hygiene of cities and population, is lively and extended. There are several medical men among the exhibitors, the most noteworthy among them being Dr. Bond of Gloucester, whose heating and ventilating apparatus is extremely ingenious, and shows many considerable improvements on the ordinary existing methods; and Dr. Moore of Camberwell, whose open self-consuming grate has the great recommendation of simplicity, and is in many respects very effective. Mr. Gillingham of Chard, the well-known ingenious surgical instrument maker, shows a remarkable economical and effective method of heating by air.

AMONG the more effective of the new grates shown, as may be especially mentioned, is the "Everitt" grate of Messrs. Barnard, Bishop, and Barnards, which is constructed on the well-known plan of their "country parson's grate", but has several considerable improvements, which make it practically smokeless; the air being admitted through air-holes below the closed grate, and passing upward behind and then over a curved fire-clay back, and so being drawn down into the fire, drawing the smoke through the fire before the products of combustion escape up the very narrow shaft of the chimney. The result of this simple construction is that, on the one hand, combustion is not unduly hurried by excessive draught through the fire, and therefore coal is not wasted; on the other hand, the draught of air and the smoke itself being drawn down through the fire, the smoke and the particles of carbon are nearly all consumed, and very little, if any, smoke passes up the chimney, into which escape only some of the gases of combustion, with a small quantity of smoke which is unconsumed. To outward appearance, the grate differs in no way from the improved patterns of the Norwich grates. Another excellent improvement is introduced by Mr. Crane in the open grate shown by Deane and Co. of London Bridge. Here also the principle employed is that of drawing the smoke and products of combustion down through the fire, and so reburning the carbon. In this instance, it is effected by means of an air and ash pit below the fire; the chimney being closed above, and the products of combustion and smoke, after being drawn down the fire, passing up into the chimney-shaft through chambers at the side of the fireplace. Any ordinary fireplace can be fitted with this improved construction at a very moderate cost. Dr. Moore's improved fire-grate is somewhat on the same principle. In the ingenious novelty shown by Archibald Smith and Stevens, of Leicester Square, the fire-basket projects forwards obliquely, and is fed from a coal-box situated above and behind, provided with a continuous feeder, which allows the fire to go untended for nearly the whole day. This grate is, however, more especially suited for anthracite; and, to burn anthracite, no such complicated contrivance is really necessary.

MR. GRIFFIN of Chancery Lane shows a very effective grate, into which air is freely admitted by perforated holes all round, and which is remarkable for the completeness of its combustion, for the facilities which it offers for warming the air of a whole room, and providing an equable warmth and ventilation. In principle, there is nothing new in this grate; but its details are good.

AN excellent smoke-consuming grate is shown by Steele and Garland. It is not yet in operation, as it is being prepared for the testing houses; but it is evident to any skilled person, looking at the construction of this very simple and effective grate, that it will answer the purpose of abating smoke very thoroughly. It is very simple in construction, the purpose being achieved mainly by the division of the back into two chambers of thick pierced fire-brick, so arranged that the smoke generated in the top of the fire must be drawn down and passed through the flame of the coal.

A NOVEL and simple grate is shown by Hoole. In this grate, the coal is put into the fire through a trap above in the hollow cheek of the fire-place; and the fire is poked also by a poker which passes through a hole in the side of the cheek. In this way, new coal passes always under the coal already in the fireplace; and this, being fed from below, presents always above and in front a surface of glowing coal; and in this way the production of smoke is, of course, greatly lessened.

WE refer to these as being a few of the leading novelties in the exhibition, although there are others which are extremely interesting and of great merit, to which we hope to have space to refer. Especially should be mentioned Mr. Edwards's modified fireplace, showing an improvement on Arnott's principle of lighting the fire from above; the kitchen-ranges of Constantine, Wilson, and Feetham; Doulton's economical and ornamental tile stoves, which consume but a very small amount of coal, and are so constructed as to warm the air without drying it or mingling with the products of combustion; a most ingenious and effective stove for heating houses and large buildings, by Lönholdt of Frankfort-on-the-Maine; Hunt's anthracite base burners for halls and new buildings; and a variety of excellent gas fires and furnaces; among which may be mentioned Farwig's calorigen; Dr.

Adams's warmer; Stark's gas ovens and roasters; Ritchie's lux calor; Doulton's oil gas stoves. Dowson's new water-gas is an improvement of the most highly interesting and economical kind, and the gas produced by decomposition of steam in contact with air; the manufacture is of the simplest kind, and the gas produced at the rate of threepence per thousand feet. This new form of portable gas-maker is coming very extensively into use, and is well worthy attention for public institutions or large buildings of any sort. The gas is peculiarly cleanly as well as economical, giving off no sulphur-products on combustion.

THE testings are being conducted in a thoroughly systematic and scientific matter, on a settled scheme, by Mr. Kinnear Clark, C.E., in testing-houses provided for the purpose, and under the direction of a committee consisting of Dr. Siemens, F.R.S.; Professor Frankland, F.R.S.; Professor Chandler Roberts, F.R.S.; Professor Abel, F.R.S.; Captain Douglas Galton, F.R.S.; Mr. Atchison; and Mr. Ernest Hart, chairman.

GREAT dissatisfaction has been expressed, at previous exhibitions, at the loose and imperfect methods of judging frequently adopted. In this case, great care has been taken that the judging shall be systematic, uniform in method, and conducted according to systematic rules; and the judgments will be given on approved and stated data. In this way, it is hoped that the extremely unsatisfactory results which have marked the prizes given at recent exhibitions will be avoided.

ROYAL COLLEGE OF PHYSICIANS.

THE Gulstonian Lectures will be delivered on the 3rd, 8th, and 10th of March, 1882, at the College, by Dr. W. Ewart. The subject is: Pulmonary Cavities; their Origin, Growth, and Repair. The Croonian Lectures will be delivered by Sir J. Fayrer, on March 15th, 17th, and 22nd, on the Climate and Fevers of India. The Lumleian Lectures, on the Pathology of Inflammation, will be delivered by Dr. Burdon Sanderson on March 24th, 29th, and 31st. The hour for the lecture will be 5 P.M. on each day.

OBSTETRICAL SOCIETY OF LONDON.

THE following were nominated officers of the Society for 1882 at the meeting of the Council on Wednesday last. *Honorary President:* Arthur Farre, M.D., F.R.S. *President*: J. Matthews Duncan, M.D. *Vice-Presidents:* John Bassett, M.D.; Jonathan Hutchinson, F.R.C.S.; Clement Godson, M.D.; John Brunton, M.D.; John Thorburn, M.D.; John Williams, M.D. *Treasurer:* J. Baptiste Potter, M.D. *Secretaries:* A. L. Galabin, M.D.; G. E. Herman, M.B. *Council:* Henry Oldham, M.D.; Robert Barnes, M.D.; J. Hall Davis, M.D.; Graily Hewitt, M.D.; J. Braxton Hicks, M.D.; W. O. Priestley, M.D.; E. J. Tilt, M.D.; T. Spencer Wells, F.R.C.S.; W. S. Playfair, M.D.; P. L. Burchell, M.D.; J. Henry Bennet, M.D.; C. H. Carter, M.D.; E. Charles, M.D.; Edward Malins, M.D.; G. R. Ord; D. Lloyd Roberts, M.D.; F.W. Salzmann; C. Brodie Sewell, M.D.; J. Knowsley Thornton, M.B.; H. C. Andrews; J. Ford Anderson, M.D.; H. Strange; F. Wallace; G. E. Yarrow, M.D.

PROFESSOR PIROGOFF.

THE death of Dr. Nikolaus Pirogoff is announced by telegram from St. Petersburg. He was Professor of Surgery to the Medico-Chirurgical Academy in St. Petersburg, and a member of the consulting staff of several hospitals in that city. In 1840, he brought out a valuable treatise on the division of the tendo Achillis in orthopædic surgery. He also wrote on cholera, on the surgery of the arterial trunks and of fasciæ, and on the medical aspects of the Caucasus, and on topographical anatomy. His work on this last subject forms a fine atlas of anatomy, as illustrated by frozen sections. It is, however, with military surgery that his name will ever be most closely associated. He is the medical historian of the Crimean and Circassian campaigns; and also wrote a report on the permanent and improvised military hospitals in Germany and Alsace-Lorraine during the war of 1870. The late Professor is probably best known to Englishmen in association with one of the numerous methods of partial amputation of the foot. Last June, we announced the celebration of the fiftieth anniversary of his commencement of official life.

METROPOLITAN PROVIDENT DISPENSARIES.

DR. BRIDGWATER, President-elect of the Metropolitan Counties Branch, will take the chair at the meeting of the East London and South Essex District at the Town Hall, Hackney, on Thursday, December 15th, at 8 P.M., when Mr. Timothy Holmes will read a paper on the provident dispensary question. The attendance is invited on this occasion of members of the profession other than members of the Association who may feel interested in the subject, and who will receive cards of invitation on communicating with Mr. Frederick Wallace, the Honorary Secretary of the District Branch, 96, Cazenove Road. Mr. Wallace will be much obliged to members connected with provident dispensaries, if they will kindly send him the rules and balance-sheets of their institutions for the past year.

TYPHUS FEVER IN ST. MARYLEBONE.

MR. WYNTER BLYTH'S sanitary chronicle of the parish of St. Marylebone for October 1881 contains a remarkable statement with reference to the recent typhus fever epidemic. Mr. Blyth declares that the accusations of neglect on the part of the sanitary authority of the parish, made by the press, were unfounded, and were based on a misapprehension of the powers possessed by the local authorities. This is in the face of the fact, which was elicited on oath at the inquest, that a woman had died from typhus fever on the same infected bed from which her child had been taken to the fever hospital a week previously. If ever a public body has had cause to be grateful to the press, it is the vestry of St. Marylebone; for this public outcry has shown that corporation that it possessed the power of removing suitable non-pauper cases of typhus, small-pox, and other contagious disorders. The efforts of Dr. Norman Kerr and the comments of the press have aided in enlightening the vestry and its officers, for we find that they have at last made a new departure, and have sent to the respective hospitals, during the past fortnight, cases of both typhus fever and small-pox. We trust that the vestry will pursue their inquiry into their sanitary system, and be ready to grapple effectually with any future epidemic.

ALLEGED CONSPIRACY TO DEFRAUD.

THE Sunderland magistrates have been for some weeks engaged in the investigation of a charge against Dr. Gustave Adolph Abrath and Michael M'Mann, of conspiracy to defraud the North-Eastern Railway Company. Mr. Walton, barrister, prosecuted; Mr. Strachan, barrister, represented M'Mann, and Mr. Skinner, solicitor, appeared for Dr. Abrath. Mr. Walton said the motives of the fraud on the part of Dr. Abrath were to create a necessity for medical assistance, in order that he might treat and charge for that treatment. The motive on the part of the prisoner M'Mann was to obtain an exorbitant sum as compensation for injuries he was alleged to have received through the negligence of the company's servants, in a collision which took place at Ferry Hill. M'Mann was travelling in a third-class compartment. He was a strong and healthy young man; at the trial of the action he brought against the company he appeared to be a wreck. No complaint was made by him at Ferry Hill, were the injuries were alleged to have been inflicted, nor at Durham, where he changed trains, nor at Sunderland, when, without the assistance of any one, he walked to his own home. The next morning he was able to rise apparently in his usual health, and perform his usual duties, which were of an exceptionally trying nature. It was quite impossible for him to perform those duties, if his back had been injured in the way alleged. On the evening of that day he paid a visit to the surgery of Dr. Abrath, who had acquired a reputation in connection with actions brought against the North-Eastern Railway Company. The effect of the visit of M'Mann to the surgery was magical. He entered it apparently a hearty, healthy man; he left it in a stooping posture, walking with great difficulty, showing signs and symptoms of pain and complaining very bitterly of the pain—severe

pain—he felt in the lower part of his back. Moreover, one of the observations he made on reaching home was, "We are going to make the Railway Company sit up." The learned counsel alleged that the condition of M'Mann was brought about partly by medical treatment and partly by surgical operations. M'Mann had powerful irritants applied to wounds long previously healed, and was subjected to a course of purgatives and starved. It was alleged, moreover, that Dr. Abrath supplied M'Mann with money until the action could be brought, advancing no less than £46. In conclusion, the learned counsel said he thought the company had been the victims of one of the most subtle and scandalous frauds in the history of modern crime. After several sittings, and the introduction of rebutting medical evidence to show that the injuries were not produced artificially, as alleged, by surgical proceedings, the case has been sent for trial, bail being allowed.

REFUSAL OF LICENCES FOR EXPERIMENT ON ANIMALS.

"NOT only" (says Dr. J. H. Russell, in a recent lecture on 'Lessons from Modern Medicine') "do we now possess an array of drugs unknown forty years ago, which put additional powers within our reach; but the intimate action of the old drugs, whether upon muscle or nerve, heart or brain, has been so elucidated that they are used in quite a new way, and so promising is the outlook that Professor Huxley says, 'It will, in short, become possible to introduce into the economy a molecular mechanism which, like a very cunningly contrived torpedo, shall find its way to some particular group of living elements, and cause an explosion among them, leaving the rest untouched.' I fear that this desirable torpedo will not be discovered in Edinburgh, for the Secretary of State has recently refused a license to our Professor of Materia Medica to perform a few experiments on frogs and rabbits with a drug from Borneo, where it is used to anoint the arrows of the natives. The operation for which leave was refused is identical with that performed by nurses every day, when medicines are administered subcutaneously with the aid of a syringe and hollow needle. For aught we know, this drug may possess some property that would relieve some one near and dear to us from suffering and sickness, and save us from anxiety and grief; but the man, whom we in Edinburgh have set apart as specially competent to make inquiry for us, is arrested through the action of a small body of zealots, who insist that their zeal, though not according to knowledge, shall be testified in our unabated pains and recorded in our losses." It is stated also, on good authority, that, in order to carry out certain experiments necessary to determine rules of practice and selection of materials in connection with the antiseptic system of treatment in surgery, which has revolutionised surgical practice and saved untold lives within a brief period of modern experience, Mr. Lister has recently been compelled to resort to France. It is known also that Professor Ferrier was warned not to apply to the Home Office for a licence for experiments, seeing that there are there enthroned prejudices and influences which made it unlikely that it would be granted. Now it is quite certain that the Act was framed with the express purpose of providing that applications for licences, duly supported by the certificates from the stated authorities named in the Act, would be granted. This is apparent on the face of the Act as its intention, and was most distinctly announced and reported by Mr. Secretary Cross. If the officials at the Home Office continue to contravene the plain spirit and declared intention of the Act, as it is alleged they have recently done, it will become necessary to apply to Parliament for a revision of the Act, which shall curtail the censorship which is being exercised without due knowledge or just basis.

EAU-DE-COLOGNE AS AN INTOXICANT.

LIVELY descriptions have been published of places in the north of Ireland, the inhabitants of which are addicted to indulgence in sulphuric ether as an intoxicating stimulant. A parallel experience is supplied in the report of Surgeon-Major Lyon, chemical analyser to the Government of Bombay, the intoxicant used being eau-de-Cologne. A sample of eau-de-Cologne was purchased at Pen in the Kolaba District, large quantities of which, it was reported, had lately been sold to the native population. Genuine eau-de-Cologne has a strength of 54.6 per cent. over proof. That from Pen was 19.7 per cent. over proof. The price at which the Pen eau-de-Cologne was retailed was two and a half annas per bottle holding four and a half fluid ounces. The price came out by calculation to be strength for strength less than the price at which ordinary Abkari duty-paid native liquor was being sold in the same district. The large sale of the eau-de-Cologne, therefore, could be readily accounted for; it was quite as cheap and probably at least quite as pleasant to drink as ordinary native liquor.

LEGITIMATE SPORT.

IT is not always easy for physiologists to follow the distinctions which are made by the antivivisectionists and kindred societies as to how much cruelty is "legitimate" for sport, and the line at which the legitimate infliction of cruelty may be drawn. A summons has recently been applied for against persons concerned in hunting animals at Alexandra Palace. The barrister who applied was careful to explain that the Society always avoided interference with legitimate sport; but, in this case, the sport in question was chasing a poor brute in confined space, where neither vigilance or skill on the part of the animal told to its advantage. This very subjective view of the cruelty on the part of the hunter is one in which, however, the stag can hardly be expected to share; inasmuch as the acute pain suffered and agony of fear inflicted from a long chase over the open country could not easily be measured or estimated as being greater or less than the amount of pain or agony inflicted by being similarly chased round an enclosure; and it is to be assumed that the difference is one rather in the pleasure felt by the sportsman, and the extra excitement, on the one hand, of giving the animal a chance for his life; and, on the other hand, in exerting the utmost ingenuity to prevent him from availing himself of that chance. It is, moreover, apparently only in the case of the stag that it is considered illegitimate cruelty to chase an animal in a confined space; since in coursing, that which is illegitimate with the stag, is legitimate with the hare. On the whole, the promoters of these prosecutions cannot be congratulated either on their consistency or their humanity in respect to their view of sport, especially when the very different view is considered which they take with respect to the infliction of pain upon animals, in the cause of research for the purpose of obtaining knowledge available for the promotion of medical science and for the alleviation of human suffering, which they appear to consider quite illegitimate. The whole of these proceedings are, we fear, sadly tainted with a time-serving and ill-informed hypocrisy. If the sympathies of the nation were as highly informed on the subject of scientific progress, and on the methods by which new knowledge has been gathered and utilised, as they are on the subject of the varieties of sport, and the methods in which they may be enjoyed, we might expect public sentiment to be turned in quite an opposite direction.

THE POSITION OF THE OVARY.

THE recent researches of His and other German anatomists were referred to in the course of the discussion on Mr. Lawson Tait's specimens at the last meeting of the Pathological Society. Putting aside the entirely erroneous conventional ideas on the relation of the Fallopian tube to the ovary, we can enumerate three recent theories on the subject. Hasse describes the long axis of the ovary as lying transversely in the pelvic cavity, with slight obliquity, the opposite organs diverging anteriorly. Schultze has recently asserted that the long axis of the ovary lies antero-posteriorly in the pelvis. Professor His, believing truth to lie between Schultze's and Hasse's opinions, has recently made some observations on the pelvic organs in the bodies of healthy young women, killed by accident or suicide. The uterus was never found to lie symmetrically in the middle of the pelvic cavity; it inclined to the right in two cases, to the left in three. In subjects where the uterus inclined to the right, the right ovary lay with its long axis completely vertical, and with one side closely applied to the outer bony wall of the pelvis; but the left ovary, being dragged upon by the

uterus, lay obliquely in the pelvis, traction being effected by the ovarian ligament which pulled the anterior part of the ovary away from the wall of the pelvis, the posterior extremity being still held against the brim of the pelvis by the fold of the peritoneum which invests the ovarian vessels, the "infundibulo-pelvic ligament" of systematic writers. In cases where the uterus inclined to the left, the relative positions of the ovaries were precisely the reverse of the above described arrangement. Each tube forms a loop around its ovary, the anterior half of the loop ascending sharply over the ovary, the posterior loop, which includes the dilated part of the tube close to the fimbriæ, descending and bulging freely behind the ovary. Both sides of the loop cover a great part of the surface of the ovary like a curtain. The ovarian fimbria runs backwards and upwards on to the ovary, that organ being, as the above description shows, closely embraced by the free end of the tube. The whole arrangement can be seen at a glance in the diagrams accompanying Professor His's paper on the subject, published in a recent number of the *Archiv für Anatomie und Physiologie*, and its physiological and pathological significance was insisted upon in the debate on Mr. Tait's paper.

OÖPHORECTOMY AND REMOVAL OF THE FALLOPIAN TUBES.

MR. LAWSON TAIT'S remarkable series of uterine appendages, removed for the relief of symptoms constantly painful, and always associated with grave disturbance of the generative functions, were brought before the Pathological Society at its last meeting, only fifteen days after the animated discussion, at another society, on Mr. Spencer Wells's case of excision of a gravid uterus. The complexity of the question, its extremely special character, and its association with clinical rather than pathological science, did not allow so active a debate on Mr. Tait's paper. Women suffer intolerable inconvenience from the effects of adhesive inflammation of the uterine appendages. Rest, drugs, and medication through the vagina, prove of no avail; therefore, Mr. Tait considers it justifiable to open the abdomen, and remove the diseased appendages. His own experience both justifies his opinion, and has brought to light a fact not hitherto recognised—namely: the frequency of purulent inflammation of the Fallopian tube. The relation of severe dysmenorrhœa and dyspareunia to these cases, where the evidence of long-standing inflammatory mischief is ever at hand, must modify the prevalent belief in the "purely functional" or "spasmodic" nature of some forms of painful menstruation. Simple distension of an obstructed tube, or of a small cyst in the ovary, may cause intense pain, as has long been suspected, and is proved by Mr. Tait's specimens. The cause of this class of disorder appears to be, either specific vaginal discharge, or mismanagement and neglect of some acute uterine or ovarian inflammatory affection. Rest, from all movement of the body and from all excitation of the generative functions, and the avoidance of continual employment of sounds and specula, can alone check such diseases at their onset. Once neglected, the troublesome symptoms due to adhesive inflammation of the appendages supervene; and then the sufferer is doomed to live the rest of her life on a sofa, or in a workhouse infirmary, or else to submit to the removal of the appendages: for cases where a patient has suddenly got up, after years of rest, and defied medical advice, and become healthy and active, are clearly hysterical, since no organic disorder could undergo so sudden a cure. Old adhesions in large joints do not break down after prolonged rest; surgical interference is necessary. Perimetritic adhesions cannot be expected to break down by expectant treatment; and, as the delicate apparatus of tube and ovary (only imperfectly understood even at the present day) cannot be put right by merely tearing down adhesions, or attempting to open the tube, after opening the abdominal cavity, the offending structures must needs be removed entirely. Under these circumstances, we do not see that any great ethical question is at stake, any more than in ovariotomy, castration for strumous orchitis, or other similar operations. Only, the gravest deliberation and the keenest diagnostic power is first necessary; and, in detecting dilatation and suppuration of the tubes, Mr. Tait has, at least, displayed a remarkable faculty of correct diagnosis.

MEDICAL OFFICERS AT BARBADOES: VICTIMS TO THE YELLOW FEVER.

WE have learned, with great gratification, that the devotion to duty of the medical officers, who lost their lives in the late epidemic at Barbadoes, has in this instance been rightly appreciated, as the following extract from the general order of the General-in-command in the West Indies will testify. "The Major-General need hardly invite attention to the labours of Deputy Surgeon-General H. Reade, V.C., principal medical officer; of the officers of the Medical Department; and to the work of the Army Hospital Corps; for they have been manifest to, and have been the admiration of all. To Deputy Surgeon-General Reade, V.C., for his indefatigable personal devotion to duty, and his unwearied anxiety for the welfare of the sick; and to every officer, non-commissioned officer, and man under him, he expresses, on his own behalf and that of the troops, most heartfelt thanks. Four medical officers—namely: Surgeon-Major Espine Ward; Surgeons Ronayne, Oliver, and Deane Freeman; Sergeant Warne, and four privates of the Army Hospital Corps—nine out of a total of twenty-six, or more than 33 per cent. of the department—have fallen at their posts, nobly doing their duty to the very last. Unflinching performance of duty at such a time, and the self-sacrifice it manifests, are evidence of moral qualities of a far higher kind than are to be looked for in the excitement of active service in the field." The last three young medical officers on this honourable list only left the Army Medical School, Netley, a few brief months ago, in the flush of youth, and health, and enthusiasm. Their brother officers are proud of them; and deem their names worthy of commemoration with those of Cornish and Landon, also Netley men, who fell nobly on Majuba Hill while ministering to their wounded comrades.

MEDICAL DUELLING IN FRANCE.

M. DANNER, Director of the School of Medicine of Tours, and member of the Academical Council of Poitiers, a day or two ago fought a duel with M. Jules Delahaye, editor of the *Journal d'Inde et Loire*. Three shots were exchanged; neither of the duellists was hit. A discussion concerning the judgment the Academical Council of Poitiers brought in against Père Labrousse was the cause of this serious contest.

SCOTLAND.

ABERDEEN MILK EPIDEMIC.

THE Home Secretary has replied through Lord Rosebery, the Under Secretary of State for Scotland, that he fails to see the necessity for a "supplementary investigation" on the above subject. The honorary secretary to the "sufferers" has asked the Home Secretary to reconsider his decision. It is very unfortunate that the application has been refused, for undoubtedly there are still many points of great public interest which were left untouched by the report of the commissioners.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

THE annual meeting of the Royal College of Physicians, Edinburgh, was held on Thursday, December 1st. Dr. Haldane was unanimously re-elected president. All the old members of Council were re-elected, with the exception of Dr. Angus Macdonald, of whose valuable services the Council has unfortunately, through his illness, been deprived; in his place, Dr. Claud Muirhead was elected. The various other office-bearers were reappointed; and, in addition, Dr. J. Alexander Russell was appointed an examiner.

THE ROYAL SOCIETY, EDINBURGH.

AT the opening meeting of the Royal Society in Edinburgh, on Monday last, the President, Lord Moncrieff (the Lord Justice Clerk for Scotland), in his opening address, in mentioning the losses the Society had undergone through the deaths of several of its members, alluded to the late Professor Sanders as one who had won for himself a foremost place as a consulting physician; to the late Dr. Hamilton, who,

as a clear methodical lecturer, had gained the esteem of his students; and to Dr. Andrew Wood, the representative of the fourth generation of a family which, for considerably above a century and a half, had been identified with the medical profession in Edinburgh.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

THE fifth lecture was delivered by Dr. Stirling, in Montrose, on Tuesday evening, to a crowded audience. The subject of the lecture was, "Digestion, and the Formation of Blood". After describing the changes which food undergoes in the stomach, the lecturer illustrated the mode of absorption of the products of gastric digestion by several simple yet striking experiments. The mode of digestion of milk was specially dwelt upon, and it was shown how a special ferment curdles the milk in the stomach as a preliminary to the digestive action of the pepsin. The mechanical and other effects of the accumulation of gases in the stomach were graphically described: thus, the gases not only excite the nerves of the stomach, and produce effects reflexly upon the heart, but, by their accumulation, they impede the free action of the heart. A short reference was made to the well-known case of Alexis St. Martin, and to Dr. Beaumont's experiments upon him. In discussing intestinal digestion, it was remarked, that the fact of the bile being poured into the intestine so high up, is of itself sufficient to show that bile is not a mere excretion. The actions of the bile and the pancreatic juice, as well as the actions of gastric juice, were all shown experimentally. The unique relations of the liver with regard to its blood-supply were pointed out, and the results of this arrangement in the frequent affections of the liver from a variety of causes were clearly brought home to the audience. The recent great additions to our knowledge of the action of various drugs on the biliary secretion, as obtained by experiments on animals—thanks to the researches of Röhrig, Rutherford, and others—were brought prominently before the audience; and it was shown how experiment is the only sure basis on which scientific deductions can be based. The relation of the nervous system to the movements of the intestine and to the secretion of the digestive juices formed one of the most telling parts of the lecture, the wonder being that, considering the large number of nerves supplied to the walls of the intestine, the digestive processes go on so painlessly. The mechanical action of the ileo-colic valve was compared with the sphincter-like action of the pylorus. The mechanical arrangements in the gut were illustrated by large but simple models, which any teacher may make for himself. As the food has to ascend the colon against the action of gravity, all constriction of the belly—as by tight lacing—ought to be avoided. The mode of origin and course of the lacteals were then mentioned, and the lecture was brought to a close with a description of the blood. The fallacies underlying the use of quack medicines as "purifiers of the blood" were ably expounded, and the practice of dosing one's self with medicines of which one knows nothing was condemned in the strongest terms. The largely experimental nature of these lectures renders them doubly interesting, and the experiments are always of the simplest kind, and such as can be done easily by teachers of physiology in schools.

REGULATIONS AS TO LECTURERS BY EDINBURGH UNIVERSITY.

THE University Court of Edinburgh University, at a meeting held on Monday, adopted several regulations as to extra-academical lectures which qualify for graduation in the University; and it is well that they should be known to all who intend applying for recognition by the Court. Every applicant must produce a syllabus of his course of lectures, state the number of lectures and of the written and oral examinations in the course; also a statement of the length of time he has devoted to the subject of the course, and his opportunities for studying it, as well as of the experience he has had in teaching it. He must also furnish a note of his contributions to the science of the subject, and a statement as to whether his course is recognised by any university or examining body, and what means were adopted for ascertaining his qualifications for teaching. An inspection of the teaching appliances and accommodation will be made in the case of any applicant in Edinburgh or its neighbourhood. As the University professors have to furnish the Court annually with certain statements regarding their class, the Court will require the same from the extra-academical lecturer; and it will comprise the number of students attending, the number of meetings for class-work, the method of conducting it, the number of meetings devoted to each kind of work, and, in addition to those, the number of special written examinations. It is provided that, in the case of a lecturer changing to other premises from those in which his teaching was recognised, he will intimate the fact to the Court, so that it may examine and consider if the new premises are adapted to the teaching of the recognised subject. In cases where more than one lecturer applies for recognition in conjunction, it will be necessary for the work to be done by each in the conjoined course to be explicitly stated; and in the event of the withdrawal of one from the course, or any material change made in the share of work, the recognition shall terminate. Lastly, if any recognised lecturer ceases lecturing for two consecutive years, his recognition will terminate. At the same meeting, Thomas Carnelley, D.Sc., lecturer on chemistry, Sheffield; John Wallace, M.D., lecturer on midwifery, Liverpool; and C. W. Cathcart, M.B., lecturer on anatomy, Edinburgh, were recognised as extra-academical lecturers, which courses shall qualify for graduation in Edinburgh University; and the appointment of James Allan Gray, M.D., as assistant to the Professor of Medical Jurisprudence, and R. M. Morrison, D.Sc., and John Gibson, Ph.D., as assistants to the Professor of Chemistry, were approved.

PROFESSOR MCKENDRICK AND THE ROYAL INSTITUTION.

DR. J. GRAY MCKENDRICK, Professor of Institutes of Medicine, Glasgow University, has been appointed Fullerian Professor of Physiology in the Royal Institution of Great Britain.

HEALTH-LECTURES.

OF the exceedingly useful course of health-lectures mentioned in the JOURNAL some time ago, and delivered for the most part by members of the profession in Edinburgh, three have already been delivered: the first of these was by Dr. J. A. Russell, and in it he dealt with many of the questions of modern medicine; the second was by Dr. D. J. Cunningham, on the anatomy of the human being; and the third, on parasites, was by Dr. Andrew Wilson. The lectures are well attended, and evidently much appreciated. One feature worth special notice is that, in the first and third lectures, vivisection was advocated and insisted upon by the lecturers, and this part was well received by the audience.

THE UNIVERSITY OF GLASGOW.

THE matriculation numbers of the students attending the University this session are now complete, and they show a total of 2,316, distributed amongst the various Faculties as follows: In Arts, 1,327; in Medicine, 624; in Law, 211; in Theology, 100; in Arts and Medicine, 25; in Arts and Law, 9; in Arts and Theology, 20. In the whole total, the numbers of the present session exceed that of last by only twelve, but an analysis of the separate Faculties shows that in Medicine there is an increase of sixty-one, the figures for last session being 563, as compared with 624 at present.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending November 26th, it appears that the death-rate in the eight principal towns during the week was 20.3 per 1,000 of estimated population. This rate is 4.4 below that of the corresponding week of last year, and 2.0 below that of the previous week of the present year. The lowest mortality was recorded in Paisley—viz., 10.2 per 1,000; and the highest in Dundee—viz., 24.7 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.8 per 1,000, or 0.6 below the rate for last week. Scarlet fever was the most fatal epidemic in Edinburgh. In Glasgow, measles and diphtheria (including croup) were most prevalent. Acute diseases of the chest caused 92 deaths,

or 30 less than the number recorded last week. The mean temperature was 45.2°, being 1.5° below that of the week immediately preceding, and 7.8° above that of the corresponding week of last year.

THE GLASGOW MATERNITY HOSPITAL.

AT the annual meeting of the supporters of the above institution, held on November 29th, the forty-seventh annual report was read and approved of. From this report, it appears that, during the year, the number of indoor cases was 273, outdoor cases 974, in all 1,247. There were 14 deaths, of which 10 occurred in the hospital, and 4 among the out-patients. The number of cases treated during the year was greater than on any occasion during the previous five years, there being an increase of 50 in the indoor, and 58 in the outdoor cases. This had, of course, made the death-rate higher, but it was satisfactory to know that only one death had resulted from puerperal disease. That the new hospital had proved admirably suited for the purposes of the charity, and was well adapted for its work, was shown by this marked absence of epidemic disease. During the year, 108 medical students had joined the hospital, and there were 36 nurses under tuition. Reference was made in the report to the loss the hospital had sustained by the loss of Dr. J. G. Wilson, and of Dr. Foulis, the pathologist. Dr. Leishman was elected consulting physician in the place of Dr. Wilson.

IRELAND.

THE medical officers of the New Ross Union have drawn attention to the great neglect of vaccination which exists in their districts; and their complaint, backed by a representation from the Local Government Board, have determined the guardians to take active steps by instituting prosecutions against the defaulters.

AN Order in Council has been published authorising the expenditure of £20,000 on the enlargement and improvement of Londonderry District Lunatic Asylum, and a sum of £1,800 to complete necessary additions to the Kilkenny District Asylum. This will provide accommodation for three hundred in the former institution, and one hundred in the latter.

CORK WORKHOUSE: SALARIES OF THE MEDICAL OFFICERS.

AT a meeting of the Cork board of guardians, held last week, it was moved that the salaries of Drs. John Wall, Richard Callaghan, and P. J. Cremen, the three visiting physicians, should be increased from £100 to £150 a year, as it was alleged that, though the accommodation in other unions was less than in Cork, the medical officers were receiving higher salaries than were paid in the Cork union. The majority of the board were, however, opposed to the resolution, and, on a division, it was lost by 28 against 16 votes. A motion to increase the salary of Dr. Magner, resident medical officer, by £20 yearly was also defeated.

THE GENERAL MEDICAL COUNCIL.

THE appointment of Dr. Lyons, M.P. for Dublin City, as Crown representative for Ireland on the General Council of Medical Education, has been gazetted. Dr. Lyons is M.B. of the University of Dublin; one of the physicians to the House of Industry Hospitals; Professor of the Theory and Practice of Medicine in the Catholic University School; and a Fellow of the King and Queen's College of Physicians in Ireland. The latter corporation has now four of its Fellows on the General Medical Council.

OUTBREAK OF SCARLATINA.

DR. LEEPER, medical officer of the Loughall dispensary district, has reported to the Armagh Board of Guardians that scarlatina of a virulent type has broken out in the townlands of Derrycorry and Derrycuse. The Local Government Board have been apprised of the occurrence, and have advised due precautions against the spread of the disease, by the removal of the patients to hospital when practicable, and by the free use of disinfectants.

CORONERSHIP OF CO. DOWN.

A VACANCY for a coroner for the Northern Division of the county Down has arisen, and Dr. Irvine, medical officer of Castlereagh Dispensary District, a gentleman respected and well known in that district, is a candidate for the post. There is no doubt that a medical practitioner can more efficiently fulfil the duties appertaining to a coroner, as compared with a member of the legal profession; and we trust that the Parliamentary electors in Down will return Dr. Irvine on the day of election.

MEDICAL SOCIETY, QUEEN'S COLLEGE, CORK.

THE annual general meeting was held at the College on the 2nd instant, when the following office-bearers were elected for the ensuing year. *President:* C. Yelverton Pearson, M.D., M.Ch. *Vice-President:* J. Cotter, M.D. *Members of Council:* T. J. Crowley, J. H. Swanton, A. B. Chambers, R. L. Tooker. *Treasurer:* Frederick E. Adams. *Honorary Secretaries:* Richard Barter, G. A. Rountree.

BELFAST ROYAL HOSPITAL.

AT a quarterly meeting of the committee of management held last week, the suggestion made of closing a portion of the hospital on the 1st January, in consequence of the want of funds, was discussed. Finally, it was resolved to make a special appeal to subscribers to increase their subscriptions, and to solicit aid from those who do not contribute. The ordinary income of the hospital—subscriptions, church collections, and pay patients—has been much the same during the last fourteen years, while additions have been made to the hospital, and the number of patients have gradually increased, so that the deficiency of income has, year after year, been met by encroaching upon the invested funds of the hospital. In a wealthy manufacturing town like Belfast, the contributions from the working classes are not what they should be. Last year, they amounted only to £369, while, in contrast, we may state that the Glasgow Royal Infirmary received from a similar source no less than £4,474. Further, the church collections average between £400 and £500 yearly, and considerable apathy appears to exist in this matter, as, out of 170 circulars lately issued to the clergy of Belfast and neighbourhood, asking that Hospital Sunday should be held on a particular date, only thirty-seven replies were received, and of these, but twenty-one consented to the arrangement. It is discreditable to a populous and wealthy town to have the only general hospital of the place in a chronic condition of impecuniosity; and we trust that the efforts now being made will not only be efficacious for the present, but that the institution may be placed on a surer basis as regards a permanent and fixed income.

HEALTH OF BELFAST.

From the report of Dr. Browne, we learn that during October 44 cases of zymotic disease were reported by the medical officers of the dispensary districts. Nineteen cases of small-pox were removed to the hospital for contagious diseases, and every precaution taken to prevent the disease from spreading. The total births registered in the four weeks ending 22nd October amounted to 498, and the total deaths to 314, showing a natural increase in the population of 183 individuals. Of the 30 deaths from zymotic diseases, two were due to small-pox, five to scarlet fever, one to typhus, four to typhoid, and fifteen to diarrhœa. To phthisis 55 deaths were ascribed, and 61 from other diseases of the respiratory organs, or a total of 116 from chest-affections. The average death-rate from all diseases was 19.7, from lung-affections 7, and from zymotic affections 1.9, out of which diarrhœa showed a rate of 0.9. These figures show an increase in some of the zymotic diseases—small-pox and scarlet fever—while there was a diminution in the amount of typhoid fever and an almost total absence of typhus fever. Small-pox, while showing itself over several of the districts, has not exhibited a tendency to spread generally, and the cases which have occurred have been generally of a very mild or modified type.

MR. JOSEPH HARRIS, President-elect of the South Western Branch of the British Medical Association, has been elected Mayor of Barnstaple.

THE

BRITISH MEDICAL ASSOCIATION.

A BRIEF ACCOUNT OF ITS ORIGIN, OBJECTS, AND PROGRESS.

THE British Medical Association is now in the fiftieth year of its existence; and its jubilee will be celebrated next year at Worcester, the place of its origin. We intend to publish in the JOURNAL, before the annual meeting, a full historical account of the Association and of each of its Branches. In the meantime, we will give here a brief sketch of the origin and progress of the Association, and of the work which it has done towards the advancement of medical science and the promotion of the interests of the medical profession.

FORMATION OF THE ASSOCIATION.—The high merit of forming the Association is due to the late Sir Charles Hastings, for many years physician to the Infirmary at Worcester. For some years previously to 1832, he had, with the co-operation of five other gentlemen, conducted a medical journal under the name of the *Midland Medical and Surgical Reporter*, which contained many articles of great merit from the pens of practitioners residing in the provinces. He was thus led to the conclusion that there was a large amount of scientific and professional knowledge and literary ability lying dormant among the profession in the parts beyond the metropolis; and to believe that the provincial medical practitioners of England might be combined into a comprehensive co-operating institution, which, by collecting the results of individual experience, and bringing the energies of many minds to bear on unsettled points, might contribute to give to medicine more precision and certainty than it then possessed. He had also perceived the necessity for an improvement in the organisation of the profession, which he held to be closely connected with the progress of medical science.

Having become convinced of the possibility of forming such an association, Dr. Hastings invited a number of members of the medical profession to meet for the purpose of considering his project. The meeting, which was attended by more than fifty medical men, was held in the board-room of the Worcester Infirmary, on July 19th, 1832. Dr. Edward Johnstone, of Birmingham, was called to the chair; and among those present were Dr. Kidd, Regius Professor of Physic in the University of Oxford; Dr. Barlow, Physician to the Bath United Hospital; Dr. John Conolly; Dr. William Conolly; Mr. Joseph Hodgson, Surgeon to the Birmingham General Hospital; Mr. Sands Cox and Dr. Corrie of Birmingham; Dr. T. Evans of Ross; and most of the medical men residing in Worcester and the neighbouring towns.

In an address which showed not only his conviction of the advisability of combining his provincial brethren into an Association, but his confidence in their ability to carry out the objects which he proposed, Dr. Hastings expounded his views; and, having expressed his gratification at the favourable manner in which his proposal to form a PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION had been received, said that a committee had been engaged in endeavouring to take advantage of the suggestions made by numerous correspondents, and had drawn up a prospectus in which the principal objects of the Association were stated to be:

"1. Collection of useful information, whether speculative or practical, through original essays, or reports of provincial hospitals, infirmaries, or dispensaries, or of private practice.

"2. Increase of knowledge of the medical topography of England, through statistical, meteorological, geological, and botanical inquiries.

"3. Investigation of the modification of endemic and epidemic diseases, in different situations and at various periods, so as to trace, so far as the present imperfect state of the art will permit, their connection with peculiarities of soil and climate, or with the localities, habits, and occupations of the people.

"4. Advancement of medico-legal science, through succinct reports of cases occurring in provincial courts of judicature.

"5. Maintenance of the honour and respectability of the profession, generally, in the provinces, by promoting friendly intercourse and free communication of its members; and by establishing among them the harmony and good feeling which ought ever to characterise a liberal profession."

These were adopted as the fundamental principles of the Association; and it was decided, as one great means of carrying out these objects, to hold an annual meeting of the members at some one of the provincial towns, changing the place of meeting each year.

PRESIDENTS; AND PLACES OF ANNUAL MEETINGS.—As stated above, the first president was Dr. Edward Johnstone of Birmingham; and the subjoined list shows the places of meeting and the names of the presidents in the years subsequent to the formation of the Association.

Year.	Place of Meeting.	President.
1833	Bristol	Andrew Carrick, M.D.
1834	Birmingham	John Johnstone, M.D., F.R.S.
1835	Oxford	John Kidd, M.D., F.RS.
1836	Manchester	Edward Holme, M.D.
1837	Cheltenham	Henry C. Boisragon, M.D.
1838	Bath	Edward Barlow, M.D.
1839	Liverpool	Thomas Jeffreys, M.D.
1840	Southampton	George Steed, M.D.
1841	York	George Goldie, M.D.
1842	Exeter	John H. James, Esq.
1843	Leeds	William Hey, Esq.
1844	Northampton	Archibald Robertson, M.D., F.R.S.
1845	Sheffield	William Favell, Esq.
1846	Norwich	John G. Crosse, Esq.
1847	Derby	James Heygate, M.D., F.R.S.
1848	Bath	George Norman, Esq.
1849	Worcester	Charles Hastings, M.D.
1850	Hull	Fewster R. Horner, M.D.
1851	Brighton	George S. Jenks, M.D.
1852	Oxford	John W. Ogle, M.D.
1853	Swansea	G. Gwynne Bird, M.D.
1854	Manchester	William J. Wilson, Esq.
1855	York	Thomas Simpson, M.D.
1856	Birmingham	James Johnstone, M.D.
1857	Nottingham	Booth Eddison, Esq.
1858	Edinburgh	William P. Alison, M.D., F.R.S.E.
1859	Liverpool	James R. W. Vose, M.D.
1860	Torquay	C. Radclyffe Hall, M.D.
1861	Canterbury	Alfred Lochée, M.D.
1862	London	George Burrows, M.D., F.R.S.
1863	Clifton	John A. Symonds, M.D., F.R.S.E.
1864	Cambridge	George E. Paget, M.D., F.R.S.
1865	Leamington	Samuel J. Jeaffreson, M.B.
1866	Chester	Edward Waters, M.D.
1867	Dublin	William Stokes, M.D., D.C.L.
1868	Oxford	Henry W. Acland, M.D., F.R.S.
1869	Leeds	Charles Chadwick, M.D., D.C.L.
1870	Newcastle-on-Tyne	Edward Charlton, M.D.
1871	Plymouth	John Whipple, Esq.
1872	Birmingham	Alfred Baker, Esq.
1873	London	Sir William Fergusson, Bart., F.R.S.
1874	Norwich	Edward Copeman, M.D.
1875	Edinburgh	Sir Robert Christison, Bart., M.D., D.C.L., LL.D.
1876	Sheffield	M. Martin De Bartolomé, M.D.
1877	Manchester	M. A. Eason Wilkinson, M.D.
1878	Bath	Randle W. Falconer, M.D., D.C.L.
1879	Cork	Denis C. O'Connor, M.D.
1880	Cambridge	George M. Humphry, M.D., F.R.S.
1881	Ryde	Benjamin Barrow, Esq.

The president-elect for 1882 is William Strange, M.D., of Worcester.

PRESIDENT OF COUNCIL.—This office was first conferred in 1843 on Sir Charles Hastings, when he retired from the office of Secretary; and, in the subsequent revisions of the laws of the Association, he was appointed President of Council for life. The office of Treasurer was for some time conjoined with it; and the duties of both offices were discharged by Sir Charles Hastings until his death in 1866. Since that time, in accordance with the laws, the Presidency of the Council has been a triennial office, and has been held by the following members: Francis Sibson, M.D., F.R.S. (1866); W. D. Husband, Esq. (1869); George Southam, Esq. (1872); Randle W. Falconer, M.D. (1875); Alfred Carpenter, M.D. (1878); C. G. Wheelhouse, Esq. (1881).

TREASURER.—The office of Treasurer of the Association, as stated above, was held by Sir Charles Hastings until his death in 1866. Since that time, the Treasurer has been appointed triennially, in accordance with the laws of the Association, and the office has been held in succession by the following: R. Wilbraham Falconer, M.D. (1866 to 1875); W. D. Husband, Esq. (1875 to 1881); W. F. Wade, F.R.C.P. (1881).

SECRETARY.—At the formation of the Association, Dr. Hastings and Mr. J. P. Sheppard of Worcester were appointed Secretaries, and held office until 1843, when they retired. Dr. R. J. N. Streeten, of Worcester, was then appointed Secretary, with a salary, the office having previously been honorary; and, on his death in 1849, Mr. J. P. Sheppard was again appointed Secretary. On Mr. Sheppard's death in

1854, Dr. P. H. Williams of Worcester was appointed Secretary by the Council. At the annual meeting in that year, however, Dr. Cormack of London was elected Secretary; but, at the annual meeting in 1855, he resigned office, and Dr. Williams was again appointed. He remained in office until 1863, when he was succeeded by Mr. T. Watkin Williams of Birmingham. In 1872, on the removal of the business offices of the Association to London, Mr. Francis Fowke was appointed General Secretary and Manager.

NAME OF THE ASSOCIATION.—As has been already stated, the Association was founded for the purpose of promoting scientific work among the provincial practitioners and of advancing their professional interests. It was therefore designated the Provincial Medical and Surgical Association. In the course of time, as the activity and influence of the Association increased, it became felt by many members that a wider scope should be given to the union, and that it should be made to combine in name—as it had already done to a certain extent in fact—medical practitioners in all parts of the United Kingdom. Accordingly, after a careful consideration and much deliberation, the Association in 1856 assumed the name of the BRITISH MEDICAL ASSOCIATION. In 1874, the Association was incorporated under the provisions of the Joint Stock Companies' Acts; the chief object being to give it a legal standing for purposes of business inseparably connected with the organisation of such a body. The question of obtaining a Royal Charter of Incorporation had in previous years been discussed, but had been dismissed, on the ground of expense.

NUMERICAL STRENGTH.—At the inaugural meeting in 1832, the Association consisted in all of 140 members. In 1833, the number had risen to 316; and at the meeting in Exeter at the close of the first decennial period, the number was 1,350. When the Association again met at Worcester in 1849, under the presidency of Dr. Hastings, the number of members was 1,760; in 1853, it was 1,850; in 1863, it was about 2,200; in 1869, it had risen to 4,095; in 1870, 4,258. Since that time, a rapid and steady increase has taken place; the numbers, as stated in the annual reports of the Council, being:

In 1871	 4,403	In 1877	 7,147
,, 1872	 4,700	,, 1878	 7,536
,, 1873	 5,400	,, 1879	 7,810
,, 1874	 5,433	,, 1880	 8,052
,, 1875	 7,112	,, 1881	 8,202
,, 1876	 7,000		

FINANCES.—For many years the financial condition of the Association was a source of great anxiety, and of much discussion at the annual meetings. For the last ten years, however, the Association has become more prosperous. In 1874, the income was sufficient to meet all liabilities, and to leave a balance of £500. Since that time, the income has been so much in excess of the expenditure, that it has been found possible, after discharging all liabilities, to invest £8,912 in government and railway stock. In addition, there are the Hastings, Stewart, and Middlemore prize funds, amounting in all to £1,377, which are invested in the names of trustees, on behalf of the Association.

PUBLICATIONS.—The publications of the Association have been from the first an important means of carrying out the objects for which it was formed. At the end of its first year, and each year afterwards until 1853, a volume of *Transactions* was published, containing, besides records of the proceedings at the previous annual meeting, the addresses read thereat, and various papers, several of much merit; among them being, for instances, some able articles on medical topography, the now celebrated paper of Mr. Ceely on the Variola Vaccinia, and a valuable contribution by Dr. Sibson on the Position of the Internal Organs in Health and Disease, etc. Since the discontinuance of the *Transactions* in 1853, the addresses and other matter which would have formed their contents have been for the most part published in the weekly Journal.

The history of the Journal commences in 1840. In that year, Dr. Hennis Green of London established the PROVINCIAL MEDICAL AND SURGICAL JOURNAL. This, although stated to have the same objects as the Association, was not at first connected with it otherwise than by the appointment of a member of the Council at Worcester—Dr. Streeten—as co-editor with Dr. Green; and for four years, by an arrangement with the proprietors, the Journal was supplied to members of the Association. In 1844, the Journal was transferred to Worcester, and was published weekly until 1846; from which year to the end of 1852, it appeared fortnightly. In the latter year, after much discussion, it was determined that the Journal should be removed to London, and be published weekly. Accordingly, in January 1853, the first number of the ASSOCIATION MEDICAL JOURNAL appeared. It was published under this title for four years, and in 1857 took the name of BRITISH MEDICAL JOURNAL. From 1840 to 1844, the Journal was edited by Dr. Hennis Green of London and Dr. Streeten of Worcester. In 1844, Dr. Streeten was appointed sole editor; in 1847, Dr. Ranking of Norwich was appointed to manage the foreign department of the Journal; and, on the death of Dr. Streeten in 1849, Dr. Ranking and Mr. Walsh of Worcester were appointed joint editors. On the removal of the Journal to London, it was edited by Dr. (now Sir) John Rose Cormack, who held office till near the end of 1855, when he retired, and was succeeded by Dr. Andrew Wynter, who was editor until the end of 1860. From the commencement of 1861 to the autumn of 1866, the Journal was under the management of Dr. W. O. Markham; on whose appointment to an office under Government, Mr. Ernest Hart was appointed editor, and, except during an interval of a year in 1869-70, when the Journal was conducted by Mr. Jonathan Hutchinson, has held that office up to the present time. Under Dr. Markham's editorship, in 1861, the Journal, which had hitherto formed one yearly volume, was first published annually in two volumes. In recent years, the Journal has increased greatly in size, as well as in extent of circulation and in influence. It is now generally recognised as the leading medical journal published in the English language, its circulation considerably exceeding that of any other. It is issued to the medical officers of the American army; and it has of late been repeatedly referred to by foreign and American writers as the best medical journal in existence. It has set the example of reporting not only the metropolitan, but all the leading English, Irish, and Scotch medical societies and hospitals, and of devoting special departments to the Public Health, Poor-law, and Army and Navy Medical departments.

BRANCHES.—A most important and valuable means of carrying out the objects for which the Association was established, has been the formation of Branches. The first step in this direction was taken in 1835, when a society was formed in the eastern counties under the name of the East Anglian Medical Association, comprising the counties of Norfolk, Suffolk, Cambridge, and Essex. Negotiations were, in the next year, entered into for amalgamating it with the Provincial Medical and Surgical Association; and ultimately, in 1837, it was dissolved, the members joining the Provincial Association. The formation of a Branch appears to have been contemplated; but we are not aware, however, whether a Branch actually existed in the Eastern counties until the formation of the Cambridge and Huntingdon Branch in 1842. Of the Branches formed subsequently, thirty-five are now in existence. Their names, in the order of their establishment, are as follows. In the United Kingdom there are—Lancashire and Cheshire Branch (1837); South-Western Branch (1840); Bath and Bristol Branch (formed by union of Bath and Bristol Branches in 1841);* Yorkshire Branch (1842); Cambridge and Huntingdon Branch (1842); East Anglian Branch (1843); South-Eastern Branch (1844); West Somerset Branch (1844); North Wales Branch (1849); Midland Branch (1852); Metropolitan Counties Branch (1853); Birmingham and Midland Counties Branch (1854); Reading Branch (1856); South Midland Branch (1856); East York and North Lincoln Branch (1857); Shropshire and Mid-Wales Branch (1860); North of England Branch (1865); Gloucestershire Branch (1868); Border Counties Branch (1868); South Wales and Monmouthshire Branch (1871); Aberdeen, Banff, and Kincardine Branch (1872); Northern Counties of Scotland Branch (1873); Southern Branch (1874); South of Ireland Branch (1874); Edinburgh Branch (1875); Staffordshire Branch (1875); Thames Valley Branch (1875); Glasgow Branch (1876); Dublin Branch (1877); North of Ireland Branch (1877); West of Ireland Branch (1879); Worcestershire and Herefordshire Branch (1880). In recent years, several Branches have been formed in the Colonies, viz., Jamaica Branch (1877); Adelaide and South Australia Branch (1880); Melbourne and Victoria Branch (1880); Sydney and New South Wales Branch (1880). Much valuable assistance has been rendered by the Branches, in increasing the numbers of the Association and promoting the objects for which it was founded. A more complete history of the Branches, and of their work, is reserved for a future occasion.

ANNUAL ADDRESSES.—When the Association was founded, provision was made in the by-laws for the delivery, at the annual meeting, of a special address or addresses on some subject of professional interest. At first, for several years, the topic of these addresses was the progress of medical science during the past year; but subsequently they were increased in number, and the readers of them were left at liberty to treat their respective subjects in any way that they might think proper, without any special reference to record of progress, the necessity of which became obviated by the publication of various periodicals devoted to this object. A list of the readers of addresses is given in the table on next page.

* The Bath and the Bristol Branches had been formed [illegible] four or five years previously.

READERS OF ADDRESSES AT THE ANNUAL MEETINGS OF THE ASSOCIATION.

General Retrospective Addresses:

1833. Edward Barlow, M.D., Bath
1834. John Conolly, M.D., Warwick
1835. J. C. Prichard, M.D., F.R.S., Bristol
1836. J. G. Crosse, Esq., F.R.S., Norwich
1837. James L. Bardsley, M.D., Manchester
1838. Jonas Malden, M.D., Worcester
1839. J. A. Symonds, M.D., Clifton
1840. Roger W. Scott, M.D., Liverpool
1841. R. J. N. Streeten, M.D., Worcester
1842. James Black, M.D., Manchester
1843. Thomas Shapter, M.D., Exeter

Addresses in Medicine:

1844. Charles Cowan, M.D., Reading
1845. Edward Charlton, M.D., Newcastle
1846. W. H. Ranking, M.D., Bury St. Edmund's
1847. E. J. Shearman, M.D., Rotherham
1848. William Davies, M.D., Bath
1849. Charles W. Bell, M.D., Manchester
1850. Henry Cooper, M.D., Hull
1851. William King, M.D., Brighton
1852. M. A. Eason Wilkinson, M.D., Manchester
1853. C. Radclyffe Hall, M.D., Torquay
1854. John Conolly, M.D., F.R.S., London
1856. T. Bell Salter, M.D., Ryde
1857. W. Tindal Robertson, M.D., Nottingham
1859. Edward Waters, M.D., Chester
1860. Charles Barham, M.D., Truro
1861. W. O. Markham, M.D., London
1862. W. H. Walshe, M.D., F.R.S., London
1863. William Bell, M.D., Clifton
1864. E. L. Ormerod, M.D., Brighton
1865. Wm. Stokes, M.D., D.C.L., Dublin
1866. J. Hughes Bennett, M.D., F.R.S.E., Edinburgh
1867. Sir Dominic Corrigan, Bart., M.D., Dublin
1868. W. W. Gull, M.D., F.R.S., London
1869. Sir W. Jenner, Bart., M.D., F.R.S., London
1870. F. Sibson, M.D., F.R.S., London
1871. G. Johnson, M.D., F.R.S., London
1872. S. Wilks, M.D., F.R.S., London

Addresses in Medicine—continued.

1873. E. A. Parkes, M.D., F.R.S., Southampton
1874. J. Russell Reynolds, M.D., F.R.S., London
1875. J. Warburton Begbie, M.D., Edinburgh
1876. E. H. Sieveking, M.D., London
1877. William Roberts, M.D., F.R.S., Manchester
1878. H. F. A. Goolridge, M.D., Bath
1879. Alfred Hudson, M.D., M.R.S.A., Dublin
1880. J. B. Bradbury, M.D., Cambridge
1881. J. Syer Bristowe, M.D., F.R.S., London

Addresses in Surgery:

1839. J. H. James, Esq., Exeter
1843. William Hey, jun., Esq., Leeds
1845. T. Pridgin Teale, Esq., Leeds
1847. John H. Walsh, Esq., Worcester
1851. B. Vallance, Esq., Brighton
1852. James T. Hester, Esq., Oxford
1853. Augustin Prichard, Esq., Clifton
1855. Richard Hey, Esq., York
1856. Langston Parker, Esq., Birmingham
1857. George Southam, Esq., Manchester
1858. J. Miller, Esq., F.R.S.E., Edinburgh
1860. P. C. De la Garde, Esq., Exeter
1861. George Hofmann, Esq., Margate
1862. James Paget, Esq., F.R.S., London
1863. Augustin Prichard, Esq., Clifton
1864. G. M. Humphry, M.D., F.R.S., Cambridge
1865. J. Syme, Esq., F.R.S.E., Edinburgh
1866. W. Bowman, Esq., F.R.S., London
1867. Robert W. Smith, M.D., London
1869. Thomas Nunneley, Esq., Leeds
1870. G. Y. Heath, M.B., Newcastle-on-Tyne
1871. Joseph Lister, M.B., F.R.S., Edinburgh
1872. Oliver Pemberton, Esq., Birmingham
1873. John Wood, Esq., F.R.S., London
1874. William Cadge, Esq., Norwich
1875. James Spence, Esq., F.R.S.E., Edinburgh

Addresses in Surgery—continued.

1876. W. F. Favell, Esq., Sheffield
1877. T. Spencer Wells, Esq., London
1878. C. G. Wheelhouse, Esq., Leeds
1879. W. S. Savory, Esq., F.R.S., London
1880. T. Holmes, Esq., London
1881. Jonathan Hutchinson, Esq., London

Addresses in Obstetric Medicine:

1854. Thomas Radford, M.D., Manchester
1858. James Y. Simpson, M.D., Edinburgh
1869. T. E. Beatty, M.D., Dublin
1874. J. M. Duncan, M.D., F.R.S.E., Edinburgh
1877. Robert Barnes, M.D., London
1881. J. G. Sinclair Coghill, M.D., Ventnor

Addresses in Physiology:

1844. William Budd, M.D., Clifton
1849. Francis Sibson, M.D., London
1857. Edwin Lankester, M.D., F.R.S., London
1859. A. T. H. Waters, M.D., Liverpool
1862. W. Sharpey, M.D., F.R.S., London
1868. G. Rolleston, M.D., F.R.S., Oxford
1873. J. Burdon Sanderson, M.D., F.R.S., London
1875. Wm. Rutherford, M.D., F.R.S.E., Edinburgh
1880. Michael Foster, M.D., F.R.S., Cambridge

Address in Therapeutics:

1858. Robert Christison, M.D., F.R.S.E., Edinburgh

Address in Chemistry in Relation to Medicine:

1863. William B. Herapath, M.D., F.R.S., Bristol

Addresses in Public Medicine:

1876. Alfred Carpenter, M.D., Croydon
1879. Andrew Fergus, M.D., Glasgow

Address in Forensic Medicine:

1878. Douglas Maclagan, M.D., F.R.S.E., Edinburgh

SECTIONS.—At the meeting at Dublin in 1867, the Association for the first time adopted the plan of arranging the scientific business in sections. This system has since been followed yearly, with the result of greatly increasing the scientific value of the Association. Many papers of high merit have been read, and discussions on important matters relating to medical science and public health, have been conducted. A list of the sections and their officers is given on page 955.

PRIZES.—At the first annual meeting, in 1833, the Council reported that they had taken into consideration the propriety of establishing an annual prize essay on some medical or surgical subject; and that Dr. Thackeray of Chester had offered a liberal contribution for the purpose. An endeavour, which proved unsuccessful, was made to raise £500. In 1837, Dr. Thackeray offered a prize of £50 for the best investigation of the Common Continued Fevers of Great Britain and Ireland. This offer was accepted by the Association; and in 1840 the prize was awarded to Dr. Davidson of Glasgow. In 1847, the members of the Council subscribed a sufficient sum to allow £50 to be offered by the Association as a prize for the best report on the Cerebral Affections of Infancy, which was awarded in 1848 to Dr. Duke of Dublin. During several following years, the Council fund was continued. In 1852, prizes of £21 each were offered for the best series of Reports of Medical and of Surgical Cases respectively. The former prize was awarded to Mr. Arthur Oakes of Birmingham; and the latter to Mr. W. J. Moore. After this, the question of prizes remained in abeyance until 1860, when it was decided that the sum of £40 should be placed at the disposal of the Committee of Council, to be applied, when the funds of the Association would permit, in the form of one or two gold medals as prizes for essays. In 1861, the Committee of Council set aside £20 for the purchase of a gold medal to be offered for an essay on some subject in medicine, surgery, midwifery, physiology, and public health. It was decided also that the medal should bear the profile of Sir Charles Hastings, the founder of the Association. In 1862, there was no competition; since that year, the Hastings medal has been awarded to the following gentlemen: In 1864, to J. L. W. Thudichum, M.D.; subject, Urochrome: in 1865, to T. Herbert Barker, M.D.; subject, Hygiene: in 1866, to Mr. Furneaux Jordan; subject, Shock after Surgical Operations and Injuries: in 1870, to J. Milner Fothergill, M.D.; subject, Digitalis: in 1873, to Mr. Lawson Tait; subject, Ovarian Diseases. The medal has not since been awarded. The Association possesses a "Hastings Fund" amounting to £477, invested in the names of Trustees.

In 1874, Dr. Stewart, who had been presented with a testimonial of £500 on his retirement from the office of Secretary to the Metropolitan Counties Branch, generously devoted £400 of the sum to the institution of a fund for the recognition and encouragement of researches on the origin, spread, and prevention of epidemic diseases. In 1878, Mr. Richard Middlemore of Birmingham presented to the Association the sum of £500, to found a prize to be awarded to the author of the best essay on the scientific and practical value of the improvements in ophthalmic surgery during the preceding three years. The Stewart and Middlemore Funds have been invested in the names of trustees, and the interest will be applied to the purposes designed by the respective donors.

MEDALS FOR DISTINGUISHED MERIT.—In 1877, on the recom-

SECTION OF MEDICINE.

	Presidents.	*Vice-Presidents.*	*Secretaries.*
1867	Robert Law, M.D.		William Moore, M.D.
1868	Sir W. Jenner, Bart., M.D., F.R.S.		E. Long Fox, M.D.; W. Roberts, M.D.
1869	W. T. Gairdner, M.D.	J. T. Banks, M.D.; J. D. Heaton, M.D.	T. Clifford Allbutt, M.D.; H. C. Bastian, M.D., F.R.S.
1870	Dennis Embleton, M.D.	Henry Simpson, M.D.; R. D. Lyons, M.B. .. .	H. Barnes, M.D.; Morell Mackenzie, M.D.
1871	Charles Barham, M.D.	R. Quain, M.D., F.R.S.; W. R. E. Smart, M.D., C.B.	R. H. Clay, M.D.; W. F. Wade, M.B.
1872	T. B. E. Fletcher, M.D.	J. W. Ogle, M.D.; W. F. Wade, F.R.C.P. .. .	H. G. Sutton, M.B.; J. Johnston, M.B.
1873	F. Sibson, M.D., F.R.S.	S. O. Habershon, M.D.; Eason Wilkinson, M.D. .	J. Murray, M.D.; A. Silver, M.D.
1874	Peter Eade, M.D. ..	Sydney Ringer, M.D.; C. M. Durrant, M.D.	J. B. Bradbury, M.D.; J. Lowe, M.D.
1875	Richard Quain, M.D., F.R.S. ..	W. T. Gairdner, M.D.; T. Grainger Stewart, M.D. ..	C. Muirhead, M.D.; W. Stephenson, M.D.
1876	C. Chadwick, M.D., D.C.L. .	J. C. Hall, M.D.; Joseph Law, M.D. . ..	R. Farquharson, M.D.; H. F. Banham, M.B.
1877	Sir W. Jenner, Bart., M.D., F.R.S.	Wilson Fox, M.D., F.R.S.; S. Crompton, M.D.; Henry Simpson, M.D.	Julius Dreschfeld, M.D.; F. T. Roberts, M.D.
1878	T. Grainger Stewart, M.D. ..	B. Foster, M.D.; T. Clifford Allbutt, M.D. ..	Thomas Cole, M.D.; C. A. Hingston, M.D.
1879	Andrew Clark, M.D. ..	J. Little, M.D.; W. Townsend, M.D. .. .	G. F. Duffey, M.D.; B. Spedding, Esq.
1880	G. E. Paget, M.D., D.C.L., F.R.S	G. Johnson, M.D., F.R.S.; P. W. Latham, M.D.	W. B. Cheadle, M.D.; D. B. Lees, M.D.
1881	E. Long Fox, M.D.	W. Withers Moore, M.D.; B. Anningson, M.D.	W. Hoffmeister, M.D.; R. Saundby, M.D.

SECTION OF SURGERY.

1867	Robert Adams, M.D.		M. Collis, M.D.
1868	James Paget, Esq., F.R.S. ..	G. Southam, Esq.; W. Stokes, jun., M.D.	T. P. Teale, M.B.; W. Stokes, jun., M.D.
1869	William Hey, Esq. ..	C. Trotter, Esq.; T. Holmes, Esq. ..	W. Fairlie Clarke, Esq.; T. R. Jessop, Esq.
1870	Joseph Lister, M.B., F.R.S. ..	P. C. De la Garde, Esq.; T. Longmore, C.B. ..	W. C. Arnison, M.D.; W. F. Favell, Esq.
1871	Joseph May, Esq.	G. Southam, Esq.; J. V. Solomon, Esq.	W. P. Swain, Esq.; C. Steele, Esq.
1872	Sir W. Fergusson, Bart., F.R.S. ..	W. S. Savory, Esq., F.R.S.; G. Buchanan, M.D. ..	F. Jordan, Esq.; T. Vincent Jackson, Esq.
1873	John Hilton, Esq., F.R.S. .	T. W. Crosse, Esq.; R. Macnamara, M.D.	H. Arnott, Esq ; A. Ogston, M.D.
1874	Sir James Paget, Bart., F.R.S. ..	W. Pirrie, M.D.; G. H. B. Macleod, M.D. .. .	F. S. Worthington, Esq.; Reginald Harrison, Esq.
1875	Joseph Lister, M.B., F.R.S. ..	C. G. Wheelhouse, Esq.; J. Barber, Esq.	T. Annandale, Esq.; John Duncan, M.D.
1876	Jonathan Hutchinson, Esq. ..	William Adams, Esq.; F. A. Heath, Esq.	J. Hardwicke, L.K.Q.C.P.; J. Chiene, Esq.
1877	Edward Lund, Esq. ..	F. Jordan, Esq.; William Stokes, M.D. .	S. M. Bradley, Esq.; H. Morris, Esq.
1878	G. W. Callender, Esq., F.R.S. ..	W. MacCormac, Esq.; J. Cooper Forster, Esq.	J. H. Morgan, Esq.; J. F. Parsons, Esq.
1879	W. K. Tanner, M.D. .	W. Cadge, Esq.; John Wood, Esq., F.R.S. ..	J. G. Curtis, Esq.; N. J. Hobart, M.D.; S. O'Sullivan, M.D.
1880	W. S. Savory, M.B., F.R.S. .	C. Macnamara, Esq.; A. G. Davey, Esq. .. .	John Chiene, Esq.; G. E. Wherry, M.B.
1881	W. Martin Coates, Esq.		E. A. Waterworth, M.D.; H. W. Page, Esq.

SECTION OF OBSTETRIC MEDICINE.

1867	T. E. Beatty, M.D.		G. H. Kidd, M.D.
1868	Sir C. Locock, Bart., M.D., F.R.S.		J. G. Wilson, M.D.; J. G. Swayne, M.D.
1869	Arthur Farre, M.D., F.R.S.	S. Berry, Esq.; W. O. Priestley, M.D. .	G. H. Kidd, M.D.; J. Thorburn, M.D.
1870	Robert Barnes, M.D. .. .	C. Gibson, M.D.; Graily Hewitt, M.D. ..	L. Armstrong, M.D.; J. H. Aveling, M.D.
1871	T. E. Beatty, M.D. ..	J. G. Swayne, M.D.; A. Meadows, M.D. . ..	F. Rolston, M.D.; J. Phillips, M.D.
1872	Lewis Kennedy, M.D. ..	S. Berry, Esq.; J. M. Duncan, M.D. . .	T. Underhill, M.D.; Lawson Tait, Esq.
1873	J. Braxton Hicks, M.D., F.R.S. ..	G. H. Kidd, M.D.; W. Leishman, M.D.	J. H. Aveling, M.D.; A. B. Steele, L.K.Q.C.P.
1874	Fleetwood Churchill, M.D. .	W. S. Playfair, M.D.; A. B. Steele, L.K.Q.C.P. .	A. W. Edis, M.D.; F. E. Image, M.D.
1875	J. Matthews Duncan, M.D. ..	A. Keiller, M.D.; A. R. Simpson, M.D. ..	R. P. Ritchie, M.D.; C. H. Cullingworth, Esq.
1876	Lombe Atthill, M.D. ..	E. Jackson, M.B.; J. Thorburn, M.D. .	A. Wiltshire, M.D.; F. Woolhouse, Esq.
1877	W. O. Priestley, M.D. ..	A. H. McClintock, M.D., LL.D.; J. Whitehead, M.D.	J. Thorburn, M.D.; Lloyd Roberts, M.D.
1878	A. H. McClintock, M.D., LL.D...	J. Watt Black, M.D.; H. Macnaughton Jones, M.D. ..	Heywood Smith, M.D.; A. E. A. Lawrence, M.D.
1879	George H. Kidd, M.D. ..	W. J. Cummins, M.D.; A. Wiltshire, M.D. ..	R. J. Kinkead, M.D.; Fancourt Barnes, M.D.
1880	W. S. Playfair, M.D. .. .	H. Macnaughton Jones, M.D.; H. Gervis, M.D. ..	R. N. Ingle, M.D.; C. E. Underhill, M.D.
1881	Sir E. B. Sinclair, M.D. .. .	J. L. Whitehead, M.D.; E. Malins, M.D. . ..	R. Cory, M.D.; J. M. Williamson, M.D.

SECTION OF PUBLIC MEDICINE.

1867	John Simon, Esq., F.R.S.		[illegible]
1868	Wm. Farr, M.D., D.C.L., F.R.S. .	E. D. Mapother, M.D.; A. P. Stewart, M.D.	G. H. Philipson, M.D.; A. Wiltshire, M.D.
1869	Henry W. Rumsey, M.D. .	R. Druitt, M.D.; J. E. Morgan, M.D. . .	Anthony Bell, Esq.; A. Ransome, M.D.
1870	A. P. Stewart, M.D. .. .	P. W. Swain, Esq.; J. Beddoe, M.D., F.R.S... ..	Frederick Row, M.D.; David Davies, Esq.
1871	Rev. S. Haughton, M.D., D.C.L., F.R.S.	J. Birt Davies, M.D.; T. P. Heslop, M.D.	J. T. Arlidge, M.D.; Alfred Hill, M.D.
1872	Lyon Playfair, C.B., M.P., F.R.S.	G. W. Hastings, Esq.; T. J. Dyke, Esq. ..	W. H. Corfield, M.D.; C. O. Baylis, M.D.
1873	W. H. Michael, Esq.	F. Bateman, M.D.; A. Ransome, M.D. . .	F. T. Bond, M.D.; D. J. Leech, M.D.
1874	Rt. Hon. Lyon Playfair, C.B., M.P., F.R.S.	W. R. E. Smart, M.D., C.B.; A. Mitchell, M.D. .	Andrew Smart, M.D.; T. R. Frazer, M.D.
1875	J. B. Russell, M.D.	J. W. Eastwood, M.D.; F. T. Griffith, M.D.	H. F. Parsons, M.D.; S. Drew, M.D.
1876	F. S. B. De Chaumont, M.D. ..	Alfred Aspland, Esq.; W. H. Corfield, M.D. ..	J. Haddon, M.D.; W. Armistead, M.B.
1877	J. T. Arlidge, M.D.	David Davies, Esq.; F. T. Bond, M.D.	F. Vacher, Esq.; W. H. Sissons, Esq.
1878	T. W. Grimshaw, M.D. ..	H. D. Littlejohn, M.D.; C. M. Tidy, M.B. ..	J. L. Notter, M.D.; J. Martin, Esq.
1879	H. W. Acland, M.D., LL.D., F.R.S.	A. Ransome, M.D.; T. P. Teale, Esq.	W. Armistead, M.B.; T. J. Walker, M.D.
1880	Arthur Ransome, M.D. .. .	G. Wilson, M.D.; W. Armistead, M.B. .. .	James Neal, M.D.; H. Aubrey Husband, M.B.

SECTION OF PSYCHOLOGY.

1870	Thomas Laycock, M.D. .. .	W. H. O. Sankey, M.D.; H. Maudsley, M.D.	T. Grainger Stewart, M.D.; T. H. Tuke, M.D.
1872	Henry Maudsley, M.D. ..	J. Batty Tuke, M.D.; J. Crichton Browne, M.D.	J. T. Dickson, M.D.; G. F. Bodington, M.D.
1873	T. Harrington Tuke, M.D.	C. B. Radcliffe, M.D.; J. Thurnam, M.D. .. .	G. F. Blandford, M.D.; S. W. D. Williams, M.D.
1875	W. H. Lowe, M.D., F.R.S.	John Sibbald, M.D.; T. S. Clouston, M.D.	J. G. Brown, M.B.; R. Saundby, M.B.
1877	J. C. Bucknill, M.D., F.R.S.	G. W. Mould, Esq.; H. Rooke Ley, Esq.	P. M. Deas, M.D.; T. Claye Shaw, M.D.
1879	J. A. Eames, M.D. .	Henry Rayner, M.D.; H. C. Major, M.D. .	O. T. Woods, M.D.; Ringrose Atkins, M.D.
1880	J. Crichton Browne, M.D., LL.D., F.R.S.	G. F. Blandford, M.D.; P. M. Deas, M.B. .. .	G. M. Bacon, M.D.; H. Sutherland, M.D.

SECTION OF PHYSIOLOGY.

1867	Robert McDonnell, M.D., F.R.S.		Thomas Hayden, F.K.Q.C.P.
1868	George Rolleston, M.D., F.R.S. ..		W. S. Church, M.B.; L. S. Beale, M.B., F.R.S.
1869	J. Hughes Bennett, M.D., F.R.S.	Lionel S. Beale, M.B., F.R.S.; A. T. H. Waters, M.D.	F. Chapman, M.A.; H. Power, M.B.
1870	Andrew Clark, M.D.	J. Burdon Sanderson, M.D.; T. Hayden, F.K.Q.C.P...	T. C. Nesham, M.D.; J. G. McKendrick, M.D.
1871	G. M. Humphry, M.D., F.R.S. ..	W. Rutherford, M.D.; W. H. Ransom, M.D.	W. M. Ord, M.B.; J. G. McKendrick, M.D.
1872	J. Burdon Sanderson, M.D., F.R.S.	J. G. McKendrick, M.D.; J. Dewar, Esq.	T. Lauder Brunton, M.D., F.R.S.; R. Caton, M.D.
1873	Arthur Gamgee, M.D., F.R.S.	J. Cleland, M.D., F.R.S.; T. Lauder Brunton, M.D., F.R.S.	Joseph Coats, M.D.; W. Stirling, M.D.
1874	J. G. McKendrick, M.D., F.R.S.E.	Henry Power, Esq.; P. H. Pye-Smith, M.D. ..	[illegible]
1879	Henry Power, Esq.	John J. Charles, M.D.; R. J. Harvey, M.D. .	[illegible]

SECTION OF PATHOLOGY.

1881	Sir James Paget, Bart., F.R.S. ..	S. Wilks, M.D., F.R.S.; W. H. Dickinson, M.D. .	W. S. Greenfield, M.D.; C. Creighton, M.D.

SECTION OF OPHTHALMOLOGY.

1881	William Bowman, Esq., F.R.S.	H. Power, Esq.; H. R. Swanzy, M.B. .	[illegible]

SECTION OF OTOLOGY.

	Chairmen.		
1868	W. B. Dalby, Esq.		[illegible]
1881	Urban Pritchard, M.D.		[illegible]

mendation of the Council, it was decided to establish a medal, to be given, as occasion might arise, for distinguished merit in the medical profession. The first award of the medal was made in 1877, when one gold medal, three silver medals, and eight bronze medals, were presented to Mr. H. N. Davies and the other medical men engaged in the rescue of the miners who had been entombed by the colliery accident at Pont-y-pridd. At the annual meeting in that year, a series of regulations for the award of the medal were adopted. At the annual meeting in 1879, the gold medal was presented to Surgeon-Major Reynolds, M.B., V.C., for his brave conduct at the battle of Rorke's Drift, Zululand. No further award of the medal has as yet been made.

Investigation of the Action of Medicines: Scientific Grants.—At the meeting in 1862, a committee was appointed to inquire into the action of medicines. Next day, the committee submitted a brief report, in which it was recommended that the action of certain medicines in diseases should be investigated by means of schedules addressed to the members of the Association; and that a sum of £30 should be raised to defray expenses. The proposals of the committee were approved by the meeting. In 1867, authority was given to the Committee of Council to raise a special fund for scientific research. In 1869, it was decided that an annual grant should be made from the funds of the Association, the amount being left to the decision of the Committee; and, in 1874, the financial condition of the Association having greatly improved, it was decided that a sum of money should be yearly expended on grants in aid of researches in medical sciences and other collateral subjects; and that a committee should be appointed to advise the Committee of Council as to the distribution of the grants. Since that time, sums varying from £200 to £300 have been yearly appropriated for the purpose; and several important scientific investigations have been carried out, the results of which have been published in the Journal.

Committee on the Action of Anæsthetics.—In 1877, a subcommittee, consisting of gentlemen connected with the University of Glasgow, and other members, was appointed for the purpose of investigating the action of anæsthetics, with the object of discovering a safer agent than chloroform; and a grant of £50 was made towards the payment of the necessary expenses. Important investigations have accordingly been made by the committee on the action of anæsthetics, especially chloroform, ether, and ethidene dichloride, and the results have been published in the Journal.

Combined Investigation.—No proposal perhaps could be made more thoroughly in accordance with the spirit of the founders of the Association, than that which was brought forward by Professor Humphry at the meeting at Cambridge in 1880; viz., to organise a system of collective action for investigating the data of medical knowledge. This proposal was at once accepted by the Association, and the Committee of Council have drawn up a plan of action, from which important and useful results are expected.

We will now notice briefly some of the principal subjects affecting the interests of the medical profession and of the public, to which the attention of the Association has been directed. The list is not exhaustive; and the subjoined notes do not include the proceedings taken in respect to the various subjects by the Parliamentary Bills Committee on behalf of the Association. Reference to the proceedings of this committee is made in a special paragraph.

Relief of Distressed Members of the Medical Profession.—This subject was brought before the Provincial Medical and Surgical Association at its second annual meeting, in 1834; and a proposal was made to combine with a Benevolent Fund an Annuity and Life Insurance Society. After investigation, however, the latter part of the project was abandoned; and it was proposed to form a "Provincial Medical Benevolent Society", in which both the provident and the charitable principles should be combined. Ultimately, however, it was decided to limit the plan to the formation of a Medical Benevolent Fund, having as its object the raising, by voluntary subscriptions, of a fund for the temporary relief of distressed members of the profession, their widows and families. For many years, the reports of this most praiseworthy and useful institution were presented at the annual meetings; but the practice has been discontinued for some years, and the British Medical Benevolent Fund pursues its useful course independently of the Association in which it had its origin. Attempts have also been made, at various times, to establish, on the provident principle, a fund for affording pecuniary aid to the widows, or orphans, of members, or members themselves during illness. These endeavours, however, have been abandoned in consequence of not meeting with sufficient support.

Medical Departments of the Army and Navy.—At the annual meeting in 1857, reference was made in the report of Council to the recent appointment of a Royal Commission, to consider the means of improving the organisation of the medical department of the army; and it was stated that the Metropolitan Counties Branch and the Yorkshire Branch had already considered the subject. A memorial, urging the importance of placing the medical officers in a condition of equality with other officers of the service, was adopted unanimously by the meeting. At the meeting at Clifton, in 1863, the attention of the members was directed to the unsatisfactory condition in which the medical officers of the army and navy were placed, in consequence of the warrants establishing their relative rank being systematically disregarded; and memorials to the Secretary of State for War and the First Lord of the Admiralty were unanimously adopted. In 1864, the Council reported that the memorials had been presented, but that no improvement had taken place. A committee was thereupon appointed to consider what steps should be taken. On the following day, the committee presented a report; and, in accordance with recommendations contained therein, it was decided that petitions and memorials should be presented to the Secretary of State for War, the Commander-in-Chief, and the Secretary of State for India. At the annual meeting in 1865, a memorial to the First Lord of the Admiralty and the Secretary of State for War was submitted to the Association, and adopted. In 1875, in accordance with a recommendation of the Council, the President was authorised, at the annual meeting, to present a petition to the Secretary of State for War, calling attention to the injustice of the rate of payment of civil practitioners acting as substitutes for military surgeons.

Prosecutions of Medical Men.—In 1863, three members of the Association—Dr. E. Waters, Mr. William Adams, and Dr. Philbrick—having been subjected to much vexation and annoyance by prosecutions for which there was no ground, the members present at the meeting in Clifton passed unanimously a vote of sympathy with these gentlemen, expressing at the same time their disapproval of the conduct of those members of the medical profession who rendered assistance in the legal persecution of their brethren on false or frivolous grounds.

Mode of Electing Members of Council of the Royal College of Surgeons of England.—In 1863, on the recommendation of the Council of the Association, a memorial was addressed to the Council of the Royal College of Surgeons of England, asking them to take the necessary steps to enable non-resident fellows of the College to vote by proxy at the annual election of members of Council. At the meeting in 1864, the Council reported that the memorial had been presented, and that the Council of the College had replied that it was not thought expedient to apply for a new or supplementary charter for the purpose of effecting the object to which the memorial related. The Council of the Association recommended that a memorial on the same subject should be again presented; and this recommendation was approved. In 1865, the Council reported that the memorial had been presented, but without result; and it was again resolved to memorialise the Council of the College to the same effect as before.

Consultation with Homœopathic Practitioners.—At the meeting of the Association at Brighton in 1851, allusion was made by the President, Dr. Jenks, to the prevalence of irregular doctrines in medicine, and to the culpable laxity shown by some members of the profession in regard to them. Subsequently, on the proposal of Dr. Cormack, a committee was appointed to consider the course proper to be taken with respect to homœopaths and those who consulted with them. The committee accordingly brought up a report, in which it was represented that there were "three classes of practitioners who ought not to be members of the Association; viz.: 1, real homœopathic practitioners; 2, those who practise homœopathy in combination with other systems of treatment; 3, those who, under various pretences, meet in consultation, or hold professional intercourse with, those who practise homœopathy". The committee further recommended that a committee should be appointed to frame laws accordingly, to be presented to the next annual meeting. This committee accordingly presented a report at the meeting in Oxford in 1852, and suggested certain by-laws for the exclusion from the Association of persons professing homœopathy or consulting with homœopaths. The report was adopted. The subject again came before the Association at the meetings at Edinburgh in 1858 and at Canterbury in 1861, when the resolutions formerly passed were re-affirmed. The subject has lately again attracted attention, in connection with opinions expressed by the readers of the addresses in Medicine and Surgery at the last annual meeting of the Association.

Medical Reform.—The necessity of legislation for the improvement of the organisation of the profession engaged the attention of the Association at an early period of its career. At the annual meeting in 1837, a committee was appointed to "watch over the interests of the

profession". In 1839, a report was presented by this committee, and it was resolved to negotiate with other combinations of medical practitioners in England and Ireland with regard to a measure of medical reform. Subsequently to this, the question came from time to time before the Association at the annual meetings; and several volumes of the *Transactions* and of the *Provincial Medical and Surgical Journal* contain records of proceedings in relation to the matter. In 1852, a Medical Reform Bill was prepared by Mr. G. W. Hastings, barrister-at-law, son of the founder of the Association; and a Committee on Medical Reform was appointed. This Committee laboured assiduously, until the passing of the Medical Act of 1858, in endeavouring to obtain a measure of reform which should remove the disadvantages under which the medical profession laboured. On the passing of the Act, Sir Charles Hastings, who had been the Chairman of the Medical Reform Committee, and who had been in communication with the Home Secretary during the progress of the Bill, was appointed one of the first six Crown nominees in the Medical Council constituted under the Act. The Medical Act provided for reciprocity of practice and a system of registration under a medical council; but it was still felt that a defect existed in the absence from the Council of members elected by the direct votes of the medical profession. In 1867, the Committee of Council appointed a subcommittee to consider and report on the best mode of obtaining a fuller representation of the profession in the Medical Council. The report of this subcommittee was presented in the report of Council at the annual meeting, and approved; and at the same time it was resolved to support the General Medical Council in their endeavours to obtain an amendment of the Medical Acts. In 1868, the subcommittee was reappointed, with additions; Dr. Edward Waters of Chester being chairman. The subcommittee had an interview with the General Medical Council, and presented a memorial in favour of the direct representation of the profession in the Council. As is well known, however, their endeavours on this and on subsequent occasions have hitherto been without result. At the annual meeting, the subcommittee was reappointed, with additions; Dr. Waters of Chester being chairman. In 1870, the efforts of this committee, supported by the Association, led to the withdrawal of the Medical Acts Amendment Bill then before Parliament, which, though in many other respects satisfactory, failed to satisfy the demand for direct representation. The Committee has since been appointed annually, and has laboured with unwearied assiduity in the performance of the task entrusted to it. Its influence, supported by the Association, has made itself felt in regard to the various attempts at medical legislation which have been made, and must continue to do so until the questions at issue are settled.

THE COMMITTEE ON PARLIAMENTARY BILLS AFFECTING THE MEDICAL PROFESSION.—This Committee, which performs a highly important function in the Association, was originally formed in 1864 by the Metropolitan Counties Branch. Its objects were to watch the progress of all Bills introduced into Parliament affecting the medical profession; and to report to the Branch on all questions having regard to the political and social interests of the profession. In 1867, in consequence of an application made by the Metropolitan Counties Branch, a grant of £10 to the Committee was made from the funds of the Association; and on the recommendation of the Council at the annual meeting, it was decided to invite the other Branches to send representatives. In 1868, it was decided that the Committee, other than representatives of Branches, should be appointed at the annual meetings of the Association. In 1870, the Committee having been allowed to lapse in the previous year, no report was presented; but it was soon afterwards reconstructed. For the last ten years, Mr. Ernest Hart has been Chairman of the Committee. The reports which have been presented at the annual meetings since that time show that it has, whenever occasion demanded, assiduously performed the functions for which it was originally constituted. A full account of its proceedings would occupy more space than we have at present at disposal; and therefore we will limit ourselves to a mere enumeration of the subjects which it has had under consideration each year, and regarding which it has, in the interests of the public and of the profession, made representations to members of the Government and the Houses of Parliament.

In 1868: the Vaccination Bill; the Artisans' Dwellings Bill; the Medical Practitioners' (Colonies) Bill; the Poor-Relief Bill; the Pharmacy Bill; Baby-farming.

In 1869: the Pharmacy Act Amendment Bill; the Medical Officers' (Ireland) Superannuation Bill; the Medical Acts Amendment Bill; the Metropolitan Poor Act Amendment Bill; the Hospitals, etc., Rating Exemption Bill; the County Coroners' Bill; the Adulteration of Food or Drink Act Amendment Bill.

In 1871: the Coroners' Bill; the Lunacy (Ireland) Bill; Legislation for Habitual Drunkards; Baby-farming; the Poor-law Medical Service; the Vaccination Acts Amendment Bill.

In 1872: the Public Health Bill; the Mines Regulation Bill; the Infant Life Protection Bill; the Registration of Births Bill; the Local Government (Ireland) Bill.

In 1873: the Public Health Bill; the Registration of Births and Deaths Bill; the Army Medical Warrant.

In 1874: the Education and Examination of Midwives; the Medical Officers of the Army and Navy; the Amendment of the Sanitary Acts; the Registration of Births and Deaths.

In 1875: the Artisans' Dwellings Bill; the Adulteration Acts Amendment Bill; the Medical Service of the Navy.

In 1876: the Poor-law Medical System in Scotland; the Vivisection Bill.

In 1877: Factory Regulation; the Militia Surgeons and the Royal Warrant; the Public Health Bill (Ireland).

In 1878: Coroners' Courts; the Army Medical Department; amendment of the Factory Acts; the Public Health (Ireland) Bill; the Dental Practitioners' Bill.

In 1879: the Amendment of Coroners' Law; the Army Medical Department; the Faculty of Medicine at Oxford; the Sale of Food and Drugs Act; Infirmary Surgeons as Medical Officers of Gaols in Ireland; Animal Vaccination.

In 1880: Medical Departments of the British and Indian Armies and of the Navy; the Coroners' Bill; the amendment of the Infant Life Protection Act; the Regulation of Cases of Infectious Disease; Vaccination from the Calf; the Vaccination Acts Amendment Bill.

In 1881: the Notification of Cases of Infectious Disease; the Indian Medical Service.

On many occasions, this Committee has sought for and obtained interviews with the Home Secretary, the President of the Local Government Board, and other leading members of the Government, in order to explain the conclusions at which it had arrived on various subjects, and to urge the adoption of such measures or improvements as were believed by it to be conducive to the public and professional interests.

POOR-LAW MEDICAL RELIEF.—Reference was made to this subject in the Report of Council in 1835; and a committee was appointed to consider the best mode of affording relief to the sick poor, more especially with regard to the working of the new Poor-law Act. The report of the committee was presented at the meeting in 1836; and a petition to the House of Commons was adopted, in which the defects in Poor-law administration were pointed out, and their removal prayed for. The committee was again appointed; and, at the annual meeting in 1837, presented an elaborate report. In 1838, the Association petitioned for the formation of a committee of inquiry; and a Select Committee of the House of Commons was appointed, before which the members of the Poor-law Committee of the Association gave evidence. The committee continued their labours, in subsequent years, and in 1841 presented a very elaborate report which was circulated among members of Parliament and other persons. In 1844, the Council reported that much important information had been afforded to Lord Ashley's Commission by members of the Association. The Committee, having been reappointed year by year, in 1848 combined with the "Poor-law Convention"; and, in 1848, a memorial from the Association was presented to Mr. Buller, the President of the Poor-law Board. In 1849, a petition in favour of reform was presented to Parliament. Subsequently to this, the Association has supported attempts to improve the condition of the Poor-law medical officers made by the late Mr. Richard Griffin and by the Poor-law Medical Association. In 1868, a committee was appointed at the annual meeting to co-operate with the Poor-law Medical Officers' Association in promoting the interests of Poor-law Medical Reform. It was again appointed in 1870; and presented reports on the subject in 1871 and 1872.

AMENDMENT OF THE SANITARY LAWS.—At the annual meeting at Dublin in 1867, an able and comprehensive paper on State Medicine in Great Britain was read by Dr. H. W. Rumsey. After its reading, it was moved that the Committee of Council should be instructed to direct attention to the amendment of the sanitary laws, and to invite the co-operation of the Council of the National Association for the Promotion of Social Science. A committee was at the same time formed, to collect information on various subjects relating to sanitary law. This committee was conjoined with one appointed by the Social Science Association, and the joint-committee has since presented a report to each annual meeting. It has been engaged, by deputations to members of the legislature and other means, in endeavouring to improve the administration of the laws relating to the registration of death, medico-legal inquiries, and the improvement [illegible]

[illegible] At the meeting at the Association [illegible] a paper was read by Dr. H. W. Rumsey

on the Qualification in State Medicine; and a committee was appointed to consider the best means of obtaining such a qualification. In 1874, the committee presented a report, in which they recommended that a scheme should be prepared, by the General Medical Council, for the establishment in each division of the United Kingdom of an uniform qualification in State Medicine, to be held by those appointed to public medical offices. On the suggestion of the proposer, the consideration of the report was deferred; and it was referred to the Committee of Council.

REGISTRATION OF DISEASE.—In 1865, a committee was appointed at the annual meeting to consider the means of effecting a registration of disease. A report was presented by the committee at the meeting in 1866, and it has since continued its labours and reported yearly. Its object is to obtain the establishment of a systematic registration of the number of cases of disease, especially those of the zymotic class, as well as of the number of deaths.

MANAGEMENT OF HOSPITALS.—At the annual meeting of 1860, a discussion took place on special hospitals, which ended in the appointment of a committee to investigate the whole question of hospital management throughout the country, and to report to the next meeting. When the Association met at Canterbury, in 1861, the committee was not prepared with a report; but a debate on the question of special hospitals took place, and the committee was continued. At the annual meeting in 1877, a committee was appointed to obtain improvements in the present system of out-patient hospital relief, and to investigate the working of provident dispensaries in Manchester. This committee has since presented reports to the annual meetings of the Association, and is still engaged in its labours.

REGISTRATION IN HOSPITALS.—In 1861, the members at the annual meeting passed a resolution, approving of the proposals adopted, at a recent meeting of representatives of metropolitan hospitals, with regard to an uniform system of registration of hospital patients, and recommending the subject to the attention of the Committee of Council.

SALE OF POISONS.—At the annual meeting in 1849, the great prevalence of secret poisoning, chiefly by arsenic, was brought before the Association by Dr. Sibson on behalf of Dr. Toogood, who suggested certain proposals for the regulation of the sale of arsenic. A petition to the House of Commons for legislation on the subject was adopted, and a committee was appointed. In 1850, the committee reported that two of its members, Dr. Hodgkin and Dr. Sibson, had conferred with the Pharmaceutical Society regarding the basis of an enactment. In 1851, the committee reported to the annual meeting that an Act for the regulation of the sale of arsenic had passed both Houses of Parliament.

LEGISLATION FOR HABITUAL DRUNKARDS.—In 1875, a committee was appointed at the annual meeting of the Association to consider the advisability of legislative restrictions for habitual drunkards. In 1876, a report was presented, and a petition to the House of Commons, praying for legislation on the subject, was adopted. In 1877, the committee reported that a Bill had been prepared by a Society for Promoting Legislation for Habitual Drunkards, which the committee had revised and approved, and had been introduced into the House of Commons by Dr. Cameron. In 1878, the committee reported to the annual meeting that the Bill, which had undergone some modifications, had passed the second reading, and was in Committee. In 1879, the committee reported that the Bill of the previous year had not been proceeded with, but had been again introduced, and had passed. The committee recommended that exertions should be made for the purpose of providing a medicine for the class of persons who are dealt with by the Act. Reports were again presented by the committee at the annual meetings in 1880 and 1881; and it was reappointed in the latter year.

The preceding sketch will give an idea of the work which the Association has done, and is still doing, for the promotion of medical science and of the welfare of the profession and of the public. With its greatly improved strength in numbers and in finances, and the energy of its members, there can be no doubt that an extended course of usefulness lies before it, one, indeed, which will more than realise the aspirations of its founder.

THE Wyatt Edgell prize for an essay on the Range of Hereditary Tendencies in Health and Disease was announced, at a meeting of the Sanitary Institute on Wednesday, December 7th, to have been awarded to Mr. George Gaskoin, 7, Westbourne Park, London, who had taken as his motto, "The subtlety of Nature far exceeds the subtlety of Reason." Dr. Alfred Carpenter, vice-chairman, delivered the inaugural address of the session 1881-2.

MEDICO-LEGAL.

THE LAW AS TO SMALL-POX HOSPITALS.

THE Court of Appeal has been engaged in hearing the application of Chambers and Others *versus* the Metropolitan Asylums District Board, an appeal from a decision in the Queen's Bench Division, whereby the reception of patients into the small-pox hospital established by the board at Fulham was limited to those persons suffering from small-pox and other infectious and contagious diseases who were resident not beyond a radius of a mile from the hospital, which, as alleged by the plaintiff, was a nuisance, being dangerous to the health of the inhabitants of the district, and injurious as affecting the surrounding property, of part of which the plaintiffs were owners of the freehold or the lessees. Mr. Chambers in this action claimed damages as lessee of the Lillie Bridge Grounds, which are used for athletic sports and for purposes of recreation. Sir Hardinge Giffard, Q.C., Mr. C. H. Anderson, and Mr. Proudfoot were counsel for the Asylums Board, the defendants in the action; the Solicitor-General, Mr. Bompas, Q.C., and Mr. J. B. Firth were for the plaintiffs, the now respondents. Lord Justice Brett, in delivering judgment, said the first question involved in the appeal was to say whether there was a probability that when a large number of persons were collected together in a small-pox hospital, and were brought from remote districts, the hospital would not be the means of spreading disease in the district around it, and would thereby injure the property in the neighbourhood. It occurred to him that the plaintiffs had made out a preponderating case of probability. He was also inclined to take the view urged by the defendants, that it was a great benefit to poor persons afflicted with small-pox, and also to the poor persons in their neighbourhood, that persons suffering from this disease should be eliminated from their immediate neighbourhood, and be placed in hospitals which were carefully constructed, and be there provided with all the skill and care which they could not command in their own homes. On one side, therefore, there was this benefit to the poor, and on the other side there was the danger to rich and poor alike in the neighbourhood of such a hospital. In his opinion the decision of the Divisional Court was correct, and must be affirmed. Lords Justices Cotton and Lindley having concurred, Lord Justice Brett said it would be a condition of this judgment that the plaintiffs should make no opposition to any application which the defendants might make to the High Court of Justice to expedite the trial of this cause as much as possible. The appeal was then dismissed with costs, and the interim injunction, therefore, stands.

THE ARRANGEMENTS FOR NURSING IN ST. BARTHOLOMEW'S HOSPITAL.

THE question of nursing in our voluntary hospitals is assuming a new phase, now that it is generally the practice to engage lady-matrons, nurses, and helps. It must be evident that, if the experiment is to work satisfactorily, a radical change must be made in the hours for duty, apartments, sleeping accommodation, and those smaller matters of domestic administration which it was not necessary to take so much into account when the nurses were generally of the same social status as the parties they nursed; for then discomforts as regards sleeping-apartments, etc., with lengthened hours of duty, were not of such moment when only a hospital drudge was looked for, and not the gently born, kindly nurtured, and well-educated lady who has now accepted the *rôle*.

Our remarks are the outcome of some investigations we have made into the working of the system in St. Bartholomew's Hospital, one of the largest and richest of our endowed institutions. The nursing staff consists of a lady-superintendent, the daughter of an M.P., appointed May 1st. Number of beds, 653; number of patients admitted for treatment in 1879, 5,820, of whom there died 586. There are twenty-six wards; the fever ward and the two syphilitic wards are each counted as one, though both comprise the whole top floor of their block, and virtually consist of two. The wards contain from twenty to thirty-two beds. Each ward has the following nursing staff: sister, day-nurse, night-nurse, and probationer. In three wards associated with operation-rooms, there are two probationers; and, in one of these, two day-nurses. There is also attached to each ward a young woman performing the duties of a kitchen-maid.

The nurses are not all ladies. They are divisible into three classes—the old-fashioned monthly nurse, respectable women of the good servant class and the probationers, and nurses who have been probationers. The last comprise the largest number of nurses. Probationers after twelve months are expected to take nurses' duties, and, on an emergency, earlier. There are a certain number of extra or supplementary

nurses kept in the hospital. The numbers, so far as we were enabled to get them, are as follows: probationers, 26; day-nurses, 29; night-nurses, 28; sisters, 26; ward-maids, 27; extra nurses, 20; total, 157.

And now as to the hours for duty: we find that the nurses enter on their avocations at 7 A.M., and remain continuously until 10 P.M., save that half an hour is allowed, in which they get their dinners. These hours are true, not for six, but seven days in the week. They have, however, an average of seven and a half hours allowed weekly for recreation and exercise; and, *credat judæus*, each nurse, in addition, is permitted to go to church once every Sunday.

It has happened not unfrequently that a nurse has gone on at 7 A.M., and has remained in the wards till 4 or 5 P.M.; she has then been sent to bed, and afterwards required to resume work at 10 P.M. for a turn of night duty. It further appears that no distinctive provision is made for the sick nurse; thus, when ill, the superintendents and nurses either lie in their own rooms, where they cannot get adequate attention, or, if they be very bad, they are transferred to the general wards. One case was mentioned, where a nurse sickening for typhoid fever, was permitted to remain from 2 to 8 P.M. without any assistance being afforded her, not even a drink of water. Nor is this all. So limited is the staff, and so scanty the arrangements for nursing in this huge establishment, that we learn that a house-surgeon having applied to the matron for a nurse to take charge of a special case, one was allowed, she had, however, to be sent back, being herself an invalid actually under this gentleman's care; her place was attempted to be supplied by another, labouring under a similar disability. But if the staff of nurses be limited, and as a consequence their hours of labour excessive, what will the public think of their accommodation when we state that one small room serves the ward-sister as her sitting-room and bedchamber? In some cases, a nurse, tired with the toils and anxieties of the day, has only a wooden partition between her bed and the entrance to a block of wards, whilst the sounds from her ward come to her, broken only by a half-glass door. In almost every instance, the sister's room is partitioned off the landing, and communicates with the ward. Many of the day-nurses' bed-rooms are similarly constructed, being partitioned off the landing, and having no direct communication with the outer air, the only opportunity for ventilation being a window which opens on to the public staircase, and a door into the ward. To increase the unhealthiness and diminish the comfort of the apartment, there are no fire-places; whilst most of the night-nurses' bed-rooms look on a noisy thoroughfare, named Duke Street. From this brief sketch, it must be sufficiently obvious that the condition of the nursing arrangements in this hospital call loudly for a radical alteration. The hours for duty are not only excessive, but beyond the capacity of the very strongest to meet; they require to be materially curtailed if the legitimate requirements of the sick poor treated therein are to be fairly met. Nor is this all: when off duty, it should be so managed that each nurse should have some room or place set apart to which she might retire, for nothing is so depressing as the unbroken sight and sound of sickness; indeed, we see no reason why the governing authorities should not provide some distinctive home for their nursing staff. Surely, an establishment the governors of which boast that they have 710 beds, that they treat annually 6,000 in- and 150,000 out-patients, and whose other offices are arranged on a scale of palatial magnificence, might make better provision for the health and comfort of those on whom devolve the onerous and important duties of nursing their sick, and that, too, when we recall the princely hospitality recently exhibited towards the Prince and Princess of Wales on the occasion of their visit to see the new buildings.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary monthly meeting of the Council of the College was held on Thursday, the 8th inst. The minutes of the ordinary Council held last month were confirmed. Signatures to the by-laws of members elected to the fellowship were presented. Reports were received from the Court of Examiners on candidates found qualified for the fellowship; and from the Nomination Committee, who, taking advantage of the clause of the regulations adopted in June by the Council, namely, that the regulations limiting the period of office for any examinership to five consecutive years may, upon special recommendation by the Nomination Committee and the approval of the Council, specially recommended for the approval of the Council, that the regulation be suspended in favour of Mr. Pick, who has been an Examiner in Anatomy for the past five years. The Committee recommended the following Fellows, arranged in order of seniority of Fellowship, as Examiners in Surgical Anatomy and Physiology for the membership and fellowship of the College for the ensuing year: for anatomy, Messrs. Rivington, Langton, Pick, and Bellamy; and for physiology, Messrs. Henry Power, Morrant Baker, Lowrie, McCarthy, and Professor Yeo. The report and recommendations were approved of and accepted by the Council. Letters were read from Sir William Mac Cormac and Mr. Miller (Registrar of the General Medical Council).

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.—A meeting of the West Kent District will be held at the West Kent General Hospital, Maidstone, on Friday, December 16th, at 4 P.M. Members wishing to read papers or to bring cases before the meeting are requested to communicate with the Honorary Secretary as soon as possible. A. H. B. HALLOWES, Honorary Secretary, 11, King Street, Maidstone.

METROPOLITAN COUNTIES BRANCH: EAST LONDON AND SOUTH ESSEX DISTRICT.—The next meeting of the above District will be held at the Temperance Hospital, Hampstead Road, on Tuesday, December 13th, at 8.30 P.M. Dr. Stevens will read a paper on Pneumonia; a Clinical Meeting will be held at the Metropolitan Hospital on Thursday, December 15th, at 4 P.M. Dr. Stevens will read a paper on Puerperal Albuminuria and Convulsions. Dr. Edward Wilson will read a paper on The Etiology of Diphtheria; its Contagium; the Origin of its Sudden Death in it: recommended.—GEO. W. POTTER, M.D., Honorary Secretary, 11, Grosvenor Road, N.

NORTH OF IRELAND BRANCH.—A meeting of this Branch will be held in the Belfast Royal Hospital, Belfast, on Thursday, December 15th, at 8 P.M. Members wishing to read papers will please communicate with JOHN MOORE, M.D., Honorary Secretary, 3, Carlisle Terrace, Belfast. November 30th, 1881.

GLASGOW AND WEST OF SCOTLAND BRANCH.—There will be a meeting on Thursday, December 15th, in the Royal Infirmary. After the transaction of business a demonstration will be given by Dr. William Macewen on Intra-cranial Surgery; Remarks upon Cases of Intra-cranial Disease at Present in the Royal Infirmary, and Remarks upon Specimens will be made. Dinner at Western Club, 7 for 7.30 P.M.—JOSEPH COATS, Secretary.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held, at the Bristol Museum and Library, on Wednesday, November 30th, at a quarter-past four o'clock; DAVID DAVIES, Esq., President, in the chair. There were also present seventy-one members and two visitors.

New Members.—Messrs. H. G. Terry, Bath; R. A. Busby, Bath; and J. Parette, Bristol, were duly elected members of the Association and of the Branch.

Consultations with Homœopathic Practitioners.—Dr. HENRY MARSHALL proposed the following resolution: "That this Branch hereby records its entire disapproval of the opinions expressed by the readers of addresses, at the annual general meeting of the Association at Ryde, in reference to consultations with homœopathic practitioners." This was seconded by Dr. H. F. A. GOODRIDGE.

To this the following amendments were moved:

1. Proposed by Mr. E. CROSSMAN, and seconded by Dr. T. E. CLARK: "That this Branch, regretting that the question of consultation with homœopathic practitioners was discussed at the annual meeting, proceeds to the business of the evening."

2. Proposed by Mr. R. W. COX, and seconded by Mr. MITCHELL CLARKE: "That this Branch considers it very undesirable to meet homœopathic practitioners in consultation, whereby a sense of the best interest of the patient, the profession, and the public is likely to be sacrificed, which the homœopathic practitioner would necessarily do."

The second amendment was first put to the meeting, and was carried

nem. con.; on being put as a substantive resolution, it was again carried *nem. con.*

The following gentlemen took part in the discussion: Messrs. H. Marshall, M.D.; H. F. A. Goodridge, M.D.; J. Stewart; E. Crossman; T. E. Clark, M.D.; R. W. Thomas; J. G. Swayne, M.D.; Alex. Waugh; G. F. Burder, M.D.; E. L. Fox, M.D.; J. Beddoe, M.D.; C. H. Collins; C. Elliott, M.D.; A. Carr; E. Markham Skerritt, M.D.; R. W. Coe; W. Michell Clarke; G. Thompson; and F. R. Cross, M.B.

CORRESPONDENCE.

HAS THE DURATION OF HUMAN LIFE IN ENGLAND INCREASED DURING THE LAST THIRTY YEARS?

I.

SIR,—The question, whether the life and health of the people of England has been improving, or otherwise, during the last generation, is one which cannot fail to be of interest both to medical men and the public. Having given some attention to this question, I propose to put before you, as a sanitary authority, and before the readers of the JOURNAL, some facts and arguments, which appear to show that there is not so much reason as is commonly supposed to congratulate ourselves on the present state of things. It is often stated on public platforms, and by eminent men, that human life in this country has lengthened since the present very elaborate set of statistics began to be kept in 1838. The way in which this conclusion is arrived at is the following. If the death-rate of the three years 1838-40 be compared with that of the four years 1876-9, it appears that the average mortality-rate of the former years was 22.3 per 1000, and of the latter 21 per 1000, or an average duration of life of 44.8 years, against 47.6 years. This gives an average increase of 2.8 years of life to each individual in the country; or, taking the population of England and Wales in 1881 at 25,798,922 persons, an average increase of life of 2.8 years to each individual would represent, in the aggregate, no less an addition to the life of the community than 72,236,981 years in a generation. At the same rate, the increase in the United Kingdom would amount to little less than one hundred millions of years in a generation. This is, no doubt, a very material increase, and one on which we are entitled to congratulate ourselves, since much of the improvement is unquestionably due to improved sanitation, in the better ventilation, better sewerage and drainage, diminished overcrowding, fewer cellar-dwellings, and so on, that exist now, as compared with former years.

But, unfortunately, this is not all that is to be learned from the figures of the Registrar-General; and it has to be added that some of his statements are not of so reassuring a character. Thus, we find that the *whole* of the improvement referred to *has been effected in saving young lives; while adult males above thirty-five years of age, and females above forty-five, are dying at a greater rate than they used to do.* Thus, if we compare the average of the period of twenty-eight years, 1851-78, with the year 1879, it appears that, on the average of the twenty-eight years, out of every 1000 male children born, 360.5 died before attaining the age of five years; while, if the rate obtaining in the year 1879 were to hold, only 319.5 would die. This would mean a decreased mortality of 11.4 per cent. on male children under the age of five years; and, in following the figures for the higher ages of males, it appears that in 1879 the saving was 19 per cent. for ages five to ten, as compared with the previous twenty-eight years; from ages ten to fifteen years, it was 24.4 per cent.; from fifteen to twenty, it was 22.6; from twenty to twenty-five, it was 22.6 per cent.; and from twenty-five to thirty-five, it was 11.3 per cent. For females, the saving was 14.1 per cent., 22.4, 24.4, 25.4, 23.7, and 16.7, respectively, for the same ages; while, from thirty-five to forty-five years of age, there was a saving effected of 5.8 per cent. in 1879, as compared with the previous twenty-eight years. That is to say: of females living in 1879, between the ages of thirty-five and forty-five years, 5.8 per cent. fewer died than there died at these ages on the average of the twenty-eight preceding years. Taking, now, the case of males *above* thirty-five years of age, the contrary appears; and we find that, while 13.3 died out of every 1000 living at ages thirty-five to forty-five years, on the average of the twenty-eight years, 13.5 per 1000 (or 1.5 per cent. more) died in 1879; at ages forty-five to fifty-five, 2.6 per cent. more died; at fifty-five to sixty-five, 11.9 per cent. more died; at sixty-five to seventy-five, 7.8 per cent. more; at seventy-five to eighty-five, 11 per cent. more; and at eighty-five and upwards, 7 per cent. more. For females above forty-five years of age, the figures are these: between the ages of forty-five and fifty-five years, .6 or $\frac{6}{10}$ per cent. more died in 1879 than on the average of the preceding twenty-eight years; from fifty-five to sixty-five years of age, 12.2 per cent. more died; from sixty-five to seventy-five, 11.6 per cent. more; from seventy-five to eighty-five, 9.5 per cent. more; and above eighty-five years of age, 4.8 per cent. more. These figures show a very considerable saving of life at the younger ages, in the year 1879, over the average of the previous twenty-eight years; and, on the other hand, a considerable loss above the age of thirty-five years for males and forty-five years for females.

I have compared the three years 1838-40 with the four years 1876-9, in order to find the improvement in human life during the period over which present statistics extend; and, on this calculation, it appears that about 2.8 years have been, on the average, added to each life. But there is reason to believe that this is rather too favourable an estimate of the improvement. If, for instance, periods of ten years were compared through the forty-two years, the numbers would stand thus. For the ten years 1841-50, the mean annual mortality was 22.4 per 1000; for 1851-60, it was 22.2 per 1000; for 1861-70, it was 22.5 per 1000; and for the nine years 1871-9, it has been 21.5 per 1000. These figures show no improvement at all; but, on the contrary, a slight deterioration up to 1870, and since then an increase of only 1.9 years to each life, on the average. If, again, the period be divided into quinquenniads, we find that the rate in 1841-5 was 21.4 per 1000, and in 187-69 (four years) 21 per 1000; and this only means an average increase to each life of .9 or $\frac{9}{10}$ of a year.

But, even on the most favourable estimate that can be formed of the improvement which has been effected, I now propose to show that this addition to human life in this country has been made solely by a better management (and, no doubt, prevention) of zymotic diseases or fevers; and that, if the mortality from these diseases were as high now as it used to be, human life in this country, instead of being longer than before, would be somewhat shorter. I am, unfortunately, unable to go back beyond 1850 for this calculation; but I think it will not be denied that thirty years is a fair period of time on which to base an opinion as to the increase or decrease of the length of life. In the five years 1850-4, the deaths from zymotic diseases averaged 5234 per million persons living. In 1855-9, it averaged 5039 per million living; in 1860-4, 4899 per million; in 1865-9, 5172 per million; in 1870-4, 4849 per million; and in 1875-9, 3911 per million. In the years 1877, 1878, and 1879, the zymotic death-rates were respectively 3559 per million persons living, 4278, and 3239—the total death-rates for these years being 20.4 per 1000, 21.7, and 20.9. In commenting on these figures, it may be said that the death-rate from zymotic diseases to a great extent controls the total death-rate. If the deaths from zymotic diseases are numerous, the total death-rate is high. This is not the case absolutely; but it is undoubtedly a tendency. For instance: in the five years 1865-9, both the zymotic death-rate and the total death-rate were high. In the previous five years, the zymotic death-rate was less, and so was the total death-rate. In 1877-8-9, the zymotic death-rates were low; while 1878, which had a higher zymotic death-rate than either of the other two years, had also a higher total death-rate, 21.7 per 1000, against 20.4 in 1877 and 20.9 in 1879. Now, if the death-rate, exclusive of that from zymotic diseases, be calculated for the five years 1850-4, and also for the five years 1875-9, it will be found to be higher for the latter set of years than for the former; and it is also higher, on the average of the three years 1877-8-9, than for the five years 1850-4. Thus, for 1850-4, the average total death-rate was 22,299 per million living; and the average zymotic death-rate 5234—leaving a general death-rate of 17,065. For the five years 1875-9, the average total death-rate was 21,379 per million, and the zymotic death-rate 3911—leaving a general death-rate of 17,468. For the three years 1877-9, the corresponding figures are 21,007 per million, and 3692; and the average general death-rate is, therefore, 17,315. Therefore, on comparing 1850-4 with 1875-9, it appears that there is a greater mortality in the latter period by 403 per million, when the death-rate from zymotic diseases is deducted. The increase is equal to 2.3 per cent. On comparing 1850-4 with 1877-9, it appears that there is a greater mortality by 250 per million in the latter period, or nearly 1.5 per cent., after the zymotic death-rate is deducted.

To translate these results in such a way as to enable us to realise them better, it may be said that, if the general death-rate (that is, the total death-rate *minus* the zymotic-rate) had been as low on the average of the five years 1875-9 as it was in 1850-4, some 49,370 adults, or a population equal to that contained in the City of London proper, would now be living in England and Wales more than is actually the case; and, if the three years 1877-9 had shown as low a general death-rate as the five years 1850-4, some 19,642 persons, who died in those years, would now be living amongst us. So far, therefore, from its being the fact that human life is now longer than it was thirty years ago, the fact is that the apparent lengthening of life can be more than

accounted for by a diminution in the occurrence of, and the mortality from, zymotic diseases or fevers; and that, if this class of diseases be excluded, human life can be shown to have actually shortened in this country during that period.—I am, faithfully yours,

A. RABAGLIATI, M.A., M.D., Surgeon, Bradford Infirmary.

SPECIAL CORRESPONDENCE.

LIVERPOOL.

Compulsory Notification of Infectious Diseases.—Cases at the Northern Hospital.

THE Health Committee of this city, at their last meeting, decided to postpone the consideration of compulsory sanitary legislation for the present. The subject was fully discussed at a largely attended meeting of the Medical Institution, at which the proposed compulsory reporting of infectious diseases was rejected by the majority of members present. There is a feeling prevalent here that such a course would create a feeling of great distrust between patients and their medical advisers. In addition to this, those practitioners who, having large family practices, had occasion to attend many cases of infectious disease among children, would find the reporting of such cases very much to their detriment. On the other hand, there is every wish to aid the sanitary authorities in checking the spread of infectious diseases; and it is expected that some practical scheme, of a voluntary but complete character, may yet be possible. It is certainly desirable that fever patients should be removed speedily from crowded "back slums" to hospital. But, it is perfectly possible to treat such cases in a house of average accommodation, without any fear of its spreading. Private intimation to the medical officer of health is, in this case, surely sufficient.

At the Northern Hospital, Mr. Puzey has at present two cases of excision of the knee-joint, which show the value of antiseptic treatment, as modified in such cases by Mr. Howse of Guy's Hospital. The operation is performed with the usual Listerian precautions; after which the limb is placed in a japanned iron splint, somewhat resembling Macintyre's, and fully described in *Guy's Hospital Reports* for 1877. In it the limb lies deep, and to it the splint is fixed by bandages, steeped in a mixture of one part yellow wax and two of carbolic oil; the inner aspect of the splint, which is unpadded, is lined with a layer of lint, saturated with the same mixture; and all interstices between limb and splint are filled up with wool, dipped in the same mixture—thus making a perfectly water-tight apparatus. In one case, that of a girl ten years of age, where excision was performed for pulpy disease of long-standing, with commencing destruction of the internal femoral condyle, the splint was not removed for five weeks, when the limb was found quite firm. No suppuration had occurred, the whole wound having healed without the appearance of a drop of pus. The limb is now in a plaster bandage, and the child will run about in spite of orders to the contrary. In the other case, one of almost complete ankylosis (at a right angle) of the knee, the operation was rendered very protracted; the strong fibrous and in some parts osseous union which had taken place between implicated bones requiring the use of saw and bone forceps before the ends of the bones could be protruded. A similar splint was used, and the case treated in exactly the same way. It is now thirteen days since the operation was performed. There was considerable sanious oozing the night after, but not a single drop of pus. The stitches have all been removed, and primary union appears complete.

In the same hospital is an interesting case of chronic cystitis, in which Dr. Macfie Campbell performed cystotomy. The patient is just leaving the hospital well. When admitted, the symptoms were subacute in character; and no treatment, local or general, gave the least relief. When the condition of the patient was gradually getting worse, and his emaciation increasing, Dr. Campbell decided upon cystotomy. The bladder was opened by the lateral lithotomy method, and drainage was established. In six weeks, the patient was out of bed, and has only been kept in hospital by the slow bleeding of a small fistula in the site of the perineal wound.

AN epidemic of scarlet fever has broken out in the village of Willoughby-on-the-Wolds, situated in the Loughborough Rural Sanitary District. The attendance at the school was considerably reduced, and at one time only fourteen children were in attendance. The school has been closed, at the strong recommendation of Dr. Palmer, the health-officer. A similar outbreak has occurred at Upper Broughton, in consequence of which the Board School has been closed for a fortnight.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

SCARLATINA mortality increases at Hull. During the past fortnight, the health-officer reported that no fewer than seventy-six deaths (out of a total zymotic mortality of eighty) had happened from this disease.

SCARLET and typhoid fevers are largely prevalent in the district of the Rowley Local Board. In his last report, Mr. Beasley, the health-officer, stated that during the previous month ninety-two cases of scarlet fever and forty-seven of typhoid fever had come under his notice. The outbreak is attributed to an impure and scanty water-supply.

THE Derby Board of Guardians have recently taken a step towards obtaining the vaccination of infants of antivaccinators, which may be productive of good results. In consequence of the difficulty experienced in this respect, they have instructed their vaccination officer to call upon each parent against whom he had directions to take proceedings, and to explain to them that vaccine-lymph could now be obtained direct from the calf, by which means any possibility of human diseases of the blood being transmitted to their children could be avoided.

INTERNATIONAL EXHIBITION OF SMOKE-PREVENTING APPLIANCES.

THE following is the report of the Smoke Abatement Committee of the National Health and Kyrle Societies. *Presidents*, H.R.H. Prince Leopold, Duke of Albany, K.G.; His Grace the Duke of Westminster, K.G. *Chairman of Joint Committee of National Health and Kyrle Societies*, Ernest Hart, Esq. *Committee*, Professor Abel, C.B., F.R.S., Royal Arsenal, Woolwich; The Right Hon. Lord Aberdare, P.C., F.R.G.S.; A. T. Atchison, Esq., M.A.; Wynter Blyth, Esq., F.C.S., M.O.H. Marylebone; Lady Borthwick; Sir Antonio Brady, F.M.S., F.G.S.; Sir F. J. Bramwell, F.R.S., V.P.Inst.C.E., Chairman of Council of the Society of Arts; Dr. Alfred Carpenter; E. Chadwick, C.B.; W. R. E. Coles, Esq.; W. Cook, Esq., Chairman of the Health Committee, Birmingham; Thomas Cundy, Esq.; Thomas W. Cutler, Esq., F.R.I.B.A.; W. Eassie, Esq., C.E.; Dr. Farquharson, M.P.; Colonel E. R. Festing, R.E., Science and Art Department, South Kensington; Professor Edward Frankland, LL.D., F.R.S., School of Mines, South Kensington; Captain Douglas Galton, C.B., D.C.L., F.R.S.; George Godwin, Esq., F.R.S.; Francis Greg, Esq., Manchester; Viscount Harberton; Viscountess Harberton; R. Harris, Esq. (Gas Light and Coke Company), Bow; Miss Octavia Hill; R. A. Hill, Esq., Royal Mint; Dr. Hogg, LL.D., F.L.S.; Elijah Hoole, Esq.; Sir Frederick Leighton, P.R.A.; Miss Emily Shaw-Lefevre; J. Norman Lockyer, Esq., F.R.S.; D. H. Macfarlane, Esq., M.P., M.A.; R. Fuller Maitland, Esq.; Mrs. Mallet; Charles T. Mitchell, Esq.; B. L. Moseley, Esq.; J. F. Moulton, Esq., M.A., F.R.S.; Sir Philip Cunliffe Owen, K.C.M.G., C.I.E., C.B.; C. Kegan Paul, Esq.; Right Hon. Lyon Playfair, C.B., M.P., F.R.S.; Sir William Frederick Pollock, Bart.; Miss Potter; Professor W. Chandler Roberts, F.R.S., Royal Mint; The Hon. Rollo Russell; Major-General H. Y. D. Scott, C.B., F.R.S.; H. Saxon Snell, Esq., F.R.I.B.A.; Dr. Sprengel, F.R.S.; E. Statham, Esq.; Dr. Tripe, F.R.C.P., M.O.H. Hackney; Ernest Turner, Esq.; H. Hussey Vivian, Esq., M.P.; J. Lowry Whittle, Esq., Temple; Dr. Wyld; Lieutenant-Colonel H. Stuart-Wortley, Curator of Patent Office Museum; Miss H. Yorke. *Executive Committee*, Professor Abel, C.B., F.R.S., Royal Arsenal, Woolwich; A. T. Atchison, Esq., M.A.; William R. E. Coles, Esq.; Colonel E. R. Festing, R.E. (Science and Art Department), South Kensington; Captain Douglas Galton, C.B., D.C.L., F.R.S.; Professor Edward Frankland, LL.D., F.R.S., School of Mines, South Kensington; Professor W. Chandler Roberts, F.R.S., Royal Mint; Sir Ughtred Kay-Shuttleworth, Bart.; Dr. Siemens, F.R.S., LL.D.; J. Lowry Whittle, Esq., Temple. *Superintendent of Exhibition*, James Richards, Esq. *Attesting Engineer*, D. Kinnear Clark, Esq., M.Inst.C.E. *Honorary Secretary to the Smoke Abatement Committee*, W. R. E. Coles, Esq.

The origin of this Committee is described as follows in the report of the National Health Society of January 1881. The subject of the abatement of smoke, with the view of purifying the atmosphere of London and lessening the deleterious character of London fogs, has been vigorously taken up by the Society during the past year. In the spring of 1880, the subject was brought under the notice of the Committee by Mr. Ernest Hart, the Chairman of Council, as one which he was desirous of taking up actively with the co-operation of

the Committee; and he was requested to take steps to bring the question into a practical form for further proceeding. With this view, Mr. Hart placed himself in communication with Professor Chandler Roberts, F.R.S., Professor of Metallurgy at the School of Mines, and Chemist to the Mint, who undertook to make an examination of existing methods of combustion of coal in household grates and in furnaces. Further steps were taken to obtain details of the existing apparatus in use in different parts of the kingdom; of various fuels; and a considerable collection of documents was made, which have been placed at the disposal of the Committee subsequently formed. In July, Mr. Hart learned from Miss Octavia Hill, the Treasurer of the Kyrle Society, that that Society was contemplating some action in the like direction; and it was arranged between Miss Hill and Mr. Hart that, with the approval of the respective Societies, a Joint Committee should be formed with the object of continuing the movement. Such a Committee was accordingly nominated, and met at the Society's rooms; a definite course of proceeding was resolved on, and a programme was sketched out. Various eminent persons known to be specially informed on the subject (not all connected with either Society) were asked to join the Committee.

The first proceeding of the Committee was to communicate with colliery owners and manufacturers of heating apparatus as to the means available for the reduction of smoke, and next with the metropolitan parochial authorities and public bodies, directing their attention to the serious and increasing evil, and asking their co-operation in abating it.

The Committee next proceeded to obtain a report on the existing state of the law in regard to smoke, and on the machinery for bringing it into action, which is published as a preface to the catalogue.

The first thing to keep in mind is that there is no law prohibiting the production of smoke for household purposes, except so far as a particular chimney or fire may, by reason of the smoke, become a nuisance to one or more individuals. Such cases might arise and be dealt with under the ordinary law of nuisance, as in the case of obstruction to lights, and so forth; but there is no Act of Parliament dealing with domestic fireplaces. There is, however, a considerable body of enactments restraining the diffusion of smoke or other vapours, where those vapours are produced in any operation of business or trade. These it may be desirable at a later period to strengthen and to extend.

The Committee next proceeded to confer with the manufacturers, bakers, and others who come under the provisions of the Smoke Act. For this purpose a meeting was convened at the Cannon Street Hotel. At this meeting resolutions were carried approving the action taken by the National Health and Kyrle Societies in regard to the appointment of a committe and an assistant subcommittee of experts to inquire into, and take measures necessary to effect, the reduction of smoke in and about the metropolis, and pledge themselves to support the action of the said societies; also approving the course proposed to be adopted by the committee appointed by the National Health and Kyrle Societies in regard to making and encouraging public trials of various descriptions of smokeless coal, and fuel, and appliances for lessening the production of smoke.

In order to invite broad consideration of the subject, to elicit public opinion, to encourage improvements in heating and smoke-preventing appliances, and to diffuse a knowledge of their use, the Committee then appointed a deputation to wait upon the Lord Mayor and ask him to convene a public meeting at the Mansion House on the subject, which he consented to do; and a meeting was accordingly held under his lordship's presidency. Among other resolutions the following was proposed by the Right Hon. G. J. Shaw-Lefevre, M.P., First Commissioner of Works, and carried unanimously: "That this meeting is further of opinion that the injurious effects of fog are largely due to the quantities of smoke given forth from the chimneys of furnaces, manufactories, and steam vessels, as well as dwelling-houses, and that the smoke in the Metropolis might, without any considerable difficulty, be greatly lessened by the better enforcement of the existing law, by the introduction of amended legislation, and by the general use, in all descriptions of premises, including dwelling-places, of proper smoke-preventing apparatus, of improved household stoves and grates, or of smokeless fuel." The late Dean of Westminster, Sir U. K. Shuttleworth, Mr. Spottiswoode, the president of the Royal Society, and Mr. Burton, keeper of the National Gallery, were among the speakers.

Shortly afterwards, at a public meeting held by the Kyrle Society, the President, H.R.H. the Duke of Albany, referred with warm approval to this movement as part of the Society's work, and a resolution in support of it was passed by the meeting.

On Tuesday, July 26th, a largely attended meeting was held at Grosvenor House, by permission of the Duke of Westminster, president of the National Health Society, at which H.R.H. the Princess Louise, Marchioness of Lorne, was present, when high scientific and medical evidence was borne by Dr. Siemens, F.R.S., Sir Henry Thompson, Dr. Quain, F.R.S., and Mr. Spencer Wells, to the scientific importance and reasonableness, and the hygienic value, of the objects in view.

The Committee proceeded to complete arrangements, by the permission of Her Majesty's Commissioners for the Exhibition of 1851, the Lords of the Committee of Council on Education, and of the Council of the Royal Horticultural Society, for the exhibition, to be held in the buildings erected for the International Exhibition of 1862, of improved fire-grates, furnaces, kitcheners, cooking, warming, and other apparatus of all kinds, devised to prevent smoke or to consume smokeless fuel; the exhibition to include varieties of bituminous and anthracite or smokeless coal, and special fuel for household fires and furnaces. In the catalogue the various exhibits will be found classified and arranged under sections. Arrangements were also made for the fitting-up of some buildings for the purpose of testing the efficiency of grates, stoves, and other appliances suited for domestic use; and trials of various fuels and boiler appliances were also provided in the exhibition buildings and in the Royal Albert Hall, and at certain factories in which facilities were offered by the proprietors. It was resolved that the testing of apparatus should be made as far as possible under the following conditions:—

Trials of Apparatus and Fuels.—1. Domestic heating appliances—viz., grates stoves, and kitcheners and kitchen open ranges—should be tested for heating power, cost, convenience, quality of combustion, and their comparative freedom from smoke and noxious vapours. Various fuels and new appliances for the utilisation of anthracite and other smokeless coals to be tried. Gas-heating apparatus, in which great improvements have recently been made, to be tested and compared. 2. In regard to the testing of furnaces and apparatus for industrial purposes a greater difficulty presents itself; but trials of some of the more recent improvements in boiler apparatus were to be made with the special object of testing the combustion of fuel and the prevention of smoke, having regard also to evaporative performance.

The Committee engaged the services of Mr. D. Kinnear Clark, M. Inst.C.E., to superintend the trials under the direction of the executive committee. Professor W. Chandler Roberts, F.R.S., has drawn up a scheme for the chemical testing in connection with the trials of fuel, grates, and stoves.

The Committee have felt—and have been confirmed therein by very numerous expressions of opinion, as a result of extended correspondence with persons of experience representing all classes in London, the provinces, and abroad—that such an exhibition and testing, carried out under the direction of a committee of experts, would be of national value.—1. By tending directly to a better utilisation of coal and coal products; 2. By determining practically and scientifically the means which are actually available for heating houses, as at present (and as may be) constructed, without producing smoke; 3. By enabling the Committee to examine the subject generally, and report, for public information, upon the relative adaptability of the various coals and appliances to the different requirements of every class of the community. 4. By affording reliable information upon which to base sufficient and equitable amendments of the existing laws regarding smoke. 5. By enabling the Committee to ascertain and make known the comparative value of existing appliances for the utilisation of gas for the purpose of heating, and generally bringing together the available material for determining how far smoke may be prevented, and testing numerous inventions, many of which are very little known.

Valuable prizes have been offered by Dr, Siemens, by friends in Manchester, and by a committee of ladies, and a medal by the Society of Arts, which, together with certificates of honour, will be awarded on the report of the judges.

The Committee trust that the opportunity afforded by this exhibition of various appliances in action, and of improved fuels, and the trials carried on, will result in the extensive adoption by householders and manufacturers of the most successful and useful of the improvements shown, and that the impetus thus given to industrial energy and scientific ingenuity will bring about yet further improvements in the art and practice of heating, without unnecessary production of smoke. The Committee hope, also, that the exhibition will prove of advantage to the exhibitors, who have incurred considerable labour and expense in bringing their exhibits before the public in the way recommended by the Committee.

SIR JOHN SOANE'S MUSEUM.—Professor W. H. Flower has been appointed by the President and Council of the Royal Society a Trustee of the above collection, in the vacancy occasioned by the decease of Sir Philip de Malpas Grey Egerton, Bart.

COMPULSORY REPORTS OF INFECTIOUS DISEASES.

A FURTHER discussion took place, at the last meeting of the Public Health Committee of Liverpool, on the proposed amendments to the Sanitary Acts by local legislation, empowering the medical officers, in all cases of infectious disease, "to order schools, dairies, and provision stores to be temporarily closed"; and requiring all medical practitioners, under penalty, to report to the medical officer of health all cases of infectious diseases under their charge. Dr. Jacob's letter, published last week in the JOURNAL, was read; also the following letter from Dr. Littlejohn, medical officer of health for Edinburgh.

"I am now the oldest medical officer of health in the country, having been appointed in 1863, and having been surgeon of police since 1854. I saw how helpless the Corporation were when infectious diseases broke out, from ignorance of the localities where the first cases had appeared, and year by year I did my best to impress upon the local authority the importance of obtaining this information. Meanwhile, Edinburgh, as an educational centre, suffered much from repeated outbreaks of epidemic disease, and ultimately the Corporation became fully alive to the importance of the subject, and determined to bring in a local Act. With a view to this, I was instructed to bring the subject before our two colleges of physicians and surgeons. Their bodies reported almost unanimously against it. Meanwhile the Corporation presented their bill before Parliament, and this, having successfully run the gauntlet before committees of both houses, passed into law in November 1879. The medical profession were taken somewhat by surprise when the enclosed letter was forwarded to them, and also forms of intimation, and also stamps and envelopes. So convinced were the Corporation that the information thus sought to be obtained was advantageous to the city, that they spontaneously offered a fee of 5s. for each intimation. Up to the 31st October 1881, 9,000 intimations have been received, at a cost to the ratepayers of £1,150. The profession have withdrawn all opposition, and have loyally obeyed the Act, and the only instance of refusal was the case of a gentleman who believed that 'gastric' was not included in the term 'typhoid'. He determined to make himself a martyr, refused all compromise, and was fined by the stipendiary magistrate. He did not enter an appeal, and has since the trial regularly sent in intimations of his cases."

In the course of the discussion which followed, it was stated that the medical profession in Liverpool were very strong, and almost unanimously opposed to such provisions, and that their opposition would render the enactment, if carried out, a dead letter. Dr. Hamilton and Dr. Bligh both strongly opposed the clauses, Dr. Bligh stating that, at a meeting of the medical profession at the Stanley Hospital, out of twenty-three present, twenty voted against the adoption of these provisions; and in the result it was resolved, by a large majority, to omit the clause."

HOSPITAL AND DISPENSARY MANAGEMENT.

THE METROPOLITAN PROVIDENT DISPENSARY ASSOCIATION.

SPEAKING of this Association, the *Charity Organisation Reporter* informs us that up to the present time four dispensaries have been established—one in Leicester Square, one in Lamb's Conduit Street, one in Kensal Town, and one at Croydon. Two others will be opened shortly in the Goswell Road and in the Camden Road. At Croydon, more than seventy members were enrolled during the first week; and it was stated that on the first day of the new year one thousand members of different friendly societies would give in their names. Though it will thus be seen that the Association is advancing rapidly, money is still needed to enable the Council to put it forward on a scale which shall be at all adequate to the wants of the metropolis; and they solicit the support of all persons who are interested in the cause.

MURRAY'S ROYAL ASYLUM, PERTH.

MURRAY'S Royal Asylum at Perth, one of the chartered asylums of Scotland, which in great measure fill the place occupied by private asylums in England, seems to be thriving under the spirited superintendence of Dr. Urquhart, whose annual report has just been published. Various improvements have been effected or are in progress. Enclosed airing-courts have been converted into open terraces, a stage has been erected for theatrical and musical performances, and telephonic communication has been established between the asylum and the detached residence of the medical officer. The Visiting Commissioner notices that seclusion has been resorted to on seventeen occasions in the case of four ladies, and that *a box-bed with a lid* is in regular use in the case of one lady. It is somewhat curious to find that the box-bed, an objectionable and humiliating instrument of mechanical restraint which was banished from English asylums, we believe, many years ago, is still in use in the country which boasts itself of its open-door system.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following Members of the College, having undergone the necessary examinations for the Fellowship at the half-yearly meeting of the Court of Examiners terminating on the 28th ultimo, were reported to have acquitted themselves to the satisfaction of the Court, and at a meeting of the Council on the 8th instant were admitted Fellows of the College.

Messrs. Charles E. Lockwood, L.S.A., Sergeant's Inn, [illegible] of membership dated April 17th, 1877; Walter S. A. Griffith, Guilford Street, W.C., April 16th, 1878; Henry G. Barling, M.B.Lond., Newnham, Gloucestershire, July 25th, 1879; Samuel G. Shattock, L.S.A., Devonshire Hills, Hampstead, January 25th, 1876; John C. Uhthoff, M.D.Lond., Hove, Brighton, July 25th, 1877; Albert W. D. Leahy, L.S.A., Warwick Street, S.W., November 11th, 1877; and Richard Gill, M.B.Lond., Prince's Street, Hanover Square (not a member).

One candidate had not yet attained the legal age, but the diploma will be presented to him on reaching the age of 25.

Seventeen candidates, out of the twenty-five examined, having failed to acquit themselves to the satisfaction of the Court of Examiners, were referred to their professional studies for twelve months.

At the same meeting of the Council, Mr. Richard Cross, M.D. St. Andrew's, of Scarborough, was elected a Fellow of the College, his diploma of membership bearing date November 13th, 1840; and Mr. Edward Hadduck, L.S.A., of Biddulph, Congleton, elected a Fellow at a previous meeting of the Council, was admitted as such, his diploma of Membership bearing date October 21st, 1842.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 1st.

[illegible]
Day, John Roberson, 121 Camden Road, N.W.
Phillips, Frank Leslie, National Hospital, Ventnor.
Spicer, Robert Henry Seams, 24, Cambridge Street, Hyde Park.
Stuart, Ernest Offord, Nightingale Vale, Woolwich.

The following gentleman also on the same day passed the Primary Professional Examination.

Parakh, Nasarwanji N., Grant Medical College, Bombay.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BALLINA UNION—Medical Officer for Crossmolina Dispensary District. Salary, £120 per annum, with £30 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 20th instant.

BECKITT HOSPITAL AND DISPENSARY, Barnsley—House-Surgeon. Salary £150 per annum. Applications by December 14th.

DENTAL HOSPITAL, Leicester Square—Dental House-Surgeon. Applications by December 14th.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Clinical Assistant. Application by December 15th.

GENERAL HOSPITAL, Birmingham—Honorary Surgeon. Applications to Mr. W. T. Grant, House Governor, by December 24th.

HUNTINGDON COUNTY HOSPITAL—House-Surgeon. Salary, £60 per annum. Applications to the Rev. R. H. Gatty, Honorary Secretary, Buchden, Huntingdon, by December 12th.

LINCOLN GENERAL DISPENSARY—Resident Medical Officer. Salary, £150 per annum. Applications by December 14th.

LONDON LOCK HOSPITAL—Assistant House-Surgeon to the Female Department. Applications to the Secretary, Lock Hospital, Westbourne Green, Harrow Road, W., by the 20th instant.

METROPOLITAN FREE HOSPITAL, 51, Commercial Street, Spitalfields, E.—Assistant House Surgeon. No Salary. Applications to Mr. George [illegible], Secretary.

MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch—Assistant Medical Officer. Salary, £[illegible] per annum. Applications by December 14th.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL, St. George's Circus, S.E.—Clinical Assistant for three years. Salary, £[illegible] per annum. Application to the Secretary by the 15th instant.

SHEFFIELD GENERAL INFIRMARY—House-Surgeon. Salary, £120 per annum. Applications to the Medical Staff (care of the Secretary) by December 12th.

TOTNES UNION—District Medical Officer for No. 4 Berry Pomeroy District. Salary, £[illegible] per annum. Applications by December 16th.

UNIVERSITY OF DURHAM—[illegible] Professorship of Chemistry, Physiology, Materia Medica, and Pathology. Applications to the Registrary of the University by December [illegible].

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Assistant Physician. Applications to the Secretary by December [illegible].

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—House Surgeon. Applications to the Secretary, December [illegible].

WEST DERBY UNION—Medical Officer for the Township of Wavertree. Salary £45 per annum. Applications by December 13th.

MEDICAL APPOINTMENTS.

BATTERHAM, J. W., M.R.C.S., L.S.A., appointed Junior House-Physician to the Westminster Hospital.

GUBBIN, G. F., M.R.C.S., L.R.C.P.Lond., appointed Senior House Physician and Chloroformist to the Westminster Hospital.

MACNAMARA, H. W., M.R.C.S., appointed Resident Obstetric Physician to the Westminster Hospital.

MORRIS, C. K., M.R.C.S., appointed Surgeon to the Johnson Hospital, Spalding.

MORRIS, Edwin, M.D., F.R.C.S., appointed Senior Surgeon to the Johnson Hospital, Spalding.

MORRIS, W. W., L.R.C.P., appointed Medical Officer and Public Vaccinator for the East District of the Bingham Union, *vice* T. P. Wright, M.R.C.S., L.S.A., resigned.

WEBSTER, J. H., L.R.C.P., appointed Medical Officer and Public Vaccinator to the No. 1 and Morden District, Wareham and Purbeck Union, *vice* W. J. Boreham, M.D., resigned.

WILLIAMS, C. R., M.B., appointed Medical Officer to the Ashby-de-la-Zouche Union, *vice* M. Coote, M.D., deceased.

WOODHOUSE, Stewart, M.D., elected Assistant-Physician to the Richmond, Whitworth, and Hardwicke Hospitals, *vice* Reuben J. Harvey, M.D., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

MONTGOMERY.—At Strickland House, Penrith, on the 29th November, the wife of T. Lowther Montgomery, F.R.C.S.E., of a daughter.

MARRIAGE.

BEATTY—SCOTT.—On December 1st, at Christ Church, New Seaham, by the Rev. W. A. Scott (uncle of the bride), assisted by the Rev. D. W. James, William J. Beatty, L.R.C.P., etc., of Barrington Crescent, Stockton-on-Tees, youngest son of Dr. Beatty, of Seaham Harbour, to Alice Fitzgerald, third daughter of the late Rev. John Scott, Rector of Marshalstown, Ireland, and niece of the late General Hill.

DEATHS.

ELLIOTT.—On November 30th, at Orrell House, Sowerby Bridge, James Elliott, Surgeon, only son of the late William Elliott, M.D., aged 38.

HENRY.—On the 4th inst., at 10, Lowther Street, Whitehaven, Emerson Wilson Henry, M.D., M.Ch., aged 37.

HEALTH OF FOREIGN CITIES.—The following facts and figures, derived from a table in the Registrar-General's last weekly return, afford ustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate, according to the most recent weekly returns, veraged 31.4 per 1000; it was equal to 25.2 in Bombay, 33.7 in Calcutta, and 35.3 in Madras. Cholera caused 26 deaths in Calcutta, and fatal cases of small-pox were reported in Madras; the usual large roportion of fever fatality occurred in each of the three cities. The death-rate in Alexandria was equal to 35.4, and showed a further increase upon the rates in recent weeks; 12 deaths resulted from typhoid ever, and 12 from whooping-cough. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 26.7 per 1000 of their aggregate population, whereas average rate in twenty of the largest English towns during last week did not exceed 20.6. The rate in St. Petersburg showed a further increase to 43.9, and the 563 deaths included 35 from typhus and yphoid fevers, and 11 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 22.2, the highest being 27.5 in Copenhagen; measles caused 6 deaths in Christiania, and diphtheria 3 in Copenhagen. The Paris death-rate declined to 24.8, and 54 deaths were referred to diphtheria and croup, 31 to typhoid fever, and 10 to small-pox. The rate in Brussels did not exceed 21.5; the deaths, however, included 5 fatal cases of typhoid fever. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the average death-rate was 22.9, and the highest was 23.8 in the Hague; the zymotic fatality in these towns was very small. The death-rate in Geneva was equal to 25.0, and 3 fatal cases of diphtheria and croup were reported. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 26.4, and ranged from 21.8 and 24.1 in Dresden and Hamburg, to 29.0 and 29.3 in Prague and Buda-Pesth. Small-pox caused 19 deaths in Vienna and 15 in Buda-Pesth; diphtheria again showed fatal prevalence in Berlin and Hamburg. The death-rate in Naples, Turin, and Venice was equal to 28.7, 24.9, and 26.2 respectively, and averaged 27.2; typhoid fever caused 10 deaths in Naples and 8 in Turin. In four large American cities, the death-rate averaged 26.1; it was 21.6 in Philadelphia, 25.9 in Baltimore, 26.0 in Brooklyn, and 29.0 in New York. Small-pox caused 11 deaths in Philadelphia and 7 in New York. Diphtheria showed excessive fatal prevalence in each of these American cities.

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Hilton Fagge will open a discussion on the Salicylate Treatment of Acute Rheumatism, when numerous Hospital Statistics will be laid before the Society by the President (Dr. Broadbent), Dr. Coupland, Dr. de Havilland Hall, Dr. Charles Hood, Dr. Isambard Owen, Dr. Warner, and Dr. Gilbart Smith.

TUESDAY.—Royal Medical and Chirurgical Society, 8 P.M., Ballot. 8.30 P.M., Mr. Reginald Harrison (Liverpool): Case of Lithotomy where a Tumour of the Prostate was successfully enucleated; with Remarks on the Removal of such Growths. Mr. Berkeley Hill: Case of Fibrous Polypus of the Bladder successfully removed.

WEDNESDAY.—Royal Microscopical Society, 8 P.M. Mr. A. D. Michael: Further Observations on British Oribatidæ. Mr. W. H. Symons: On a Hot and Cold Stage for the Microscope.

THURSDAY.—Harveian Society of London, 8.30 P.M. Third Harveian Lecture, by Dr. Alfred Meadows, on Menstruation and its Derangements.—Abernethian Society, St. Bartholomew's Hospital. Mr. Gill: Rises of Temperature after Operations.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

THE VIRCHOW TESTIMONIAL.

SIR,—Permit me to acknowledge the receipt, during the past week, of the following contributions to the above fund.

	£	s.	d.
Dr. Grainger Stewart, Edinburgh	5	0	0
Dr. Philip Frank, Cannes	2	0	0
Dr. Saundby, Birmingham	0	10	6
W. Bowman, Esq., London	5	5	0

Yours obediently, J. S. BRISTOWE.

11, Old Burlington Street, W., December 1st, 1881.

QUALIFIED ASSISTANTS TO UNQUALIFIED MEDICAL PRACTITIONERS.

SIR,—In the district where I reside an unqualified medical practitioner was allowed to become the purchaser of a practice some time ago. Since then he has conducted this practice by the aid of qualified assistants, the present one being the fourth within three and a half years. A fortnight ago, an election to a parish appointment in the district took place; the qualified assistant was a candidate, with myself, for the office, and I was unanimously appointed, my opponent not even being proposed. The Local Government Board, however, decline to sanction my appointment, on the ground that I already hold office in another union.

I should esteem it a favour if you would have the goodness to express an opinion, in the next issue of the BRITISH MEDICAL JOURNAL, as to whether I am justified in representing to the Local Government Board the fact that the other candidate (who is the only other qualified man in the prescribed district with myself) is the nominee and assistant of an unqualified medical practitioner, and liable to be removed at any moment at the whim of his master.—I am, yours,

QUE MERUIT FERAT PALMAM.

*** There can be no objection to our correspondent submitting his statement to the consideration of the Local Government Board. It would, however, be far better if he were to get some one else to do this for him, as it might remove the impression of personal pique at his appointment having been declared invalid.

EXAMINATION OF THE PERSON.

SIR,—Will you favour me, in your Answers to Correspondents, with your opinion upon the following matter?

A short time ago, I was called up at night by a policeman to examine a young woman, who accompanied him, and who had been assaulted by a young fellow in the street. I inquired of the girl where the injuries were, and she showed me her knees and face. The knees were slightly cut, and the face smeared over with dirt. I inquired if she had sustained any further injury, and she said, No. The man was taken into custody, and the case came before the magistrates. The mayor, as chief magistrate, who is also a lawyer, inquired if I had examined "the limbs". I replied: "No other part than those I have mentioned". He then told me I ought to have done so. I said that I inquired of the girl, and she said there was no other injury. But still he insisted that I should have made a further examination of this girl of 16. This little lecture, as may be imagined, was not much relished by me; but I had no opportunity of saying anything more. The case will come on again at quarter sessions; and, meantime, I shall be glad to know whether you think the mayor or myself right.—I am, etc., L.S.A.

*** L.S.A. did right. Not only was it not his duty to make any further examination than that which he made, but had he made any further examination, except with the girl's consent and at her request, he would have contravened the law, and would have been liable, and possibly subject, to action for assault and a claim for damages. Nor would any request, whether from a policeman or anyone else, except the girl herself in the presence of witnesses, have held him harmless. Of nothing should a medical man be more careful, in such a case, than to avoid making any sort of personal examination without express and unequivocal permission and assent, either in writing or before a witness.

TONSILLOTOMES.

SIR,—"B. X." asks information as to tonsil-tomes. Until recently, I have always employed that known as Mackenzie's "modification" of Luke's or Physick's; but about a year ago, Mr. Coxeter showed me an instrument, made by his father for the late Mr Liston, which possesses two advantages: the first is in the shape of the blade, which, instead of being round, is somewhat pointed, and is consequently more useful when the tonsil is to be removed, although disease is not very prominent; the second consists in the slide being made of steel instead of German silver, so that it never bends, and thus the knife always goes well home through the slit. My colleagues at hospital join with me in considering these advantages as supplying a need previously felt by each of us on various occasions. Double tonsil-tomes, tonsil-tomes with forks, and those (of which Fahnestock's is one) in which there is a cutting ring to be drawn towards the operator, instead of the blade which is to be pushed forwards, all are the outcome of an ultra-refinement in instrument-devising, and only lead to complications or imperfections. With Liston's instrument, provided the surgeon has a good assistant, who, standing behind the patient to steady the head, at the same time presses in the tonsil from without, with his hand placed at the angle of the jaw, there is never necessity for forceps, hook, or anything beyond the simple guillotine.—Yours faithfully, LENNOX BROWNE.

36, Weymouth Street, Portland Place, W., December 6th, 1881.

HEARING WITHOUT THE AURICLE.

SIR,—In reply to the inquiry in your last number by "T. A.", as to the wound of my late friend Dr. Pagan, I can inform him, from abundant personal knowledge, that the shot which carried away the whole left external ear at Waterloo left his hearing quite unimpaired. As the question was put, I presume, for scientific reasons, it is right to say that there is no ground for supposing that the wound was caused by a "cannon ball", in the sense of a round shot. Under the circumstances, the exact nature of the missile could not be determined, but Dr. Pagan always said that it was either a grape-shot or musket-bullet. Dr. Pagan was not a young army surgeon, but a lieutenant of the 33rd Regiment, when he was wounded.—Yours, etc., DOUGLAS MACLAGAN

28, Heriot Row, Edinburgh, December 5th, 1881.

THE BRUSSELS DEGREE.

SIR,—*Apropos* of notice to correspondents with the above heading in this day's JOURNAL, will you allow me to say that I shall be happy to afford "Theta" and your other correspondents all information in my power with respect to the examination for the degree, if they will communicate with me.—I am, sir, your obedient servant, F. ERNEST POCOCK, M.D. Brux.,

Honorary Secretary Brussels Medical Graduates' Association.

The Limes, St. Mark's Road, Notting Hill, W., December 3rd, 1881.

F.R.C.S.—Members of the College of Surgeons, who were members on the 14th day of September, 1843, are alone eligible for election to the Fellowship; consequently our correspondent is ineligible, neither could he obtain the distinction *ad eundem*, as a Fellow of the Edinburgh College of Surgeons of such recent date.

MEDICAL CERTIFICATES FOR INSURANCE COMPANIES.

SIR,—Some little time ago, I attended a patient through rather a protracted illness, and several weeks after death I received a printed form from the resident secretary Scottish Union and National Insurance Company, containing from four to six questions concerning the illness of the deceased to be answered, and a declaration to be filled up at the bottom of the paper and signed by me, all for the use of the said society. I have had several applications for this certificate, but on each occasion have refused to fill it up without the receipt of a guinea from the office (the executor of deceased refusing to pay it). As the resident manager has stigmatised my conduct as not that of a respectable medical man, I should be glad to hear if you think I was acting rightly in demanding a fee or not. The patient had entered at the age of sixty for £300, and had paid her premium up to the age of eighty-two.—Yours truly, J. A. COUTTS.

Waterfoot, Manchester, December 5th, 1881.

*** Our correspondent acted quite rightly, and the observation quoted is quite unjustifiable, and not in accordance with facts or with accepted principles of professional conduct in such matters.

A QUESTION OF FEES.

SIR,—Assuming that "Cash" is a general practitioner of some standing, he should claim fifty guineas for the first visit to Southsea, and seventy-five guineas for the second visit, which involved the trouble and responsibility of bringing the patient to London.—Yours obediently, AN OLD PRACTITIONER.

A MEMBER (Great Harwood).—We regret that it is out of our power. Numerous communications of the kind are received from week to week, and we can only find space to notice the more startling. The card was not preserved.

STEEL SPRINGS FOR FALSE TEETH.

SIR, Almost everyone who has occasion to use springs for retaining artificial teeth suffers from the frequency with which they get out of order, or break, often at most inconvenient seasons. To avoid this I have had the springs constructed of steel wire instead of gold. The advantages are that it is scarcely possible to break them; they can be bent in any direction easily, whereas gold springs cannot be bent without damage; they are more pliable, therefore softer and more comfortable in the mouth; and, lastly, they are so inexpensive that a set can be made for the cost of one gold one.

Steel wire causes a slight metallic taste at first; but this passes off, as the springs are soon coated over with a kind of black oxide, which seems to act as a varnish, and so preserves them. I am, sir, faithfully yours, NATHANIEL SNODGRASS.

51, Wimpole Street, Cavendish Square, W.

ABUSE OF HOSPITALS.

SIR,—The inclosed was received by me lately in answer to a note telling the writer I was prepared to vaccinate the baby. The father is a tradesman (of course I suppress name) in a good way of business. This is only yet another instance of the abuse of hospitals, and the way in which a private practitioner is robbed of his patients. Comment is superfluous. I am, sir, yours obediently,

CARR H. ROBERTS, L.R.C.P.L., M.R.C.S.E., L.S.A.

4, Cambridge Terrace, Kensal Road, Westbourne Park, W., Nov. 21st, 1881.

"Dear Doctor, Many thanks for your very kind note respecting the vaccination of baby, but am pleased to say she has got over it now. Miss —— has a very great wish for her to be done from the calf, and hearing they did them so at the hospital in Great Ormond Street, she took her there, and also she wanted to see about the mark on her little head, which has grown very much, and which they tell her is a navus, and will have to be [illegible] so that is the reason again to-morrow to have it done.—I am, sir, yours, etc., ——. To Dr. Roberts."

THE AYR ASYLUM AND VACCINATION.

SIR, In your Journal of November 26th I observed a paragraph under the heading of "The Ayr Authorities and Vaccination", in which it is stated that "owing to the fact of proceedings not having been taken in the many cases against defaulters, there are hundreds of unvaccinated children in Ayr". I regret that your correspondent should have given publicity to a statement of this kind without communicating with some of the medical practitioners here as to the grounds on which the report from which his information was derived.

Through the courtesy of the [illegible] of Ayrshire I had, [illegible] ago, that in Ayr, between [illegible] and the end of the [illegible] year, [illegible] children have been left unvaccinated out of [illegible] born, [illegible] men to be at present under the vaccination. I may [illegible] that the town contains a population of over [illegible], and consequently only [illegible] annually are unprotected by vaccination. At this we might very fairly [illegible] a dead letter.—I am, [illegible] ROBERT B. [illegible], M.D.

Ayr, N.B., December 2nd, 1881.

THE MEDICAL CONGRESS.

SIR,—*Apropos* of the award of the Medical Congress, we wish to lay before you a grievance peculiar to ourselves, but which we have not hitherto made public, having been in correspondence with the Secretary of the Exhibition Committee, Mr. M. H. Judge. Until recently, we hoped that the multiplicity of which we complain would have been remedied without the necessity of our referring it to the powerful, though informal, arbitration of the medical press. The Secretary's reply to our letter of the 8th ultimo absolves us from this reticence, inasmuch as we informed him that, failing some satisfactory answer to our complaint, we should lay the matter before you.

Our grievance differs from that of Messrs. Burroughs and Wellcome, and other exhibitors, inasmuch as we do not complain that our manufactures were examined and then deemed unworthy of commendation (in which case we should have submitted, albeit with reluctance, justified by the fact that, on every occasion when we have exhibited, we have received awards of merit *i.e.*, Paris 1867, Dublin 1865, Vienna 1873, London 1873, Brussels 1876); our complaint is that, although we complied with every condition laid down by the committee, and were personally represented by one of ourselves during the entire two days officially set apart for the examination of exhibits by the judges, *our exhibit was not examined*, and consequently no adjudication could have been made upon its merits.

Subsequently, we have offered repeatedly to attend at any time and place to submit the same articles we exhibited to any authorised tribunal, but have been refused the opportunity, being informed that the decision of the judges was final, and could not be reopened.

We submit these facts, which are easy of proof, and contend that we have not been fairly treated. The entire correspondence is at your disposal, and we respectfully invite your opinion thereon, as we cannot without protest submit to that which appears to us an injustice.—We are, sir, yours obediently,

SALT AND SON, Anatomical Mechanicians to H.R.H. the Prince of Wales.
21, Bull Street, Birmingham, December 6th, 1881.

A MEMBER (Wimbledon).—The suspected man is not a member of the London College of Surgeons.

RAILWAY ACCIDENTS AND SOME OF THEIR CAUSES.

SIR,—A verdict of manslaughter has been brought against the pointsman who turned the wrong signal in the late lamentable railway accident at Blackburn. I do not know whether the pointsman in question was similarly circumstanced as the same class of persons in other places, but I think it is very probable that he was. Having been fairly well acquainted with many railway servants for nearly twenty years, I feel sure that both the service and the wages of these men are incompatible with a due discharge of their respective offices. To prove these assertions, I will instance one case. A pointsman is on uninterrupted duty for twelve hours out of the twenty-four. Every alternate week, he is employed in the day, the intermediate weeks in the night, the average number of trains *per diem* (twenty-four hours) being eighty. When the change of time comes from day to night, about two out of three changes are made by a third man. When the alteration is made without assistance, it is effected by the person off duty returning two hours sooner to work each change until the usual hour arrives. Whilst a pointsman is on duty, he is more or less cabined in an oblong room, usually having a basement of from six to twelve yards square, the walls mainly made of glass, and, therefore, soon affected by atmospheric influences. The prospect from these places is generally dull and depressing; it always includes a dark road relieved by steel stripes, bricks and mortar abound, and sometimes not much more besides the sky. These men are not put in their places to study astronomy or to admire the beautiful in nature; this is one reason I object to long hours in such monotonous places. The men at the station with which I am well acquainted receive twenty-two shillings per week. One has a wife and four little children to maintain; and, when he has paid for rent, rates, coal, gas, clubs, school-fees, etc., he does well if he has eighteen shillings left, or three shillings for each member of the family to subsist on for a week.

The pointsman at Blackburn admitted that he had turned the wrong signal. Can it be astonishing that he did? The wonder to my mind is not that there are so many, but so few, wrong signals turned. Who amongst us, who are more favourably circumstanced, in healthy exercise, wholesome and memory-sustaining food, is not absent-minded betimes? What absurd sayings and doings are sometimes said and done, both in public and private places, by the wisest and cleverest men. Why, then, should a railway official, who is surrounded by a variety of depressing causes, not be more liable to a lapse of memory than the majority of mankind? Engine-drivers and stokers are much exposed to the evil influences of our very changeable climate; these changes frequently disturb the circulation considerably, and through it the memory. Year by year, as the temperature declines, it is not uncommon to read in newspapers "the railway accident season has set in". To what can we ascribe these reiterated remarks, except to climatic change, favoured, in some cases, by unusual constitutional susceptibility to atmospheric vicissitudes, and by unsuitable food and drink? A few of these men are sometimes drunk when on duty, and not unfrequently somewhat under alcoholic influence. There are, I think, relatively fewer accidents by railway travelling than by any other mode of locomotion; but there ought to be fewer than there are. About six years since, I was in a collision; the company had to compensate a number of persons, but no report of the accident appeared in the papers, although it occurred at the junction of one of the largest cities in the kingdom, and a very large borough (Salford). Twenty-five years since, I could have given the signs and symptoms of concussion; I am utterly unable to describe what I then felt, or what since, at varying intervals, I have suffered.

The Darwinian doctrine of selection from the fittest fails in the choice of railway-servants. If a man can say shibboleth, especially in one of the smaller sects, he is the sort to be selected; or, if he have a relative or friend who has influence with one in authority, that is too often considered an important qualification for the office. Directors are blamable for this state of things; but, so long as false economy continues, it will prevail.

Assuming the above to be a fair account of what it professes to describe—and I am not conscious of having overstated anything or drawn any wrong inferences—for our own happiness and life, as well as for the benefit of all connected with the efficient working of our railways, would the following suggestions, hastily put together, be unsuitable? 1. Railway officials, who have to have a direct or indirect control over human life, should be selected from men of good morals and healthy constitutions. 2. They should work shorter time. 3. They should be paid higher wages than is now the custom. 4. They should have every facility for keeping the body in health; when sick, they should receive medical attendance, etc., free, and their wages should continue for a certain time. 5. Old and valuable servants should be pensioned.—I am, etc.,

Brackley Park, Bolton. GEORGE GREGORY, M.D.

TREATMENT OF DIABETES.

SIR,—I think we may conclude that Dr. Murrell's carefully prepared report upon Bethesda as a remedial agent in diabetes is upon the whole encouraging; for we find that when the water was given with a restricted diet the average of the first twelve and sixteen days showed the amount of saccharine matter to have been reduced by nearly one-half. Dr. Murrell admits his patient had been a sufferer as well from "recent pericarditis", "pulmonary tubercle", and kidney mischief; therefore it is evident he was in a very precarious state of health from the first. I have prescribed the water to several persons suffering from diabetes, with marked benefit, and several of my medical friends have done the same with the like good results. In all cases where there is a corresponding condition of the digestive organs I have found it a most valuable therapeutic agent; and possibly by relieving the hyperæmic condition of the liver in diabetes, it may thus modify its sugar-producing function. I would like, however, to hear further evidence from others who have tried it in practice.—I am, sir, yours obediently, HARVEY J. PHILPOT.

52, Warwick Road, Maida Vale, W., November 25th, 1881.

MR. J. WILSON.—*The New York Medical Record* is published by Messrs. Wood and Co. of New York.

TREATMENT OF GANGLION BY MEDICINE.

SIR,—Can any member give me his experience of having treated a ganglion by the use of medicine? A lady lately came to me with a small ganglion on the dorsal aspect of the right wrist, of about a month's standing. I tried continued pressure by means of a coin for three weeks; but as no improvement resulted, I determined upon puncturing it. This I attempted with an exploring needle, and failed, as I imagined I would, for want of a suitable instrument. However, just before this, my patient came across a lady friend who had also suffered in this way, and had been induced to try some pills made up by a chemist. I felt certain that it was only some quackery; but was much surprised when the lady showed me her hand without the ganglion after four days' internal treatment.—Yours, etc., A. T.

A MEMBER had better read up the subject of external applications of nævi with an approved modern handbook, and then frame his question a little more definitely, as, in its present form, it seems to betoken a want of knowledge of the methods of treatment generally in vogue.

TRANSATLANTIC MEDICAL LAW.

"In Maine", says the St. Louis *Globe Democrat*, "they have a law that no medical student shall be allowed to graduate and practice medicine who has not had regular practice in the dissecting room. Then they passed a law that no bodies, save only the bodies of executed criminals, should be cut up in dissecting rooms. Then, as a climax to all this, they abolished capital punishment. That's the kind of a country Maine is. This is like the County Commissioners who passed the following resolutions:—1. Resolved, That we build a new jail; 2. That we build the new jail out of the materials in the old jail; 3. Resolved, That we use the old jail until the new jail is finished."

ERRATUM.—In the article on "The Bacillus of Typhoid Fever", in the JOURNAL for November 26th, an explanation of the woodcut was omitted. On referring to the engraving, the relative size of the bacilli will be appreciated by comparing them with the lymph-corpuscles shown in the same field, in which *a* represents a lymph-corpuscle, *b* a bacillus, and *c* a bacillus undergoing division.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Thomson, Luton; Mr. F. W. Lowndes, Liverpool; A Member; Dr. Saundby, Birmingham; Mr. W. Prowse, Cambridge; Dr. S. Rees Philipps, Exeter; Dr. G. Hunter Mackenzie, Edinburgh; Dr. T. G. Atkins, Cork; Mr. A. Reade, Chester; Dr. C. E. Glascott, Manchester; Our Dublin Correspondent; Mr. Lewis H. Jones, London; Dr. Sutherland, London; Mr. A. H. Boys, Pill; Dr. F. E. Pocock, London; Dr. R. W. Burnett, London; Dr. A. T. Brett, Watford; C. J. H.; Mr. W. D. Steele, Abergavenny; Mr. W. T. Angove, Mildenhall; Mr. C. G. Wheelhouse, Leeds; Mr. Dacre Fox, Manchester; Dr. Greenhow, Weybridge; Mr. A. Slater, London; Dr. Robert Kirk, Glasgow; Mr. Francis Vacher, Birkenhead; Mr. Lennox Browne, London; Dr. Douglas Maclagan, Edinburgh; Mr. S. Wellesley Coombs, Worcester; An Old Practitioner; Dr. A. Samelson, Manchester; Mr. N. Stevenson, London; Mr. W. T. Grant, Birmingham; Dr. W. Strange, Worcester; L. S. A.; Mr. D. R. Jones, Carmarthen; Mr. J. P. Edwards, Tunstall; Mr. Louis H. Tosswill, Exeter; M.D.; Dr. J. Bryan, Northampton; Dr. E. Markham Skerritt, Clifton; Mr. W. W. Morris, East Bridgford; Sanitas; Dr. Bushell Anningson, Cambridge; Dr. J. H. Aveling, London; Dr. J. S. Bristowe, London; Dr. Sawyer, Birmingham; Our Glasgow Correspondent; Dr. J. Rogers, London; Mr. J. Le Page, Durham; Our Edinburgh Correspondent; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

FIFTIETH ANNUAL MEETING, 1882.

THE BRITISH MEDICAL ASSOCIATION.

President.—BENJAMIN BARROW, F.R.C.S.Eng., Consulting Surgeon to the Isle of Wight Infirmary, Ryde.
President-Elect.—WILLIAM STRANGE, M.D., Senior Physician to the Infirmary, Worcester.
President of Council—C. G. WHEELHOUSE, F.R.C.S.Eng., Senior Surgeon to the General Infirmary, Leeds.
Treasurer—W. F. WADE, F.R.C.P., Physician to the General Hospital, Birmingham.
Editor of Journal—ERNEST HART, ESQ. **General Secretary**—FRANCIS FOWKE, ESQ.

The FIFTIETH ANNUAL MEETING of the Association will be held August 8th, 9th, 10th, 11th, 1882, at WORCESTER.

Under the Presidency of

WILLIAM STRANGE, M.D.

The ADDRESS in MEDICINE will be delivered by W. F. WADE, F.R.C.P., Physician to the General Hospital, Birmingham.

The ADDRESS in SURGERY will be delivered by W. STOKES, M.D., F.R.C.S.I., Professor of Surgery in the Royal College of Surgeons of Ireland.

The business of the Annual Meeting will be carried on in seven Sections, viz.: Medicine, Surgery, Obstetric Medicine, State Medicine, Anatomy and Physiology, Pathology, Ophthalmology and Otology.

The objects of the Association are—the promotion of Medical Science, and the maintenance of the honour and interests of the Medical Profession. The Subscription to the Association is One Guinea annually; and each Member on paying his Subscription is entitled, in addition to the other advantages of the Association, to receive weekly, post-free, the "BRITISH MEDICAL JOURNAL: BEING THE JOURNAL OF THE BRITISH MEDICAL ASSOCIATION." The Subscription is payable, in advance, on the 1st January in each year.

Gentlemen desirous of becoming members of the Association should communicate their wish to the HONORARY LOCAL SECRETARIES, or to the General Secretary, F. FOWKE, Esq., 161A, Strand, London, W.C., in order that the proper steps may be taken for their election.

For the Annual Subscription of One Guinea, paid in advance, the BRITISH MEDICAL JOURNAL is forwarded weekly to Members, free by post. For persons not Members of the Association, the Annual Subscription is Twenty-eight Shillings.—Orders, enclosing remittances, should be addressed to FRANCIS FOWKE, Esq., at the Office of the Journal, 161A, Strand, W.C.

GRANTS IN AID OF ORIGINAL RESEARCHES IN MEDICINE AND THE ALLIED SCIENCES.

Annual Grants of the total value of £300 are made, in aid of Scientific Researches in Medicine and the Allied Sciences. Applications, stating the nature and objects of the intended research, should be sent to Mr. ERNEST HART, Honorary Secretary to the Scientific Grants Committee, or to the General Secretary, at the Office of the Association, 161A, Strand, London, W.C.

The BRITISH MEDICAL JOURNAL for 1882.

Edited by ERNEST HART, Esq.

The JOURNAL includes the earliest *scientific, social, and political information* on all subjects interesting to the Profession: LEADING ARTICLES and Editorial Comments on the Subjects of the Week; ORIGINAL ARTICLES and LECTURES by the most eminent authorities; MEMORANDA and RECORDS of DAILY PRACTICE by Hospital and General Practitioners; Extracts from **British** and **Foreign Journals**; Reports of the Practice of the **Hospitals** and **Asylums** of Great Britain and Ireland; Full Reports of the Proceedings of the **British Medical Association** and of its **Branches** and **Committees**; **Special Correspondence** from the principal Cities and Localities of Great Britain, Ireland, and the Continent; **Reports** of the **Principal Medical Societies** in **England, Scotland, and Ireland**; **Reports** on **New Inventions**; **Special Reports** on **Sanitary** and **Medico-Legal Questions**; **Reviews** of **Books**; a Department devoted to the **Public Health** and **Poor-Law Service**; a Department devoted to the **Military** and **Naval Medical Services**; University Intelligence; Lists of Vacant Appointments; Obituaries of Medical Men; **Notices** and **Answers** to **Correspondents**.

The arrangements for reporting the proceedings of the MEDICAL SOCIETIES in the United Kingdom are very complete, and include the Transactions of Societies in London, Edinburgh, Dublin, Birmingham, Manchester, Liverpool, Glasgow, Cambridge, Leeds, etc., together with selected Reports of the Papers read, and the Cases and Specimens exhibited, at the Meetings of the Branches of the BRITISH MEDICAL ASSOCIATION.

The Department devoted to the interests of the **PUBLIC HEALTH** and **POOR-LAW MEDICAL SERVICES** has been largely developed, and the services of gentlemen of the highest authority and largest experience have been obtained. The Department includes notices and answers to questions from Medical Officers of Health and Poor-Law Medical Officers, and is intended to assist and support them in the performance of their difficult duties.

The Department devoted to the interests of the **ARMY** and **NAVY MEDICAL SERVICES** fulfils similar functions in respect to these services.

In the forthcoming Volumes will be published, adequately illustrated—

THE LUMLEIAN LECTURES, delivered at the Royal College of Physicians of London, **on the Pathology of Inflammations.** By **J. Burdon Sanderson, M.D., F.R.C.P., LL.D., F.R.S.,** Jodrell Professor of Physiology in University College, London.

THE CROONIAN LECTURES delivered at the Royal College of Physicians of London, **on the Climate and Fevers of India.** By **Sir Joseph Fayrer, M.D., F.R.C.P., LLD., F.R.S.,** Physician to the Secretary of State for India in Council.

THE GULSTONIAN LECTURES delivered at the Royal College of Physicians of London, **on Pulmonary Cavities, their Origin, Growth, and Repair.** By **William Ewart, B.A., M.B., F.R.C.P.,** Assistant Physician to the Hospital for Consumption at Brompton.

THE BRADSHAW LECTURE delivered at the Royal College of Physicians, **on the Position of the Sympathetic in the Causation of Disease.** By **Edward Long Fox, M.D., F.R.C.P.,** Consulting Physician to the Bristol Royal Infirmary.

SIX HUNTERIAN LECTURES on Temperament, Diathesis, and Idiosyncrasy, delivered at the Royal College of Surgeons of England. By **Jonathan Hutchinson, F.R.C.S.,** Senior Surgeon to the London Hospital.

LECTURES on the Anatomy, Physiology, and Zoology of the Edentata, delivered at the Royal College of Surgeons of England. By **W. H. Flower, LL.D., F.R.S.,** Professor of Human and Comparative Anatomy in the College.

LECTURES on the Morphology of the Vertebrata, delivered at the Royal College of Surgeons of England. By **W. K. Parker, F.R.S.,** Professor of Human and Comparative Anatomy in the College.

Reports presented to the Scientific Grants Committee of the British Medical Association: with Illustrations.

The Subjects of Research are:—

The Pathology of the Brain: Dr. Hamilton.

The Organisms of Septic Disease: Mr. Watson Cheyne.

The Time and Relations of Muscular Contraction in the Human Body in Health and Disease: Dr. Augustus Waller.

Life History of Contagium: Dr. Braidwood and Mr. Vacher.

Vegetable and Animal Parasites of the Human Skin: Dr. Thin.

The Application of Antiseptic Surgery in Cases of Lesion of the Head: Dr. Gerald Yeo.

The Function of the Kidney: Dr. Newman.

The Relation between Bacteria and Surgical Diseases: Dr. Ogston.

The Relation between the Nitrogenous Egesta and Muscular Work: Mr. W. North.

Septicæmia in Animals: Mr. J. A. Dowdeswell.

Inflammation: with Special Reference to the Alterations of the Blood Vessels: Mr. Stanley Boyd.

The Pathology of the Heart: Dr. Roy.

Variations in the Duration of the Cardiac Ventricular Systole in Man: Dr. P. Chapman.

Investigations of Anæsthetics: Special Committee.

The JOURNAL will also contain:—

The President's Address, the Addresses in Medicine and Surgery, and the Addresses of the Presidents of Sections, delivered at the Annual Meeting of the BRITISH MEDICAL ASSOCIATION.

Clinical and other Lectures and Addresses, and Papers on Important Scientific and Practical Subjects, by Medical Officers of the Hospitals in the United Kingdom, and other eminent Members of the Medical Profession.

A Series of Articles on Recent Advances in Therapeutics: on Matters connected with the Legal Obligations of the Medical Profession; and on various important points in the Progress of Medical Science.

Lectures and other Contributions from the following, among other, Members of the Profession: —

Allbutt, T. Clifford, M.A., M.D. F.R.S., Senior Physician to the General Infirmary, Leeds. The SURGICAL AIDS to MEDICINE.

Anderson, McCall, M.D., Professor of Clinical Medicine in the University of Glasgow.—LECTURES on CLINICAL MEDICINE.

Annandale, Thomas, F.R.C.S.Ed., F.R.S.E., Professor of Clinical Surgery in the University of Edinburgh.—NOTES and CASES in CLINICAL SURGERY.

Atthill, Lombe, M.D., F.K.Q.C.P.I., Master of the Rotunda Hospital, Dublin.—CONTRIBUTIONS on DISEASES PECULIAR to WOMEN.

Baker, W. Morrant, F.R.C.S.Eng., Surgeon to, and Lecturer on Physiology at, St. Bartholomew's Hospital.

Barker, Arthur E., F.R.C.S.I., Assistant-Surgeon and Assistant-Professor of Clinical Surgery in University College Hospital.

Barnes, Fancourt, M.D., M.R.C.P., Physician to the British Lying-in Hospital, Assistant-Physician to the Royal Maternity Charity.—CLINICAL EXPERIENCE OF A LYING-IN HOSPITAL.

Barnes, Robert, M.D., F.R.C.P., Obstetric Physician to St. George's Hospital.—CLINICAL LECTURES.

Bartleet, T. H., M.B., F.R.C.S., Surgeon to the General Hospital, Birmingham.—SURGICAL CLINICAL NOTES.

Bastian, H. Charlton, M.D., F.R.C.P., F.R.S., Professor of Pathological Anatomy and Clinical Medicine in University College, and Physician to University College Hospital.—CLINICAL LECTURES.

Bellamy, Edward, F.R.C.S.Eng., Surgeon to Charing Cross Hospital.—CERTAIN DISEASES of the JAWS.

Braidwood, P. M., M.D., Liverpool.—CLINICAL NOTES on DISEASES of CHILDREN.

Browne, J. Crichton, M.D., LL.D., F.R.S.E., Lord Chancellor's Visitor in Lunacy.—GROWTH and EDUCATION.

Brunton, T. Lauder, M.D., F.R.C.P., F.R.S., Assistant Physician to and Lecturer on Materia Medica and Therapeutics at St. Bartholomew's Hospital.

Bryant, Thomas, F.R.C.S.Eng., Senior Surgeon to Guy's Hospital.

Buchanan, George, Professor of Clinical Surgery in the University of Glasgow.—CLINICAL LECTURES on SURGICAL SUBJECTS.

Butlin, Henry T., F.R.C.S.Eng., Assistant-Surgeon to St. Bartholomew's Hospital.—The DIAGNOSIS of EPITHELIOMA.

Buzzard, Thomas, M.D., F.R.C.P., Physician to the National Hospital for Epilepsy and Paralysis.—DISEASES of the NERVOUS SYSTEM.

Churton, Thomas, M.D., Physician to the General Infirmary, Leeds.

Clutton, H. H., M.A., M.B., F.R.C.S.Eng., Assistant Surgeon to St. Thomas's Hospital.

Cory, Robert, M.A., M.D., M.R.C.P., Assistant Obstetric Physician to St. Thomas's Hospital.

Cowell, George, F.R.C.S.Eng., Surgeon to the Westminster Hospital.—CLINICAL LECTURES on SURGICAL CASES.

Croft, John, F.R.C.S.Eng., Surgeon to and Lecturer on Clinical Surgery at St. Thomas's Hospital. The TREATMENT of STRICTURE by INTERNAL URETHROTOMY.

Dalby, W. B., M.B., F.R.C.S.Eng., Aural Surgeon to St. George's Hospital.—SUBJECTS CONNECTED with AURAL SURGERY.

Davy, Richard, F.R.C.S.Eng., Surgeon to the Westminster Hospital.—1. On TORSION at the TENDO ACHILLIS, for the RELIEF of TALIPES CALCANEUS. 2. On the USE of the AORTIC LEVER in UTERINE OPERATIONS.

Day, W. H., M.D., M.R.C.P., Physician to the Samaritan Hospital.—SOME DISEASES of CHILDREN.

Doran, Alban, F.R.C.S.Eng., Assistant Surgeon to the Samaritan Hospital.

Dreschfeld, Julius, M.D., M.R.C.P., Assistant-Physician to the Manchester Royal Infirmary.—NEURO-PATHOLOGICAL CONTRIBUTIONS.

Drummond, David, M.A., M.D., Physician to the Newcastle-on-Tyne Infirmary.—HYSTERICAL PARAPLEGIA, and other Subjects.

Durham, Arthur E., F.R.C.S.Eng., Surgeon to Guy's Hospital.—SURGICAL NOTES and EXPERIENCES.

Eddison, John E., M.D., Physician to the Infirmary, Leeds.

Edis, Arthur W., M.D., F.R.C.P., Assistant Obstetric Physician to the Middlesex Hospital. CASES of INTEREST in Gynæcology and Obstetrics.

Emrys-Jones, A., M.D., Assistant-Surgeon to the Manchester Royal Eye Hospital.—CLINICAL OPHTHALMIC CASES.

Finlayson, James, M.D., Physician to the Western Infirmary, Glasgow.—PULSE-BREATH and PULSATILE RESPIRATION.

Foster, Balthazar, M.D., F.R.C.P., Professor of Medicine in Queen's College, Birmingham.—CLINICAL LECTURES.

Galabin, Alfred L., M.A., M.D., F.R.C.P., Assistant Obstetric Physician and First Lecturer on Midwifery at Guy's Hospital.—CASE of HYDATID TUMOUR of the ABDOMEN SIMULATING OVARIAN TUMOUR.

Glynn, T. R., M.D., Physician to the Royal Infirmary, Liverpool.—CLINICAL REPORTS.

Godson, Clement, M.D., M.R.C.P., Assistant-Physician-Accoucheur to St. Bartholomew's Hospital.

Herman, G. Ernest, M.B., Assistant Obstetric Physician to the London Hospital.—CONTRIBUTIONS on OBSTETRICAL and GYNÆCOLOGICAL SUBJECTS.

Hicks, J. Braxton, M.D., F.R.C.P., F.R.S., Obstetric Physician to Guy's Hospital.—SECONDARY *POST PARTUM* HÆMORRHAGE.

Holmes, Timothy, M.A., F.R.C.S.Eng., Senior Surgeon to St. George's Hospital.—CLINICAL COMMUNICATIONS.

Hulke, J. W., F.R.C.S.Eng., F.R.S., Surgeon to the Middlesex Hospital.—CLINICAL LECTURES and CASES.

Jackson, J. Hughlings, M.D., F.R.C.P., F.R.S., Physician to the London Hospital.—On SOME DISEASES of the BRAIN.

Johnson, George, M.D., F.R.C.P., F.R.S., Senior Physician to King's College Hospital.—CLINICAL LECTURES on RENAL and LARYNGEAL DISEASES.

Jones, H. Macnaughton, M.D., Professor of Midwifery in Queen's College, Cork.—NOTES of CLINICAL CASES of INTEREST.

Jones, Thomas, M.B., F.R.C.S.Eng., Surgeon to the Royal Infirmary, Manchester.—REPORTS of SURGICAL CASES.

Jordan, Furneaux, F.R.C.S.Eng., Surgeon to the Queen's Hospital, and Professor of Surgery in Queen's College, Birmingham.

Latham, P. W., M.D., M.A., F.R.C.P., Downing Professor of Medicine in the University of Cambridge; Physician to Addenbrooke's Hospital.—The THERAPEUTIC VALUE of CHINOLINE.

Liveing, Robert, M.D., F.R.C.P., Physician to the Department of Diseases of the Skin at the Middlesex Hospital.—CLINICAL LECTURES and PAPERS on DISEASES of the SKIN.

Lucas, R. Clement, M.B., B.S., F.R.C.S.Eng., Assistant-Surgeon to Guy's Hospital.—PRINCIPLES for REGULATING the APPLICATION of TAXIS in HERNIA.

Mackenzie, Stephen, M.D., F.R.C.P., Senior Assistant Physician to the London Hospital.—CLINICAL LECTURES and HOSPITAL CASES.

Mason, Francis, F.R.C.S.Eng., Surgeon to St. Thomas's Hospital.—CLINICAL LECTURES and CASES in HOSPITAL PRACTICE.

Morris, Malcolm, F.R.C.S.Ed., Joint Lecturer on Dermatology at St. Mary's Hospital.—DISEASES of the SKIN.

Murrell, William, M.D., M.R.C.P., Lecturer on Materia Medica and Therapeutics at the Westminster Hospital; Senior Assistant-Physician to the Royal Hospital for Diseases of the Chest.—LECTURES on MATERIA MEDICA and THERAPEUTICS.

Page, Herbert W., B.A., M.B., F.R.C.S.Eng., Surgeon to, and Lecturer on Operative and Practical Surgery at, St. Mary's Hospital.—CASES of SECONDARY SUTURE of NERVES.

Parker, Rushton, M.B., F.R.C.S.Eng., Professor of Surgery in University College, Liverpool; Assistant-Surgeon to the Liverpool Royal Infirmary.—CONTRIBUTIONS to CLINICAL SURGERY and SURGICAL PATHOLOGY.

Philipson, G. H., M.A., M.D., F.R.C.P., Professor of Medicine in the University of Durham and Senior Physician to the Newcastle-on-Tyne Infirmary.—1. MITRAL STENOSIS. 2. PROGRESSIVE MUSCULAR ATROPHY.

Pierce, F. M., M.D., Senior Surgeon to the Institution for Diseases of the Ear, Manchester.—REPORTS of CASES in AURAL SURGERY.

Pritchard, Urban, M.D., F.R.C.S.Eng., Aural Surgeon to King's College Hospital.

Roberts, F. T., M.D., F.R.C.P., Physician to University College Hospital and Professor of Materia Medica and Therapeutics in University College.—1. CLINICAL LECTURES. 2. CASES in HOSPITAL PRACTICE.

Ross, James, M.D., Assistant-Physician to the Royal Infirmary, Manchester.—REPORTS of MEDICAL CASES.

Sanctuary, T., M.D.—NOTES of FOUR CASES of DILATED STOMACH.

Sargent, A., M.R.C.S., Surgeon Bombay Army.—CASES ILLUSTRATING the DIFFICULTIES of DIAGNOSING SUPPURATION of the LIVER.

Saundby, Robert, M.D., Assistant-Physician to the General Hospital, Birmingham.—The TREATMENT of BRIGHT'S DISEASE.

Simpson, Henry, M.D., Physician to the Royal Infirmary, Manchester.—CLINICAL REPORTS and OBSERVATIONS.

Skerritt, E. Markham, M.D., M.R.C.P., Lecturer on Medicine at the Bristol Medical School; Physician to the Bristol General Hospital.—INTERLOBULAR EMPHYSEMA of the LUNG.

Smith, R. Shingleton, M.D., M.R.C.P., Physician to the Bristol Royal Infirmary.—The TREATMENT of DIABETES by CODERA.

Southam, F. A., M.A., F.R.C.S.Eng., Assistant-Surgeon to the Royal Infirmary, Manchester.—SURGICAL CASES and NOTES.

Spanton, W. D., M.R.C.S., Surgeon to the North Staffordshire Infirmary.—A further SERIES of CASES of IMMEDIATE CURE of INGUINAL HERNIA.

Stewart, T. Grainger, M.D., F.R.C.P. Ed., F.R.S.E., Professor of Practice of Medicine in the University of Edinburgh.—CONTRIBUTIONS to CLINICAL MEDICINE.

Swain, Paul, F.R.C.S.Eng., Surgeon to the South Devon and East Cornwall Hospital.—NOTES on HOSPITAL CASES.

Thompson, Sir Henry, M.B., F.R.C.S.Eng., Consulting Surgeon to University College Hospital.

Thornton, J. Knowsley, M.B., Surgeon to the Samaritan Hospital.

Waters, A. T. H., M.D., F.R.C.P., Physician to the Royal Infirmary, Liverpool.—CLINICAL LECTURES.

Wells, T. Spencer, V.P.R.C.S.Eng., Consulting Surgeon to the Samaritan Hospital.—EXCISION of the WHOLE UTERUS.

Whipham, Thomas T., M.A., M.B., F.R.C.P., Physician to St. George's Hospital.

Whitehead, Walter, F.R.C.S.Eng., Surgeon to the Royal Infirmary, Manchester.—The SURGICAL TREATMENT of HÆMORRHOIDS.

Wilks, Samuel, M.D., F.R.C.P., F.R.S., Senior Physician to Guy's Hospital.—CLINICAL LECTURES.

Wood, John, F.R.C.S., F.R.S., Professor of Clinical Surgery in King's College, and Senior Surgeon to King's College Hospital.—CONTRIBUTIONS to CLINICAL SURGERY.

BRITISH MEDICAL ASSOCIATION.

President.

BENJAMIN BARROW, F.R.C.S., Consulting Surgeon to the Royal Isle of Wight Infirmary, Ryde.

President-Elect.

WILLIAM STRANGE, M.D., Senior Physician to the Worcester Infirmary.

Vice-Presidents.

GEORGE S. JENKS, M.D., F.R.C.P., Bath.
ALFRED LOCKEY, M.D., F.R.C.P., Canterbury.
SIR GEORGE BURROWS, Bart., M.D., F.R.C.P., F.R.S., London.
EDWARD WATERS, M.D., F.K.Q.C.P., Chester.
CHARLES CHADWICK, M.D., D.C.L., F.R.C.P., Tunbridge Wells.
W. D. HUSBAND, F.R.C.S., Bournemouth
ALFRED BAKER, F.R.C.S., Birmingham.
GEORGE E. PAGET, M.D., F.R.C.P., F.R.S., Cambridge.
SIR ROBERT CHRISTISON, Bart. M.D., D.C.L., Edinburgh.
M. M. DE BARTOLOMÉ, M.D., Sheffield.
DENIS CHARLES O'CONNOR, M.D., LL.D., Cork.
GEORGE MURRAY HUMPHRY, M.D., F.R.C.S., F.R.S., Cambridge.
ALFRED CARPENTER, M.D., J.P., Croydon.

President of the Council.

C. G. WHEELHOUSE, F.R.C.S., Senior Surgeon to Leeds General Infirmary.

Treasurer.

W. F. WADE, F.R.C.P., Physician to the General Hospital, Birmingham.

Committee of Council.

THE PRESIDENT OF THE COUNCIL.
THE PRESIDENT OF THE ASSOCIATION.
THE PRESIDENT-ELECT.
THE VICE-PRESIDENTS.
THE TREASURER.
ONE SECRETARY FROM EACH BRANCH.
T. CLIFFORD ALLBUTT, M.D., Leeds.
L. BORCHARDT, M.D., Manchester.
T. H. BARTLEET, F.R.C.S., Birmingham.
CHARLES DRAGE, M.D., Hatfield.
B. FOSTER, M.D., Birmingham.
E. L. FOX, M.D., Bristol.
C. HOLMAN, M.D., Reigate.
A. J. HARRISON, M.B., Bristol.
LESLIE JONES, M.D., Blackpool.
D. J. LEECH, M.D., Manchester.
C. MACNAMARA, F.R.C.S., London.
F. E. MANBY, F.R.C.S., Wolverhampton.
F. MASON, M.R.C.S., Bath.
R. H. B. NICHOLSON, M.R.C.S., Hull.
HENRY POWER, M.B., F.R.C.S., London.
S. W. SIBLEY, F.R.C.S., London.
H. STEAR, M.R.C.S., Saffron Walden.
A. P. STEWART, M.D., London.
W. F. WADE, F.R.C.P., Birmingham.

Editor of the British Medical Journal.
ERNEST HART, ESQ., London.

General Secretary.
FRANCIS FOWKE, ESQ., London.

LOCAL SECRETARIES.

Aberdeenshire. R. J. GARDEN, M.D., Aberdeen; J. URQUHART, M.D., Aberdeen.
Argyleshire. JOSEPH COATS, M.D., Glasgow; JAMES G. LYON, M.D., Glasgow.
Ayrshire. JOSEPH COATS, M.D., Glasgow; JAMES G. LYON, M.D., Glasgow.
Banff. R. J. GARDEN, M.D., Aberdeen; JOHN URQUHART, M.D., Aberdeen J. W. N. MACKAY, M.D., Elgin.
Bath. R. S. FOWLER, Esq., 6, Belmont, Bath.
Bedfordshire G. F. KIRBY SMITH, Esq., Northampton.
Birmingham. EDWARD MALINS, M.D., 3, Old Square, Birmingham.
Bristol. E. M. SKERRITT, M.D., Clifton.
Berkshire. R. C. SHETTLE, M.D., Reading.
Buckinghamshire. G. F. KIRBY SMITH, Esq., Northampton.
Cambridgeshire BUSHELL ANNINGSON, M.D., Cambridge.
Carmarthen. A. SHEEN, M.D., Cardiff; J. H. WATHEN, Esq., Clifton
Carnarvonshire. J. LLOYD ROBERTS, M.B., Denbigh.
Cheshire. A. DAVIDSON, M.D., Liverpool.
Clackmannanshire. JOSEPH COATS, M.D., Glasgow; JAMES G. LYON, M.D., Glasgow.
Cornwall. SUTHERLAND REES PHILIPPS, M.D., Exeter.
Cumberland. J. SMITH, M.D., Dumfries; J. K. BURT, M.B., Kendal.
Denbighshire. J. LLOYD ROBERTS, M.B., Denbigh.
Derbyshire. F. W. WRIGHT, Esq., Derby.
Devonshire. SUTHERLAND REES PHILIPPS, M.D., Exeter.
Dorset. W. G. V. LUSH, M.D., Weymouth; C. H. W. PARKINSON, Esq., Wimborne.
Dublin. G. F. DUFFEY, M.D., 30, Fitzwilliam Place, Dublin.
Dumbartonshire. JOSEPH COATS, M.D., Glasgow; J. G. LYON, M.D., Glasgow.
Dumfries. J. SMITH, M.D., Dumfries; J. K. BURT, M.B., Kendal.
Durham. T. W. BARRON, M.B., 10, Old Elvet, Durham.
East Lothian. CHARLES E. UNDERHILL M.B., Edinburgh.
Elgin. J. W. N. MACKAY, M.D., Elgin.
Essex. A. HENRY, M.D., 132, Highbury Hill, London, N.; W. CHAPMAN GRIGG, M.D., 6, Curzon Street, Mayfair, W.
Flintshire. J. LLOYD ROBERTS, M.B., Vale Street, Denbigh.
Glamorgan. A. SHEEN, M.D., Cardiff; J. H. WATHEN, Esq., Clifton.
Glasgow. JOSEPH COATS, M.D., 33, Elmbank Street, Glasgow; JAMES G. LYON, M.D., Glasgow.
Gloucestershire. E. M. SKERRITT, M.D., Clifton (for Bristol and neighbourhood); R. W. BATTEN, M.D., Gloucester.
Hampshire. J. WARD COUSINS, M.D., Southsea; T. W. TREND, M.D., Southampton; W. E. GREEN, Esq., Sandown, Isle of Wight; T. C. LANGDON, Esq., Winchester.
Herefordshire. GEORGE W. CROWE, M.D., Shaw Street, Worcester.
Hertfordshire. A. HENRY, M.D., 132, Highbury Hill, London, N.; W. CHAPMAN GRIGG, M.D., 6, Curzon Street, Mayfair, W.
Huntingdonshire. BUSHELL ANNINGSON, M.D., Cambridge.
Inverness-shire. J. W. N. MACKAY, M.D., Elgin.
Ireland. G. F. DUFFEY, M.D., 30, Fitzwilliam Place, Dublin.
Ireland (North). JOHN MOORE, M.D., Belfast.
Ireland (South). T. GELSTON ATKINS, M.D., Cork.
Ireland (West). J. I. LYNHAM, M.D., Galway.
Kent. C. PARSONS, M.D., Dover; T. W. REID, Esq. Canterbury; A. H. B. HALLOWES, Esq., Maidstone.
Kirkcudbright. J. SMITH, M.D., Dumfries; J. K. BURT, M.B., Kendal.
Kincardineshire. R. J. GARDEN, M.D., Aberdeen; J. URQUHART, M.D., Aberdeen.
Lanarkshire. JOSEPH COATS, M.D., Glasgow; JAMES G. LYON, M.D., Glasgow.
Lancashire. A. DAVIDSON, M.D.; C. E. STEELE, Esq., Assistant Sec., Liverpool; C. E. GLASCOTT, M.D., Manchester; H. A. CHEESBROUGH, M.D., Blackburn; W. HALL, Esq., Lancaster; JAMES TAYLOR, Esq., Chester; J. E. GARNER, M.B., Preston.
Leicestershire. F. H. HODGES, F.R.C.S.Ed., Leicester.
Leinster. G. F. DUFFEY, M.D., 30, Fitzwilliam Place, Dublin.
Lincolnshire. C. HARRISON, M.D., Lincoln.
Lincolnshire (North). E. P. HARDEY, Esq., Hull.
Merionethshire. J. LLOYD ROBERTS, M.B., Vale Street, Denbigh.
Middlesex. A. HENRY, M.D., 132, Highbury Hill, London, N.; W. CHAPMAN GRIGG, M.D., 6, Curzon Street, W.
Monmouth. A. SHEEN, M.D., Cardiff; J. H. WATHEN, Esq., Clifton.
Norfolk. M. BEVERLEY, M.D., Norwich.
Northamptonshire. GEORGE KIRBY SMITH, Esq., 53, Sheep Street, Northampton
Northumberland. T. W. BARRON, M.B., Old Elvet, Durham.
Nottinghamshire. L. W. MARSHALL, M.D., General Hospital, Nottingham.
Renfrewshire. JOSEPH COATS, M.D., Glasgow; JAMES G. LYON, M.D., Glasgow
Ross and Cromarty. J. W. N. MACKAY, M.D., Elgin.
Rutland. C. HARRISON, M.D., Lincoln; F. H. HODGES, F.R.C.S.Ed., Leicester.
Scotland (Border Counties). J. SMITH, M.D., Dumfries; J. K. BURT, M.D., Kendal.
Scotland (Edinburgh, Lothians, and Fifeshire). CHARLES E. UNDERHILL, M.B., Edinburgh.
Scotland (North). J. W. M. MACKAY, M.D., Elgin.
Scotland (West). JOSEPH COATS, M.D., Glasgow; JAMES LYON, M.D., Glasgow.
Shropshire and Mid-Wales, H. NELSON EDWARDS, Esq., Moreton House, Shrewsbury.
Somerset (East). R. S. FOWLER, Esq., Belmont, Bath
Somerset (West). W. M. KELLY, M.D., Taunton.
Staffordshire. VINCENT JACKSON, Esq., Wolverhampton; J. G. U. WEST, Esq., Stoke-upon-Trent.
Stirlingshire. JOSEPH COATS, M.D., Glasgow; JAMES G. LYON, M.D., Glasgow.
Suffolk. W. A. ELLISTON, M.D., Ipswich.
Surrey. C. PARSONS, M.D., Dover.
Surrey (Thames Valley). E. L. FENN, M.D., Richmond; J. H. STOWERS, M.D., 15, Lower Tulse Hill, S.W.; A. A. NAPPER, Esq., Cranleigh, Guildford.
Sussex. C. PARSONS, M.D., Dover; T. TROLLOPE, M.D., St. Leonard's; GOLDING BIRD COLLET, Esq., Worthing.
Ulster. JOHN MOORE, M.D., Belfast.
Wales (Mid). H. NELSON EDWARDS, Esq., Shrewsbury.
Wales (North). J. LLOYD ROBERTS, M.B., Denbigh.
Wales (South). A. SHEEN, M.D., Cardiff; J. H. WATHEN, Esq., Clifton.
Warwickshire. E. MALINS, M.B., 8, Old Square, Birmingham; E. RICKARDS, M.D., 14, Newhall Street, Birmingham.
West Lothian. CHARLES E. UNDERHILL, M.D., Edinburgh
Westmorland. J. K. BURT, M.B., Kendal.
Wiltshire (North). R. S. FOWLER, Esq., Belmont, Bath.
Wiltshire (South). J. WARD COUSINS, M.D., Southsea; H. J. MANNING, Esq. Laverstock, Salisbury.
Worcestershire. GEORGE W. CROWE, M.D., Shaw Street, Worcester.
Yorkshire. ARTHUR JACKSON, Esq., Sheffield.
Yorkshire (East). E. P. HARDEY, Esq.. Hull.

COLONIAL BRANCHES.

Adelaide and South Australia. W. L. CLELAND, M.D., Adelaide.
Jamaica. M. STERN, Esq., Kingston.
Melbourne and Victoria. LOUIS HENRY, M.B., St. Kilda, Melbourne.
Sydney and New South Wales. F. MILFORD, M.D., Sydney, N.S.W.

REMARKS
ON
THE TREATMENT OF GUNSHOT-WOUNDS OF THE ABDOMEN IN RELATION TO MODERN PERITONEAL SURGERY.

By J. MARION SIMS, M.D., LL.D., etc.

[*Concluded from page 900 of last number.*]

Laparotomy and cystorraphy were advocated by Vincent of Lyons, at the International Medical Congress. The bladder has been wounded in ovariotomy and in extirpation of uterine fibroids. This accident happened once in the hands of the great ovariotomist, Washington Atlee. It happened in the practice of an eminent surgeon in the interior of New York; and occurred to me in the removal of an enormous uterine fibroma. The bladder was cut across for several inches, as it was extensively spread out over the anterior face of the tumour. The wound of the bladder was closed with fine silver wire. The patient died a few hours afterwards of shock and hæmorrhage. Dr. Thomas reports a case where he found the bladder closely attached to the anterior face of an ovarian tumour. There was some doubt about it, and he cut into the bladder, passed his finger in to clear up the diagnosis, then closed the incision by suture, and the patient quickly recovered. With the lights now before us, we should be able to suture the peritoneal portion of the bladder with the same impunity that we do the vaginal.

Fischer of Buda-Pesth (International Medical Congress, 1881) performed a series of experiments on dogs to establish the propriety of suturing wounds of the bladder. He says the success of the operation depends entirely on the accuracy with which the sutures are placed. He used catgut and antiseptic silk with equally good results. He infers that the operation will be more successful on man than on the lower animals, for the reason that a catheter can be kept in the bladder and irrigated antiseptically, while the patient rests quietly in bed.

Billroth has recently extirpated the pylorus for carcinoma. But, as the ulterior results are always unfortunate, we can only admire the heroism and genius of the surgeon, and the brilliancy of the operation, while we deplore its uselessness. But it proves conclusively what we dare do now-a-days in the region of abdominal surgery.

Gastrostomy has been often performed for the removal of foreign bodies and for artificial feeding. It has been done by Labbé of Paris for extracting a fork from the stomach of a man who swallowed it in a playful freak. And it has been recently frequently performed successfully where the œsophagus was mechanically obstructed by stricture or malignant disease.

The Cæsarean section is rather going out of fashion. But if surgeons would take care to clean out the peritoneal cavity thoroughly and then suture the incision in the uterus with silver wire, there is no reason why it should not be as successful as any other in the whole range of abdominal surgery.

Look through the literature of the Cæsarean section, and see the absence of all precautions to prevent sepsis, and can we wonder that the operation has not been more successful. How any surgeon could make an incision three or four inches long through the walls of an impregnated uterus, and then leave it open for the lochial discharge to run out into the peritoneal cavity is incomprehensible. By the light of modern science, and by the skill of the present generation of surgeons, there is no reason why the Cæsarean section should not again come into vogue.

Porro's operation, which is now accepted and lauded by all who have done it, is the professed substitute for Cæsarean section, and a direct offshoot of ovariotomy. It seems destined to be recognised as a legitimate and justifiable procedure. In Vienna, in 1878, I saw two cases a year after they were cured—one by Professor Spath, and the other by Professor Carl Braun. Professor Horatio R. Storer of Boston extirpated the uterus by abdominal section on account of uncontrollable hæmorrhage after delivery, long before Porro's operation (1867); and by some writers it is called the Storer-Porro operation. Porro's operation is usually performed in cases of deformed pelvis, when the child cannot be safely delivered in the natural way. So far, it has been more successful than the Cæsarean section, as heretofore performed; and it protects the patient against the dangers of a subsequent pregnancy.

Laparotomy, in mechanical obstruction of the bowels, has been frequently performed successfully within the last three or four years. This is another triumph following in the wake of ovariotomy. In America and Great Britain, we are ahead of our French *confrères* in this operation. It was but the other day (July 1881) that all Paris was wrapped in gloom by the sudden death of one of its most promising young physicians, Dr. Chantreuil. Chantreuil was a man in the very prime of life, only about forty. Young and vigorous, he was doing a great work, and able to do it well. He was the picture of health; but one day he was suddenly taken with severe gastric pain. His friends hurried to his assistance. There was no relief; he rapidly sank, and died in twenty-four hours. A *post mortem* examination revealed an intussusception. French surgery must look to its laurels, for it has many; but it cannot afford to stand still while we move on. In no medical centre in this country or Great Britain could such a life as Chantreuil's have passed away without prompt efforts to save it. With the lights now before us, no man has the right to die of mere mechanical obstruction of the bowels.

Lumbar colotomy is frequently performed when the lower bowel is mechanically obstructed by carcinomatous or other foreign growth. It often prolongs life for twelve or eighteen months, and during this period gives complete relief to suffering. It has been done by abdominal section; but this has not yet come into general use. In the present state of our knowledge, I believe it would be an easier and a safer operation than the lumbar, and it would make the artificial opening more convenient for comfort and cleanliness. It will eventually supplant the lumbar method.

Certainly the most important advance made in peritoneal surgery, growing out of ovariotomy, is Battey's operation for arresting ovulation and bringing about the menopause. This valuable contribution gives well-deserved fame to our countryman—fame that will endure, and, like that of McDowell, will become more brilliant as time rolls on. You know its literature, and the battles it has had to fight ever since it was brought before the profession in 1872. Its enemies are, day by day, deserting to the opposite ranks, and soon it will meet with no more opposition than does ovariotomy to-day. Its victory has been easier than that of ovariotomy, because the one is but a mere corollary of the other. It is more difficult than ovariotomy, because the abdominal walls have not been distended and relaxed by internal centrifugal pressure, and because the offending organ does not boldly present itself at the median section as ovarian or uterine tumours do. The ovary lies deep down in the pelvis, and it is often difficult to find it, and sometimes more difficult to bring it into view. I think I have facilitated this part of the operation very much by the use of my uterine redresser. Sometimes the uterus in these cases is retroverted, and then it is still more difficult to reach the ovaries and bring them to the surface. Whether the uterus be retroverted or not, it will materially aid our endeavour if the uterine repositor be used to elevate the fundus uteri to the lower angle of the abdominal incision. Here it must be held firmly in position by an assistant. By rotating the handle of the repositor on its axis to one side of the patient, the opposite ovary is made to approximate the abdominal incision, so that the finger following the Fallopian tube soon finds the ovary, which is drawn into view, and then the pedicle is tied and the ovary removed. In like manner, the opposite ovary is dealt with by turning the handle of the repositor in a contrary direction, and the operation is finished as in ovariotomy.

When we first began to perform this operation, we were less successful than at the present time; but the labours of Lawson Tait and of Thomas Savage, both of Birmingham, prove that the operation is quite as safe, and quite as successful, as that of ovariotomy. Thomas Savage has performed the operation thirty times without a death. Lawson Tait has done it more frequently than anyone else—seventy times—with marvellous success. His unlucky cases have been those for intractable bleeding fibroids.

The operation has been done often, and with great success, by Hegar of Freiburg. Spencer Wells, Professor Simpson, Heywood Smith, and others in Great Britain, have done it successfully. Indeed, the operation, as performed by our brethren in England, is no longer on its trial. It is now accepted there as a legitimate operation by every gynæcologist who pretends to be a surgeon. Battey thinks it very important to do the operation with the utmost thoroughness, not leaving the smallest particle of ovarian stroma. Lawson Tait goes further, and insists that the Fallopian tubes should be removed with the ovaries, if we would ensure the arrest of ovulation and hasten the advent of the menopause. It is for this that the operation was projected, and for this that it is now performed.

In April 1878, I operated on a case of dropsy of the gall-bladder

Having published the case in detail, I shall here but briefly allude to its general features. I drew off the contents of the gall-bladder by aspiration. The sufferings of the patient were temporarily ameliorated. The sac soon filled again. I then conceived the idea of cutting down on the sac, of opening and emptying it, and then of securing the edges of the incised sac to the edges of the abdominal incision. This was done; but the patient was too much exhausted before operation, and died two days afterwards of black vomit. The blood had become so disintegrated by the admixture of bile, that it was unfit for sustaining the vital powers; and her death was just such as we see in yellow fever, by black vomit. The *post mortem* examination showed that the operation was a perfect success. The gall-cyst had adhered to the abdominal parietes, where it was secured by suture. There was no peritonitis, and no evidences of inflammatory action were anywhere to be seen. In this case, I removed sixty gall-stones, varying in size from a pea to a filbert.

The success of this operative procedure in this case established a principle which has been applied by Lawson Tait and others with marvellous results in peritoneal surgery. Lawson Tait has twice performed successfully the operation of cholecystotomy as above described, and he has applied the same principle in operations for hydatids of the liver. He cuts down on the tumour, and then empties it by aspiration. He then incises the cyst to a proper extent, cleans out its cavity thoroughly, sews the cyst-walls to the edges of the abdominal incision, and introduces a drainage-tube. He has done this hepatotomy in seven successive cases in the last two years, and effected a perfect cure in every one of them. In every instance, the substance of the liver was incised to reach the hydatid cyst. In one, the thickness of liver-tissue through which he cut "was nearly an inch". (*Birmingham Medical Review*, Oct. 1881.) In all, the liver was itself stitched to the walls of the abdomen. This is certainly a brilliant achievement in peritoneal surgery, and establishes a precedent that we may all safely follow hereafter. It simplifies and perfects a method of operating in a class of cases in which heretofore we dallied, hesitated, and temporised. But Lawson Tait has formulated a rule of action, and demonstrated its successful application, which gives us confidence in the future. He has carried the same principle to the treatment of hydronephrosis. He has operated six times successfully in the last two or three years. He opens the abdomen in the middle line, punctures the cyst, guards the peritoneal cavity against the admission of cystic fluid, opens the cyst to the proper extent, and then stitches the cyst-walls to the edges of the abdominal incision, and introduces a drainage-tube. Professor Czerny of Heidelberg performs this operation in the same way in hydronephrosis, empyema of the pelvis of the kidney, and echinococcus, incising the cyst-walls, and attaching them to the external opening.

Lawson Tait has also carried out the principle of suturing cyst-wall to abdominal incision, followed by drainage-tube, in other cystic diseases within the peritoneal cavity. These operations may be classified as follows: Abscess of spleen, 1; extra-uterine pregnancy, 6 (1 death); hæmato-salpinx, 1; hydro-salpinx, 2; pyo-salpinx, 3; hydrometra, 1; hydatid tumour of liver, 8; cystic abscess of liver, 1; dropsy of gall-bladder, 1; pelvic abscess, 18. All of these were treated on the same principle—viz., stitching the cyst-walls to the abdominal incision; and all recovered except one case of extra-uterine pregnancy, in which the operation was too long delayed. Thus, of six Fallopian pregnancies, he lost but one; of twelve pelvic abscesses, all were speedily cured; of forty-two operations involving cystic disease in the peritoneal cavity, he lost but one. His marvellous success in all these proves the correctness of the principle of operating, and makes the way clear for other surgeons.

Thus we see that Lawson Tait has gone ahead of us all in opening up new fields in the great domain of abdominal surgery. He has done it all in the last three years, simply by adopting the principle set forth in the operation of cholecystotomy. His success establishes this procedure and these operations as legitimate, and compels us to accept them without question as he presents them to us. Well may I close this hurried *résumé* of recent advance in peritoneal surgery in recounting these brilliant achievements of Lawson Tait. By his daring and skill, he has made easy for us many things that were before attended with difficulty and danger. He is now the leader in this department of surgery, and has succeeded in opening up fields of great fertility, which we may all freely cultivate with profit.

I have now given you, as hurriedly as possible, a brief outline of the work lately done in peritoneal surgery. The whole of it is the outgrowth of ovariotomy. Most of it has been done since Battey first performed his operation in 1872, and a very large part of it in the last three years. This work became possible as ovariotomy grew more and more successful. The principles of peritoneal surgery are now so well established, so thoroughly understood, and so successfully put in practice, that we are bound to achieve still further triumphs in this direction. Believing firmly in the lessons of this retrospect, let us now look forward; and forecast where, and to what, they necessarily lead us. Past success, based on principles universally applicable, guarantees like results under analogous circumstances.

The great Dr. Physick of Philadelphia was, many years ago, called the Father of American Surgery. One of the most important and original of his operations was that for artificial anus, which, until his day, had not been cured. His operation was based on an accurate knowledge of physiological laws; but it was not always applicable, and not always successful. Well do I remember a case in Paris, in 1867, on which M. Nélaton had operated several times unsuccessfully, and how he deplored the uncertainty of his art. This was before we had learned with what safety we could freely lay open the peritoneal cavity. Doing this now with absolute impunity, we can cut loose the injured bowel from all unnatural relations; resect portions of it, if need be; apply sutures where necessary; and return it, in a normal state, to the peritoneal cavity. There is now evidently a great future for this operation; but it must not be forgotten that, from long disuse, the lower end of the wounded bowel becomes abnormally contracted. Before uniting the upper and lower ends of the injured bowel, whether large or small intestine, it will be necessary to dilate the latter mechanically. Dr. Kinloch of Charleston, professor of surgery in the Medical College of that city, has already performed this operation.* A shot-wound (October 1862) of the abdomen resulted in artificial anus in the right iliac region. The patient was eventually worn out by suffering and inanition. Dr. Kinloch opened the abdomen (June 1863), excised half an inch of the upper portion of the ileum, and two inches of the lower, which last was abnormally contracted for want of use. He then united the two cut ends of the intestine by silver wire, and closed the wound. On the third day, some of the intestinal sutures gave way, and there was a fæcal discharge. Dr. Kinloch succeeded in substituting a small fæcal fistula for an extravasating artificial anus; and would have succeeded perfectly in his well-planned timely operation, if he had had the means of securely co-apting the ends of the wounded intestine. Too much credit cannot be given to Dr. Kinloch in initiating an operation that must become the rule of practice in the future.

Fallopian pregnancies, terminating in death by hæmorrhage from bursting of the Fallopian tube, a few weeks after conception, are not uncommon. Almost every practitioner of thirty years has seen such cases. One of the deputy-coroners of New York made necropsies in ten cases in five or six years. Three of my young friends died in this way. I saw one of them, with Dr. H. D. Nicoll, in New York, in 1874. The patient, aged 30, mother of two children, was taken suddenly at seven o'clock in the morning while dressing. Dr. Nicoll saw her in an hour. I saw her about 2 P.M. She was then in collapse. I had no doubt that she was dying of internal hæmorrhage, or of perforation of the bowel. She died in twelve hours from the time of the attack. The *post mortem* examination showed the peritoneal cavity to be full of blood. If we had in time opened the abdominal cavity, it would have been easy to secure the bleeding Fallopian tube. But the golden moment for this had passed before we grasped the case in its entirety, and a valuable life was lost. With a sharp diagnosis, and prompt action, nothing would be easier, now, than to save life under these circumstances.

The late Dr. Stephen Rogers of New York wrote an admirable monograph on Extra uterine Fœtation, in 1867. He reviewed the subject in all its bearings; and said: "To me, therefore, a correct diagnosis indicates, as the first thing in order, the prevention of any further loss of blood; to accomplish which there is no choice of methods; *the peritoneal cavity must be opened; the bleeding vessels must be ligatured.*" Rogers's advice must become law for our future government.

The illustrious George McClellan, the father and founder of Jefferson Medical College of Philadelphia, was a truly great surgeon—bold, original, brilliant, and successful. In the year 1847, McClellan left his home one bright May morning to make his usual daily rounds. He walked erect along Chestnut Street, seemingly full of health and vigour, going from house to house to see his patients; while his coachman drove leisurely along, waiting whenever his master entered. Soon he was seen slowly descending the steps of a marbled mansion, bent over with agonising pain. He entered his carriage, and was driven rapidly home. His medical advisers were summoned. In ten hours he was in collapse, and in six hours more he was dead. He died of perforation of the bowel, below the sigmoid flexure. The cause of death was shock and septicæmia.

* *Journal of Medical Sciences*, July 1867; and *Medical and Surgical History of the War*, etc., part second, surgical vol., p. 113.

We often see patients dying of perforation of the bowel, from wasting disease—such as chronic diarrhœa and typhoid fever. In these cases, the poor sufferers are too exhausted, too near death's door, before the perforation occurs; and we can only look on, try to ameliorate symptoms, and wait for the end. But George McClellan was in the prime of life; and would, in all probability, have lived to a ripe old age but for this sudden taking off.

Given a case of perforation of intestine in such a man as George McClellan; and, given a correct diagnosis, which is by no means difficult—what are we to do in the present state of our knowledge? Why, of course, we should open the abdomen promptly, clean out the peritoneal cavity, search for the perforation, pare its edges, and bring them together with sutures; and treat the case as we now treat other cases involving the peritoneum. Rest assured that the day will come, and it is not far off, when an accurate diagnosis in such cases, followed by prompt action, will save life that must otherwise quickly ebb away; and the same thing must be done in gun-shot wounds of the abdomen.

Death from wounds of the abdomen may occur from shock, from hæmorrhage, or from septicæmia; seldom from peritonitis, properly speaking. When from shock or hæmorrhage, there is no reaction, and death is comparatively sudden. Reaction once established, shock is over, and direct danger from hæmorrhage is passed. The great danger is septicæmia from effusion into the peritoneum. Some years ago, it was thought that peritonitis was the chief cause of death after ovariotomy. But this is not the accepted doctrine of the present day.

A CASE OF SCIATIC NERVE-STRETCHING IN LOCOMOTOR ATAXY: WITH REMARKS ON THE OPERATION.

By JOHN CAVAFY, M.D., F.R.C.P.,
Assistant-Physician to St. George's Hospital.

[illegible]

I HAVE collected eighteen cases* from various sources, in addition to my own, in which large nerve-trunks have been stretched in locomotor ataxy; and, although the number is not a large one, it will be instructive to review them shortly, and estimate as far as we are able the probabilities of future success or failure.

CASE I. Langenbuch (*Berlin. Klin. Wochenschrift*, December 1879). A man aged 40, with symptoms of ataxy for "several months". The pains affected all four limbs, and were very violent. On September 13th, 1879, the patient being under chloroform, the left sciatic was stretched "violently". The operation was followed by disappearance of the pains in the territory of the operated nerve, but also by sensory and motor paralysis, which, however, subsided in a few days, without any return of the pains. The wound healed very quickly. On September 25th, in one sitting, the two anterior crural and right sciatic nerves were stretched. The wounds quickly healed; the pains disappeared; and motion and sensation, which were at first paralysed, were soon restored. The patient's walking gradually improved, and the ataxia entirely disappeared. It seems not to have returned three months after the first operation; but the pains continued severely in the upper extremities, and it was decided to operate on the brachial nerves. The patient died of convulsions during the administration of chloroform for this purpose. The cord was preserved, and examined by Westphal (*loc. cit.*, No. 8, 1881), who found that there was no disease of the posterior columns. He therefore concludes that the case was not one of true ataxy.

CASE II. Esmarch (*Deutsch. Med. Wochenschrift*, No. 10, 1880) operated in a case diagnosed as ataxy by Quincke. As the pains were most severe in the forearms, he stretched "strongly" the nerves in the axilla. The pains disappeared, not only in the arms but in the legs also, and the ataxy subsided. No further details are given.

CASE III. Erlenmeyer (*Centralblatt für Nervenheilkunde*, No. 21, 1880). A man, aged 30, had suffered from ataxy six years. There were no pains at the time of the operation, which was done in June 1880 under chloroform. The right sciatic nerve was exposed at the sciatic notch, "strongly stretched", and then "twisted" and held some time in this position. The wound healed by first intention. Ten days later, a similar operation was done on the left sciatic, followed by erysipelas, the wound not healing for six weeks. There seems to have resulted a very slight increase in strength, but no improvement whatever in sensation and co-ordinated motion.

CASE IV. Debove and Gillette (*Union Médicale*, No. 165, 1880). A man aged 56, with ataxy for at least six years. The pains were very severe and frequent, and ataxia extreme, so that he was bedridden for eighteen months, being quite unable to stand. In November 1880, Gillette operated on the left sciatic nerve in the middle of the thigh. The nerve being exposed, was twice raised nearly six inches above the level of the skin, and then "violently" stretched in its long axis. There was no motor or sensory paralysis, but, three weeks after the operation (which was done antiseptically), the wound remained unhealed. At that time, there were no pains; cutaneous sensation was restored to normal, and motor inco-ordination so much diminished, that the patient could stand upright leaning on an attendant, which was previously impossible.

CASE V. Socin (*Sury-Bienz. Deutsch. Med. Zeitung*, No. 1, 1881). A man aged 33, with ataxy and violent pains. The right sciatic was stretched antiseptically. The wound did not heal, but the pains disappeared on that side. The left sciatic was then stretched, as the pains continued on that side. Fifteen days later, the patient died from pulmonary embolisms, arising from a clot in the right femoral vein.

CASE VI. Debove and Gillette (*Bull. de la Soc. de Chirurgie*, 1880, p. 718). A man aged 50, with ataxy. The pains were especially severe in the upper extremities for fifteen years. Two nervous trunks of the right brachial plexus were stretched, probably the median and ulnar, with the internal cutaneous. Two directors were placed under the nerves, and then "violently" drawn towards the surface, raising them four inches above the skin. An assistant who held the arm felt a distinct crackling in the nerve-sheaths at the time. The wound healed by first intention, and was followed by cessation of pains in all extremities, and great improvement in the ataxy which affected the lower extremities.

CASE VII. Debove and Gillette (*loc. cit.*, p. 719). A man aged 30, with ataxy and very severe lightning-pains in the abdominal viscera. The left sciatic nerve was stretched, the force employed rupturing a medium-sized vein. The operation is said to have been followed by persistent improvement. No further details are given.

CASE VIII. Gillette (*Arch. Gén. de Méd.*, July 1881, p. 80). A woman with ataxy for five years. The radial and median nerves were strongly stretched on the right side. The pains subsided in the upper, but increased in the lower extremities. No further details are given.

CASE IX. Bastian (BRITISH MEDICAL JOURNAL, July 2nd, 1881, p. 1). A man aged 39, with ataxy for three years and a half. In February 1881, he was unable to stand without the support of two persons, and suffered from much pain in the hypogastrium. Mr. Marshall operated under ether. The right sciatic was exposed in the middle third of the thigh, taken between the thumb and forefinger, twice pulled upwards from below, and afterwards from above downwards, the nerve being raised one to two inches above the skin. The pain disappeared. The left sciatic was afterwards operated on in the same manner. More than six weeks after the first operation, he still required two people to support him to stand upright, and was very weak on his legs; but the gait is said to have been better than before. There was no return of pain.

CASE X. Bastian (*loc. cit.*). This case was less advanced. It is noted that, five weeks after the operation, there was "no appreciable improvement in the patient's condition". The nerve was probably more forcibly stretched than in the first case. The wounds in both healed slowly.

CASE XI. Johnston (*loc. cit.*, p. 11). A man aged 39. Pains for twelve years, and ataxy established for three years. Esmarch's bandage was applied to the upper part of the right thigh, and the sciatic nerve exposed in the middle third under local anæsthesia. It was then pulled upwards vertically "with some force", the whole weight of the limb being suspended by the nerve. This was repeated three times. Five weeks after the operation, the pains were found to be not nearly so acute as before, and came on at longer intervals; the anæsthesia was somewhat diminished, but there was no improvement whatever in the ataxy.

CASE XII. Langenbuch (*Berlin. Klin. Wochenschrift*, Nos. 24 to 27, 1881). A man aged 53, with ataxy for one year. The right sciatic and anterior crural nerves were stretched. There was great diminution of the ataxy, subsidence of the pains and constriction; and micturition, which was very slow and difficult, was much improved.

CASE XIII. Langenbuch [illegible]. A woman aged 32, [illegible] five years with ataxy and commencing lateral sclerosis, as diagnosed by Westphal. The left sciatic nerve was stretched. A month later, she barely tottered with closed eyes, walked more strongly, and entirely without ataxy; in fact, she seemed completely cured, but there was no return of the knee-reflex.

CASE XIV. Langenbuch [illegible]. A man aged 52, ill for eleven years, with lightning-pains followed by ataxy, which was moderately

* I believe that a few published cases have not been included [illegible]

ed. Both sciatics were stretched, and he was completely

Case xv. Langenbuch (*loc. cit.*). A man aged 45, with ataxy for seven years. The atactic movements were extreme and grotesque, affecting both upper and lower extremities. Both sciatic and the right median nerves were stretched. In two months, mere traces only of the ataxy remained.

Case xvi. Langenbuch (*loc. cit.*). A man aged 31, with moderate ataxy for one year. The right sciatic and left anterior crural nerves were stretched, followed by very great improvement in motion and sensation, most marked on the left side.

Cases xvii and xviii. Benedikt (*Wien. Med. Presse*, No. 30, 1881). No separate details of these cases are given, the paper being preliminary only. It is said that the pains, which were present in both patients almost continuously, disappeared after one sciatic operation, not only in both lower extremities, but over the whole body. Constrictive pains also subsided, and anæsthesia was improved. In one patient, who had long suffered from paralysis of the bladder, strangury and phosphatic urine, these symptoms disappeared. The ataxy was markedly improved, especially by a double operation; one patient who could only walk with two sticks, being afterwards able to walk without any support, and to turn round easily. One of the patients showed improvement in the contracted pupils, but the tendon reflexes were uninfluenced in either.

It is much to be regretted that some of these cases have not been reported in more detail, but it appears to be established that the operation was markedly beneficial, or even curative so far as the pains were concerned, this being the case in seventeen out of nineteen. The result, however, seems to have been by no means the same in all. In the greater number, all pains were removed, or at least greatly alleviated by one operation; but in three cases they subsided only in the territory of the operated nerve, while in one they disappeared from the part operated on, but increased elsewhere. The improvement seems to have been permanent in the majority, but on this point it is impossible to speak with confidence in the absence of further details. In Dr. Johnston's and in my own case, the pains reappeared, though less severely; and we should bear in mind that spontaneous remission of the pains in ataxy often occurs for considerable periods. The ataxy itself is said to have been cured in four cases only, three of Langenbuch's, and Esmarch's. Langenbuch's first case proved to be not affected with posterior sclerosis, and must be excluded from consideration, unless we admit the existence of a purely functional ataxy. Benedikt, however, goes so far as to say that the absence of posterior sclerosis *post mortem* does not prove the absence of this condition *intra vitam*, and that its disappearance may have been brought about by nutritive changes set up in the cord by the operations. With our present knowledge, it is difficult to share this somewhat enthusiastic view. Langenbuch himself considers it a case of genuine ataxy, in so early a stage that the peripheral nerves only were affected, and believes that the affection always commences in this manner, the posterior sclerosis coming on later. Esmarch's case was only shortly communicated in the course of a discussion, and is so wanting in details, that it must be received with caution. In eight cases, the ataxy was diminished; strikingly in three of Langenbuch's, the first two of Debove and Gillette, and in Benedikt's; only very slightly in Bastian's first case. In four, there was no improvement—Erlenmeyer's, Bastian's second case, Johnston's, and my own; while in the remainder the result is not stated. I think we may probably class them as failures in this respect, as it is not likely that any improvement would have been overlooked. It appears probable, therefore, that benefit is to be always expected from the operation so far as the pains are concerned, but that the prospect of improvement in the ataxy is much less certain. Langenbuch, however, takes a much more hopeful view, and Benedikt concludes that the operation can convert a severe case of ataxy into a mild one, and, so to speak, an advanced case into an early one. I am inclined to think that the operation is applicable especially to early cases, and where pain is a prominent symptom; but I should not hesitate to employ it in later ones also, as it has not been followed by any injurious results beyond temporary paralysis, and this very rarely; the rupture of a vein in one of Gillette's cases, and the venous thrombosis and erysipelas in Socin's and Erlenmeyer's, are merely surgical accidents. The wound itself is sometimes very slow to heal, a sluggishness which does not appear to be connected with the duration of the disease; as in my own case, in which the ataxy had been manifested only three years and a half, the wound was unhealed after six weeks, while in Debove and Gillette's second case, in which symptoms had existed for fifteen years, it healed by first intention.

It is most desirable that surgeons should come to some agreement as to the best mode of operating, and especially as to the force to be employed. The cases show considerable variety in these respects, as to point of exposure of nerve, direction of traction, etc.; and the words "strongly", "violently", and so on, used in describing the operation, afford us no means of judging of the strength of the extension. As Dr. Bastian justly remarks: "It is quite possible that too weak a pull may produce little or no effect; but, on the other hand, too strong a pull may yield either no good results, or results which are positively harmful." The impression I have derived is that, in the foreign cases, which have been followed by greater benefit than the English ones, a greater force was used, and that it was often applied more suddenly than in this country; this point deserves attention, as the same force used with a jerk, or applied in gradual extension, would probably give different results. Langenbuch appears now to prefer gradually increasing extension, and uses as a test for the force to be employed, the effect produced on the pulse and breathing; these are sometimes even doubled in frequency, while in other cases the opposite occurs, and they may be as much diminished. He continues to drag on the central end of the nerve with increasing strength until a distinct effect is produced on the pulse, which is counted aloud by an assistant; he then stops, and finds that the pulse and respiration return almost at once to their normal rate. I believe this is probably the best mode of operating. M. Gillette has devised an instrument, which he calls a "nerve-stretcher". (*Bull. de la Soc. de Chirurgie*, 1881, page 533.) It consists essentially of a somewhat flattened blunt hook, which is inserted under the nerve, traction being made at right angles to its course, while the limb is held down by an assistant; a dynamometer is so connected with the instrument that the force employed is exactly indicated on a dial. The only objections to this apparatus are, that the extension must affect the central and peripheral portions of the nerve equally, and that the pressure of the hard hook against the part of the nerve to which it is applied must give rise to more extensive local crushing and bruising than would be the case with the finger and thumb. The introduction of the dynamometer, however, is a genuine improvement.

It would occupy too much time to inquire as to the mode of action of the operation, especially as the subject is still under investigation by experimenters; but, so far as we know, a forcible extension of a nerve, when not excessive, is followed by temporary paralysis only; and, further, the operation seems to act on the spinal cord as well as on the nerve itself.

CASE OF INJURY TO THE CERVICAL PORTION OF THE SYMPATHETIC NERVE, IN REMOVING A SARCOMA.*

By THOMAS F. CHAVASSE, M.D.Edin.,
Assistant-Surgeon to the General Hospital, Birmingham.

Eulenberg and Guttmann, in their work upon the *Physiology and Pathology of the Sympathetic System of Nerves*, state that there are no recorded cases in which a direct injury, confined to the cervical part of the trunk of the sympathetic, can be asserted with confidence. The following case would, therefore, seem to be of interest—not only surgically, but also physiologically.

K. T., aged 6, a pale delicate-looking girl, came to the out-patient room at the General Hospital, early in August 1880, to receive treatment for a tumour lying under the horizontal ramus of the jaw, in the position of the right submaxillary gland. According to the statement of the mother, a small lump, of the size of a hazel-nut, was noticed in the position named at the time of birth. The increase in size was slow, and in accordance with surgical advice, not much attention was paid to the abnormality until three months before coming to the hospital, when a visibly increasing enlargement was perceived. The following is the description of the tumour when seen in August 1880. Its situation was at the upper portion of the right anterior triangle of the neck, just below the horizontal ramus of the inferior maxilla. Its size was that of a Tangerine orange; it was firm to the feel, movable, and, as far as could be ascertained, not connected with the surrounding textures; it was painless.

August 18th, 1880. I made an incision over the tumour, parallel to the ramus of the jaw. It was then found that the tumour had no connection with the submaxillary gland, but was encapsuled, and dipped down deeply into the neck. Quite superficially, lying over the front of the capsule and adherent to it throughout, a large nerve was observed, the precise nature of which was doubtful until it was gently seized by a pair of forceps, preparatory to dissecting it away from its adhesions. The breathing of the patient was immediately much impaired, becoming jerky; and the child, although fully under the influence of chloro-

* Read before the Birmingham and Midland Counties Branch.

form, made efforts to vomit. The nerve was the pneumogastric. The peculiar breathing continued until the nerve had been quite released from the tumour and the grasp of the forceps. On the inner side, the tumour had adhering to it the upper part of the common carotid and the first portion of the external carotid arteries, for about two inches. Posteriorly, it was necessary to dissect away the trunk of the sympathetic nerve, as the tumour rested upon the transverse processes of the vertebræ. The whole of the growth was removed in one piece; the internal jugular vein was not found in any way attached to the same. At the conclusion of the operation, the pupil of the right eye was seen to be contracted to the size of a pin's head.

August 19th. The patient had been very restless, and had made continuous efforts to vomit. She complained merely of slight pain in the neck.

August 20th. The child was weaker, and made incessant efforts to vomit. I ordered an half-ounce enema of brandy and milk, to be given thrice in twenty-four hours.

August 21st. The child was brighter, and only vomited once. The pupil of the right eye was irregularly contracted, as at the conclusion of the operation, but acted a little under the stimulus of a strong light. There was also drooping of the upper lid, and well-marked diminution in the size of the palpebral fissure. The sight of the eye was unimpaired.

August 22nd. All vomiting had ceased. The lungs were examined, and nothing abnormal detected. Teaspoonful doses of beef-tea were given. With regard to the further progress of the wound, there was nothing of note. By the 10th of September, healing was complete. A microscopic examination showed the tumour to be a mixed sarcoma, in which spindle-cells preponderated.

August 29th. A drop of atropine was placed in the affected eye, and the pupil very slowly dilated under its action. In a few days it contracted to the same size as before. At this date, also, a slight exudation of pus was perceived immediately over the occipital protuberance. Subsequently, a piece of the scalp, of the size of half-a-crown, separated as a slough, leaving the occipital bone at that point quite bare. From its median position, I believe this sloughing was due to pressure from continuously lying on the back, and not to any trophic influence.

October 18th. (Two months after the operation). An examination of the eyes was kindly made for me by Mr. Eales, at the Eye Hospital; the following is his report: "Pupil of right eye contracted irregularly, but responds slowly to alterations in the intensity of light. Accommodation good, as in the other eye. Vision normal ($V=\frac{12}{12}$). With the ophthalmoscope, no appreciable difference can be detected in the size of the vessels of the retina."

December 18th (two months later). The narrowing of the palpebral fissure was hardly perceptible; ptosis was slight. The pupil was larger than it had been, but was not equal in size to its fellow. There was no emaciation of the cheek, and no flushings or redness of the conjunctiva on the affected side had been noticed. The child's general health was good.

It was not possible, after the operation, to compare the temperatures of the auditory meatus, in consequence of the continuous vomiting, restlessness, and general signs of fear exhibited when the patient was approached.

To what may be attributed the condition of the right eye? Petit observed in 1727, and Boffi in 1746, that the cervical sympathetic nerve exercised a certain influence over the movement of the pupil, producing on division contraction of the same, and a drawing inwards of the eye. Claude Bernard subsequently pointed out that this contracted state of the pupil was accompanied by retraction of the globe of the eye, flattening of the cornea, and decrease in size of the palpebral fissure. In the case under notice, the chief points of interest, after removal of the tumour, were irregular myosis, narrowing of the palpebral fissure, and slight ptosis. It is generally accepted that the dilating fibres of the iris receive their nerve-supply through the cervical sympathetic. Remak refers the decrease in size of the palpebral fissure and the ptosis, when the cervical sympathetic is paralysed, to an alteration in the muscular actions of the levator palpebræ, orbicularis palpebrarum, and the retractor plicæ semilunaris; and thinks that these muscles are under the control of a tonic power communicated through this nerve trunk. The dissection necessary to remove the sarcoma had to be carefully performed; and, the bleeding being only slight, every cut with the knife was readily seen, and, as far as could be ascertained, no nerves were divided; but, at the same time, it is quite possible that some very minute communicating branches may unknowingly have been cut. The trunk of the cervical sympathetic was grasped and held for some time in a pair of forceps, while it was freed from an adhering tumour: hence a pinching of the nerve elements and consequent interference with the functions of the nerve. That a similar pressure caused some perverted action of the vagus, the continuous and uncontrollable efforts to vomit seem to indicate; that the injury inflicted may not have been so severe, as to the sympathetic, is possibly due to the fundamental differences in the fibres which compose the nerve trunk. That there was no division of the larger fibres of the sympathetic, may be inferred from the absence of any signs of flushing of the face and reddening of the conjunctiva, indicating vaso-motor derangement; and also from the fact that emaciation of the face, and constant increase in temperature of the affected side, have been noted in cases where such an injury has occurred from gun-shot wounds. (*Vide* Cases by Seeligmüller and Bernhardt, *Berliner Klin. Wochenschrift*, 1872. Nos. 4, 47, 48.)

Will the eye ever recover? Eulenberg and Guttmann, experimenting upon animals, found that, in dogs, there was contraction of the pupil four months after the trunks of the sympathetic and vagus nerves had been divided on the left side of the neck. Kampf brought a case before the Society of Physicians in Vienna, in which existed a permanently contracted state of the right pupil, following a stab on the edge of the sterno-mastoid muscle, which was unaffected even by electricity. In my patient, six months after removal of the tumour, all the oculo-pupillary symptoms had much improved; but, since that time, they have remained *in statu quo*. Fifteen months having now elapsed, it seems doubtful if the normal condition will ever be regained.

THE CURABILITY OF PHTHISIS AT HIGH ALTITUDES.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital for Consumption, Brompton.

In the BRITISH MEDICAL JOURNAL, of October 1st, is a note on the above title, the writer of which, while admitting the possibility of expansion of the bases of the lungs from compensatory hypertrophy, hardly allows the existence of a similar process taking place at the apices. He also protests against the too sanguine views put forward about the arrest of phthisis through this alveolar dilatation; and he states "that the experience of every physician will supply him with cases of phthisis, in which, after a longer or shorter period of quiescence", under high altitude conditions, "a further extension of the disease has occurred with extreme rapidity".

As the writer appears to allude to certain views put forward by me, in a paper read before the International Medical Congress, in August, "On the Treatment of Phthisis by Residence at High Altitudes", I take the opportunity of correcting some inaccuracies which have crept into his statements, and which mar the logic of my conclusions; and I do this because some time may yet elapse before the *Transactions* of the International Congress appear, which will include the paper, with all its facts and reasonings.

My data as to the increase in the size of the chest, after a residence at high altitudes, were based, not on spirometrical observations, as the writer of the article assumes, but on measurements of the chest-wall at different levels, made either with Hare's tapes or with the cyrtometer; and these, carried out in a large number of cases, led me to the following conclusions.

1. A greater dilatation of the chest-wall takes place than can be accounted for by any accumulation of fat or muscle, and this even occurs in bed-ridden patients, who may be also losing weight.

2. While it may occur in any part of the thorax, it is more common in the upper regions, and most frequent of all at the level of the third rib.

3. It is oftener found in women than in men; and its amount depends, to some extent, on the yielding or non-yielding condition of the thoracic wall. The changes in the lung-tissue which give rise to these modifications in the form of the thorax, as far as I can ascertain them by percussion and auscultation, are: (1) partial absorption of the pneumonic consolidations; (2) shrinking and cicatrisation of the tubercular masses, and [illegible] neighbourhood, similar to that found in *post mortem* examinations of arrested phthisis; (3) hypertrophy of the healthy lung-tissue. The existence of this last I deduce from the physical signs, and it may also be inferred from the improved breathing powers of the patients, as shown by their daily ascents, which previously would have been impossible of accomplishment.

I have not used the spirometer in [illegible] as the writer of the note to "the many difficulties surrounding the application of spirometry to [illegible]", though most of these are over-

in the admirable instrument recently constructed and exhibited Dr. Marcet.

With regard to the question of whether a further "extension of the disease takes place with extreme rapidity in the dilated, and therefore not quite healthy, lung", my experience differs from the writer's, though the length of time that the Davos treatment has been in use precludes our speaking too confidently of permanent arrest of disease by this method; yet, out of the twenty-two cases given in my table, I could instance several of the early ones who passed the two last severe winters in England without any return of pulmonary symptoms, and entirely without any extension of the disease. Most of them remain under observation, and appear to stand the fitful changes of this variable climate remarkably well. The expansion of the chest has been noted by many others besides myself, and was found by Dr. Ruedi to occur at Davos in 90 per cent. of the patients; and the remarkable fact is, that its occurrence coincides with a diminution in the rate of respiration and with an increase of their depth.

This dilatation is not always permanent, but sometimes is reduced on returning to lower levels; and I saw a curious instance of this in a gentleman, a native of Denver, U.S.A. (5,200 feet), the circumference of whose chest, after a residence of two months on the shores of the Lake of Geneva (1200 feet), diminished one inch, though he increased in weight. The fact of the enlarged thoraces of the inhabitants of various mountain ranges, such as the Andes, and Himalayas, has been proved by numerous competent observers; and, this last autumn, some measurements I made of the Chamonix guides confirmed it entirely.

The antiseptic qualities of high altitudes are doubtless of great value, and go far towards reducing the discharge from the ulcers and abscesses present in tuberculous lungs; but we must remember that these qualities are not the sole property of high altitudes. They are possessed by very cold climates, at high or low levels, as in the Arctic regions, in parts of Canada and Russia; and in very dry inland ones, as in the Egyptian Desert; or, again, in the ocean. But, diminished atmospheric pressure is peculiar to high altitudes; and it is to this we must look for the explanation of the remarkable changes in the thorax and its contents.

Having thus stated my views on this subject, I will close by a few words on the kind of cases of phthisis which do best at high altitudes. Ordinary chronic tubercular disease, provided the mischief be limited to the upper lobe of one lung, the constitutional powers be good, and pyrexia be absent, is well suited; the question of consolidation or excavation not being of much importance if the lesion be limited and a large respiratory surface be not involved. To this it may be objected that this is just the class of phthisis which does well anywhere, in hot or in cold climates; and that, in selecting this form, I simply select the most favourable cases. I admit this, but then I expect greater results from high altitude treatment than I have ever found arise from other climatic treatment. My experience leads me to conclude that one, or at most two, winters will cause an entire arrest of the above form of consumptive disease, and that the patient will be able afterwards to resume active life in England. Another class is hæmorrhagic phthisis, which gives remarkably good results at Davos. A third is phthisis originating in pneumonia or pleuropneumonia, provided only one lung be attacked, and only part of this not undergoing fibrosis.

The cases in which mountain treatment is contraindicated are: all forms of phthisis, acute or chronic, accompanied by pyrexia; also all cases of either advanced or of extensive tubercular disease, the objection being that such patients have neither the power of circulation to resist the cold, nor the amount of lung-surface necessary to aërate the blood in the rarefied atmosphere; also cases of phthisis in which catarrhal symptoms are the chief feature. These often improve greatly in general health at Davos, but the cough, instead of diminishing, increases; and in one of my patients of this class, catarrh of the larynx, causing obstinate aphonia, came on, this symptom subsiding later on during the hot weather in England. Such patients flourish in moist warmth, and are therefore more fitted for sea-voyages, or for Madeira; and the dictum of Biermer—the south heals catarrh, but the Alpine climate improves the constitution—has amply been borne out by my experience. It is the cold that affects this class of patients unfavourably; and it is possible that, where warmth is combined with altitude, as in the South African health-resorts or in the Andean, such as Quito or Santa Fé di Bogota, they may thrive.

In conclusion, what are patients to do when the snow melting necessitates their quitting Davos, which is generally the case at the end of March or the beginning of April? It is the custom to send them to Baden-Baden, or to one of the towns on the north-eastern bank of the Lake of Geneva, there to remain either till the summer commences in England or till the valley of Davos is free from snow. I do not hold with this practice at all, for I think it undesirable to place patients who have been undergoing a strictly bracing climatic treatment, under conditions which are more or less relaxing, such as at Baden-Baden, with its cauldron of hot springs, or on the banks of a lake, where moisture must be abundant in the atmosphere. The descent from an altitude of 5,000 feet should be made gradually, for fear of inducing hæmoptysis, which, though rare at Davos, occurs sometimes in patients after quitting it. The route to be followed is the Landwasser road to Thusis and Coire, and a halt of fourteen days should be made at the former place, which, standing at a height of 2,448 feet at the mouth of the Via Mala, and provided with fair hotels, is a good intermediate station. The next halt should be at Berne (1,765 feet) for a week, and the patient can then return slowly to England, reaching this country in the beginning of May, where, with a well braced system and with improved powers of taking exercise, he or she will not fear, but rather approve of our cold winds. This plan I have tried for now two seasons, and have found it fairly successful, and would recommend it to other physicians.

CASE OF MULTIPLE EXOSTOSES.*

By G. E. SHUTTLEWORTH, B.A., M.D.,
Medical Superintendent of the Royal Albert Asylum, Lancaster.

A. B., an imbecile boy aged 13, for several years past an inmate of the Royal Albert Asylum, has at least sixty growths from, and enlargements of, bones in different parts of his body. His general health is good; his physical development moderate (height, 4 ft. 6 in.; weight, 72 lbs.), and his mental condition is that of idiocy of the milder type. The skull displays no marked external peculiarity; it is fairly symmetrical, and measures twenty-one inches in its greatest circumference. The features are regular, and the bones of the face appear normal; but the eyes are somewhat prominent. The thorax is of normal contour and capacity. On the second, third, fifth, seventh, and ninth ribs of the right side, and on the second, third, sixth, and seventh ribs of the left side, there are palpable nodules near the junction of the bone with the cartilages. The sternum and spine appear to be unaffected. The pelvis displays posteriorly on each side an exostosis; that on the right side, of the size of a filbert, being near the posterior superior iliac spine, that on the left being smaller and lower in its position. The bones of the extremities are so studded with exostoses that they will be best described under a tabular form, as follows:

	Right Side.	Left Side.
Clavicle:		
	1. Small nodule, sternal end.	1. Larger nodule, sternal end.
Scapula:		
	1. Growth (two inches across) from superior angle, filling up part of supraspinous fossa.	1. Three nodules on spine.
	2. Three nodules along vertebral border.	2. Nodule in infraspinous fossa.
	3. Massive exostosis in subscapular fossa, causing outward projection of scapula.	3. Thickening of inferior angle. 4. Nodule in subscapular fossa, projecting scapula, but less than on right side.
Humerus:		
	1. Exostosis (size of walnut) on external border (upper third).	1. Series of coalesced exostoses on external border (upper third).
	2. Smaller nodule attached to internal border.	2. Nodule (size of small orange) projecting into axilla.
	3. Small nodule projecting into axilla.	3. Exostoses on each side of bicipital groove.
Radius and Ulna:		
	1. Head of radius enlarged.	1. Head of radius enlarged.
	2. Nodule lower end of radius.	2. Mass of coalesced exostoses at lower ends of bones, projecting on radial side.
	3. Nodule lower end of ulna.	
Metacarpal Bones:		
	1. Small nodules at end of each bone.	1. Corresponding exostoses.
	2. Nodules on dorsal surfaces of first and middle metacarpal bones.	
Phalanges:		
	1. Small nodules on dorsal surfaces of first phalanges.	1. Corresponding exostoses.
	2. Small nodules on dorsal surfaces of second phalanges.	2. Corresponding exostoses.

* Read before the Lancashire and Cheshire Branch.

Femur:	
1. Massive enlargement of bone for three inches above internal tuberosity.	1. Corresponding enlargement; projection on inner side more marked.
2. External tuberosity enlarged.	2. Exostosis projecting into popliteal space.
Tibia and Fibula:	
1. Large exostosis below head of fibula.	1. Corresponding exostosis.
2. Large exostosis below head of tibia.	2. Corresponding exostosis.
3. Nodule two inches above external malleolus.	3. Exostosis two inches above ankle, involving both bones, and extending round to each side.
4. Nodule on internal malleolus.	4. Nodule one inch above internal malleolus
Metatarsal Bones:	
1. Small nodules on dorsal aspects of second, fourth, and fifth metatarsal bones.	No corresponding exostoses.

It is to be noted that on the right side the exostoses limit the pronation of the forearm; and on the left side supination is impossible. The free extension of the knee-joint is also somewhat impeded by the neighbouring growths.

It may be remarked that whilst there is a general tendency to symmetry in the position of the exostoses, they do not correspond in size on either side of the body. Thus, both scapulæ have exostoses, but the right is considerably more enlarged than the left; whereas, as if to supplement the deficiency, the left humerus is much more enlarged than the right. No special correspondence, either with centres of ossification, or insertion of muscles, is traceable in the sites of the exostoses. In size, they vary from that of a small pea to that of a small orange; and in some situations large bony masses are formed by the coalescence of two or more exostoses.

The history of the case throws but little light on its etiology. There is no hereditary history of abnormal bony growths (such as have been observed in other instances);* and, so far as is known, the only family dyscrasiæ are acute rheumatism on the father's side, and rheumatic arthritis on the mother's. Though delivered with forceps, no symptoms of imbecility were observed till after an attack of pneumonia at one year of age; soon after which small exostoses on the left shoulder-blade and on the ribs were noticed for the first time. The knees were noticed to be "growing out" when the boy was two years old: at this time he had an attack of "brain-inflammation". The bony growth has been progressive from that time to the present, and treatment has been of no avail in checking it. There are no indications of syphilitic taint.

The relation of the osseous affection to the boy's mental imbecility is an interesting question. Although there is no obvious external deformity of the skull, it seems quite possible that (as in the analogous affection described under the name of osteitis deformans) concentric cranial hypertrophy may exist, and the due development of brain be thereby impeded.

GRAVIMETRY IN THE MORTUARY; OUGHTON'S NECROMETER, ETC.

By J. P. H. BOILEAU, M.D., Surgeon-Major,
Assistant-Professor of Pathology at Netley.

In the last number of *Brain*, there is a short but valuable article by Mr. Bevan Lewis of the West Riding Asylum, on the Examination of Cerebral Structures. Having referred to the more important methods adopted for ascertaining the specific gravity of organs, he states that Mr. Stevenson (Philosophical Instrument Maker, 9, Forrest Road, Edinburgh) has devised a simple and most reliable apparatus for estimating at the same time both the bulk and the specific gravity of large irregular bodies, by displacement; and he points out the simplicity and value of the method, whereby the weight, the volume, and the specific gravity of the brain, *e.g.*, may be simultaneously obtained. The apparatus is figured.

For several years past, this method has been employed at the Royal Victoria Hospital at Netley, for determining such physical conditions; but the very suitable and convenient apparatus used is the invention, or design rather, of an officer in the Army Medical Department, Surgeon-Major Tyler Oughton. It is fully described and illustrated in the eighth volume of the *Army Medical Department Reports* (1869), pages 520 to 528.

The entire apparatus used by Mr. Oughton is comprised in a counter weighing machine and the "necrometer", which consists of a cylindrical metal vessel and a glass measure. The cylinders vary in size: one holding about six gallons is most frequently in requisition; its height is eighteen inches, and its diameter ten. Each cylinder has a stop-cock discharge-pipe at about the junction of its upper with its middle third, communicating with the interior by an open funnel or tube having its mouth horizontal. Mr. Oughton's cylinders are also provided with a second tap near the bottom. It is found to be a convenience sometimes in emptying them. The necrometer measures are of glass, having a diameter of from one to two inches, and a height of from eight to twelve. Each is graduated to measure cubic capacity in inches on one side, and to indicate the equivalent weight of distilled water on the other side. These indications were originally in drachms, but subsequently in grains, to correspond with the weights used in the machine.

The method of using the necrometer is thus described by Mr. Oughton: "Close the stop-cock and fill the cylinder with water until it rises above the aperture of the funnel. On allowing the water to escape through the tube, it will find the level of the aperture. The organ to be measured having been well washed, and weighed in the machine previously, is now introduced into the vessel after reclosing the stop-cock. Lastly, the water that has been displaced is allowed to escape through the tap to the level of the funnel-top, and is received into the glass measure. The bulk or volume of the immersed organ will be indicated by the measure, and likewise the weight of an equal volume of water. Divide the weight of the organ in air by the weight of the water of displacement, and the quotient will express its specific gravity."

When the organ is specifically lighter than water, *e.g.*, the healthy lung, Mr. Oughton makes use of a heavy solid, whose volume and equivalent weight of water have been already determined. This having been tied to the lung, so as to sink it, the volume and the water-weight of the two parts are ascertained according to the above plan; then the volume and water-weight of the added body are deducted from the totals, and the difference gives the volume and water-weight of the lung.

I have, however, adopted a simpler plan, using a "cage" of perforated zinc constructed of suitable dimensions, and having a cover easily fastened on. The cylinder having been filled as before to the level of the funnel-top, the stop-cock is closed. The empty covered cage is dropped into the water; it sinks and displaces a certain quantity, which is allowed to flow out through the stop-cock, and this is then closed. The cage is now raised, and the light viscus having been placed in it, lowered again into the water. It is clear that the further displacement which now takes place represents the volume of the viscus itself; and this, as well as the weight of an equivalent bulk of water, is indicated by the collecting glass measure.

In Mr. Stevenson's apparatus, according to the description and figure given in *Brain*, the organs or substances require to be depressed below the water-level by means of a brass contrivance. This can only be accounted for, in the case of a body specifically heavier than water, by the specific gravity of the latter having been raised by the addition which he makes to it of salt, or sulphate of magnesia. The simpler method is to use plain water.

Full information on the subject will be found in the *Army Medical Department Reports* for 1869.

HOSPITAL SUNDAY.—The annual general meeting of the constituents of the Hospital Sunday Fund is announced to be held at the Mansion House on Tuesday, December 20th, at 3 o'clock. The Rev. Canon Spence, Vicar of St. Pancras, has given notice of motion to alter the constitution of the fund so as to allow a grant of 4 per cent. of the collection each year to be expended in the purchase of surgical appliances, instead of 2 per cent. as heretofore.

ALLEGED DISCOVERY OF STILL-BORN CHILDREN.—At a recent meeting of the Burial Committee of the Hull Corporation the chairman reported that the men engaged in putting in order a disused burial ground in Castle-street had come upon a large number of bodies of still-born and other children buried about three or four inches below the surface. In all between twenty and thirty bodies had been found, some in boxes and some unenclosed. It was suggested that persons had got over the walls and buried the bodies; but the chairman said this could not have been so, as the bodies were laid in regular rows, and the only possible conclusion he could arrive at was that the late keeper of the ground had made interments for a consideration. Several of the bodies had been taken up and placed in the dead-house. It was resolved to communicate these facts to the Home Secretary.

CLINICAL MEMORANDA.

CASE OF DOUBLE LOCALISED EMPYEMA OF RIGHT SIDE: RECOVERY.

H. A. [illegible] 59, residing about seven miles from me, sent hurriedly, at 7 A.M., on February 7th, 1881. He had been ill with a "bad cold" for three or four days, and having tried the usual domestic remedies without much effect, he inhaled some pungent drug from a bottle which he saw advertised to cure colds. The effect was marvellous, and he says his cold was almost immediately well; but that day he experienced headache; as evening drew on he became restless and feverish, and in the night had a rigor. I saw him the next morning. He had well marked double pneumonia at the lower third of the bases. In seven days' time the base of the left lung had cleared up and was nearly well; but dulness on percussion remained over the right lower third, and the breathing became more feeble. About the tenth day it appeared to be slightly bulging at this part; and on further careful examination of the whole of the chest I discovered that there was a patch of dulness in front on the right side continuous with the upper border of the liver, and extending upwards, and covering a patch about the size of a small cheese plate. The breathing between these points of dulness was good. I then strapped that side with emplastrum cerati saponis, and gave a mixture containing iodide of potassium and cinchona, varying it occasionally with quinine, nitro-hydrochloric acid and digitalis. The patient took plenty of nourishment; but the lung continued in the same condition till about February 20th, when he seemed to be becoming more livid and dusky, and his breathing more laboured; I then increased the digitalis, but with no very good result. On the night of the 25th, I was sent for, and found he had expectorated a large quantity of pus (nearly half a pint). There seemed, however, no difference in the physical signs, but his distressed breathing was a little relieved. The cough all along had been most intractable and spasmodic, and his expectoration very little till now, when it became very free and purulent. On February 28th, I had a consultation with Dr. Shingleton Smith, and he confirmed my diagnosis and gave a bad prognosis. The temperature had varied from 99° to 102°, from the commencement to March 6th, when it became normal, and remained so till March 15th when it went up again; so I called in Mr. Greig Smith with the view of aspirating. But, from the appearance of the expectorated pus, which was excessively thick, he decided to make an incision straight into the anterior empyema with a bistoury: this he did, and it was followed by a gush of green pus, which was accelerated upon the coughing of the patient. A tracheotomy-tube was tied in the wound; and a warm sponge, moistened in a solution of carbolic acid, placed over the whole, and kept in place by bandages, the sponge being frequently changed. I found it impossible to keep the tube in, and therefore substituted a gum-elastic catheter, which went in five inches; at the outer end of it, I fixed a long piece of India-rubber tubing, with the other end of the tube in a bottle of Condy's fluid. This bottle he put in his waistcoat pocket, and it acted very well. The wound was syringed out daily and the contents of the bottle changed. I substituted a weak solution of carbolic acid for the Condy, and in a few days the patient was able to walk about the room. He wore the tube in his side till September 2nd, when (as it became painful) he took it out, and the wound healed in a few days. There had been very little discharge for several weeks. From this time he rapidly regained flesh and strength, and on November 29th I made an examination of the lungs with the following result. At the right back base, at the lower sixth, there were absolute dulness, absence of breathing, and lessened vocal thrill. In front, where the empyema was opened, the lung seemed to have regained its normal dimensions; the breath-sounds were a little feeble, there was no marked dulness, and good vocal thrill. The patient is quite well, with the exception of a little laryngeal cough. I do not know of any case of recovery from empyema at the age of 59, and it is on this account I thought it would be of sufficient interest to give it a place in the JOURNAL.

A. H. BOYS, M.R.C.S.Eng., L.R.C.P.Edin., Pill.

ON THE FROTHING OF URINE.

IN the JOURNAL of November 19th Mr. G. S. Johnson notices a paper by me, published in the *Glasgow Medical Journal*, on the above subject. He there observes that I have overlooked the action of alcohol in preventing the frothing of albumen, and adds that it would be interesting to know whether it was strictly withheld from those patients in whose urine (albuminous) no frothing could be detected. In reply, I may state that in one of the most remarkable cases mentioned in my paper not a drop of alcohol was administered throughout. This case was that of a female, aged 75, whose urine, though highly albuminous, showed scarcely any froth. This patient is still alive and well; and since Mr. Johnson's note appeared I called on her, and was positively assured that she had never taken alcohol in any form during her illness.

I was not aware of the effect of alcohol on the frothing of albumen; but is it as great as Mr. Johnson would lead us to believe? Trying it on a one-in-twenty dilution of egg-albumen in water, it appeared to me to be quite inappreciable. The liquid seemed to be as highly "physalisable" after the addition of large quantities of alcohol as before. A little chloroform had a more decided effect, while the smallest quantity of ether prevented frothing entirely. When, however, the ether was evaporated by the air-current the liquid physalised as before. It was at once evident that it was the volatility of these agents which prevented frothing. I therefore tried alcohol at a high temperature; but even at 50° C. (112° Fahr.) its effect was quite inconsiderable.

With regard to the case of ammoniacal albuminous urine which did not froth, I am not inclined to believe that this was due to alkalinity.

ROBERT KIRK, M.D.

THERAPEUTIC MEMORANDA.

ASCLEPIAS IN DROPSY.

I WOULD call attention to the benefit to be derived from the use of this American remedy as a diuretic. This plant, Asclepias Syriaca, *vulgo* milk-weed, has a specific power in dispelling dropsical effusions. Having exhausted every known remedy in the English and Italian pharmacopœias, when treating a case of cardiac dropsy, I was induced to try this drug, having found favourable mention of it in an American work. The preparation used was the homœopathic mother-tincture, which I obtained from London; and though it appears in the pharmacopœia of this school, its virtues are unknown.

The dropsy was connected with mitral disease, the anasarca being most extreme, and the quantity of urine passed in the twenty-four hours being only six to eight ounces and like so much liquid brick-dust. The treatment adopted was tapping by means of Dr. Southey's trocars, the administration of the tincture, in gradually increasing doses of two to seven minims four times a day, and milk diet *ad libitum*. The operation of tapping was performed on four occasions, and in both legs simultaneously. The quantity of serum that escaped by this means amounted to twelve gallons, the largest flow in twenty-four hours being three-and-a-half gallons and twenty-two ounces. Under this treatment the daily amount of urine excreted increased to forty ounces, clear and limpid.

While recognising the important part which the factors—tapping and milk-diet—play in reducing dropsy, and in increasing urinary secretion, yet I am so convinced of the efficacy of this drug that I hasten to bring it before the notice of the profession.

CH. SPURWAY, M.R.C.S.E., Italy.

SURGICAL MEMORANDA.

THE IMMEDIATE ARREST OF BLEEDING FROM THE NOSE.

THE practical interest in this matter is shown by the number of letters which I have received from medical men in all parts of the country. Since the publication of my former memorandum in the BRITISH MEDICAL JOURNAL (November 12th, 1881) I did not name any surgical mechanist in connection with Dr. Rose's instrument, as there seems no reason why it should be the exclusive property of any maker; and I suppose that any leading firm in London could supply it.

Mr. H. C. Howard has kindly sent me an "inflating nasal plug", which, by its form, would be accurately fitted to the cavity of the nose when inflated. This is an advantage; but then Dr. Rose's instrument does not require a director to introduce it, as it is both director and inflator in one. In both cases, the breath is the best inflating agent.

An ingenious device for distending the nasal cavity with iced water, a constant current being sent through it, is described in the second edition of Mr. Swain's *Surgical Emergencies*; but it is remarkable that nothing of the sort is mentioned in Mr. Berkeley Hill's *Essentials of Bandaging*, and only that dreadful machine, Belloc's cannula, the use of which is an agony to think of. I shall be only too glad if my memoranda contribute to the safe and speedy treatment of epistaxis, and help in saving doctors a world of anxiety and trouble when they are called to these pressing cases.

JOHN KENT SPENDER, M.D.Lond., Bath.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

LIVERPOOL ROYAL INFIRMARY.

SIMPLE FRACTURE OF PATELLA, UNITED BY BONE.

(Under the care of Mr. RUSHTON PARKER.)

WILLIAM H., aged 23, a bargeman on a canal, was kicked on the right knee; fell, and, on rising, fell again heavily. He was admitted some hours later, on July 16th, 1879, having a transverse fracture of the patella, with about three-quarters of an inch separation between the fragments, and œdema of the neighbouring subcutaneous structures, but no articular effusion. The limb was fixed horizontally in a Thomas's knee-splint, being suspended between the bars on a posterior hollow splint of sheet-iron, padded with boiler-felt. A ring of three-quarters of an inch rope, about six inches in diameter, thickly wound with cotton wrung nearly dry out of water, was placed, closely-fitting round the patella, on the front and sides of the joint, and pressed backwards with strips of bandage in such a way as to hold the fragments closely together. To prevent their tilting, some more cotton was then stuffed in front, so as to fill the ring, and confined with a bandage, firmly and comfortably without being tight.

This treatment was continued for a month, with occasional adjustments, the patient sitting or lying in bed as he pleased, and having experienced distinct relief at the first application. On August 14th, Thomas's calliper knee-splint was put on, and the patient allowed to get up and walk about; in fact, he was made an out-patient at once, and returned to Cheshire, being advised to wear the splint six months or more, and, under those conditions, to do some of his work. He visited the hospital on November 17th. Union was good and close, but not bony—a result not thought of then. He had discontinued the splint shortly before, and was at work on his flat; but, though not following out his injunction to persevere with the splint, which he found irksome, he wore a bandage, and took some pains to avoid more than a slight bending of the joint. He did not come again till March 15th, 1881, when bony union of a very firm kind was obvious to anyone, and complete mobility and perfect strength of the joint. He is a very powerful and healthy man, of middle height, and thick-set.

The above method of putting up a recently fractured patella is simple, accurate, and very satisfactory when no effusion is present. In the latter event, any forcible attempt to approximate the fragments is better omitted until the effusion is gone, or has been withdrawn by aspiration. The effusion may in some cases have coagulated, in which case aspiration fails. Under any circumstances, effusion generally disappears rapidly, and the fragments fall together so satisfactorily that forcible approximation is hardly necessary. The great item should be the avoidance of flexion in the after-treatment until the union has long been inextensible—if possible, for six or twelve months; after which, fibrous union is practically as good as that by bone; while the occurrence of bony union itself is probably even facilitated.

UNUNITED WIDE SEPARATION BETWEEN PATELLA AND ITS TENDON: INCISION AND SUTURE ANTISEPTICALLY: CURE.

John R., aged 12, a healthy schoolboy, applied, in December 1879, on account of an injury to his right knee, received a fortnight or three weeks previously. He had not been laid up, nor had he had any restraining apparatus. When erect, this limb fell straight, and could be used for progression; but he could not stand upon that leg alone, nor in any way employ the extensor muscles of the knee, so that the least force from behind knocked him off that leg. In flexion, the whole patella was drawn up, or rather remained constantly, at and above the trochlear surface of the femur, so that a gap of three inches could be instantly made; in the erect posture it fell a little, and could be drawn completely down. There was no pain, swelling, tenderness, or other abnormal sign about the knee. The operation of incision and suture was done on January 16th, 1880, under ether, and with all the precautions of Mr. Lister's carbolic acid method. A transverse incision was made, and the joint entered in its femoro-patellar division, above the mucous ligament; the patella was bored along its length obliquely from below, upwards and forwards, with a cabinet-maker's small twisted gimlet, which was made to issue through the skin, and then withdrawn along with a piece of copper bell-wire (about three-sixty-fourths of an inch thick), held in the twisted groove of the gimlet. Two wires were thus employed, in two different parallel tracks; and the same process was repeated through the skin and ligamentum patellæ. By this means the patella and its ligament were drawn together, and the wires acutely bent once on the skin at each aperture above and below; serving, in addition, as relaxation-stitches for the wound, the edges of which were then capable of being closely sewn with carbolised waxed threads, without tension on the latter. No twist in the wires was needed, nor any disturbance of the wound contemplated or experienced in their withdrawal. The drains were of rubber tubing and horsehair, and Thomas's knee-splint was put on in addition to the gauze dressing.

On the following day the temperature was 103°, the pulse quick, and the knee painful and exquisitely tender. When exposed under the spray, the skin all over the outer half of the joint and the lower outer half of the thigh was swollen, and marked by a circumscribed bright red inflammatory blush. The other side was not puffed, and was free from tenderness. Ether was at once given, and the wound examined at leisure, as defective drainage was suspected. A suture or two being removed, and the drains in the outer corner being examined and nothing found, a pair of dressing forceps was passed into the joint, with the effect of letting out a couple of drachms or less of bloody serum from behind a clot. The drains were doubled, and the sutures not reintroduced. The temperature fell two or three degrees in as many hours, the tenderness gradually diminished, all pain disappeared, and the boy remained well until healing was accomplished. Several days elapsed between the changes of dressing, which were effected on the second, seventh, fourteenth, and twenty-fifth days respectively; the wires were straightened and easily withdrawn on one of these occasions; the drains were gradually removed, and at the end of a fortnight the few punctures and spots in the incision, still unhealed, were superficial granulating sores. Nothing but blood and serum issued from the incision at any time; a flake of puriform lymph collected at each wire orifice, where slight ulceration of the skin ensued under the acute flexion of the wire; and, after the first fortnight, the boy got up each day, wearing a calliper splint and his Listerian dressing. Thomas's calliper knee-splint reaches from the groin and perinæum to the heel, where it clips a short piece of gas-pipe lying in a slot in the boot.

At the end of about three weeks total healing had resulted, and the patient was walking about and playing with other boys; the patella keeping its place in contact with the upper end of the tendon, and, from the impossibility of flexion, not being in the slightest degree induced to leave this position. He went home at the end of five weeks and visited the hospital as an out-patient during the next few months, wearing the splint night and day; and being moreover enjoined to continue doing so for about a year, and being particularly urged not to permit the knee-joint to be flexed to the slightest degree for any purpose during the same period. He was lost sight of for the latter half of the year 1880, but was seen in January 1881, still wearing the splint and knocking about the fruit market and town generally, perfectly comfortable and healthy. He could not be persuaded to come to the hospital to show his knee, but he was told that he had probably worn the splint long enough. However, he did not remove it till the beginning of June 1881, and on June 25th he came to show himself. After three weeks disuse of the splint the knee could be bent to a right angle, and extended fully by the proper muscles in any attitude. Though the patella was firmly attached to its ligament or tendon, it is situated about an inch or more higher up than the opposite one.

It will be perceived that no "passive motion" was employed here. On his discharge from hospital, examination of the knee revealed what is often called "stiffness", but what was in reality a want of suppleness or flexibility in that part of the capsule involved in the cicatrix—a perfectly natural and, of course, inevitable result of the simple unexaggerated inflammation by which the primary union was effected. The perfectly straight position was maintained until long after the cicatrix had ceased to be vulnerable under muscular pulling and articular motion—with the effect of restoring the suppleness of the tissues. The boy was so afraid of bending the knee, which at first pained him at the slightest attempt, that there was no difficulty in getting him to comply with the directions given him: in fact, when all need of the splint had ceased to exist he still wore it for his own comfort and protection. The much dreaded permanent stiffness, which is so much talked about, did not supervene; but, on the contrary, the slight temporary œdema and [illegible] consolidation; and the slight defect in suppleness, naturally resulting from long disuse, is being safely removed under the gradual, painless, and consequently [illegible] After sixteen months' confinement in the perfectly straight position, the joint can be easily bent to a right angle, [illegible] three weeks, and may confidently be expected to [illegible] possibly completely, in a month or two more.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 13TH, 1881.

A. W. BARCLAY, M.D., President, in the Chair.

A CASE OF [illegible] TUMOUR OF THE PROSTATE WAS [illegible]: WITH REMARKS ON THE [illegible] OF THE GLAND.

BY REGINALD HARRISON, F.R.C.S.

The [illegible] was intended to [illegible] upon the remedying of prostatic enlargement by means other than those commonly recognised. It was considered that a study of what, for the most part, had been regarded as accidents occurring during lithotomies, might contribute to our resources in the treatment of this affection. The patient was admitted into the Liverpool Royal Infirmary with a stone in the bladder and enlarged prostate, for which lithotomy was performed on September 5th, 1881. The stone was so large, that bilateral section of the prostate became necessary. Though this extension of the incision gave additional room for extraction, a tumour of the prostate proved to be an additional obstacle. This was enucleated with the finger, when the stone was easily removed with the forceps. Our patient made a good recovery. The tumour was about the size of a walnut, and proved to be an adenoma. The calculus was oxalate of lime, and weighed two ounces and five drachms. An analogous case, occurring in the practice of Mr. Bickersteth, where a prostatic adenoma, and a stone weighing two ounces and a half, were successfully removed in a somewhat similar manner, was also recorded. From these instances, together with others of the same kind, published by the late Sir William Fergusson, Mr. Cadge, and Dr. C. Williams, Mr. Harrison considered that the following conclusions might be drawn. 1. Lateral cystotomy may be practised in certain cases of enlarged prostate which are attended with symptoms producing great distress, with the view of exploring, and if possible of removing, the growth. 2. In all cases of cystotomy for calculus, where the prostate is found to be enlarged, a careful search should be made with the finger, with the view of effecting the removal of the growth, should such be found practicable. In determining the selection of lithotomy or lithotrity in a case where stone in the bladder is complicated with enlargement of the prostate, regard should be had to the possibility of removing both of these causes of annoyance by the one operation, namely, by lithotomy. Further, these cases seem to indicate the best mode of removing these tumours when met with during the performance of cystotomy. It was suggested that, where the third lobe was found to be enlarged and pendulous, a simple form of *écraseur* might be advantageously substituted for avulsion with the finger.

Sir HENRY THOMPSON said that the suggestion made by the author of the paper was practical, and deserved consideration. Cases of the kind described, of prostatic tumour complicating stone in the bladder, were not uncommon; and several instances of removal of the tumour during lithotomy had been recorded. He presented Mr. Cadge's cases at a meeting of the Pathological Society in 1862. At that meeting, a contributor whose name was not then given—Dr. Keith of Aberdeen—said that he had removed an enucleated outlying portion of the prostate in eight or ten cases, and that he had not observed that any change was thereby produced in the condition of the patients. Sir William Fergusson had removed the prostatic growth four or five times. It must be remembered that there were two distinct forms of prostatic tumour: 1. An outgrowth from the gland; 2. A tumour encapsuled in the interior of the gland. He thought it better to use the term prostatic tumour in all these cases, than adenoma. Like adenoma of the breast, the tumour of the prostate approached the gland in structure. An extensive examination of prostates would reveal the presence of encapsuled tumours, more or less, in all cases of hypertrophy of the organ. The performance of median or lateral lithotomy to relieve the suffering caused by enlarged prostate, in cases where there was no stone in the bladder, had been spoken of by Guthrie, and had been tested. He (Sir H. Thompson) had done it in the cases of three old men who for years had passed all their urine by catheter. After the operation, however, the patients were still obliged to use the catheter as before; and he was disappointed with the result. It was not very large prostates that produced obstruction, so much as small nipple-like projections which entered and blocked the urethra. He would be glad to see the way to relieve cases of prostatic obstruction by operation; but operative interference was dangerous in persons sixty or seventy years of age, and he doubted whether it would be justifiable to perform on them an operation of which the mortality was about one in four, except when the patient's suffering was very great.—Mr. SAVORY said that the operation would enlarge the resources of surgery, if the nature of the enlargement could be ascertained beforehand. But there were no means of diagnosis between an enlarged prostate and a tumour of the prostate. There were tumours which could be enucleated; but nothing in the way of operation could be done with a hypertrophied prostate. He could scarcely propose an operation unless there were some means of previously diagnosing between the two conditions.—Mr. C. HEATH said that in one case, in which Sir W. Fergusson tore off a projecting mass of the prostate (the third lobe) during lithotomy, the patient died.—Mr. R. HARRISON said that his object was to see whether it were possible to utilise what had been regarded as accidents. He did not propose the operation for cases of simple enlargement of the prostate; but cases were sometimes met with in which the suffering caused by the enlarged prostate was greater than that caused by the co-existent stone. Although a diagnosis between the two forms of enlargement could not be made from the symptoms, he thought that an exploratory incision would do no harm, and might lead to the relief of the patient.

A CASE OF [illegible] POLYPOUS TUMOUR OF THE BLADDER, SUCCESSFULLY REMOVED. BY BERKELEY HILL, M.B., F.R.C.S.

The patient, aged 40, had suffered, from January to October, with irritable bladder. The earliest symptoms were fever with rigor, hæmaturia, and strangury. Then followed abortion at three months, diminished gravity of symptoms, and marked improvement for some months after voiding a mass of clot and phosphates. The suffering having returned, a digital exploration of the bladder was made, and the polypus was detected and removed. The patient made a rapid recovery. An account of a careful microscopic examination of the tumour was given. It was mainly fibrous; but in part villous, and in part resembling alveolar sarcoma. Statistics of the number of recorded successful removals of vesical tumours showed twenty-eight cases, with nineteen recoveries.

Dr. C. H. CARTER had had a patient in the Hospital for Women, two years ago, with polypus of the bladder. She was found to have a reddish mass projecting from the urethra, and was admitted as an in-patient. Next day, however, the tumour had disappeared, and she left the hospital. She returned, complaining that a mass, half an inch or more in length, projected from the urethra when she passed urine. On digital examination, a polypus was found adhering to the posterior wall of the bladder. It was torn through during the examination, a piece about an inch long being removed. She had since remained well.—Mr. HARRISON CRIPPS believed that fibrous polypi of the bladder and rectum were the results of villous outgrowths, and not that the villi grew from the surface of the tumour; the fibrous tissue being produced by elongation and transformation of the deeper epithelial cells. They originated as villous growths, the fibrous growth being secondary.—Mr. HENRY MORRIS advised early examination of the bladder in females in cases where tumours were suspected; it might lead to early removal of such tumours, and the prevention of dilatation of the ureters and kidney. In a case which he had observed, he had found, with other tumours, a papilla hanging over and obstructing the orifice of each ureter; one ureter was dilated as far down as the bladder; the other was also dilated, and the kidney destroyed. He thought that, if the existence of the tumours could be ascertained early, they might be removed before they became numerous.—Mr. BERKELEY HILL said that Dr. Carter's case was interesting; but was there a certainty of no relapse? He agreed with Mr. Morris as to the importance of early detection of the tumours; but the symptoms indicating their presence did not always precede dilatation of the ureters.

PRESENTATION TO MR. C. POOLEY.—Mr. Charles Pooley, late of Weston-super-Mare, but now of Cheltenham, has been presented, by his friends and late patients at the former place, with a very handsome chiming-clock, inscribed, "Presented to Charles Pooley, Esq., F.R.C.S., F.G.S., F.S.A., by a few friends and late patients, as a slight token of their appreciation of his many kindnesses in and apart from his profession." A copy of the inscription and list of the subscribers were also presented, beautifully illuminated on vellum.

FACTORY CHILDREN.—We have received some details of the new projected law relative to the employment of children in manufactories in Russia. The minimum age is fixed at twelve years, but children already employed in such establishments are excepted from the benefits of this regulation. Up to eighteen years of age, the day's labour is not to exceed twelve hours, inclusive of two hours devoted to rest and meals. Night work is absolutely forbidden.

OPHTHALMOLOGICAL SOCIETY OF GREAT BRITAIN.

THURSDAY, DECEMBER 8TH, 1881.

WILLIAM BOWMAN, F.R.C.S., F.R.S., President, in the Chair.

General Retinal Peri-arteriti.—Dr. MULES (of Manchester) related the case of a man aged 59, the subject of chronic albuminuria and valvular disease of the heart, who presented some unusual ophthalmoscopic appearances; in one eye, the retinal arteries were transformed into white cylinders, which could be traced to their third divisions; this alteration was so extensive, that the natural red colour of the vessels could only be seen in a few limited areas; and, on minute inspection, extensive hæmorrhages were also present. Vision was reduced to perception of light in the affected eye; in the sound eye, it was of natural acuteness.—Dr. BRAILEY thought the case was one of ordinary retinal disease, due to the chronic albuminuria, but with the peculiarities extremely well marked.—Dr. GOWERS thought the kind of peri-arteritis here shown, consisting of very definitely bounded areas, was one, in degree at least, altogether beyond that ordinarily seen in albuminuric retinitis. He had figured, in his work on *Medical Ophthalmoscopy*, a case in which a condition like that in the patient shown by Dr. Mules was found; but, in his case, the changes were less extensive.

Tumour at the Sclero-corneal Junction.—Mr. MASON (of Bath) showed a patient to the Society who presented a small tumour in this situation. The patient was a woman aged 30, who gave no history of syphilis or of malignant disease. The tumour had been slowly growing for about two years and a half. When first seen, eight months ago, the tumour was about the size of a pea, and presented a very low degree of vascularity. Since her confinement, four months ago, it had become more vascular, and had notably increased in size.—The PRESIDENT thought the tumour to be a very unusual and remarkable one; he thought it lay altogether in front of the cornea, and immediately beneath the conjunctiva; the growth was very little vascular. He would be inclined to shave it off. In one similar case he had seen, a recurrence of the growth seemed to be checked by incising the cornea in advance of the growth.

A Case of Acute Glaucoma cured by Eserine.—The SECRETARY (Mr. NETTLESHIP) read the notes of this case, which had been under the care of Mr. R. J. Pye-Smith (of Sheffield). The patient, a lady aged 70, had been severely shaken by a fall down-stairs. On the fifth day after the accident, the left eye became acutely glaucomatous (T+2), the cornea steamy, the pupil dilated, vision was reduced to counting fingers, and coloured rings were observed around a candle. The use of eserine discs entirely relieved the symptoms within twelve hours. For a year after this, very slight and transient relapses occurred at intervals of not more than a month. The symptoms, when they recurred, were always removed by the use of the eserine discs. Latterly, the relapses had become less and less frequent, and none had occurred for the last three months. The eye at the present time (two years after the first attack) is normal, and brilliant type (Jäger 1) can be read with the reading glasses which have been in use for several years.

A Case of Acute Glaucoma cured by Sulphate of Eserine.—Dr. BUZZARD related the case of a lady aged 64, to whom he was called on account of severe neuralgia in the region of the supra-orbital nerves, which had been treated by gelseminum for some time. Dr. Buzzard found all the typical symptoms of acute glaucoma. Iridectomy was advised; but, before resorting to that operation, eserine discs were tried, on the advice of Mr. Lawson. Two or three discs a day were used, and an immediate improvement was noticed; and, in six weeks, the patient had completely recovered; she still remains free from disease.—The PRESIDENT observed that both cases were of great value, especially the latter; for, in the former, there might be some suspicion that the glaucoma was due to the injury; in the second case, there was no history of injury, and by so much the case was more satisfactory as evidence that acute glaucoma could be cured by eserine.—Dr. FITZGERALD (of Dublin) had met with one case where the symptoms of acute glaucoma were immediately relieved by eserine. In chronic glaucoma, also, eserine had sometimes yielded satisfactory results in his hands.—Dr. BRAILEY considered eserine especially suitable for cases like those cited, viz., recent acute or intermittent glaucoma. He attributed these forms of the disease to an excessive secretion, perhaps temporary, into the vitreous chamber, the ways of escape of fluid from the eye not being structurally changed. The drug gave relief by causing contraction of the intra-ocular muscular fibres sufficiently strong to render tense and to open out the meshwork in the neighbourhood of the iris angle. In this way, the retardation caused temporarily there by the increased pressure is done away with, and a sufficient flow re-established. The curative action of the drug was not due to a removal of the iris periphery from the entrance to Fontana's spaces, for it is only in cases of longer standing that the iris is found occupying such a position. Eserine would naturally fail where, as in senile chronic glaucoma, the muscular fibres of the ciliary body and iris were atrophic, and the meshwork at the periphery of the anterior chamber indurated and contracted.—Mr. ANDERSON CRITCHETT had recently had a case of chronic glaucoma in which the persistent use of eserine for some months had entirely failed. He thought too much trust ought not to be placed in eserine.—Dr. ANDREW (Shrewsbury) thought that eserine was of value where sympathetic ophthalmia was commencing. He had found that, in those cases where it was doubtful whether the excision of the diseased eye might be too late to save the other eye, eserine seemed to reduce the tension of the eye sympathetically affected, and gave time for the selection of a favourable moment for excision of the diseased eye.—Mr. PRIESTLEY SMITH had seen two cases in which he thought eserine had been of use in acute glaucoma. He believed that eserine and atropine had no effect on the tension of the healthy eye. Where the angle of the anterior chamber was compressed, eserine reduced the tension. Where the lens came to lie in front of the iris, so that the relations of the anterior chamber were altered, then eserine had an opposite effect, and might even set up an attack of glaucoma.—Mr. MCHARDY had found that, in some instances, eserine would, on two or three occasions during the course of a case of recurrent high tension, lead to a reduction of tension, but would on a subsequent occasion, in the same case, fail. He therefore questioned whether it was safe to allow a patient, who was greatly benefited by eserine, to pass beyond the reach of surgical superintendence. In two cases he had seen, the patients had been led by their faith in eserine to put off the operation of iridectomy until too late.—Mr. G. CRITCHETT thought that, though eserine often gave temporary relief, yet frequently the glaucomatous condition returned. He believed that a patient who had had an iridectomy done was in a safer condition than one who trusted to the possible benefit to be derived from eserine.

Sequel to a Case of Cerebral Tumour.—Dr. GOWERS gave an account of the further development of symptoms in a young woman, who had been shown at the first meeting of the Society in 1880; after that date, the neuritis slowly subsided into atrophy, with a progressive deterioration of vision. During the last eight months, however, there had been, as often occurred in consecutive atrophy, a degree of gradual improvement in this respect; but the field of vision was now in one eye very markedly restricted, and to a different extent for various colours. The field for red was limited, and contained two scotomata; the field for green was divided into two unequal portions, the larger containing a scotoma. He believed that an irregular alteration of the fields, of this character, was pathognomonic of consecutive atrophy.

Two Cases of Optic Neuritis in Chorea.—Dr. [illegible] that the only other recorded case of this combination was a patient of Dr. Hughlings Jackson, who was also the subject of acute renal disease. The first patient was a boy, aged 11, a member of a family in which, later in life, several cases of simple atrophy of the optic nerves had occurred. The chorea was very slight, muscular weakness predominating over the choreiform movements. Distinct double optic neuritis was discovered; the vessels were normal, and sight was unaffected. The patient gradually recovered from the chorea, and remained well. The second patient was a young woman, aged 20; a well-marked attack of chorea followed about three months after rheumatic fever. Double optic neuritis was found, the vessels were unchanged, and there were no hæmorrhages; there was no albuminuria. There had been no opportunity to watch the subsequent development of the case. Dr. Gowers observed that these were the only two cases of optic neuritis in chorea which he had met with in twelve years, during which he had carefully examined a great number of cases; the experience of other observers was the same. He therefore hesitated to regard the neuritis as in any way the result of the chorea: probably the morbid states of the brain and eye were merely associated, and perhaps owned some common cause.—Dr. STEPHEN MACKENZIE has [illegible] chorea, without once meeting with optic neuritis; he, therefore, agreed fully with Dr. Gowers's concluding remarks.—Dr. BUZZARD's experience entirely coincided with that of Dr. Stephen Mackenzie. A possible explanation of the occurrence of optic neuritis in chorea was suggested by two cases he had recently seen. In a case of a young married woman, in which the symptoms were very severe, the attack concurred with a severe herpes facialis; this had led him to suspect that there might have been in this case some meningitis. In another case, now in the hospital, there was also herpes facialis; in both cases, the herpes was almost confined to one side.—Dr. MACKENZIE, at the suggestion of the President, observed that [illegible] ditis, inasmuch as optic neuritis was a rare condition in cerebral em[illegible]

to lend any support to the idea of a coexistent meningitis; this patient had no endocarditis. In his second case, there was some endocarditis, but no evidence of any meningitic affection.

Axial Neuritis in Spinal Disease.—Dr. GOWERS observed that a central scotoma, indicative of axial neuritis, according to the conclusions of Förster, verified by Samuelsohn and Nettleship, was an exceedingly rare alteration of sight in spinal atrophy. He related a case in which this association occurred. The patient, a man aged 40, presented the symptoms of combined lateral and posterior sclerosis. The periphery of each visual field was normal, but in each there was a transversely oval central scotoma; the loss for red and green was rather greater than for white. Both optic discs were grey and hazy. The patient was a moderate smoker; the abandonment of tobacco was followed in two months by a diminution in the acuity of vision, but the central scotoma was less defined. Dr. Gowers was inclined to regard the condition as a combination of spinal atrophy with tobacco amblyopia, the latter occurring from an unusually slight consumption of the weed, because the nerves were the seat of an independent morbid process.—The PRESIDENT thought that it was very desirable to ascertain whether persons, who made moderate use of tobacco, were really more liable than others, when attacked by spinal disease, to this form of amblyopia.

Unilateral Hemiopia in Spinal Atrophy.—Dr. GOWERS also related a case of this rare condition. The patient was a man aged 40, the subject of locomotor ataxy in an early stage. He stated that, after a gradual impairment of sight, he suddenly became unable to see to the outer side of each eye. The discs presented grey atrophy; vision of the right eye was qualitative only; with the left he could read Jäger 12, at five feet. The temporal half of the left field was entirely lost; in the right eye no field could be made out. The persistence of the temporal hemiopia (the patient had been under observation for a year) gave, Dr. Gowers observed, some probability to the patient's assertion that a similar loss occurred in the right eye. If the loss occurred suddenly, as the patient said, it was probably due to some disease involving the chiasma. The association of the hemiopia with the spinal disease might have been regarded as accidental, were it not that Preitel had recorded a similar case.

On Unilateral Exophthalmos, and the Value of the Sign described by Von Graefe as characteristic of Graves's Disease.—Dr. C. E. FITZGERALD (Dublin) read an interesting paper on this subject. His main object was to raise the question of the value to be attached to the sign, insisted upon by Von Graefe as characteristic of Graves's disease—the interference, namely, with the consensus of the movements of the lid with that of the globe, especially when the latter was directed downwards. This sign, according to Sattler, was quite independent of the exophthalmos, and may even precede it. Dr. Fitzgerald said that it was well known that the disease might be one-sided; and reported one case of well-marked unilateral exophthalmos in a young lady, aged 17. Some little doubt, he said, hung about three other cases, which he read to the Society; but in all, there were strong reasons to believe that the cases were really instances of Graves's disease, in an early and imperfectly developed form. In each case, one of the earliest symptoms had been this peculiar condition of the upper lid, which did not follow the movement of the globe in looking down.—The PRESIDENT said that his own impression was, that it was common to have some inequality in the amount of the exophthalmos; and he had seen a few cases in which it was quite unilateral. He agreed that the exposure of the sclerotic, caused by the defective downward movement of the upper lid, was most characteristic of Graves's disease, and was not seen in protrusion of the eyeball from mechanical causes.—Dr. GOWERS thought that, though valuable when present, very little importance would attach to the absence of this symptom. In one case of Graves's disease which he had seen, the patient died from the cardiac disease, while there was very little exophthalmos or enlargement of the thyroid.

Specimens shown by Card.

Mr. POWER: Enlargement of the Lachrymal Gland.

Mr. COWELL: Retinitis Pigmentosa, with unusually little pigment.

Mr. NETTLESHIP: 1. Double Retinitis, of old date, in a patient with Diabetes; recent Embolism of Retinal Artery in one Eye. 2. Serous Cystic Tumour of Eyebrow, recurring after puncture, free excision, and injection with iodine.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, NOVEMBER 4th, 1881.

JAMES CARTER, F.R.C.S., Vice-President, in the Chair.

Perforating Ulcer of the Stomach.—Dr. ANNINGSON reported a case in which he had been consulted in a recent medico-legal investigation. The subject was a man aged 40, who had died under suspicious circumstances. The corpse was exhumed, one month after burial, under a warrant from the Secretary of State, and the cause of death investigated by the coroner. Owing to the lapse of time, the investigation was necessarily surrounded by many difficulties, but it resulted in the establishing by the united efforts of Dr. Anningson and Mr. Wherry, who was associated with him in the inquiry, that the man died from a perforating ulcer of the stomach. The heart was found to be very thin, the left ventricle especially so; and the microscope showed that it was in a state of fatty degeneration, and that very little muscular structure remained.—Mr. WHERRY mentioned that the condition of the stomach had been rendered more plain by spreading the organ out on a piece of glass.—Dr. HUMPHRY thought the case important as showing what the evidence of good pathologists could furnish as to the cause of death in a suspicious case. A definite pathological state was found, which placed the cause of death beyond doubt.—Dr. BRADBURY stated that the cause of these ulcers was, according to Virchow, a block in the gastric veins, depriving the part of its ordinary nutrition.

Idiopathic Tetanus.—Mr. SHEILD related, on behalf of Mr. WALLIS, a case where a boy, aged 15, was sent to the hospital on October 1st, with stiffness of masticatory muscles, risus sardonicus, and obstinate constipation, but no pain. Two days before admission he had cracked and eaten one hundred walnuts for a wager. He had no wound or bruise, though a very minute examination was made. There were severe spasms of the abdominal muscles, jaws, and opisthotonos, with no relaxation of the muscles in sleep. On October 7th the symptoms were worse, the bowels acted involuntarily, and there was an accumulation of mucus in the trachea. On the 12th, the boy was given a pipe to smoke, which seemed to relieve him. He took nourishment well and was ordered 6 ounces of port on the 16th, when the spasms were as severe, and much aggravated during the passage of fæces. On the 18th he began to improve, and on 19th he passed a large quantity of urine, of a dark red colour. It contained no blood nor albumen, but presented crystals of triple phosphate. On the 21st he took solid food, and the urine was normal. On the 23rd, his appetite was ravenous, but he still had spasms. He was now reported as improving, but not well. The three chief points in the case were—the onset, the treatment, and the exacerbation of symptoms during action of the bowels.—After remarks by Mr. WHERRY and Mr. CARVER, Dr. HUMPHRY divided the cases into those who could and those who could not swallow, and said that the former would recover and that medicine was not of any avail.—Dr. LATHAM disapproved of the "expectant" method, and thought that the administration of some sedative, such as hyoscyamine, or Calabar bean, was preferable. He referred to the existence of tetanus in St. Kilda and other places as due to bad conditions of health, bad food, etc., and thought that the irritation of the alimentary canal would account for the origin of the attack.—Mr. BRIDGER had seen an epidemic of tetanus among young infants.—Mr. WHERRY alluded to the case of a monthly nurse, in whose practice several babies had had tetanus from being washed in too hot water.

Cancerous Peritonitis.—Dr. BACON showed a specimen of omentum, etc., affected with cancer. The patient was a man, aged 71, who had enjoyed good health apparently till within a fortnight of his death. Though a chronic lunatic, he had fair intelligence. He complained of loss of appetite, and looking ill, was kept in and examined, when his abdomen was found distended, and fluid was detected; beyond vomiting on two occasions, no other symptoms arose, and he died from exhaustion. The necropsy revealed general peritonitis and distribution of nodules over the peritoneum. There was more than a gallon of fluid in the abdominal cavity. The liver, which weighed 50 ounces, was healthy in its substance but was strongly adherent to the diaphragm. The lungs, kidneys, spleen, and stomach were free from disease. The absence of pain or of symptoms of illness, though the disease must have been progressing some time, was noticeable in the case. An eminent pathologist, to whom the specimen was submitted, stated, that the nodules seemed to be made up chiefly of a tough fibrous matrix, with some epithelioid cells, and that they probably belonged to a secondary carcinoma. Dr. Wilks, in his work on *Pathology*, has aptly described cases of this kind.

Acute Myelitis.—Mr. SHANN read notes of a case of the above disease, and showed microscopical sections and drawings of the diseased spinal cord. The patient, aged 18, was a healthy young woman. Four days before admission into hospital she suddenly became nauseated, and vomited, at the same time experiencing a sharp pain in the region of the cervical spine. In the course of two minutes she lost power to some extent in the upper extremities, and a few minutes later this gave place to total paralysis. A quarter of an hour later her lower extremities were seized with violent tremors. Loss of power followed, slight at first, but, as in the case of the upper extremities, rapidly ending in total paralysis. On admission, there was absolutely no power of voluntary motion either

in arms or legs. The abdominal muscles were flaccid and took no part in respiration, and the intercostal muscles appeared to undergo but slight contraction, the breathing being almost wholly diaphragmatic. The diaphragm acted very fully, and on both sides the sterno-mastoids contracted strongly during inspiration. The patient, however, had a feeling of dyspnœa. Sensation appeared to be almost, if not quite, unimpaired. Reflex movements of the lower limbs could be excited by tickling the soles of the feet, but were not excessive. On the right buttock was a superficial bed-sore, which had made its appearance within 48 hours of the commencement of her illness, and there was incontinence of urine but not of fæces. Some pain was still felt in the cervical region. During the fortnight following admission some return of power was observed in the right hand and foot. On the evening of the 14th day she retched violently, and, after vomiting, had severe dyspnœa accompained by cyanosis which lasted for half an hour. During the three following days she had several similar attacks, and the breathing during the intervals was more or less distressed. On the morning of the fourth day, severe dyspnœa came on, and the patient died asphyxiated. Microscopical examination of the cord showed that there was disease of the cervical cord from about the origin of the third pair of spinal nerves downwards, which abruptly ceased at the commencement of the dorsal region, the proper nervous elements being replaced in the anterior and central parts of the grey matter on both sides by numbers of granular corpuscles. The blood-vessels passing to the diseased area also were greatly enlarged. Six weeks before any symptoms appeared, the patient had slipped down a couple of steps, but the accident appeared to have been of too trivial a nature to account for the origin of the disease.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, NOVEMBER 16TH, 1881.

J. W. MOORE, M.D., Vice-President, in the Chair.

Cirrhosis and Hæmorrhagic Infarction of Liver.—Dr. QUINLAN exhibited the liver of a patient who died in St. Vincent's Hospital. The patient was a light-weight steeplechase-rider, aged 44. He was of most temperate habits. About two years ago he got a very severe fall at races, which was followed by an attack of what Dr. Quinlan inferred to be inflammation of the liver. He died from intestinal hæmorrhage. On examination of his body, the "hob-nailed" liver was found. Its weight was only 2 lbs. 2 ozs. There were no signs of syphilis, cardiac disease, or albuminuria; but the patient had been very deeply jaundiced.

Stenosis of the Pulmonary Valves.—Dr. J. W. MOORE presented and described a specimen of constriction of the pulmonary orifice from the body of a girl, aged 15, who died in the Meath Hospital on the 13th July after five months' illness. When the girl first came under observation (on March 30th) percussion gave a dull note over the entire of the right infraclavicular region, and a comparatively clear sound over the left apex. Posteriorly, both bases were semi-dull, especially the left. Auscultation revealed crepitating *râles* all over the right apex, bronchial or cavernous breathing over the left apex, compensatory respiration, with *râles* over the posterior portions of both lungs. At the base of the heart a loud systolic murmur was heard. This was, to some extent, carried into the vessels of the neck, but was most intense in the left side of the chest, especially in the perasternal line at the third interspace, the fourth rib, and down to the fourth interspace. The murmur was also audible at the left side of the spine behind. There was no evidence of hypertrophy of the left ventricle of the heart, and this organ was apparently pushed upwards by a congested left base and a distended stomach. The urine was scanty, high-coloured, but clear, of normal specific gravity, and it contained a small quantity of albumen. Her pulse was very rapid and weak. There was clubbing of the finger-nails. The diagnosis, which was made after a few days' careful observation, was coincident obstructive disease of the pulmonary artery and regurgitant mitral valve disease. Mitral regurgitation was suspected from the low level at which the loud systolic murmur was heard at the left side, and from its distinctness posteriorly. At first, indeed, the aortic valves seemed to be diseased also, but subsequently Dr. Moore came to the conclusion that the murmur carried into the vessels was of hæmic origin. The girl improved, and went to the country early in May. A fortnight later she was readmitted, suffering from general dropsy of an extreme degree. She lingered for some weeks, until erysipelas attacked the left leg and foot, which speedily became gangrenous, so that death supervened on the 13th of July. The necropsy showed that there was extensive destructive disease of the apices of both lungs, but the left apex was riddled with cavities. The base of the right lung was chiefly solidified, and here, as well as in the left lung, there were cicatrices, foci of caseous degeneration, tubercles, and occasionally a patch of induration, resembling an old hæmorrhagic infarction. The heart was, for the most part, healthy, but the pulmonary valves were puckered and thickened, projecting into the lumen of the pulmonary artery to the extent of two lines or so. The kidneys were the seat of a fatty degeneration, but were not much enlarged. The liver and spleen were both enlarged—the former viscus presenting the characters of "nutmeg liver". The malformation of the pulmonary valves was perhaps not congenital, but acquired, for many of the elements mentioned by Kussmaul as incidental to congenital stenosis were wanting—namely, (1) early cyanosis, and other physical symptoms of narrowing of the pulmonary artery, (2) patency of the foramen ovale or of the ductus arteriosus Botalli, (3) contraction of the trunk of the pulmonary artery and thinning of its walls, and (4) contraction or stunting of the right ventricle. A continued strain put on the pulmonary valves by hard work and lifting heavy weights might produce a localised endocarditis almost limited to the valves. This might have happened in the present instance.—Drs. FINNY and H. KENNEDY made some remarks on the case, and Dr. MOORE replied.

Extraordinary Case of Hiccough.—Dr. J. W. Moore recorded the clinical history of a lad aged 15, whom he had been called to see on April 9th, 1881. The patient had been hiccoughing incessantly, except when asleep, for twenty-two weeks since November 5th, 1880. The hiccough "came on in a second", just after he had got up on the morning of that day. He had been previously dyspeptic and was using pepsin wine and Eno's fruit salt. The hiccough began immediately after he had taken a dose of Powell's balsam of aniseed. It was loud and noisy and pumped up all his meals. He had had two similar, but less severe attacks—one in the summer of 1879, and one in the summer of 1880. The cure of the second attack was attributed to a visit to Knock, but on the present occasion he had derived no benefit from a visit. The only cause for the hiccough he could think of was his habit at school of leaning forward and pressing his chest against a desk. Among other measures adopted for his relief, Dr. Foot froze the skin over the epigastrium and along the course of the phrenic nerves in the neck and over the upper cervical vertebræ with the ether spray, with the effect of producing slight temporary improvement. But the patient began to recover quickly, immediately after he was put on pills of iodoform (one grain), extract of Indian hemp (one-third of a grain), and extract of hemlock. The dose of the Indian hemp was increased by degrees to two grains a day, and the hiccough gradually got less frequent, softer, and less noisy. On May 14th, he left the hospital quite well, after a stay of four weeks and six days. The rate of the hiccough was calculated on thirteen occasions. It varied from 8 to 22 per minute, or from 480 to 1,320 per hour. Its average rate was 14 per minute, or 840 per hour. It lasted without intermission, except during sleep, for twenty-six weeks.—A discussion ensued, in which Drs. C. F. MOORE, H. KENNEDY, W. G. SMITH, and FOOT took part.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, NOVEMBER 25TH, 1881.

SAMUEL CHAILLIN, F.R.C.S.I., President, in the Chair.

President's Address.—After briefly referring to the recent deaths of Drs. Alfred McClintock, Thomas Hayden, Alexander Carte, Espine Ward, and others, whose loss the Society had sustained but recently, and taking a passing notice of the many valuable contributions to medical literature which they had made, the President applied himself to the special subject which he had selected to speak upon more particularly—viz.: The sanitary and moral effects of the working of the Contagious Diseases Acts at the Curragh Camp since their first introduction in 1864. After shortly recapitulating the most important features of the various Acts which, since then, had been in force at the Curragh, he proceeded to show by statistics that, [illegible] standpoint, the Acts had been productive of great good. The amount of disease and the severity of the cases had steadily decreased, especially as regards primary syphilis. Regiments arriving from unprotected districts, especially Dublin, invariably brought with them a considerable amount of disease, which diminished in proportion to the length of their stay in the camp, which was under protection. Viewing the Acts from a moral standpoint, he regarded them as productive of much good. The condition of social and moral degradation of most of the unfortunate women who lived upon the camp had been such as words could hardly picture. Filth, poverty, and debauchery had reduced them to a condition worse than savage; and, without [illegible] they spread the most virulent [illegible] Such was the condition before the Acts [illegible] there, in hospital, these women were, for the first time for years, brought under the influence of sympathy and cleanliness. Habits of respect

and regulations of Lock Hospitals were enforced, and spiritual as well as bodily comfort given. Such as would were encouraged to give up their wicked life; and, according to the matron's report, no less a number than one hundred and seventy-one were, from the hospital, sent to friends, asylums, penitentiaries, etc., where they might be restored to an honest and virtuous life; whilst even those who loved their old free life too well to give it up improved much in manners, habits, and dress. Periodical examination of the prostitutes, he regarded as essential to the successful working of the Acts, and in most cases the women came up for examination with little, if any, hesitation; and those who showed the greatest amount of outward modesty were just those who were possessed of the greatest amount of disease, and who used the worst language. In conclusion, the President said that, if the results of illicit intercourse could be confined to only those who took part therein, he would unhesitatingly vote for the removal of the Acts; but, as such was impossible, and the innocent too often suffered instead of the guilty, he thought it only right that Government and individuals should do all in their power to diminish, as far as possible, the curse of syphilis.

Nerve-Stretching in Acute Traumatic Tetanus.—Mr. WHEELER read a paper on this subject, and described a case in which he had successfully performed nerve-stretching for the cure of acute traumatic tetanus. A girl, aged 8, was admitted into the City of Dublin Hospital on October 10th, 1881, complaining of a sore finger, the result of a crush between two stones a week previously. She had been under treatment in the country; but, owing to the carelessness of her parents, the dressings had not been changed for six days previous to her admission into hospital. On removing the dressings, the end of the finger was found to have sloughed, and fell off, leaving the broken end of the second phalanx protruding. There was then no pain in the hand; but there was pain in the back, and a tendency to opisthotonos and some trismus. Well-marked tetanus soon supervened; and, in spite of the use of all the reputed means, progressed so as to threaten life. On October 15th, Mr. Wheeler cut down upon the median nerve, in the middle of the forearm; and, seizing the nerve (which seemed abnormally red), stretched it between two fixed points, and also made traction downwards with some force. The temperature remained normal, and the pulse 60 to 70, except one day, when it rose to 105. After the nerve-stretching, the frequency and severity of the convulsions, which before were extreme, became moderated, and in five days stopped entirely, the girl making a good recovery. The sensation in the limb, tested with the æsthesiometer, was good, as also was the motion. The case, Mr. Wheeler said, was of especial interest as being the first recorded (save that of Paul Vogt), in which nerve-stretching had proved effective in curing acute traumatic tetanus; and he believed it was the only case in which the operation had been done with that object in the United Kingdom. —Dr. BENNETT said that Professor Esmarch had detailed five cases of nerve-stretching in traumatic tetanus at the International Medical Congress last summer, in all of which there was the most deplorable result. He, therefore, congratulated Mr. Wheeler on the satisfactory issue of his case.—Mr. STOKES remarked that Dr. Carl Langenbuch had also operated on two cases with fatal results. In cases of locomotor ataxy, Mr. Stokes had obtained favourable results from nerve-stretching, especially as regards the diminution of pain and vesical irritation, though with but slight benefit as regards motion.—Dr. MCDONNELL thought it unwise to draw any conclusion from a single case of success. In the present state of knowledge of the physiology of the spinal cord, he would not feel inclined to attempt such an operation in traumatic tetanus or locomotor ataxy. It was to him inconceivable that a cord so organically affected could, by simple stretching of one of the nerves, be restored to health. The two theories of the causation of tetanus were: (1) nerve-irritation; and (2) poison. If it were due to the second, the operation could do no good; but, if due to the first, it might possibly act as a counter-irritant, or in some other unknown way act beneficially.—Mr. HAMILTON considered tetanus a general disease, and not a local one, as it occurred in epidemics. Still, as the operation was a very trifling one, attended by little, if any, danger, he would certainly try it in such a case, if other means seemed unlikely to prove satisfactory.—Dr. HENRY KENNEDY and Mr. CORLEY also took part in the discussion; and Mr. WHEELER replied.

New Gas-Cautery.—Dr. BEVERLEY COLE, of San Francisco, exhibited a gas-cautery of his invention, which he regarded as a great improvement on Paquelin's instrument. It consisted of a metal tube, to one end of which were attached two India-rubber tubes—one for gas, which could be attached to any ordinary gas-burner; the other, conveying the air from a reservoir of India-rubber charged, before the operation, by a hand-bag like that of the ordinary ether spray. The other end of the metal tube was fitted with knife, button, or rod of platinum, as required for ordinary external cauterisation, or for cutting operations. To make the instrument available for intravaginal uses, the handle was fixed to the tube by a hinge-joint, so that it could be set at any angle required. The relative and absolute quantities of gas and air were regulated by means of screws, and could be arranged to give any desired degree of heat.

REVIEWS AND NOTICES.

LA CIRCULATION DU SANG A L'ÉTAT PHYSIOLOGIQUE ET DANS LES MALADIES. By E. J. MAREY, Membre de l'Institut et de l'Académie de Médecine; Professeur au College de France. Paris: G. Masson. 1881.

LAST year, M. MAREY published a work containing a description of the numerous apparatus invented by himself and by others for recording the movements of living organisms, giving directions how to make use of each instrument described.

M. Marey has quite recently offered to the medical and scientific public a volume with a title which, since the immortal discovery of Harvey, has become so commonplace that, were it not that the name of its accomplished author, the learned Professor of the College de France, is in itself a recommendation, the book probably would not attract any attention. But, when we remember that this work is the outcome of several years of patient and laborious research, our interest is proportionately great; and, disregarding its commonplace title, we give it a worthy welcome. Through lack of space, we cannot attempt to give a complete summary of M. Marey's work, but must content ourselves in showing the object its author has in view, and succinctly describing his method of critical inquiry.

M. Marey, as far back as 1863, published a treatise on the physiology of the circulation of the blood. In the course of the last eighteen years, a considerable number of physiologists have followed in the path which he was one of the first to explore. Their researches, in common with those of medical and scientific men all over the world who have studied cardiac affections, all contribute in establishing the study of the semeiology of these affections on wider and more certain bases. Nevertheless, to render this especial study complete, there was still a treatise wanting, of a kind which would enable both physiologists and practitioners to study exhaustively the whole question, and appreciate the progress science has worked in the pathological physiology of the circulation.

The last publication of M. Marey is destined to supply the hitherto missing link in this especial chain of study. The reader is quickly and forcibly impressed by M. Marey's able and exhaustive treatment of the purely scientific side of this question, although he devotes more than half of his book to the study of the practical, and we might even add popular, side of the question which he terms "Medical Physiology". M. Marey does not forget that the aim of all science, and more especially of physiology, is the good of mankind. Chapter after chapter treats of the physiology for the medical practitioner.

M. Marey shows how methods of scientific investigation, the means of revealing and explaining phenomena which would otherwise be surrounded by mystery, and hitherto only practicable in laboratories, can be used by medical practitioners to arrive at a more exact appreciation of the physiological, or rather the physiologico-pathological condition of the patient.

The clearest directions are given by the author how to register the slightest movements—the external manifestations of the state of the circulation of the blood in the different parts of the animal economy. The physical laws which preside over the circulation of the blood are clearly demonstrated. Then follows a valuable study of the muscular action of the heart and its irritability, the force expended by this organ, and the work it accomplishes. Here M. Marey describes minutely how the tracings should be taken, in order that the cardiac contractions can be properly studied, and their physiologico-pathological value appreciated.

Several of the succeeding chapters are devoted to the study of arterial capillary, venous, and pulmonary circulation; the influence of the nervous system on the circulation; that of general and local influences; also the special features of cardiac, muscular, glandular, and cerebral circulation. The final chapters treat of the pathology of the circulation; how it is affected by fevers, organic cardiac and pulmonary lesions, local paralysis, senile degeneration and obliteration of the arteries, vascular dilatation, and aneurysms.

The last chapter furnishes a description of the different apparatus suitable to the use of medical men in the course of their practice; apparatus which transform arterial pulsation into visual and auditory sensations; a sphygmograph of transmission, or direct; also a new instrument, which M. Marey terms a polygraph. As this new appa-

ratus appears destined to render great services to the medical profession, a few words of special description are necessary. The polygraph is contained in a small square box, each side measuring twenty centimètres. There are two drawers. In the upper one is a sphygmograph of transmission; a pneumograph for recording respiratory movements; also an instrument for recording the cardiac beats and arterial pulsation; a chronograph for measuring the duration and the intervals between the succession of the phenomena which are recorded; finally, a groove into which varnish is poured for the purpose of fixing the tracings, a wax candle for blackening the paper fixed on to the cylinder, and a few other small accessories.

The lower drawer contains a polygraph. This drawer has only three sides; the three others have been suppressed, in order to facilitate the manipulation of the apparatus. The drawer supports a bronze cylinder, on which the tracings should be taken. The cylinder moves by clockwork machinery, which is placed inside it; this arrangement economises space, and preserves the works against injury.

The works are set going or stopped by means of an air-tube, which the manipulator holds in his mouth; his hands are thus free, and he can therefore take several tracings simultaneously without the help of assistants. The paper on which the tracings are to be taken are cut according to the size of the cylinder; it is then gummed on to one of its borders, and placed in a tube parallel to the recording cylinder, which arrangement increases the solidity of the apparatus. When the apparatus is used, the cylinder is raised from the bottom of the drawer, and is fixed on to a special contrivance composed of two wheels; the tracing-paper is then placed on it, and is blackened by the candle. It is necessary to turn the cylinder by hand for this operation, because the clockwork only moves it one centimètre and a-half per second. When the tracing-paper is blackened, a small knob close to the cylinder has to be turned, and the clockwork is again set under the control of the air-tube. Along the cylinder are two tambour receivers, which, placed on metal stems, slide along its whole length; this mechanism allows several tracings to be taken at the same time. Finally, in order to register the time, a small chronograph, which registers the tenth of a second, is lowered and set working. The tambour used in laboratories for recording the cardiac beats is six centimètres high; those which M. Marey has recently had made for the polygraph are only two centimètres high; consequently they slide along more easily when the patient is dressed.

The pneumograph is conveniently small; it is hung round the neck of the patient by means of a cord which is attached to it, and fastened on to the thorax by tying the band which is fastened on to the two handles of the instrument.

This admirable invention enables medical men to take cardiac and pulmonary tracings, hitherto a method of investigation in laboratories, but rarely used as a clinical one, even in hospitals. The physiologist can make use of the polygraph when he moves from place to place by changing the transmission apparatus. This evidently greatly facilitates his studies; but we believe medical men will find it invaluable.

This last contribution of M. Marey to scientific literature is of equal importance both to physiologists and to those among medical men who care to profit by the different means which science has placed at their disposal to enable them to overcome the difficulties of their profession.

Medical men already acquainted with the literature on this subject, will find in M. Marey's work a clear and exhaustive analysis of whatever has been written on it in any form; whilst those who are less conversant with the subject can study and master it by reading Professor Marey's new work.

SURGERY FOR DENTAL STUDENTS. By ARTHUR S. UNDERWOOD, M.R.C.S., L.D.S.E., Assistant-Surgeon to the Dental Hospital of London. London: W. H. Allen and Co. 1881.

THIS manual is written on the very good principle that dentists should possess a fair knowledge of surgery. It is, in fact, a text-book on elementary surgical pathology, with brief descriptions of diseases and operations entirely foreign to the practice of a dental surgeon, and fuller details with regard to maladies and surgical procedures in the organs more closely related to the teeth. This is in accordance with the wish expressed by a majority of the registered members of the dental profession, that dentists should be surgeons and well-educated men, and not mere tooth-drawers. Mr. UNDERWOOD concludes his manual with a chapter unnecessarily apologetic in tone; the only fault that demands apology is passed over, as is often the case when authors insert appeals to public indulgence in their works. The text has been evidently revised in a hurry, so that there are many inelegant pleonasms, and still more misprints, such as "Zeimsen" and "Ziemsen", "Bilroth", "æsophagus", "pyœmia", and "hyperœmia". There is no such place as the "London Coll. Surg.", an expression which we find in the heading of the appendix, which consists of a series of examination-papers issued to candidates for the diploma of Licentiate of Dental Surgery, Royal College of Surgeons of England, during the last few years. In conversation, or even in the midst of text, such abbreviations and variations are allowable; but titles should be written correctly in headings. In all essential matters, this manual is calculated to fulfil the good intentions of its author; it supplies a want, and deserves success.

AN INDEX OF SURGERY; being a Concise Classification of the Main Facts and Theories of Surgery, for the Use of Senior Students and Others. By C. B. KEETLEY, F.R.C.S., Senior Assistant-Surgeon to the West London Hospital, Surgeon to the Surgical Aid Society. London: Smith, Elder, and Co. 1881.

"I CANNOT read all these big text-books and new works on new subjects that come out every year, and I like to keep up with recent discoveries; so, when I want to find the meaning of a new medical term, I look it up in Tanner's *Index*." Such a remark often fell from the lips of hard-worked practitioners a few years ago, and, for aught we know, is frequently made up to the present day. It illustrates the real value of a work like Mr. KEETLEY'S, and expresses probably less than the true merits of such a work, but certainly indicates the use to which it will actually be applied. The practitioner, returning home too weary to look through the tables of contents of some twenty journals and standard works, may wish to know what is meant by "Ogston's" and "Macewen's operations"; and the index to Mr. Keetley's work, an alphabetical list of proper names, will direct him to "Knock-knee" in the text. In this way, the index will prove truly valuable, and will, we trust, for many years be kept up to the imperious demands of surgical progress. The system of arrangement is, just what the system in such a publication should ever be, purely alphabetical, and the text is written in as elegant and intelligible English as can be expected in condensations and abridgments. In a future issue, we advise Mr. Keetley to make his work "just the same, only more so", to use an intelligible paradox. Thus, if a practitioner wants to know something about rupture of the liver or spleen, he will not find the headings "Rupture", "Liver", or "Spleen", and thus, after three attempts, will have to think a little, until looking up "Abdomen", he will find what he requires. Headings, in a good index, should be multiplied to meet every reasonable contingency; and in this "Index", save in the above and one or two other respects, this has been done. No ambiguous terms should be used in condensed writing, where the author cannot make explanations. Mr. Keetley has taken great pains to avoid this error, which, however, we see in a few exceptions which prove the rule. Thus, what are we to understand by *coarse* organic disease? Nothing about syphilis, nothing requiring "bloody operations about the mouth" (see page 15), but chronic abscess in contradistinction to neuralgic conditions (page 308). If so, should neuralgia be called a "fine", a "delicate", or a "genteel" disease? In other respects, Mr. Keetley has made an excellent choice of words; and we are aware that the term "coarse" has already been misappropriated by neurologists.

Mr. Keetley addresses himself principally to students, in his preface, though, in our opinion, the index is best suited to the practitioner. The author believes that the student on the point of presenting himself for examination may wish for a work which, at the last moment, may "give form to any knowledge which then remains nebulous in his mind". In this case, the index will prove most useful; but too much must not be done for the student; and, in enlightening him superficially on new subjects, he should be encouraged to seek original works on those subjects even at the last moment. A good index of reference to publications as well as to names of authorities would be a great improvement. The bulk of the text requires no criticism; it includes some mention of most of the novelties of surgery, but rightly excludes any personal opinions on new subjects, and never enters into criticism. In an appendix, Mr. Juler arranges ophthalmic subjects on the same plan which Mr. Keetley adopts in the main part of the work. He has performed a difficult part admirably; but we earnestly hope that in future editions he will favour the uninitiated with explanations of the semi-algebraical forms of notation used in the study of errors of refraction, and in the choice of spectacles for their remedies, as well as more information about diopters, and formulæ denoting tension.

DENTAL DIPLOMAS IN FRANCE. The Faculty of Medicine has appointed a Special Commission to report upon the study and practice of dentistry in France. They have also decided to create a special dental diploma. Candidates will be required to be twenty years old, must study dentistry two years in a school, and must have had one year's practical experience.

REPORTS AND ANALYSES

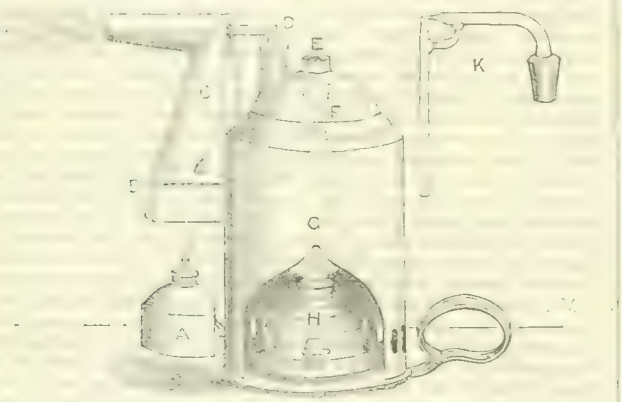
DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW MERCURIAL SPRAY AND FUMIGATOR, AND UNIVERSAL STEAM INHALER.

THE accompanying woodcut represents an inhaler I have been using for more than two years, both in private and in hospital practice. I originally designed it for a case of severe relapsing syphilitic ulceration of the vocal cords, which refused, for more than three years, to yield to any of the ordinary methods of treatment used in such cases. The result has been most satisfactory, the patient's larynx remaining quite sound up to the present time.

In the illustration, G is the boiler, H the lamp for heating it, and E a tube which passes through the boiler to its under surface, in order that an increased heat area may be obtained. F is a small tube, closed by a cork, through which the boiler is filled, and it is placed on one side of the boiler—so that, should the cork by any chance blow out, the water and steam would not come in the face of the patient using the instrument. D is a "knee-tube", passing into the boiler through a movable vulcanite cork; and the point of the tube, through which the steam from the boiler comes, projects only a short distance, and through a largeish opening, into the sublimer C. B is a small drawer, forming the floor of the sublimer, and on which the calomel is placed. A is the lamp for subliming the calomel, or other drug used. Both D, C, and A are easily removed; and, if steam and mercurial vapour are not required, but a Siegle's spray, it is only necessary to remove them, and put the glass tubes marked K in the place of D, and the long limb of K in a bottle containing the medicated solution.



There are some precautions necessary in using calomel inhalations.

Firstly: the calomel should be resublimed calomel, and not such as is ordinarily used internally in medicine. This is important, as the ordinary calomel is often very irritating for inhalation, owing to the impurities which it contains.

Secondly: the quantity of calomel used should at first only be small, about two to five grains; and it can afterwards be increased to ten grains, if necessary.

Thirdly: the patient should never be urged to use more than he can stand without much coughing, and this is especially the case on first using it, when it is as well that he should not take more than two, three, or four inspirations; and, after a day or two, he will be able to tolerate it much better. In using the instrument, do not light the lamp A until the steam is coming off freely from the boiler, or you might dry off the steam as it is emitted, and so get a dry instead of a moist inhalation, which, in my experience, is far more irritating.

It will be seen at once that the apparatus can be used as a local fumigator for any part of the body: *e.g.*, for ulcer of the leg, as well as for the larynx.

The apparatus has been made for me by Messrs. Krohne and Sesemann, of Duke Street, Manchester Square, and costs six shillings.

FRANCIS G. HAMILTON, M.R.C.S.,
Assistant-Surgeon, Central London Throat and Ear Hospital.

WHISKEY.

PERHAPS nothing undergoes, from time to time, more frequent changes than the public taste, so far as the question of alcoholic beverages is concerned. Time was, within the recollection of the present generation, when rum was the favourite spirit consumed in this country, and when Cognac brandy was but little appreciated; while now all this is again changed, and the popular stimulant is whiskey. Doubtless this last revolution in the public taste is, in the first instance, to be traced to the equalisation of duties on spirits in all parts of the United Kingdom, and more recently to the greater communication which railways have established between England and every part of Ireland and Scotland, and whereby the tastes of the three countries have become somewhat assimilated, although the Scotchman still prefers that peculiar peaty flavour which is characteristic of his national beverage and which is described by some as a "smoky flavour", while fine old Irish whiskey has its admirers from its resemblance to Cognac brandy.

At this time, when the vintages from which the best brandy used to be obtained are declining in France, the great skill and increased attention displayed in the distillation of whiskey have also, probably, influenced the British public somewhat in giving the preference to a home-made production, which, notwithstanding that it pays a duty of 10s. per gallon, may be reckoned, when diluted in the ordinary proportion with water, one of the most economical of all beverages.

The chief cause, however, of the recent popularity of whiskey is, no doubt, the fact that the medical profession now very extensively recommend it, whenever alcohol is required, as being, when fully matured by age, one of the best of all alcoholic stimulants. That this last and important condition of the proper maturing of spirits is receiving the attention of the trade will be apparent to the general public, for it is impossible to enter any of the large towns of England without observing important buildings skirting the railway or river which formerly were used for the storage of wines, rums, brandies, and other purposes, and which now are devoted exclusively to the storage and maturing of whiskey. As an instance, on entering the metropolis by the London and North-Western Railway, take the immense establishments at Chalk Farm, originally the goods department of the London and North-Western Railway Company, which, with the imposing locomotive "round house", have all been converted into excise whiskey bonds in the occupation of Messrs. W. and A. Gilbey, and where, it is asserted, they have upwards of 10,000 butts of whiskey undergoing that maturing which, as we have stated, is an essential element in its quality, and which age alone will give.

In speaking of the value of spirits, both from a medical and dietetic point of view, we have from time to time laid much stress upon the necessity of their being stored for a sufficient length of time to allow of a thorough maturation of their component parts; and the instance just referred to is only another proof, if one were needed, that the public and medical profession have only to express a want to find it immediately met by the enterprise of the day.

PADDINGTON.—Estimating the population of Paddington, in the middle of 1880, at 106,258 souls, Dr. Stevenson reports for that year the occurrence of 2841 births and 1853 deaths in the parish; but, excluding the deaths of 186 non-parishioners, the total number of deaths is reduced to 1667, against 1939 registered in 1879; or at the rate of 15.7 per 1000, which, upon the whole, must be considered satisfactorily low. Zymotic diseases caused 228 deaths, of which 41 were registered from measles. The mortality from this disease, generally greatest during the fourth quarter of the year, was heaviest last year during the first—a circumstance attributed by Dr. Stevenson to the low temperature and fog which prevailed for a time during that period. Scarlet fever caused 40 deaths, and was present in an epidemic form in the autumn, owing to the use of contaminated milk, as already reported in these columns. It is, however, worthy of remark that the total deaths from this disease were fewer than in either of the two previous years. Whooping-cough caused 49 deaths, and typhoid fever 13. Diarrhœa is the assigned cause of 67 deaths, 55 of which happened during the third quarter of the year, 52 being of infants under one year of age, and 62 of children under five. Fifteen deaths were from diphtheria, or at the rate of 0.0 per 1000 deaths, which is considerably in excess of that returned for the whole of London. No deaths from small-pox were registered in the district throughout the year, though 10 cases were removed to the hospitals. Dr. Stevenson's report would have been more complete if some reference had been made to the ordinary sanitary work which so large and populous a district must necessarily demand. Beyond a table in the appendix, and some remarks on the water-supply of the metropolis generally, the report is silent on the question of the sanitary progress of the parish.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 17TH, 1881.

PAGET, OWEN, AND WILKS, ON VIVISECTION.

AMONG the burning questions of the day is, no doubt, "vivisection"; hardly anything, not even party politics, has roused more bitter discussions, more acrimonious attacks, or more incitements to personal hatred. It is a question which intrudes itself upon the platform and in many drawing-rooms, and has given birth to a mass of literature of a kind which it is painful to contemplate. Physiological treatises have been ransacked by persons ignorant of the very terms used, and more than ignorant of the tendency and object of physiological research, to find descriptions and sentences which, torn from their context, might be used to hold the operator up to the horror and condemnation of sensitive and unlearned people; walls have been placarded, honoured names held up to public scorn; personal insult and abuse of accomplished and high-minded physicians advertised in the daily prints, and an extraordinary number of false statements disseminated broadcast over the land. Through all this storm of obloquy, we medical men have, as a body, kept silence; we have only asked to be allowed to work and study in peace; we submitted to a hampering and inquisitorial legislation, and bore calumny and reproach, if not cheerfully, at least with tranquillity and firmness, relying on the integrity of our objects, and the justice of our cause; knowing full well that the same public who would cry out if a mouse were poisoned in order that an antidote might be found, would entrust all their beloved ones to our care in the hour of mortal danger; that human suffering, to the war against which we have vowed ourselves, would most surely diminish in proportion as we conscientiously fulfilled the duty to know the truth, and to use it fearlessly for the benefit of mankind. But matters have grown worse instead of better; calumny wags incessantly its hundred tongues; clamour has taken the place of judgment in high places; and men whose researches have resulted in saving thousands of lives and relieving a vast and utterly inestimable amount of human suffering, who have thrown light on the darkest mysteries of nature, enabling us to walk securely where we had formerly stumbled blindly—these men have been forbidden by law to pursue their studies further. The medical profession decided then to keep silence no longer; and, at the meeting of the International Congress in London, they passed an unanimous vote: "That this Congress records its conviction that experiments on living animals have proved of the utmost service to medicine in the past, and are indispensable to its future progress. That, accordingly, while strongly deprecating the infliction of unnecessary pain, it is of opinion, alike in the interests of man and of animals, that it is not desirable to restrict competent persons in the performance of such experiments."

Having thus thrown down the gauntlet, they are now prepared to defend their resolution, and to prove to those who are willing to learn that vivisection may be defended on humane, moral, and scientific grounds. A series of articles have been commenced in the *Nineteenth Century*, by medical and scientific men, on "Vivisection, its Pains and Uses"; and will, we trust, be continued till the facts have been set fairly and fully before the public, so that those who have not pledged themselves to listen to no reason, or be convinced by no argument, may have the opportunity of considering this question on its merits.

Sir James Paget's thesis is that the pain given by vivisection is less, and the utility achieved greater, than that inflicted and gained by sport, and by various customs practised by humane persons. First, as regards pain, he states that he believes that, with a few exceptions mentioned, "there are no physiological experiments (performed without anæsthetics) which are not matched, or far surpassed in painfulness, by common practices permitted or encouraged by the most sensible and humane persons of the time". In performing operations with anæsthetics—which is the universal practice with English physiologists, unless the object of the operation would be frustrated by their use—the case is much stronger; for the original pain of the operation is abolished, and the subsequent suffering is much decreased by the care and attention which the animals receive. The pain-giving practices encouraged by sensible and humane persons are simply hinted at; but any intelligent or unbiassed reader can supply them for himself. They include, of course, besides sport, the mutilation of beasts of burden, and of animals destined for food; the poisoning and destruction of animals looked upon as vermin; the destruction and, more, the wholesale suffering inflicted on animals used for the decorations of dress.

Secondly, as regards the utility of experimental physiology: that pain may be inflicted on one set of animals in order that pleasure may be given to others, is a proposition which Sir James Paget does not allow; hence, he is unable, on these grounds, to approve of the slaughter of animals in sport, or to gratify the vanities of dress; but, as regards the utility of vivisection, he says that "it is certain that there are few portions of useful medical knowledge to which experiments on animals have not contributed". He does not deny that other studies have had their share in building up modern medical and surgical science; but, in calmly trying to estimate the proportion due to experiments on animals, Sir James Paget fixes it at about one-fifth of the whole. As an illustration, he chooses the subject of the ligature of arteries, each step in the improvement of which was tested first on animals, with the result that, in one disease alone, that of aneurysm, ninety per cent. of those affected less than ninety years ago would have most certainly died, whereas, at present, not more than ten per cent. die. Reviewing his own experience of surgery, extending over a period of fifty years, he states, with the calm judgment of a man who is anxious to be well within the truth, that "great numbers of means effectual for the saving of lives, and for the detection, prevention, or quicker remedy of diseases and physical disabilities, have been all obtained by means of knowledge, to the acquirement or safe use of which experiments on animals have contributed; indeed, such a quantity of life and working power has been saved by lately acquired knowledge as is truly past counting". To the question whether this knowledge might not have been gained by other means, he replies: "Possibly, yes; most probably, no." But, supposing it might have been, should we be justified in the delay, thereby losing thousands of valuable lives? For instance, physiologists are, at this present moment, engaged in finding a safer anæsthetic than chloroform. Should we be justified in forbidding experiments on animals, trusting to chance to give us a safer anæsthetic, losing, in the meantime, valuable lives, which might have been saved but for our callousness? "I saw one man die", says Sir James Paget, "of chloroform-poisoning, to whom the anæsthetic was faultlessly given; and he was so good and generous a man, that I felt it would have been right to kill a hundred animals either to save his life or to find out why he died, and to be able, in the future, to avert so awful a catastrophe." It is in cases such as these, and they occur to every medical man in the course of his life, when he would give all the world to know the means of saving a beloved and valuable life, that he feels impatient of restraints put upon him, by an unlearned and fanatic public, in obtaining the knowledge which can be so well used.

To those who are anxious to know the truth of the case, who are not pledged to an agitation from which they cannot or will not recede, and are, hence, willing only to hear the false statements of one side, Sir James Paget urges that they should study the whole matter, visit physiological laboratories, see what is done in them, compare the work

and its results with those of a day's shooting, or a night's trapping of rabbits, or any sport or trade in which the lives of animals are concerned; and chiefly that the subject should thus be thoroughly studied by those who administer the Act, so that they may know how to use the discretion allowed them, to throw as little obstacle as possible in the way of competent persons engaged in the most useful and beneficial inquiries, and to resist further restraint on experiments on animals with as much resolution as they resist other hindrances to the doing of what they judge to be right.

Professor Owen's paper is mainly a defence of his speech, made at the unveiling of Harvey's statue at Folkestone; and in proving that Hunter obtained the idea of ligaturing an artery for aneurysm from his experiments on the antlers of a deer. He indignantly protests against the limitation of physiological research by legislative interference, while all kinds of the most objectionably cruel practices are allowed to go on unchecked.

Dr. Wilks starts at once with the bold announcement that the present agitation against vivisection can but end in one way, namely, "freedom of action for those who are known to be engaged in scientific research". To the cry of these antivivisectionists, that certain forms of cruelty to animals are tolerated or permitted because they minister to man's advantage or pleasure, but that physiological experiment is forbidden because it simply panders to "idle curiosity", and is "of no possible advantage to anybody", he replies by quoting the opinions of typically eminent medical and scientific men of the day—Simon, Huxley, Humphry, Michael Foster, Virchow, Darwin, Owen, and Fraser—that, in prosecuting medical, surgical, and physiological studies, experiments on animals are absolutely necessary; and he compares the weighty opinions of these great masters with those of certain lords, ladies, bishops, members of Parliament, etc., "who, with all the dogmatism of mature ignorance, declare that 'vivisection only panders to curiosity, without doing anything for science'; and 'that it is a detestable practice not attended with scientific results'". With a touch of humour, he says: "I would ask the reader to picture to himself a platform on which Pasteur and Virchow, Owen and Huxley, Humphry and Foster, Simon and Fraser unite in the statement, 'that the remarkable advance in medical science and art during the last twenty years is due to experiments upon the lower animals'; and, immediately afterwards, a sincere rural dean and a conscientious auctioneer unite with equal solemnity in stating their opinion, 'that experiments on animals have led to no useful results'. I do not doubt their sanity, or their modesty, or their good faith; they only lack a sense of the ludicrous."

He also shows that a number of researches of the utmost value to the community at large, such as the inoculation of tubercle by milk, the perfecting of the system of antiseptic dressing, the action of certain drugs and poisons and their antidotes, have been peremptorily put a stop to by the administrators of the present law. Investigation in England is at present at a standstill; our students and our physiologists have to go abroad to gain knowledge, the benefits of which the public reap; but, nevertheless, "so law-abiding", says the author, "are Englishmen, that I have not heard of an instance where experiments have been surreptitiously performed; the profession is still patiently, though eagerly, expectant of the repeal of a tyrannical and unreasonable law". In framing this law, and in carrying it out, the Government have regarded those engaged in vivisection as if they were mischievous boys, or rather ruffians, who were constantly dissecting animals alive for their own amusement. If such men exist, they are unqualified to carry out a physiological experiment; for great knowledge, skill, and indefatigable devotion to duty are required in physiological research, and these qualities are not to be found in brutal natures; and Dr. Wilks states that he believes the words of Dr. Pye-Smith, in his address before the British Association in 1879, convey the spirit of all the scientific men in England. He says: "The only restriction which Christian morality imposes upon such practices is, that no more pain shall be inflicted than is necessary for the object in view. Killing or hurting domestic animals when moved by passion, or by the horrible delight which some depraved natures feel in the act of inflicting pain, was, until lately, the only recognised transgression against the law of England. It is only under such restrictions that physiologists desire to work. They are, in fact, the very limits that were accepted by physiologists long before the agitation began. Anyone who would inflict a single pang beyond what is necessary for a scientific object, or would by carelessness fail to take due care of the animals he has to deal with, would be justly liable to public reprobation."

Dr. Wilks suggests that the laboratory of the physiologist might be licensed in the same way as dissecting-rooms are under the Anatomy Act, the licence being only given to persons of adequate knowledge and known character; and then the expert should be allowed to work in his own way and by his own methods. This, he thinks, ought to be sufficient to appease the public mind.

Much has been said about the utility of vivisection; but Dr. Wilks draws attention to the fact that the utility of any certain piece of knowledge cannot be at once ascertained; nor is utility always the chief object for which the physiologist performs his experiment. What he seeks is knowledge—truth. Every fact in Nature is the exemplification of a general law; and to arrive at this law is the object of his most earnest endeavours. The same passion animates the physiologist as that which animates the geologist, zoologist, botanist, and astronomer, who will endure privation and fatigue in order that he may know. "The rocks are broken and put in the crucible; the water is submitted to analysis; the plant is dissected, and, in order to ascertain the laws which govern its growth and propagation, experiments are made by grafting and by cross-fertilisation. In animal life, the same method must be adopted to unlock the secrets of Nature. The question of the animal being sensitive cannot alter the mode of investigation. It is, therefore, sheer folly and ignorance to stand in the path and forbid any one walking in the one right direction; it cannot be done. All that society should demand is that their rights and privileges should not be interfered with. But, when the public mind is appeased in these respects, perfect freedom should be given to the scientific investigator. He cannot but pursue one course, and no law can hinder him."

We trust that these articles will be followed by others, putting other views of the question and other facts plainly before the public. We think that probably enough has already been said of the comparison between sport and physiological experiment. When once the veil, fabricated by blind passion and untruthful statements, has been removed from the public eye, and judgment and calmness once more return, all those of unbiassed mind, and actuated by the earnest wish to mitigate the sufferings of the animal creation, will see that Hurlingham, battues, cruel methods of trapping animals, and painful methods of destroying vermin, cannot be defended, and must be put down by an awakened public opinion. In the meantime, physiologists have to show that not only is the charge of cruelty (the word cruelty being defined in the *Imperial Dictionary* as "inhumanity; a savage or barbarous disposition or temper, which is gratified in giving unnecessary pain or distress to others; any act intended to torment, vex, or afflict, or which actually torments or afflicts without necessity") brought against them is utterly unwarranted, but that every possible care is taken to prevent animals from suffering any pain whatever during the moment of the operation, and to mitigate, by care and attention, any sufferings that might accrue afterwards. It is important to demonstrate in detail, as well as in principle, that these experiments, undertaken by those whom the public have a right to trust, are of the greatest possible benefit to both humanity and the animal creation, in diminishing suffering, prolonging life, and curing disease.

PROTEID ALKALOIDS OF FERMENTATION.

M. A. GAUTIER has published, in the *Journal de l'Anatomie*, September 5th, 1881, an excellent abstract of scientific researches and the actual state of knowledge respecting the ferments. In it, he settles decisively his own part in the discovery of cadaveric alkaloids, the so-called *ptomaines*. He reminds his readers how that, in 1872, after having

submitted blood-fibrin to putrefaction under a layer of water, he succeeded in obtaining, amongst other products of putrid decomposition, a small quantity of fixed and volatile alkaloids. Selmi, also, in his medico-legal experiments performed in 1870 and 1871, had met with an alkaloid which he could not succeed in identifying with any of those known up to that time; but it was only in January 1872 that he formulated the following conclusions before the Academy of Sciences of Bologna.

"1. The stomach, in the bodies of persons who have died a natural death contains compound substances which behave like certain vegetable alkaloids, without, however, being of a toxic nature. 2. These products are neither creatine, nor creatinine, nor tyrosine. 3. Analogous products are found in alcohol which has been used for the maceration of anatomical specimens."

In 1874, Selmi continued his experiments on a large scale on bodies exhumed after several months; later, in 1877, in answer to objections, he made a formal declaration that he had obtained two alkaloids, one fixed, the other volatile, by submitting to putrefaction pure albumen obtained free from contact with the air. On this point, he does justice to M. Gautier by writing: "M. A. Gautier, in his *Chemie Appliquée à la Physiologie*, had pointed out that proteid matters, in putrefying, yield, besides various other products, a small quantity of badly determined organic alkalies, in combination with various fatty acids, which are formed simultaneously"; and, further on, he says: "The first discovery of alkaloid formed by putrefaction was made by M. A. Gautier." Nevertheless, the name of Selmi, on account of his lengthened and various labours, must, in toxicology, remain attached to the history of putrid alkaloids.

Neither M. A. Gautier nor Selmi was the first to touch this question. In 1860, Calvert studied the putrefaction of the flesh of fishes in a current of air, and collected the gases; but his results were incorrect. In 1868, Oser observed that, in the fermentation of pure sugar with the yeast of purified beer, an alkaloid not previously existing in the ferment was formed; he even fixed its centesimal composition. Panum, in 1855, found, in putrid wounds, a fixed poison comparable to the venom of serpents in activity, which he named sepsine. Returning to the subject in 1874, he affirmed that this toxic substance was not an alkaloid, although Bergmann and Schmiedeberg assert that they have obtained a sulphate of sepsine.

All these observations, which were simply isolated facts, did not assume their true importance until M. Gautier demonstrated that alkaloids of animal origin are constant products of the putrefaction of albuminoid matters. Amongst the ptomaines, whether fixed or volatile, some are soluble in ether, while the others dissolve only in chloroform or amylic alcohol. Thus obtained, their physiological effects have been experimentally studied by Selmi, who has ascertained that, amongst the ptomaines, some are inactive, others very poisonous, especially the fixed bases. The symptoms of poisoning due to poisonous cadaveric alkaloids are "dilatation and irregularity of the pupil; instantaneous retardation and irregularity of the cardiac pulsations; convulsions, and death, with the heart in systole and emptied of blood".

MM. Gronetti and Corona, in a memoir published at Bologna in 1880, give very interesting supplementary information on the same subject. These writers have pursued experimental researches on animals, of which the results have varied remarkably, according as they employed substances extracted from the products of cadaveric decomposition by means of ether, of chloroform, or of amylic alcohol. They found that the fixed ptomaines are, as a rule, poisonous to a high degree, more especially those which are soluble in ether. The principal phenomena which have been observed in experiments on frogs are the following: 1. Dilatation of the pupil, followed by contraction; 2. Tetanic convulsions, often followed by flaccidity of the muscles; 3. Retardation of the pulsations of the heart; 4. Absolute loss of cutaneous sensibility; 5. Loss of muscular contractility. In experiments on dogs, the following phenomena have been recognised: 1. Contraction of the pupil; 2. A remarkable injection of the vessels of the concha of the ear by paralysis of the vaso-motor nerves; 3. Retardation of the respiration; 4. Somnolence, soon followed by convulsions and death; 5. Loss of muscular contractility. This loss of muscular excitability by galvanisation has allowed M. Gautier to class these substances with the poisonous alkaloids of mushrooms, especially muscarine.

The discovery by MM. A. Gautier and Selmi, in the putrefied matters, of basic substances showing considerable analogy with alkaloids of vegetable origin, was not of a nature to simplify the function of the toxicological expert in legal investigations. It was of the greatest importance not to confound the alkaloids spontaneously produced in dead bodies, with the vegetable alkaloids which may have been administered with a criminal intent. This difficulty has led to a large number of researches by M. Selmi in Italy, and by MM. Brouardel and Boutmy in France. The last named experts, in a memoir entitled *Sur un Reactif propre à Distinguer les Ptomaines de Vegetaux*, have contributed to the clearing up of this delicate point of toxicology by indicating an important differential reaction. "Whilst ptomaines, in a neutral or slightly acid solution, successively treated by the ferricyanide of potassium and the perchloride of iron, produce immediately Prussian blue, scarcely any of the vegetable toxic alkaloids yield any colour under these conditions." It may be noted that this reaction was already mentioned in Selmi's paper. An exception, however, must be made in the case of morphia (Brouardel and Boutmy), which also yields Prussian blue. Apomorphia, hyoscyamia, and muscarin, have also this property in common with ptomaines. Finally, M. A. Gautier has shown that a number of toxic bases which, it is true, are not obtained from vegetable matters, also yield an immediate precipitate of Prussian blue under the conditions above mentioned. These are, amongst others, aniline, methylaniline, naphtylamine, pyrrhidine, acetonamine, etc.

THE SURGICAL TREATMENT OF PRESIDENT GARFIELD.

In an article which appeared in the JOURNAL of the 29th of October last, we expressed our opinion regarding the case of the late President Garfield, after studying the official report of the facts revealed at the *post mortem* examination, and after carefully perusing the remarks published by Dr. Frank Hamilton, who was one of the consulting surgeons in attendance on the President. We have not seen any reason since for altering the views which were put forth in that article; and, if we now revert to the subject, it is because, in the number of the *North American Review* for the present month, there are some important comments on the case and its treatment, by four eminent American physicians, in which very conflicting—indeed, opposite—conclusions are arrived at, and in which the deductions drawn by some of the writers from the facts of the case differ from those which appeared to us to be warranted by them. The writers of the four reviews are Dr. William Hammond, who held the appointment of Director-General of the Medical Department of the Army of the United States for a great part of the period of the War of the Rebellion, Dr. Marion Sims, Dr. John Ashhurst, jun., and Dr. J. T. Hodgen.

The two most important points discussed in the papers are, first, the early surgical treatment of the case, especially with respect to the exploration of the wound; and, secondly, the more grave question, whether the ultimate fatal issue was influenced by the course of treatment pursued, or, as it is put by Dr. Hammond, and also by Dr. Marion Sims, whether the wound was necessarily a mortal one. The insufficiency of the early exploration of the wound, and the neglect to ascertain the true position of the assailant when he fired the bullet, so as to gain as reliable a clue as possible to the probable direction of the missile, are dilated upon at considerable length by Dr. Hammond; and various quotations from writers on military surgery, both American and European, are advanced by him to prove that it is an established surgical rule to carry out thoroughly the above-named points of practice in

all such cases. There can be no doubt that a thorough examination of a gunshot-wound at the earliest opportunity, to ascertain its nature and limits, is a most important matter; and also that, according to the quotation from Professor Legouest, "it is an invariable and absolute rule, when the course of a bullet is to be determined, for the patient to be placed in the position which he occupied when he received the wound"; but, as happens with all other rules, their practical application is liable to be limited by various circumstances. The track of the projectile may be so prolonged and tortuous as to prevent the accomplishment of the first precept; the circumstances under which the wound was inflicted, the nature of the injury, or the collapsed condition of the patient, may render the second impracticable. We stated in our remarks on the case in October last, that we regarded it as a matter of regret that a more complete examination of the wound had not been undertaken within the first twenty-four hours; and that, to accomplish this object, a short incision had not been made from the opening of entrance of the bullet, opposite the tenth intercostal space, to the seat of fracture at the eleventh rib; and we gave our reasons at length for this opinion. Dr. Hammond quotes from Professor Gross's *System of Surgery*, published at Philadelphia since the time of the United States' War, a passage which very strongly shows the ill consequences of neglecting an early thorough examination of a gunshot-wound in which bone has been fractured, whenever the operation can be accomplished. The advantages which would have followed in the case of President Garfield are obvious. Had the limited and relatively unimportant incision been made to the fractured rib, beyond which the finger failed to go, or the probe to afford any indication, it would have been discovered that the bullet had been diverted toward the spine; the opening of entrance in the lumbar vertebra would probably have been felt, and thus the mistakes arising from the supposition that the missile had passed forward toward the liver, or downwards toward the right iliac region, been avoided; there would have been an opportunity of removing the detached splinters of the broken rib and the fragments of clothing at once, and thus some of the subsequent abscesses would have been averted; and the necessity for special care about spinal movements would have been rendered apparent. Another indication for instituting a complete examination at the site of the broken eleventh rib is the following. Dr. Ashhurst mentions that there was rather free bleeding from the President's wound during the day and night following its infliction; and that, once or twice during this period, the symptoms were such as to cause a fear that internal or concealed hæmorrhage was taking place. As it was known that the eleventh rib had been fractured by the bullet, it was only reasonable to infer that the bleeding from the wound might be due to penetration of the intercostal artery; and, on extending the wound made by the bullet down to the site of fracture, the exposure thus procured would have enabled the inference to be verified or to be proved incorrect, and steps to be taken according to the result obtained by the investigation. No adequate reason why this thorough exploration of the wound could not have been made in the course of the first twenty-four hours which succeeded the infliction of the wound, appears on the face of the various comments on the case. Dr. Hodgen, in his paper, refers to the shock and collapse consequent on the wound as reasons for not carrying out further explorations at the site of injury. But Dr. Ashhurst writes: "The calmness, mental clearness, and perfect self-control of the President, at the time of, and during the hours following, his injury, constituted not the least remarkable feature of his case." This description hardly appears consistent with the existence of such an amount of constitutional shock as to render unadvisable the performance of a surgical proceeding necessary for a more thorough exploration of the wound than could be obtained without the operation—a proceeding, too, without any gravity in itself, and that might be the means of rendering very important service to the patient throughout the whole future treatment of his injuries.

So far, then, we cannot but agree with Dr. Hammond that, as regards complete exploration of the wound, the practice during the first forty-eight hours was not in accordance with acknowledged surgical precepts; but we cannot go beyond this in his strictures on the treatment of the case. No doubt, it would have been advantageous in affording an indication of the course the bullet had taken if the precise relative position of the President and of the pistol from which the bullet was fired had been ascertained; but Dr. Hammond does not show how this exact knowledge was to have been got; as far as we can discover, there were no means of obtaining it. Dr. Hammond denies that the wound was necessarily a mortal one. As evidence of this, he points out that the spinal cord received no injury beyond a slight concussion, which was speedily recovered from; that all the abdominal organs escaped; that, as to the injury to the ribs, no one would affirm that gunshot-fractures of the ribs, uncomplicated with lesions of the abdominal or thoracic viscera, are necessarily fatal injuries; and he quotes various authorities to prove that patients who have suffered gunshot-fractures of the bodies of the vertebræ have occasionally recovered. Dr. Hammond also alleges that no important vessel was injured by the bullet; that "the rupture of the splenic artery was either due to malnutrition of the coats, the result of pyæmia, or was *post mortem*, being caused by the injection of a solution of chloride of zinc into the vessels several hours before the necropsy"; and he refers to the report of the *post mortem* examination for the admission that the injected preserving fluid was extravasated into the abdominal cavity with the blood. One of the other writers—Dr. Marion Sims—also expresses a doubt about the splenic artery having been injured by the bullet in passing to its place of lodgment; and thinks it must have given way at a later period, probably during the act of embalmment. But if it be true, as stated by Dr. Hodgen, that, at the part of the splenic artery which was found to have given way, there was "an aneurysmal sac, with well defined laminated walls", however the presence of this sac, its subsequent rupture, and the hæmorrhage from the opening may be explained, the fact of its presence, together with the relation of the arterial lesion to the track of the bullet, seem to leave little, if any, room for doubting that the vessel had been subjected to serious injury at the time when the wound was first inflicted.

We may admit, however, that none of the lesions inflicted on President Garfield, separately regarded, had an absolutely mortal character; and yet assert that but one termination, and that a fatal one, could rationally be expected to follow them in combination in a person of the President's age and state of constitution. His vital powers had undoubtedly been depressed by the effects of exposure and service during the civil war; his digestive functions were impaired, so that only a small amount of nourishment could be assimilated; some of the abdominal viscera, especially the liver, were not in a healthy condition, as shown *post mortem*; the mental anxieties and great responsibilities of his high position must have joined still further in rendering him an unfavourable subject for sustaining any grave and complicated injury, or recovering from its effects. When, therefore, the injury came in the form of a severe gunshot-fracture of two ribs, and of perforation of the vertebral column, not to mention the other accompanying lesions, the chances of escape became so infinitesimal that the wound might strictly be regarded as a mortal one. No particular mode of surgical treatment, no amount of skilled nursing and attention, could hold out a reasonable hope of being able to avert the fatal result. Professional skill, devotion, and extreme watchfulness, might prolong life, as we believe they did to its utmost tether, in the President's case; but, either in the form of blood-poisoning, or, if not in that, in the form of exhaustion, or in some other manifestation of the kind, the fatal end was sure to follow. We have expressed regret that the early exploration of the wound was not more complete, in the belief that the diagnosis and prognosis would have been rendered clearer had it been, and that some of the passing complications which ensued might probably have been evaded; but it never occurred to us, when once the true nature and extent of the lesions were fully exposed at the examination after death, that the exploration could have exerted such an influence as to stop the final result. Dr. Marion Sims attributes the fatal termination of the President's wound solely to the injury to the

spine, or, as he tersely, and rather curiously, sums up his verdict in the case: "without the wound of the vertebræ, it would have been impossible for him to die; with it, it was impossible for him to live." We may not entirely concur with this statement, the wording of which is probably not intended to convey the exact meaning which its literal interpretation would give to it; but we fully concur with Dr. Sims in the previous assertion made by him, that the wound of President Garfield was as certainly mortal as the wound of President Lincoln. The difference was only a difference of time.

THE COLLECTIVE INVESTIGATION COMMITTEE.

THE Report of the Collective Investigation Committee is so important a document, that it is reprinted at another page of this day's JOURNAL, in order that the members of the Association may have the opportunity of reading it again. It will be remembered that the attention of the Association was directed to the subject by Professor Humphry in his address at the Cambridge meeting, in which he referred to letters that had appeared in the JOURNAL from Dr. Arthur Ransome of Manchester and Dr. Mahomed of Guy's Hospital. In pursuance of a resolution, proposed by Mr. Husband in the Senate House at Cambridge, a committee was formed to organise a plan for carrying out the work of collective investigation in the Association. The committee was composed of the following members: Professor Humphry, Dr. Carpenter (then President of the Council), Mr. Husband, Dr. Arthur Ransome, Dr. B. Foster, Dr. Sieveking, Dr. Allbutt, and Dr. Mahomed; and their report, having been approved by the Committee of Council, was adopted at Ryde. One of the provisions in the report is the appointment of a secretary with a salary of £200 a year, and £100 for travelling and other expenses. Out of many applicants for that post, the committee have nominated Dr. W. R. Smith of Cheltenham, Dr. Smith will reside in London; and, in the event of the appointment being confirmed by the Committee of Council, will enter upon his duties early in January. In the meantime, there can be no doubt he will be happy to receive any communications or suggestions with reference to the work that may be made to him by members of the Association; for he is quite conscious that the task is an arduous one, and that the hearty co-operation of many practitioners will be necessary for success. The amount of valuable information upon many points of pathology and practice which might be furnished, with a little care, thought, and effort, by the medical men of this country is enormous, and ought not to be allowed to run to waste; and the Association can hardly do a better thing than to endeavour to collect, summarise, and utilise this information. Such is the duty delegated to the Collective Investigation Committee and their secretary. They are considering the *modus operandi*, and will no doubt make some report, and give some indications of their intentions, at the next meeting of the Committee of Council. They have intimated that they propose to make use of the machinery of the Branches, as was to be expected; and it is anticipated that in some of the Branches, at least, members may be found to act as registrars, or working centres, in different parts of the kingdom; and the registrars will be associated with the committee in determining the subjects best suited for this sort of investigation. Thus it is hoped that a large consensus of opinion and harmonious action will be obtained, and that many medical men will be induced to contribute something of the stock of knowledge resulting from their experience towards the advancement of the science and practice of medicine.

THE Home Office have instructed Dr. Stevenson of Guy's Hospital, and Dr. Dupré of the Westminster Hospital, to undertake the chemical analysis in the Wimbledon poisoning case, in which Dr. Lamson is charged.

WITH reference to the recent award of the Blane Medals, we are informed that they were given, in order of merit, to Staff-Surgeon Macdonald and to Fleet-Surgeon Ninnis.

DR. MATTHEWS DUNCAN'S work on the *Diseases of Women* has been translated into Russian, under the superintendence of Dr. Schwarz, Professor in the University of Kiew.

DR. VIRGINIO TOMPSON of Licmano, Florence, has translated the monograph "On regressive Paralysis", by Dr. W. H. Barlow of Manchester, and is about to publish the same in Italy.

THE Governors of the Birmingham Eye Hospital have decided to build a new hospital at once, at an outlay of £17,000, upon a site in Edmund Street.

A NEGRO from Sierra Leone, named William Renner, has recently graduated Doctor of Medicine in the University of Brussels, and intends to practise on the coast of Guinea.

SEVERAL correspondents have pointed out to us that, in the leading article on a Grave Social Problem, which we published in our issue of the 3rd instant, the Principal of Clifton College was misnamed, his name being Wilson, and not Milson.

WE have received a considerable number of communications, approving and confirming the opinions expressed in the article—many of which, however, we feel some delicacy in publishing, owing to the character of their contents; but we are considering how best, in returning to the subject, to deal further practically with it. In the meantime, we shall be glad to receive any further communications, containing practical suggestions as to the best method of bringing this matter under the notice of physicians and schoolmasters. An excellent article on the subject has recently been published by Dr. Mortimer Granville, in *Modern Thought*.

CAROLINE THOMPSETT, a midwife, has been committed for trial for manslaughter by the Tunbridge Wells magistrates. She is said to have conveyed puerperal fever from one patient to another, and death resulted in the second case.

Mr. JUSTICE CAVE, in a recent case, gave it as his opinion that the surgeon who attended a duel to prevent a man from dying was to be held equally guilty with the person who fired the shot, because, by his mere presence, he forwarded the duel.

A GOLD medal of honour of the first class has been awarded to Dr. Chassaniol, retired physician of the French Navy, who, in spite of his great age—seventy-five years—did not hesitate to proceed to Senegal, where, during the whole of the duration of the recent epidemic of yellow fever, he gratuitously undertook the care of patients suffering from the fever.

AT a meeting of the Harveian Society, on November 17th, the following resolution, proposed by Dr. Broadbent, and seconded by Dr. Cavafy, was passed unanimously:—"That the Harveian Society of London tender a very hearty vote of congratulation to Dr. Ferrier on the happy result of the fanatical prosecution to which he has been subjected."

WE are glad to be able to state that a small pension from the Civil List has been granted to Dr. Greenhill of Hastings, on the grounds of his learned contributions to medical literature (Greek, Latin, and Arabic), to medical and sanitary statistics, and for his practical labours in the cause of sanitary and social improvement. Dr. Greenhill was the founder of the Hastings College Improvement Society in 1857, and aided in establishing the London Labourers' Dwelling Society of 1860. His services in the cause of improving the dwellings of the industrial classes have repeatedly been the subject of mention by eminent men, notably Lords Palmerston and Derby.

ON Wednesday next, December 21st, at 4 P.M., Mr. Ernest Hart, Chairman of the Smoke Abatement Committee, will give a lecture in the council-room of the Horticultural Society, at the entrance to the Smoke

Abatement Exhibition, South Kensington, on "The Bases and Methods of Smoke Abatement". On December 19th, at 8 P.M. Dr. Neale will lecture at the same place, on "A Chemical Lung to purify the Vitiated Atmosphere of the Underground Railway, Hospital Wards, and Workshops". On January 4th, Professor Chandler Roberts, F.R.S., Chemist to the Mint, and of the Royal College Mines, will lecture on "The Physics and Chemistry of Combustion in Relation to Household Fires".

AN OLD ABUSE.

THE Board of Management of the Provident Surgical Appliances Society having, according to a letter of Mr. Alderman Hadley, at last given its attention to the frequent cases of hardship arising from the fact that poor and deserving patients are unable to obtain a sufficient number of letters of recommendation to enable them to receive the artificial limbs or instruments they require, has, rather tardily, decided to establish a benevolent fund through which to assist these poor patients. By this means, the Board of Management hopes that every poor and deserving person, from any part of the country, appealing to the society will be relieved. Under this system, it is thought, the indigent cripple will have no occasion to beg from house to house for letters of recommendation from subscribers to whom he may be unknown. Any applicant to this fund will, it is announced, be carefully examined by the surgeon; and will be assisted according to his or her need, in the discretion of the Board of Management. As this will involve a heavy charge, it is earnestly hoped that the public will liberally help the new fund.

SELF-SUPPORTING PROVIDENT DISPENSARIES.

THE *Charity Organisation Reporter* of December 8th gives the following particulars from the first Report of the Metropolitan Provident Dispensaries' Association.

The Council of the Metropolitan Provident Medical Association have issued a report showing the minimum number of members necessary to make a dispensary self-supporting. The fixed cost of rent and house expenses and dispenses is computed, on an average, at £150 per annum. Experience tends to show that the proportionate payments absorb about 75 per cent. of the net income, viz.: medical officers, 47 per cent.; drugs, instruments, etc., 21 per cent.; secretary, printing, etc., 7 per cent.; 25 per cent. would thus be left to meet the fixed charges, and as these would require £150, the minimum annual income compatible with solvency must be £600. The subscriptions of 1,000 family members, or 2,000 ordinary, or 3,000 friendly society, single cards, would yield an income of £650. These classes might be combined in many ways, and an increased number of members would probably give a considerable reserve surplus.

COUNTER-PRESCRIBING.

AN inquest, reported from Plymouth in the *Western Morning News*, well illustrates the evils of counter-prescribing by druggists, and the indifference with which the practice is treated by coroners and coroners' juries. An inquest was held by Mr. Brian, the Plymouth coroner, as to the death of a child aged eleven weeks, which, till within two days of its death, had been strong and healthy. Being unwell, the infant was taken to a druggist, who prescribed for it on the Saturday evening. On Tuesday morning, the child was found dead in bed. We do not learn that any *post mortem* examination was made, nor any medical testimony offered as to the cause of death; but the coroner's officer testified at the inquest that the child was a fine one for its age. He had examined it, and found no external marks. The right hand was clenched, with the thumb drawn into the fist. The druggist who prescribed gave evidence that he gave the child a mixture which he had given in a hundred similar cases. It is not stated that these were all similar *fatal* cases; we trust they were not. The composition of the mixture prescribed does not appear to have been stated in evidence. The jury returned a verdict of "Death from natural causes". The case is monstrous, and we commend it to the consideration of the Home Secretary. A child dies under suspicious circumstances; a coroner's officer officiates as medical examiner, and describes—no doubt to the best of his ability—the appearances of the body, which were certainly such as to demand a *post mortem* medical examination; and no evidence appears to have been tendered as to the composition of the medicine administered by a non-medical man. Under these circumstances, the inquest was an useless and reprehensible farce.

THE POSITION OF THE SHIP-SURGEON.

IN another column will be found a letter, directing attention to a matter of considerable importance, both public and professional. The position of surgeons on shipboard has long been a grievance; but, from the fact that the post was held principally by young men, who took advantage of it as an easy and inexpensive way of seeing the world, and seldom retained it longer than a voyage or so, without some strong personal motive, a condition of grave abuse has been allowed to exist almost without complaint. From a purely public standpoint, and considering the multitudes who travel by sea, and the immense amount of sickness existing among them, it seems unquestionable that more experienced medical advice and more independent sanitary authority are necessary. The ship-surgeon has many difficulties to contend with, from which his brethren on land are exempt. He is dealing with a number of persons—frequently 1,500 on a single vessel—huddled together in a small space, of whom he has no previous knowledge, and who possibly may show little confidence in him. At any moment he may be brought face to face with serious and complicated cases, or called upon to perform the most difficult operations of surgery without any skilled assistance, any suitable arrangements, or the possibility of sharing responsibility with another. Already, colonial Governments have taken the matter in hand. The surgeons of the Government emigration ships are appointed, not by the companies owning the ships, but by the Governments of the colonies to which the emigrants are conveyed. These gentlemen, carefully chosen, are paid at a suitable rate, which enables them to earn £500 or £600 *per annum*, and are given a position of complete sanitary control. It seems strange that the surgeons of the largest Anglo-American vessels—who have during the year the complete medical charge of frequently twenty times the number of passengers, including the highest in both countries—receive about one-fifth of the pay (£120 *per annum* is the highest). It may be supposed that gratuitous fees from the passengers may, to a certain extent, supply the deficiency; but we learn, on good authority, that such is not the case. Nor do we regret it. A present given and received in a spirit of generosity draws closer the bonds of friendship; but the regular services of life should be paid for as a right, not as a favour. The subject is certainly deserving of consideration, and we shall be glad to hear more upon it.

PRACTICE BY UNQUALIFIED ASSISTANTS.

AN inquiry has been held into the death of a child, aged 21 months, the son of a working jeweller named Burns, residing at Somers Town. The father stated that the child was taken ill with measles, and on Saturday morning last, at about four o'clock, the child appearing to be in a fit, he ran off to a dispensary kept by Dr. Dyte, in Judd Street, Euston Road. He was told that he would come directly. As no doctor came, he went back again; and, on returning home, found that some one, who he supposed was Dr. Dyte, had been and given the child a powder. The child became worse. He went to the dispensary again, and was told if he would pay 3s. 6d. for his attendance, and 3s. 6d. for a week's dispensary subscription, Dr. Dyte would make his case the first one. Dr. Dyte came at ten o'clock in the morning, two hours after the child was dead. The certificate given by Dr. Dyte was worded in such a way, that the registrar of the district declined to register the death upon such a certificate. The coroner said that Dr. Dyte, who described himself as of 24, Upper Bedford Place, had written on the paper that his assistant (an unqualified person) had attended the case, and that he believed death was from convulsions, following measles. This not being a proper medical certificate, the registrar had most properly refused to register the death. The coroner regretted to say that this sort of cases was becoming very common by

the establishment of what were supposed to be public dispensaries, but were really the private speculations of medical men, who, although they might themselves be properly qualified, frequently left persons in charge who were not. The poor who went to them thought they were receiving proper medical advice, but were greatly deceived. After some very strong animadversions on the part of the coroner and jury on this practice, the jury returned a verdict of "Death from convulsions, supervening upon measles", with the following rider: "In returning this verdict, the jury desire to strongly condemn the system of medical practice which the evidence in this case has revealed, as they consider the employment of unqualified assistants to take charge of dispensaries, where the principal is non-resident, most pernicious in its practice, and in many cases a fraud upon the public and sick poor. The jurors further regret that in the present case the deceased did not receive skilled medical attendance, more especially as an extra fee had been paid for the same." Our readers will remember our former comments with respect to this dispensary, and the correspondence on the subject which took place in the BRITISH MEDICAL JOURNAL in 1879.

HEALTH CONGRESS AT BRIGHTON.

A HEALTH CONGRESS has been opened at Brighton during the week, at which addresses have been delivered by Dr. Richardson, Dr. Alfred Carpenter, Mr. Edwin Chadwick, and Mr. John Holland, and an evening lecture on Eyesight by Mr. R. B. Carter. In connection with this meeting is an exhibition of sanitary objects, to which we last week referred. The papers read related to subjects such as "Water-Supply", "Escape of Gases", "Sewage", and "Domestic Health" and "Educational Training". The public attendance has been good; and a considerable local interest appears to have been aroused. Of course, little of scientific novelty is expected on such occasions, which are chiefly intended to bring the application of sanitary knowledge within the observation of the lay public. We shall publish a further report next week.

MEDICAL BENEVOLENT FUND.

THE Treasurer of the British Medical Benevolent Fund desires to acknowledge, with sincere thanks, through our columns, donations of £100 from the Rev. Dr. Field, Norwich; and of £20 from Dr. Frank of Cannes. The Rev. Dr. Field was born in London in 1801, and is a descendant of Oliver Cromwell. His grandfather, father, and eldest brother, were medical men, and practised one after the other in Newgate.

CHARGE AGAINST THE MEDICAL STAFF OF THE BIRMINGHAM WORKHOUSE.

INVESTIGATION is being made, according to the daily papers, by the Birmingham Guardians into the serious irregularities alleged to have been practised by the medical staff of the workhouse, in administering blisters and shower-baths as punishments to patients. The committee repeated the evidence previously given, asserting that, in consequence of these practices, there was a terror among people in the town, and they were afraid to enter the infirmary. A nurse was also charged by the head doctor with "faking" the patients, so as to make them appear in a non-contagious state, and so get them from under her charge. It was added that a girl named Peters, when punished by the doctor's orders, declared that she would not be punished for nothing, and thereupon broke the windows with the poker, for which she was taken before the magistrates and sent to gaol. Blisters and shower-baths were recognised punishments in one ward. The chairman of the committee expressed his indignation at the facts adduced in evidence, declaring that some of the patients were unfit for punishment of any kind. Imbeciles had actually been punished. Such things as padded rooms, blisters, and shower-baths were cruelties, not punishments. He moved a resolution declaring that the senior medical officer, Dr. Simpson, no longer retained the confidence of the board, and asking the Local Government Board to send down an inspector to hold an inquiry into the case. An exciting discussion ensued, the defence being, that what was called punishment was in reality only medical treatment; but it was pointed out that the doctor had himself admitted that his directions were meant as punishments, notwithstanding that the master alone had authority to direct the administration of punishment. A resolution was ultimately agreed to, to request the Local Government Board to hold an inquiry into the general working of the medical department of the workhouse, the guardians suspending any expression of opinion with regard to Dr. Simpson.

A NEW FRENCH HOSPITAL.

PROFESSOR VALLIN (*Revue d'Hygiène*, November 1881) gives a detailed description of the new Hospital of St. Denis, which has just been constructed for the town of St. Denis by M. Paul Laynaud, the town architect. The plans have been already given on an extended scale in the *Progrès Medical* (October 29th, pp. 842 and 843). The extent of area is 26,000 square mètres (31,120 square yards), which, for a maximum of two hundred sick, would give 130 mètres (156 square yards) per bed. This is proportionately large; the Hôpital Tenon having only 83 mètres per bed, and the Société de Chirurgie having been content (in 1861) with 37 mètres (44 square yards) per bed—an amount which would hardly content hygienists in the present day. The situation, at the gate of the town, is elevated, and free from all dampness. The principal front is exactly south, and the axes of the pavilions run from west to east. The ground is surrounded by a light railing instead of a wall, thus giving a more pleasant aspect than the blank wall often used as boundary to a hospital establishment. The general plan is that of M. Tollet; viz., separate one-storeyed pavilions, ogival (or Gothic) in shape, exclusively of brick and iron, and scattered over an extensive surface of ground. Some specialities of details have, however, been introduced by M. Laynaud. The pavilions are arranged in two parallel rows, separated by a walk and garden-plots, having a total width of 34 mètres (37½ yards). The first row, forming the *façade*, consists of two one-storeyed pavilions, intended for old people of at least seventy years of age, or for incurables; the right hand pavilion being for males, and that on the left for females. Each contains eighteen beds, besides a bed for a woman in labour, who with her attendant is isolated from the rest. In the middle of the row are the administration buildings and the apothecary's department, on the left hand of the entrance; while on the right are found the sisters' quarters and the kitchen; these are all two-storeyed pavilions. The apothecary's department includes a very handsome laboratory, of which the panels and ceiling in carved wood, the jars in old *faience*, the cupboards, etc., were the gift of Louis XIII, and have great artistic value. [We may mention another hospital in Paris rich in similar objects of art; viz., the Hôpital de Sainte-Eugénie, where the office of the *pharmacien* is a perfect gem.] These have all been successfully removed from the old hospital. The second row of buildings constitutes the real hospital; it is formed by seven pavilions, 8 mètres (26¼ feet) high, single-storeyed, and arranged in a line from west to east, each having its principal front looking towards the south. The three central pavilions are reserved for surgical cases; the two pavilions at each end are joined, and communicate with each other through a common refectory. The pavilions themselves contain the necessary medical appliances—at the one end for males, and at the other for females. In a third row, separated by an interval of about 30 mètres (98½ feet), are two isolation pavilions, one for males and the other for females. Each pavilion contains four separate wards, with one or two beds. At a distance of 3 mètres (about 10 feet) further back are two small separate buildings for lodging the male and female attendants on the sick. Further on is a separate building for the closets of each pavilion, which can be reached by means of a covered way entirely open at the sides. The chapel, with separate accommodation for Catholics, Protestants, and Jews, is situated behind the isolation pavilions, at a distance of only 8 mètres (26⅓ feet), which is certainly insufficient. Further on, at the extreme corner of the enclosure, is a [illegible] room, very well arranged; it is about 25 mètres (82 feet) from the male isolation

pavilion, but a little below the ground-level. The baths, perpendicular to the posterior aspect of the fever-pavilions, contain six baths for each sex, with various hydrotherapeutic appliances. Near the men's bath is the laundry, very completely arranged and equipped. In each pavilion, near the closets, is a shoot, closed by a door, where the dirty linen is thrown down to the basement; there a small wagon transports the linen, or bedding, if required, to the laundry and disinfecting chambers. M. Vallin omitted to inquire if there was a disinfecting stove or other means of applying heat for the purpose. The pavilions for ordinary cases of sickness are arranged as follows: length, 34 mètres (112 feet); breadth, 8 to 9 mètres (26 to 29½ feet); and a little more than 8 mètres (26 feet) high to the ridge of the roof. Each ward contains sixteen beds. There are eight large windows, each furnished with an impost or lintel having two movable panels at the upper part, on each side; so that the renewal of air can be easily secured. At the end of each ward is a glazed antechamber, arranged as a lavatory, with tip-up basins, etc. On the other side of this is a dining-room for the patients. At the opposite extremity of the ward, there is a room for operations, or for separating a noisy or troublesome patient. In the medical wards, this room is replaced by a small ward intended for one or two children. The general appearance of the wards is pleasant. The cubic contents are large, and must furnish more than 50 cubic mètres (1765 cubic feet) per bed. [N.B. This is evidently exclusive of the space in the upper or ogival part of the roof, which is very properly not reckoned.] The walls are in painted plaster up to a height of 2 mètres (6½ feet); this coating will stand frequent washing. Above this height up to the ridge, there is only white paint. The walls are solid, and built entirely of bricks and iron. The flooring is of oak, apparently without any coating of wax or other substance. It is necessary to ensure its absolute impermeability without making it slippery—a problem which is always a difficult one. The beds are provided with curtains, as in all French hospitals. To this relic of routine and prejudice, Dr. Vallin very justly objects. The ventilation is carried on by the two swinging panels above each window, thirty-two in number. It is also greatly assisted by a large open stove, the vertical flue of which, 8 to 9 mètres (26 to 30 feet) in height, is enclosed with a ventilating chimney which rises above the roof to the height of a mètre (3⅓ feet). This stove enlivens the ward by the sight of the open fire, and also helps materially to change the air by the ascension of the heated column in contact with the smoke-flue. The heating of the ward, properly so called, is carried on by means of large openings of calorifers placed at the head of each bed. In the basement of each pavilion there are two separate calorifers, on the system of Michael Perret. They will burn the dust of coke or charcoal—in fact, all sorts of trade-refuse. They are charged once a day, and continue to work without interruption day and night. Their effect appears to be excellent. The same system is already in operation at Bourges. The latrines are situated in a corner of the garden, connected with the pavilions only by the open corridor already described. The seats are of polished oak; the pans of earthenware. The liquid excreta flow off at once to the drain, whilst the solid are received into a movable receptacle. Although the hospital had only been opened a fortnight, the seats were already soiled with fæces and saturated with urine, due to the unfortunately dirty habits of the people in this particular. The basement of each pavilion is vaulted, and open all round, so that the wards themselves have no direct connection with the ground. It forms a promenade in wet weather; and, being laid with rails, serves as a tramway for transporting all sorts of supplies to other different pavilions. On the principal front to the south, there are balconies about 8 feet wide, on which the beds of patients can be wheeled in fine weather. This hospital is an improvement on that of Bourges; the number of beds being smaller, and the architect not having been hampered by the exigencies of the public service, so as to compel him to alter an otherwise excellent plan. The cost is considerable, about 1,400,000 francs (£56,000), or more than 8,000 francs (£320) a bed. This is high, particularly as one of the advantages claimed for the system has been greater economy of construction, permitting wider extension of surface.—The new Hospital of St. Germain forms a striking contrast with that of St. Denis. It is emphatically a monumental hospital, a solid mass of building, of three storeys besides the basement. The upper storey is reserved for paying patients in small rooms. The space for each patient seems ample, about 57 mètres (about 2,000 cubic feet). The general wards contain twenty-six or twenty-eight beds. The rules of hygiene are followed as far as can be in such a structure; but the writer remarks that, having visited it only a few days after its opening, he already perceived the characteristic "hospital smell", so well known in large hospitals. The cost in this instance was only 5,000 francs (£200) per bed.

POLITICAL CANVASSING FOR HOSPITAL APPOINTMENTS.

We deeply regret to see, from the *Birmingham Daily Post* of December 9th, that the official machinery of a political association is being set in motion on behalf of Mr. Archer, one of the candidates for the assistant-surgeoncy of the General Hospital, Birmingham. An attempt to introduce political canvassing, under the agency of a political association, into the election of an office which is purely technical and purely professional in its character, is one which ought to be strongly discountenanced and warmly resented by the medical profession. We would willingly acquit Mr. Archer of instigating these proceedings, or of being cognisant of them; but we hope he will take immediate means to indicate his personal disapproval of this most ill-judged action taken on his behalf. A precedent of this kind deserves the serious consideration of the profession; and no doubt the medical profession in Birmingham, which is well alive to the necessity of organised action in such a matter, will take into consideration the propriety of some collective protest against this most insidious and dangerous precedent. Few things could be worse in the interests of the public, or more discreditable to the profession, than that political canvassing and party influences of the kind should be brought to bear upon the election of medical officers of hospitals. Such proceedings can have no relation to the relative merits of the candidate, and political partisanship should have no place in the selection of the best fitted surgeon to fulfil the public duties of a hospital.

PORRO'S OPERATION.

A patient aged 36, nine months pregnant, who had been sixteen hours in labour, was admitted to Queen Charlotte's Lying-in Hospital at 10.20 P.M. on December 10th. Her lower limbs exhibited extreme rickety deformity, and the conjugate diameter of the brim of the pelvis measured one inch and a half. The os uteri was dilated to the size of a shilling-piece, and the pains were feeble and unfrequent, and the patient's strength not much impaired. After consultation with Dr. Hope, Dr. Percy Boulton, and Dr. Brodie, Dr. Grigg performed Porro's operation, in which he was assisted by Sir W. Mac Cormac and Dr. Boulton. A living child was extracted. The mother did well up to twenty-four hours after the operation, when she died suddenly. The *post mortem* examination by Dr. Allchin revealed incipient peritonitis, but nothing to account for the patient's sudden collapse was discovered, and it was inferred that death resulted from the shock of the operation. A full report of the case will be published.

A DOCTOR DE JURE.

Dr. William Wood, of East Windsor Hill, Connecticut, states, in the *American Journal of the Medical Sciences* for July 1881, that on May 29th, 1880, he was summoned early in the morning to act as a juror in a coroner's inquest on a man run over by the cars, supposed to be dead. On arriving at the depot where the body was brought, he found a well dressed gentleman lying on the platform, with his head cut open from the inner canthus of the left eye to the occiput. The brain was exposed, and a furrow three inches in length was cut through the anterior portion of it. The left eye was turned up, so that the pupil was not visible. On the opposite side of the head was a scalp-wound, three and one-half inches in length. The conductor of the train stated that the man was lying beside the track, and that his head was struck by the pilot of the engine.

On looking at the cut in the brain, slight pulsation was detected, and there were also some irregular effects at respiration. Dr. Wood immediately removed some spicula and depressed fragments of bone. The head was dressed with cold appications, after the opplication of sutures and bandage. The patient was comatose at first; he regained partial consciousness on the fourth day, and was rational on the fifth. The wound healed without accident, and the patient returned to his work on the twenty-sixth day after the injury, and his health has remained good since; no trouble about his head; mind perfectly clear. He sees objects out of his injured eye, above or on a level with his eye, perfectly well, but has not the power to look down while holding his head erect. To test his vision, Dr. Wood blindfolded his uninjured eye, and gave him a letter, which he read accurately and without hesitation.

SCOTLAND.

AT a recent meeting of the Aberdeen University Court, *inter alia*, Dr. Buchanan White of Perth was appointed one of the examiners in medicine.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

DR. STIRLING delivered the fifth lecture of this series in Arbroath on Tuesday evening, when, in spite of the boisterous weather, the attendance was as large as ever. The lecturer dwelt specially upon intestinal digestion and absorption, and incidentally alluded to the prevalence of typhoid fever and the methods that ought to be enforced to banish it from our midst; and said that, now that sanitary science has traced so clearly both its cause and the means of preventing it, it seems part of the duty of a lecturer upon health to point out the secauses, and enlist the co-operation of the public in protecting themselves. The lecture was brought to a close by a graphic description of the blood and its uses. The leading facts in the lecture were illustrated by experiments, and by a large number of models, which were so arranged that any one might make them for himself.

ABERDEEN LL.D. DEGREE.

AT a meeting of the Senatus of the University of Aberdeen, held on Saturday last, it was unanimously resolved to confer the degree of LL.D. upon Sir Erasmus Wilson, President of the Royal College of Surgeons; and also upon Dr. Andrew Clark, in recognition of his valuable contributions to pathology, and his eminence as a physician. This is the highest honour which the Senatus has it in its power to confer. The degrees were conferred, not at the ordinary time for conferring these degrees, but, as a special mark of distinction, at a special time. This graceful act cannot fail to give satisfaction to the profession; for one of the recipients is a native of the North of Scotland, and the other is a distinguished alumnus of Aberdeen University.

ACTION AGAINST A MEDICAL MAN.

ON December 8th, at Kilmarnock, a pauper sued Dr. Buchan, Medical Officer of the Kilmaus Parochial Board, for the sum of £50 as damages, on the ground that the defender, by careless and incompetent professional treatment of the pursuer's wife, had accelerated, if not caused, her death. In the case for the pursuer, a number of medical men were examined. The case for the defender had proceeded but a little way when the pursuer's agent threw up the case. The sheriff substitute was not thus called upon to consider the unfinished proof judicially; but, in his interlocutor, he thinks it is his duty to say that nothing has been disclosed which, in his opinion, can justify the action, or that in any way affects the professional character of the defendant as a well qualified and attentive medical practitioner.

GLASGOW ASSOCIATION FOR PROVIDING TRAINED NURSES.

THE sixth annual meeting of this association was held on the 7th instant. The annual report, which was read and approved, shows that, during the sixth year of its existence, the association has made very satisfactory progress, and has been very favourably supported by the public. The work of the nurses has been greatly valued by those who have had occasion to need their services; and, with the view of meeting the great demand, especially by medical men, for skilled and trained nurses, the staff has been further increased, and it now numbers a total of fifty, of whom forty-one are trained nurses, the remainder being probationers and assistants. There has also been a great increase in the work done in the district or gratuitous department of the nursing, and this has, of course, entailed additional expenditure. The treasurer's statement showed that the ordinary and extraordinary income had amounted to £2,494, and the expenditure to £2,533.

AMBULANCE WORK IN GLASGOW.

WE understand that a movement is at present on foot for the purpose of forming an ambulance corps for Glasgow and the surrounding districts. The head-quarters of the corps will be in the city, from which it will be possible to conduct operations in an area of about fifteen miles around, and probably to a greater distance. The intention is to provide one or two ambulance-waggons, and, in the event of an accident, on receipt of a telegram or telephonic communication, to proceed to the spot, and remove the sufferers to the nearest infirmary. It is also proposed to place stretchers at county police-stations, and, by having a fixed route, the waggon would meet the removal of the injured person or persons, and convey them as speedily as possible to their destination. A number of leading citizens have agreed, we believe, to form a provisional committee. The want of something of the kind is at present specially felt in mining districts, whence, when accidents occur, sufferers have to be removed long distances in a cart without springs. It is gratifying, further, to see that the municipal authorities of Glasgow are aiding on the ambulance movement by assenting to the members of the police of the city being instructed in the first aid to be rendered to persons injured or overcome by sudden illness.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending December 3rd, it appears that the death-rate in the eight principal towns during the week was 18.9 per 1,000 of estimated population. This rate is 3.2 below that of the corresponding week of last year, and 1.4 below that of the previous week of the present year. The lowest mortality was recorded in Paisley—viz., 8.4 per 1,000; and the highest in Greenock—viz., 24.1 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 2.9 per 1,000, or 0.9 below the rate for last week. In Greenock, the rate was 7.5 per 1,000. In the other towns, the deaths from epidemics were not numerous. Acute diseases of the chest caused 103 deaths, or 11 more than the number recorded last week. The mean temperature was 43.7°, being 1.5° below that of the week immediately preceding, and the same as that of the corresponding week of last year.

THE SCOTTISH FOOD REFORM SOCIETY.

AT the third annual vegetarian banquet given by the above Society on November 29th, Professor McKendrick presided, and afterwards addressed some remarks to the company. He said that, apart from all questions of controversy, anything relating to food was of great interest to him as a physiologist. From the purely scientific standpoint, he thought it had been clearly proved that men might live in a state of vigour, and do good physical and mental work, on a diet derived entirely from the vegetable kingdom. The question was really one of digestibility and assimilation. If, by various appliances, vegetables could be so cooked as to be easily assimilated, then there was no scientific reason why a vegetable diet should not be as nutritious as one composed of animal substances. He then drew attention to a point of much interest, and that was whether the body was able to manufacture the colouring matter of the blood as easily and to the same extent from vegetable as from animal matters. It had been ascertained that the blood of flesh-eating creatures was richer in this substance than that of those living on herbs; and, as this colouring matter had the important function to fulfil of conveying oxygen from the lungs to the tissues, it was a matter of some importance in coming to a decision on

the best diet for man. There was no doubt that, by many, more meat was eaten than was necessary or even good for them, and this Professor McKendrick thought was due in great measure to the erroneous views on food which were prevalent, chiefly from the teaching of Liebig. One of the most important aspects of the question of food reform, as it presented itself to him, was the effect it might have on the dietary of our working people, many of whom had a severe struggle for existence, and brought up their families on unwholesome and insufficient food; facts which could not but end in helping on the deterioration of our race. If it could be shown that men might live healthily on vegetable substances alone, with the addition of milk and eggs, and if our working classes could be shown how to buy cheaper food, which would at the same time be equally nourishing, a great boon would be conferred to them. In concluding a most instructive and useful address, Professor McKendrick also drew attention to the important point that, if oatmeal and all the other cereals were more largely used, the country would be able to produce a larger amount of food than it did while we attempted to rear large quantities of beef.

THE HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending November 26th showed that there were 423 deaths registered, giving a death-rate of 22 per 1,000 living. There were 86 fewer deaths this year, or 2 per 1,000 of the population. This diminution is mainly in pulmonary diseases, partly in zymotic and miscellaneous diseases. The number of deaths of persons below one year was 101, and of persons aged sixty years and upwards, 56. There were 135 deaths from pulmonary diseases, representing a death-rate of 7 per 1,000 living, and constituting 32 per cent. of the total deaths. The number of deaths from fever was 10—viz., 5 from enteric, 2 from typhus, and 3 undefined. There were 53 deaths from infectious diseases of children—viz., 22 from measles, 12 from scarlet fever, and 9 from whooping-cough. Measles has extended considerably, more especially in the southern district, which returns 10 of the total deaths from that disease. The number of cases of fever registered was 66—viz., 61 of enteric fever, 4 of typhus, and 1 undefined. There were also 160 cases of measles, 112 of scarlet fever, 19 of diphtheria, and 10 of whooping-cough registered, of which 29 were removed to hospital, and the remainder kept under supervision at home.

IRELAND.

DR. WILLIAM SMYTH, M.B., of Banbridge, has been appointed by the Lord Chancellor of Ireland a Justice of the Peace for County Down.

THE Mayor of Belfast has been requested to call a meeting of the citizens early next month, to consider the present unsatisfactory state of the Belfast Royal Hospital, so that by some means the funds may be permanently increased.

BELFAST NURSES' HOME AND TRAINING SCHOOL.

THE tenth annual report shows that the present staff consists of twenty-eight nurses, fully trained, four partially trained, and ten probationers. The private nurses attended one hundred and thirty-six cases during the year; and the Home received from the Belfast Royal Hospital for the past year £557. As regards the financial condition, it is not very favourable: the debt due to the bank has been increased by £250, and there has been a falling off in the fees for private nursing, while the subscriptions have also declined.

EXAMINATIONS IN OPHTHALMIC SURGERY VERSUS CERTIFICATES.

AT a meeting of the Council of the Royal College of Surgeons in Ireland held on the 21st July last, it was resolved that "no certificates in clinical ophthalmology be recognised in future by this College, unless it be granted by an institution which permanently votes eight beds, in a special ward or wards, to patients suffering from dieases of the eye, for the instruction of students, and which has an extern department for eye cases, distinct from any other dispensary, open for the teaching of students at least twice a week". Owing to the difficulty in officially discriminating the particular institutions which fulfilled these requirements from those which claimed that they did, the College Council, in order to extricate themselves from the dilemma in which they had become involved, adopted, on the 8th instant, the remarkable course of ignoring all their former regulations on the subject, by passing resolutions to the following effect. 1. That, after the examination now pending, no certificate in ophthalmology be required; and, 2. That a special examiner in general and clinical ophthalmic surgery be appointed an additional member of the Court of Examiners.

SMALL-POX IN BELFAST.

IN the week ending the 3rd instant, there were sixty cases of small-pox under treatment in the Belfast Workhouse Hospital, no less than forty cases having been admitted during the week. This sudden increase has obliged Dr. Seaton Reid to transfer to the infirmary a number of patients suffering from non-contagious diseases; an arrangement which will permit ample accommodation for all small-pox patients who may be admitted.

CATHOLIC UNIVERSITY SCHOOL OF MEDICINE.

MR. CHARLES COPPINGER, Surgeon to the Mater Misericordiæ Hospital, has been duly elected to discharge the duties of the Chair of Anatomy and Physiology, vacated by the death of Dr. Hayden, in the above school.

DEATH OF DR. BEVAN.

WE regret to announce the death on the 6th instant, in his seventy-second year, of Dr. Philip Bevan, for many years one of the professors of descriptive anatomy in the school of the Royal College of Surgeons in Ireland. Dr. Bevan was at one time one of the surgeons of Mercer's Hospital, and had a high reputation as a surgeon and as a practical anatomist. He contributed several communications to the *Dublin Journal of Medical Science;* amongst the number, an important one on Scalds of the Larynx.

THE PROPOSED CONVALESCENT HOME.

THE funds collected with the object of establishing a convalescent home in the vicinity of Dublin for patients recovering from epidemic infectious diseases being utterly inadequate for the purpose, the committee have recommended that the amount now available should be entrusted to the governors of Cork Street Fever Hospital. In the extensive grounds of this hospital, there is a large building, which, if improved and remodelled, and provided with necessary sanitary requirements, would be suitable for the accommodation of convalescent fever patients. The governors, if entrusted with the amount collected, have undertaken to expend it in carrying out these improvements; and will devote any beds in the convalescent home thus established, and not required for their own patients, to similar cases sent in from other hospitals. A public meeting of the subscribers was held in the Mansion House last week; the High Sheriff of Dublin, Sir George Owens, M.D., being in the chair, when it was resolved to empower the committee of the proposed convalescent home to allocate the funds produced by the subscriptions, and now available, in such manner and for such purposes as they in their absolute discretion shall deem most advisable, and best calculated to promote and carry out, as far as possible, the original object of the subscribers; and to ratify and confirm whatever the committee may do in pursuance of this authority.

HEALTH OF BELFAST.

DURING November the births numbered 594 and the deaths 435, or at the rate of 21 per 1,000. The only matter relative to the public health of Belfast which deserves special notice is the increase of small-pox. Until the 19th ultimo only ten cases had occurred in November, but since then twenty-three new cases have been reported. Dr. Browne, superintendent medical officer, recommends that every effort should be

made by the medical officers of health to induce persons who have not been properly vaccinated to submit at once to the operation. The present epidemic has illustrated the protective influence of vaccination, as all persons who had been properly vaccinated have either escaped the disease or have had it in a very modified form.

REPORT OF THE COLLECTIVE INVESTIGATION COMMITTEE.

ADOPTED AT THE ANNUAL GENERAL MEETING OF MEMBERS, HELD AT THE TOWN HALL, RYDE, ON TUESDAY, AUGUST 9TH, 1881.

In presenting their Report the members of this Committee are aware that though the contemplated work is one of much importance, which may be productive of very valuable results—one which is worthy of the British Medical Association, and which ought to be undertaken by it—yet it is one which will require great and continuous effort to carry it on in an efficient and satisfactory manner. To combine a number of men in the systematic and careful observation and record of facts is difficult under any circumstances, and especially so in the case of medical men whose irregular and harassing avocations necessarily disincline them to enter upon and continue a labour of this kind.

It is obvious that success will much depend upon the energy, perseverance, ability, and judgment of the Secretary to the Committee which is proposed. The work that will devolve upon him will be laborious: and though it will no doubt, to some extent, bring its own reward, the Committee feel that the Association could not expect that such a task should be undertaken gratuitously.

The Committee further feel that it may be desirable to make some remuneration to those persons who shall be found to have given the time and attention which is requisite to make careful observations and record them well; and they think it will be agreed that a portion of the funds of the Association can scarcely be better employed than in inducing the individual members of the Association to contribute their share to the advancement of medical science by a careful and systematic observation and record of the facts which come under their notice.

The Committee accordingly have agreed to propose the following resolutions:—

1. That a committee of seven be appointed annually at the Michaelmas quarterly meeting by the Committee of Council, to arrange, superintend, and direct the work of combined observation, and be named the "Combined Observation Committee". That the Committee have power to add to their number.

2. That the Committee meet at such times and places as they think fit, and report at least once in each year to the Committee of Council; and that their Report be presented at the annual meeting of the Association.

3. That the Committee shall have power to nominate for appointment by the Committee of Council a Secretary, who shall be paid (£200 annually) from the funds of the Association, and who shall act under the direction of the Committee, and shall hold office during their pleasure.

4. That the secretary shall attend such Branch meetings of the Association as may be desirable for the purpose of explaining the nature and objects of the investigations, and of interesting and directing the members of the Association in the work.

5. That the travelling and other necessary expenses of the secretary, to the amount of not more than £100 in any year, having been submitted to and approved by the "Combined Observation Committee", and the Committee of Council, shall be paid out of the funds of the Association.

6. That communications to the members of the Association, and others, for the purposes of the investigation shall be made through the JOURNAL, or from the offices of the Association, in accordance with the usual regulations.

7. That the Branches of the Association be invited to appoint Registrars who may assist in the work, and that such Registrars, shall together with the "Combined Observation Committee", form a "General Committee" to determine from time to time the subjects for investigation, and the manner in which such investigation shall be conducted.

The following have been suggested as likely to form suitable subjects for combined observation. They are merely mentioned to indicate the kind of work which is contemplated. It would rest with the General Committee to consider their suitability, or to select others.

1. Records of the medical life-history of patients, including the sequelæ of various diseases. 2. Records of the relationship of certain morbid diseases, as cancer, tubercle, [illegible], gout, rheumatism, arthritis, chorea, etc., to any other diseases. 3. Observations respecting epidemic diseases in given districts. 4. The incubation period of contagious diseases; and the duration of contagion. 5. The origin of contagious diseases. 6. The collection of evidence as to the effects of certain remedies. 7. The geographical distribution of diseases. 8. Anthropometrical observations, especially in relation to disease. 9. The hereditary influence of race, climate, occupation, food, etc., in the production of diathesis, or of tendencies to certain diseases.—(Signed) G. M. HUMPHRY, Chairman of the Committee appointed to consider the question of Collective Investigation.—December 7th, 1881.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held on Wednesday, the 18th day of January next, 1882, in the Council Room, Exeter Hall, Strand, London, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary*.

161A, Strand, London, December 13th, 1881.

NOTICE OF QUARTERLY MEETINGS FOR 1882: ELECTION OF MEMBERS.

MEETINGS of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. FRANCIS FOWKE, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

GLOUCESTERSHIRE BRANCH. The next meeting will be held [illegible] the Library of the General Hospital, Cheltenham. Business: 1. Dr. Bond will introduce the subject of Medical Defence Associations in connection with this Branch. 2. Dr. J. Stewart will propose the following resolution: "That this Branch hereby records its entire disapproval of the views expressed by the readers of Addresses at the Annual General Meeting of the Association at Ryde, in reference to Consultation with Homœopathic Practitioners." 3. Cases of interest in the Cheltenham Hospital. [illegible] Honorary Secretary.

SOUTH OF IRELAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held on November 26th, in the Royal Cork Institution, at 4 P.M. Present; the President, Dr. N. J. HOBART, in the chair; and nine members.

Report.—The Honorary Secretary read the annual report, which was adopted.

Meetings.—It was arranged to hold the meetings and dinners, as before, quarterly; the meetings to be held in the Royal Cork Institution, at 4 P.M.

New Members.—Dr. J. F. Hartland of Villierstown, Co. Waterford, was elected a member of the Association, and also of the Branch. Mr. G. E. Atkins, of the Fever Hospital, Cork, was elected a member of the Branch.

Election of Officers.—The following were elected for the ensuing session:—*President:* P. J. Cremen, M.D. *President-elect:* Ringrose Atkins, M.D. (Waterford). *Vice-Presidents:* T. C. Shinkwin, M.D.; R. O'Reilly, M.D. (Lismore). *Council:* P. Berry, Esq. (Mallow); J. E. Bull, Esq. (Cork); R. J. Burke, M.D. (Douglas); H. Corby, M.D. (Cork); W. J. Cummins, M.D. (Cork); J. G. Curtis, Esq. (Cork); D. Donovan, Esq. (Cork); J. A. Eames, M.D. (Cork); J. P. Golding, M.D. (Cork); C. A. Harvey, M.D. (Cork); J. R. Hayes, M.D. (Tralee); H. Macnaughton Jones, M.D. (Cork); Surgeon-Major T. B. Moriarty, M.D. (Cork); D. B. O'Flynn, M.D. (Cork); M. O'Keeffe, M.D. (Cork); A. O'Connor, M.D. (Blackrock). *Honorary Secretary and Treasurer:* T. Gelston Atkins, B.A., M.D. (Cork).

Dr. Hobart then vacated the chair, which was taken by Dr. CREMEN.

Communications.—The following communications were made.

1. Dr. Macnaughton Jones: Case of Large Fibroid Polypus of Uterus: Removal: Death.

2. Dr. Macnaughton Jones: Case of Pus in Tympanum: Cerebellar Abscess.
3. Dr. Macnaughton Jones: Double Fracture of Humerus.
4. Dr. Macnaughton Jones: Naso-pharyngeal Polypus.
5. Dr. Gelston Atkins: Tibiæ removed for Necrosis.

Dinner.—In the evening, twenty-six members and their guest dined at Lloyd's Hotel, and spent a most enjoyable evening.

Next Meeting.—The next meeting will be held in the end of February 1882.

CORRESPONDENCE.

THE BRUSSELS DEGREE OF M.D.

SIR,—In consequence of the letter you were good enough to insert in last week's JOURNAL, on the subject of the Brussels degree, I have received communications from nearly one hundred correspondents. I shall be glad, therefore, if you will allow me to say that I hope in time to reply to all of them by letter; and must beg the kind forbearance of those gentlemen with whom I have not yet been able to communicate.—I am, sir, your obedient servant,

F. ERNEST POCOCK, M.D., Honorary Secretary, Brussels Medical Graduates' Association.

The Limes, St. Mark's Road, Notting Hill, W., Dec. 13th, 1881.

P.S.—It may, perhaps, prevent unnecessary correspondence in the future, if I say now that all candidates must be doubly qualified.

ON THE POSITION OF SHIP-SURGEONS.

SIR,—The advantages of travel, and the certainty of bread with the least labour, have ever secured for the mercantile marine an abundance of legally qualified medical officers. The market has been overstocked with an article the quality of which is no object to the purchaser, and the natural consequences of this abnormal condition have been injurious to all concerned. The ship-surgeon not unfrequently finds himself in a position derogatory to an educated and honourable man; professional status and reputation are lowered; the travelling public are provided with an untrusted and possibly sometimes inefficient medical service under circumstances the most important; and the shipowners, through their own parsimony, are subjected to annoyance, and occasionally to absolute loss.

Both shipowners and Board of Trade authorities seem to regard the ship-surgeon as a *legally necessary nuisance*. He is selected without any reference to age, experience, qualification, or character; and, when he enters on his duties, he is badly paid, badly accommodated, badly treated, and his usefulness as a sanitary officer completely paralysed by the undefined nature of his responsibilities, and the want of all authority. His "wages" (from £5 to £10 per month) are usually about a seventh of the captain's, a third of the chief engineer's, and the same as, or even less than, the cook, steward, second officer, third engineer, and carpenter. His quarters are generally proportionate to his pay. On one of the finest and most fashionable steamers afloat, in the service of a company justly most popular with their surgeons, I inhabited a cabin measuring about six feet by four (so that, lying in my bed, I could touch the four walls and ceiling all at the same time), and so situated in the centre of the ship that the light of day never penetrated thereto. In other vessels—new, and carrying up to 1,200 passengers—a similar space is not only the "doctor's room", but also the dispensary, and in it are stored (as well as the doctor) the drugs, instruments, etc.

These are extreme, but by no means isolated, instances. On the next, and greatest grievance, it will be difficult for me or anyone of experience to avoid the suspicion of personal pique. By many, the ship-surgeon is supposed to be a kind of independent semi-governmental official, representing the interest of the passengers, and responsible for their health and comfort. He is in reality nothing at all of the kind. He has not the slightest authority in even the most purely sanitary matters. He can neither order a patient into hospital or out of hospital—more ventilation or less ventilation—without consulting the higher powers. His instructions are to accompany (or walk behind) the captain, purser, and chief steward on their morning inspection, and on such occasions he may suggest as he pleases with reference to the ventilation, passengers' accommodation, food, etc.; but a small experience teaches the surgeon not partial to snubbing that it is wiser to keep these suggestions to himself, or only to offer them in the most guarded manner, after a careful diagnosis of the commanding digestion. He knows, in short, that in finding any fault, or encouraging any complaint, he will be treading on the corns of someone, and preparing for himself "a hot time" while on board, and likely dismissal at the termination of the voyage. Although holding a Board of Trade "appointment", he is not only the servant of a private company, but practically of an individual, and one of a class who, however they may be admired in other respects, are remarkably impatient of suggestion or contradiction, and proverbially inconsiderate to subordinates. If he "gets on with" or pleases the captain of the ship, and is careful to see nothing or know nothing, and confine his attention to the mixing of his drugs, all may go smoothly, and he may have a very pleasant time. If, however, a difference arise—no matter whose the fault—he will find himself subjected—not only from that potentate, but also from the smaller fry, who, seeing "he is not in with the skipper", know they may say and do just what they please—to a series of petty insults and annoyances, for which there is no redress, and from which there is no escape. On his return, he will very likely find himself superseded—dismissed without any charge having been brought against him, or any reason being assigned, except that he, an unimportant and unvalued servant, does not please an important and valued one. This condition of affairs is with the cognisance and assent of the Board of Trade. About a year and a half ago, I wrote to the authorities at Liverpool, asking an official definition of the surgeon's position on board an Atlantic steamer with reference to sanitary matters generally—the hospitals, the passengers' accommodation, food, etc.; in substance, what were the duties and responsibilities of the official printed appointment I held from them. My letter implied not the slightest complaint against any one; nevertheless, the only reply vouchsafed me was, that if I had any complaint to make against the captain or owners (my employers!), I should "do so openly".

I shall postpone the consideration of such grievances as the surgeon being required to perform purser's duties; the difficulty on many ships of obtaining personal attendance (I can name different surgeons who, in the service of different companies, have begged in vain for three days at a time for such apparently necessary service as to have the slops removed from their rooms); and the general order of Liverpool companies that "the surgeon remain on board all the time the ship is in the river, both before entering and after leaving dock", sometimes four days out of six or seven that she is in port. I shall also, if authority still slumbers, have occasion to comment upon the Board of Trade lists of stores, medical comforts, and drugs for passenger-ships; of the latter, it will suffice for the present to say, that it excludes such important medicines as ether, hydrocyanic and carbolic acids, all the bromides, any preparation of nux vomica, etc.

The formation of a scheme of reform for these manifest abuses I am disposed to leave to your wider experience. I will merely suggest that in the first place we should forcibly direct to the matter the attention of the Government, with the view of having the surgeons of all ships carrying any considerable number of passengers independent and dependable Government officials. In the second place, that we should endeavour, through public opinion, to influence the shipowners. When the travelling public are convinced of facts which, I think, the experience of the past five years fairly establishes, that the rate of mortality among passengers is at least two or three times higher at sea than on land, and that the most healthy individual embarking at Liverpool for America is probably a hundred times more likely to lose his life in transit by disease than by shipwreck, then inquiries will be heard more frequently about the surgeon, and less frequently about the captain, of the ship in which it is purposed engaging a passage.

In Dr. Turner's recently published statistics will be found the following figures, which speak for themselves. Of 1,563,644 persons who left Europe for New York between 1870 and 1880, 2,518 died in transit; average duration of passage, 13 days 12 hours. Of 14,874 persons who embarked on 15 ships during the year 1880, 37 died; the average passage being 12 days and 20 hours. One ship, carrying 1,331 emigrants, lost 13 in the course of a 16 days' voyage. It is necessary to note that all these persons were subjected to medical inspection and "passed" as healthy at the time of embarkation.

No further proof will be needed to show that there is an immense amount of sickness on passenger-ships. With reference to the difficulties of dealing with it, and the absurdity of saying that "any one is good enough for a ship-surgeon", I shall only say that, in my own experience, whether as house-surgeon, as hospital and asylum medical officer, or as private practitioner, or in any professional capacity, I have never felt responsibility so keenly as the occasional, undivided, untrusted responsibility of a ship-surgeon.—I am, sir, your obedient servant,

J. A. IRWIN, M.A.Cantab., M.D.Dub., Late Honorary Physician to the Manchester Southern Hospital, etc.

HAS THE DURATION OF HUMAN LIFE IN ENGLAND INCREASED DURING THE LAST THIRTY YEARS?

II.

SIR,—I showed, in my last letter, that the only foundation for the commonly made statement, that human life is increasing in length in this country, is the fact that the zymotic death-rate has been so far reduced as to show a diminution of the total death-rate for the whole country; but that, if the zymotic death-rate be deducted from the total death-rate, the resultant (which I call the "general death-rate") is higher both for the five years ending 1879, and also for the three years 1877-8-9, than for the five years 1850-4. Lest it should be thought that the quinquennial period 1850-4 showed an exceptional death-rate, I may say that it was lower than that of any subsequent quinquennial period, except 1855-9; and that a study of the returns shows a continuous increase in the general death-rate, if allowance be made for the ebb and flow which are characteristic of all organic affairs. Thus, the general death-rate for 1855-9 was 17,014; for 1860-4, 17,350; for 1865-9, 17,588; for 1870-4, 17,204; and for 1875-9, 17,468—so that the tendency is clearly upwards, with ebbs and flows, from period to period. The only exception to this continuous increase is the quinquennial period 1865-9, which showed a higher rate than any other, though it has been very nearly approached by the quinquennial period just terminated.

It is quite in keeping with the facts here set forth, as it is also with those stated by the Registrar-General, that zymotic diseases, while they are not confined to any age, affect specially persons of tender years. Thus, in 1879, there were recorded 81,274 deaths from these affections; and of these, no fewer than 71,016, or 87 per cent., occurred among children and persons under thirty-five years of age. There can be no doubt that any saving effected in the rates of mortality from zymotic diseases must mainly affect young lives; and, therefore, no doubt it is that the improvement in the rate of mortality from these affections, and the saving of young lives, have gone on simultaneously. There is, however, still very much room for improvement in both of these directions: for in all England there still die 293.5 children, out of every 1000 born, before they attain the age of five years. In the towns, the numbers are even larger: for in London about 370 children, out of every 1000 born, die before they reach the age of five years, and in Bradford 441. If, however, the efforts made by medical men and medical officers of health should succeed in diminishing in the future these very high rates of mortality, as it is to be hoped and expected they will do, it should not be too readily assumed that such a diminution of mortality must necessarily imply an improvement in the length of life in general, even if that improvement should prove to be coincident with a fall in the total rates of mortality. Such an assumption has, in fact, been the main cause of the now generally accepted opinion, that human life is increasing in length in this country; and yet I have advanced reasons to show that opinion to be erroneous.

Surprising as this result may appear, there are other facts which may be advanced corroborative of its truth. For example: the deaths from old age have been continuously diminishing for the last thirty years. "Old age" does not technically commence till sixty-five. If life were becoming longer, if conditions were becoming more favourable to long life, we should expect to see more people living to the longer ages. Of course, life might be lengthening on the whole, although individual lives might not be increasing beyond sixty-five years; and, therefore, I do not lay very much stress on the diminished mortality from "old age". Besides this, no doubt the advance of medical knowledge tends rather to certify death from some specific failure, as of heart, lungs, or kidneys, than from old age. But, making due allowance for these, it is certainly surprising to find that, while in 1850-4, 1494 per million of the population of England and Wales died from old age, in 1855-9 the proportion fell to 1431 per million; in 1860-4, to 1386; in 1865-9, to 1319; in 1870-4, to 1239; and in 1875-9, to 1121 per million. This continuous and considerable decrease may be taken as corroborative evidence of the truth of the view advanced, and certainly gives no support to the opinion that the duration of life is increasing in this country.

Another fact, corroborative of the opinion here expressed, is that (besides the zymotic diseases already considered), many of the diseases which specially affect young persons and children are increasing in fatality, while some of those which chiefly affect older people are increasing in fatality. Thus, consumption of the lungs is especially a disease of young persons, and is so considered. Cancer, on the other hand, is principally a disease of old age. Now, what are the facts about these diseases? Why, briefly, that the former two are diminishing in frequency and fatality, while the latter is increasing in both. What is true, with the exception of mortality from scrofula, was 141.2 per million *per annum* in the thirty years 1850-79, during the five years 1875-9 it was 135.2. For consumption, the average mortality per million *per annum*, for the same two periods, was 2494 and 2130, respectively. Now, some of the diminished mortality from consumption may possibly be due to alteration of naming, since the deaths from bronchitis have very much increased in the same period; but some of it is due to the greater immunity from disease which sanitation has effected for our young people. Cancer, on the other hand, which accounted for an annual average mortality, in the five years 1850-4, of 302 per million, caused in the five years 1875-9 the deaths of 496 per million *per annum*. From an examination, therefore, of the mortality from these diseases, it appears to be the case that, while our young people are improving in health, our adults are deteriorating.

An attempt to view these facts in their economic relations, or some of them, may enable us to realise better their significance. Let us suppose, for the sake of argument, that the most favourable estimate of the increase in the length of life in this generation were true, and that 100,000,000 (a hundred millions) of years have been added to the life of the present generation. This result, it is evident, might be attained if ten years each had been added to the lives of ten millions of infants and children under five years of age. If this were so, at the end of ten years the hundred millions of years of human life would have been added to the community by preserving, let us suppose, for that time the lives of ten millions of children, who would otherwise have died. At the end of the ten years, how much the better should we be? The ten millions of children would have consumed the expense of their maintenance, and could have produced little or nothing. No doubt, human life is a desirable thing in itself; but we are at present trying to realise the economic value of such an addition to life; and from this point of view (though, of course, from this point only), it is easy to see that the gain is very small, and all the smaller if, at the same time, the lives of the elders were curtailed to a great extent. The case before us is, in fact, even worse than that supposed—since a better illustration would have been a supposed gain, say of 200,000,000 (two hundred millions) of years of life to ten millions of children under five years of age, and a curtailment at the same time of the lives of ten millions of adults over forty years by ten years each. It is evident that many of the children who survived in such increased numbers would fare badly in the loss of their parents, just at the time when the assistance of parents would have been most useful in settling them in life, or in maintaining them for the few years during which a technical or professional education might have fitted them for doing better work than they could hope to perform without it.—I am, faithfully yours,

A. RABAGLIATI, M.A., M.D., Surgeon, Bradford Infirmary.

SPECIAL CORRESPONDENCE.

ABERDEEN.

The Stealing of the Body of the late Earl of Crawford from Dunecht, near Aberdeen.

ONE of the most mysterious, and as yet unexplained, events took place at Dunecht, near Aberdeen, about a fortnight ago. The whole community was thrown into a state of excitement by the announcement that the mortuary at Dunecht, one of the residences of the Earl of Crawford and Balcarres, had been rifled, and the body of the late Earl had been removed. Dunecht is distant about twelve miles from Aberdeen, and is a quiet spot, noted chiefly for the famous astronomical observatory which was fitted up by the Earl of Crawford. The late Earl died at Florence in May last; and, after being embalmed, his remains were brought home and placed in the family vault at Dunecht. The vault had been recently fitted up, and formed practically part of the buildings, the residence of the Lindsays. One morning, about a fortnight ago, a workman discovered that the large slab, which covered the entrance leading by a flight of steps to the door of the vault, was raised from its bed. He at once gave the alarm; and, on the stone being lifted and an entrance being effected into the vault, a ghastly and revolting spectacle met the eyes of the explorers. The remains of the late Earl, encased in a leaden and a walnut coffin, had been placed in one of the niches, and, as usual, a piece of wood was put [illegible] it, as was supposed, for ever. But the explorers found the wooden coffin lying on the floor, and the lead coffin removed from it, and the body of the late Earl removed. [illegible] the wooden lid, [illegible] the lead coffin, [illegible] the silver plates of the coffin were unscrewed. The [illegible] portion of the body [illegible] certain that the [illegible] on Friday or Saturday, 11 [illegible]

only was the surface where the lead coffin was cut quite tarnished, but after the burial the large slab which covered the mouth of the vault was strewed with earth, and sown with grass, which in due time formed a sheet of green sward. The whole of this was raised, stone and all, which must have weighed several hundredweight. The stone was raised evidently with the purpose of attracting attention to the fact that the vault had been tampered with. The depredators rifled the vault, removed the body in May or thereby, just after the burial; and what confirms this view is that the legal agent of the present Earl received about that time an anonymous letter, intimating, or at least hinting, that such an event had occurred. No notice was taken of the letter; hence it seems that the depredators, failing to attract attention to their work in this way, returned a second time to the vault and boldly lifted the large stone by means of crowbars which, owing to the building operations at present going on at Dunecht, they found ready to their hand. Amidst the great amount of uncertainty several things are clear, namely, that one man alone could not have done the deed. There must have been several men to lift the stone, and to take down the very heavy lead coffin from the shelf; for this had been done so carefully that neither the stone nor the coffin had suffered any injury. Again, the deed was committed early in the year; and two visits were made to the vault: one, the first one, for the purpose of removing the body; the other, only a fortnight ago, to attract attention to the events which had occurred during the first visit. The proof is only indirect that the body actually did come from Florence. It has not been stated that any one opened the lead coffin and examined its contents previous to its committal to the tomb; but indirect proof is forthcoming, namely, an indentation in the sawdust of the lead coffin, marking the position of the head of the occupant.

No trace of the body or of the perpetrators of the unholy act have as yet been found, although the police have searched every nook and cranny on the estate and have even turned over the earth in a large field, acting on the supposition that the body might have been interred somewhere on the estate. All is conjecture and uncertainty.

As to the motive that prompted the crime: it cannot have been that of mere paltry plunder, for the silver ornaments were not taken. If the perpetrators abstracted the body for the hope of gain—to extract money from the relatives for its restoration, that theory seems feasible enough, for people who expected to obtain a large ransom would not waste time in carrying off a few coffin-handles, which at best were of small value, and which in the disposal of them might lead to their detection. If the hope of gain be the motive, then we are face to face with a new form of crime which, it is sincerely to be hoped, will be stamped out at once; and this can only be done by refusing to offer any reward to the perpetrators for the restoration of the body. This, we believe, is what Lord Lindsay intends to do; for it cannot be doubted that, if the relatives were to have any dealings with the offenders and compromise the matter, this would assuredly soon lead to further desecration of the resting-places of the beloved dead. All that the law and police investigation can do will be done; but no truce will or ought to be made with those who have so grossly outraged public decency and invaded the sanctity of the tomb. The case has no parallel in this country; and the only one at all comparable with it is that of Mr. Stewart, of New York; and it is not a little curious to note that the body of President Garfield was guarded for some time after burial lest it should be removed. All people having vaults should see that they have iron doors with locks as good and burglar-proof as they have on their coffers and safes.

A curious incident in the investigation is the introduction of a noted bloodhound on the scene. It has not however been able to find any traces of the body, and this is scarcely to be wondered at seeing the long time that has elapsed since the event. While sincerely sympathising with the bereaved relatives, we admire their public spirit in refusing to have any dealings with the offenders, whoever they may be.

MANCHESTER.

[FROM A SPECIAL CORRESPONDENT.]

The Royal Infirmary.—Children's Hospital at Pendlebury.

THE Royal Infirmary, as seems to be the lot of most charitable institutions, is again in debt. Owing to the large sums of money spent upon the construction of a new out-patient department, and other important structural additions and alterations, and to the fact that the yearly expenditure is largely in excess of the income, the authorities have had to encroach upon their reserve-funds to the extent of £60,000, most of which has been spent during the last few years. To cover this deficit, a special canvass for subscriptions has been made, which has so far resulted in £30,000 being promised. This sum is only about one-half of the amount required, and, unless some means be devised, such as house-to-house canvas, to bring the pressing needs of this great charity before the bulk of the citizens, it is feared that its sphere of usefulness will have to be greatly curtailed. Indeed, it is already spoken of as probable, that the Cheadle Convalescent Home in connection with the infirmary will have to be closed for want of funds. The long-delayed and much-wanted special accommodation for the nursing staff of the infirmary has been planned, and will shortly be commenced. It is proposed to erect a building in the infirmary grounds connected with the first floor of the main building by a corridor, at the cost of £5,000, £4,700 of which has already been subscribed. Anyone familiar with the wretched accommodation at present made for the nurses will agree with me in saying that the new building is not commenced a day too soon.

I hear that the Children's Hospital at Pendlebury will shortly again be in want of a medical officer; mutual dissatisfaction having resulted in Dr. Massiah's resignation, after a comparatively short tenure of office.

PARIS.

Lady Students as House-Surgeons.—The Importation of Pork.—Scientific Voyage to South America.—Death of M. A. Boué.—The New Minister of Marine.—Plague at Erzeroum.

THE medical world of Paris is somewhat startled by the report—which, unlike most reports, is authentic—that the Minister of the Interior will shortly publish a decree, according to lady medical students the right to compete for the house-surgeonships, hitherto denied to them. The agitation, as is natural, is most marked among the class directly interested, the house-surgeons. Their concord is not on purely scientific grounds: it is not fear that the medical reputation of their order is in jeopardy. It has another source, which may be described as domestic. What will become of the salle de garde (the dining room and place of reunion)? "Nous ne serons plus chez nous" (we shall no longer have our house to ourselves)! is the cry. Perhaps M. Quenten, the energetic and amiable head of the Assistance Publique, may solve the difficulty and make life easy to both lady and gentleman house-surgeons by giving them separate salles de garde.

The law which M. Tirard proposed to the Chamber of Deputies on November 5th, 1881, decreeing that pork in any form coming from foreign markets should be examined in a satisfactory way by competent inspectors, has been repealed by his successor, M. Rouerer, the cabinet having resolved to annul the prohibition against importing American meats.

Dr. Crevant, navy surgeon of the first rank, on the request of the Minister of Public Instruction, has been authorised by the French Government to undertake a scientific voyage to South America. Dr. Crevant is well known as a scientific and intrepid traveller. His last voyage enriched him and his country with many interesting anthropological specimens, human bones, utensils, and weapons; likewise fine specimens of the plant from which the natives extract curare.

The celebrated naturalist, Ami Boué, born in 1794, has lately died at Vienna. He was the author of several works on natural history and geology.

M. Gougeard, the newly nominated Minister of Marine, inaugurates his accession by a general setting to rights. The question of hygiene in the French colonies is treated with the same clearness and decision as the questions of a more purely technical nature. He has recently addressed a letter to the President of the Paris Academy of Medicine, inviting that body to make researches on yellow fever, on the model of those made on the plague in 1879.

News comes from Erzeroum that the plague has appeared at a village near. Intelligence is kept back as much as possible.

THE Customs duty of 1s. 3d. per pound levied on chloral-hydrate imported from abroad is said, during the year ending March 31st, to have been paid on 14,561 pounds, amounting to £910.

THE METROPOLITAN ASYLUMS BOARD.—At a meeting of the Metropolitan Asylums Board held on Saturday, a letter was read from the solicitors of the board reporting the result of the appeal in the Fulham case. Mr. Bengough thought the blame, in reference to the expense to which the ratepayers were put, was due to the Local Government Board, and not to them. It seemed that every judgment was against them, and they were simply told they could appeal to another court. The chairman said that the important question was, whether the hospital, which had been built and furnished by the ratepayers generally, should be kept open, at a great expense, to benefit a particular part of London.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS.

SIR,—Would you kindly answer the following questions? I have no doubt they will be of interest to other parish medical officers besides myself.

1. Can we refuse to attend persons on the ground that we know that they can afford to pay for medical advice? Is there a definite meaning to the word "pauper"? I ask this question because the guardians of this parish will be hourly allowing medical orders to anyone. Only the other day one of the guardians said, "Don't allow the meat, as it will put the parish to more expense; but allow the medical attendance, as we pay for a doctor". I consider it not only unjust to myself, but also to my professional brethren, that I should have to attend people that ought to pay either myself or them.

2. What can we do if the guardians will not allow the necessaries we order? Sometimes this is a very important point, as perhaps a little meat might get a patient well much sooner, and save us many a long journey.

3. Are parish patients obliged to bring their orders before a certain time in the morning, and can we refuse to go after that time if the order is not marked "urgent"?—I am, etc., A MEMBER.

*** 1. We would strongly advise our correspondent to attend to every case where an order has been given, even if he should learn that the person is in a sufficiently well-to-do state to pay for the same. There can be, however, no objection to his reporting the case to the board of guardians; and if no notice be taken thereof, to the Local Government Board. The term pauper is, unfortunately, a very elastic one, and includes many persons who ought not to be classified as such; and the complaint of our correspondent is one that might be echoed from nearly every union in the kingdom.

2. We do not see that any course can be adopted to compel a board of guardians to supply extras if they are indisposed so to do. Should a death, however, take place where they have been recommended and not supplied, our correspondent can refuse to certify, when an inquest would probably be held. Not much benefit is likely to accrue from this course; for in those cases where juries have added a rider to the effect that death has been hastened by the neglect to supply extras, the guardians and their relieving officers, on appeal to the Local Government Board, have been supported, and the doctor has nearly always got the worst of it.

3. Paupers are generally given to understand that they are to attend at the medical officer's surgery before a certain hour in the morning, and they mostly do so. Where they neglect to comply with this requirement, it would not be safe to put off visiting them, however inconvenient and troublesome their conduct may be.

MILITARY AND NAVAL MEDICAL SERVICES.

THE ARMY MEDICAL DEPARTMENT IN AN EMERGENCY.

SIR,—Under the above heading I notice a paragraph in the BRITISH MEDICAL JOURNAL of the 26th November, page 876. I wish to point out that in every barrack a soldier ought to know perfectly well that he has only to apply at the Military Hospital for medical aid in case of sickness, and a message is at once sent to the medical officer who is on duty at the time. Had the corporal you speak of done this, he probably would not now be lamenting the loss of his child. If instead of taking the trouble to avail himself of these medical arrangements he endeavours to get through the barrack-gate on his own account without a pass, he must expect to be prevented by the sentries. Judging from your report of the matter, it seems to me that the corporal was altogether to blame for the loss of time that occurred before the child was seen. The medical officer's statement, that "if he had seen the child a quarter of an hour before, he might have saved its life", is rash, to say the least of it; and I quite fail to see how the occurrence has in any way been caused by the "recent" changes (presuming you refer to the unification system), which, by the way, has now been in existence since the 1st of March 1873.—I am, sir, truly yours, SURGEON A.M.D.

*** The obvious neglect in this case was the absence of suitable arrangements between the military and medical authorities. If the troops quartered in the Royal Barracks depend for medical assistance at night upon the services of a garrison medical officer, who is supposed to be ready at call at the Royal Infirmary, Phœnix Park, then the officer in command, whoever he may be, should make the fact understood by every soldier in the barrack, and should also arrange the necessary means for enabling any soldier at once, in case of emergency, to send for, or to go himself to see, the medical officer concerned. It is evident that neither of these two arrangements were made in the case at Dublin which rightly led to a coroner's inquest. But if it be true that over one thousand persons are quartered in the Royal Barracks, it would appear as if there must be sufficient need for a resident medical officer on the spot even to meet the ordinary casualties which may be expected among such a number of persons—more especially as the garrison medical officer, in a large garrison like Dublin, is always liable to be employed elsewhere [illegible] wanted.—[illegible]

THE FOREIGN SERVICE ROSTER.

SIR,—Will you allow me space to make some comment on a subject which is the cause of much apparently well justified dissatisfaction in the Army Medical Department, viz., the [illegible] and the way in which it is kept [illegible] It is long, as I truly [illegible] to the principle of all medical officers; but any one who wishes to know his position is under the necessity of making special inquiry. The most [illegible] is [illegible] the privilege of home service, [illegible] apparent in many instances, some officers being allowed to spend many years in England, while others, with as good claims to consideration, are [illegible] to [illegible] their elevation, after about a couple of years at home. Five or six years in India, with about two in England, are [illegible] the correct proportion of home and foreign service, in the case of the medical officer who has no claim except the conscientious discharge of duty; while those who can establish subsidiary claims, into the nature of which it is not necessary at present to enter, secure an exceptional monopoly of service in England, by being placed in the various comfortable billets provided for those who have sufficient interest to secure them.

A specially ingenious [illegible] exists, under the name, I [illegible] of "troop-ing service". It consists in making one or two pleasure excursions, in charge of troops to foreign stations, at the termination of which the fortunate *voyageur* has his name placed at the bottom of the roster. One officer, with long experience of foreign service, may return broken in health, say after two or three years of an incomplete tour in India, and, at the end of short sick leave, is ordered out again, to complete his tour; while another, who has spent the great part of his service within easy reach of Whitehall Yard, will be considered to have done a whole tour by making a couple of voyages to the tropics and back. All this may be quite right, but an unfortunate impression exists in the department that it is altogether the other way; and the authorities, in justice to themselves and to the officers serving under them, should publish definite regulations on the subject, so that those who do not "know the ropes"—the unlucky majority—may be shown how they may have a fair chance of pulling them.—Yours, etc., IMPERITUS.

OBITUARY.

K. D. WILHELM BUSCH, M.D.,

PROFESSOR OF SURGERY IN THE UNIVERSITY OF BONN.

K. D. WILHELM BUSCH, the celebrated Professor of Surgery at the University of Bonn, who died on November 24th at the age of 55, was the son of the well-known Professor of Midwifery of that name. He received his principal education at Berlin, where he was a favourite pupil of Johannes Müller, the physiologist, under whose influence he wrote some good papers on Comparative Anatomy. He would possibly have devoted himself entirely to the study of natural history had not the war in Schleswig-Holstein, in 1848, forcibly drawn him to practical surgery, which he from that time embraced with undivided energy. From 1848 to 1850, Busch enlarged his knowledge by visiting the hospitals and schools of London, Edinburgh, Dublin, and Paris. In 1851, he was appointed clinical assistant to Professor Langenbeck, at Berlin, and, while thus engaged, wrote his *Surgical Observations*, collected in the surgical department of the University Hospital at Berlin. In 1855, when not yet thirty years old, he was elected Professor of Surgery at Bonn, where he remained till his death, taking a most important share in raising Bonn as a school of medicine. In 1857, he published the first volume of a *Handbook of Surgery;* but the absorbing daily duties of clinical teaching, and of an extensive consulting practice, prevented his continuing this work in the style in which he had commenced it; he was, therefore, obliged to leave it unfinished, in spite of constant demands from the publisher and the profession. He found, however, time to contribute many valuable articles—first to Virchow's *Archiv*, and afterwards to the *Deutsche Zeitschrift für Chirurgie*—articles which extended over several branches of surgery, and manifested, without exception, the author's great physiological and pathological knowledge. We need only point to his contributions on the physiology of the digestive organs, to his experimental researches on gunshot-wounds, to his communications on inflammation of bones, on dislocations of joints, and on the mechanism of strangulated hernia. Quite lately, he had occupied himself with researches on the curability of early forms of epithelial cancer, and he seemed rather hopeful with regard to this subject. The esteem in which he was held in Germany may be judged from the fact that the operative treatment of the German Empress was entrusted to him during her late serious illness. It will be remembered that his skilful management of the case, in which he was assisted by Dr. Schliep of Baden-Baden, was crowned with perfect success; and we have reason to know that the Imperial patient herself and the Emperor have most warmly appreciated the skill and the unremitting attention of Professor Busch. In 1866, and in 1870 and 1871, he acted as consulting Surgeon-General to the Prussian Army, and his marvellous activity in the neighbourhood of Gravelotte is deeply impressed on our memory. He was one of the first surgeons who recognised the value of antiseptic treatment.

In the autumn of 1880, Busch had a sharp attack of illness, but within a few days he resumed his work with unabated vigour. He was present at the International Medical Congress in August, when he stayed at a private house in Clarges Street, together with his friend Professor [illegible] of Bonn, to whom we are indebted for the particulars of this notice. Busch felt his illness, and abstained almost entirely from the social pleasures of the Congress; and most of us were struck by the marked change in his countenance, although in conversation he was as animated as ever, and full of plans for work to be accomplished. The end came unexpectedly soon to him, as well as to his friends. He had returned, apparently in renewed health, from his holiday in the Black Forest, and stood his work remarkably well till November 14th, when grave symptoms relating to the cæcum and the adjacent parts set in,

and terminated with general peritonitis from perforation of the vermiform process, on November 24th. From the history and the *post mortem* appearances, it seems evident that perforation had occurred already in 1880, when all the symptoms of perityphlitis were present; that then, however, protecting adhesions were formed, which gave way during the last fatal illness. Busch recognised the nature of his condition during the last days, and accepted his fate with calm fortitude, although he much appreciated life, was happy in his home and in his surroundings, and would have wished to remain and to work.

Professor Busch was a sterling man in every point, and few men have enjoyed greater esteem and affection from those who knew him, and few are mourned more sincerely and more widely.

SAMUEL BIRCH BUCKNILL, M.D.

CONSULTING PHYSICIAN TO RUGBY HOSPITAL.

DR. S. B. BUCKNILL, who died in November, was a member of a family well known as medical practitioners in Rugby for upwards of a century. In 1780-81, Mr. Samuel Bucknill, grandfather of the deceased, was a prominent witness in the Warwickshire *cause célèbre*, the trial of Captain Donellan for the murder by poisoning, at Lawford Hall, of his brother-in-law, Sir Theodosius Boughton. He died in 1810, leaving four sons and several daughters. All his sons entered the medical profession, and severally distinguished themselves in the different localities in which they practised—Charles, the eldest, at Rugby; William, the second son, at Nuneaton; Samuel, the third son, father of the deceased, at Rugby, in partnership with his brother Charles; and John, the fourth son, at Market Bosworth. The deceased, Dr. S. Birch Bucknill, was the eldest son of a second marriage of his father, the second Mr. Samuel Bucknill, and was born on October 14th, 1814. He studied in Edinburgh, where he graduated as M.D. in 1839; and in or about 1840, on his uncle, Mr. Charles Bucknill, retiring from practice, he entered into partnership with his father, who died in 1863 at the age of 80. In 1847, Dr. S. B. Bucknill married Miss Pratt, of Sedlescomb, Sussex, by whom he had a family of two sons and one daughter; the daughter he lost some years ago, the sons and his widow survive him. Besides being thoroughly well versed in his profession, he was much liked and duly appreciated by his patients, and much esteemed generally by those with whom he came into contact.

Dr. Bucknill was a zealous member of the Volunteer Rifle Corps, which he joined in 1860, and in which he to the last remained a private. He was superannuated on November 1st, 1880, on account of age. He was surgeon to several Oddfellows' lodges and friendly societies. His funeral was attended by a large concourse of people, there being from 2,000 to 3,000 present.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 8th.

Case, William, Cockthorpe, Wells, Norfolk.
Cole, George Milner, Camoridge Gardens, Notting Hill.
Ghandy, Ratanji Dinshaji, Bombay.
Lane, James Oswald, Bridge Street, Hereford.
Maccullock, Charles, Abbey Town, Cumberland.
Marras, Ernest Adrian, Halsey Street, S.W.
Puddicombe, Francis Morgan, Dartmouth.
Tyrrell, Charles Robert, Hornsey Lane, Highgate.

The following gentlemen also on the same day passed their Primary Professional Examination.

Honan, Lynton M., St. George's Hospital.
Openshaw, Thomas H., London Hospital.
Webster, John Arthur, St. Mary's Hospital.

UNIVERSITY OF DUBLIN.—SCHOOL OF PHYSIC IN IRELAND.—At the Michaelmas Term Examination for the Degree of Bachelor of Medicine (M.B.), held on Monday and Tuesday, November 28th and 29th, the successful candidates passed in the following order of merit.

Bertram C. A. Windle, William Henry, Sidney G. Turpin (Clk.), George C. Kingsbury, Arthur M. Archer, George Marshall, William S. J. Scott, Chaworth L. Nolan, Thomas R. Gillespie, Frank S. P. Newell, James Craig, Edmund F. B. Wilson.

At the examination for the Degree of Bachelor in Surgery (B.Ch.), held on Monday and Tuesday, December 5th and 6th, the successful candidates were arranged in order of merit as follows.

Sidney G. Turpin (Clk.), George C. Kingsbury, Bertram C. A. Windle, Edmund F. B. Wilson, Arthur M. Archer, Dawson Henry, Henry B. Pope, Alexander R. Johnstone.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examinations for the Licences of the College, held on Monday, Tuesday, Wednesday, and Thursday, December 5th, 6th, 7th, and 8th, the following candidates were successful.

[illegible] Donat Lenane, Thomas [illegible], John Patrick [illegible] Patrick Dowse Ferrin, William Greene [illegible] Patrick Joseph Murray, Maurice Joseph Wynne, [illegible] Ralph Walker.

The following Licentiates in Medicine of the College, having complied with the by-laws relating to Membership, have been duly enrolled Members of the College.

Charles Cameron, [illegible], Dublin; Agnes M'Laren, [illegible], Edinburgh; Andrew John Horne, [illegible], Dublin.

(Licentiates in Medicine of the Royal College of Physicians of Edinburgh, Licentiates in Midwifery of the Royal College of Surgeons of England, and Licentiates in Midwifery of the King's and Queen's College of Physicians in Ireland, who have complied with the by-laws relating to Membership, have been duly enrolled Members of the College.)

MEDICAL VACANCIES.

THE following vacancies are announced:—

BALLINA UNION.—Medical Officer for Crossmolina Dispensary District. Salary, £[illegible] per annum, with [illegible] as Medical Officer of Health, registration and vaccination fees. Election on the 18th instant.

CHARING CROSS HOSPITAL, West Strand.—Medical and Surgical Registrar. Applications to W. Shirley Hoch, Secretary, by 21st instant.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester. Honorary Surgeon. Applications to the Secretary by December 17th.

CORPORATION OF CORK.—City Analyst. Salary, £100 per annum. Applications to Mr. D. F. Giltinan, 20, South Mall, Cork, by December 19th.

CORPORATION OF LIVERPOOL.—Surgeon. Salary, £[illegible] per annum. Applications to J. Rayne, Town Clerk, Liverpool, by January 2nd, 1882.

DONAGHMORE UNION.—Medical Officer for Rathkeevy Dispensary District. Salary, £[illegible] per annum, with £10 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 20th instant.

GENERAL HOSPITAL, Birmingham.—Honorary Surgeon. Applications to Mr. W. T. Grant, House-Governor, by December 24th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton. Applications by 23rd December.

LONDON LOCK HOSPITAL.—Assistant House-Surgeon to the Female Department. Applications to the Secretary, Lock Hospital, Westbourne Green, Harrow Road, W., by the 20th instant.

LOUGHBOROUGH DISPENSARY AND INFIRMARY.—House-Surgeon. Salary, £105 per annum. Applications by December 17th.

METROPOLITAN ASYLUMS BOARD.—Resident Medical Officer. Salary, £15 per month. Apply personally to Dr. Gayton between eleven and three o'clock at the Hospital Ship *Atlas*, off Greenwich.

MONMOUTH UNION.—Medical Officer. Salary, £40 per annum. Applications to the Clerk by December 30th.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—Dental Surgeon. Applications by January 10th, 1882.

PARISHES OF KILDONAN AND LOTH.—Medical Officer. Salary from the two parishes, £73 per annum. Applications to Jas. Campbell, Inspector of Poor Helmsdale, by 9th January, 1882.

PRESTON AND COUNTY OF LANCASTER INFIRMARY.—Matron Superintendent. Salary, £[illegible] per annum. Applications to the Secretary, 34, Fishergate, Preston, by January 5th, 1882.

SHEFFIELD GENERAL INFIRMARY.—House-Surgeon. Salary, £120 per annum. Applications to the Medical Staff (care of the Secretary) by December 17th.

UNIVERSITY OF EDINBURGH.—Examinerships in Clinical Medicine, Surgery, Physiology, Materia Medica, and Pathology. Applications to the Secretary of the University by January 16th, 1882.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Medical and Surgical Registrar. An honorarium of £63. Applications to the Secretary by January 10th, 1882.

WARNEFORD HOSPITAL, Leamington.—House-Surgeon. Salary, £100 per annum. Application to W. Maycock, by 27th instant.

MEDICAL APPOINTMENTS.

ALEXANDER, J., M.D., appointed Assistant Physician to the Charing Cross Hospital, *vice* R. Smith, M.D., deceased.

BATTERHAM, J. W., M.R.C.S., appointed Junior House-Physician to the Westminster Hospital.

BROWN, Alex. Stewart, appointed Medical Superintendent, St. Mary's Hospital, London.

CAMERON, J. D., L.R.C.P., appointed House-Surgeon to the Stroud General Hospital, *vice* F. W. Stony, M.R.C.S., resigned.

CHITTENDEN, T. H., M.R.C.S.E., appointed House-Surgeon to St. Peter's Hospital, *vice* G. T. Woolley, M.R.C.S.E.

CRONK, H. G., M.B., appointed Medical Officer and Public Vaccinator to the Repton District of the Burton-on-Trent Union.

GREENWOOD, G., M.R.C.S., appointed Assistant House-Surgeon to the North-Eastern Hospital for Children.

HARRIS, A. E., L.R.C.P., appointed Medical Officer and Public Analyst to the Borough of Sunderland, *vice* H. J. Yeld, M.D., deceased.

JEFFERISS, W. R. S., M.D., appointed Medical Officer to the Burton-on-Trent Amalgamated Friendly Societies' Medical Association.

JOHNSON, W., M.R.C.S., appointed Assistant-Surgeon to the Norwich Friendly Societies' Medical Institute.

MOYNAN, W. A., M.D., appointed Junior Assistant Medical Officer to the Somerset and Bath Lunatic Asylum, *vice* J. F. Woods, M.R.C.S., resigned.

NECKITT, J. D. T., L.R.C.S., appointed Medical Officer to the Monmouth Union Dispensary.

O'NEILL, L. J., L.K.Q.C.P.I., appointed Medical Officer to the North Dublin Union.

PERRY, Marten, M.D., L.R.C.P., appointed Senior Physician to the Johnson Hospital, Spaldin.

SELLERS, W. H. Irvine, M.B., C.M.Ed., M.R.C.S.E., appointed Junior House-Surgeon to the Royal Southern Hospital, Liverpool.

TERRY, Charles, M.R.C.S.E., L.S.A., appointed Medical Officer to District No. 1 of the Newport Pagnell Union.

WILLCOCKS, Frederick, M.R.C.P., appointed Physician for Out-patients to the Evelina Hospital for Sick Children, vice L. E. Brunton, M.D., resigned.

WRIGHT, C. St. J., M.B., appointed Resident Medical Officer to the Guardians of the Poor of St. Mary, vice A. G. Mickley, M.B.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGE.

JAMES—BUCKLAND.—On 15th December, at St. Phillip's Church, Kennington, London, by the Revd. Allen T. Edwards, M.A., Alfred James, of Biggleswade, Surgeon, son of C. H. James, M.P., to Helen Buckland, of Jersey, daughter of the late Charles Buckland.

DEATH.

HEMMING.—On Friday, the 9th instant, at his residence, Glenalmond, Bournemouth, William Douglas Hemming, F.R.C.S.Ed., etc., youngest son of William B. Hemming, M.R.C.S.E., etc., of 26, Notting Hill Terrace, W., aged 33 years.

LONGEVITY IN IRELAND.—Among the deaths returned during last quarter, eight were registered as having occurred in centenarians. Of these, three were stated to be 100 years, one 101, two 103, one 104, and one 115.

THE Duke of Cambridge has consented to preside at the next annual festival dinner in aid of the funds of University College Hospital, to be held in February.

LIVERPOOL ROYAL INFIRMARY.—The following appointments have been made. *House-Surgeons:* Frederick J. Laimbeer, L.R.C.P.Lond., M.R.C.S.; A. McCormac, M.B., M.R.C.S.; Hugh Rayner, M.R.C.S. *House-Physicians:* A. Stookes, L.R.C.S.Ed.; M. Barclay Thomson, M.B., C.M.Ed.

SANATORIUM FOR BRIGHTON.—A special meeting of the Hove Commissioners has been held at Brighton to receive a report from the sanitary committee recommending the affixing of the common seal to the contract with Mr. Knight for the purchase of ten acres of land on the Hangleton Bush Farm, Portslade, for the purpose of a sanatorium for the town and district. The decision of the board was unanimous in favour of the committee's recommendation.

BEQUESTS AND DONATIONS.—The Manchester Royal Infirmary, Dispensary, and Lunatic Asylum, has received £1000 under the will of Miss Nancy Elton, of Bury; viz., £500 for the Infirmary, and £500 for the Asylum.—Mr. John Thorpe, of Elston Hall, Notts, bequeathed £100 each to the Nottingham General Hospital and the Newark General Hospital and Dispensary.—Mr. Christopher Pond, of the firm of Spiers and Pond, bequeathed £100 to the London Hospital.—The Goldsmiths' Company have given £50 to the Metropolitan Convalescent Institution.—"A Friend of University College Hospital" has given £50 to it.—His Excellency Earl Cowper has given £50, John Anderson, J.P., 50 guineas, and Robert W. Murray £50, to the Belfast Royal Hospital.—Mr. Hugh Currie has left £250, and Mr. W. Kearney £100, to the Belfast Royal Hospital.

HEALTH OF FOREIGN CITIES.—A table in the Registrar-General's last weekly return supplies the following facts, which may be accepted as trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities. In the three principal Indian cities, the death-rate, according to the most recent weekly returns, averaged 33.7 per 1000; it was equal to 26.1 in Bombay, 34.9 in Madras, and 35.9 in Calcutta. Cholera caused 35 deaths in Calcutta, showing an increase upon recent weekly numbers, whereas the fatal cases of small-pox in Madras declined to 5; fever fatality was more than usually high in each of these three cities. The death-rate in Alexandria, in the ten days ending November 30th, was equal to 41.2, showing a further increase upon the rates in previous weeks; no fewer than 28 deaths were referred to typhoid fever, and 25 to dysentery. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 25.7 per 1000 of their aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 21.2. The rate in St. Petersburg was equal to 30.0, against 43.9 in the previous week; the deaths included 34 from typhus and typhoid fevers, and 10 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 20.9, the highest being 22.1 in Christiania, where measles showed fatal prevalence and caused 16 of the 51 deaths. The Paris death-rate was equal to 27.2; 53 deaths were referred to diphtheria and croup, and 33 to typhoid fever. The deaths in Brussels, including 2 from "fever" and 5 from whooping-cough, were equal to a rate of 23.7. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the average death-rate was 22.0, and the highest 24.7 in the Hague; whooping-cough caused 4 deaths in Amsterdam. The death-rate in Geneva did not exceed 19.7. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 23.8, and ranged from 21.5 in Berlin and Dresden, to 26.0 and 29.4 in Munich and Buda-Pesth. Small-pox caused 13 deaths in Vienna and 8 in Buda-Pesth; and 42 fatal cases of diphtheria were recorded in Berlin. The death-rate in Naples, Turin, and Venice was equal to 25.2, 23.6, and 32.8, respectively, and averaged 26.0; typhoid fever caused 10 deaths in Naples and 5 in Venice. In four large American cities, the death-rate averaged 24.0; it was 19.7 in Philadelphia, 22.8 in Brooklyn, 26.2 in Baltimore, and 26.6 in New York. Small-pox caused 18 and typhoid fever 30 deaths in Philadelphia; diphtheritic fatality was excessive in each of the three other American cities.

A CHEESEMONGER at Brixton has been summoned at the Lambeth Police Court, and fined 20s. and costs, for selling an article termed "butter" which was not of the nature and substance demanded. The defendant, in pleading guilty, said it was an understood thing with his customers that he could not supply genuine butter under 1s. 4d. per pound. The certificate of Dr. Muter, the analyst, showed that the article was not dangerous to health, being chiefly made of fat. Peter Curran, a butterman, also of Brixton, who had been previously convicted under the Adulteration Act, was fined 40s. and 12s. 6d. costs for the like offence.

THE COMMUNICATION OF SYPHILIS BY SKIN-GRAFTING.—At a recent meeting of the Société Médicale des Hôpitaux of Paris, M. Féréol related the following interesting particulars of a case, which had been under the care of M. Deubel. A man, aged 49, suffered from gangrenous erysipelas of the upper third of the left thigh, which left a large obstinate ulcerating surface. On March 7th, M. Deubel applied forty-five pieces of skin, taken from five different persons, to the outer part of the sore. Thirty-three of the grafts adhered. On March 18th, twenty-eight grafts, taken from the buccal mucous membrane of a rabbit, were applied, but all failed. On March 23rd, forty grafts, supplied by seven persons, were placed on the internal portion of the ulcerated surface. Thirty of these were successful, and cicatrisation was proceeding rapidly when, on April 5th, a greyish ulcer appeared at the site of the first grafting; other similar ulcers quickly followed, and in three days involved the whole of the cicatrix. About ten weeks after the first series of grafts had been applied (May 19th), a copious roseolar rash appeared, and was soon followed by crusts on the hairy scalp and mucous patches in the mouth. About this time, the son of the patient, who had furnished part of the grafts on both occasions, consulted M. Deubel, who discovered mucous patches around the anus. The young man had had a chancre eighteen months previously, which had not been treated.

COMPULSORY FEEDING OF PHTHISICAL P[illegible] M. D[illegible] has recently laid before the Société Médicale des Hôpitaux in Paris some facts relative to the advantages of compulsory feeding for phthisical patients. Under the influence of this method by Faucher's œsophageal tube, which allows, in the first instance, washing out the stomach if necessary, then introducing into it nourishing and easily assimilable foods, such as milk, eggs, and raw meat, the patients are seen gradually to recover appetite, strength, and plumpness, whilst fever, sweats, and vomiting, disappear. The tolerance of the stomach for nourishment introduced in this way, sometimes in considerable quantities, is a remarkable fact. The cough no longer induces sickness, and the restoration of the gastric functions puts an end to the anorexia. Thus M. Debove's researches are of great interest from the physiological, as well as the therapeutical, point of view. Pulmonary phthisis is not the only disease in which [illegible] clearly suitable to the majority of cachectic conditions to all diseases produced by [illegible]. [illegible] and M. [illegible] and contains M. [illegible] obtained by the therapeutic method under consideration. But it is obvious that it can [illegible] usefulness.

OPERATION DAYS AT THE HOSPITALS.

MONDAY . . . Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. The discussion on the Salicylate Treatment of Acute Rheumatism will be resumed, when further Statistics will be furnished by the President, Dr. de Havilland Hall, Dr. Warner, Dr. Charles Hood, Dr. Coupland, Dr. Fowler, and Dr. Gilbart Smith.

TUESDAY.—Pathological Society of London, 8.30 P.M. Dr. Pye-Smith: Cirrhosis of Liver in a Child. Dr. B. Fenwick: Disease of Suprarenal Capsules. Dr. Goodhart: Ulcerative Endocarditis. Mr. A. Barker: 1. Dislocation of Hip; 2. Spinal Caries. Dr. Sharkey: 1. Cyst of Liver; 2. Cyst of Cerebellum; 3. Gummata in Spleen. Dr. Stephen Mackenzie: Stricture of Intestine. Dr. Fowler: Intestinal Obstruction. Card specimens: Attached Fœtus; Fracture of Femur; Absence of Radius; Filaria Medinensis.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

In the list of readers of addresses given at page 954 of last week's JOURNAL, the name of Dr. J. G. Swayne, who delivered the address in Obstetric Medicine in 1863, was accidentally omitted. At page 955, it should have been stated that at the [illegible] Dr. Swayne was [illegible] *President*, Henry Power, Esq.; *Secretaries*, H. Rosborough Swanzy, Esq., and E. [illegible] J. Patterson Cassells, M.D. *Dermatology: Chairman*, McCall Anderson, M.D.; *Secretaries*, Malcolm Morris, M.B., and Walter Smith, M.B. At Cambridge, in [illegible] Michael Foster, M.D., F.R.S.; *Vice-Presidents:* A. Gamgee, M.D., F.R.S.; R. M. Pownall, M.D., F.R.S.; [illegible] H. [illegible] M.D.; W. Sterling, M.D.

S. E. W. is referred to the various numbers of the BRITISH MEDICAL JOURNAL in which articles have been published on the subject of introducing tubes into the trachea, in lieu of tracheotomy, by Dr. Macewen and others.

[illegible] MONEY.

SIR,—Thanks to your few lines on the late Baron J. de Rothschild, the idea struck me that children might be of use in supporting children's hospitals. Since the enclosed appeared in the *Staffordshire Sentinel*, I have heard frequent opinions of both young and old in favour of the idea. Promises are already becoming plentiful, and it is thought that the "pocket-money" will follow.—I am, etc.,

NORTH STAFFORDSHIRE.

[*After* Withington *of* Manchester.] A correspondent [illegible] for the support of this useful institution by the children of North Staffordshire. "The late Baron James de Rothschild, of Paris, who died suddenly on the 26th October, in his thirty seventh year, gave early in life a proof of having inherited the benevolent characteristics of his family. When but a lad he saved up his pocket money with the then ambitious desire to build a hospital. With the help of his relatives, he was eventually able to accomplish this design, and erected a large hospital near Boulogne, in the administration of which he took great personal interest. Here in North Staffordshire we have not a hospital to build. By the benevolence of that great dispenser of charity in North Staffordshire, Sir Smith Child, one is already built, and has been doing good work, affording relief to scores of little sufferers. Of the many who have been to visit it, and they include world-wide travellers, all have expressed the greatest pleasure at the happy appearance of its little wards, with the little cots, and tiny happy-looking inmates. Some have even said that it was the sweetest little hospital they had ever seen. Go, children of North Staffordshire, go and see your little infirmary for little folk; you will always find fourteen or fifteen little chickabiddies in its wards, and then say whether you will not willingly and heartily give up some of your pocket money for the support of this little oasis in the desert, where no child of poor parents is ever refused free admission."

QUERIST.—The best cheap book answering to our correspondent's stated requirements is, we are informed, *Pearson on Infidelity*, published by W. J. Johnson, 121, Fleet Street, in 1864. Our correspondent might also read with advantage *The Bible and Science*, by Dr. Lauder Brunton, F.R.S., published by Macmillan and Co. The *Nineteenth Century* gives good science abstracts.

ABUSE OF HOSPITALS.

SIR,—A letter on this subject in your last issue might be supposed to point to the Hospital for Sick Children, Great Ormond Street. May I mention, in your columns, that we do not keep a calf, nor is any gratuitous vaccination performed here.—I am, sir, yours faithfully,

W. E. STEAVENSON, Resident Medical Officer.

The Hospital for Sick Children, 49, Great Ormond Street,
Queen Square, W.C., London, December 14th, 1881.

ATTENDANCE ON WIDOWS OF MEDICAL MEN.

SIR,—Mr. H. Blackburn asks the opinion of medical men whether he ought to charge a fee to widows of medical men. I have been surprised at the very few answers that have been sent to the JOURNAL, as I consider it is a very important matter. In my opinion, the unwritten etiquette of the profession forbids anything of the kind; and Mr. Blackburn ought not to have sent in any bill, or expected any remuneration whatsoever. I consider the lady was quite right when she said "that it was unusual to charge at all in such cases".

Surely, sir, we who give more of our time and skill away without any return at all than any of the other professions, as Earl Derby truly and justly said at Liverpool a few weeks ago, can afford to give to the widows and unmarried children (up to the age of 21) of our poor departed brothers our advice gratis, without taking or expecting the cash worked hard for by them.

I have lately been attending the widow of a late distinguished general practitioner, and I should no more think of sending her in a bill than visit my patients in a balloon. I offered voluntarily to go and see one of her children many miles away, which would have caused me great inconvenience; and I should not have expected even my travelling expenses.

I hope most of the members of the profession think as I do; for we ought to be all pleased to help one another. As to the outside world, I never think of giving anything without adequate return, except perhaps to the very poor.—I am, your obedient servant,

THOMAS DUTTON, M.B.

The Gorse, Sidlesham.

LE PETIT MAL DURING VACCINATION.

SIR,—In answer to Dr. Neale's letter in your issue of the 9th June last, I desire to state that, about four weeks since, a healthy, vigorous young lady, aged 15, from a country township, presented herself for vaccination. I had very nearly finished the process after scarifying, when she went off into what at first appeared to be the usual faint. Directly she was laid down, however, she had two or three distinct epileptic twitches of the left side of the face, accompanied by several clonic spasms of the left side of the body, and almost immediately these had passed off she arose. She had never had anything of the kind previously, and she was not of a hysterical temperament, nor apparently even what might be deemed nervous. Occurring as it did in a healthy patient, I believe the explanation of the phenomenon may be found in the slight shock of the operation being sufficient to give rise to the supposed vaso-motor disturbances in the cerebrum, of the same character as in the ordinary epileptic attack; or what appears to be a very feasible explanation of these attacks is that recently put forth by Dr. Moxon in the Croonian Lectures (*vide* BRITISH MEDICAL JOURNAL, April 23rd, 1881, p. 628), the shock in this case being sufficient to start the series of changes.—Yours obediently,

CRAIG DIXSON.

2, Clarendon Terrace, Hyde Park, Sydney, N.S.W., October 17th, 1881.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

RECOVERY FROM HYDROPHOBIA.

SIR,—In the correspondence of last week I find a letter from Mr. Nourse of Exeter, apparently doubting the diagnosis of hydrophobia in a case lately published by me, and, to some extent I may imagine, founding his query on the fact that cannabis Indica had previously been tried, but failed to cure. I do not hold myself forward as infallible; but the facts, that the diagnosis was made from history and symptoms before treatment was thought of; that the prognosis of certain death was given on the patient's admission; and that the name of no other disease in the nomenclature (excepting hydrophobia) was applicable, should, I think, place the diagnosis beyond doubt.

I now wish to mention that the father, seeing in the daily papers an abstract from my communication, applied to Surgeon Hetherington, A.M.D., at Pigeon House Fort, Dublin, to write to me and say the boy is now up to date quite well; and I have no doubt that officer would be happy to show the lad at a Branch meeting there; and were I to ask the father to attend also, I am sure he would, and explain the symptoms if thought necessary. I have seen or heard nothing of father or son since I left India. I am sorry I have not a copy of Mr. Cæsar Hawkins' work at hand, and would be anxious to know the dose given, and effect produced, by his extract, as I attribute the cure to physiological and repeated, not to therapeutical, doses, non-effective in procuring deep sleep and consequent tranquillity of the nervous system.—Believe me, yours very truly,

JOHN RUXTON, Surgeon A.M.D.

Barracks, Wrexham, North Wales, December 7th, 1881.

SIR,—There is no occasion, after reading the cases of hydrophobia related in the BRITISH MEDICAL JOURNAL, November 19th, to dilate on the horrors of the disease; and I am only induced to write these few lines to urge on those in authority the great responsibility that rests upon them if they longer neglect to do all that is within their power for the protection of the community at large. The two admirable letters by Dr. Thomas and Mr. Nourse in the JOURNAL of December 3rd, point in the same direction; but, as Dr. Thomas says, "the human animal is cheap," and so I suppose the common-sense measures necessary for our protection are neglected. An accident by a dog-bite soon happens, and at present no one ever knows when it may happen. I remember, some years ago, having to visit a lady who had a pet dog, who preceded me upstairs. A chair was placed for me by the bedside, and presently, as I was about to take her hand to feel the pulse, the dog suddenly snapped at my hand, and I just felt its tooth, but fortunately without having the skin punctured. Now, sir, how is it possible for anyone to guard against such an occurrence, or protect himself from it? As Mr. Nourse truly says, "surely all the dogs in England, however valuable, are not worth the sacrifice of, every now and then, a human life, and that by so horrible a death".

Is protection from hydrophobia really very difficult to accomplish? Is it unreasonable if I wish to keep a dog of any description, that I should be required not only to pay a tax of 10s. a year, which is only just over 1d. per week, but also that such dog should wear a collar with my name and address, which at once guarantees the dog to be well cared for, and to possess a home? and ought I not surely to be responsible for it if allowed to be at large, and be liable for any damage it may do? This, though it might greatly lessen the danger in question, would clearly not do so completely, as, if such dog should happen to bite either your wife or child, what possible good would or could the owners' liability do you? However, if this be admitted so far, then there ought not to be such a thing to be seen as a dog at large, scarcely, without the slightest injury to a single person, and those without a collar should at once be completely and at once disposed of, and our streets and roads freed from them from one end of the country to the other. I often pity poor dogs myself, as others who are obliged to go to all sorts of houses, and are the constant victims of badly trained dogs on all sides. It seems to me to be thoughtless cruelty on the part of the owners to subject any fellow-creature to the sense of fear that is often experienced, and which I have felt myself. Such persons forget that, though they may know the dog to be harmless, the stranger is quite ignorant of the fact, and is, therefore, nervous and frightened. I may add that very many persons have a horror of strange dogs, and I know a lady who rarely goes shopping, on account of the dogs too often found in and about shops; and I have myself avoided going into shops where I have seen a dog blocking up the doorway.

By adopting some such a plan as I have ventured to suggest, it would amount to this, that, at all houses, if a dog were seen, it might be taken for granted that it was safe, and if it was not safe, it would be tied up. You will indeed, sir, do good work, as Dr. Thomas says, if you turn your attention towards this subject, in which good work the daily papers might also unite.—I am, etc.,

C. J. H., M.R.C.S., L.S.A.

M. N. O. (India).—The fees at the National Dental Hospital would be about ten guineas. At the Rotunda, the fees for intern pupils for six months are £21. The living in the hospital is at £1 per week. You could board at a good West-End boarding-house for about £1 per week. The average meat bill would be very all this comfortably for fourteen months. Six months at Dublin, and eight at the London hospitals. The advertisement you refer to about St. Thomas's Hospital is correct.

THE IMMEDIATE ARREST OF BLEEDING FROM THE NOSE.

SIR,—The communication, elsewhere from [illegible] always glad to supply the most effective remedy for the urgent cases he is likely to meet with. Bleeding from the [illegible] Nasal Polypus, and at the first glance, Mr. Hovell's [illegible] it new and [illegible] to determine [illegible] would have formed in the upper part of the nasal cavity, and so [illegible] cause a recurrence of the bleeding. This recurrence would naturally be a far [illegible] it, would not well bear a reapplication of the plug. I have seen the happiest results follow the usage of the old anterior and posterior plugs of lint well soaked in oil, the posterior put into position [illegible] plug, [illegible] some lukewarm antiseptic application.—I am, etc.,

Middlehall. W. I. A[illegible], M.R.C.S.

HAS THE DURATION OF HUMAN LIFE IN ENGLAND INCREASED DURING THE LAST FORTY YEARS?

SIR,—Dr. Rabagliati in a very interesting letter in last week's JOURNAL takes a rather gloomy view of the question whether the life and health of the people of England have improved, or otherwise, during the present generation. He states that, although the average life of each individual has increased 2.8 years during the last forty, yet this increase is due to the large saving of young life at the expense of adult life; that is to say, a larger percentage (1.5 more) of males die now at from [illegible] years of age [illegible] per cent. more than the case forty years ago. In fact, a [illegible] mortality of males [illegible] under the age of 15 to the extent of 11 per cent., comparing the year 1879 with the average of the preceding 28 years.

Dr. Rabagliati then goes on to show that the greater death-rate in childhood formerly was caused by zymotic diseases or fevers; and says that, if we exclude death from these causes, human life can then be shown to have actually shortened in this country during the last thirty years. This is very alarming; but it must be remembered that zymotics are essentially the diseases of childhood, and, in epidemics, it is chiefly the weakly [illegible] that are carried off. They are also [illegible] more susceptible. The natural consequence of a decrease in the zymotic class of diseases will be to give the weakly children a better chance of living on till adult life or beyond; and thus the mortality of adult life will be increased, whilst the death-rate during childhood will be decreased. It may be, therefore, that the cause of proportionately more people dying in adult life now than was the case when statistics were first collected, is due to the fact that improved ventilation, better sewerage, and less overcrowding—together with the gigantic strides that medicine has made—have enabled us to tide on the weakly ones for a few more years. The [illegible] has been augmented, and the *improvements* [illegible]. Would not the extra percentage of those who now die at, say, 35, formerly have died at a younger age? and may we not look forward with hope to a [illegible] dim distant future when adult mortality shall be decreased, although it may be, for a time, [illegible] by a proportionate increase in the death-rate of infancy? —Yours faithfully,

W. M. [illegible]

Clavert-st. Street, Bath.

ANTIPATHETIC TENDENCIES IN THE PULPIT.

THE *Christian World* of December 7th publishes a sermon by the Rev. Arthur Mursell, preached in Graham Street Chapel, Birmingham, November 27th, which discusses, among other things, vivisection, and, we are sorry to see, discusses it in language [illegible] which [illegible] to [illegible] describes as "Pulpit Billingsgate". The preacher starts with the statement that the utmost that can be claimed for experimental investigation "is that theories already formed gain confirmation from the result". A pulpit orator should endeavour, at least, to obtain a substratum of fact; and before preaching his next sermon, this experiment-abusing minister should be recommended to read the statements to the contrary of Sir James Paget, Dr. Wilks, and Professor Owen, when he would at least be credited with knowing the facts—an essential condition of argument which should be observed in the pulpit, as well as in reviews.

MEDICAL ETIQUETTE.

SIR,—During my absence from home in August last, my [illegible] was called to attend an old lady suffering from Colles' fracture. She had come a distance of three miles to her daughter's house (the latter being a patient of mine), where the accident occurred. It was duly attended to, and the old lady returned home. On inquiring from the daughter on my return how her mother was getting on, she informed me that she had called in her usual medical attendant next day. I have not heard one word from either her or her medical attendant since; nor have the splints been returned. I would be glad of an expression of opinion: 1. Am I to consider that I was acting for a professional brother? or, 2. Would I be right in sending in a claim? and, 3. If so, what would be a fair amount? I am, etc.,

A M[illegible].

BOYCOTTING.

SIR,—As the proposition to Boycott publicans, and not only to extend the Boycotting to those who hold any intercourse with them, is just now meeting with some favour in various quarters, I think it not irrelevant to forward you enclosed a letter from a lady patient, in which, as you see, I am Boycotted as a doctor generally and among her friends because I "am reputed to advocate the Contagious Diseases Acts". If Boycotting to its furthest extent on account of scientific opinions is upheld by our own profession, I do not see that I can complain; but, as I certainly [illegible] with arguments to address to my fair correspondent, explaining how far her system of Boycotting (which she says is being carried out on an organised scale by a large body of persons opposed to the Contagious Diseases Acts, and who consider those who support them "devoid of moral sense") differs from our approved medical system of Boycotting those who differ from us in medical theory and practice (such as homœopathists, hydropathists, or those practitioners who choose to meet them.—I am, sir, yours faithfully,

A [illegible] [illegible].

[illegible]

SIR,—Our bakers, butchers, etc., on the slightest provocation, and sometimes without, raise the price of their bread, meat, etc. Yet, if we [illegible] were to raise our wretched fee of 2s. 6d. or 3s. 6d. in proportion, what an outcry there would be from the aforesaid baker and butcher. I do not think fees have [illegible] [illegible] farmer; but [illegible] the [illegible] the same thing to [illegible]

I [illegible] I am glad to see, that the [illegible] fee is raised [illegible]

Treatment of Post-Partum Hæmorrhage.

SIR,—I have [illegible] Mr. [illegible] communication in the Journal of November 26th, and [illegible] remarks [illegible] point; viz., as the pressure upon the abdominal aorta should be [illegible] no doubt Mr. Bassett will be kind enough, in a forthcoming number of the JOURNAL, to answer the three following questions, for the edification of those interested in the subject. 1. Should the pressure be complete or incomplete; in other words, should it be applied so as to entirely arrest the further flow of blood down the aorta, or only to modify the same? 2. How long should such pressure be kept up, having a due regard to the permanent and remote condition of the patient? 3. What is the exact spot where the pressure should be applied?—I am, etc.,

Skirlaugh. CHARLES SOLOMAN.

MRS. CORNER.—The question put is so entirely a legal one, depending upon the interpretation of the agreement, that our correspondent should certainly consult his solicitor on the subject.

Pilocarpin.

SIR,—Your issue of the 22nd ult. has just come to hand. In it I find a question as to the best solvent for pilocarpin. Last year, in Afghanistan, I got some of the nitrate of pilocarpin, but from ill health did not experiment with it much. Here I use it (the same) very constantly in bad cases of remittent fever and other febrile conditions associated with hyperpyrexia, with the happiest results. I use a solution in plain water, one grain to one ounce, and find that it keeps its properties for a month, and can be confidently used hypodermically.—Yours faithfully,

GEORGE A. HARRIS, Surgeon B.M.S., Civil Surgeon.

Backergunge, E. Bengal, India, November 14th, 1881.

MR. F. B. MONEY COURTS.—Taking the facts as stated, the medical man will hardly fail to draw the right lesson from them. There is not complete accord of opinion as to the danger of the propagation of puerperal fever under the conditions described. There are many sources of danger whence danger may come; those which seem the most obvious are not always the real source. 2. It is difficult to see how the public can be adequately instructed in matters of this kind. 3. We believe that cases of the kind are not nearly so frequent as they were some years ago. A large proportion of the mortality from "puerperal fever", is due to inherent conditions of childbed, and in no way to infection conveyed from without.

Dr. Murrell's Case of Diabetes, and the Influence of Bethesda Water.

SIR,—In your issue of the 26th ultimo is reported a case of diabetes mellitus of a typical kind, in which it would appear that some influence upon the course of the case was exerted by the Bethesda water administered in very large quantities. I regret not having at hand reports of the analyses published from time to time of the various mineral waters reported to be of service in the treatment of diabetes; and there can be no doubt that the use of these, aided by change of air and climate, is a most potent help, and in fact very often affords a momentary cure, to sufferers from this disorder; for very many leave Carlsbad, and some Neuenahr, with no trace of sugar in the urine, and with some gain of strength and substance, in spite of the mentally depressing effect the waters always have.

From my recollection of the composition of the Bethesda water, I should place it a little above that of Neuenahr, and a little below that of Carlsbad, in the scale of utility. But people should bear in mind that the advantages gained by drinking them at home cannot for one moment equal that acquired upon the spot whence they issue fresh from the ground; whilst change of place is everything to a diabetic who has any strength left, only provided that this change be not at the seaside. Upon this point, let the case of Baron Haymerle be noted. That the patient, whose case Dr. Murrell reports, died of acetonæmia, may be questioned; his age, and the report of the *post mortem* examination, would point rather to tubercular disease of the brain, or to some other form of brain-lesion to which diabetics are prone. Acetonæmia occurs most frequently in those who live luxuriously, and who will not muzzle their appetites; also fœtid, sour, and unwholesome perspirations are either always present or are easily excited, especially at night; their urine, too, contains often very little sugar.

Dr. Murrell's remark that the patient's death was accelerated by the strictness of the hospital diet, seems fully justified by the report; and I would here remark that diabetics must not be kept too low, but should be allowed wine and some little bread of good quality; and, if white bread be used, let it be toasted. Bran-bread and specially prepared biscuits afford little more nourishment than chopped straw, and, even in extreme cases, these reappear as sugar, along with everything else taken.

Let me, however, refer your readers to Professor Seegen's works, from which they will gather that the treatment of diabetes and glycosuria can be modified according to the stage of the disorder and the patient presented to us.—Believe me, sir, yours obediently,

FREDERICK SIMMS.

6, Mandeville Place, W., December 5th, 1881.

DR. EDWARD B. AVELING requests us to state that he is not a Bachelor of Science, but a Doctor of Science, of the University of London.

The Dry-Earth System.

SIR.—I should be much obliged if any of your readers, having practical experience as to the adoption and working of the dry-earth system, would be good enough to favour me with any information they may possess on the point, either directly or through the columns of your JOURNAL; also as to the best form of dry-earth closets, both for outside and indoor use. The district in which it is proposed to be adopted is a semi-urban one, containing about four thousand inhabitants, with an acreage of eight to nine hundred; and the central authority purposes supplying dry earth, and undertaking the scavenging of the closets.—I am, sir, yours truly,

S. WELLESLEY COOMBS, F.R.C.S.

Worcester, December 5th, 1881.

J. A. C. (Waterfoot).—We think our correspondent perfectly right, and that he might find precedent for it; and that the course which the secretary wishes him to take is one to which he should not submit.

THE following is from the *Malvern Advertiser*, November 12th, 1881, and is rather a brilliant piece of writing.

"By the favour of A. Henderson, Esq., M.R.C.S., of Cranfield, Malvern, we have been enabled to see an impression of the very handsome large bronze medal, cast in commemoration of the International Medical Congress, London, 1881, which has been presented to him by the Secretary of the Congress, as an official recognition of Mr. Henderson's professional status. The one side of the medal bears an allegorical group, and the inscription: 'International Medical Congress, London. James Faget, Pres.; William Mac Cormac, Hon. Sec. Gen., 1881.' and on the reverse side an excellent portrait of Her Majesty, inscribed, 'Victoria, Queen of Great Britain and Ireland, Empress of India'."

The Cure of Squint.

SIR,—Can you kindly refer me to [illegible] squint, which I [illegible] foreign, which [illegible] treated on the [illegible] eyes. I read, in [illegible] Medicine, by C. W. Roell, D.D. (London, 1881, Chapter ix., pp. [illegible]) that "Most squint, from his childhood, had worn earrings, as a preventive, according to the popular notion, against an affection of the eyes, to which he had been subject." In Germany, [illegible] very [illegible] and [illegible] to wear [illegible] in the [illegible] foundation, for extension and adoption, or not?—I am, sir, yours faithfully,

London, November 24th, 1881. MARY BARKER.

*** The custom of ear boring, still occasionally met with in this country especially among the seafaring poor, is doubtless founded on the very long established principle of counterirritation; consequently it might possibly benefit certain inflammatory eye-affections, its value being proportional to the degree of irritation set up. The greatest benefit would be obtained by wearing rings of some such inferior metal as would cause long-continued inflammation. In no case, however, would it equal that of [illegible]ction, or of a blister behind the ear. The benefit would, however, cease directly the rings could be worn with comfort.

COYOTES.—We are sorry the letter was not published. The facts stated there have frequently been referred to in these columns, and probably would serve no useful purpose to repeat them.

Spontaneous Evolution.

SIR.—One morning lately, I was called up to drive a few miles to what I expected to be an ordinary labour. On arrival, I found that there was a midwife in attendance, and that the left arm of the child was presenting externally as far as the elbow, and of a deep violet colour. With charming candour, the midwife acknowledged that for some time she had thought that something was wrong, but that she had decided to give nature a fair chance before sending for help. Nature had availed herself of the interval to drain away all the liquor amnii; so that, on attempting to turn, I found it impossible to reach the feet, as my arm was completely numbed by the powerful uterine contractions. At last I was compelled to desist, though my efforts to alter the position of the child, so as to bring the feet within reach, caused the shoulder to recede from the pubes, on which it appeared to be resting. I went downstairs to write a note to a friend to bring some chloroform; and had scarcely sent it off, when the midwife called to me that the child was born. In fact, the child was lying in the bed dead, and the placenta followed with the next pain.

I have seen a similar case at the seventh month; but this was at full term, and it seemed interesting from the fact that so little interference had enabled the labour to be concluded. The woman had had labour-pains for some days, and the neighbours were sure that the arm had been down for at least three and a half hours before my arrival.—I am, etc.,

J. B. E.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Shaw, Newton-le-Willows; Mr. W. A. Phillipps, London; Mr. J. Kasey, London; Dr. H. Sutherland, London; Mr. T.W. Barron, Durham; Dr. S. Rees Philipps, Exeter; Dr. W. Strange, Worcester; Mr. L. H. Ormsby, Dublin; Mr. R. Clement Lucas, London; Mr. J. B. Welch, Birmingham; Dr. R. Erskine, Ayr; Our Aberdeen Correspondent; Mr. W. E. Steavenson, London; Mr. John Bennett, London; Mr. Maurice Hime, Londonderry; Dr. G. E. Shuttleworth, Lancaster; Dr. J. D. Douglas, Bournemouth; Mr. Vincent Jackson, Wolverhampton; Mr. L. Thain, Longtown; Dr. W. H. Broadbent, London; Mr. T. M. Dolan, Halifax; Dr. E. B. Aveling, London; Dr. Lewis Shapter, Exeter; Dr. Bushell Anningson, Cambrdige; Mr. Edgar A. Hunt, London; Mr. G. Fleming, London; Our Dublin Correspondent; Dr. Hughes Bennett, Weybridge; Query; Dr. H. Greenhow, Weybridge; Dr. Wolfe, Glasgow; Mr. Craig Dixson, Sydney; Dr. Buzzard, London; Mr. James Startin, London; Mr. G. Greenwood, London; Dr. Stewart, Leven; Dr. Rabagliati, Bradford; Mr. W. H. Jalland, York; Mr. J. W. Burke, London; Dr. W. Smith, Down; Dr. J. Rogers, London; Dr. A. Carter, Birmingham; Dr. Saundby, Birmingham; M.R.C.S.; Mr. Balmanno Squire, London; Mr. D. Biddle, Kington-on-Thames; Dr. John Williams, London; Dr. J. G. Swayne, Clifton; Mr. Charles Terry, Newport Pagnell; Dr. T. A. Carter, Leamington; Mr. W. M. Beaumont, Bath; F.R.C.S.; Dr. W. Thomson, Dublin; Dr. William Main, Birkenhead; Mr. E. M. C. Hooker, East Retford; Dr. Robert Smith, Sedgfield; Dr. R. W. Batten, Gloucester; Dr. W. Clibborn, Birmingham; Mr. G. Stillingfleet Johnson, London; Mr. Macnamara, London; Mr. Prowse, Cambridge; A Member; Dr. Macnaughton Jones, Cork; An M.B., C.M.; Mr. W. H. Bull, Stony Stratford; Mr. T. Mark Hovell, London; Dr. F. Pocock, London; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,, ...	20 ,,
,, 26 ,, ,, ...	25 ,,
,, 52 ,, ,, ...	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

AN ADDRESS
ON
DOMESTIC HEALTH.

Delivered at the Annual Meeting of the Sanitary Institute in Brighton, December 16th.

By ALFRED CARPENTER, M.D., Croydon.

MR. PRESIDENT,—My theme this morning is "Domestic Health", or a consideration of the means by which individual health is raised or lowered, and the period of life lengthened or shortened by domestic means. That individual life is uncertain, is a truism which every one acknowledges; and yet, in the aggregate, its value is known almost to a day. The statistician can tell to a positive certainty how many among a given number of men, women, and children, *pallida mors* will call his own within the next twelve months, provided the area be large enough, and the habits and character of the population understood. If a man take his wife and family to live in a particular district—say in Liverpool, Manchester, or some other great commercial centre—there is a certainty that their chance of living a given number of days is less than one-half of that which would belong to them if they came to live in Brighton. If a man determine that his sons shall become publicans or grocers (with wine licences), or shall go into any business which brings them constantly into contact with the manufacture or the sale of intoxicating liquor, he takes away from the lives of those sons a number of years which would be theirs if he put them into the trade of a gardener, or sent them into the Church as parish priests. We know some of the reasons for this result. They are clear and unmistakable. Then, again, taking aggregates of children collected together; there are, or were, some streets in Liverpool in which ninety out of every one hundred of the children who were born into the world died within the first five years of their existence; whilst the children belonging to the same class of people, taken from their wretched homes and sent to such schools as those at Anerley, or the Beddington Female Orphan Asylum, have a mortality of about 3 in the 1,000 *per annum*. In the one case, 900 die out of 1,000 in five years, in the other only 15. The conditions which produce this state of things are well known; they are absent in many places; I will mention one class in particular—Her Majesty's convict prisons. In those select and exclusive establishments, the mortality is about 8 in 1,000; but, then, they are selected lives—lives picked out of the most unhealthy and disreputable classes of society. If the same rules as to health and manner of living could be observed by a similar number of persons taken from healthy stocks, and from individuals who had not damaged their constitutions by crime and debauchery, this death-rate would be still lower; 6.5 to 7 in the 1,000 is probably the normal mortality which would arise in such communities; and, although we must not compare adults with children, yet a public health which should show such results would, in the course of years, add materially to the number of nonagenarians in the death-list, and, in course of time, bring many up to the limit which has been placed by Providence to life on earth, viz., 100 years. I believe every person is entitled to live to that age; and if he do not, he is deprived of a portion of his birthright, either by his own act, or by the act of other persons. There is a time when a man must go down to the grave, but it ought not to be in consequence of disease, and it ought not to be before he has passed at least ninety years on earth. Death will come, though disease need not; and death without disease would probably be no more painful to men than the fact of being born into the world is to the child. Uneasiness there may be, but not that acute suffering which arises, in most instances, from a disobedience to God's laws, either on the part of the individual himself, or of the commonwealth to which he belongs, or of his predecessors or forebears upon the earth.

What is disease? It is a departure from the condition of the body called health. When does health cease and disease begin? I believe that there is a border line in which the conditions necessary for the establishment of disease must have time to produce their results before the disease actually arises. It is in this border line that the work of the sanitarian is most manifest, and is most beneficial to the community, by preventing functional disturbances and the consequences which naturally follow from the loss which sickness produces. I am sometimes asked if there is anybody living in perfect health at that particular moment. That is a question which is difficult to answer, if by health we are to understand that there is to be no disturbance of the equilibrium of function in the body. It is probable that, on this basis, there is no one living among civilised beings who is perfectly healthy. But I contend that there are great numbers in whom the border line of the disturbance of equilibrium has not been passed, and in whom disease has not yet appeared. A knowledge of, and obedience to, the laws which regulate health and prevent disease is of the greatest importance to these persons, for unhealthy home-influences will prevent them throwing off their burthen. They are not well, but they are not ill. Conflict is going on between two forces, and sanitary or unsanitary conditions may decide the issue. Disease works its way in many directions, and by a thousand and one means. There are some classes of disease which arise from the influence of morbid poisons which can reproduce themselves in the human body; and in these cases, each person suffering from that particular form of complaint becomes a manufactory of disease-producing particles. If these be brought into contact with other beings, they spread that particular form in geometrical ratio. There are some people, however, who are able to resist the effect of this poison, either because they have already suffered from the disease in question, and are protected from its future consequences, or because some unknown condition is present which takes away their liability to suffer from it. This class of disease is called zymotic; it includes small-pox, fevers, cholera, diphtheria, *et id genus omne*. Some individuals and some families are much more susceptible to be influenced by this class of disease than others, and some die much more rapidly than others from their effects. The causes for these differences are not difficult to understand. The places in which such diseases will be most fatal, when the particles capable of producing them are introduced there, are pretty well known. The conditions producing fatality are of man's making, and can be removed by the action of man. What are those conditions? In a few words, they are due to those changes which flow from the natural result of the act of living. The natural products of secretion, or the excreta which are either retained too long within the body itself, or being excreted, are not passed on to the vegetable kingdom for utilisation and reapplication to man's wants. These excreta are the mainsprings of this class of disease. They are allowed to remain where they ought not to be. It would be as impossible for zymotic diseases to exist among us as it is for fish to live long out of water, if all excreta were rapidly removed and immediately utilised. The presence of zymotic disease in our midst is evidence that some kind of excreta is retained somewhere in too close proximity to particular individuals, for it to be safe for those persons to continue in contact with it. We are accustomed to regard excreta as simply matters which everybody naturally passes away, or ought to pass away, into our sewers. Some of them used to be stored in cesspools. That fatal error has been abandoned in most civilised places in Great Britain, but people now think that, if excreta be sent into the sewers, all is done which is requisite for safety to health. Let the destructive effects of foul air upon our *employés* at the Government offices, and the death of Dean Stanley, answer this suggestion; let the *Times* newspaper be consulted any day in the week, and you will find in the obituary a record of some one who has been cut off by active disease, the consequence of impurity in the house, which impurity is at present scarcely suspected to have been a cause for his death. It is hidden in the neighbourhood of the home, and is possibly unknown. Erysipelas or carbuncle, or so-called inflammation of some particular organ, has cut off the victim in the prime of life, and the death is at present seldom referred to its real cause, viz., foul air in the house. Any sewer which smells offensively is wrongly constructed, and is antagonistic to public health; sewers ought not to smell; fresh sewage does not smell, and a sewer should be as clean as a back-kitchen sink. There is no difficulty about this cleanliness, if sanitary engineers would understand the first principles of sanitary work. The moment any kind of excreta has passed from the body, at that moment, or as soon as temperature is reduced, there is a cessation of those actions which give rise to offensiveness. The offensiveness produced within the body is not injurious to health under ordinary conditions, otherwise every person would rapidly poison himself. That offensiveness is gaseous, and is soon dissipated, and there is a border line of time for removal before any kind of dangerous offensiveness can arise. When it is perceived it is a proof that the excreta has been kept within range of human life too long. The offensiveness is caused by germs or molecules, capable of reproduction in a different form from those which previously existed; they are material particles, and not gaseous, which have grown in the excreted matters outside the body. They are new cultivations, and are capable of doing serious mischief in the tissues of living persons. They are comparatively harmless within the body, until they undergo a kind of change of nature which enables them to do things which they could not have done without that change, and which would have taken place if there had not been something at hand to enable them to grow

This change is promoted by rest in contact with nitrogenous matters, and is opposed by motion. There are some natural conditions which entirely prevent that change in the dangerous direction. Those natural conditions are found in our mother earth, and in the growth of vegetable matter upon that earth. The changes are promoted by rest and the atmosphere which arises in the presence of organic matter in a state of rest, viz., an atmosphere containing excess of carbonic acid. This excess is sure to increase when organic matter is changing without an abundant and continually new supply.

The first principles, therefore, of sanitary work are embodied in the immediate and direct removal of all excreta from our midst, and its conveyance to, and utilisation or destruction in, those districts which Providence has designed for its reception. Six to twelve or twenty-four hours are required, according to temperature and season, before mischief can arise; but this margin of time is ample for its removal.

But some of my hearers may say, Are not diseases infectious, and capable of being transmitted from one to another, irrespectively of outside sanitary work? I have to answer Yes to this question; unfortunately, they are; but their infective character arises from the fact I have already mentioned—viz., there is defective sanitation at home. There is scarcely a house in the kingdom in which excreta are not to some extent retained. The most civilised and luxurious home is, in some cases, carefully prepared for the cultivation of disease-germs or factors, if they come into our midst: carpets, curtains, and comforts of all kinds retain the *débris* from our skins and our pulmonary membranes; the excreta from our sweat-glands are allowed to settle upon our uncleaned windows, out-of-the-way cornices, useless ledges, and so-called architectural or upholstering ornaments; and our smoking friends spit about in a fashion which allows forcing-beds for disease-germs to exist everywhere; so that, but for ventilation, the smoking-carriages on our rai roads would be very pesthouses, if disease-germs find admission to their floors; whilst our sensitiveness to draughts, and the way in which we heat our dining-rooms and offices, our public places of resort, our churches, and our drawing-rooms, provide a forcing-house for the growth of disease-germs which it seems almost impossible to disperse. I say almost impossible: this is only as regards the present time; for, with the growth of knowledge, there will be a gradual removal of causes; and, when the wholesale distribution of disease-germs by water-companies and impure sources of supply, impure food, and by sewers, is absolutely stopped, the private multiplication and spread of factors will be capable of being stamped out in a far easier and more satisfactory way than is now the case. Pure air, pure water, pure food, and temperate habits will diminish the amount of pabulum in which disease-factors can develop; and with those benefits we shall have a diminishing amount of impurity in the blood of individuals, which will gradually be effected in consequence of a more more perfect knowledge of public hygiene. This will render the blood and other tissues of most people so free from unnatural excreta, that, in the words of the Psalmist, "they need not be afraid of the pestilence which walketh in darkness, nor of the destruction which wasteth at noonday". (Psalm xci, v. 6.) This was a condition of things which was well known to the great Jewish lawgiver. Obedience to the sanitary laws which were laid down by Moses is a necessary condition to perfect health, and to a state which shall give us power to stamp out zymotic diseases. If those laws were observed by all classes, the zymotic death-rate would not be an appreciable quantity in our mortality-lists. It is the duty of the State to prevent the wholesale or general distribution of zymotic disease; and if, with public spirit acting in the right direction, we have private action in every case in opposition to its distribution, there will be a great obstruction to the establishment of factors in our midst. That action must be directed by an intelligent knowledge of the fact that every person suffering from zymotic disease is a manufactory of particles of infective matter, which particles only require to be deprived of beds in which they can increase and multiply, and then zymotic diseases will altogether disappear as epidemics.

Let us keep this fact in mind: that it is the retention of excreta without the body, which are in a state of rest, and which are not brought into contact with soils and growing vegetable life, that allows the multiplication of disease-particles able to infect humanity. But we may also remember that, if that humanity be in a proper state of health, the germs may find admission to the system, but will fail to find pabulum to set up disease; or the pabulum may be so trivial in amount, that the disease is of the mildest and least dangerous character.

The chemical constituents of the secretions and of the excretions are so varied and changing, that it is easy to see that the pabulum may be very various in character; and, as each kind of disease-particle will require a different kind of pabulum, it follows that in one case the disease may be severe, and in another slight, or different in character altogether; and that the effects of the disease will depend upon the quantity of material upon which it can grow. I am of opinion that there is an analogy between the growth and development of disease both within and without the body; that the causes can only increase and multiply at the expense of used-up matter which has filled its mission in the human body, and which has not been removed in proper time from the tissues of that body, or from the neighbourhood of its producers; that this used-up matter would be harmless if kept within the body only so long as may be necessary for its proper discharge, and a disease-germ finding admission would fail to find food in sufficient quantity to live upon, and would abort, become unfruitful, and be incapable of producing evil; that it is the quantity of this pabulum which regulates the intensity of an attack of zymotic disease, assisted to some extent by the quantity or size of the dose of infective matter. A small dose takes considerable time to reproduce disease-product in sufficient amount in the tissues of the body to seriously interfere with general health, unless the pabulum be very great; but, when the dose is large, there is a more rapid reproduction, the stage of incubation is more decided, and the new crop, or new association of matter which the crop sets up, is capable of arresting some of the various functions of the body, which functions are necessary for the continuance of life. They interfere with the work of a gland, or take up material for their own nourishment which the body requires for healthy action; and so disease of organs arises which may or may not have a fatal effect, according to the amount of interference which they produce. If, however, the products of the act of life be removed from the body as soon as formed, or as soon as nature requires them to be removed, the germs of disease may be admitted without material risk; but, being admitted, the result of their action will be manifest according to the quantity of *débris* which is present for them to feed upon. They then grow, come to maturity, reproduce the minutest of the minute forms of perverted protoplasm, and, having fulfilled their mission, die a natural death. These diseased protoplasmic particles have to be expelled from the body (in small-pox, they form the pustules); and the causes of all the mischief break up into other organic forms, and become excreta from the body if health be restored. If, however, death take place, they continue to multiply after a short time in the tissue of the victim, until putrefaction has thoroughly broken up the animal matter into its simple elements. This is very easy to understand, when we remember that man produces in himself, by his own act of living, three or four of the most virulent poisons which can be manufactured. We are apt to think of the saliva of a mad dog, the secretion connected with the poison-fang of a snake, or the cause which produces the plague, as terrible things, to be kept at a distance, and to be run away from at the shortest possible notice; and yet we manufacture in our own bodies, every moment of our lives, poisons which are as virulent as any I have mentioned, or which can be produced anywhere in nature. The carbonic acid which we expire is instantly fatal when it is inhaled in its concentrated form. The cholesterin, or some product resulting from a change in the elements which form that material, and which is produced by nerve-action in our own persons, has only to be kept within the body, in the way which does happen sometimes in some forms of liver-disease, to be fatal in a few hours. The same result follows in kidney-maladies, in which the kidney refuses any longer to perform its work; and, if the skin be varnished over with some impermeable varnish, an end comes to life within a few hours, from the retention of an excretion which should be made by the skin, the retention of which is also the cause of fatal effects in some eruptive diseases. These excreta exist in some shape or other in the blood, and ought to be removed as rapidly as nature designed that they should be; and yet, by our domestic habits, by our taste for stimulants, by our absurd fashions, and by our so-called civilised life, we impede the actions of those organs which excrete those poisons; we keep the products of metamorphosis of tissues about our own persons, and then wonder that nature rebels at such treatment, and sets up actions of her own antagonistic to the deadly effects which such treatment is certain to produce. It is in consequence of these antagonistic actions, to the retention of these morbid poisons that, as an ultimate result of that sickness, the mortality of our country, as well as of all others in the world, is so much higher than it ought to be. It is a curious and a wonderful fact, that the usual effect of the self-manufactured poisons is not painful; deaths by carbonic acid, or urea, or acholia, are comparatively painless. Pain is the outcry o those watchful sentinels which Providence has given us for our protection; it is the danger-signals to be carefully considered, by means of which the approaching mischief may be warded off. The tendency of treatment by the medical profession at the present day is rather to ease pain, than to prevent a recurrence of those evils which give rise to pain. I trust, however, that a more sensible era is approaching, and that human foresight will take the direction which I have indicated—

viz., that of rather bearing with the pain and taking measures to prevent a continuance of its cause, than of rushing for relief of the pain itself to those agents which make us still more blind to its consequences, whilst we let the cause go on. I refer here more especially to the use of intoxicating liquors for assisting an imperfect digestion, relieving neuralgic conditions, and obtaining an artificial and delusive warmth. The relief is obtained at the expense of a paralysing action set up in the watchful sentinels of danger. The organic and sensitive nerves, which are the danger-signals, are put out of gear; and the train goes on heedless of the mischief, which is now hidden from feeling and personal observation. By these means, organic diseases arise in the different organs of the body. Brain, heart, lungs, liver, and kidneys, or spinal column, ultimately break down, and life is shortened in a way and by a means which is little thought of by a majority of the victims; and the daily use of alcoholic drinks assists this more than any other known agent.

Time would fail me to deal with all the causes of disease which arise from a want of proper knowledge among the people of the first principles of domestic hygiene, and of the evils which follow from a non-removal of the products of excretion, and the retention within ourselves and our houses of those deadly poisons which are manufactured by the human frame in the act of living. I must, however, remark that, as regards the outside of our bodies, it is not likely that the best method of dealing with excreta will be generally used, until public opinion has put a stop to that vicious principle which is adopted, of paying our engineers and our architects for the work they perform according to its cost, viz., by a commission upon the cost of the work done. The great object is to expend large sums in great works, whilst the minor details, which take up the most time and cause the smallest expenditure of capital, are relegated to the care of those who have to inhabit the house after it has been built, or to keep the sewers in order after the engineer.

As regards the individual, I am of opinion that, sufficient as vaccination is at present in protecting the masses from the effects of small-pox, the right course to be followed in the prevention of the effects of infectious disease is not to be found in trying to bring into vogue new methods of vaccinating for the prevention of cholera, diphtheria, and others of that class, but in the removing from our persons and from our habitations those *débris* which arise from the act of living, and the removal of which would render us proof against the evils caused by contagion. However much, therefore, I may admire the efforts of Pasteur to prevent the spread of infectious disease at the present time among our domestic animals, I believe it is not the direction in which we should look in the future with regard to ourselves, except so that we may draw the inference that, as it is by cultivation that a germ becomes deadly, so, by a counter-cultivation, its deadly character may be done away with, and the disease rendered harmless. I prefer to follow upon the lines connected with the latter rather than the former contingency; and, if the antivaccinationists were as energetic in the promotion of sanitary work, which has for its object the utilisation of our excreta, as they are in antagonism to vaccination, they would be doing some good in the world, and would assist to bring about a condition of things which would render vaccination an unnecessary operation.

[Dr. Carpenter next commented at some length on the results arising from want of ventilation in homes, and the retention of carbonic acid and other excretions exhaled from the lungs in the act of breathing; reference being especially made to its influence in the production of tubercular disease.]

If it were not for circumstances connected with poverty, the poor would be rapidly swept from the face of the earth by tubercular disease; but it happens, fortunately for them, that their houses cannot be kept entirely draught-proof. Wind and storm find their way into their lodgings, and diminish the evil by diluting it, and that which they consider a misfortune is a real blessing. For dilution of the poison is an impediment to its effect. This good fortune does not apply to the same extent to the houses of the rich; they, as well as the poor, take care to exclude fresh air, and take the greatest possible trouble to keep oxygen outside, and to retain carbonic acid and its concomitants in their living-rooms. Every step which is taken to ensure comfort adds to the danger. The old-fashioned open fireplace and imperfectly fitting windows kept the enemy at bay for a time; but the chimney-corner is gone; window-frames are made so tight that not a breath of fresh air can get in by their means; and carpets, curtains, and other so-called comforts, remove from them all its freshness. The introduction of gas for illuminating purposes adds very much to the evil; each ordinary gas-burner uses up as much oxygen as three people; and now the custom is to render the walls perfectly impervious to the transmission of air, and still greater evil naturally follows. The result is that people, especially luxurious people, live in an atmosphere in which there is a diminution of the required oxygen with increased amount of carbonic acid, with its concomitant excreta, which in themselves are still more injurious, as being food for debased protoplasm; and then they wonder why they are out of health; why they constantly take cold when exposed to draughts; why they lose their appetite; why they cannot sleep; and why they suffer from headaches and listlessness;—why, in fact, they do not enjoy life, and feel thankful to the God that made them for the blessings which might be theirs, if they understood the laws which belong to the act of living.

Suppose we look into the church where we go to give God thanks for our many blessings. A thousand people are there, each occupying a square yard of floor-space. It may be even less than this, if it be a fashionable place of worship. The seats are cushioned, and the floor at the least matted. If it be cold weather, the great object of the verger is to keep the church warm and comfortable. The temperature is carefully observed to be above temperate on the thermometer, which hangs on the centre pillars. If the air in that church were examined, it would be found to be already deficient in oxygen. Instead of 20.90, it is probably 20.70. A thousand people are assembled; each of these, on the average, produces .6 cubic feet of carbonic acid per hour, or a cubic foot during each ordinary service. A thousand cubic feet of a deadly poison are exhaled into the place; and, if there were no ventilation at all, the whole of the congregation would be suffocated before the service was over, for 3 per cent. of carbonic acid would soon be fatal. Each person uses up 16.6 cubic feet of air per hour; and, to keep down the level of carbonic acid to its natural standard, one hundred times that quantity of fresh air is required to be admitted for each individual. Dr. Parkes calculated that 2,800 cubic feet per hour per individual of fresh air were necessary to effect this object, besides the quantity required for the supply of gas-lights, which may be used, and which are used in most places of public assembly, in the way which is most likely to damage the health of those exposed to its influence—viz., by naked burners. The thousand people require 3,000,000 cubic feet of fresh air each hour to keep the poison within the natural limits, and, at least, half that amount to keep it within a safe amount. Is there any architect in the kingdom who provides this? Is there any architect in the kingdom who ever considers the subject from this point of view? The result of this neglect is the establishment of draughts, which the shortsightedness of people generally will not permit. They prefer to be poisoned by an anæsthetic painless process, rather than submit to discomfort and possible pain, with a diminution of danger. There is also another result which follows from close packing: each person is a furnace, and thus tends to raise the temperature of the place in which the people are assembled to a point as near to 98.5° as the assembly will permit. This is a law established by Providence to prevent suffocation; for, as soon as there is a rise of the temperature of the air within the room, there is an immediate effort made by the outer air to bring it to an equilibrium. The higher the temperature the more rapid the movement of the outer air to enter, and the more decided the draught. There is at once a cry, on the part of those exposed to the draught, to close the aperture, and check the benevolent designs of Providence, when the real indication afforded by the draught is that more openings are wanted. The offending opening is closed, with the certainty of greater injury being inflicted upon all the occupants of the room than it was possible for the draught to effect. It ought to be an established ordinance, that architects should be called upon to provide entrance for fresh air, as well as exits for foul air, which will correspond with the number likely to be present in the building; and we ought to call upon all those who have the care of places of public resort, that there shall be an intelligent supervision of these means; that it shall not be left to an ignorant attendant to regulate the ventilation of a place for a cold night, and alter it as temperature rises inside, or falls without. Each of these conditions ought to be watched, and provision made according to the requirements of each place; and, until these conditions are [illegible] by architects, it would be [illegible] to prevent people assembling in great numbers from, to some extent, poisoning each other. As to our dwelling-houses, when the public shall come to understand that pain is an evil [illegible] on their own part, or on the part of some other persons towards us—induced, it may be, by regulations for the prevention of the ingress of fresh air into the house in which we live—architects will see that provision is made for free ventilation of a character which shall not destroy by imperfect designs; and they will not obey the wrong instincts of our nature, by trying to shut out the [illegible] influence which pure and frequently renewed air alone can afford.

VACCINATION.—Mr. W. H. Forbes, of Durham, Cornwall, has lately received a Government grant for [illegible] vaccination in his district.

ON TAPPING THE BLADDER FROM THE PERINÆUM THROUGH THE HYPERTROPHIED PROSTATE.

By REGINALD HARRISON, F.R.C.S.,
Surgeon to the Liverpool Royal Infirmary.

TAPPING the bladder is an operation which is not often necessary; I believe it may occasionally be resorted to even when a catheter can be passed. Assuming it to be required, how is it to be done?

Tapping with the aspirator-needle above the pubes is a safe proceeding, and, for affording temporary relief, is to be recommended. A surgeon who finds himself in difficulties with a distended bladder, a large prostate, and false passages, is likely to do less harm with the needle than with the catheter, and is sure to give relief. Taking off the tension by withdrawing the urine generally permits the instrument to pass on the next trial. This method, however, can only be used for temporary purposes.

Tapping the bladder above the pubes with a trocar, for the purpose of establishing a more or less permanent drain, is very much like opening an abscess at its least dependent spot. Urine ascends the cannula against gravity, and the products of inflammation of the bladder, usually present in some degree, remain behind in the pouch, undischarged. Tapping through the rectum requires the retention of the cannula in the intestine, and is thus an obstacle to defæcation. Forcing the end of the catheter through the enlarged prostate is an unsurgical proceeding, not to be entertained. Tapping the membranous urethra leaves us in the position of having the obstructing prostate behind the opening. There is a point in the wall of the bladder, unconnected with peritoneum, through which a trocar and cannula may safely be passed: I refer to the prostate gland, which in old men, where paracentesis is more frequently required, often affords a considerable area for the operation. I will illustrate this method by the following case, only premising that over twelve months ago I recognised its propriety, and tested it on the dead subject. I then had the instrument made for the purpose; but, though having considerable opportunity for dealing with retention of urine under all circumstances, it was not till quite recently that a case in point presented itself. I mention this as explaining how I came to be prepared, instrumentally, for doing that which I will briefly describe.

N. D., aged 84, was admitted into the Liverpool Royal Infirmary at 2 A.M. on November 4th, 1881. My house-surgeon, Mr. Laimbeer, found him bleeding from attempted catheterism, with a large prostate, and a distended bladder. Recognising the urgency of the case, and finding catheterism impracticable, he emptied the bladder with the aspirator above the pubes. I saw the patient a few hours afterwards, and found that he had not passed urine since, and that no catheter could be introduced. His tongue was brown, and he was much exhausted. Later on, I again visited him, when the bladder had become fully distended.

I then had him placed under ether, and succeeded in passing a gum-elastic prostatic catheter. Beyond demonstrating that the difficulty had been overcome, I declined letting any more urine be drawn off, for a reason arising out of recognising that either the catheter must be retained, or re-introduced when required; neither of which proceedings I was disposed to recommend.

Retaining a catheter in the bladder of an old man, somewhat childish and disposed to remove any appliance if not closely watched, is not easy; and, when it is done, it often ends with death, from cystitis, pyelitis, and exhaustion. This was a case where, in my judgment, it was wisest to establish a permanent drain; and to do this in the manner on which I had determined, required a tense, and not a flaccid, bladder. Taking a trocar which had been made for the purpose, with a silver cannula, I introduced it in the median line of the perinæum, three-quarters of an inch in front of the anus, and pushed it steadily through the prostate into the bladder, at the same time retaining my left index finger in the rectum for a guide. On withdrawing the trocar, a large quantity of ammoniacal urine escaped. The cannula, being provided with a shield, was secured in its place by tapes much in the same way as a tracheotomy-tube. A piece of India-rubber tubing was attached to the portion of cannula which projected beyond the shield, and conveyed the urine into a vessel placed at the side of the bed. Through this tubing urine continued to dribble. The patient was at once made comfortable by this arrangement, and in forty-eight hours he was up, sitting in an easy-chair—an important matter with old persons. To permit of this, the rubber tubing is shortened during the day-time, the end of it being tucked through a light abdominal belt, where it is compressed by a small pair of bulldog-forceps, which are removed when the patient desires to pass urine. He is quite as well as most men of eighty-four years of age are. He gets up daily, takes his food, and sleeps comfortably, either on his back or his side, without any narcotic, and is quite free from any urinary inconvenience other than wearing his tube. During the night, his sleep is not broken by calls to micturate or pass catheters, as his urine runs off by the tubing as it is excreted; whilst, in the day-time, when he is up and about, his act of micturition practically resolves itself into something equivalent to the turning of a tap. His urine, which had been fetid and ammoniacal, is now nearly normal, the bladder being readily washed out by applying a syringe to the cannula twice a day. On two or three occasions, the cannula has accidentally slipped out, whilst the tapes were being changed, but has been readily replaced by the nurse. The somewhat enthusiastic manner in which the patient compares his present, with his past condition, cannot be passed by entirely unnoticed.

The operation was devised much on the same lines I endeavour to take in commencing my lithotomy incision—namely, the selecting of a point in the perinæum which endangers no vessel of importance. My object in planning the operation, was to obtain what I can best describe as a short low-level urethra, adapted to the altered relations of the bladder to the prostate when the latter becomes enlarged, for the purpose of securing the most complete drainage. I should add, that since the tapping, as far as we are aware, the patient has only passed a few drops of urine by the urethra.

What the future of the case will be, I cannot say. Apparently, the old man has a prospect of living comfortably for an indefinite period; but, if it were not so, and he should sink before this communication comes under the notice of my professional brethren, I should never hesitate again to resort to this proceeding, under similar circumstances, for the complete comfort it has so far afforded my patient.

ON THE RELATION OF ANTEFLEXION OF THE UTERUS TO DYSMENORRHŒA.

By LOMBE ATTHILL, M.D.,
Master of the Rotunda Hospital, Dublin.

IN the number of the JOURNAL for Saturday, October 29th, there is published an abstract of a paper on the above subject, from the pen of Dr. Herman, with much of which I agree. I concur in the main with his propositions 1, 6, 7, and 8, but disagree entirely from 5, viz., that painless menstruation is as common when the uterus is anteflexed as when it is not; and still more decidedly from 9, that dysmenorrhœa and anteflexion "are not cause and effect, but merely a coincidence". This last is an error of so grave a character, so calculated to lead to malpractice, that I must point out how a careful observer as Dr. Herman evidently is has been led into a mistake by building up a theory on the anatomical examination of the uterus in women who were probably in general free from painful menstruation, and omitting to study during life the cases in which it occurs, with equal care. A *post mortem* examination, made without a knowledge of the previous history of the subject, is nearly always useless; and it is seldom that we are in a position to prove the exact condition of the uterus in cases of dysmenorrhœa, as the disease rarely proves fatal.

But while I agree with Dr. Herman that there is no clear anatomical evidence that anteflexion causes any hindrance to the escape of the menstrual flow, I hold—and, from careful and protracted observation, am convinced—that well-marked anteflexion of the uterus is a common and important factor in cases of, and frequently a primary cause of, dysmenorrhœa in sterile women; and this, I believe, no experienced gynæcologist can for a moment doubt. My opinion on this point is thus expressed in my *Lectures on the Diseases peculiar to Women*, sixth edition, p. 55: "Painful menstruation is frequently observed in women in whom the uterus is flexed; but though flexions of the uterus may, and certainly do, interfere with the exit of the menstrual flow, they seldom do so unless the flexion be complicated by the existence of chronic inflammation." It is because gynæcologists often overlook the existence of this latter condition, that great confusion occurs and contradictory statements are made on the subject.

I hold with Dr. Barnes that anteflexion, in the vast majority of cases, is a congenital condition. I may be asked: How is it, then, that often menstruation is performed in a perfectly normal manner for years, and that then, for the first time, pain is experienced? The answer is obvious; the flexion was of no importance till an additional element was introduced, that being the occurrence of chronic endometritis; but

I hold that endometritis would not have occurred in the great majority of cases, had not the flexion previously existed.

A patient at the present moment under treatment in the Rotunda Hospital is a good illustration of the truth of the foregoing statement. Mrs. —, aged 30, married ten years, has never become pregnant. She enjoyed perfect health up to and for some time subsequent to marriage; but within a few months after marriage, she began to suffer discomfort, and then actual pain, at each menstrual period. As time passed on, she became worse and worse, till her sufferings became so severe that she sought relief, and was admitted into the auxiliary hospital. On examination, the uterus was found to be markedly flexed; the sound penetrated with ease, but on its point touching the fundus the patient complained of severe pain. The uterus measured nearly three inches in depth; and a bimanual examination, which was easily made, also proved that the fundus was much enlarged. Doubtless, I shall not have any opportunity of proving, by a *post mortem* examination, that dilatation of the cavity of the uterus existed in this case; nevertheless, I am quite satisfied that I am dealing with a case of congenital anteflexion of the uterus, in which chronic endometritis of long standing has resulted in bringing about hypertrophy of the uterine wall, with dilatation of its cavity.

I have already, at page 189, sixth edition, of my *Clinical Lectures*, published my view of the "pathology and causation" of this affection. It is to this effect: that it occurs in women in whom either the cervical canal is contracted and the cervix conical, or in whom congenital anteflexion exists; that, before marriage, neither of these conditions has sufficed to cause any difficulty in the exit of the menstrual discharge, but that, under the influence of the excitement caused by sexual intercourse, a greater quantity of blood has been determined towards the uterus and ovaries; the mucous membrane lining the cavity becomes more swollen than previously, and a somewhat increased amount of blood is, at the menstrual period, secreted from its surface. The swollen condition of the mucous membrane at the os internum makes the originally narrow passage still smaller; the menstrual flow is retarded; and, as a result, small clots form, they plug the orifice, and are expelled with pain. Relief for a time may be obtained, but the same process recurs over and over again; and, in time, permanent irritation of the intra-uterine mucous membrane is excited, chronic endometritis is set up, and the cavity of the uterus now always contains a quantity of viscid mucus which slowly exudes. In some cases, by pressing up the end of the speculum, this can be forced out. In the end there is permanent dilatation of the uterine cavity, with hypertrophy, in many cases, of the uterine wall, while the constitution at large suffers seriously.

I do not wish to prolong this paper, and therefore omit all reference to many debatable points raised by Dr. Herman; but I must protest against the treatment of congenital anteflexion by pessaries of any kind. They seldom, if ever, do any good; at most, they give for a time some trifling relief by supporting the enlarged fundus. At the present moment, I have a lady under my care, married some years and sterile, who has worn a cradle-pessary for fourteen months, and she tells me she has not benefited in the least. Her case is identical with the one just related, only she is but three years married.

There is but one way of curing these cases; not by attempting to straighten the uterus, for that is impossible, but by division of the cervix so as to give free exit to the viscid contents of the uterus; and then treating the unhealthy intra-uterine mucous membrane. This latter proceeding in sterile women, or in virgins, is useless till a free exit is secured for the tenacious mucus during the intermenstrual period, as well as for the menstrual discharge.

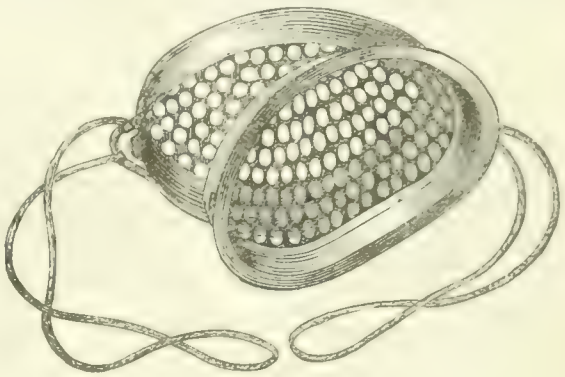
In virgins, in whom dysmenorrhœa occurs as a consequence of congenital anteflexion, the course of the disease is the same; only the endometritis in them is induced by exposure to cold, prolonged fatigue, whether in dancing and riding among the upper classes, or among shop-assistants, dressmakers, etc., by excessive fatigue, bad air, insufficient food, etc. The treatment must be the same. Of course, I lay stress on general medical treatment as well, but this will prove useless unless the local disease be cured.

BRENTFORD.—In his report on the health of this district for the quarter ending 30th September last, Mr. Williams reports a death-rate of 16.8 per 1000, a rate almost exactly similar to that returned for the corresponding quarters of 1879 and 1880. The principal causes of death were diarrhœa, which caused nine deaths; phthisis, six deaths; and convulsions, five. Two deaths were registered as due to typhoid fever, one to measles, and one to whooping-cough. Of the 50 deaths which happened during the quarter, 22 were infants under one year of age. One case of small-pox was reported, though the district is now quite free from this disease, as well as from scarlet fever; but there still remain a few cases of whooping-cough, measles, and typhoid fever.

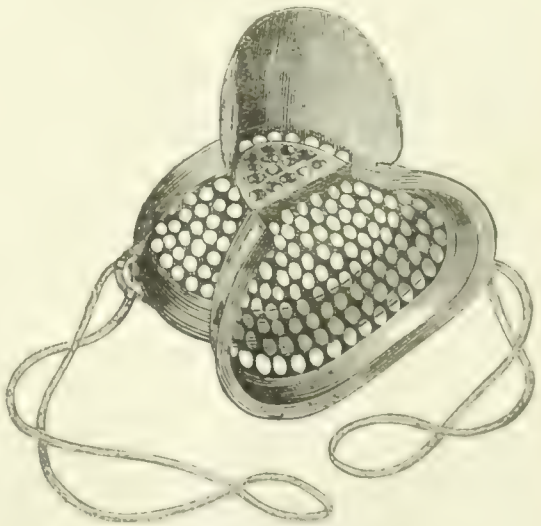
ANTISEPTIC INHALATIONS IN PHTHISIS.

By ROBERT SAUNDBY, M.D.Ed.,
Assistant Physician to the General Hospital, Birmingham.

As the use of antiseptic inhalations has proved useful in phthisis in my own practice, and is supported by those who, like my friend, Dr. Sinclair Coghill, have special opportunities of estimating the value of treatment in this malady, I think it is important that we should try to improve the necessary apparatus as far as possible. I have been using for the last year an inhalation-respirator made for me by Mr. Best, instrument-maker to the General Hospital, of Sumner Lane, Birmingham, and which is figured in the accompanying woodcuts.



The naso-oral form, which I have employed almost exclusively is very well shaped, is light, comfortable, well ventilated, and worn by patients without complaint of inconvenience or fatigue. The antiseptic I have found most suitable is the oil of eucalyptus, in doses of five to ten drops poured on the flax twice daily.



I do not claim, nor do I think we can rationally expect, to cure any cases by them; but many of my patients have found great relief from their use, mainly in checking purulent secretion and allaying cough.

CURIOUS MALFORMATION.—A curious case of malformation has occurred in the practice of Dr. Simon Kovrig, of Szamosujvar in Hungary. The child, which was still-born, has a "Janus head." At a point corresponding to the centre of the normal forehead, commence two completely developed faces with four eyes, two mouths, and two noses. Posteriorly, there is an ear on each side, and at the point of fusion of the faces anteriorly a third undeveloped ear is to be seen.

IS SALICYLIC ACID A SPECIFIC FOR ACUTE RHEUMATISM?

By LEWIS SHAPTER, M.D.Cantab.,
Physician to the Devonshire Hospital, Buxton, and Medical Officer to the Institution for the Deaf and Dumb.

UNDER this heading Dr. Latham, in the JOURNAL for December 10th, made some suggestive observations on the treatment of acute rheumatism. Before offering a reply to his question, it seems advisable to consider, in the first instance, the true clinical position of the disease under consideration. There appear to be two groups of cases which have hitherto been massed together as acute rheumatism or rheumatic fever; and these terms have been regarded as synonymous, although their literal interpretation would appear to indicate variety of condition. The opinion has certainly been forced upon me from clinical observation that cases should primarily be divided into two main varieties:

1. Those to be termed rheumatic fever, where fever is the predominant condition, and where affection of joints is of less intensity and quite disproportionate to the degree of fever, the disease tending to affect muscular tissue rather than sero-fibrous tissues, and the character of cardiac complications being signified by the occurrence of myocarditis. This disease should be treated as a fever, and probably guided to its termination. Salicin, quinine, and salicylic acid, will have their value as antipyretics. The class of vascular sedatives, and remote antacid diaphoretics, will have their value as febrifuges; but the class of so-called "specific" remedies, when used as such, have probably failed.

2. Those to be properly termed acute rheumatism; or, more significantly, polyarthritis acuta, where shifting affection of the joints is the predominant symptom, and the sthenic inflammatory fever usually corresponds to the severity and extent of the local symptoms. Here sero-fibrous tissues are involved: the metastasis of joint-lesion appears to point to disordered innervation, whether this be indirectly the result of neurilemma becoming involved or not; and the complications, moreover, tend to affection of the sero-fibrous structures of the heart or to endocarditis and pericarditis. It is in this disease that the class of so-called specifics have from time to time received a degree of acceptation; and, it is worthy of note, that the majority of these specific remedies should be properly classified as powerful nervine tonics. The treatment which has proved most successful in my hands in these cases, is the application of blisters above the affected joints, which serves the double purpose of allaying pain and rendering the urine alkaline; and the administration at the same time of propylamine, which, as a powerful alkaline remedy, controls the disease. So convinced, indeed, have I been of the effect of propylamine alone (without the use of blisters) in relieving the pain of joints and lessening fever, that a new remedy, such as salicylic acid, with its remedial effect as an antipyretic, has not fully commended itself. In the few cases also in which I have used it, the resulting head-symptoms (whether from the impurity of the drug or not, as Dr. Latham suggests) have certainly been alarming. From the experience of others, however, salicylic acid (I am not speaking of salicylate of soda, which is also a remote antacid) has proved a remedy of great power; and the best thing that at present can be wished for it is that it will not yet be relegated to the class of "specifics" in acute rheumatism; for if so, it will probably follow suit with propylamine, blisters, tincture of perchloride of iron, quinine, alkalies and lemon-juice—all have had their day as so-called specifics, and each in its turn has given way to its more novel and more popular successor. The reason of this appears to be that its true action has not been sought in its acceptance as a "specific"; and that clinical investigation has tended, in the use of the thermometer as a guide, to lose sight of more general observations, such as: the character of the fever, is it sthenic or asthenic?—the temperament of the individual, and whether there be plethora or anæmia—and, lastly, the special clinical characters of the disease as to the development or otherwise of what are termed "hæmic" murmurs (which are common), and the pathological definition of complications that may arise. When it is said that salicylic acid is a "specific" in acute rheumatism, may it not very reasonably be asked what is meant pathologically and therapeutically by the use of this term "specific"? Taking Binz as an authority, we find that internally the effects of salicylic acid are stated to closely resemble those of quinine, even to the production of ringing in the ears and transient deafness. Large doses alone act as a direct poison on the heart and respiratory organs. It acts as a poison on many forms of protoplasm, by considerably reducing their power to absorb oxygen. Even in small doses it checks a variety of processes which depend on decomposition; but, like quinine, it does not interfere with the normal ferments of the organism itself. It causes a marked reduction of temperature in many febrile diseases; but the fall of temperature is independent of any alteration in the pulse or respiration, and may occur without any perceptible deviation of either from its previous state. Its use is in the most various febrile conditions, and in internal conditions accompanied by decomposition, such as gangrene of the lungs, etc. In some febrile states, such as phthisis and erysipelas, and especially acute rheumatism, it has a better effect than quinine, while in malarial poisoning it is inferior to it.

Now, in speaking of salicylic acid as a specific, is it contended that, in addition to the results following its marked antipyretic action, it has also an action peculiar to itself in controlling acute inflammation of sero-fibrous structures? or, in other words, is it curative of a condition which may be described as polyarthritis acuta? If salicylic acid is primarily an antipyretic only, and the most powerful one we possess, then Niemeyer, in his observations on the use of quinia, appears to have prophetically shadowed forth the true position of salicylic acid. "Quinine is no more a specific in acute articular rheumatism than in pneumonia, typhus, and many other diseases in which it is nevertheless an important remedy. But it is one of the most powerful antipyretics, and it should be used when the fever is high. After the experiments of Weber and Billroth, there can scarcely be any doubt that the quality of the blood in fever patients decidedly favours inflammatory disturbances of nutrition. If this be so, an antipyretic treatment has also an antiphlogistic action; and quinine, as well as other antipyretic remedies, would answer, not only the symptomatic indications, but also the indications from the disease, particularly in acute rheumatism, where, while the fever continues, new joints are continually becoming affected." Can we say any more than this of salicylic acid?

IS NOT SALICYLIC ACID A SPECIFIC FOR ACUTE RHEUMATISM?

By WILLIAM STRANGE, M.D.,
Senior Physician to the Worcester General Infirmary.

DR. LATHAM asks this question in the JOURNAL of the 10th instant. At first, I was inclined to answer, Yes, it is. Second thoughts, however, which are sometimes best, have induced me to put it in the interrogatively affirmative, leaving others, if any feel able, to make the simple affirmative reply to Dr. Latham's question.

But a satisfactory reply can hardly be given, until it is agreed what is meant by a specific remedy. Quinine for ague, mercury and iodide of potassium for syphilis, are, I suppose, regarded as specifics; and if this be the sense in which Dr. Latham puts his question, I, for one, should reply in the affirmative. But if salicylic acid and its compounds only cure rheumatism by sweating and relieving tension, then are they no more specifics than are potash, opium, and the neutral salts, which relieve by the same means.

It may be asked, Wherein does a specific remedy differ from an antidote? In Hooper's *Medical Dictionary*, we find a specific defined as "an infallible remedy for the cure of a disease"; whilst antidote is said to be a "remedy". It is generally thought that quinine cures ague by attacking, in some way not very well understood, the *materies morbi* in the blood—possibly by preventing the periodical reproduction of microzymes; and that mercury and iodide of potassium act by neutralising, in some way, the syphilitic primary virus in the one case, and by attacking the secondary products found between the virus and the tissues in the other. Wherein do these processes, supposing them to take place, differ from the action of an antidote? An alkali meets a mineral acid poison in the stomach, and neutralises it chemically; other substances meet the vegetable alkaloid poisons in the blood, and neutralise them—*e.g.*, opium and belladonna—vitally. A truly specific remedy, then, *i.e.*, that which cures the disease infallibly, must be of the nature of an antidote, meeting the diathetic poison in the blood, as others do chemical poisons in the stomach, and neutralising its operation.

Now, that salicine, and especially its compound the salicylate of soda, are entitled to this high place in positive therapeutics, I am quite convinced, and I think most hospital physicians will agree with me in that opinion. We give twenty grains, more or less, of the salicylate every three or four hours in a case of acute articular rheumatism; and in from three to five days, occasionally prolonged to nine, the temperature, which ranged from 103° to 106°, falls to nearly or quite the normal point; whilst the pain, and a great part of the swelling, disappear at the same time. Quinine can do no more than this in ague,

nor large doses of the iodide of potassium in syphilis, nor colchicum in gout.

I have now treated over sixty cases of acute articular rheumatism in the Infirmary here since salicine has come into use. In no case has there been any severely unpleasant result, nor long delay in defervescence and subsidence of pain and swelling. Careful watching is the chief thing required; and this is the reason that the remedy has gained so much greater repute in hospital than in private practice. Relapses will occur if the remedy be left off, or even reduced in quantity, too soon. In such a case, full doses should be resumed immediately. There is, in most cases, great anæmia left to contend with, requiring iron as well as quinine for its cure. Without now entering into statistics, I can feel assured that the stay in hospital has been greatly less here under the treatment of the salicylates, than under the potash or any other former mode of cure.

ANTISEPTIC SURGERY.

By WILLIAM MAIN, M.D., New Ferry, Birkenhead.

THE cause of the occasional failures in antiseptic surgery is often very obscure. A short time ago, I assisted in a case of amputation of the breast, where the operator—an experienced hospital surgeon who habitually uses the antiseptic method—took every possible care in his arrangements; yet, on the third day, a blush on several parts of the wound warned us too surely of the presence of septic germs; and, as we expected, the wound then began to suppurate, and did so as freely as if no precautions whatever had been taken to prevent it. This disappointment made me reflect on the possible cause of failure in this, and occasionally in other carefully managed operations.

When reasoning on antiseptic surgery, we must constantly bear in mind the well known experiments of Professor Lister and Mr. Tyndall. In the hands of the former, as will be remembered, the urine, in the Florence flask with the depressed spiral tube, remained clear and sweet, and, I rather think, continues in the same state at the present day; while that in the flask with the straight upright stem became turbid and putrid in a few days. Mr. Tyndall, again, arrived at the same result, but in a different way. He allowed a dust-tight box to remain completely at rest till all the dust-particles had settled, as was proved by a transmitted beam of light being no longer visible. He then carefully introduced vegetable infusions, which remained clear and sweet in the box, while they decomposed rapidly when exposed to ordinary air.

With these facts before us, it occurred to me that, though the method of operating under carbolic spray very generally prevents septic effects, yet there can be no doubt that it occasionally fails where every known precaution has been taken; and, in the many cases where it succeeds, the good results may be effected in one of two ways, or by a combination of both. First, the carbolic acid in the spray may destroy the vitality of the septic germs by contact in the air; or, secondly, the particles of spray may attach themselves to the germ-particles in the air, and, when the spray-stream is properly directed, carry them over the wound, and thus filter or sweep the air, as it were, around; or, thirdly, the spray may, if so directed, sweep down the germ-particles in and upon the wound, where they may become destroyed by the carbolic lotion. In order to test the vitality of bacteria in carbolic acid, I put two drachms of decomposing urine, full of these interesting creatures, into an ounce of carbolic lotion of the strength of 1 to 80; and other two drachms of the same urine into lotion of the strength of 1 to 40. After twenty-four hours, I found these little creatures as active and lively as ever in both solutions. The result of this experiment, and the mysterious failure in some carefully conducted cases, make me suspect that carbolic spray during an operation may probably act beneficially, not by killing the septic germs, but rather by sweeping these germs from the air, and carrying them away from the wound. When we recall the results of experiments, this *modus operandi* would appear to be quite possible, if not even probable; and further, may not some of the mysterious failures have been owing to the spray having been directed at and not over the wound, which would in this case become crowded by septic germs? and we have just seen that bacteria, at any rate, are not always killed by contact with carbolic lotion. Should this reasoning not impress others as it does me, I trust that surgeons may at least have some regard to this point, and try the results of a non-poisonous spray, instead of the carbolic lotion commonly used. For this purpose, I would suggest a mixture of glycerine and water. When these are mixed in the proportion of 1 to 16, I find the specific gravity is 20 above that of water; so that, if such a lotion were sprayed across or over, and not at a wound, the result, I trust, may be even more successful than carbolic lotion has proved to be. In any case, it is worth a trial, as the result would be interesting.

I am not aware if Professor Lister brought forward the direction of the spray as a possible source of success or failure in antiseptic surgery; but, if he did so, certainly at the present time it is not in the least attended to.

CLINICAL MEMORANDA.

AN UBIQUITOUS POISON.

IN relation to the article in the JOURNAL of November 26th, upon lead-poisoning, the following case may be of some interest. A dressmaker, aged 30, who was attending at the Leeds Dispensary, was found to have a distinct blue line upon the gums. Under potassium-iodide, this line disappeared in a few weeks or months (the paper showing the precise dates is lost). It was impossible at first to discover any source of lead-poisoning, though inquiries were made about, as it seemed, every article likely to furnish lead; the other symptoms—furred tongue, constipation, general debility, a peculiar inflammation with œdema of the lips, slight wasting in a woman naturally very thin—did not then appear decisive, and I was beginning to think that the blue line must have been caused in some other way, when I accidentally learned from a merchant that silken thread, being sold by weight and not by length, is sometimes adulterated with sugar of lead. Upon now questioning the patient, she informed me that it had been a common practice with her, when at work, to hold silk (and also other kinds of thread) in her mouth, and that she had done this the more readily with silk, inasmuch as it often had a sweet taste.

Upon further inquiry, I learn that it is well known that the silk thread of the best makers is tasteless, whereas some inferior thread is sweet. My informants did not themselves know the reason of this difference.

T. CHURTON, M.D., Leeds.

RAPID RECURRENCE OF MEASLES.

ON November 3rd, I was called to attend Robert C., aged between three and four years, and found him suffering from a mild attack of the measles. Though rather more prostrated than one might have expected from the mild nature of the attack, he soon recovered, and my attendance did not extend over a very few days. On the evening of December 6th, I was again called to him, and found him covered from head to foot with a well developed rash of measles.

The boy's mother told me he had got quite better from the first attack, and was well up to a day or two before, when he commenced to sicken, and that on the previous day this rash had commenced coming out. A younger child was also pointed out to me in whom the rash was just dying away after a short illness, for which, there being no severe symptoms, medical advice had not been sought.

I never heard of a second attack so soon after the first; and a brother practitioner, older than myself, tells me he never did: hence I thought this case might perhaps be worthy of record. I have only to add that, in both the attacks, all the usual symptoms were present; and that the father (a sweep) is a miserably poor man inhabiting a wretched dirty little hovel with his family, and that cleanliness, comfort, and proper food are unfortunately but too little known to them.

J. J. BYRNE, Preston.

OBSTETRIC MEMORANDA.

THE TREATMENT OF *POST PARTUM* HÆMORRHAGE.

THERE can be no situation of greater gravity than a delivery followed by flooding; no occasion on which the practical skill of the medical attendant will be more called on than to decide there and then what is the best thing to do. It behoves us then to review from time to time the resources with which to combat this alarming complication, and to determine, as far as may be, what course to follow when placed face to face with it.

The injection of the perchloride of iron, as recommended by Kiwisch and Barnes, is a form of treatment which many hesitate to adopt. The fear of the remedy proving ultimately as disastrous as the hæmorrhage, no doubt often prevents it from being applied; still it is one of our most powerful styptics, and, all other methods having failed, no one would be justified in not using it; the eminently successful cases lately recorded by Drs. Belfield and Steel testify to its great value. Dr. Atthill of Dublin has given us a valuable aid—the injection of hot water; free from danger, it stimulates the uterus, and seldom fails to

check the flow; its efficacy is often increased by alternating it with injections of iced water. Ergot of rye is an old friend, but unreliable, and generally slow. Oil of turpentine, from its combined styptic and stimulatory properties, is in many cases far preferable. I have had some excellent results with turpentine, given in half-ounce doses (BRITISH MEDICAL JOURNAL, March 23rd, 1878). The rapidity with which its physiological action becomes manifest is greatly in its favour. Compression of the aorta, as first practised by Baudelocque, has not much to recommend it; the hæmorrhage being principally through the venous sinuses, direct pressure on the aorta cannot therefore affect it to any great extent. The last aid I shall mention, and perhaps the most important of all, is the steady and continuous external pressure of the hand on the uterus; by this means, we can tell its exact condition, and often regulate the slightest tendency to relaxation. As an invariable rule, the placenta having come away, never remove your hand from the patient's abdomen till you can replace it with a good binder; and you will not very often be called on to treat *post partum* hæmorrhage in your own practice.

WILLIAM CLIBBORN, B.A., M.D., Honorary Surgeon,
Birmingham Lying-in Charity.

SURGICAL MEMORANDA.

EXCISION OF BOTH ELBOW-JOINTS.

IT too often happens that cases, after leaving the hospital, are not again heard of, and their after-course remains unrecorded. The report of my case of excision of both elbow-joints, which appeared in the JOURNAL of December 3rd, 1881, brought the history up to November 1880. The following quaint little note from the patient, received about a fortnight ago, contains an account of his condition a year later. It is dated, Jersey, November 13th, 1881.—"Dear Sir: I now inform you that my arm is quite well, and I hope, by taking care of it, I will not have to suffer any more with it. Dear Sir, I have been bathing every day during the summer, and I found it did my arm a great deal of good, and I find it double as strong as when I left the hospital. Dear Sir, I am learning my trade as a compositor, and I like the trade very much indeed, if it only agrees with my health; however, it agrees with me very well so far. I have only been at the trade three months, so I can't very well tell yet if it will agree with me. I must now conclude with my best respects to all. I remain, your obedient servant, G. J. C." The right elbow was excised on March 22nd, 1876, and the left on March 6th, 1879.

R. CLEMENT LUCAS, B.S., F.R.C.S.,
Assistant-Surgeon, Guy's Hospital, Finsbury Square.

DUPUYTREN'S CONTRACTION OF THE FINGERS.

DR. MYRTLE, of Harrogate, I observe, in his communication in this JOURNAL of December 3rd, on Dupuytren's contraction of the fingers—says, that this condition "is never met with in women;" and, further, quotes Mr. Adams, who says, more guardedly, "I have never seen it in women." This curious affection is doubtless of very rare occurrence in the female sex, but is not altogether unknown. I have at the present time an unmarried lady under my care who is in her eighty-ninth year, the fingers of whose right hand began contracting about two years ago. The hand is now about three parts closed, and there is much puckering of the skin of the palm. I am, moreover, informed that one of this lady's sisters, who died at the age of seventy, suffered from a similar contraction of the fingers of the right hand.

T. A. CARTER, M.D., F.R.C.P.Lond., Leamington.

SPONGE-GRAFTING.

A SHORT note of two cases, where loss of tissue was supplied by sponge, may be interesting, as a small item of evidence in favour of this manner of treatment. Having read some papers by Mr. D. T. Hamilton on the subject, I was induced to try it, first in the case of a finger, the side of which had been shaved off by a plane; and secondly, in a penis, where, subsequently to operation, there had been some loss of substance. In each case, fine Turkey sponge was applied to a healthy granulating surface, with the result that in four days there was firm adhesion; and gentle traction on the sponge caused a good deal of pain. Moreover, the sponge could not be detached without lacerating the subjacent tissues. In three weeks a thin blue surface of new tissue was covering the edges of the sponge, which was apparently sinking by degrees into the flesh—in reality, of course, the flesh was rising up round it. In both cases the sponges were permeated with blood-vessels by the fourth day, as was proved by pricking them with a needle, when they bled freely. There does not at present appear to be any sensation in the sponges, when pricked or pinched.

The object of the grafting was, in the first case, to restore shape to the finger; and in the second to prevent cicatricial contraction, which would be extremely awkward in such an important body; for this contraction would probably have bent the anterior two thirds of the organ in a direction pointing downwards and backwards.

I hope to give full notes of both these cases, when they are completely healed, with details of the preparation of sponges, dressings, etc., which differ somewhat from those described by Mr. Hamilton.

THOS. SANCTUARY, M.D., Hayle, Cornwall.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

UNIVERSITY COLLEGE HOSPITAL.

LINEAR RECTOTOMY FOR SYPHILITIC STRICTURE OF THE RECTUM.

(Under the care of Mr. BERKELEY HILL.)

[FOR the notes of this case we are indebted to Mr. STANLEY BOYD, F.R.C.S., Surgical Registrar.]

The patient, E. W., a married woman, aged 26, was admitted on May 10th, 1881. She stated that, up to about three years before, her health had been good, but that since then she had never been well. The history of her illness pointed very clearly to the occurrence of syphilitic infection in the spring of 1878. She first experienced some pain about the vulva, followed by a lump in the groin, which broke and discharged. At about the same time she had a sore-throat, general eruption of the skin, and fall of hair. Soon after these symptoms, she began to experience pain during defæcation, and some small piles appeared; she noticed also that the fæces became smaller, and that she had some difficulty in emptying the bowel. Seven weeks before admission, her sufferings induced her to consult a medical man, who ligatured some of the piles; but, finding that the disease was of serious extent, he sent her to University College Hospital. On admission, the patient stated that the bowels were always confined, and that there was much pain and straining at stool; the motions were stained with blood and matter, and there was a constant discharge of blood and matter from the anus. When examined, the margin of the anus was found to be indurated for about two inches. Close to the outlet it was raised in several places into ulcerating nodules; but there were no piles, properly speaking. The gut, for about two inches above the outlet, was uneven and ulcerated, and so much contracted that the finger was clipped as it passed inwards. The stricture terminated at the upper end by a sharp edge, resembling a band; through this the tip of the finger passed. The patient was ordered to take iodide of potassium, and to have the bowels regulated by castor-oil; and, to relieve the ulceration, she was to lie in bed continuously, while the ulcers were dressed with lotion of acetate of lead. During the following week, the ulcers, though less œdematous, showed no disposition to heal, and the distress consequent on defæcation was not diminished.

On May 18th, the patient having been brought under the influence of ether, Mr. Hill introduced one finger into the rectum; he then passed a large curved needle, threaded with silk, through the skin in the middle line just in front of the coccyx, and pushed it on behind the rectum until it had penetrated to the cellular tissue between the sacrum and wall of the rectum above the indurated part. The point of the needle was then carried into the rectum, the silk thread seized with forceps, and drawn out through the stricture; the needle was then withdrawn the way it had entered, leaving the silk ligature in its track. To the silk ligature was then attached a strand of wire, and the wire introduced into the track of the needle by pulling on the silk. The two ends of the wire were then attached to an *écraseur*; by tightening the wire the included tissues were divided in the middle line, with very slight hæmorrhage. A morphia suppository was introduced, and the wound was plugged with dry lint.

On the following morning, the temperature was a little raised (100.8°); there had been a good deal of vomiting, but no pain. On May 21st, the wound had begun to granulate; the temperature had fallen to 99.6°. The bowels were opened by castor-oil on the 23rd.

On May 25th, a week after the operation, the temperature being then normal, and the patient free from pain, Todd's dilator was introduced, and expanded to three inches in the antero-posterior direction, and two

prove the facts which they have put forward regarding their claim to pension on retirement, and this they assert they are fully able to do. The steps which the militia surgeons propose to take involve a considerable outlay of money, as the services of experienced lawyers and counsel are required for carrying on the proceedings, and this cost will be further increased if the petition should be opposed. As, however, the question is one which concerns a large number of militia surgeons, and as the result, if successful, will be of material benefit to them, it is not anticipated by those who have taken the matter in hand, that there will be any great difficulty in raising the amount necessary for the purpose.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

It has come to the knowledge of the Council of the Poor-law Medical Officers' Association that very defective arrangements exist in our large urban workhouses, and possibly provincial ones, as regards the supply of linen to menstrual women. The unsanitary consequences probably resulting from this neglect are of so much importance, that the Council venture to suggest to workhouse medical officers their inquiry into the provisions for the same.

HEALTH OFFICERS' ANNUAL REPORTS.

Sir,—As we are just entering upon a new decade, and those of us who hold the position of health-officers will soon have to make preparations for the writing of our annual reports for 1881, the first year of the new decade, it strikes me, is a convenient season for suggesting that some endeavour should be made to secure something like uniformity in the statistical records which for the future each sanitary authority will contribute to the national stock.

The present unsatisfactory condition of our national vital statistics is due to the fact that—with respect at least to the large urban districts, from which the most reliable and valuable statistics might have been expected—the health-officers of these localities are working solely with regard to local requirements, and entirely without reference to a national statistical system; and although many of the medical officers of health attached to the large English towns are gentlemen of large experience, whose reports are of considerable local value, yet these documents, when considered as local contributions to a national system of vital statistics, are well nigh worthless, solely from want of uniformity in the tabular forms employed. I do not believe that I could now lay my hand upon half-a-dozen of the large number of urban health-reports annually published in England, the statistical tables of which are sufficiently uniform in character to enable one to extract, without troublesome calculation, such rudimentary information as would furnish a reasonably good basis of comparison between the sanitary conditions of the towns to which severally the reports referred.

It may not be generally known, but I am happy to be able to inform the society that the Registrar-General is now engaged—of course, with the help of his statistical superintendent, Dr. Ogle, and in conjunction, I believe, with the medical staff of the Local Government Board, in the task of revising the classification of diseases, compiled by Dr. Farr, which has been so long adopted by the Registrar-General in his annual reports.

On this account therefore, in addition to the grounds previously stated, the present seems to me to be an opportune season for the inauguration of something like uniformity of basis in what must, after all, be the foundation of all future sanitary action and legislation—the vital statistics of the country.

I am, of course, aware that the Local Government Board have issued two rudimentary forms for the use of officers attached to the rural and smaller urban districts over which they have present control; but the object of my present communication is the attainment of a similar uniformity in the statistical forms used by the health officers of urban authorities generally, and especially those containing populations of 30,000 and upwards. And, further, inasmuch as we may shortly hope to have a general national measure providing for the notifications of infectious cases, it seems to me that any system of classification for sanitary purposes would be very incomplete which did not include, collaterally with an analysis of the death-roll, a detailed arrangement, on the same basis, of the cases of infectious sickness which are not necessarily fatal. Now, I think, we shall all agree that no statistical forms issued by local associations or by individuals are likely to enjoy more than very local or partial adoption. I therefore venture to suggest that the North-Western Association of Health Officers should petition the President of the Local Government Board that he should instruct the Medical Department of the Board to prepare and issue officially a set of forms such as they would recommend for adoption by medical officers of health acting for large urban authorities. I feel certain that such a set of forms would be gratefully received and loyally acted upon by health officers generally—not of necessity to the exclusion of other forms suggested by local consideration, but as the standard minimum contribution which, I believe, every health officer is willing, and ought to contribute to the sanitary literature of the country.—I am, etc.,

FRANCIS VACHER.

Copy of Memorial agreed to by the Society and presented to the President of the Local Government Board.

To the Right Honourable John George Dodson, M.P., President of the Local Government Board.

The Memorial of the North-Western Association of Medical Officers of Health respectfully sheweth:—

1. That your memorialists are a society consisting of a large proportion of the medical officers of health acting in and for the North-Western Registration District of England.

2. That your memorialists desire to bring under the notice of your Honourable Board their conviction that the cause of sanitation is seriously prejudiced, by the present unsatisfactory method of tabulating and analysing local statistical information relative to the causes which influence the public health in our large towns.

3. That this is largely due to a want of uniformity in the tabular forms employed, no suitable and adequate statistical forms having been issued by competent authority; the forms issued by the Local Government Board having reference only to the fact of disease or death at certain ages and from a few groups of diseases, no provision for the calculation and comparison of rates of sickness or of mortality having been provided for.

4. That it is desirable, in the interests of the public health, that a standard series of statistical forms and instructions should be available, suitable for the use of medical officers generally, and especially for those acting for urban authorities.

5. That, in view of the probable general extension of powers for compulsory notification of infectious diseases, the forms should especially include an analysis of the cases of infectious sickness, not less than of the mortality; and that the whole should emanate from high and competent authority.

6. That, inasmuch as the Medical Department of your Honourable Board enjoys the confidence of our profession, your memorialists believe that any instructions issued by your Medical Department would be gratefully accepted and loyally acted upon by the health-officers of the large towns of the country.

Your memorialists therefore humbly pray that your Honourable Board should instruct their Medical Department to prepare and issue, under official sanction, a model set of tables and instructions for the due classification of diseases, births and deaths, such as their large experience shall deem suitable to the requirements of medical officers acting for such urban sanitary authorities. Your memorialists further think the present an especially opportune time to petition your Honourable Board in this behalf, inasmuch as we are just about to enter upon a new statistical decennium; and they therefore think it desirable that any directions which your Medical Department may think fit to issue for the guidance of medical officers of health should, if possible, be available as the basis of their reports for 1881, the first year of the new decennium. And your memorialists will ever pray.

Signed on behalf of the North-Western Association of Medical Officers of Health, G. A. KENYON, President.

F. VACHER, Honorary Secretary.

MEDICAL RELIEF IN THE HARTISMERE UNION.

The guardians of the poor of the Suffolk unions appear to have peculiar notions as to the claims of their indigent sick to consideration and proper treatment, as will be shown from the following, which we find in the *Ipswich Journal* of the 3rd instant. It would appear that, until a recent date, the district medical officership of Reshangles (Union of Hartismere) has been held by Mr. T. Radford, who resigned this appointment, from which he realised—that is, if he gave the paupers nothing—about £10 a-year. Forthwith, the guardians [illegible] a fresh election. Two candidates offered themselves: one was Dr. Eustace Forth, living at Debenham, in close vicinity to the district; the other was Mr. C. L. Cuthbert, who resides with his father at Rendlesham, distant six miles. The guardians selected the youngest and more remote candidate; but not, it would seem, without [illegible] for a memorial has been forwarded to the Local Government Board, praying

that they will not confirm Mr. Cuthbert's appointment. This memorial has been signed by the rector of A-hall and most of the leading inhabitants of the locality. We sincerely hope that the memorialists will be listened to, and the election annulled—though, at the same time, we regret that they did not see their way to ask the department to direct the guardians to apportion a more liberal stipend: £10 a-year, with all drugs to find, does not appear to us to be a prize worth struggling for, even in Suffolk; nor should we comment on the transaction at all, were it not for the opportunity it affords for expressing our strong disapproval of the board that offers, the medical gentlemen who control, and the central department that sanctions, such parsimonious arrangements. Unfortunately, this latter has yet to learn how much of the pauperism they are appointed to control is due to sickness, and notably the neglect of it; and which such unsuitable appointments perpetuate and intensify.

A MORTUARY FOR WHITECHAPEL.

THE population of the district of Whitechapel, according to the last census, is 71,350; and during the quarter ending July 2nd, of this year, 534 deaths took place, not including 209 which occurred in public institutions. It will be found that, taking any year, 2,300 deaths and 300 inquests will be a fair average. These 300 inquests took place at some neighbouring public house; while the *post mortem* examinations, when required, must have been made in the dwelling house or room of the person in question, as there is no mortuary for this large district. The medical officer of health for this district has no fewer than eleven times since June, 1867, brought forward the necessity of a mortuary being built. One instance given by the above officer will suffice to show the necessity of providing a mortuary. In a room eight feet square and seven feet high, occupied by three persons, the dead body of a child, aged 7, who died of fever, was kept for a period of nine days. After the death of the child, the parents were obliged to take another room in the house in consequence of the offensive smell arising from the body. Several sites for a mortuary have been named, amongst others, the burial-grounds of either Spitalfields or Whitechapel, or of the Whitechapel workhouse. It is clearly the duty of every local authority to provide one; and if obstacles be thrown in the way by people living in the neighbourhood, after such a site has been fixed upon as the most suitable in the district, then power must be granted by Act of Parliament to enforce the building thereof. It should possess conveniences for making *post mortem* examinations, and for the holding of inquests, which are now, for the most part, held at public houses.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

GLOUCESTERSHIRE.—There is nothing unusually striking in Dr. Bond's report for last year, which is, however, like its predecessors, remarkably well written, and very much to the point. He reports that the general death-rate of the district, which had risen during the two preceding years, declined in 1880 to what may be considered its normal number. In 1878, the rate was 18.0; in 1879, it rose to 18.5; and, in 1880, it was 16.3 per 1,000. This result is the more satisfactory inasmuch as the past year covered portions of two very cold winters, which brought with them a more than usual mortality amongst the aged, the very young, and the feeble. The deaths from zymotic causes, 210 in number, show an increase compared with 1879, when 183 deaths happened from this class of disease; but they are still considerably less numerous than in any of the preceding years. The most notable cause of the increase was the fatal prevalence of diarrhœa, which accounted for 64 deaths, as compared with 30 in 1879. Measles was very prevalent, chiefly in the Dursley, Thornbury, and Chipping Sodbury portions of the district. Forty deaths in all were registered from this disease, against 17 and 31 for the two preceding years. Whooping-cough, which has been prevalent in a severely epidemic form during the last three or four years, seems to be now on the decline, 25 deaths occurring in 1880, against 43 in 1879. To the subject of this fatality, Dr. Bond devotes considerable attention. Whilst regarding a high temperature as a potent factor in its causation, he holds local causes, such as improper feeding, bad drainage, and the like, also responsible. Croup and diphtheritic affections also showed a diminished fatality, although a severe epidemic of the latter disease occurred at Chipping Sodbury, which illustrated "the anomalous character of the disease, since no satisfactory explanation of the outbreak could be discovered, and it diffused itself in a way that was perfectly unaccountable". The returns also show a decline in the death-rate from continued fevers. This decline has been going on steadily with a trifling exception since 1875, during which period the successive mean has gradually fallen from 46.5° to 36.7°. Dr. Bond records, in his separate reports on the various districts in the combination, a considerable number of outbreaks of typhoid fever; and it is not a little singular to observe, that in no single instance has he succeeded in satisfactorily tracing the cause. Phthisis was fatal in 189 cases, and diseases of the chest in 353; whilst 77 deaths were attributed to heart-disease. Dr. Bond has little to report in the matter of drainage and water-supply, but he states that certain of the authorities upon whom urban powers have been conferred have adopted by-laws for the regulation of the keeping of animals and other similar sources of nuisance, while three have also adopted building by-laws. He has done his best with that serious and most difficult of all nuisances, overcrowding; but he thinks there is no proximate prospect of its abatement, as it is "everlastingly growing up".

BASFORD RURAL DISTRICT.—Mr. Whitgreave specially draws special attention to the fatal prevalence of scarlet fever in his district last year, as, of the total deaths, 95, or nearly 10 per cent., were due to this disease. In some outspoken and sound remarks, the health-officer points out to his sanitary authority the enormous responsibility they are incurring in allowing the district to remain unprovided with isolation accommodation for cases of infectious disease. Admitting the heavy impost which must necessarily be imposed by the construction and maintenance of such a building, Mr. Whitgreave rightfully points out the saving of life which must result from isolation of cases that cannot be properly treated at home; though he is doubtful whether the people will be induced to avail themselves to any extent of the convenience and safeguard of the means thus afforded. Of other causes of mortality, bronchitis, pneumonia, and pleurisy killed 158 persons, a decided improvement upon the number (225) recorded for 1879. Diarrhœa was fatal in 64 cases, and phthisis in 62. Measles was somewhat prevalent, causing 41 deaths against 17 in the previous year. From whooping-cough there were 13 deaths, all in children under the age of five years. The disease is still rampant in the district, and indeed seems likely to remain so while such deplorable ignorance and recklessness as regards infection exists. The health-officer states that the prevailing fallacy as to whooping-cough is, that it is "something in the air which, as all children *must* have it, they had better have it at once and get it over." An alarmingly high infantile death-rate is reported for the Carlton district, where, of the total 168 deaths, no less than 100 were those of children under five years of age. The sanitary conditions in this locality are far from satisfactory; but great improvement and diminution of sickness is expected when Carlton has its long looked for water-supply, its new sewers in full action, and a proper system of scavenging established.

NEWCASTLE-UPON-TYNE.—Mr. Armstrong's report is, as usual, excellent and interesting. He has proceeded upon the same lines in his arrangement as in previous reports; and though this is not so clear as it might be, there is a good deal to be said in its favour. A fairly average death-rate appears to have been maintained in the borough for the last five years, ranging from 22.7 in 1876 to 22.3 in 1880. The actual deaths last year were 3,335 amongst an estimated population of 149,366 souls. The rate of mortality from the chief zymotic diseases was 3.3 per 1,000, as compared with rates of 3.7 and 4.4 respectively in 1879 and 1878. The principal factors in this mortality were: scarlet fever wth 141 deaths, whooping-cough with 129, enteric fever with 30, and diarrhœa 172. To diseases of the respiratory organs 511 deaths were ascribed, as against 562 in the previous year. The two leading diseases of the order, bronchitis and pneumonia, together caused 450 deaths as compared with 501 in 1879. The report shows a deplorable increase in the infantile mortality, no less than 927 children dying before the completion of the first year of life, as compared with 784, 888, and 842 respectively in 1879, 1878, and 1877. During the year 32 patients were admitted into the fever hospital, nine of whom died. Mr. Armstrong gives prominence to the fact that, no persons suffering from typhus were admitted during the year; adding that, before the hospital was transferred to the corporation in 1873, the average yearly admission from this disease was 231. He also adduces some striking instances of the circumstances in which he found cases of infectious diseases occurring; and again urges strongly the need for compulsory notification of infectious disease. It is satisfactory to learn that this question is so far advanced in Newcastle that the health-officer has prepared a set of clauses relative to this and other important sanitary questions for a local Bill now in course of preparation for Parliament. The elaborate tables of statistics appended to the report deserve a word of special commendation.

MERTHYR TYDFIL RURAL DISTRICT.—Amongst an estimated population of 17,000 souls, Mr. Dyke reports, for the last year, the occurrence of 532 births and 346 deaths, equal to rates of 30.7 and 20.3 per 1,000 respectively against an average death-rate for the preceding seven years

of 21.60. While, however, there is a decrease in the general rate, the infantile mortality was high; the deaths of 71 infants during their first year of life having been registered. Many of these deaths were ascribed to acute inflammation of the organs of breathing, many of the villages and towns being situated on elevated plains and on bleak hill-sides. The number of deaths from contagious fevers (25) show an increase of 11 on 1879, the increase being due to the prevalence of scarlet fever and diphtheria in one part of the district. Sixty deaths, or 17 per cent. of the total mortality, were due to consumption, while 76 deaths were ascribed to diseases of the respiratory organs. Mr. Dyke appears to have kept his district under constant supervision, and reports improvements in various directions; but the provision of a proper water-supply is needed in some places, notably at Hengeod, where the present supply is both scanty and bad, and at Newtown Bute and Carno Bute. Mr. Dyke's method of describing the sanitary history of each place in the district during the year is worthy of imitation.

TENDRING RURAL DISTRICT.—Dr. Cook's report is somewhat meagre for a large district containing a population of 24,797 souls, spread over an area of 85,327 acres; but it is evident that the fault lies in the reporting and not in the work. During the year scarlet fever was largely prevalent in various parts of the district, 81 cases having come to the knowledge of the health officer, 17 of them being fatal. Diphtheria was also unduly prevalent no less than 50 cases being estimated as having occurred. Eight of these cases had a fatal termination. The outbreak is ascribed, on somewhat insufficient evidence, to a polluted water supply obtained from wells, open to contamination from drainage and from a neighbouring burial-ground. Measles and whooping-cough largely prevailed in the district, and diarrhœa also existed more than usual, 18 deaths being ascribed to it. The total deaths were 406, of which, 123 were those of children under five years of age. Dr. Cook again draws attention to the absence of any isolation accommodation which, it is hoped, the sanitary authority will see fit at once to provide. Some slight improvements have been effected at Clacton-on-Sea where a new water-supply will shortly be provided; but Brightlingsea seems in need of prompt attention. The absence of any statistical tables from the report, as printed, is inconvenient; and it would be well if this omission were rectified in future reports.

OBITUARY.

WILLIAM DOUGLAS HEMMING, M.R.C.S., F.R.C.S.EDIN.

ON December 9th, W. Douglas Hemming entered into his rest at Glenalmond, Bournemouth. He was born at Saxmundham, Suffolk, November 14th, 1848; received his education at the Godolphin School, Hammersmith, and commenced his medical career at King's College, in 1868. His studies were interrupted by an attack of catarrhal pneumonia in 1871, which necessitated his removal from London for twelve months. He became a member of the Royal College of Surgeons of England in 1875, and was admitted a Fellow of the Edinburgh College of Surgeons in 1875.

Mr. Hemming commenced practice with his father at Notting Hill, taking up the special study of diseases of the throat and ear, and being appointed assistant-surgeon to the Central London Throat and Ear Hospital, in 1877. The following year, however, another attack of pneumonia followed, leaving his left lung permanently damaged. All hope of being able to practise in London was abandoned; and he removed to Bournemouth in 1879, where, for nearly three years, he engaged in general practice, as far as his health permitted.

Battling against the seeds of his fatal illness, Mr. Hemming naturally engaged himself chiefly in literary work, and scarcely ever let his pen remain idle. His first little work was on *Tinnitus Aurium*. This was followed by another on *Otorrhœa: its Causes and Treatment*. He evinced a thorough knowledge of his profession; and having the happy facility of putting it in a concise form, he wrote many valuable papers to the *Student's Journal*, of which, at one time, he was one of the editors. His *Aids to Forensic Medicine and Toxicology* has passed through a second edition. The BRITISH MEDICAL JOURNAL, *Lancet*, *Medical Press and Circular*, and other periodicals received many contributions from his ready pen. Mr. Hemming took an active interest in the work of the British Medical Association; and at the Ryde meeting, this year, acted as joint secretary, with Mr. Baber, in the otological section. As recently as last October he attended a Branch meeting at Wimborne, where he read a paper on the "Value of the Laryngoscope in Diagnosis." With varying, but gradually failing health, Mr. Hemming worked with unflagging zeal and perseverance, till he succumbed to a violent attack of hæmoptysis early on Friday morning, December 9th. Possessed of genial social qualities, always cheerful and uncomplaining, Mr. Hemming became a general favourite, and endeared himself to his professional brethren, who sincerely grieve that so useful a life should be cut short at such an early age. Mr. Hemming married in 1878, and leaves a widow.

WILLIAM PHILLIMORE PHILLIMORE, M.B.LOND.

DR. PHILLIMORE, son of the late Mr. Thomas Stiff of Wresden, Uley, Gloucestershire, was born April 3rd, 1821. He was adopted by his great-great aunt, Miss Eleanor Phillimore, she being then ninety-two, and in 1873 he assumed the name of Phillimore by royal licence. He was educated by the Rev. Samuel Barber, of Carne Hall, Bridgnorth, and apprenticed to Mr. Joseph Hall of the same place. He afterwards studied at University College, London, and at Paris; and graduated, in 1845, as M.B. of the University of London. He practised for a short time in London, and afterwards as an assistant at Sandgate. He was then appointed medical officer to the Nottingham Union, which post he resigned in 1855, on being appointed to succeed Mr. T. C. Morrison as Superintendent of the Nottingham General Lunatic Asylum (now the County Asylum). Dr. Phillimore held this appointment up to the time of his death. His management of the institution called forth the frequent commendation of his committee, and also of the Lunacy Commissioners; and his attention to all the details of asylum superintendence was very noteworthy.

Dr. Phillimore's contributions to medical literature were: a paper in the *British and Foreign Medico-Chirurgical Review*, on Hæmatoma Auris or Asylum Ear, in 1858; a paper in the BRITISH MEDICAL JOURNAL, 1862, on the British Pharmacopœia and the Metric System; and one on Feeding the Insane through the Nostrils, in the *Lancet*, 1872.

Dr. Phillimore was a man of considerable culture and varied reading. He took a keen interest in antiquarian researches, and was a member, from the commencement, of the Shropshire and Gloucestershire Archæological Societies; and in Nottingham he attached himself to every movement for the advancement of his own profession, or for the spread of knowledge amongst the people. He was for many years honorary secretary, and recently president, of the Bromley House Library.

The death of his wife, about two years ago, was a shock from which he never recovered, and probably laid the foundation of the malady which ultimately carried him off. He was a member for many years of the British Medical Association.

ROBERT OMOND, M.D.

ON Tuesday, December 13th, Robert Omond, M.D., F.R.C.S.E., died at his residence in Charlotte Square, Edinburgh, at the age of 75. For some years previously Dr. Omond had ceased to be actively engaged in his professional work, and devoted a large portion of his time to church and benevolent schemes. He was a native of Orkney, but had resided in Edinburgh for sixty years. He was educated in Edinburgh University, and in 1828 graduated there, in 1832 he became a fellow of the Royal College of Surgeons, Edinburgh. The respect in which he was held in the profession is vouched for by the fact that he was successively librarian, examiner, member of council, secretary, and was elected president of his college from 1859 to 1861. He was also president of the Edinburgh Medico-Chirurgical Society, and was for some years one of the medical managers of the Royal Infirmary. He held a high position for many years in Free St. George's Church, Edinburgh (the principal church of that denomination in Scotland). His uprightness, candour, and thorough kindliness, gained for him the esteem of all who knew him.

THE MARGATE DRAINAGE QUESTION.—The [illegible] of Margate, presided over by the mayor, after three evenings of discussion, passed the following resolution, proposed by Mr. Keble, J.P.:—"That it is the opinion of this meeting that the present drainage of Margate is not such as can without injury to the town be any longer maintained, but having regard to the exceptionally low death-rate, the insufficient water-supply, and the recent heavy outlays in the borough, the carrying out of so expensive an undertaking should be most carefully reconsidered in all its bearings". The medical officer of the borough, and the medical officer to the union both said the town was so healthy that the only need for sewage works was to satisfy the sentiment of the ratepayers, and the Local Government Board. Letters were read from the Local Government Board threatening public investigation if something was not done soon. The meeting received the announcement with cheers, feeling that such inquiry would prove the healthiness of the town, and prevent the Government forcing the ratepayers into the unnecessary expenditure of £50,000.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 15th.

[illegible], Walter Stanley, Cleveland Road, N.W.
[illegible], Arthur, Heath Mount, Hampstead.
[illegible], John, [illegible].
Heelis, Robert, Carshalton.
[illegible], Joseph Kelsey Vicarage, Hull.
Murch, Wilfred, Gilbert Terrace, Kilburn.
Rodwell, [illegible], Upton, Norwich.
[illegible], [illegible], Wellington Street, S.E.
[illegible], [illegible], Mere, Cheshire.
[illegible], Arthur, Royal Albert Asylum, Lancaster, Wigan.

The following gentlemen also on the same day passed their Primary Professional Examination.

Barry, [illegible], St. Bartholomew's Hospital.
Bush, James Paul, Bristol School of Medicine.
Clarke, [illegible], Charing Cross Hospital.
Erulkar, Solomon A., Grant Medical College, Bombay.
German, Hanway, King's College.
Leech, Arthur Herbert, Charing Cross Hospital.
Schön, Charles Henry, University College.
South, George, Charing Cross Hospital.
Verity, Herbert W. S., King's College.
Wilson, Thomas, Westminster Hospital.

UNIVERSITY OF DURHAM.—At the recent examination for the Degrees in Medicine and Surgery, the following satisfied the Examiners, and had their degrees conferred on the 13th instant.

For the Degree of M.D. for Practitioners.

Frederick Carter, M.R.C.S., L.R.C.P.; Charles James Cullingworth, M.R.C.P., M.R.C.S.; Andrew Deane, M.R.C.S.; Walter G. Walford, L.R.C.P., M.R.C.S.

Three failed to satisfy the Examiners.

For the Degree of M.B.

James Brett, M.R.C.S.; George Herbert Doudney; Theodore James Hudson, L.R.C.P., M.R.C.S.; William Edmund Paley, F.R.C.S.Eng.

One failed to satisfy the Examiners.

For the Degree of M.S. two candidates presented themselves, and both failed to satisfy the Examiners.

UNIVERSITY OF DUBLIN.—At the Winter Commencements in Michaelmas Term, held on Thursday, December 15th, in the Examination Hall of Trinity College, the following degrees in Medicine and Surgery were conferred, in the presence of the Senate of the University, by the Right Honourable John Thomas Ball, Vice-Chancellor of the University; the Rev. John H. Jellett, D.D., Provost of Trinity College; and the Rev. James W. Barlow, Senior Master Non-Regent.

Baccalaurei in Chirurgiâ.—Arturus Montfort Archer, Alexander Richmond Johnston, Henricus Brougham Pope, Edmundus F. B. Wilson.

Baccalaurei in Medicinâ.—Arturus Montfort Archer, Thomas Ricardus Gillespie, Gulielmus Henry, Alexander Richmond Johnston, Franciscus Thorpe Porter Newell, Gulielmus Sidney Jebb Scott, Edmundus F. B. Wilson.

Doctores in Medicinâ.—Gulielmus Henricus Line, Henricus S. Gabbett, Ricardus Dormer White, Ricardus Carolus Studdert.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALVERSTOKE MEDICAL BENEVOLENT SOCIETY—Medical Officer. Salary, £180 per annum. Applications to J. Elliott, 10, Shaftesbury Terrace, Gosport, by January 7th, 1882.

BALLINA UNION—Medical Officer for Crossmolina Dispensary District. Salary, £120 per annum, with £20 yearly as Medical Officer of Health, registration and vaccination fees. Election on the 28th instant.

CHARING CROSS HOSPITAL, West Strand.—Medical and Surgical Registrar. Applications to W. Shoolbred, Secretary, by 31st instant.

CORPORATION OF LIVERPOOL—Surgeon. Salary, £300 per annum. Applications to J. Rayne, Town Clerk, Liverpool, by January 2nd, 1882.

COUNTY LUNATIC ASYLUM, Sneinton, Notts—Assistant Medical Officer. Salary, £100 per annum. Applications to the Chairman of the Committee of Visitors by the 5th January, 1882.

GENERAL HOSPITAL, Birmingham—Honorary Surgeon. Applications to Mr. W. T. Grant, House-Governor, by December 24th.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Physician. Applications by 28th December.

HOSPITAL FOR INFECTIOUS DISEASES, Sheffield—Resident Medical Officer. Salary, £200 per annum. Applications to John Yeomans, Town Clerk, by January 3rd, 1882.

HUDDERSFIELD INFIRMARY—Senior House-Surgeon. Salary, £80 per annum. Applications to F. Eastwood by January 21st, 1882.

HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Salary, £40 per annum. Applications to F. Eastwood by January 21st, 1882.

LEEDS AMALGAMATED FRIENDLY SOCIETIES MEDICAL AID ASSOCIATION—Two Medical Officers. Salary, £160 per annum each. Applications to G. Hackett, 3, Artillery Terrace, Roundhay Road, Leeds, by January 3rd, 1882.

LINCOLN COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to Mr. Danby, Secretary.

MEDICAL MISSIONARY DISPENSARY, Liverpool—Medical Officer. Salary [illegible] per annum. Applications to Dr. H. Taylor, 1, Derby Street, Liverpool, by January 15th, 1882.

MONMOUTH UNION—Medical Officer. Salary, £40 per annum. Applications to the Clerk by December 30th.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—Dental Surgeon. Applications by January 10th, 1882.

OWENS COLLEGE, Manchester—Demonstrator and Assistant-Lecturer in Physiology. Salary [illegible] per annum. Applications [illegible] January 7th, 1882.

OWENS COLLEGE, Manchester—Medical Museum: an Assistant of Pathology. Applications to [illegible], Town Hall, Manchester.

PARISHES OF KILLOWEN AND LOUGHBRICKLAND [illegible] two parishes, £7 per annum. Applications [illegible], Dispensary, Poyntzpass, Helmsdale, by 9th January, 1882.

PRESTON AND COUNTY OF LANCASTER INFIRMARY—Matron Superintendent. Salary £50 per annum. Applications to the Secretary, [illegible] gate, Preston, by January 5th, 1882.

QUEEN'S HOSPITAL, Birmingham—Non-resident Member of the Staff. Applications to the General Superintendent by January [illegible].

ROYAL COLLEGE OF SURGEONS IN IRELAND—Professor of Practical and Descriptive Anatomy. Applications [illegible] by January [illegible], 1882.

UNIVERSITY OF EDINBURGH—Examinerships in Clinical Medicine, Surgery, Physiology, Materia Medica, and Pathology. Applications to the Secretary of the University by January 16th, 1882.

UNIVERSITY OF LONDON—Assistant Registrar. Salary, £500 per annum. Applications to A. Milman, Registrar, University of London, Burlington Gardens, W., by January 31st, 1882.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Medical and Surgical Registrar. An honorarium of £63. Applications to the Secretary by January 10th, 1882.

WARNEFORD HOSPITAL, Leamington.—House-Surgeon. Salary, £100 per annum. Application to W. Maycock, by 27th instant.

WORKSOP DISPENSARY—Resident Surgeon. Salary, £120 per annum. Applications to J. Easterfield, Honorary Secretary, Gateford Road, Worksop.

MEDICAL APPOINTMENTS.

APLIN, Alfred, L.R.C.P., appointed Medical Superintendent to the Nottingham County Asylum, *vice* W. P. Phillimore, M.B., deceased.

BARTON, J. Kingston, L.R.C.P.Lond, M.R.C.S., appointed Surgeon to the Kensington Dispensary, *vice* J. C. Merriman, L.R.C.P., M.R.C.S., resigned.

CANE, Francis Edward, L.R.C.S. & L.R.C.P.Ed., appointed Surgeon to the Anchor Line of Transatlantic Steamers.

CURRIE, John, M.D., appointed Medical Officer to the Berry Pomeroy District of the Totnes Union, *vice* A. G. Chitty, M.R.C.S., resigned.

DAVIES, D. Arthur, M.B., appointed Physician to the Swansea Hospital.

DREWITT, F. D., M.B., appointed Assistant-Physician to the Victoria Hospital for Children, Chelsea, S.W., *vice* W. Hallchin, M.B., resigned.

HUDSON, T. J., M.B., appointed Resident Medical Officer to the Leeds Public Dispensary, *vice* F. Bowe, M.B.

LANE, W. A., M.B., appointed House-Surgeon to the Victoria Hospital for Children, Chelsea, S.W., *vice* W. C. Chaffey, M.B., resigned.

SYKES, M. C., L.R.C.P., appointed House-Surgeon to the Beckitt Hospital and Dispensary, Barnsley, *vice* Arthur Jackson, M.R.C.S., resigned.

WELSH, D., M.B., appointed Third Assistant Medical Officer to the Kent County Asylum, Barming Heath, near Maidstone.

WILSON, G., M.B., appointed House-Surgeon to the Huntingdon County Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

MARRIAGES.

HUNT—LANGLEY.—On December 15th, at St. Mary's, Tyndall's Park Bristol, by the Venerable J. H. Iles, Archdeacon of Stafford, assisted by the Rev. N. T. Langley, brother of the bride, and Rev. J. J. Hunt, brother of the bridegroom, Joseph Wm. Hunt, M.D., B.S.(Lond.), etc., of 101, Queen's Road, Dalston, to Maria Beatrice, only daughter of J. N. Langley, LL.D., of Redland, Bristol. (No cards.)

SMITH—STOTT.—On the 14th inst., at the Parish Church, Flixton, near Manchester, by the Revd. Dr. Smyth, Vicar of Far Headingley, Leeds, uncle of the bridegroom, assisted by the Revd. Adam Lowe, of Matlock, Charles Edwin Smith, M.R.C.S., L.R.C.P.London, of Stretford, near Manchester, to Martha Faulkner, only daughter of the late James Stott, Esq., and niece of Captain Stott, Shaw Hall, Flixton, near Manchester.

DEATHS.

CARRUTHERS.—On the 12th inst., at Halton House, near Runcorn, Cheshire, William Carruthers, M.R.C.S., L.S.A., aged 69.

COWBURN. At Exeter, on the 20th inst., George Herbert Cowburn, L.R.C.P.Edin., M.R.C.S.E., eldest son of the late George Cowburn, aged 27.

NEALE.—Nov. 18th, 1881, at Klipfontein, Namaqualand, S. Africa, aged 25 years, Ellen Marie, wife of John Edward Neale, Surgeon Cape Copper Mining Company, Port Nolloth.

ROBERTS.—December 17th, at his residence, Shamrock House, Rhyl, North Wales, R. Price Roberts, Esq., M.D., aged 65 years. Friends will kindly accept this intimation.

and a-quarter inches in the transverse. This expansion of the cicatrising wound caused very little pain or bleeding. The dilatation was repeated on May 27th and 31st, and on the latter date bougies were ordered to be regularly used.

On June 3rd, it is reported that the patient had learnt to use the bougie herself, and was able to pass No. 10 (rectal) without pain. Her general condition was good; the ulcers of the syphilitic tissue were greatly improved; the act of defæcation was easy, while the sphincter had regained complete control of the anus.

The patient was discharged on June 4th, seventeen days after the operation. The highest point touched by the temperature was 101.6°; this was on the evening of the day succeeding that of the operation.

Before operating, Mr. Berkeley Hill pointed out the diagnostic signs of syphilitic stricture in this case—viz., the well-marked history of syphilis, the infiltrating sclerosis of the skin and cellular tissue around the anus, and the locality of the stricture which surrounded the outlet and abruptly terminated a short distance from that situation. He mentioned the following reasons for operating in this case. First, in syphilitic stricture, when this infiltrating induration has reached the stage of contraction, it is not affected by antisyphilitic remedies. Secondly, the extensive ulceration and consequent suffering which attended defæcation rendered an operation for widening the outlet necessary. Mr. Hill chose this method of dividing the stricture in preference to gradual dilation by incisions and bougies, because the latter method is extremely painful, and the relief it affords is of short duration; the contracting syphilitic tissue soon shrinks and renders very painful the passage of the bougie, which must be repeated at short intervals, to maintain the patency of the outlet. By carrying the division completely through the morbid growth, the re-contraction would be rendered slow, and the new uniting tissue would be more easily kept widely expansible than the syphilitic induration. Division by an *écraseur* prevented the risk of hæmorrhage from blood-vessels not easily brought within reach; and the occasional use of a dilator while the new cicatrix was developing, would prevent it from closing the wound narrowly. Mr. Hill mentioned that this operation had been performed by Verneuil and Trélat in Paris, and probably also by other surgeons in this country, with excellent effect. He had further advised that the patient should continue antisyphilitic treatment for some considerable time, because the short interval which had elapsed since the patient's infection rendered it extremely probable that further development of the syphilitic sclerosis would ensue, and this tissue, in its nascent or earliest condition, is readily re-absorbed under the influence of iodide of potassium or mercury, though, as already remarked, those remedies have no effect when contraction has taken place.

ST. BARTHOLOMEW'S HOSPITAL: CONSULTATIONS.

BONY ANKYLOSIS OF THE KNEE AFTER OGSTON'S OPERATION.

MR. LANGTON showed a lad, on June 30th, upon whom, about two years and a half earlier, the late Mr. Callender had performed Ogston's operation for knock-knee. The operation was followed by a severe attack of synovitis of the knee on one side; the patient remained in the hospital for some time, and was finally sent out with a straight limb and a knee firmly ankylosed. The knee had gradually become slightly flexed, so that, when he presented himself on this occasion, the joint was fixed at an angle of about 120 degrees. The patient stated that he had been originally a clerk, but had descended to the occupation of a shoeblack, the flexed condition of the leg, incapacitating him, he said, from his former employment; he was therefore anxious that an operation should be resorted to. Mr. Langton proposed to straighten the limb by excising a wedge-shaped piece of bone from the knee; in fact, to perform excision of the ankylosed joint.—Mr. HOLDEN agreed that this was the best thing that could now be done; he strongly condemned Ogston's operation, remarking that, if it led to such untoward results in the hands of so careful and skilful a surgeon as his late colleague Mr. Callender, it must have about it elements of danger that no foresight could prevent.—Mr. LANGTON reminded Mr. Holden that the operation had now been abandoned at St. Bartholomew's.—Mr. SMITH doubted whether much could be gained by straightening the limb, as the lad could walk four or five miles with it as it was: and Mr. WILLETT, though advising an attempt to straighten, suggested that this might perhaps be accomplished by breaking down the bony adhesions in the knee with a chisel.

EPITHELIOMA OF THE TONGUE: EXCISION: RECURRENCE.

On July 14th, Mr. THOMAS SMITH showed a man who had been the subject of a consultation on October 20th, 1880. The Surgical Registrar's report, made at that time, stated that the patient was then aged 55, and in good general health; and that he had not been losing flesh. There were two tumours on the tongue: one on the anterior part, about three-quarters of an inch in circumference, and raised about half an inch above the level of the surrounding surface; the other, which lay further back, was not so large, and was connected with the anterior growth by a bridge of indurated tissue; the surface of the growth appeared to be covered with pale and rather coarse granulations. There were no enlarged glands. The man had had syphilis twenty years earlier; and his tongue, he said, had never been free from sores since. During the three years before admission, the sores had gradually altered in character; they had increased much in size, and had become elevated above the surface. The general opinion expressed at the earlier consultation was that the growths were not malignant. He left the hospital soon after this, but continued to take iodide of potassium, which had been prescribed by Mr. Smith. He derived at first some benefit from this treatment. After a time, however, the growths began to increase very much; but, in spite of the advice of his medical man in the country, he did not come to see Mr. Smith until July 14th. The tongue and the floor of the mouth were then extensively affected by a growth evidently, Mr. Smith thought, of a malignant character. The glands were hard and enlarged, and he had rapidly lost flesh and strength. The patient was shown in order that the advisability of making any attempt to remove the growth might be discussed; but Mr. Smith himself, having in view the extensive affection of the floor of the mouth, and of the lymphatics, did not think that a good result could be hoped for; and in this opinion all his colleagues then present coincided.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 20TH, 1881.

SAMUEL WILKS, M.D., F.R.S., President, in the chair.

Thickening of the Pericardium.—The Report of the Morbid Growths Committee on Dr. Broadbent's case of thickening of the pericardium was presented by Dr. Goodhart. The Committee agreed with Dr. Broadbent, that the thickening was of the nature of sarcoma; it resembled most in structure the lympho-sarcoma not unfrequently met with in the mediastina.

Cirrhosis of the Liver in a Child.—Dr. PYE-SMITH had used the term cirrhosis in a rather wide sense; it was not the ordinary hobnailed, nor the syphilitic, nor the rare form of cirrhosis due to adhesive inflammation of the portal canals, nor was it a case of so-called hypertrophic cirrhosis. A remarkable corresponding change was found in the lung and peritoneum. The patient was a boy who was thirteen years old at the time of death; he had been ill for three years; he had the ordinary symptoms of chronic pulmonary phthisis, and also ascites and abdominal pain, which were attributed to abdominal phthisis. He died from exhaustion due to diarrhœa. The pleuræ were much thickened, and there was enormous interstitial thickening of the lungs, which contained numerous vomicæ; there was no caseous change in the lungs, or in the lymph-glands or any part of the body. There was evidence of extreme chronic peritonitis; in the pelvis the thickening of the subperitoneal tissue had formed a tumour, which consisted of indurated fat. The liver was scarred by bands of fibrous tissue; on section, irregular patches of congestion bounded by fibrous overgrowth were seen. The colon was in a condition of extensive ulceration. Microscopical examination afforded conclusive evidence of a true interstitial hepatitis. There was no history of any over-indulgence in spirits; there was no indisputable sign of syphilis; and careful questioning of the mother failed to elicit any family history pointing in that direction. Dr. Pye-Smith did not think it could be regarded as a case of tubercular disease, for there was no trace of any caseous change, either in the lungs, lymphatic glands, or peritoneum. He thought it an instance of that [illegible] unknown cause, which was seen not very uncommonly in adults. Dr. [illegible], who had [illegible] the necropsy, had been struck by the amount of the cyanosis and its [illegible] bronchitis, with consecutive nutmeg-disease of the liver. He was still [illegible] Dr. [illegible] recently done a *post mortem* examination on a girl aged 18, who [illegible] tonitis; the liver was a marked specimen of cirrhosis; the whole capsule was thickened, but the surface was not hobnailed. Here [illegible] in St. Bartholomew's [illegible]

chronic pleurisy was a very common antecedent; and he suggested that the cirrhosis might be brought about by an extension from the pleura to the capsule of Glisson.—Dr. CREIGHTON thought that the case was one of tubercular disease. The appearances in the liver were unlike any cirrhosis with which he was familiar. He thought the case was one of fibrous tubercle. The tumour in the pelvis, described as a mass of hardened fat, might very well be an instance of fibrous tubercle matted together and forming a large firm growth.—Dr. CURNOW referred to a case of pure hobnailed liver in a child shown by Dr. Griffiths of Swansea before this Society, and in which no history of intemperance or of syphilis existed. He had himself done a necropsy on a cat which had a fondness for curry, and in which there was well-marked hobnailed cirrhosis of the liver. A sufficient number of cases of cirrhosis of the liver were now on record, in which there was no history at all of syphilis, tuberculosis, or gin-drinking. He thought, with Dr. Pye-Smith, that this was an instance of general fibroid overgrowth in all the organs, due to some unknown cause. Dr. Creighton, he considered, ought to define what he meant by tubercle, if he used the term in so wide a sense; he did not think more was learned of the etiology or pathology of these cases by lumping them together, with many other widely different states, under the common head of tubercle.—Dr. PAYNE had seen some cases of true cirrhosis in the absence of gin-drinking; but Dr. Pye-Smith's case, he thought, hardly raised this question. He thought this fibroid growth occurring simultaneously in the peritoneum and lungs was more nearly allied, at least, to tubercle, than to any other condition. In one case he had described, there were fibroid nodules scattered through the peritoneum and pleura, with chronic peritonitis. He thought this condition would have to be described as a distinct disease.—The PRESIDENT thought this case differed decidedly from cases of true hobnailed liver in children, such he had himself shown some years ago. He had seen many cases of the class referred to by Dr. Norman Moore, in which the cirrhosis appeared to be due to an extension of the disease from the pleura to the peritoneum, and so to the liver.—Dr. BARLOW wished to refer to one case which he had formerly shown, in which the lungs were in much the same condition as in Dr. Pye-Smith's case, and in which there was most extensive sclerosis of the cerebral substance. Such a case seemed to support the idea that the cirrhosis was due to some general tendency to fibroid overgrowth.—Dr. BUZZARD had had a case of extensive scleroderma, in which there was also chronic phthisis probably of a fibroid type. Such a case seemed to fall into the same category as Dr. Pye-Smith's case.—Dr. PYE-SMITH, in reply, said that the vomicæ had, no doubt, their origin in dilated tubes; but he thought that this dilatation of the bronchi was the consequence, and not the cause, of the chronic fibroid disease. In this case, also, there was no dilatation of the right side of the heart, and no other evidence of obstruction. He thought there was much to be said for Dr. Creighton's view that the case was one of fibroid tuberculosis, but he could not adopt it, however, for the ulceration of the intestine was quite unlike that ordinarily seen in tubercular disease; and, as to the tumour in the pelvis, it was carefully examined, and found to consist of indurated adipose tissue, and not of tissue having a tubercular structure.

Disease of Suprarenal Capsules without Bronzing of the Skin.—Dr. BEDFORD FENWICK said that the specimens were taken from a patient whose illness began about three months before his admission into the London Hospital. There was no pigmentation, but there were marked anæmia, a very feeble pulse, and other systemic symptoms of Addison's disease; the urea in the urine was diminished, and there was a trace of albumen. Addison's disease was diagnosed from the general symptoms. He died somewhat suddenly, of syncope, apparently. *Post mortem*, there was fatty degeneration of the liver, but beyond this no disease of any of the organs, except enlargement and hardening of the suprarenal capsules. The absence of bronzing was the interesting point in the case. He had summarised the cases recorded before the Society during the last fifteen years. He found that, in cases where there was no bronzing, the patients died much more rapidly; he was, therefore, inclined to think that there must be a cause at work which attacked two separate organs, or parts of organs. Then the medullary portion of the suprarenal capsules was regarded by the latest observers as a nervous structure, and he attributed the nervous symptoms of Addison's disease to implication of the medullary portion of the suprarenal capsules. Kölliker taught that the outer part of the suprarenal capsule was a blood-vascular gland. Was the bronzing of the skin due to some chemical change in the blood due to disease of this blood-vascular gland-tissue? In the case he now showed he thought that the medullary structure was far more diseased than the cortical; and this seemed to have been the case in other instances in which bronzing did not occur.—The PRESIDENT said that Dr. Fenwick's communication was evidently the outcome of much study devoted to the subject. Addison had noted that the bronzing might not occur in patients who died early in the course of the disease; he had, however, accounted for the fact by supposing that it would have come on had the patient survived.

Ulcerative Endocarditis.—Dr. GOODHART said that five out of the six cases from which he showed specimens had occurred in Guy's Hospital within six weeks. He remarked that foreign observers had taught that the vegetation on the valves and the secondary infarctions were due to bacterial agency; but he did not wish to enter on that part of the question. He wished to insist on two points: first, that ulcerative endocarditis was not a disease of previously healthy valves, but a sequel of chronic inflammation. Of these six cases, there was only one which seemed to throw any doubt on this assertion, but in this one, though an acute case, there was a history of rheumatism. Secondly, ulcerative endocarditis occurred in series of cases. He showed a table of all the cases of fatal heart-disease which occurred in Guy's in the last nine years, 376 in number. The table specified the dates of the *post mortem* examinations in all the cases of ulcerative endocarditis; the cases fell into pretty distinct groups. He thought that this fact pointed to some epidemic, or climatic influences. Other diseases of a similar class were prevalent at the present time; pyæmia, for instance, which for some years past had been very rare at Guy's Hospital, had furnished frequent *post mortem* examinations lately. He was inclined to attribute this disease, then, to some specific organism. Remembering that nearly all, or all, the cases of ulcerative endocarditis occurred in the course of chronic valvular disease, he was inclined to suppose that a specific organism infected the blood, and found a suitable nidus on the diseased valves. Of the acute cases, the majority occurred on the right side of the heart, and all in cases of suppurative disease, as after parturition, or in bad gonorrhœa, where there were obvious sources by which the veins might become infected. He thought that ulcerative endocarditis was a bad term, since there was often no ulceration. He proposed to call it fungating endocarditis.—Dr. COUPLAND wished to know whether Dr. Goodhart included all cases of extreme fungating endocarditis under the one head.—Dr. GOODHART replied in the affirmative.—Dr. STEPHEN MACKENZIE agreed that this disease occurred in the course of chronic heart-disease, but in his experience the cases did not occur in groups; and many of his cases were of so long duration, that he thought it might lead to a fallacious conclusion to tabulate them according to the times of death.

Subcutaneous Fibroid Thickenings in Rheumatism (Living Specimen).—Dr. BARLOW said that the patient had had two previous attacks of rheumatism, and had recently had severe pains in the joints. There were nodules on the olecranon process, the edge of the patellar, the external malleolus, on the pinna of the ear on both sides, and on the scalp; these were the usual situations; in this case, there were also nodules in other parts. The nodules were strictly subcutaneous, painless, and very little tender; as to their nature, he believed them to be homologous with the cardiac valvular vegetations; they appeared in crops, and might entirely disappear.

Congenital Absence of the Radius.—Mr. SHATTOCK showed two specimens of this condition, and said that the bone was absent in one limb in each specimen. A point of morphological interest was that, in all mammalia, except the proboscidea, in which there was any marked disparity between the bones of the forearm, the radius assumed the major importance; but in birds, it was the ulna which thus became the more important.

Filaria Medinensis.—Dr. FINLAY wished to state, on the authority of Dr. Mackellar, that the inflammation consequent on the breaking off of the body of the worm was not due to the death of the filaria, as stated in the text-books, but to the animal retreating into the tissues, and the consequent escape of the immature filariæ.

Transposition of the Aorta and Pulmonary Artery.—Dr. PEACOCK showed, for Dr. Ashby of Owens College, a specimen of this condition which illustrated the usual conditions occurring in this malformation.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 9TH, 1881.

JOSEPH LISTER, D.C.L., F.R.C.S., F.R.S., President, in the Chair.

Case of Talipes Equino-varus treated by Resection of a Portion of the Tarsus.—Mr. W. H. BENNETT read notes of this case, and exhibited the patient, a man, aged 47, who had been the subject of the above description of talipes in a severe form. The patient had been born lame, and, when an infant, had been under surgical treatment; tenotomy had been performed with temporary relief only. For thirty-five years, he had been walking much on the deformed limb, wearing an ordinary boot, padded and adapted by himself. At times, there had been most severe pains from the bursæ which had developed, and the deformity had gradually increased. When admitted to St. George's Hospital under Mr. Bennett's care, on June 25th, 1881, he

hobbled about in an unsightly manner. The left lower limb was wasted and shortened; the foot was much drawn up at the heel, and the sole so twisted inwards, that it was directed towards the median line of the body. The patient, in walking or standing, bore his weight entirely on the outer edge of the foot, over which the skin was greatly thickened, and beneath this thickening bursæ had formed. No alteration in the shape of the foot could be made by any force applied. On June 30th, a portion of the central part of the tarsus was resected. A flap was turned back from the dorsal aspect of the mid-tarsal region, and with a chisel, sufficient of the tarsus was chipped away, piece by piece, to allow the anterior part of the sole to be placed in a perfectly flat position. The tendo Achillis was divided, and the heel brought down as much as possible. The parts were accurately adapted, a drainage-tube was introduced, and the limb placed on a splint with a foot-piece. The operation was performed antiseptically, and the wound was dressed in the same way. The portions of bone removed included the cuboid and the scaphoid. No constitutional disturbance of any kind followed the operation. The dressings were changed for the first time eight days later; the wound had then healed excepting at its extremities, where the drainage-tube was lying. By July 8th, the whole wound had soundly healed, excepting a small sinus at the lower part. At this date, antiseptic dressing was discontinued, in consequence of irritation produced by the carbolic acid. A few days later, erysipelas attacked the foot; cellulitis followed; the wound had to be opened up; all union between the bones, which before had been remarkably firm, broke down; and at one time much sloughing seemed likely to occur. By degrees this attack passed off, and, after much trouble, the foot was brought again into a good condition. By September 8th, the wound had again healed, and the bones were again consolidating. The progress from that time was uninterrupted. On November 3rd, he was provided with a boot with iron supports, and was allowed to walk. The condition of the foot when the patient was exhibited was as follows. The foot was somewhat shortened; the anterior part of the sole was as nearly as possible flat, and was planted firmly on the ground in standing and walking; the heel was still somewhat inverted, but could be made to touch the ground. The union at the point where the bones were resected was firm but not bony. The gait was altogether better than on the patient's admission into the hospital, and was gradually improving. Mr. Bennett thought the case might fairly be considered successful, and also that it demonstrated the desirability of performing this operation in certain examples of talipes. The case itself was peculiarly suitable for the form of treatment adopted, inasmuch as the long continuance of the deformity and the age of the patient rendered relief impossible by any milder procedure. It was suggested that fibrous union would be preferable to bony ankylosis, as it would allow a certain amount of movement in a position where a joint was naturally provided. It was then submitted that the operation was one of extreme severity, and, although performed with a successful result in a considerable number of cases recorded by other surgeons, should be resorted to only in those instances in which no other milder form of treatment could be adopted with success.—Mr. R. DAVY said that his experience of the operation was limited to seventeen feet in fourteen individuals; and that, as his experience had progressed, the results had improved. If a wedge of bone were inserted in the transverse tarsal joint from the outer side in a normal foot (as in an amputated specimen which Mr. Davy exhibited), it made a talipes varus; and similarly, the excision of a wedge of bone at the joint, including portions of the os calcis, cuboid, astragalus, and scaphoid bones, in cases of varus, would permit the remainder of the foot to regain its normal position. In the case of a boy, aged 10, the subject of extreme talipes equinus, the transverse tarsal joint was attacked in the above manner. The boy remained in the hospital for two months, when (as an exhibited cast showed) the shape of his ankle-joint was perfect, and he could walk well. He considered the operation was now much more nearly perfect than formerly. In carrying it out, he first removed a quadrilateral piece of skin from the outer part of the foot, corresponding to the base of the wedge; then, with knife and saw, he removed the wedge-shaped piece of bone. Of course, he only thus attacked the most serious cases, those that had resisted milder methods of treatment. His cases had been treated without antiseptic precautions, except those of extreme cleanliness. Out of the seventeen cases, he had lost but one. Mr. Bennett's case was the oldest he had yet known to be operated upon. No operation in connection with club-foot yielded more permanent results; an useless member was made an useful foot. The boys, immediately on leaving hospital, had been able to obtain situations. He had generally obtained bony union at the site of excision, but he saw no reason why fibrous union (as in Mr. Bennett's case) should not be equally useful. He had no record of any relapse in any of his seventeen cases.—Mr. MARSH thought it would be a great advantage if some of Mr. Davy's cases might be exhibited at the Society's meeting. Mr. Bennett's case was successful, so far as the immediate change in the shape of the foot was concerned; but the structures of the foot which were cut across were very extensive, and he would like to see how the patient walked after a certain time.—Mr. HAWARD considered that the operation should be one of extremely limited range. If the patient could walk moderately well soon after the operation, he thought the foot would be likely to be even yet more useful for progression after a lapse of time. Mr. Davy appeared to have operated in many cases of children, but he should think there were not many children in whom simpler operations would not cure the patient. What had been done in the earlier treatment in Mr. Davy's cases, operated on in childhood? Generally, he feared, the operation was only half done; the tendons were divided, and the apparatus fitted on; the boy then went home, and kicked off the apparatus, and it was not reapplied by his friends. The long necessary manipulative after-treatment was not done. He thought the excision advocated by Mr. Davy should not be undertaken until all efforts at treatment by tenotomy, instruments, and manipulation, had been exhaustively carried out.—The PRESIDENT deemed that the operation in Mr. Bennett's case was necessary as it was successful; but he thought such operations were not generally called for, certainly in children. Patience and perseverance in manipulation would effect great results in most cases. If Mr. Davy had adopted the antiseptic treatment, he might, instead of being surprised at the satisfactory results he had obtained, well have been surprised if the results had not been so successful. It was unfortunate, in Mr. Bennett's case, that the antiseptic treatment was not continued. The carbolic acid might have been given up, but eucalyptus gauze or iodoform gauze, neither of which irritates the skin, might have been adopted. He had himself, after this lapse of time, had one instance of erysipelas amongst his antiseptically dressed cases at King's College Hospital; it was in an old case, in which, perhaps, the treatment was being a little relaxed. Of four other cases of erysipelas, one had died; but in all these, as in one of them, which was an instance of epithelioma of the labium, the antiseptic method of treatment could not, from the nature of the case, be strictly applied. If he were to do the operation in such a case as that of Mr. Bennett, he should feel quite sure that the result would be satisfactory under antiseptic treatment.—Mr. BENNETT had seen no other case than this in which the operation should be done. In children, the old methods of treatment would, in almost all cases, prove successful. He thought there would be found cases amongst adults where, as in his case, the operation should be performed. The irritation of the skin from the carbolic acid was great, and he was compelled to partly relax the antiseptic treatment. He had thought that with the chisel he would be better able than with the saw to take out as much bone as was necessary. He would try to bring the patient for exhibition at a later date. As motion had partly returned at the toes, he hoped it might partly come back in the ankle-joint.

Cases of Myxœdema. Mr. J. R. LUNN read notes of two cases, [illegible] and female. The former was 47 years of age, had a good family history, was a stout man, well nourished, his movements of locomotion were slow, his skin dry, harsh, and translucent, not pitting on pressure: the whole of his face was puffy, especially the under lips, suggesting renal disease; he had several moles on his face; his nose was flattened, his lips thickened, teeth fairly good, breath offensive, articulation slow, with a nasal intonation. The hair on his head was thin, especially on the vertex, thin on the pubes, none in the axillæ. No apparent disease of the fundus of the eye was seen with the ophthalmoscope. There was fulness about the supraclavicular regions. The thyroid gland was not to be felt. He was drowsy at times, and had no perspiration; temperature 9[illegible]-97.2, both sides alike, pulse small and weak, 80; respirations 18, no anæsthesia or hyperæsthesia, taste good, no apparent chest-symptoms, appetite good; urine of specific gravity 1815, containing a trace of albumen at times, no sugar, no apparent increase of urea, with nitric acid. He had had delusions lately. He only passed 34 to 38 ounces of urine daily, averaging 5.72 grains per ounce of urea, equal to 194.48 grains in the twenty-four hours. The second case was that of a female, Mrs. J., aged 45, mother of eight children, four of whom were dead, cause unknown. She had had five miscarriages. There was no history of syphilis, gout, intemperance, or fright. The woman had the appearance of a cretin; she was very drowsy, her movements were slow; the hands looked puffy, harsh, and dry; she never perspired; the alæ nasi were thickened; she always felt cold; temperature 97.4-98.5; pulse 70, slow; respirations 18; [illegible] thin. The thyroid gland could not be felt. Hearing was not good; appetite was fairly good; there was slight hyperæsthesia of the whole body when pricked with a pin. There were slight bronchitic signs in the chest; the latter was otherwise normal. The uterus was soft, axis normal, no disease. The catamenia stopped in 1880. The urine

was ammoniacal; specific gravity, 1020; it contained vesical epithelium, a distinct trace of albumen at times, no sugar; urea was diminished; in the twenty-four hours, there were 6.78 grains in each ounce. She often had horrid dreams, but no distinct delusions.—Dr. CAVAFY described two other cases of this disease. Case 1 was that of a woman aged 59, married, who had had six healthy children and four miscarriages. The catamenia ceased at the age of 45. She had good health until eight years ago, when she suffered from dyspeptic attacks, which had come on at intervals ever since. Five years ago she was subjected to a severe mental shock, after which she gradually became very weak and low-spirited, walking with difficulty, and the characteristic swelling of the disease slowly supervened, but was not sufficiently marked to attract attention until two years ago. On admission, there was moderate tense swelling of the cheeks, nose, and lips, with a bright patch of dilated capillaries on the cheeks, the skin of the face being waxy. The hair was scanty, the eyebrows raised and scanty, and the eyelashes largely wanting. The hands were rather broad and swollen, covered with dull reddish dry and rough skin. The rest of the skin was dry and harsh. Her expression was dull and listless, and her speech slow and nasal. The gait was awkward and slow, common sensation was blunted, special senses unaffected, and intelligence good. The thoracic and abdominal viscera were normal, and the urine was free from albumen. She was very chilly, and her temperature was always subnormal, averaging 96·5°. The pulse was very slow, about 48, and urine scanty. She had two sudden attacks of dyspepsia and diarrhœa during her stay in the hospital, lasting a week and three days respectively, and was discharged feeling rather stronger, but with no appreciable change in her condition. Case 2 was that of a married woman, aged 33. She had had five children in eleven years, of whom two survived and were healthy, the remaining three having died in infancy during teething. Five years ago, after the birth of one of her children, she began to feel very weak, and at the same time her eyelids were swollen. In the course of a year the swelling became general, and her speech slow, with great awkwardness in all movements, so that she fell occasionally. On admission, the face was much swollen, the upper eyelids especially pearly and semi-transparent, the nose very broad, and the lips much thickened. The hands were large, clumsy, red, and rough; the feet and ankles were swollen, and the whole skin very dry and rough. She had a placid expression and slow speech, but intelligence and special senses were unaffected. Her movements were slow and awkward, common sensation was rather dull, and she felt constantly chilly. The heart, lungs, and abdominal organs were normal; and there was no albumen in the urine. The pulse was constantly slow, varying from 45 to 65 and the temperature averaged 97·6°. She remained in the hospital nearly a month without alteration, and had since been an out-patient. She had lately felt worse, owing to grief from the death of one of her children from bronchitis, and the eyelids were more swollen, but there was no other change. It seemed probable that the œdema and nervous symptoms were both due to a common cause in the central nervous system, as the former predominated in the second case and the latter in the first case. This view was supported by the slow pulse and subnormal temperature, which was highest in the second case, in which there was most œdema. The acute dyspeptic attacks in the first case somewhat resembled the gastric crises of locomotor ataxy.—Dr. ORD read notes of another case of the same kind.—Dr. MAHOMED desired to draw attention to a different explanation of this disease from that usually given. Were they not really cases of chronic Bright's disease? In many cases of chronic Bright's disease, there was an absence of œdema, but in others there were all the symptoms of myxœdema, without albuminuria, but with high arterial tension. In one case, the subcutaneous tissues were not found to contain mucin. The cases appeared to be due to chronic Bright's disease without kidney-symptoms, as described by Sir W. Gull and Dr. Sutton. In the published cases of myxœdema, now twenty in number, three were not noted as to urine; in the seventeen others, ten had albuminuria, of which four were fatal; they had affected kidneys, hypertrophied heart, and thickened arteries; whilst many of the changes in the spinal cord were doubtless those of myxœdema of the cord. Thus in all the four fatal cases Bright's disease was present. Albuminuria was absent in many cases of Bright's disease. And if there were such a thing as local œdema taking place, it would be a good explanation of nervous symptoms developed in myxœdema.—The debate was adjourned.

M. CHARLES RICHET has lately made a communication to the Paris Société de Biologie, in which he seeks to show that after the death of an animal the nerves of sensation retain their functions longer than the nerves of motion.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

FRIDAY, NOVEMBER 18TH, 1881.

J. W. TRIPE, M.D., President, in the Chair.

Letters.—A letter was read from the Société Française d'Hygiène of Paris, with a diploma conferring the honorary membership of the Society on the Society of Medical Officers of Health.

A letter was read, asking the opinion of the Society how near to small-pox hospitals dwelling-houses might be built with safety.

Reports of Infectious Diseases.—Mr. JACOB moved that the Council be requested to consider and report the steps which should be taken, so as to obtain for members of this Society the valuable reports on infectious disease made by the medical inspectors of the Local Government Board.

Ventilating Shaft for Sewer.—Mr. ROBERT PARKER, Surveyor to the Board of Works for the Poplar District, exhibited a model of a ventilating shaft for sewers. Mr. Parker first referred to the necessity which existed for sewer-ventilation, and said that his own method could be easily adapted to existing sewers. His method was to utilise the force of the wind, for the purpose of causing a current of air to pass through the sewers. With this object, it would be necessary to have a number of cast iron shafts erected, twelve feet high and ten inches in diameter, in convenient and open places, and also pipes of various sizes, according to circumstances, from the sewers and existing drains at the rear of houses to the housetop, as high as the chimney-stack; and these ventilating shafts should be surmounted by a cowl guided by a vane attached to it, so that its opening or aperture should always be facing the wind. The wind, impinging on it, would pass down the sewer and travel along it, entering all drains to find an outlet so that it might escape. Mr. Parker had carried out experiments showing that there was always a downward current in the shaft, and an upward rush of pure air in all the gulleys. Mr. Parker exhibited a model of his cowl, and gave the results of various experiments showing the velocity of the wind at different temperatures. In reply to Mr. Blyth, he stated that, if the air had a velocity of even less than two miles an hour, this was found sufficient to produce a current through the sewer. —Dr. TRIPE said some points in Mr. Parker's method were commendable, but that, to be successful, the shaft should be placed at the lower level of the sewer, so as to permit air to escape at the upper level. He objected to Mr. Rogers Field's method of disconnecting the house-drain from the sewer, except in cases where the latter was badly constructed. He thought the air of sewers less injurious than that of drains.—Dr. DUDFIELD looked upon sewer-air as very prejudicial.—Dr. CARPENTER thought the best method was that which took advantage of the natural circulation of the air. If every soil-pipe were ventilated, and no sewer caused deposit, no other apparatus would be needed.—Dr. CORFIELD said that, with regard to house-drainage, an opening at the lower and upper levels presented a perfect system.—In reply to Dr. Dixon, Mr. PARKER stated his apparatus would remain a long time in good working order.

Enteric Fever.—Mr. SHIRLEY MURPHY exhibited a diagram, showing the behaviour of enteric fever during each week of the present and ten preceding years; the mean temperature, barometric pressure, and the rainfall for each of these weeks was also shown.—Dr. TRIPE, in moving that the diagram be published, noted the fact that during the first three quarters of the present year the number of deaths from this disease was much below the average, and that it was only in the fourth quarter that they were so much more numerous than usual. He also gave the distribution of cases admitted into the Homerton Fever Hospital.

Typhus Fever in Marylebone.—Mr. WYNTER BLYTH gave a brief account of the recent outbreak of typhus in Marylebone, and spoke of the inadequacy of the existing laws to deal with such outbreaks. It was first necessary to remove the sick person to hospital, and then to disinfect his room; for this purpose, his family must be turned out, often into the street. The bodies of these people should be disinfected; but this, of course, could not be done. More power was needed to deal with infected clothing and infected persons, for burning old clothes, and replacing them with new ones.—Mr. LOVETT gave his experience of the help that could be obtained in dealing with such outbreaks. Each outbreak with which he had had to do, had begun in a condemned area; but, as soon as the sick were removed to hospital, and the houses closed under a magistrate's order, the extension of the disease was checked.—Dr. BUCHANAN asked whether the present prevalence of enteric fever might in any part be due to cases of typhus which had not been recognised.—Dr. DUDFIELD was of opinion that the existing laws would be found to be of much avail in limiting an outbreak of typhus.—Dr. CARPENTER discussed the present prevalence of

enteric fever in association with water-supply.—Mr. SHIRLEY MURPHY said that cases in St. Pancras did not appear to be due to contaminated milk or water, but occurred at distinct intervals between successive cases. If one case were introduced into a house, there was a great tendency for subsequent cases to occur.—Dr. CARPENTER, in reply to Dr. DUDFIELD, made a few remarks on the Royal Commission appointed to consider metropolitan hospital provision for infectious diseases.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL SECTION.

NOVEMBER 25TH, 1881.

J. F. WEST, Esq., in the Chair.

Nævus.—Mr. WEST showed a boy aged 11, in whom a large nævus of the left cheek had been successfully treated by the employment of Hutchinson's cautery.

Fatal Cases of Ulcer of the Stomach.—Mr. J. R. HARMAR related two cases of sudden death from peritonitis following perforation of a gastric ulcer, occurring in two sisters within a few days of each other. No *post mortem* examination was made in the first case; but in the second case, characterised by precisely the same symptoms as the former, a careful examinntion was made, and a perforating ulcer was found. The father also died of gastric ulcer followed by perforation and peritonitis.

Orbital Abscess.—Mr. LLOYD OWEN introduced a man suffering from an orbital abscess, which had been treated by capillary puncture, but without success. It ultimately burst into the nasal cavity, through which it still continued to discharge. At present, the case was progressing well. He believed it originated as a congenital cyst, and that the subsequent suppuration was caused by irritation set up by the act of puncture.

Slow Pulse.—Dr. SIMON introduced a patient with a remarkably slow pulse-rate, varying from a minimum of 12 to a mximum of 40 beats per minute. The case was fully reported by Dr. Russell in the *Medical Times and Gazette* for 1877, and has now been under observation for thirteen or fourteen years. He is in much the same condition as before.

Heart from Case of Slow Pulse.—Dr. SIMON also showed the heart from a man who died in the General Hospital with anasarca, cyanosis, and dyspnœa. Amongst other symptoms during life was a very slow pulse—about 30 per minute, as a rule. There were no physical signs of organic cardiac disease four or five weeks before death, and to the end there was no cardiac murmur. The heart was found enlarged and dilated. The endocardium generally was healthy; but an aneurysm about the size of a walnut was situated in the wall of the left ventricle, at its junction with the left auricle.

Cancer of Stomach.—Dr. W. G. LOWE (Burton-on-Trent) showed a specimen of cancer of the stomach, and related the notes of the case from which it was taken. Great difficulty was experienced in its diagnosis from ulcer, even within a short period of the patient's death.

SOUTH OF IRELAND BRANCH.

NOVEMBER 26TH, 1881.

P. J. CREMEN, M.D., President, in the Chair.

Large Fibroid Polypus of Uterus: Removal: Death.—Dr. MACNAUGHTON JONES exhibited the uterus, ovaries, vagina, and bladder of a patient aged 50, unmarried, from whom he had removed a large fibroid polypus of the uterus, weighing over one pound and three-quarters. The patient had suffered from hæmorrhage for a period of eight years. At last, defæcation became impossible, and she had to have the urine drawn off. The tumour was removed with a wire *écraseur*. There was no hæmorrhage in cutting the pedicle; but there were great difficulty, and some laceration of the perinæum, in delivering the mass from the vagina, which had to be effected by means of a midwifery forceps. He had intended to make lateral incisions to facilitate the removal, but was dissuaded from this at the time. Any hæmorrhage was pretty speedily checked, and some catgut sutures were employed to tie a few vessels not secured by torsion. The woman was under an anæsthetic during the delivery of the tumour. She was greatly blanched before the operation, and had to have sulphuric ether injected subcutaneously immediately afterwards, to rouse her. She had, it was ascertained, tried to starve herself before admission, in order to avoid a motion, so great was the pain and difficulty in passing it. She sank from asthenia and the effects of the shock, on the fifth day after the operation. At the necropsy, the bladder was found contracted, with greatly thickened coats, holding about three ounces. The uterus was enlarged, about three inches in length; the pedicle was attached to the margin of the os uteri; and from the fundus were sprouting three or four small subperitoneal fibroids. The left ovary had growing from it an ovarian cyst about the size of a large orange, full of semi-solid contents. The case was thus in every respect a hopeless one: but the one lesson he had learned from this operation was, never to attempt the extraction of a similar tumour without first dividing the perinæum.

Abuse of Circulation: Fatal [illegible].—Dr. MACNAUGHTON JONES exhibited also the temporal bone, with section of the tympanum, showing the accumulation of pus in the tympanum in a case in which death resulted from cerebellar abscess. The patient died in the Fever Hospital. There was the history of an old aural discharge, which had recently stopped. There were convulsive movements of the right facial muscles, and also of the right arm and leg. A large abscess of the left lateral lobe of the cerebellum, involving the medulla, the pus being very fœtid, was found after death. The membranes were injected. Some greenish lymph was found under the dura mater; the adjoining petrous portion of the temporal bone was healthy.

Unusual Fractures of Humerus.—Dr. MACNAUGHTON JONES showed the cast of an arm of a patient who had broken the humerus in two places. There waa a compound fracture just above the elbow-joint, and a portion of bone nearly two inches and a half long was removed antiseptically. There was a second fracture, not compound, near the neck of the bone, which was carefully set at the same time; but, a few weeks afterwards, a loose portion of bone was here discovered, which proved to be, on removal by incision, a longitudinal portion of the bone, including the outer lip of the bicipital groove. Dr. Jones remarked on the rare nature of this form of fracture—a double fracture, with a separation of fragments longitudinally at the two extremities of the bone.

Naso-pharyngeal Polypus.—Dr. [illegible] showed a large naso-pharyngeal polypus which grew from the periosteum of the basilar process, removed by the *écraseur*.

Necrosis of Tibia: Removal.—Dr. GELSTON ATKINS showed the greater portion of the two tibiæ which he had removed from two boys, aged respectively 10 and 7 years, in the Children's Hospital, for necrosis subsequent to injury. The discussion on these latter cases was adjourned to the next meeting.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, NOVEMBER 26, 1881.

WILLIAM STOKES, M.D., President, in the chair.

Gall-stones.—Dr. J. W. MOORE exhibited some specimens of unusually large gall-stones, which had been passed *per anum* by an elderly woman after two attacks of biliary colic, which placed her life in imminent peril. The largest of the gall-stones was three-quarters of an inch in length in its short axis, one inch in its long axis. Its short circumference was two inches and three-quarters, its long circumference was three inches and a half.

Cerebral Hæmorrhage.—Dr. G. F. DUFFEY showed the brain of an unmarried woman, aged 24 years, who, six months previously, had become the subject of left hemiplegia after a sudden attack of unconsciousness. She partly regained the use of the paralysed limbs, and continued in excellent health for several months. Then came a second seizure, accompanied with convulsive movements, especially of the side previously paralysed, followed by paralysis of the right side and of the sphincters, and coma terminating in death after 36 hours. In the medullary substance of the right hemisphere of the brain, was a cyst, measuring three inches and a half in length, and three-quarters of an inch transversely and vertically, which contained a quantity of slightly turbid serum. The wall of this cyst was composed of fibrous tissue, and well-defined and stained a light yellowish-red colour. It was entirely extraventricular. In a corresponding position in the left hemispere, was a very large homorrhagic clot. The extravasation had not broken through into the ventricle. The aortic valves were healthy; there was slight mitral stenosis; the left ventricle was greatly hypertrophied; there was slight atheromatous disease in the aorta. There was evidence of previous or co-existing meningeal inflammation.

Ankylosis of Cervical Vertebræ.—Dr. W. [illegible] showed the base of the skull of a young woman, in which firm ankylosis had occurred between the [illegible] on the left side. The left transverse process also was much hypertrophied. Dr. Stoker pointed out that [illegible] syphilis, or from [illegible]. Professor BENNETT said the cause was rickets; and Professor W. G. SMITH considered the [illegible].

Mr. [illegible].—

and Mr. P. ABRAHAM made a joint communication corroborative of Professor Leber's discovery, as to the presence of micrococci in sympathetic ophthalmitis. A boy aged 10, received an injury to his right eye, necessitating the enucleation of the eye-ball. The vitreous fluid contained red and white blood-corpuscles, and many small, roundish and oval micrococci, moving briskly. Similar bodies were found in the tissue teased out from the sheath of the optive nerve.

Acute Ulcerative Endocarditis.—Professor W. G. SMITH showed the heart of a girl who had been admitted to hospital in a profoundly typhoid state, and who speedily died. The right cavities of the heart were normal. One flap of the aortic valves was extensively destroyed. Some of the chordæ tendineæ were torn across. There was an acute aneurysm of the mitral valve. Micrococci were present in the fresh blood but not in texture of the heart. The appearances indicated a local and malignant septic disease—acute ulcerative or diphtheritic endocarditis.

SATURDAY, DECEMBER 3RD, 1881.

Immense Aneurysm of the Aorta. Dr. J. W. MOORE showed an immense aneurysm of the ascending aorta in a discharged soldier, aged 43 years, who had served eight years and a half in India, and who presented a clinical history of syphilis and rheumatism. The aneurysm contained a mass of solid fibrin, which weighed twenty ounces. The whole ascending aorta was atheromatous, dilated, and sacculated, rendering the aortic valves incompetent. The left cardiac ventricle was hypertrophied, dilated, and soft from fatty degeneration. The mitral orifice was dilated. The liver was rather large; it was a nutmeg liver. There was some cirrhotic change in the kidneys and spleen.

Round-celled Sarcoma of Thigh.—Mr. STOKES (the President) showed a large tumour of the thigh, which was of traumatic origin. A blow had been followed by hæmorrhagic effusion, and the resulting hæmatoma had been incised freely two years previously. Amputation was ultimately performed at the hip-joint. The centre of the tumour was occupied by a large cyst filled with blood. Otherwise, the new growth was partly soft and brain-like, partly firm. The microscopical characters were those of round-celled sarcoma.

Fracture of Tibia and Fibula.—Mr. W. THORNLEY STOKER exhibited two specimens of fracture of both bones of the leg—of the tibia in its lowest third, of the fibula in its uppermost third, in the vicinity of its head. He thought the latter injury was consecutive to the oblique fracture of the tibia, and was caused by the weight of the legs, foot, and the efforts of the patient after the injury.—Professor BENNETT said the specimens illustrated oblique fracture of both bones; and that, as pointed out by Malgaigne, the obliquity of the fibular fracture was in the opposite direction to that of the tibial. One of Mr. Stoker's specimens was an example of Gosselin's V-shaped fracture of the tibia.

Carcinoma (?) of Kidneys.—Dr. G. F. DUFFEY presented the bladder and kidneys of a discharged soldier, aged 54, who had suffered from a very tight stricture. The urine was intermittently albuminous. Severe attacks of hæmaturia occurred at intervals, and ultimately proved fatal. The lungs, heart, and liver were healthy. The spleen was enlarged and diffluent. The bladder was hypertrophied, and its mucous membrane was ecchymosed. The right kidney, with its surroundings, weighed seventeen ounces and a half. Both kidneys were the seat of a new growth, which was probably a carcinoma.

Fractures of Skull.—Mr. W. THOMSON laid on the table an interesting series of five fractures of bones of the skull: for an opportunity of showing them, he was indebted to Dr. David Jacob, of Maryborough. The first specimen was a depressed fracture of the parietal and occipital bones, caused by the blow of a spade. In the second case, a pistol-bullet lodged in the occipital bone, having passed through both plates and almost escaped from the outer one. The third specimen was one of fracture of the frontal bone in a female, who died of an abscess of the brain three weeks after the receipt of the injury. In the fourth, a fracture of the right parietal bone was caused by the kick of a horse. The outer table was crushed in; the inner table was pushed up into three plates. Violent maniacal symptoms set in half an hour after the injury, but at once ceased on the trephining of the bone. The fifth case was also a fracture of the right parietal from the kick of a horse. In this instance, too, trephining was performed.

A MAN named Hemsley, accused of fraud at Hastings, assumed hydrophobia, and was with difficulty conveyed to the hospital on a stretcher. He has since admitted that he had been malingering. He was subjected to galvanic shocks, but stood them so well that, as a final test, one of the medical operators said: "Take him away; we'll try the 'big' battery to-morrow." This hint of what was yet to come, it is said, proved a little too much for the prisoner's endurance, and he ultimately confessed that he had been simulating madness. He has been recognised as an old offender, and sentenced to four months' hard labour.

REVIEWS AND NOTICES.

A TREATISE ON COMPARATIVE EMBRYOLOGY. Vol. II. By F. M. BALFOUR, LL.D., F.R.S., Fellow and Lecturer of Trinity College, Cambridge. London: Macmillan.

THIS second volume of Dr. BALFOUR'S work is a vast compendium of knowledge, full of original research and of criticism of the newest labours of others. It includes the embryology of the entire group chordata—a comparatively new expression, referring to three forms of life until lately arranged in another manner; for it places together the vertebrata, the cephalochorda—that is to say, our old friend the amphioxus, very logically separated from immediate association with backboned animals, and the urochorda, or tunicata, a group for some time held to be rather allied to the vertebrata than to the mollusca and other invertebrates, and famed for including what are now considered to be the earliest ancestral types of their superiors in the ranks of animal life. In the concluding chapters of the second volume, the comparative anatomy of the more important organs of the body is discussed at length, and each organ is traced from the lowest types in which it exists, up to the mammalia.

Review of such a work at length is clearly impossible within the limits of these columns. Commendation of the main plan of description adopted by so able and so well-known an authority would be superfluous. We shall, therefore, confine ourselves to indicating passages of great interest to all who have ever considered the vast theory of evolution, and who desire some knowledge of the practical basis of that doctrine. We refer to the anatomy of vertebrates not extinct that bear a close analogy, in the adult state, to the young or the embryos of higher types; and to certain strange forms of life which seem to be half-embryonic as to their anatomy, and half-adult as to the perfection of reproductive power, all their lives. Professor Balfour devotes a chapter to the lampreys, which have tadpole-like mouths, but a nervous system with modifications only seen in certain fishes; they also begin life in a larval form, once taken to be a distinct species. Turning to the chapter on the amphibia, we find, as was to be expected, much collected information on recent researches into the anatomy of tadpoles. In *Pipa*, the tail is absorbed before hatching, so that the tadpole is born in a condition closely resembling the adult. In *Pseudis*, the tadpole, on the other hand, grows till it becomes very much larger than the adult; and, on ceasing to be a tadpole, begins to diminish in size. In *Dactylethra*, the tadpole develops special temporary appendages, so as to resemble, for a time, certain adult fish. The loss of gills and development of a pulmonary respiration in the adult axolotl, even after it has begotten or produced eggs, is a subject of profound interest; and the author has taken care to add, after recording this discovery of Dumeril's, that sexually mature specimens of the Alpine newt have been found, still bearing gills, in the cold solitudes of a swamp near Andermat. Yet in one salamander, closely allied to the true newts, the young are born with true gills; whilst in an allied species the gills are developed and lost before birth. These facts are of primary importance in the study of the question of reversion to inferior types and development into higher forms. The same principle may be studied in the mammalia, but only with regard to structures less essential to life than the organs of respiration. The very necessities of mammalian existence would kill at birth any embryo without lungs and with gills teratologically developed from its branchial clefts, could such a monstrosity be possible. On turning, however, to the less essential but very early developed ossicula of the tympanum, it has been recently shown that, in adult mammals of low type, these little bones closely resemble their homologues in the young or the fœtus of a higher form. This is the case even among animals of the same order, notably amongst the ungulates; but we find no mention of this subject in either volume of Dr. Balfour's work—a publication which must rank among the highest books of reference, indispensable to all who study animal life in any department, and who treat of the subject, as it should be treated, from that entirely new position to which it has been raised by the combined labours of embryologists and evolutionists.

MIND. Nos. XXI-XXIV. 1881.

THIS psychological review continues fully to keep up its original high standard of scientific interest in all matters relating to mind. The first number of this year opened with a couple of papers of some interest to medical readers—"Illusions of Introspection", by James Sully; and "Our Control of Space and Time", by J. Venn. The latter paper is an especially lively and amusing essay, suggested doubtless in part by such recent inventions as the phonograph. Mr. Venn considers, for instance, how strangely limited our powers of dealing with

space and time in reality are. If our powers of locomotion were less restricted, all manner of problems, now almost hopeless, would be easy. We can by much labour find out how hot it is at the antipodes; but halfway there, at the centre of the earth, we cannot make it out at all. So, too, with time; if we could move through a hundred years backwards or forwards, as easily as we can move through a hundred miles north or south, all history would be simple. The most difficult questions of psychology would be solved at once, if we could stop a process going on in time at any critical moment, or reverse it at will. Again, by a microscope, we can within certain small limits enlarge the objects in space which we wish to observe minutely; but, if we could communicate with the minuter insects, we should find out vastly more. The microscope, moreover, as he remarks, is practically confined to magnifying the sensations of one sense only. Though the microphone has assisted us slightly in matters of hearing also, touch remains wholly unrefined, except by individual practice. As to the possibilities which remain to us in the way of extending our control over space and time, Mr. Venn disclaims, of course, the intention of making any practical suggestions, but he notices one or two curious things. If, for example, a projectile, which has a velocity greater than that of sound, could be made in any way sensitive to sound at its point of impact, it would "hear", so to speak, first the impact, then the noise of its own passage through the air, then the report of the gun, and finally the word of command. Its sensitive experiences, therefore, would reverse the time-order. But we need not multiply instances. It is enough to say that Mr. Venn's is not only an interesting, but, what is rarer, a scientifically amusing essay. The same number of *Mind* contains also a few "Notes on Hypnotism", by Mr. Stanley Hall, and a searching and powerful review of Dr. Bastian's *Brain as an Organ of Mind*, by Professor Croom Robertson. The review is carefully worked out, and is intended to show how Dr. Bastian, in the laudable endeavour to get rid of the awkwardness involved in such terms as "unconscious sensation", has fallen into deeper inconsistencies himself.

The April number of *Mind* has less of any special importance from medical points of view, the largest space being taken up with a lengthy discussion of the psychology of M. Renouvier, by Mr. Shadworth Hodgson—a well-meaning, but essentially tedious paper. Among the reviews is one by Mr. Sully, of Mr. Gurney's *Power of Sound*, and another by Mr. Grant Allen, of Geiger's *Development of the Human Race*, which are not uninteresting, though neither is very profound. Mr. Seth also contributes a notice of the first part of the translation of Professor Zeller's well-known *History of Philosophy in Greece*, which Messrs. Longmans are now issuing.

The July number contains a paper, which will interest most people, on "George Eliot's Art", by James Sully. There is also an able criticism of the late Professor Clifford's remarkable but rash theory of "mind-stuff", by Professor Josiah Royce, of Berkeley, in California; and several interesting reviews, including one, by Mr. Pollock, of Schultze's valuable little book, *Die Sprache des Kindes*, in which Mr. Pollock adds a few independent observations of his own on the same interesting and now fashionable subject. Perhaps the most important item for our readers, however, will be the reprinted note, by Professor William James of Harvard, on the "Phenomena of Dizziness in Deaf-Mutes", as leading up to the theory that the semicircular canals are not organs of hearing, but of a special sense which he calls "the sense of translation through space, which in its more extreme degrees, becomes the feeling of dizziness or vertigo". He thinks—as yet only as a tentative hypothesis, pending his further investigations—that the normal guiding sensation in locomotion is that from the semicircular canals; and that, accordingly, many cases of so-called paralysis (*e.g.*, after diphtheria or scarlet fever) may very possibly be only sudden anæsthesia of these peculiar organs.

The October number contains as one of its main papers an essay, by Mr. Carveth Read, on Mr. G. H. Lewes's latest volumes of the *Problems of Life and Mind* and the *Study of Psychology*. The main impression the essay leaves on us is, that Mr. G. H. Lewes knew a great deal more about the delicate questions concerning the relation of mind to body, and about the problems of psychology in general, than does Mr. Carveth Read. The first paper in the number is a disquisition, by Mr. Grant Allen, upon the Relation of Sight to Smell in the Vertebrates, leading up to the suggestion that in the lower orders the main section of the brain was that concerned with co-ordination of smells and motions, but in the higher orders it tends to become more and more the co-ordination of sights and motions. This is a theory plausible enough, with the needful limitations; but when Mr. Allen adds the daring generalisation that the cerebral hemispheres must have been "originally, as I venture to think, mere special olfactory centres", we feel inclined to suggest that he should leave these high mysteries to the morphologists. The October number, however, is remarkable for a more important paper, in which, for the first time in the pages of *Mind*, the English Hegelian school states its conclusions. Mr. Andrew Seth, of Edinburgh University, puts the main points of ordinary Hegelianism very clearly, and in language which the most scientifically minded of materialists ought to be able to understand. It will be interesting to see what answer, if any, will be made from the other camp. The same theory of philosophy is also discussed, in special relation to the conception of "mind-stuff", by Mr. T. Whittaker, who seems to imagine that he sees a possible approximation between the scientists and the Hegelians on the basis of that *bizarre* doctrine. The reviews contain nothing very notable, except a short notice, by Mr. Sully, of M. Ribot's excellent book on the *Maladies de la Mémoire;* and a long discussion of an apparently very worthless attempt, by Mr. William Graham, to explain the *Creed of Science, Religious, Moral, and Social.* Amongst the miscellaneous items is a short notice of the untimely death, just after his promotion to Berlin, of Hermann Lotze, the ablest by far of the German metaphysicians of this generation.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

GERRARD'S PEPTONISER.

Dr. William Roberts [illegible] in the London [illegible] 1880 (British Medical Journal, volume i, 1880), the administration, in cases where the digestive functions are profoundly interfered with, of fluid nourishment which had already been in great part or entirely digested out of the body by the action of pepsine, or pancreatine. Dr. Frederick Roberts, of University College Hospital, has made extensive use of pancreatised food in the treatment of typhoid fever, and with the most satisfactory results. A case under his care, treated in this way (but fatal owing to an unusual complication) was lately reported in our columns (page 161, July 30th). In the preparation of these foods, great difficulty was at first experienced in maintaining a constant temperature during the process of digestion; it was found that, unless undivided attention were given to the operation, the resulting food was a failure, too low a temperature yielding an imperfect peptone: too high a temperature a nauseous over-peptonised mass, bitter, and most repulsive to the patient. These defects led Mr. A. W. Gerrard, F.C.S., pharmacist to University College Hospital, to contrive an apparatus which overcomes the above practical difficulties.

The peptoniser consists of a plain tinned water-bath having an opening to receive an automatic mercurial temperature-regulator, the bulb of which dips in the water of the water-bath. The construction and working of this ingenious regulator are fully described by Page, in the *Journal of the Chemical Society*, vol. xxix, p. 24. In the centre of the water-bath is fitted a loose inner vessel, of about the capacity of a quart, intended to receive the food to be peptonised. A supply of gas passes through the temperature-regulator, and burns under the water-bath; as the temperature of the water rises, the mercury expands and finally shuts off the main supply of gas, but, by means of a pin-hole in the regulator, a small jet is always kept burning, so that there is no fear of the gas being entirely extinguished. Although the construction of this instrument is scientific, it can be easily worked by a nurse or domestic servant; all that is required is to fill the bath to three-quarters of its total capacity with water at 120° Fahr., to light the gas, and place the food, mixed with the pepsine or pancreatine, in its receptacle; the process may then be allowed to complete itself without further attention. The temperature-regulators are sent out adjusted to the proper temperature for making peptones; but, if other temperatures be wanted, they can easily be obtained; by raising a tube in the regulator, the temperature is raised, and *vice versâ*. It is evident that the application of the instrument is not confined to the purpose for which it was originally designed, but that it will be of use wherever a constant temperature is required.

South Lond[illegible] [illegible] sented to the following successful competitors, in the lecture-ro[illegible] the institution, on [illegible] 17th, [illegible]. [illegible]: E. John Bull; Certificate, Herbert Shaw. Junior Chemistry: Medal, W. J. Mignol-Tucker; Certificate, Walter Lloyd. Botany: Medal, Clement Caldecot; Certificate, F. E. Tozer. Materia Medica: Medal, H. Hardy Wilde; [illegible], W. T. M[illegible]. [illegible] and Dispensing: Medal, Frederick E. Tozer; Certificate, C. Caldecot.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 24TH, 1881.

CONFIDENTIAL COMMUNICATIONS TO MEDICAL MEN.

IT must be self-evident to all honourable men that one of the gravest breaches of medical ethics is the disclosure by a physician or a surgeon, when not legally or morally compelled to reveal the same, of "medical secrets", whether they consist of communications made to him, or facts or circumstances which come to his knowledge professionally.

On the 1st October, we made some remarks on the strong obligation which exists against divulging such secrets, in so far as this subject had recently been discussed in the Belgian courts respecting a case of duel, in which a medical man refused to answer certain questions as to his accompanying other persons, charged with being concerned with this occurrence, to the spot where the duel was said to have been fought; and whether he was present thereat. These questions he declined to answer, as, according to his statement, the knowledge he possessed was owing to his being a member of the medical profession, "and under the seal of secrecy which was demanded of him". Both the Court of First Instance, as well as the Appellate Tribunal in which this case was tried, ordered the witness to reply to the questions, as, in their opinion, his knowledge respecting them could not be regarded as a professional secret: a conclusion, however, to which the medical newspapers strongly objected. Now it does not appear that the witness would have been protected from giving evidence on these matters, if the courts had thought that his information concerning the duel had been acquired professionally; and, if so, he would not probably have been entitled to this privilege in any English judicial tribunal.

The law of this country on the subject of this article is limited to case, or what Bentham, our great jurist, calls "judge-made, law" of comparatively modern date. We do not appear to have any short, readable, and systematic statement of such either in our legal text-books or elsewhere. Medical men are, however, very much interested in this delicate question at the present time; and it is not inopportune to briefly mention not only what this law is, but also a few judicial *dicta* in favour of its change in accordance with what we take to be the general desire of the profession.

The first and the leading case, which has been ever afterwards followed respecting the before-mentioned confidential communications, in which it was decided that a medical man is bound to reveal statements made to him in this capacity, was the trial of the Duchess of Kingston for bigamy in 1776, when Mr. (afterwards Sir Cæsar) Hawkins, who attended the duchess as her surgeon, objected to reply directly to a question put to him concerning her marriage, on the ground that he did not know how far anything which had come before him confidentially in his profession could be disclosed consistently with his professional honour. In this case, Lord Mansfield said that, if a surgeon were voluntarily to reveal professional secrets, "to be sure he would be guilty of a breach of honour, and of great indiscretion; but, to give that information in a court of justice, which by the law of the land he is bound to do, will never be imputed to him as any indiscretion whatever". Since this period, and during the former part of the present century, a few other cases of medical secrecy have been described, to the same effect. On the other hand, however, in the case of Witt *v.* Witt and Klindworth, which came before the Divorce Court in 1862, Sir C. Cresswell disallowed letters to be produced in evidence which were written by a patient to a medical man, describing the symptoms of his illness; but he did not give any reasons for this decision. There have since been several judgments as to the right of litigants against public companies, to inspect reports concerning their cases by the medical men of such companies. In 1864, it was held by Vice-Chancellor Kindersley, at the trial before him of Lee *v.* Hamerton, that a confidential report to an insurance company by its medical officer respecting the state of health of a person whose life was proposed to be insured, was not entitled to be protected from inspection by the defendant in an action in which it was required as evidence; although, as this learned equity judge said, that "no doubt, when an insurance company consulted a medical man, asking his opinion as to the state of health of a party whose life was proposed for insurance, the medical officer would not wish his opinion to go about the world, and therefore it was in that sense confidential".

Nor is a report made by the medical officer of a railway company, concerning the injuries sustained by a passenger on their line, privileged from being read by the latter or his solicitor, unless the report have been obtained by the company with the view to impending litigation. A very important case, among others on this point, is that of Friend *v.* the London, Chatham, and Dover Railway Company in 1877. In this, an action was brought to recover damages for personal injuries suffered by the plaintiff in an accident on the defendants' railway. The latter obtained an order from a judge in chambers for the examination by their medical men of the plaintiff, for the purpose of enabling the former to give evidence at the trial. They made a report of their examination of him, but the defendants, in their affidavit of documents, objected to produce these reports, for the reason, as they alleged, that they were "privileged, being letters and communications written at the instance, and for the use of, the solicitor of the defendants, for the purpose of the legal proceedings in this action, and of giving advice to the defendants with reference to the same, and the conduct and management thereof, and other letters by him for the like purpose". Now, strange to say, an order for inspection of these reports was granted by the judge at chambers, but was rescinded by the Exchequer Division of the High Court of Justice, from whose decision an appeal was brought before the late Lord Chief Justice Cockburn, and Lords Justices Bramwell and Brett, when the direction of the court below was affirmed. Lord Justice Bramwell appeared to think that the plaintiff had no more right to see the report than he would have to read the substance of such, if it had been written down by the defendants' solicitor for the purpose of putting it in the brief; and with this opinion we quite agree. From the judgments pronounced respecting the notification to third persons and others of the contents of confidential medical reports, it seems clear that those submitted to local government boards and other public bodies by their medical officers, would not be protected from the inspection of persons who might wish to see them after they commenced legal proceedings against such corporations, in reference to which these reports would be useful as evidence.

There are several eminent lawyers, as well as, we believe, the majority of medical men, who think that confidential communications to the latter in their professional capacity should be privileged from disclosure, as are those between solicitors and counsel and their clients. Thus, in the case of Wilson *v.* Rastall, tried before the Court of King's Bench in 1792, Mr. Justice Buller expressed his deep regret that the information acquired by medical men in their professional attendances, was not privileged from being made known to others; and Chief Justice Best, in the case of Broad *v.* Pitt, tried in the Court of Common Pleas in 1828, appears to have leaned to this opinion; while Lord Brougham more clearly entertained it when, in the case of Greenough *v.* Gaskell, decided before him in the Court of Chancery in 1833, his lordship said, after stating that the rule of excluding statements to individuals from testimony in

courts of justice was limited to legal advisers, that "certainly it may not be very easy to discover why a like privilege has been refused to others, especially to medical advisers". Again, according to Greenleaf's *Treatise on the Law of Evidence*, which is the leading American text-book on this subject; it is stated that by the Revised Statutes of New York, "No person duly authorised to practise physic or surgery shall be allowed to disclose any information which he may have acquired in attending any patient in a professional character, and which information was necessary to enable him to prescribe for such patient as a physician, or to do any act for him as a surgeon". It appears, however, that the privilege may be waived by the patient, when, of course, the physician or surgeon is at liberty to reveal the facts; but it has been decided that a consultation as to the means for procuring abortion in another, is not protected from disclosure by the statute, as it would be against public policy for this to be excluded from testimony. Similar statutes have been passed in Missouri, Wisconsin, Michigan, and Iowa. In the last-mentioned State, the privilege is extended to public officers, when the interests of the public would suffer by the notification of their evidence.

From what we have here stated, it is to be hoped that our legal tribunals will recognise the importance and necessity of protecting and extending, as far as they consistently can, the sacred obligation under which medical men are, of faithfully keeping inviolate the professional secrets which come to their knowledge; inasmuch as an indifferent observance of this duty would materially degrade our honourable profession, and be productive of grievous ill consequences both to it and to the public generally.

OBESITY: ITS CAUSES AND CURE.

DR. DE SAINT-GERMAIN has recently given a lecture on obesity at the Hospital for Sick Children in Paris. This lecture is reported in *L'Union Médicale* for November 29th, 1881, *et seq.*, and will form part of a forthcoming work, *Les Malformations et leur Thérapeutique*. M. de Saint-Germain commenced his lecture by remarking that, although this subject, so far as he knows, has never been treated in works on orthopædics, he is of opinion that it is included in the study of the anomalies or malformations which are the object of orthopædic surgery. Obesity is also an obstacle to the application of many orthopædic methods, and is cured by the adjuvant methods of orthopædics, by hygiene and gymnastic exercises. The history of obesity considered as a disease was commenced by Hippocrates, and has been continued up to the present time by a large number of publications of various kinds.

Dr. Sedam Worthington, in the new edition, published in 1878, of his Paris inaugural thesis (1875), has given a very copious bibliography of works on obesity. His thesis, which is full of valuable information of all kinds, is, in its amended form, a thorough theoretical and practical library of everything relating to obesity.

M. de Saint-Germain then gives a sketch of the present state of pathological knowledge in relation to obesity. Obesity, he says, is a disease of the cellulo-adipose tissue. It is characterised by a morbid accumulation of fat on those points of the animal economy where it is normally deposited. The cellular tissue under the skin, which gives a comely roundness to the form and that condition of plumpness so generally admired, may, in becoming infiltrated with much fat, engender the characteristic deformity of certain obese individuals. Phenomena of compression from without inwards are then developed in certain regions, and are added to other troubles produced by internal fat, so as to bring on serious disease; it is in this way that pressure on the pneumogastric nerves in the neck and in the mediastinum produces, at the same time, obstruction of the lungs, palpitation of the heart, and dyspepsia. At the same time, the hypertrophy of the intrapericardiac or cardiac adipose parts brings on fatty overloading of the heart and asystolism. Nevertheless, according to Robin, the circulatory area becomes increased to suffice for the nutrition of the excess of adipose tissue, and there is multiplication, or at least elongation, of the capillaries. The demand for red corpuscles increases when the blood-forming function is attacked in all its factors at once; anæmia with deficiency of red corpuscles ensues. The abdominal viscera are twisted or compressed by the omentum and the mesentery, their invasion by fat being the starting-point for the obese belly. They easily become congested. Finally, the too little recognised increase of fat in the track of the artery of the vas deferens and the veins of the spermatic cord may, Dr. de Saint-Germain believes, play an important part in the production of the well known sexual apathy of obese persons. It is a certain fact, that the fat which accumulates on the sides of the umbilical ring has some share in the production of umbilical hernia, which is a very serious disease in obese persons, especially when it is strangulated, which only too frequently occurs.

The pathological anatomy of obesity is set forth by Dupuytren *(Journal de Corvisart)*, Russell (BRITISH MEDICAL JOURNAL), Schæffer, and Aran. The most noticeable point in the necropsies was the condition of the heart. In Aran's typical necropsy, the hypertrophied heart was quadrupled in size; the cardiac cavities were filled with a blackish jelly-like substance; the orifices and valves were perfectly healthy. In the sixty-nine authentic reports collected by Chambers, of necropsies of obese patients, the heart was examined in fifty-seven instances. In fifty necropsies out of the fifty-seven, serious cardiac lesion was found; hypertrophy without dilatation in sixteen cases; hypertrophy with dilatation in eight instances; dilatation alone twenty-six times; atrophy alone eleven times. In sixteen cases, fatty overloading of the heart was found.

M. de Saint-Germain finds that one predominant question in the etiology of obesity, is to determine whether it is hereditary; and he believes that, under certain reservations indicated further on, it is extremely probable that such is the case. It is sometimes congenital, and may cause dystocia. M. de Saint-Germain has himself, at the Cochin Maternity Hospital in Paris, used, and has also seen M. Tarnier use, the forceps for the extraction of infants weighing ten pounds and a quarter, and eleven pounds. Out of the eighty-six cases of obesity noted by Professor Charles Bouchard, thirty-one showed an hereditary tendency, either in a direct, collateral, ascending, or descending line. Out of the thirty-eight cases noted by Chambers, hereditary obesity was found twenty-two times in the direct line, and seven times in the collateral line. The connection of obesity with the diatheses, now demonstrated, permits the multiplication of the demonstrations of heredity, and, so to speak, admits the existence of latent heredity *(l'hérédité larvée)*; thus in M. Charles Bouchard's eighty-five cases, besides the thirty-one cases of heredity, or concurrently with that heredity, the observer noted sixty-three times rheumatism, gout, gravel, asthma, hemicrania, and hereditary or collateral scrofula.

Women are more subject to obesity than men. Amongst M. Charles Bouchard's cases, there were sixty-two women to twenty-four men; and eight women to four men in the cases of M. Teissier of Lyons. Chambers and Sedam Worthington's lists show an equal number of men and women; Mr. Wadd reckons more men than women. Women are more inclined to obesity than men, by the softness of their tissues and the usual sedentary nature of their lives. Amongst the working classes, the husband, who gets his meals away from home, and is much better nourished than his wife, is not always the fatter of the two. Alcoholic drinks would fatten him, but the hard work which he is obliged to do from time to time re-establishes the equilibrium.

With regard to age, instances of obesity are found from an early age; according to Bouchard, at two years of age; to Teissier, at nine; to Chambers, in four cases out of thirty-eight, obesity showed itself at five years of age in two cases, at from five to ten years, in two out of ten at fifteen years of age, in seven out of fifteen at twenty, in four from twenty to twenty-five, and in thirteen out of twenty-five at thirty years of age. We here meet with an obesity of young persons which seems to have intimate relations with heredity, and which has often been considered as the more serious. Dr. Philbert, who turns his attention specially to the cure of obesity by the mineral waters at Vichy, wished

that the appellation "polysarcia" should be reserved for the most serious form of obesity—that which appears during adolescence.

The best known among certain causes of obesity are the taking of a large quantity of food, insufficient exercise, and consequently insufficient elimination, the taking of too large quantities of wine and other alcoholic liquors, especially beer, and too much sleep. Dr. de Saint-Germain points out some less generally recognised causes of obesity: convalescence from severe attacks of fever, the too great prolongation of the menstrual flux, and lengthened mercurial treatment. Wadd considers mercury as the heroic remedy for leanness, *modus pinguefaciendi*, Liégeois, surgeon to the Hôpital du Midi in Paris, maintained the same opinion in the Société de Chirurgie, where Dr. [illegible] had commenced an active campaign against mercurial medication. Liégeois declared that, during his long course of practice, he had always seen syphilitic patients gain fat and improve in appearance under the influence of mercury. Boerhaave has recorded a case of obesity which promptly—indeed, almost immediately—showed itself after copious venesection. It would seem that, after a great loss or a violent depression of the organism by privation, cold, or fatigue, there is a danger of the supervention of obesity as a result of the repair of unusual tissue waste itself, which, seconded by an appropriate alimentation, may exceed the desired object. The deprivation of a limb, or castration, predisposes to obesity; everyone knows the effect of castration on oxen, cats, and fowls.

M. de Saint-Germain then proceeds to develop the therapeutic means proper to combat obesity, amongst the principal of which he ranks regimen and exercise. He relates in detail the case of a well known French medical man. Descended from parents who were not particularly fat, and rather lymphatic than sanguineous, this gentleman reached the age of twenty-one without the least tendency to obesity. During the first years of his studentship, he was much the thinnest and tallest of his companions. When he obtained a house-surgeonship, under the influence of the change of diet, and especially of the larger quantity of wine he took with his meals, he became much fatter in a single year. This development of fat once set up continued to increase, until, in 1864, when twenty-eight years old, he weighed 214 lbs. with his clothes on, which represented about 204 lbs. when undressed. From 1864 to 1872, he constantly increased in weight, until, in 1873, he attained the weight of 230 lbs. Determined to resist this morbid growth of adipose tissue, he undertook, by advice of a friend, the classic treatment consisting of Vichy water, iodide of potassium, Marienbad water, gluten bread, exercise, etc. He obtained some result, in so far that, at the end of about six weeks, he had lost 29 lbs. in weight, but he found it impossible to continue this treatment. The least fatigue induced copious perspirations, he was out of breath if he went up two flights of stairs, and he had fallen into an advanced stage of anæmia. Discouraged by this want of success, he resumed his former way of life, regained his previous weight of 230 lbs. in a few weeks, and, with the weight, his usual vigour and vivacity. From 1873 to 1877, there was nothing particular to note, except some alternations of becoming thinner or fatter, almost always coincident with the less or greater absorption of fluids. He grew fatter in the summer, and a little thinner in the winter. Finally, on January 4th, 1881, our friend found that he weighed 216 lbs. without his clothes. He felt that he must really set seriously to work to reduce himself, and commenced the following system of exercise and regimen. He rose at five o'clock in the morning, and rode at a quick trot, first one hour, then, after some time, an hour and a half, then two hours. After this exercise, he found himself absolutely covered with sweat. Putting on a warm overcoat, he immediately walked about two miles in twenty minutes. He then went home, dried and dressed himself, and went to the hospital. After two months, he changed the order of his exercises: began by walking two miles at a rapid pace, and ended by two hours' fast riding. So soon as a certain amount of reduction of his obesity permitted, he began fencing, and went on for five months on the following plan: walking two miles in twenty minutes, two hours' fast trotting on horseback, and twenty-five minutes' fencing; to these exercises he added swimming every other day. The regimen must now be taken into consideration; and here M. de Saint-Germain points out that regimen has a powerful effect on obese patients; in fact, so powerful, that a patient may be tempted to abstain from the fatigue of exercise, and to trust entirely to dietetic regulations; one thing however must not be overlooked, and that is, that the loss of weight due to regimen alone is accompanied by muscular weakness. Exercise must be taken, if muscle is to be strengthened by diminishing the adipose element. The French first breakfast, generally composed of chocolate, coffee and milk, or soup, was in this case absolutely cut off; the second breakfast, answering to our luncheon, was invariably composed of two boiled eggs, a mutton cutlet, with salad or fruit, a cup of coffee without sugar or brandy, and not any bread or wine whatever. M. de Saint-Germain insists greatly on total abstention from bread and wine, which, in his opinion, forms the cardinal point of the cure; and more especially on the abstention from wine, which he believes, fattens, both by the alcohol it contains, and by the amount of liquid it introduces into the animal economy. The patient in question drank water only with his breakfast, and cold or tepid coffee only, if he required any other drink during the day. For dinner, the diet was one dish of meat, one dish of green vegetable, and some fruit; neither soup, bread, nor wine was allowed. One of the first results observed from this regimen was the disappearance of the irresistible sleepiness he had suffered from after breakfast and dinner, and the perfect calm of his nights, which had frequently been disturbed by an insatiable thirst. He found also that the regimen was strengthening to him, and that he had never been able, at any period of his life, to go through the exercise already described so quickly, and with so little perspiration. M. de Saint-Germain insists strongly on the necessity of patients under treatment for obesity keeping an exact register of their weight from day to day, made with great care, so that, if the reduction be too rapid, the severity of the diet may be relaxed, or the amount of the exercise reduced. He give some elaborate tables in support of his practice, too long to be reproduced here, but which show immediate increase of obesity if his dietetic rules be infringed. He enters a vigorous protest against the folly and danger of systems of reduction of obesity, based on the use of alteratives and purgatives. This method, he asserts, only influences obesity by inducing a cachectic condition in the patient, and its smallest drawback is that it can only be continued for a certain time. M. de Saint-Germain states that, for children especially, when obesity is concomitant with infantile paralysis, the treatment should be residence in the country at a high and perfectly dry level, near woods; with strengthening baths, shampooing, and stimulating saline baths.

ROYAL COLLEGE OF SURGEONS IN IRELAND: THE TEACHING OF ANATOMY IN THE COLLEGE SCHOOL.

For some years, it has been apparent that the method of filling the professorial chairs in this school has not been such as to ensure the most advantageous working of its anatomical department. This has not been from want of ability or teaching-power in the occupants of these chairs, but simply from arrangements which, however well they suited the requirements of anatomical and physiological work at the date they were made, are now deficient in many respects. Thus, although there are two professors of descriptive anatomy, and one professor of physiology, not one of them is required to devote his whole time to the duties of his chair. And it may happen, as at the present time, that the professors are in large surgical practice, the emoluments of which, compared with those derived from their chairs, would be disproportionate. It has appeared to the Council of the College, in whose hands the appointment of the professors is vested, that it would be desirable, at the next election, that the new professor of anatomy should devote his entire time to the duties of his chair; and that it should also include a share of the teaching in the dissecting-room and a responsibility for the due supervision of all the anatomical work. The candidates will be, therefore, expected to pledge themselves not to

hold any hospital or other appointment; not to practise; and not to engage in private teaching. As the present emoluments would not secure the services of a competent man under the above conditions, it is proposed that, when a vacancy shall occur in the second anatomical chair, no fresh appointment shall be made, and that the two chairs shall be then consolidated. This excellent arrangement formed the subject-matter of a resolution which was passed unanimously at a recent meeting of the Council, and permission is to be sought to make such alterations in the Charter as will allow it to be carried out. The other professors of the school, with praiseworthy liberality, have undertaken to supplement the emoluments of the next professor by contributions from their own fees, until such time as the two chairs can be united.

Had the Council stopped at this reform, there could not be a question as to the wisdom of their proceedings. But, unfortunately, in the same resolutions they have gone much further, and mixed up the subjects and teaching of pure anatomy with physiology in a manner that ignores all the experience of late years.

It is well known that the teaching of histology and practical physiology has made such giant strides of late, that a special course is an absolute necessity. The College of Surgeons, in its new educational scheme, has recognised this fact; one of its requirements being this special course. The present professor of physiology has announced that he will not give an extra course in this subject. To overcome the difficulty thus caused, the Council, in the resolutions already alluded to, require that the new professor shall deliver this special course of practical physiology; thus, in fact, making him not only professor of descriptive anatomy, but also practically assistant professor of physiology. As a bonus for this additional work, he is promised the reversion of the chair of physiology, should that become vacant before the second chair of anatomy. This seems to us an exceedingly ill-judged arrangement, and likely to perpetuate some of the worst evils attendant on the teaching of anatomy and physiology by the same individual. It is true that distinguished teachers have held the double office with credit; but that was some years ago, before physiology and its immediately ancillary sciences had expanded to their present dimensions. At present, a teacher cannot adequately perform the duties of both chairs; he must neglect one or the other; and if he elect to work physiology, he must leave the anatomical teaching almost entirely to subordinates. It is the opinion of many that it would redound more to the advantage of the College School, if the professor of physiology were allowed to nominate a competent assistant to do the practical physiological work, and that the Council should make the next appointment in the interests alone of the anatomical department of this school. Since the above was in type, we have heard with regret of the death of Dr. Philip Bevan, who was for many years the Senior Professor of Descriptive Anatomy.

THE INDIAN MEDICAL SERVICE.

SOME months ago, we directed attention to the grave injustice which had been inflicted upon the senior officers by the violent changes and supercessions consequent on the late reorganisation of the Indian Medical Service. We showed that the promotion of the surgeons-major near the top of the grade had been retarded to as much as three or four years, and that many of those lower down the list would be altogether excluded from the chance of advancement to the coveted rank of deputy surgeons-general, owing to the combined operation of the alterations so summarily enforced, and the fifty-five or fifty-eight years' rule. We ventured, therefore, to recommend, in the interests of those gentlemen who "are suffering under grievous wrongs, and of justice and fair-play, the case of the superseded surgeons-major of the three Presidencies to the equitable consideration of the Government they have served so well and so long". We pointed out that "any actuary with the facts before him would be able to furnish the authorities with a scale for the compensation of the senior officers affected"; and "that this might probably assume the shape of a bonus or increased pension". It has recently been rumoured that the Government are not disposed to undertake this duty, although they must be in possession of data wherewith to calculate the loss sustained, especially by the senior surgeons-major, from repeated modifications of the regulations which formerly guided the department, and in conformity with which gentlemen were induced to enrol themselves as members of the Service.

This being—as we are informed—substantially the state of the case, the responsibility of endeavouring to obtain compensation for the aggrieved and injured medical officers has devolved upon, and been cheerfully accepted by, the Indian Medical Service Defence Fund Committee. We are glad to find, from a document before us, that they have unanimously resolved to enlarge the scope of the investigation we suggested, and determined to take steps to obtain compensation for those officers who entered the department under the Honourable East India Company's rules, and whose prospects have been injuriously affected by the changes introduced since the transfer of the government of India to the Crown. They have come to the conclusion that the proper and most effective mode of proceeding will be to ground their application for the redress of the grievances of the Service generally, and of the senior surgeons-major immediately and prospectively injured by the chaos and confusion of the late so-called reorganisation, on a full and complete actuarial report.

So far, the work of this Committee has been attended with considerable benefit to the Service; and it is hoped that this effort, which will be prosecuted with energy and discretion, will also result in advantages to those concerned. With a concise and accurate report, supported by an unassailable array of facts and figures, they will be in a position to measure, with sufficient precision, the loss to which every member of the department has been subjected, and thus to establish solid claims for another success on behalf of their brethen still in the Service, which could not, according to our sources of information, be otherwise secured. To gain this object, it will, however, cost money. But there can be no doubt—seeing the advantages likely to accrue from an authoritative inquiry—that any appeal that may be made for the ways and means will meet with a cordial and prompt response. A somewhat analogous method was adopted about ten years ago, when several additional "medical retiring fund" annuities were claimed by the Service in Bengal, and conceded by the Government after a protracted correspondence and a comprehensive actuarial inquiry and report. With such an encouraging precedent to guide us, we feel justified in entertaining the hope that, when the Government of India have been presented with such convincing arguments and facts as, we believe, the Committee will be able to produce, they will grant full compensation to every officer who can show that his prospects have been injured by the changes recently introduced into the terms of service in Her Majesty's Indian Medical Department.

DR. CHAMPNEYS has been nominated for election as honorary librarian of the Obstetrical Society of London.

PROFESSOR FREUND of Strasburg has been [illegible] the chair of Obstetrics in Breslau, vacant by the death of Professor Spiegelberg, and has, it is reported, accepted it.

IN the recently published number of his *Archiv*, Professor Virchow has published a letter of thanks to all who took part in the recent demonstration in his honour. He regrets that he is unable to thank each personally; but he is convinced that the expressions towards him were heartfelt, and to each one he returns his most cordial thanks.

THE [illegible] has an abstract of Professor H[illegible]'s address on the subject of vivisection, which was, we believe, communicated by a practitioner in the neighbourhood from the printed copies furnished by the Association. We commend this example to others, inasmuch as the publication of this address, or of an abstract of it, in local papers throughout England, would undoubtedly be of service in informing the public mind with a statement of facts on which they are

at the present grossly misinformed, and in reference to which the medical profession generally, and physiologists especially, are habitually calumniated by the agitating societies.

We have received from the International Committee of the Geneva Red Cross Society a programme containing particulars of a competition inaugurated by the Society, consisting of three essays on the Art of Improvising Methods of Assisting the Sick and Wounded. Money prizes are offered for these essays, of which we shall publish full details in our next week's impression.

Mr. Walter Whitehead of Manchester last week performed the triple operation of gastrostomy, tracheotomy, and excision of the tongue, upon a man suffering from an epithelioma, which had commenced in the tongue, and finally extended into, and blocked up, the pharynx. The patient, up to December 19th, we learn, is doing remarkably well, and expresses, in writing, great satisfaction at the result of the operation, and writes that he is now quite free from pain and independent of sedatives; whereas before the operation his sufferings were intolerable, and scarcely influenced by morphia.

We publish in another column a letter from Mr. Archer, Assistant-Surgeon to the General Hospital, Birmingham, repudiating the letter which Mr. Stone, the Secretary of the Conservative Association, issued from the office of the Association, on his behalf, when he was a candidate for the office of surgeon to the hospital. This letter was published in the *Birmingham Daily Post* of December 10th, and therefore prior to our comment. We read his repudiation with great satisfaction, and note also the disclaimer on the part of Mr. Stone of any political intention in issuing his letter, although it proceeded from the office of the Association. There seems to have been a good deal of blundering in the matter; but we are very glad to note the readiness with which Mr. Archer immediately repudiated the action of his unwise supporter, and wish that we had been earlier acquainted with his praiseworthy action in the matter, in order that we might have noted it last week. It is to be regretted that the correspondent who forwarded to us the copy of Mr. Barton's letter did not at the same time forward the repudiation of Mr. Archer, with which we should have been glad to accredit him.

We have already mentioned that Dr. Robert Barnes, one of the earliest and most distinguished graduates in medicine of the University of London, who was put forward by a considerable body of medical and other graduates on the last occasion, is again nominated as a candidate for one of the vacant seats in the Senate of that University. Dr. Barnes has very strong claims. He was the founder of the Graduates' Association, which eventually obtained the new charter for the university; and, for many years, Dr. Barnes acted as honorary secretary of the association; and in this, as in all other medical bodies with which he has associated himself, he has been distinguished by his activity, independence, and devotion to the true interests of medicine in general, and the improvement of medical education. It is unnecessary to say anything of the high position which Dr. Barnes holds in the estimation of the profession, not only in this country, but throughout the world, in the department of medicine which he has chosen, and which he has done so much to advance and adorn. Although nominated, on the last occasion, in conjunction with Sir William Jenner, whose claims at the time were properly considered paramount to any other candidate, Dr. Barnes polled a large number of votes; and, on this occasion, it will no doubt be considered that he has strong and special claims to the support of medical and other graduates. We understand that Dr. George Buchanan, B.A., will also be nominated; and having regard to the distinguished position which he occupies as a medical officer of the Local Government Board, and to his well known scientific and administrative abilities, his candidature must be regarded as that of a man eminently well fitted for the post; and no doubt his claims will be recognised at an early date, if not on this occasion.

Professor Ray Lankester offers himself as a candidate for the Chair of Natural History in the University of Edinburgh, vacant by the resignation of Sir Wyville Thompson. Mr. Lankester stands among British biologists and comparative anatomists in the very first rank, and, both at home and abroad, is pretty universally regarded as a representative British biologist and zoologist of his generation, and second in rank only to Huxley. The list of his memoirs and works is not only an extensive one, but includes a series of publications, such as his famous memoir on the Developmental History of the Mollusca, which have had an extensive influence upon science, and which deal with its principles with an originality and power which mark a new departure on the subject on which it treats. As a teacher, Professor Lankester is no less remarkable for his admirable clearness and power of exposition, than for the soundness of his work and for the spirit of research and love for original work with which he inspires his pupils. He possesses in a high degree the power of organisation and administration, and the faculty of instilling an enthusiasm among those about him, which enables him to extend and strengthen the department over which he presides. As a colleague, there is no man more easy to work with, more trustworthy, more unassuming, more sincere. The medical profession have an hereditary interest in the name borne by Professor Lankester. The testimonials which, in accordance with our English custom, he produces, are such as may make any profession proud of him as one of its representatives. The language used in speaking of his work by men such as Darwin, Hooker, Günther, Kölliker, Leuckart, and Milne-Edwards, is refreshing when we see it applied to one of our too small band of scientific workers. There can be no question of the value to the University of Edinburgh of a Professor such as Ray Lankester, who will worthily fill the place of his most distinguished predecessor, and add to the honour and to the usefulness of this great teaching body. The appointment lies, we believe, in the hands of the Government. Certainly none could be made which would more emphatically meet with the approval of British biologists, and with the great majority of persons interested in this department of the University, constituted by the members and students of the medical profession.

THE HOSPITAL SUNDAY FUND.

At the annual general meeting in connection with the Metropolitan Hospital Sunday Fund held on Tuesday in the Council Chamber, Guildhall, under the presidency of the Lord Mayor, the report of the Council stated that the largest collection since its institution had been made this year, the total having been £31,856, against £30,423 last year and £26,501 for 1879. The surgical appliance branch of the fund was allowed 2 per cent. of the gross annual receipts, which on this occasion amounted to £640. A resolution was adopted authorising the application of some of the remaining balance of the fund to cover expenses already incurred for surgical appliances. It was also agreed to set aside in future 4 instead of 2 per cent. for this purpose.

SMOKE ABATEMENT EXHIBITION.

The first of the series of practical lectures in connection with this exhibition was given last week by Captain Douglas Galton, C.B., F.R.S.; Dr. R. Angus Smith, F.R.S., V.P.C.S., in the chair. Captain Galton spoke of the very plentiful supply of smoke in the air of London, and of every large town, from the domestic fires, and he thought that, if the smoke from domestic fires were stopped, the manufactories would very soon follow the example. Smoke was allowed to exist because the community was not sufficiently educated as yet to realise the necessity of getting rid of it. In breathing smoke-polluted town air, the lungs had more work to do than if they took in pure air in the open country. It was an undoubted fact that the population of large towns deteriorated. The evil of a polluted atmosphere in London was growing in an accelerated ratio. In a town of moderate size, the action of the wind effected a frequent renewal of the air; this was not the case in London. Various grates in the exhibition which claimed

to prevent the creation of smoke were described. The lecturer advocated the adoption of systematised arrangements for the supply of heat to our houses. There were two methods for effecting this object—one by means of gas, the other by means of steam. Steam heating had been adopted in about thirty towns of the United States, under the name of the Combination System of Steam Heating; the steam being supplied from a central place, so that each person could take, and pay for by meter, the quantity he required. A house of 60,000 cubic feet contents, which was about the capacity of a good class London house, would pay about £24 a year for heat; while an artisan, in a model dwelling, which occupied probably from 6,000 to 8,000 cubic feet, would pay from £2 4s. to £3 4s. for heat a year, equivalent to from 10d. to 1s. 3d. a week. Steam heating was very cleanly, and by proper arrangements, combined with ventilation, it should be perfectly healthy.

EXTENSION OF THE HOSPITAL FOR CONSUMPTION, BROMPTON.

RATHER more than two years ago, His Royal Highness the Prince of Wales laid the foundation-stone of an Extension of the Hospital for Consumption at Brompton. Under the direction of Mr. Thomas H. Wyatt, the architect, rapid progress has been made with the work. The main part of the building is not yet quite complete; but, on the 5th instant, the new out-patient department was opened without formality, and on the following day we were able to see it in full working order. The limited space at the disposal of the architect has been utilised to the best advantage. Entering by the principal doorway, which occupies the centre of the handsome façade fronting on the Fulham Road, we find ourselves in a well-lighted hall. Here the out-patients are provided with the necessary letters for the use of the physician, and with numbered tickets admitting them to be seen and prescribed for in regular order. Passing along a short corridor, the patients are directed by large labels and guide-posts to the waiting-rooms assigned for their use. Two physicians attend daily; for each physician there are two waiting-rooms, male and female; each room is fitted with benches; all the rooms and corridors are warmed; and the comfort of patients is further enhanced by the provision of coffee and beef-tea, at reasonable prices; the only solid food provided, however, so far as we observed, was the traditional penny bun—a pabulum likely to aggravate, as seemed to us, the dyspepsia said to lie at the root of many cases of phthisis. The physicians' consulting-rooms are airy, lofty, well ventilated and lighted, provided with electric bells, speaking tubes, and all modern appliances. Each room is provided with two retiring-rooms for the purpose of physical examinations, and one of these rooms can be darkened when it is desired to make a laryngoscopical examination; the doors of ingress and egress are distinct, and each retiring-room has a separate exit—so that all crowding and confusion is avoided. In the dispensary, the ground floor contains a small room for the actual business of dispensing; the basement is devoted to stores; and the upper part of the ground floor to stocks. But the size of the dispensary does not seem to us at all adequate to the wants of so large a hospital. The cupboards and counters are made from the wood of *Sequoia sempervirens*, one of the giants of the Canadian forests. The wood has a dark-brownish colour, and in some panels is beautifully grained; it requires no varnishing or polishing, and is therefore very well adapted for the purpose to which it is here applied. The main part of the building is still far from being ready for occupation.

SCIENCE DEFENCE AND PROMOTION ASSOCIATION.

A PRELIMINARY meeting of some prominent members of the medical profession was held on Friday last, at the house of the late President of the Royal College of Physicians, Sir Risdon Bennett. The general conclusion arrived at was, that it was absolutely necessary to take some steps to combat the ignorance and prejudice which exist in the minds of so many people regarding the use of experiments upon animals, and to prevent the progress of medical science from being seriously interfered with. The absolute necessity of experiments having been decided by the unanimous resolution of the late International Medical Congress, it was considered that some steps should immediately be taken to endeavour to give effect to this resolution so far as regarded the three kingdoms, and should endeavour to secure the unanimous support of every member of the medical profession, and should also invite the co-operation of other learned bodies and individuals who take an interest in the progress of medical science. It was agreed that the Presidents of the Royal Colleges of Physicians and Surgeons should be requested to call a meeting of representative members of the profession and others, for the purpose of determining what steps should be taken, and the best means for removing the present hindrance to the progress of scientific research.

HOSPITAL AND ACCIDENT AMBULANCE SERVICE FOR LONDON.

WE are happy to see that a very substantial step has been taken in connection with the organisation of a proposed hospital and accident ambulance service for the metropolis of London, towards the establishment of which Dr. Benjamin Howard has been for some months entirely devoting his efforts. The London Hospital Committee having some months ago, upon the presentation of the subject to them by Dr. Howard, decided to take the initiative in this matter, the Hospital Committee, in pursuance of this plan, met yesterday to receive from its Vice-Chairman, its first accident ambulance carriage, just built from the designs and under the directions of Dr. Howard. The ambulance having been tested in every way by the medical and surgical staff, the Hospital Committee, and others, a resolution was proposed by the Chairman of the Hospital, and carried by the Committee and staff, stating that they highly approved of the special form of carriage devised by Dr. Howard, and conveying to him their cordial thanks for his skilful and generous services. This ambulance is in many points unlike, and apparently superior to, any in use in America; and, in its passage through the streets, as well as at the hospital, elicited enthusiastic commendation. The London Hospital Committee, in conjunction with the National Health Association, has decided to call a meeting at an early date for a general conference of the various hospital authorities of London on the entire scheme of hospital and accident ambulance service proposed by Dr. Howard for this metropolis.

DEATH BY ELECTRICITY.

AT Hatfield House, the residence of the Marquis of Salisbury, a labourer named William Dimmock, twenty-two years of age, was killed on the 12th instant by coming into contact with the wires conveying the electric current which lights the mansion. Hatfield House is lighted with one hundred and seventeen lights on the Brush system, worked by a sixteen-horse power engine placed in a sawmill in the rear of the premises. The wires from the sawmill to the house at one part of their course run along a garden-wall at a height of three feet from the ground, and here they are not in any way insulated or protected. The deceased, who was at work near this point hanging a telephone-wire, was sent to ease the wires at the corner of the brickwork, to prevent their being cut. Immediately afterwards, the wires were heard to shake; he was seen to fall; and, on his companion running up to him, he was found to be dead. It is supposed that, having slipped, he grasped at the electric wires to save himself from falling, and was instantly killed by the shock. An opinion was expressed that the shock would not have been fatal, but for the fact that his clothes were saturated with water, as he had been working in the rain for some time. The medical evidence adduced at the inquest went to show that, as in death by lightning, the fatal effect was brought about by violent shock to the brain and nervous system, and paralysis of the heart. There could have been no sense of pain, as unconsciousness was instantaneously produced. As no external marks of any kind were mentioned, it may be presumed that there were none of those bruises or contusions which are the most characteristic appearances after death by lightning. The case illustrates the truth that the new system of lighting, which is being rapidly perfected, and which is, perhaps, destined in great measure to supersede gas, is [illegible]

safe, but has dangers which are peculiarly its own. It also affords encouragement to those who advocate an improved method of capital punishment, by showing that it is easy to cause death instantaneously and painlessly—a result which is certainly not ensured by the clumsy process now in use, consisting in efforts to rupture the odontoid ligament or dislocate the vertebræ, and often eventuating in slow strangulation. Capital punishment, if it is to be retained, would probably lose none of its terrors if carried out by the operation of a subtle, invisible, and mysterious force, which would sweep away consciousness and life in the twinkling of an eye, and without one pang. The case at Hatfield is further suggestive in a medico-legal point of view, by indicating that it is possible to administer a dose of electricity—if it be permissible to use such an expression—sufficient to cause death, which shall leave no positive signs, nor as yet recognisable traces, behind. In these days of storage of electricity, when the force is portable in a compact form, it may not be altogether absurd to consider the possibility of murder and suicide by electricity.

AN INCREDIBLE SENTENCE.

A STRANGE sentence has, we read, been pronounced on a transatlantic child-murderess in Vermont. She has been condemned to imprisonment with hard labour until the last Friday in March 1883, when she is to be hanged. The last three months of her life are to be spent in solitary confinement. No atrocity of crime could justify such an atrocious punishment; and we are satisfied that public opinion in Vermont has only to be appealed to in order to secure its remission, and the censure of those who ventured to propose its infliction. To keep a young girl, however depraved she may be, until she is matured for hanging, subjecting her in the meantime to the pains of hard labour, and for the last three months of her life to the torture of solitary confinement, as carried out in American penitentiaries, is a refinement of cruelty which could only suggest itself to an inhuman mind; and we venture to say that any judge who devised such a penalty is not fit to be trusted with the administration of the law. We still hope that there may be some error in the report of the trial which has reached this country; but the statement of the sentence is clear and precise.

HARVEIAN SOCIETY OF LONDON.

THE following is a list of the names of gentlemen proposed by the Council as officers of the Society for the year 1882. *President*, *W. Hickman, M.D. *Vice-Presidents*, J. Milner Fothergill, M.D.; H. Sewill, Esq.; *W. B. Cheadle, M.D.; *H. Cripps Lawrence, Esq. *Treasurer*, James E. Pollock, M.D. *Honorary Secretaries*, Malcolm Morris, Esq.; W. H. Lamb, M.B. *Council*, *H. Power, Esq.; *G. P. Field, Esq.; T. T. Whipham, M.D.; Alfred Cooper, Esq.; F. A. Mahomed, M.D.; O. Vincent, Esq.; R. Argles, Esq.; W. Rayner, Esq.; *D. Ferrier, M.D.; *J. Knowsley Thornton, Esq.; *H. W. Kiallmark, Esq.; *J. H. P. Staples, M.D. Mr. Wheelhouse of Leeds has been elected a corresponding member of the Society, in place of the late Professor Rolleston. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

A CRY FROM DEMERARA.

THE condition of District Medical Officers, under the Government of Demerara, would appear, from documents which have been sent to us, and from statements which have appeared in the local press, to be very deplorable, and much needing investigation at the hands of the home authorities. In this country, a domestic servant is, by law, entitled to a month's notice or a month's wages. In Demerara, a doctor is regarded as an "official pariah", liable to dismissal without an hour's notice, without trial, and without the right of appeal to superior authority. If we can trust the uncontradicted statements made in the leading articles of local newspapers, this punishment is inflicted quite as a matter of course for trifling faults arising from excess of zeal, or a mistaken sense of duty, and even trifling breaches of etiquette. No other officials in Demerara are liable to this summary treatment. Dismissal, at the mere will of any official, no matter how high his position, without investigation, and without the right of appeal to superior authority, is an intolerable wrong, contrary to every principle of justice. It may be quite possible that, in some instances, dismissal may have been the only proper course in cases of gross misconduct; but exceptional examples of this kind can never justify the existence of a rule and practice so arbitrary, and so liable to abuse. Wrongs of this kind, as we all know from experience at home, are not easily redressed. But the medical profession has a powerful weapon in its own hands, if it will only use it. Demerara, like other places, must have doctors. Now, if medical men will only make up their minds to decline service under that Government until they are put on the same footing, as regards reasonable and just treatment, with other officials, the needful reforms will soon follow. The difficulty in the way of applying this remedy is to be found in the fact, that governments, shortsighted enough to treat their medical officers in this contumelious way, have to content themselves with the waifs and stray members of the profession, whose poverty compels consent to any treatment. The marvel to us is that, given the necessity for medical men in such a climate as that of British Guiana, the terms of service should be so adjusted as only to attract a class of men who, it may be safely affirmed, can only be the "world's failures". We trust we have said enough to warn young medical men of character, with a proper amount of self-respect, who may be in search of a career, not to commit their fortunes to the Government of Demerara.

DISCOVERY OF COFFINS IN THE CITY.

AT a recent meeting of the parish vestry of St. Vedast's, Foster Lane, Cheapside, it was stated by Mr. Churchwarden Horwood that the work in the body of the church, where between 300 and 400 coffins had been covered up by a great layer of concrete, and the vaults filled in, was progressing favourably; but a few days ago from 100 to 150 coffins had been discovered in a vault under the vestibule of the church, a vault which was believed to have been filled up. Between 40 and 50 of these coffins were lying upon the floor of the vault, some being entirely uncovered, while others had a little charcoal over them. The coffins in some instances were very rotten. Dr. Saunders and an official from the Home Office had inspected the place, and had ordered the placing of the coffins under the soil, and the filling up of the vault. The work was now in progress, and the officials were strictly observing that nothing approaching to desecration was allowed. The terrible nature of the work might be estimated from the fact that none of the workmen could continue at their work very long without becoming unwell. How the authorities could have so disregarded the first principles of sanitary science, in placing an almost unlimited number of ordinary wooden coffins in a vault under such circumstances, it is not easy to understand.

THE AUSTRALIAN MEDICAL GAZETTE.

WE are happy to welcome an interesting and promising new comer in medical journalism—the *Australian Medical Gazette*, which announces itself as "the official organ of the combined Australasian Branches of the British Medical Association". This journal proposes to publish full, complete, and trustworthy reports of the discussions of the Branches, together with a great part of the full text of the papers read at their meetings. In the general programme of the paper, it is announced that the conductors intend to follow, as nearly as they can, the footsteps of the BRITISH MEDICAL JOURNAL, with, of course, such alterations as may be necessary from local circumstances. The effect of such a journal will, if it be successful, be very favourable to the increased cultivation of medical knowledge in Australasia. It is evident that the great body of medical men now represented by the Australian Branches of the Association can well support a supplementary journal of local character, supplied with papers of local origin. We should, of course, greatly regret if this journal should intercept important communications from our Australasian members to our own columns; and we sincerely hope that the existence of the new *Australian Medical Gazette* may not make the secretaries of our Australasian Branches at

all remiss in forwarding to us, with strict punctuality and completeness, abstract reports of the proceedings of the Australian Branches, and any such papers as the authors may judge suitable for European as well as Australian audiences, which they may desire to bring under the notice of their European brethren. It is clear that the audience to which they will appeal in an Australian record is mainly local, and it is right that they should be thoroughly represented before such an assemblage of readers. The cultivation of a patriotic scientific sentiment is one which we should not only be sorry in any way to impede, but which we should desire in every way to cultivate and increase. Our sentiments towards the *Australian Medical Gazette* are, therefore, feelings of unmixed friendship and cordial interest. We do not in the least think that the interest of the Parent Association and JOURNAL will in any way suffer by this vigorous local development; and, even should they do so, we have a sufficiently decided opinion on the great value of strong local institutions, to be content to suffer in some degree in the sense of central development, provided that an adequate compensation is seen in the growth of scientific activity, of professional union, and educational advancement, as the result of vigorous extension of the Australian Branches and their new medical organ. The closer, however, the union remains between the Australasian Branches and our British Mother Association, the better we believe it will be for them and for us; and we would again ask the members and the secretaries of the Australasian Branches in no way to slacken in their zeal in forwarding to us records of their proceedings, and the literary result of their activity. An interchange between Australasian and British medical men of professional thought and criticism will be the more fertile and useful, in proportion as it is the more active and frequent. It was with this object that we laboured, with the assistance of Dr. Louis Henry and the other secretaries of the Branches, to promote the formation of Australasian Branches; and we heartily hope that the union will grow more intimate as the years roll on, and as these local Associations add to their numbers, and especially to their originating power.

NOTIFICATION OF [illegible] DISEASE.

REFERRING to the system introduced by Mr. Yates of Dewsbury for the effectual reporting of cases of zymotic disease, a daily contemporary refers to some excellent sketch-maps, one of which has been forwarded to us. It has often been felt by sanitary reformers and others interested in the public health, that the present system of reporting zymotic disease to local authorities by their medical officers is in many respects faulty. What is wanted is the localisation of cases of illness or death and an accurate continuing record for future reference. This is at last being supplied, the inventor of the system being Mr. W. W. Yates, of Dewsbury. His scheme—which it may be stated has just been submitted to, and favourably received by, the Medical Department of the Local Government Board—is that each local authority should have an outline map of its district prepared in sections, and that cheap copies of it should be supplied to the medical officer. On these he would, month by month, mark in coloured ink the exact spot where death (or illness) occurred through any of the seven chief zymotic diseases; for instance, red for scarlatina; black, enteric fever; pink, small-pox: light blue, measles; chrome, diarrhœa; sienna, whooping cough; and green, diphtheria and croup. By retaining these charts, so marked, disease-producing areas would manifest themselves unmistakably, and then the cause could all the more readily be ascertained and removed. Such a system has long been successfully worked out and practically in force at Brussels by Dr. Janssens, the head of the sanitary bureau of that city.

PROFESSOR VIRCHOW.

THE life, character, works, and opinions, of Rudolf Virchow, form the subject of an introductory address delivered by Dr. Jacobi at the College of Physicians and Surgeons of New York, on October 3rd. In sketching his early career, the lecturer referred to the temporary dismissal of the great physiologist from certain public positions for his participation in the liberal tendencies of the revolutionaries of 1848; but, Dr. Jacobi adds, "he was reinstalled; for there is, after all, one force more powerful and influential than swords and cartridges, even in soldier-stricken Germany, namely, public opinion". After a brief summary of the establishment and development of pathology as a recognised science, the lecturer dwelt at some length on the theories of Rokitansky. The chief errors of the school of that distinguished Viennese professor were summed up under three heads; namely, ignorance of histology, clinging to humoral pathology, and the "therapeutic nihilism, originating in Vienna, and infecting a large portion of the practitioners of the world". Virchow avoided these errors; he adhered to the principles of Kant, insisted on facts and experiments as the sole basis of scientific medicine; yet, at the same time, no man has ever been more honest in collecting the medical records of past ages, and giving credit to past teachers. Just as the human body cannot be understood without a knowledge of embryology, so the present condition of medicine, or of doctrines, cannot be appreciated without the history of the labours spent on their progress, or without acknowledgment of their occasional alternations of progress with relapse. "The history of human progress is, in part, the history of errors." Dr. Jacobi then discussed at length the well known cellular pathology established by Virchow, and his labours in connection with the nature and origin of morbid growths. Virchow is most justly commended for reserving his opinion, and not expressing it in haste in favour of those who fain would have availed themselves of his approval of their rapid strides in discovery and unprecedented quickness of conclusion. Dr. Jacobi quotes the error of Klebs, as illustrating the evil of scientific hurry. Finding hosts of bacteria in the excretions of children suffering from summer diarrhœa, and not examining the stools of healthy infants, which contain quite as many micro-organisms, Klebs has recently extolled the virtues of a cooking apparatus, which, by keeping bacteria out of the milk which is boiled in it, must, he believes, prevent summer diarrhœa. Virchow, acting still further on his objections to hurried inferences, has disagreed with Hæckel, who attempted to insist on the teaching of evolution in elementary schools. He has ever withstood, on the same principle, the constant attempts of many writers to bring science and theology into needless collision. Dr. Jacobi concluded by eulogiums on the high character and public spirit of Professor Virchow, who in practical charity is second to none, as shown during the Silesian fever, and during his visit to Troy, where he taught the sickly and starved natives how to relieve many of their ailments by certain herbal remedies which grew, unnoticed and unused, in rare abundance in their country. Virchow's acceptance of political and municipal appointments is particularly held up as an example for all scientists and medical men in every civilised country.

EPIDEMIC [illegible] AMONG CHILDREN IN [illegible].

SCARLATINA and measles prevail, it is reported, to an alarming extent among children in Berlin. In most of the schools, a frightful number of the children are ill, notwithstanding that all possible means have been taken by the authorities to prevent the spread of disease, such as disinfecting the floors of the class-rooms with a 5 per cent. solution of carbolic acid, and diffusing spray through the rooms. It is said that from 1877 to 1880, no fewer than 5,214 children under ten years of age died of diphtheria, and that the mortality from the disease has this year been still higher, having been 1,376 during the eleven months. Diphtheria has also been very prevalent and fatal in Hamburg, Munich, Dresden, Breslau, Königsberg, Stettin, and Danzig.

UNITED STATES ARMY MEDICAL [illegible].

IN the annual report of Surgeon-General Barnes, U.S.A., the following extract from President Hayes's message to Congress, in December last, is quoted: "The collections of books, specimens, and records, constituting the Army Medical Museum and Library, are of national importance. The library now contains about 51,[illegible] and 57[illegible] pamphlets relating to medicine, surgery, and allied topics. The contents of the Army Medical Museum consist of 22,000 specimens, and are

unique in the completeness with which both military surgery and the diseases of armies are illustrated." This, and the magnificent publications in connection with the Army Medical Department, specially provided for by Congress, afford a brilliant and pleasing contrast to the singular and shortsighted parsimony of our War Office. The library and reading-room at Netley are unendowed, and nominal in extent and value; and the publications of the researches and work of army medical officers, which used to give some medical interest and permanent value to the medical reports, and certainly encouraged the working spirit among the officers, are discontinued from motives of economy.

LUNACY STATISTICS OF ENGLAND AND WALES.

DURING the past year, there were 4,498 deaths of lunatics in England and Wales, 2,487 being males and 2,011 females. Excluding the idiot asylums, the deaths in the other establishments, calculated on the average daily number resident throughout the year, was 11.10 per cent. for males and 7.61 per cent. for females, or 9.22 per cent. for both sexes. This ratio is more than one per cent. lower than it was for 1879, and nearly one per cent. below the average of the last ten years. In estimating the recoveries—excluding the idiot asylums as not receiving curable cases, and eliminating all transfers—the total recoveries, as compared with the admissions of the year 1880, were 37.06 per cent. for the males, and 43.28 per cent. for females, or 40.29 per cent. for both sexes. These ratios are nearly the same as for the year 1879, and are somewhat above the average rate for the last ten years. On the 1st of January of this year, the total number of registered lunatics, idiots, and persons of unsound mind, in England and Wales, was 73,113—being an increase of 1,922 upon the cases recorded on the 1st of January, 1879. Of these, 7,741 were private cases, and 65,372 were paupers; 1,355 were in county and borough asylums, 2,948 in registered hospitals, 4,626 in licensed houses, 307 in naval and military hospitals and the Royal India Asylum, 491 in the Criminal Lunatic Asylum, 12,093 were in ordinary workhouses, and 4,718 in workhouses in the Metropolitan Asylum District; 448 were private single patients, and 6,127 were out-door paupers. These numbers do not include 224 lunatics so found by disquisition, and residing in unlicensed houses. They are also exclusive of 189 male prisoners, who, having become insane whilst undergoing sentences of penal servitude, were, on the 1st of January last, detained in the wards of convict prisons. During the previous ten years, the annual increase was 134 of the private class, and 1,513 among the paupers. The number of lunatics, idiots, and persons of unsound mind, retained in workhouses on the 1st of January last, was 16,811—an increase of 347 on the number on the 1st of January, 1879. Of the total number, 5,211 males and 6,882 females were in ordinary parish or union workhouses, and 2,144 males and 2,574 females in the Metropolitan District Asylum for Imbeciles at Leavesden, Caterham, and Darenth—such asylums being declared to be in the legal position of workhouses within the meaning of the Lunacy Acts.

ANTHROPOMETRY.

MR. C. ROBERTS'S *Manual of Anthropometry* has been translated into Italian by Professor Bodio, the distinguished anthropologist, and Director of the Statistical Department of the Italian Government, and Dr. Raseri, and is to be published in a forthcoming volume of the *Annali di Statistica*. Professor Bodio is about to make some extensive investigations into the physical development of Italian children, and proposes to use Mr. Roberts's tables as standards for comparison. His observations on children will supplement the extensive series made on adults by the Anthropological and Ethnological Society of Italy, and will be published in the above-mentioned journal for 1879, under the editorship of Dr. Raseri. These investigations cover a wide field, and are of great interest to medical men, especially from a hygienic point of view. Dr. Raseri's essay treats of the stature of the population in different parts of the kingdom; the frequency of the pulse according to age, sex, and the conditions of life; the commencement and cessation of menstruation; complexion; colour of hair and beard, and the occurrence of red hair and baldness. The eyes are treated of as to their size, direction, and colour; and the teeth as to duration and caries. Other questions of national importance are inquired into, as the nature and quality of the food, especially among the poor. The final report of the Anthropometric Committee of the British Association for the Advancement of Science may be looked for next year. This Committee has been in existence since 1875, and a large mass of statistics has been collected relative to the stature, weight, chest-girth, strength, colour of hair and eyes, eyesight, colour-blindness, etc., and their geographical distribution in the British Isles; a sub-committee having devoted its attention specially to defining by photography the various racial types of the nation. The Committee are engaged at present in collecting observations on infants from birth to the age of ten years, and on females at all ages; and are desirous to secure the co-operation of all persons interested in these subjects.

ANIMAL VACCINATION IN INDIA.

LAST year, the total number of heifers inoculated for the production of animal lymph in the Bombay Presidency was 470, 456 of the inoculations being successful. In Poona, 60 heifers were successfully inoculated, and were kept by the municipality, not by the vaccinators as heretofore. The net expenditure amounted to 185 rupees, against 173 in the previous year. In Bombay, 406 heifers were inoculated against 500 during 1879, and on 14 the operation proved unsuccessful. Two calves out of four were successfully inoculated with the Brussels lymph received from Dr. Warlomont. The total cost was 2,505 rupees; whilst in 1879 it was 2,719 rupees. In Karáchi, four heifers were inoculated successfully in the month of April; after which the practice was discontinued, owing to the opposition offered by the Hindu community.

SCOTLAND.

THE OUTRAGE AT DUNECHT.

IN spite of the most assiduous inquiries of the police, and in spite of the offer of a large reward for any information which will lead to the detection of the person who wrote the anonymous letter in September last about the opening of the tomb of the late Earl of Crawford, no light has been thrown on the question, which remains as much as ever a matter of mystery. The police have withdrawn their forces from Dunecht, and the place is quiet once more.

THOMSON LECTURES IN ABERDEEN.

THE Thomson lectures in natural science, in connection with the Free Church College, are being delivered this session by Professor Macalister of Dublin. The first lecture embraced a consideration of the phenomena of life as manifested in the physical basis of life or protoplasm; while the second lecture dealt with the lowest forms of life, especially bacteria and other vegetable and animal organisms which appear in organic infusions. The relations of these organisms to the germ-theory of disease was discussed, and their use in removing the products of decomposition was also referred to.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

DR. STIRLING delivered the sixth lecture, on the "Circulation of the Blood", to a large audience in Montrose on Tuesday evening, December 13th. After describing the course of the circulation and the structure of the heart, it was explained how the heart erroneously came to be spoken of as the seat of the emotions, and how it is the business of education to enable us to restrain our emotions. In order to make the structure and arrangements of the parts of the heart perfectly clear, a series of very large paper-models were used, such as any teacher may make for himself. In this way, the mode of action of the valves was made perfectly clear. The competency of the valves was illustrated by the hearts of sheep and oxen. The mode of beating of the heart inside and outside the body was explained, and the apex-beat was

shown by means of a highly sensitive cardiograph. The relation of the nervous system to the heart was graphically sketched and illustrated by events from everyday life. The various conditions which influence the heart reflexly—such as tapping the intestines, a blow on the stomach, cold water rapidly taken into the stomach, gases in the stomach, stimulation of sensory nerves, such as those of the skin, as by means of a shower-bath, etc.—were pointed out. The effect of violent or depressing emotion was illustrated by references to historical cases, and by several apt quotations from the writings of Shakspeare. The lecture was brought to a close by an account of the work done by the heart in twenty-four hours; and it was shown that the heart is a machine for utilising energy far more perfectly than any apparatus yet devised by human ingenuity. As Dr. Haughton has shown, even the work of any of our best locomotives is relatively not to be compared with the work of the heart. The lecture was illustrated by numerous experiments.

DEATH FROM CARBONIC ACID AND OXYDE POISONING.

A CASE occurred in St. Andrews, last week, which is of special interest in these days of coke and anthracite fires. A young lady retired to rest in good health at night, next morning she did not make her appearance, and made no response when called to by the servants. Her father made his way into her bedroom and found her unconscious, he at once procured medical assistance, which was, however, unsuccessful. It is stated that there was strong evidences of carbonic acid in the room, and that the flue from a slow combustion coke stove in an adjoining room opens into the vent of the bedroom in which the young lady was, in this vent there was a strong downward draught, so that there could be no doubt of the source of the fatal gases.

FEVER IN LEITH.

TYPHUS and scarlet fever are prevalent in Leith at present. There are sixteen cases of typhus, and six of scarlet fever in the hospital now; and as this is the utmost limit of the hospital for fever cases, the directors have applied to the local authority to allow them to take advantage of the old cholera hospital in King Street, for the reception of patients, and also to the Leith Town Council to increase the amount of the sums allowed by it for the treatment of epidemic diseases.

STUDENTS' "SOCIAL".

ON Friday evening the Edinburgh University Students' Club gave a "social" in the large saloon of the Waterloo rooms. To this "social", (which is the grand annual public representation of the club weekly social) the committee invited 600 guests, and the completely filled room showed how high the socials stand in Edinburgh favour. Professor T. R. Fraser was, on the motion of Dr. Cathcart, called to the chair. On assuming it, he made a few remarks contrasting the social aspects of student life in Scotland, England, and Germany. The entertainment then began (most of the performers were students of medicine), and consisted of glees, solos, recitations, and instrumental music—all of which showed that, unsocial as the Scotch system may seem to be, yet it can, in a large school like that of Edinburgh, be made to produce results which tend to soften the angularities of student life; and, while a source of gratification to themselves, are also a source of much enjoyment to their friends.

CHRISTMAS HOLIDAYS IN EDINBURGH.

THE medical classes in Edinburgh begin the Christmas holidays on Friday, December 23rd, and end them on Tuesday, January 3rd, 1882. As an *avant courier*, the annual K. C. (kitchen concert) took place in the Royal Infirmary on Monday night, December 12th. This entertainment is provided by the resident physicians and surgeons; it is held in the large kitchen of the institution, and is attended by the clerks, dressers, and many of the students; while managers, physicians, surgeons, and various friends, turn up in goodly numbers. The performance on Monday night consisted of songs and recitations, which were of a high character, and much appreciated. A notable part of the entertainment consisted in the performance of a toy-symphony, in which the resident physicians and surgeons performed on the various toy instruments appropriate to that form of orchestral music. At a K. C., all are permitted to smoke, although not compelled to do so. The management is to be congratulated on sustaining the wise departure made some years ago by their predecessors, in not making beer a part of the entertainment, as the noise that accompanied its appearance and distribution on former occasions detracted much from the real musical treat which was provided at the same time, but which, on Monday night, was not marred in any detail, and was thoroughly enjoyed by all.

POLICE AMBULANCE CLASSES IN GLASGOW.

SINCE the last issue of the JOURNAL, where the matter was incidentally alluded to, it has been agreed by the municipal authorities in Glasgow to make a beginning in the matter of instructing the police in the first aid to be rendered to the injured. With this view, Dr. McEwan, one of the police surgeons, has been authorised to instruct a class of twelve members of the force in the surgical treatment of cases of accident coming under their notice in the discharge of their duty; and eventually these men are to undergo an examination as to their competency in dealing with such cases. Professor George Buchanan and Dr. Irvine have given the movement their hearty support, and no doubt it will be eminently successful.

HEALTH OF THE EIGHT PRINCIPAL SCOTCH TOWNS.

ACCORDING to the returns for the month of November, 2,127 persons died in the eight principal Scotch towns during that month, of whom 1,044 were males and 1,083 females. Making proportionate allowance for increase of population, this number is no less than 398 under the average for the same month during the preceding ten years. The respective mortalities were per thousand of the population—Paisley, 15; Aberdeen, 18; Edinburgh, 20; Leith, and Perth, 21: Glasgow, 22; Greenock, 23; and Dundee, 24. Paisley is to be congratulated on the position it assumed during November, as it has so seldom held the privilege of the lowest mortality. Forty-three per cent. of the entire morbality was of children under five years of age, the respective percentage being—Perth, 28; Edinburgh, Leith, and Aberdeen, 39; Greenock, 41; Paisley, 44; Glasgow, 45; and Dundee, 48. Zymotic diseases caused 369 deaths, equal to 17.3 per cent. of the entire mortality, but in Edinburgh, Glasgow, and Greenock, this rate was exceeded: scarlet fever alone causing 9.9 per cent. of all the deaths in Edinburgh, and 6.9 in Greenock, and a percentage of 4.3 over all. Of 42 deaths due to fevers, 9 were returned as typhus, 32 as enteric, and one as simple continued fever. Whooping-cough contributed 41, measles 40, diphtheria 36, croup 36, diarrhœa 35, and metria 12 deaths. Cardiac diseases caused 134 deaths, premature birth-debility 50, hydrocephalus 54, paralysis 53, and apoplexy 51. Phthisis pulmonalis alone contributed 9.0 per cent. of the entire mortality; while inflammatory affections of the respiratory organs, apart from those already mentioned, caused 465 deaths, equal to 21.9 per cent. of all. Of 77 deaths due to violent causes, 5 were of suicides. One male died aged 96, and four females over 90 years of age. During the month, the births of 3,323 children were registered, consisting of 1,706 males and 1,617 females. The meteorological returns for the month state that it was notable for low barometric pressure, great monthly range, high mean temperature, great rainfall, great strength of wind, and large proportion of southerly direction. All of these are in excess of the average of Novembers: the most notable of them are the high temperatures, which have been unequalled since 1857, and the strength of the wind, which has been greater than any previously in the returns, and which, it is stated, "is in accordance with our further advance into the new sun-spot eleven-year cycle, with whose development the number of wrecks of ships has long been noted to increase". The details of these meteorological observations show that the mean barometric pressure was less by 0.225 inch, the barometric monthly range greater by 0.515 inch, the mean temperature greater by 4.0 deg., the mean daily range of tempera-

ture greater by 0.4 deg., the mean humidity less by 3, the rain-depth greater by 0.85 inch, and the wind-pressure greater by 2.16 lbs. than the average of the same month during the preceding twenty-four years. The highest mean temperature (47.0 deg.) was at Glasgow, and the lowest (40.8 deg.) at Perth. The greatest rainfall (8.06 inches) at Greenock was fully four times as great as the lowest (2.00) at Leith.

REGISTRAR-GENERAL'S RETURNS.

FROM the returns of the Registrar-General for the week ending December 10th, it appears that the death-rate in the eight principal towns was 21.6 per 1,000 of estimated population. This rate is 0.1 below that of the corresponding week of last year, but 2.7 above that of the previous week of the present year. The lowest mortality was recorded in Perth —viz., 15.7 per 1,000; and the highest in Paisley—viz., 34.5 per 1,000. The mortality from the seven most familiar zymotic diseases was at the rate of 3.5 per 1,000, or 0.6 above the rate for last week. Measles and diphtheria prevailed in Glasgow, and scarlet fever in Glasgow, Edinburgh, and Greenock. Acute diseases of the chest caused 112 deaths, or 9 more than the number registered last week. The mean temperature was 38.5°, being 5.2° below that of the week immediately preceding, and 9.0° below that of the corresponding week of last year.

HEALTH OF GLASGOW.

THE report of the medical officer of health for the fortnight ending December 10th shows that there were 418 deaths registered, representing a death-rate of 21½ per 1,000 living. In the corresponding fortnight of last year, the mean temperature was fully three degrees higher, and the rainfall somewhat less. Still, the mild fortnight of last year had a death-rate of 2 per 1,000 higher than the present colder fortnight, which is a part of a hitherto mild winter, while the former was only a short relaxation in a period of long continued cold. The difference is wholly accounted for by pulmonary diseases, which are fewer by 27 per cent. this year than last. In his report, Dr. Russell also draws public attention to the threatening increase of measles at present in Glasgow, the number of registered cases having risen during the past fortnight from 160 to 288, a state of matters sure to lead to an increased mortality. Parents are asked to remember that the infecting properties of measles are probably most active before the appearance of the eruption, and the necessity for withdrawing from school any members of a family where measles exist is insisted on. This public expression of opinion on the matter will no doubt lead to more care on the part of the community, and so lead to a diminution in the spread of the disease.

IRELAND.

CENSUS REPORTS: LONGFORD.

THE returns for this county recently published by the Commissioners show that the population has decreased from 115,491 in 1841 to 69,009 in 1881; and, in respect to 1871, there was a diminution of 3,492. The numbers returned for outdoor and poorhouse relief were considerably in excess of those of the previous decade. The death-rate came to 16.0 per 1,000, being below the average for the whole of Ireland, which was 18.0.

HEALTH OF CORK.

THE deaths during the four weeks ending December 3rd amounted to 109, and the births to 144. The annual death-rate per 1,000 inhabitants gave a total ratio of mortality of 18.08, and, deducting those who died in the workhouse, to only 15.92; from infectious diseases, 2.4; an infant mortality of 3.4, and a birth-rate of 23.88. Typhus fever has increased, as compared with the previous month.

BELFAST WORKHOUSE: LUNATIC WARDS.

DR. NUGENT, Inspector of Lunatic Asylums, has recently visited the building lately erected for the quiet and chronic class of the insane belongings to the Belfast Union. There is accommodation for 302 inmates; and he reports that the day-rooms and dormitories are well ventilated and commodious, while an ample extent of ground is available for employment and exercise. He suggests, however, that three paid, and therefore responsible, attendants should be provided in the male division, not only for the safety of the patients, but for security against fire, etc.

CORONER FOR COUNTY DOWN.

TWO gentlemen were on December 10th nominated to fill the vacancy for a coroner for the northern division of the County Down, and on the 12th instant the election took place. The medical candidate was Dr. Irvine, who was unsuccessful; his opponent, a solicitor, being returned by a large majority. Dr. Irvine was rather late in the field, which to a great extent will explain the result of the election.

REFUSAL OF VACCINATION.

A PERSON by name Strain has on several occasions been fined for refusing to allow his child to be vaccinated. The prosecutions were instituted at the instance of the Belfast Board of Guardians; but, as the defendant still continued to ignore the power of the law, the opinion of the Local Government Board was recently taken as to what course should be adopted in future. In reply, the Board stated that the fact of Strain having been fined previously was no reason why he should not be again proceeded against, if he continued obstinate and to refuse compliance with the provisions of the Compulsory Vaccination Act.

THE LUNATIC ASYLUMS OF NEW ZEALAND.

A MELANCHOLY interest attaches to the Annual Report of the Inspector of Lunatic Asylums in New Zealand for the year 1880, which has lately reached us, bearing date May 15th, 1881, and which was the last official work of Dr. Frederick Skae, who died under painful circumstances soon after its presentation. It is impossible in this country, with only imperfect information before us, to pass judgment upon the differences of opinion and difficulties which arose between Dr. Skae and the authorities at Wellington; but, as far as official documents, and especially the series of annual reports on asylums, justify an estimate of the late Dr. Skae's work, we should say that he accomplished much improvement in the condition of the insane in the colony, and prepared the way for many reforms in his department which are yet to follow. Imbued with sound notions as to asylum polity, and animated by truly humane sentiments, he diligently applied himself to introduce structural changes in the wretched buildings which he found in use as lunatic hospitals and to ameliorate the condition of their inmates as regards diet, clothing, and moral treatment. That he succeeded in his endeavours to a great extent, is unquestionable; and that he left the asylums of New Zealand in an infinitely less discreditable condition than that in which he found them, must be obvious to anyone who glances over the records of his brief tenure of office. If he pursued his reforms with gentleness and forbearance, and with little of that violent and aggressive spirit which finds favour in crude and immature social organisations, his fault was one which will not be very severely condemned in the old country.

It appears that one of the charges brought against Dr. Skae was his toleration of restraint in the Wellington Asylum; and on this subject he makes one or two comments in his report on that institution, which are well worthy of attention. Restraint, he says, has been used latterly "to an unusual extent, and more than appeared to me necessary; yet on no occasion whatever, so far as I am aware, was it used in the case of any patients in such a manner as to cause the slightest pain or serious inconvenience; and believing, as I still do, that both the superintendent and medical officer were fully alive to the importance of resorting to its use as little as possible, and that they would not employ it except when it seemed to them necessary, I did not in any case feel it my duty to insist on its disuse, or take such steps as would have indirectly compelled these officers to act in a matter of great responsibility against their own judgment. To use a homely phrase, 'You cannot make a silk purse out of a sow's ear'; and nothing could be more unreasonable than to expect that in a wretchedly constructed building, perched upon a cutting on a hill-side, where there is not even room to make an airing-ground, you can carry out in its entirety the same method of treatment which amidst immeasurabie difficulties, risks, and anxieties is pursued in the splendid asylums of England, by accomplished and resident physicians, with large and highly trained staffs of attendants." There is undoubt-

edly great justice in these observations; and hard measure was dealt out to Dr. Skae, if he were required to conduct his wigwam asylums like the palatial establishments at home, and were condemned for tolerating, in comparative barbarism, practices which only the highest civilisation has abolished. Dr. Skae had no leanings towards mechanical restraint; and, had time and support been given him, he would in due course have effected its abolition. But questions more urgent even than that of restraint pressed themselves on his attention; and, proceeding gradually and with discrimination, he deferred its extinction until other safeguards and substitutes for it were ready, and left its employment in a great degree to the discretion of those immediately responsible for the management of each asylum; upon whom, however, he constantly impressed the rule that it must not be resorted to except in cases of extremity. Would Dr. Skae's position have been better than it was at the time of his death, had he rashly, in the thirst for fleeting popularity, insisted that all restraint was to cease instantly in the asylums under his jurisdiction? Would he not have been held morally responsible for the crop of suicides and murders that would inevitably have followed the promulgation of such an edict?

The seven asylums of New Zealand contained, on the 1st of January last, 1,125 patients; and, as on the same day of the preceding year they contained 1,056, the number of their inmates had increased by 69 during the twelve months. Looking back for eight years, we notice that on January 1st, 1873, they contained 540 patients; so that the asylum population has more than doubled itself in eight years. The proportion of the insane to the estimated general population at the beginning of this year was 1 in 435 in New Zealand. In England, it was, in 1879, 1 in 315; in New South Wales, 1 in 365; in Victoria, 1 in 297. It has been steadily increasing in New Zealand: thus, in 1875 it was 1 in 514; in 1876, 1 in 509; in 1877, 1 in 478; in 1878, 1 in 451; in 1879, 1 in 445; in 1880, 1 in 435. Dr. Skae was inclined to attribute the increase in the absolute number of lunatics, and in their proportion to the population, partly to the accumulation of chronic cases, and partly to the prevalence of intemperance in the colony. Of the cases admitted to asylums in which the cause of the insanity was ascertained, 38 per cent. of the males and 11 per cent. of the females were found to have become insane owing to alcoholic excesses; whereas in England only 15 per cent. of the insane of both sexes are stated to have become insane from drinking.

Of the New Zealand asylums, that at Dunedin is the largest; it contained, at the end of last year, 315 patients. That at Napier is the smallest; it contained, at the same date, 22 patients. All the asylums in the colony are shamefully overcrowded. The asylum at Auckland, with accommodation for 50 patients, contained on the 31st of December last 173; that is to say, 123 beyond its proper number. That at Christchurch, with accommodation for 60, contained 113, or 53 beyond its proper number. How asylums so circumstanced are to be conducted without restraint, it is somewhat puzzling to understand. Several of the New Zealand asylums have no resident medical officer, but are under the management of a lay governor; and here, perhaps, we have the root of many of the evils that are complained of. If the colonial authorities desire to reform their asylums thoroughly, to cleanse them thoroughly, and assimilate them to English asylums, they must obtain from this country not only a competent and experienced commissioner to succeed Dr. Skae, but skilled medical superintendents for those asylums that are still under lay government. Three or four assistant medical officers in English asylums—men of ability and of some service—might be tempted by liberal salaries to emigrate; and they would speedily work wonders in improving the hospitals for the insane in the colony.

M. PAUL BERT ON ANÆSTHETICS.

M. Paul Bert, who has added to his scientific labours those devolving on a Minister of Public Instruction in the French Cabinet, made an interesting communication to the Académie des Sciences two hours after the warrant for his appointment had received the official signature. He pointed out that anæsthetic phenomena represent a definite scale, commencing with alcoholic excitement, going on to stupor, sleep, paralysis, and finally death. The time occupied by the series of manifestations of simple anæsthesia, terminating in death, is termed by M. Bert the workable range (*zone maniable*). These manifestations correspond to doses of ether or chloroform of different strength, of which the first is an anæsthetic dose and the last a mortal one. M. Bert has made experiments on dogs, rats, cats, mice, and birds, in closed chambers, avoiding the use of caustic potash, which, employed under the idea that it absorbs certain deleterious elements, in reality decomposes the chloroform. M. Bert also discards both sponge and folded lint for direct inhalation of chloroform; for, by adopting his method, the vapours are inhaled by the instrumentality of confined atmospheric air. The working range is different in each animal. It is a serious error to suppose that it varies in conformity with the size of the animal, or that is invariable in animals of allied species. It is only by direct experiment, and not by surmises, that reliable data concerning animals of the same species can be obtained. Thus it is evident that the doses and figures resulting from M. Bert's researches should not, by any process of deduction, be applied to the human subject.

The working range varies with each animal according to the anæsthetic administered. Chloroform has a range from eight to twenty, a difference of twelve; the difference for ether is forty, a fact which perhaps helps to explain the comparative harmlessness of this anæsthetic. The working range of nitrous oxide is a wide one. This substance has still other advantages recommending it to the attention of the surgeon.

A fatal dose is always precisely double the anæsthetic dose. In the middle of the working range, there is a kind of *punctum quiescens*, or a dead spot; under this condition, there is thorough anæsthesia, calm, and of long duration, most favourable for long and delicate operations. The most important fact to be deduced from these researches is, that chloroform, ether, nitrous oxide, and the carburets, do not act on the animal economy in proportion to the quantity introduced, but in proportion to the tension of the vapour present in the mixture inhaled; thus it is not the quantity of ether, chloroform, or nitrous oxide administered which should be watched, but the tension of the vapour, or, in other words, the quantity of anæsthetic vapour contained in the air inhaled. This point once determined, the safety of the operation is assured. There is no need for sponge nor compress, neither is there any necessity to watch the pulse of the patient; a simple tube fixed on to a mask performs with certainty the work of an assistant.

M. Paul Bert concluded his communication by expressing his firm belief that the results of the experiments, which he had just made public, authorise the introduction into surgical practice of more effective apparatus than those in use, and of a new therapeutic agent, less dangerous than any other—nitrous oxide.

A distinguished Parisian surgeon, M. Péan, has, we are informed, adopted M. Bert's method in different cases, and has been in every way satisfied with its success.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A meeting of the Committee of Council will be held on Wednesday, the 18th day of January next, 1882, in the Council Room, Exeter Hall, Strand, London, at 2 o'clock in the afternoon.

Francis Fowke, *General Secretary*.

161A, Strand, London, December 13th, 1881.

Notice of Quarterly Meetings for 1882: Election of Members.

Meetings of the Committee of Council will be held on Wednesday, January 18th, April 12th, July 12th, October 18th. Gentlemen desirous of becoming members must send in their forms of application for election to the General Secretary not later than 21 days before each meeting, viz., December 28th next, March 22nd, May 22nd, September 27th, in accordance with the regulation for the election of members passed at the meeting of the Committee of Council of October 12th, 1881.

November 4th, 1881. Francis Fowke, *General Secretary*.

BRANCH MEETINGS TO BE HELD.

[illegible]

METROPOLITAN COUNTIES BRANCH: SOUTH LONDON DISTRICT.

[illegible]

S. O. Habershon, M.D., Vice-President, in the Chair.

[illegible]

Hospital School for the purpose of holding meetings once a month, from 8 to 10 o'clock in the evening. It was unanimously resolved that the best thanks of the meeting be given to the authorities at the Admiralty, and to Captain Burney, R.N., for the kind assistance given by him in the matter.

Cottage Hospital.—Dr. HAVERSHON delivered an address on this subject, which will be published in the JOURNAL.—Dr. PURVIS said that cottage hospitals were extremely useful in the country, especially for surgical cases; but in the neighbourhood of London he doubted if they were required. Being opposed to the establishment of the proposed new hospital at Greenwich, he desired to avoid the appearance of inconsistency by qualifying to that extent his proposing a vote of thanks to Dr. Habershon for his interesting address on cottage hospitals.—Dr. FORSYTH seconded the vote of thanks. He thought Guy's Hospital very far behind other hospitals, if they crowded erysipelatous and typhous cases into wards with other cases. Enteric fever was different.—Dr. HARTT said that, being one of the staff of the West Kent Dispensary, he had an opportunity of judging whether a new hospital was wanted; and he thought it was not. For the very poor, there was the parish infirmary; for fever cases, Stockwell Hospital; and for accidents, the Seamen's Hospital.—Mr. CABLE thought cottage hospitals were of great use for cases of rheumatic fever, bronchitis, and diseases of the lungs. He thought many medical cases died at home who might be saved if there were a small hospital; but did not think it was needed so much for surgical cases, as the Seamen's Hospital had set apart forty beds for local cases. He thought a great deal of pauperising went on at hospitals and dispensaries, especially at the West Kent Dispensary.—Mr. BURNEY agreed that the charity of the West Kent Dispensary was very badly dispensed, and mentioned a dispensary case he had visited with Dr. Hartt, which turned out to be at a pawnbroker's, who could well have afforded to pay a practitioner's fees.—The vote of thanks to Dr. Habershon was carried unanimously, and the meeting adjourned.

STAFFORDSHIRE BRANCH: GENERAL MEETING.

THE first general meeting of this session was held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 25th. Present: Mr. J. K. WYNNE, President, in the chair; and twenty-eight members.

New Member.—Mr. F. C. Duce of Brewood was elected a member of the Branch.

Communications.—The following communications were made.

1. Mr. West exhibited a Fœtus delivered as a footling, but, on account of its hydrocephalic head, with great difficulty.

2. Mr. Alcock exhibited a case of Excision of the Right Elbow-joint in a young man now working as a railway porter. Mr. Alcock also exhibited a little boy whose Tibiæ he had divided for Genu Valgum.

3. Mr. Spanton exhibited two patients upon whom he had, eighteen months previously, operated for the Radical Cure of Hernia. He also exhibited a boy upon whom a successful Excision of the Left Hip-joint had been performed; also a man upon whom Excision of the Elbow-joint had been performed.

4. Mr. Spanton showed two Ovaries removed by Abdominal Incision.

5. Dr. Monckton recorded the history of a case of Cerebral Hæmorrhage.

6. Mr. Folker read the notes of a case of Successful Lithotomy in a young man. The calculus weighed four and a half ounces.—Mr. Folker exhibited a second stone, weighing two and a half ounces, extracted from a young man. Ten years before the operation, he had been sounded, and a calculus detected; but his mother declined any operation at that time, although her son suffered very much, and continued to do so until relieved by lithotomy.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT.

A MEETING of this District was held at the West Kent General Hospital, Maidstone, on Friday, December 16th. The Chair was taken by Dr. MONCKTON, in the unavoidable absence of the President of the South-Eastern Branch.

Next Meeting.—The next meeting was arranged to be held at Gravesend.

Communications.—The following communications were made.

1. An interesting case of Misplaced Testicle in the Perinæum was shown by Dr. White of Snodland.

2. Dr. J. V. Bell read a paper on Five Cases of Strangulated Hernia, which led to an animated discussion.

3. Dr. Meredith gave a carefully prepared paper on the Relations of the Medical Officer of Health to the Rest of the Profession.

Dinner, etc.—The members present were then conducted over the hospital, and afterwards dined at the Mitre Hotel.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the above District was held at the Kentish Hotel, Tunbridge Wells, on Tuesday, November 29th, 1881; Mr. BENJAMIN RIX in the Chair.

Papers.—The following papers were read.

1. Mr. Clement Lucas: On Principles for Regulating Taxis in Cases of Hernia.

2. Mr. Manser: Removal of a Foreign Body from the Bladder by the Median Operation.

3. Dr. Ranking: Scirrhus of the Pylorus.

4. Dr. Ranking: Aneurysm of the Transverse Portion of the Arch of the Aorta.

The Prosecution of Dr. Ferrier.—On the motion of Dr. JOHNSON, seconded by Mr. MARSACK, the following resolution was carried unanimously: "That this meeting desires to express its sympathy with Dr. Ferrier on account of the recent vexatious prosecution to which he has been so unwarrantably exposed."

Superannuation of Poor-law Medical Officers.—The resolution in favour of compulsory retiring allowances for Poor-law medical officers, passed at the last meeting, was again unanimously passed.

Dinner took place at the hotel, under the presidency of Mr. Rix.

The Next Meeting will be held in March, at Brighton, in conjunction with the West Sussex District.

CORRESPONDENCE.

LATERAL LITHOTOMY.

SIR,—I am reported as stating, at the Royal Medical and Chirurgical Society on December 13th, that I had performed lateral lithotomy on three cases to relieve "the sufferings caused by enlarged prostate" .....and had been "disappointed with the result". What I said was, that in three cases of *stone of the bladder*, in which the patients had long passed all their urine by catheter, I had removed the stone by lateral lithotomy; that each patient had made a good recovery; but that, contrary to my hope, not one was subsequently able to pass urine without the catheter, or indeed was better in that particular than before, although relieved of the suffering and symptoms of stone.

I shall be glad if you will be good enough to make this correction, in order to prevent any misapprehension in relation to my statement.—I am, sir, yours obediently, HENRY THOMPSON.

9, Wimpole Street, December 19th, 1881.

POLITICAL CANVASSING FOR HOSPITAL APPOINTMENTS.

SIR,—I observe in your JOURNAL of Saturday last an article on Political Canvassing for Hospital Appointments, in which the present vacancy at the Birmingham General Hospital is made the subject of special comment. As I am therein indirectly charged with cognisance of such influence being used to obtain the appointment of "assistant"-surgeon, I ask permission for a reply.

If you will kindly refer to the *Birmingham Daily Post* (from which you quote), you will find in the issue of the 10th instant an emphatic denial from myself, and from my committee, of any complicity in, or knowledge of, such influence being employed. Your correspondent (whoever he may be) should be better acquainted with facts before committing himself to statements clearly intended only to damage me in my application for the vacancy on the honorary staff; he ought to (and doubtless does) know that I am already "assistant"-surgeon, having held that office for four years. I was elected on the same day with my present colleague, now my opponent—possessing at the time all the qualifications insisted on by the governors; and being, in point of age, six years his senior, I have on all occasions being regarded as senior assistant-surgeon. I am further warranted in expressing the unanimous desire of the surgical staff, that the present vacancy should be supplied in accordance with the custom observed in most of the large hospitals in London and elsewhere.

In reference to your remarks respecting organising the profession, I am happy to tell you its members are already "well alive", able, and ready to deal with such exigencies as you seem to fear, should they arise; and to their opinion I shall be ever ready to bow.—I remain, sir, your obedient servant,

WILLIAM G. ARCHER, M.A., M.B.Cantab., F.R.C.S.Eng.,
"Assistant"-Surgeon to the Birmingham General Hospital.

9, Carpenter Road, Edgbaston, December 19th, 1881.

SHIP-SURGEONS.

SIR,—The picture drawn by Dr. Irwin in the JOURNAL of December 17, of the treatment which surgeons receive in ships generally, and in the Anglo-American vessels in particular, depicts a state so disgraceful that, as he very properly suggests, the sooner it is inquired into the better. Your correspondent is to be congratulated upon the out-spoken terms in which he denounces the position which medical men at sea occupy, and which, if substantiated, as doubtless it can be, is a gross injustice to important public officers. There are two chief causes why the surgeon is somewhat neglected, and looked lightly upon on board-ship. The first is, that there is great competition for the post by young men who are either delicate and wish to travel, or who are desirous of seeing the world for pleasure with little expense. Such are willing to offer their services without consideration of pay. Secondly, it must be admitted that the section of the profession who become ship-doctors, are not as a rule (admitting, of course, numerous exceptions) specially characterised either by intellectual superiority, or by the excellence of their social conduct. Under no circumstances, however, are the conditions described by Dr. Irwin justifiable.

Without wishing in any way to prejudice the thorough investigation of the subject, I consider it my duty to point out that these evils are not universal. More than ten years ago I served for nearly two years in the Peninsular and Oriental Company; and the excellent system which prevails in it, as well as the extreme liberality which the surgeons receive at its hands, compel me to say that in this, perhaps the largest mercantile fleet in the world, there can be no cause for complaint. Here a medical man enters a regular service for a certain number of years, and is therefore perfectly independent of captain and other officers in his own department. In all sanitary and medical matters his word on board is law, and he is only answerable to the directory at home. If the captain and he differred in opinion, the former would not refuse to carry out the instructions of the latter, and if he did so, it would be at his own risk. Both captain and doctor are servants of the company, each at the head of his own department, and each responsible for its proper performance without interruption from the other. The surgeon is a senior officer, and therefore receives every consideration on board. He has one of the best cabins in the ship, a servant to wait on him, and all the comforts and luxuries of a first class passenger. By a written order he can obtain anything in the ship he considers necessary for hygienic or professional purposes. With regard to his social position, that is precisely as he chooses to make it. As far as my own observation goes, if he be a gentleman he will be treated as such; and personally, although I was in six or seven ships, I do not remember to have ever had an order disobeyed, or a wish ungratified. Some of the best and most agreeable friends I retain, are amongst the captains and officers of the company, from all of whom I invariably received the greatest courtesy and kindness. What those at head-quarters may think of the speciality of surgeon I do not know. I can only say that they conducted themselves towards me, and all those I have met, with justice and liberality. For a young doctor nothing can be more delightful or useful before settling down in practice, than to see the world, an opportunity of doing which rarely occurs in after-life. If the Peninsular and Oriental Company is what it was ten years ago, it at all events will still afford an excellent opening for this purpose. In its service no medical man, however fastidious, can have reasonable ground for complaint. His professional services will be treated with respect, and personally, if his conduct merit it, he will be received and looked up to by all hands as a friend and senior officer.—I am, etc.,

A. HUGHES BENNETT.

48, Welbeck Street, W.

SIR,—The letter of Dr. Irwin, which you published last week, is certain to call forth many similar expressions of opinion from aggrieved surgeons. There will be no lack of protests and remonstrances against the snubs and slights and manifold disadvantages which beset the career of the ship-doctor. I purposely leave the narration of these to abler pens, and will confine myself to a totally different aspect of the case. This, though scarcely likely to be dealt with quite so thoroughly, is certainly of considerable importance to all medical men who follow the sea as a profession. It has been my lot to sail under British and foreign flags, on long voyages and short ones, with many passengers and with few. I may therefore claim at least to have had some experience in this matter, and I do not hesitate to say that most of the grievances and disabilities under which medical officers in the merchant service at present suffer, are chiefly, if not entirely, due to the shortcomings or positive misconduct of men of their own cloth.

Ship-surgeons may be roughly divided into two classes. There is, first, the youth just qualified; he may be possessed of a good deal of book-learning, and a good deal of dissecting-room lore, but he is almost necessarily ignorant of the routine and the requirements of life on board ship. He is also not unfrequently deficient in tact, and in knowledge of men and manners. Such a man would no doubt think it an insult that, at an official inspection, he should be required, in company with the other officers, to walk behind the captain; and would feel aggrieved that, perchance, in the matter of ventilation, more attention should be paid to the state of the weather or to the plan on which the ship was originally built, than to his view of what should theoretically be required. The second class consists wholly and essentially of the "bad hats" of the profession. These men are to be found hanging about the druggists' shops and steamboat offices of every large seaport town. I have often met them in foreign ports, and I have found them there, as at home, dull, drunken, and dirty. I would ask Dr. Irwin whether the services of such men are worth £5 a month to any human being? I might fill a page with instances of gross misconduct among ship-surgeons, which have come under my own observation. Every captain knows only too many of such. But the other day, the senior surgeon of the most popular steamship line across the Atlantic, told me that, so far as his position and pay were concerned, the worst influences he had to contend with were those due to the misconduct of his own professional brethren. A Peninsular and Oriental medical officer, who had been many years in the service of that very liberal company, informed me that almost all the privileges and even luxuries which medical officers had enjoyed when he first joined had necessarily been abolished or curtailed, owing to the misconduct and want of delicacy in their use by those to whom they had been granted. This is a painful subject, and I have no wish to pursue it further. My experience is only that of many others. I mention these abuses in order, later on, to suggest a remedy.

Let me, however, before proceeding further, say that there is also a class, though unfortunately a relatively small one, composed of men of mature age and experience, who have adopted the service of the sea as a profession, and have stuck to it for years. Such men are generally to be found in the colonial emigration services, and in the crack ships across the Atlantic, or through the Suez Canal. They find nothing especially to complain of in their position. Their career is necessarily an unambitious one, with no chances of professional distinction. It has been chosen deliberately as an easy and certain way of obtaining a competence, with a minimum of work or annoyance. It pays perhaps on the whole better than an average general practice.

In conclusion, as a step towards a better condition of things than now obtains, I would suggest that the Board of Trade give a surgeon a distinct "rating" or position on board every ship, such as he has now only in the colonial service; that the captain, in the interest of all concerned, have a voice in the choice of his surgeon, as he has in that of his other officers; and that, as far as possible, in every case a testimonial of sobriety and gentlemanly conduct be required from the surgeon before appointment, such document to be signed by the captain with whom he last sailed. Such a procedure would be an immense boon to those members of the profession who really wished to make the sea-service the work of their lives. It would ensure them constant employment, and would purge out the professional dross which now so seriously affects the status and prospects of ship-surgeons.—I am, etc.,

LITTON FORBES, late Surgeon-Superintendent, New Zealand Emigration Service.

SIR,—Having been medical officer of two steamships belonging to one of the principal lines, and having made five voyages—one a long one—I can corroborate much that Dr. Irwin says in reference to the very unsatisfactory state of the medical department of the mercantile marine.

For my part, however, I had the good fortune—perhaps rare—of sailing with captains who were sensible men, who left the sanitary supervision of the ship to me, and did not attempt to hamper me in the performance of what I considered to be my duties. Doubtless they had the power to do so to some extent, but they wisely abstained from using it. I certainly had a rub or two with the chief stewards on matters affecting the health of the passengers; and on these I calmly but firmly made a stand, and gained my point. Of course, it is highly probable that, if I had been "out" with the captain, I should not have fared so well.

In the matter of accommodation, too, I suppose I was more fortunate than some; my rooms in both ships having about double the cubic capacity of the one described by Dr. Irwin.

I also ordered patients into hospital when necessary, merely informing the captain of my intention; and my proceeding was never opposed. In some things, of course—especially where the crew are con-

cerned—it is only right and proper that the captain should be consulted.

As for the surgeon's performing purser's duties, if any medical man accept such a post, he has himself to blame. It is only in inferior ships that this curious double appointment is offered, and I venture to think it is only accepted by very inferior men.

The list of drugs drawn up by the Board of Trade is certainly quite inadequate. On going on board, I found, for example, no aconite, belladonna, nux vomica, or bromide of potassium. These and others I ordered at once, and they were immediately supplied without question. The list may be in accordance with the therapeutics of five-and-twenty years ago, but it stands much in need of revision now.

Although, therefore, my experience appears to have been on the whole more fortunate than that of many, it showed me with sufficient clearness the great necessity for reform—a reform which the rapid increase in emigration and in ocean travelling renders all the more urgent.

The position of the medical officer is anomalous and precarious at the best. His proper status is not recognised, and the nature and importance of his functions are not understood. To do his work efficiently, his duties ought to be clearly defined, and *quoad hoc* he must be independent. This is quite compatible with the necessary subordination to the captain in other matters concerning the discipline of the ship.—I am, etc.,

W. F. PHILLIPS.

St. Mary Bourne, Andover, December 19th, 1881.

SIR,—I have read Dr. Irwin's letter with great interest, which is none the less from the fact that my two year's experience in the Peninsular and Oriental Company's Service has given me a much better impression of a ship-surgeon's life than Dr. Irwin seems to have. As medical officer I ranked with the chief officer, was always well attended, and had one of the best cabins in the ship. My pay, it is true, was only £10 a month, but that, as a matter of fact, was increased by fees; and after all £120 a year is as much as a young medical man would obtain from an "indoor" appointment on shore, while its work was, to say the least of it, not heavy. I certainly never encountered any snubbing from any of the commanders under whom I served, nor did they in any way interfere with me in the discharge of my duties. On the contrary, I always found them ready to consult with me for the good of both passengers and crew, and to accept any suggestions I threw out. In short I found my position a very pleasant one, and as independent as it could be, with a due regard to the discipline which is necessary on board ship. On the one occasion when the captain and I, in our private capacities, did not get on well, I applied for and at once obtained a change of ships.

Now I attribute this better state of things mainly to the fact that a medical appointment on the Peninsular and Oriental Service is for two years, and certainly is not likely to be cancelled at the whim of a commander; in fact, the medical officers form a department of the company. I can easily understand a captain, who is of course, an autocrat, refusing to pay any great deference to the opinions of a gentleman who comes from he knows not whence, may leave again in a few weeks, and is possibly sea-sick, and therefore unfit for duty half the voyage; especially if his opinions differ from those of his predecessor, or, at least, are new to the commanding mind. Then, again, considering the responsibilities which are often thrown on a ship-surgeon, it would be as well if Government laid down some rule as to the minimum of age and experience necessary. What the rule is now, or whether there is any, I do not know; but at 23 years of age, I was informed by the physician to the Post Office that I was too young, though later he gave me a personal recommendation to the company.

I am very glad to see this subject brought forward, and hope that Dr. Irwin's admirable letter may be the means of making other ship-surgeon's positions as comfortable as mine was in the Peninsular and Oriental Company.—Yours faithfully,

CHARLES G. BEAUMONT, M.D.Edin.

SIR,—While granting that there are many grievances in the position of a ship-surgeon which ought to be set right without loss of time, yet I hardly think that Dr. Irwin has aided the cause by the extraordinary statements he has put forward in his letter in last week's JOURNAL. As a former ship-doctor, and as a Liverpool practitioner well acquainted with shipowners and the regulations of the great steamship companies, I feel qualified to speak on the subject.

It is undeniable that the pay is small; but the large majority of ship-surgeons are young men just qualified or fresh from hospital life, and £120 a year at sea is a fortune, compared with the wretched pittances that many house-surgeons receive.

The accommodation in the best companies is quite as good as that provided for the other officers; the cabins are usually larger than six feet by four. When a surgeon applies for a berth, he has to submit his testimonials, diplomas, etc.; and, in nine cases out of ten, a recommendation from some one well known to the company is required.

The position of a medical man on board ship is an undefined one, and depends entirely on himself. If he be acquainted with the peculiarities of his position, he can easily and at once, if possessing some knowledge of the world, adopt a reserved, dignified manner, have entire control of his department, and be practically independent of the captain. Ship-captains are not a particularly refined or well-educated class of men; their use (or abuse) of language is peculiar; they often love to exercise their authority in a very arbitrary manner; but I repeat most emphatically that a little firmness, politeness, dignity, and tact will soon place matters on a satisfactory basis.

I fail to realise the condition of things spoken of by Dr. Irwin; nor do I know of any companies where such abuses exist. I have never had to "walk behind the purser or chief steward", though I did follow the captain, as, differing in my views from Dr. Irwin, I regarded him, and not myself, as the commander of the vessel. In the large passenger companies, the surgeon has not to perform purser's duties. I never experienced any difficulty in obtaining personal attendance. I was always invested with absolute authority to order any drugs, stores, or instruments I pleased, without any limit—even such medicines as amyl nitrite and pilocarpin, and such appliances as Martin's bandage, which is, or was, an expensive article in Australia.

In conclusion, I may add that, if the position of ship-surgeons at the present time be undignified and uncomfortable, we have to thank ourselves for it. If Dr. Irwin discuss the question with the managers of an Atlantic company, he will learn that many doctors forfeit the esteem of officers, passengers, and the company, by gambling, drinking, and bad behaviour generally. If every surgeon going to sea in an official capacity were to make up his mind to uphold the dignity of his profession, to insist from the first on his rights, and to maintain his status on board, the abuses complained of would soon become things of the past. The heads of our great steamship companies are naturally always ready to advance the interests of their company; and if they found that, by adopting a course recommended by the medical profession, they obtained steadier, more reliable, and more efficient medical officers, they would, I feel certain, be only too glad to do their part—increase the pay, better the accommodation, define the position, and formulate definite instructions for the guidance of the ship-surgeon.—I am, sir, your obedient servant,

A. CRESWELL RICH, M.B.Lond., M.R.C.S., etc.

4, Canning Street, Liverpool.

SIR,—As you have expressed a wish to hear more on the subject of ship-surgeons, and to show that the position of medical officers in the service of our larger steam navigation companies was not, and I trust is not, always what has been described by Dr. Irwin, I am tempted to give my own experiences.

About fifteen years ago, I was appointed to serve on an Indian station. I had a first-class passage out by what is called the overland route. Having inadvertently paid my own hotel bill at Cairo, the amount was returned to me by the company. I experienced the greatest courtesy from superintendents, agents, commanders, and executive officers. When appointed to a ship, I had full control as to sanitary matters, sick-quarters, and sick-diet. I remember once having occasion to complain of the quality of the champagne, when I was politely requested in future to order whatever brand I thought best, and these orders were always properly attended to. On another occasion, an officer objected to have the ice-house opened at an irregular hour, when I had ordered ice for a sick passenger. Upon my appeal to the captain, he at once directed that my demand should be attended to, though at great inconvenience. When I was placed in charge of troops, not only was an apothecary sent with the men, but the company requested my acceptance of double pay during the time the troops were under my care.

I sailed with four different captains, all of whom were educated and honourable gentlemen; and I still look back with pleasure to many friendships formed during my three years' life at sea.—I am sir, your obedient servant,

P. AND O.

SIR,—It was with much pleasure that I read the letter of Dr. J. A. Irwin on the position of ships' surgeons—a subject which has an urgent claim on the consideration, not only on the members of the British Medical Association and the profession at large, but upon the Legislature of our country, and which largely affects the interests of all who travel any distance at sea, and of hundreds of thousands of our fellow-creatures who have to make their home on the sea.

Having had an experience on the subject, the greater part of which time has been spent afloat, I can heartily endorse the statements of Dr. Irwin, and had intended myself to write a letter to you on the subject at an early date.

Dr. Irwin has been very moderate in his complaints of the wrongs suffered by many able and gentlemanly members of our profession, who have no protection from the insolent and overbearing conduct of those who too often are in a position to make their life on board ship one of extreme discomfort. The surgeon on board a "passenger-ship" is placed in a very anomalous position. The law makes him responsible, to a great extent, for the comfort, health, and good behaviour of the passengers, and requires the captain to assist him in the maintenance of discipline among them. This fact may be readily ascertained by anyone who will consult the Act of Parliament referring to the carriage of passengers by sea.

Note, then, the position of the surgeon. He is generally the paid servant of the shipowners, and is dependent on them and the captain for whatever status or privileges he may have on board, as well as for the tenure of his office. His comfort on board is subject to the caprice or convenience of the captain, officers, and owners. If he wish to do certain things which his duty suggests, he must run the risk of displeasing one or other, and of being informed that his services are no longer required. His salary is often miserably small, and even on some of the leading steamers such as would not be accepted by any good class man, except that there is sometimes a chance of getting a few fees from passengers. Even on this latter point the owners are beginning to put on the screw. I am informed that a surgeon has recently been appointed to one of the finest steamers afloat, and belonging to a very important passenger line; the remuneration afforded him is £8 per month, and he has had to agree to hand over to the owners any fees which the passengers may give him. This is degrading to a high-minded man, and a matter which calls for reform.

If the surgeon be an officer whose appointment is required and sanctioned by the Board of Trade, that same Board of Trade ought to satisfy itself that its interests are properly represented; that the surgeon's position should be secured; and that he is not dependent for his comfort, and even bread, on private and interested owners and captains.

It must be clear to all who have thought much on the subject that reform is urgently needed, not only in the surgeon's interests, but in those of everyone who makes a long sea-voyage. I inclose my card, and am, sir, yours, etc.,

A MEMBER OF THE BRITISH MEDICAL ASSOCIATION.

SPECIAL CORRESPONDENCE.

BRIGHTON.

[FROM OUR OWN CORRESPONDENT.]

Epidemic Disease.—Drainage.—Small-Pox at Hove.—The Season.—Cancer of the Breast.

THERE has been much and not unnatural exaggeration in the public mind as to the amount of epidemic disease here. One source of this exaggeration is a misconception of official figures: reading that the death-rate from fever is 1 per 1,000, and taking the population at about 110,000, some persons quite lately have imagined 110 to be the number of fever-deaths; whereas, of course, the weekly rate is calculated on the fifty-second part of the above population, which would be, speaking roughly, about 2,000. As a matter of fact, the deaths from enteric fever in Brighton last week were two, which, however undesirable, cannot be called a very alarming circumstance. Some weeks ago, certainly, there was a limited epidemic in the northern (Lewes Road) district, reaching a total, it is believed, of about sixty cases, about thirty of which were traced to a certain milk-supply; but that epidemic has now almost entirely ceased. Of scarlet fever, there have been a few cases. The slight outbreak of small-pox is practically over so far as Brighton is concerned, thanks largely to the Sanatorium.

Although the main drainage system here is exceptionally good, there are no doubt, as in all large towns, many local defects, serious illustrations of which have come under my own observation. Unscrupulous householders here, as elsewhere, will deny such defects, and even sublet their houses and pocket their rent in advance without regard to the consequences; but, so far as the authorities are concerned, they have shown due activity when their attention has been called, and have exerted all the powers allowed by law in such matter. I think they have been rather unfairly blamed for matters they could not well know of till mischief arose.

The invasion of small-pox at Hove has caused still more alarm, and was at one time rather formidable, though limited to the poorer quarters of the extreme west, and not showing itself in the parts frequented by visitors. Its origin points a moral worth noting. A family migrated to the said quarter, having, it was said, chicken-pox, and being allowed to mix with the neighbours. To the same house came another family of two adults and four children, all unvaccinated, and sought unsuccessfully by the vaccination-officer; but they had eluded his action by changing their lodgings. Five, if not all, of this family, got small-pox of a virulent type, and two died. There was no sanatorium to receive these few cases, and the contagion soon reached large proportions. It is, however, now much better; there are only seventeen cases at present known to the authorities, and there are few or none met with in private practice. The present vaccination-officer is earnest and energetic, and does his duty well; but his predecessor had much neglected the district. And, *à propos*, it reminds one rather of Mr. Goschen's "property in two counties, four parishes", etc., to learn that the control of vaccination in this large town lies with the Board of Guardians of the Union of Steyning, who meet, eight in number, at Shoreham Workhouse, and on which Board Hove is represented by two members, so that outlying parishes could—I do not say they do—outvote this important place on any point they wished.

To the Hove Commissioners, however, belongs the duty of erecting a sanatorium, and they have been blamed for not doing this before spending £40,000 on a town-hall. It must be remembered, however, that public authorities are hampered in this matter by local prejudice, and by the decision in the Hampstead Hospital and other cases; and, although their officer of health often urged the necessity, they apparently waited for clearer laws, and, trusting to the good fortune of recent years, have been found unprepared for this emergency. Ground, it is true, had been bought at Portslade years ago for this purpose; but it has now been built up to, and cannot be utilised. It is hoped that at Hangleton, before long, the desired accommodation will be found. Meanwhile, they have two houses for use as a hospital in the affected district, but it is doubtful whether injunctions, etc., will not prevent their proper use; happily, however, as already said, the epidemic is abating.

All this has not prevented a brilliant season, and the town has been exceptionally full; the weather, with exceptions, admirably bright.

At the Brighton and Sussex Medico-Chirurgical Society, Mr. Athol Johnstone lately opened a discussion on Cancer of the Breast, with notes of six recent cases of much interest. He was in favour of early operation, and laid much stress on the improved mental tone that followed it. Many cases that promised little turned out best. Chian turpentine had been used diligently in one case, with the result that the cancer, which had been condemned by high authority as likely to be quickly fatal and unsuited for operation, lessened rather than increased, and the patient suffered very little pain, but gradually "withered," emaciated, and only, after a year or more, died from exhaustion. Ointments containing paraffin, eucalyptus, or iodoform and eucalyptus, with vaseline, were well spoken of. Mr. Nicholson had found the "Redcross cotton wool" an useful alternative. Incidentally, it was ascertained that none of the members present had known a case of cancer of the tongue in a woman.

DR. ISAAC J. HAYES.—Intelligence of the death of Dr. Hayes, the Arctic explorer, reaches us by a Reuter's telegram from New York, dated December 18th. Dr. Hayes obtained his degree of M.D. at the University of Philadelphia in 1853, and was almost immediately afterwards appointed surgeon of Dr. Kane's second Arctic expedition, with which he returned to the United States in 1835. A conviction that there existed an open Polar sea induced him in 1860 to undertake a voyage of exploration on his own account. He sailed from Boston in the schooner *United States*, which he fitted out with the aid of the American Geographical and Statistical Society, Mr. Henry Grinnell, Sir R. Murchison, and others, and by means of sledges he penetrated as far north as 81 deg. 37 min. On his return in October 1861, the civil war being in progress, he volunteered as a surgeon in the Union Army, and served till the restoration of peace. He again visited Greenland in 1869. To the last, he was desirous of heading another expedition to the North Pole by way of Smith's Sound. His varied experiences in the Arctic regions furnished him with material for several interesting books. His voyage in the *United States* was described in *The Open Polar Sea*; among other works from his pen were, *An Arctic Boat Journey*, relating to his first voyages; *The Land of Desolation*, a supplementary narrative of his second voyage, published in 1870; and an account of Greenland, under the title of *The Land of Desolation*. The Geographical Society of London and the Société de Géographie of Paris awarded him gold medals for his discoveries. Latterly, Dr. Hayes was a prominent member of the New York State Legislature.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE TUNBRIDGE WELLS PROVIDENT DISPENSARY.

THE fourth annual Report of the Tunbridge Wells and Rusthall Provident Dispensary states that the number of individuals to whom the benefits of the institution were available during the year has been 2270; of these 1810 are remaining on the books, consisting of 295 men, 547 women, 249 children above the age of fourteen, and 719 below that age. These represent 409 families, besides widows, widowers, and servants. The prescriptions dispensed amount to 19,987. The balance sheet shows an increase on the receipt side of £45 10s. 0d.: the annual subscriptions exceeding those of last year by £6 8s. 0d., and the payments of provident members by no less than £55 0s. 5d. It is impossible to doubt that the benefits of the institution are increasingly appreciated by those for whom it was established. On the expenditure side, the cost of drugs has greatly increased. This is partly owing to the large number of chronic cases on the books, many of whom are constantly under treatment. While, therefore, the benefits conferred by the institution are thereby extended, an additional outlay is inevitable. The sum of £291 was divided among the five medical officers. The house occupied by the dispensary stands next door to the infirmary, and the two institutions work together in the most friendly manner. We could wish that the same close relations existed between the provident dispensaries and hospitals in all towns.

THE BOLINGBROKE HOUSE PAY HOSPITAL.

THE first annual Report of the Bolingbroke Pay Hospital is a document which can hardly fail to interest those who are favourable to provident and self-supporting systems of medical relief.

In 1878, Bolingbroke House, a handsome mansion on the verge of Wandsworth Common, was purchased by Canon Erskine Clarke, the vicar of Battersea, with the view of having it converted into a pay hospital. Already there was a flourishing provident dispensary in the central part of the parish; and, as the nearest hospitals—St. George's and St. Thomas's—were both about four miles distant, it often became a question what should be done with persons who were so ill as to require in-patient treatment. Thus it was that the managers of the provident dispensary were led to start a self-supporting hospital. Some good basement rooms were at once set apart for a Wandsworth Common Provident Dispensary, and accommodation was given to a resident medical officer. This second provident dispensary—which is, in fact, the out-patient department of Bolingbroke Hospital—has now been in operation three years, and has made very satisfactory progress. But, while the out-patient department was being carried on in this way, considerable alterations had to be made in the mansion to fit it for a hospital. At length, in December 1880, the first in-patient was received into its wards. During the ensuing year, there were thirty-four in-patients; these all made payment according to their means. The individual payments ranged from 12s. 6d. to £3 3s a week—the latter charge being for a private room. The average weekly payment was £1 10s. 6d., and the total sum paid by patients was £203 13s. The secretary states that the patients have supported themselves to the extent of about 67 per cent. of their cost; and he expresses his conviction that, if the patients increase in numbers so as to fill all the wards, and if the weekly average payment of £1 10s. 6d. be maintained, the institution will be self-supporting.

The thirty-four patients were all drawn from the lower middle class—just that class whom it is important to keep from becoming "objects of charity". Of these thirty-four, six were members of the Wandsworth Common Provident Dispensary, who were thus passed from the out-patient to the in-patient department upon self-supporting lines.

The total cost of purchasing Bolingbroke House, and adapting it to its present purpose, has been about £7,000; of this sum, £1,321 is still a debt on the building. But, at present prices, such a hospital could not have been erected *de novo* for £10,000. As we have already said, so far as the current expenses are concerned, there is good reason to believe that the institution will soon become self-supporting. All that it now requires is publicity, and a constant supply of suitable applicants.

A RECORD OF DEATH.—The health of the 9,500 European troops engaged in the campaign in Afghanistan, according to the official returns, appears to have lamentably suffered. The death-rate in 1879 was little short of 89 per 1000. Cholera was the principal cause of mortality, the deaths from this disease alone numbering more than half the total not directly attributable to battle or to accident. Among the troops operating from the Peshawur Valley, the mortality from cholera reached the enormous rate of 74 per 1000.

MILITARY AND NAVAL MEDICAL SERVICES.

IT is stated that Sir William Muir, who has held the appointment of Director of the Army Medical Department since 1874, is about to retire on a special pension on the 1st of April next, and will be succeeded by Surgeon-General T. Crawford, now principal medical officer in India. The appointment held by Dr. Crawford is to be filled by Surgeon-General Sir A. Home.

NAVAL MEDICAL APPOINTMENTS.—The following appointments are announced to have been made at the Admiralty on Saturday, December 17th. Fleet-surgeons: Maxwell Rodgers, M.D., to the *Monarch*, when recommissioned; Charles Strickland, to the *Euryalus*, when recommissioned. Surgeons: William Brown and Robert M'Ivor, M.D., to the *Monarch;* David B. Bookey, to the *Euryalus;* James W. H. Hawton, to Plymouth Hospital, *vice* Brown; John M. Browning, to the *Cambridge, vice* Bookey.

THE FORCED RETIREMENT OF MILITIA SURGEONS.

THE surgeons of the militia service are in a condition of ferment. It is remarkable, too, that it is not the younger and more excitable members of the department who are in this state of irritation, but the seniors. Several of the older members of the service have been called upon to resign their commissions because they have attained the age of 65 years, and it is notified that all others will have to do so in turn as they reach that age. The rule is to be applied irrespective of dates of commission, or of the terms of the warrants under the provisions of which the militia medical officers undertook service. Those who were commissioned by the lords lieutenant of counties under the rules then in force are not exempted from the new rule, any more than those who have accepted service since the militia medical department was transferred to the tender of the war department. The senior militia surgeons allege that the application of this, or any similar rule to them is most arbitrary and unjust; for they engaged themselves on the distinct understanding that their appointments were life-appointments, provided only they were fit and competent to perform the duties of the position. This, however, is not the only grievance they complain of. They aver that not only are they forced to resign their commissions, but they are compelled to do so without the least compensation of their past services. They declare this abrupt dismissal—for such they regard the rule which is being enforced on them by a retrospective application so far as they are concerned, by the War Department—without any compensation or retiring pension, to be contrary to the mode of dealing with other public servants, and not only so, but actually in contravention of rights which have been conferred on them by certain Acts of parliament. It appears that by two Acts of parliament passed in the reign of George IV, and subsequently confirmed by another Act passed during the present reign in the year 1868, all surgeons of militia who might have to retire from age or infirmities, provided they had previously completed twenty years' service, became entitled to the half-pay of six shillings a day. This provision, it is declared has not been repealed since, although in the year 1875 a fresh Act of parliament was passed, by which the militia was transferred from the authority of the lords lieutenant of counties, and placed directly under the Crown and War Office, and although various warrants and circulars have since appeared, by which other matters affecting the surgeons to militia regiments have been changed and regulated.

The army circular issued from the War Office in January last leaves no doubt about the order for retirement at 65 years. The edict is plain and absolute. "No medical officer will be allowed to remain in the militia departmental list after he shall have attained the age of 65 years", are its words. The equity, and indeed wisdom, of making such a rule retrospective, may well be disputed; but, if made retrospective, it would seem to be only just that some compensation should accompany it. We cannot express any opinion regarding the claim made by the militia medical officers, that a legal right has been conferred on them by Acts of parliament to compensation in the shape of a fixed rate of half-pay allowance. This is a subject for legal investigation. It seems not unlikely that the alleged claim will be tested by an inquiry of this nature, for some of the militia surgeons are taking steps to try and obtain a decision upon the question of the War Department having a right in law to declare they are not entitled to a retiring pension. Of course, in any dispute of the kind, the official persons at the War Office, in seeking a justification for their views, would shelter themselves under the authority of the Crown; and as no legal proceedings are permitted to be taken against the Crown, only one course of action in the way of obtaining a settlement remains, viz., to present a petition of rights. The medical officers are advised that this will be granted, if they are able to

Dr. MIHALKOWICS has been appointed to the new professorship of anatomy in the University of Buda-Pesth.

PRESENTATION.—A silver salver, and a purse containing £45, together with the names of the subscribers illuminated on vellum, was presented to W. Todman Boreham, M.D., of Wareham, Dorset, on his leaving the neighbourhood.

THE number of deaths from small-pox in London, last week, is reported to have been 25, an increase of 3 on the previous week, but 5 below the corrected average number in the corresponding week of the last ten years. Eighteen of the 25 persons had resided in the south group of registration districts, including 10 in Southwark and 8 in Camberwell.

MEDICAL MAGISTRATES.—Dr. W. Arnold, Dr. A. Dempsey, and Dr. I. Fagan, have been placed on the Commission of the Peace for the Borough of Belfast; and Mr. M. McDonnell for the County of Antrim.

SUDDEN DISLOCATION OF THE LIVER: RECOVERY.—Dr. Alexander Y. P. Garnett (*American Journal of the Medical Sciences*, January 1881) reports a case of sudden dislocation of the liver. A lady, aged 50, while stooping down hurriedly to pick something from the floor, "felt a sudden wrench or giving way on the right side". Examination revealed a displaced liver reaching to the crest of the ilium. Much discomfort was experienced; but the patient was relieved by spontaneous reduction in the space of three days. A week's confinement in bed, followed by the use of a broad elastic band around the waist, constituted the necessary remaining treatment. The patient apparently regained, to a great extent, her normal condition and state of health.

SMALL-POX RAVAGES IN CHICAGO.—The *New York Medical Record* says that, of 1,359 cases of small-pox in Chicago since January 1st, 40 per cent. have proved fatal. By far the greater number of cases have occurred in those districts where the more degraded portion of the foreign element lives, and where attempts at vaccination have been met by open violence at times. In that portion of the city there are 40,000 persons who have not been vaccinated; and of the 108 deaths in September, 81 occurred among these. It is believed that the publication of these facts will create such a sentiment as will result in almost universal vaccination, and in increased diligence in the matter of cleaning the streets.

HEALTH OF FOREIGN CITIES.—The following facts and figures, which afford trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities, are derived from a table in the Registrar-General's last weekly return. In the three principal Indian cities, according to the most recent weekly returns that have come to hand, the death-rate averaged 33.2 per 1000; it was equal to 24.5 in Bombay, 34.4 in Madras, and 37.5 in Calcutta. Cholera caused 49 deaths in Calcutta, showing a further increase upon the numbers in previous weeks, and 10 fatal cases of small-pox occurred in Madras; "fever" fatality was excessive in each of these three cities, and was highest in Madras. The death-rate in Alexandria, during the first week of December, was equal to 30.8, and 13 of the deaths resulted from dysentery. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 26.2 per 1000 of their aggregate population, whereas the average rate in twenty of the largest English towns during last week did not exceed 23 8. The rate in St. Petersburg was equal to 38.4, showing a further decline from the excessive rates in previous weeks; the deaths, however, included 25 from typhus and typhoid fevers, and 16 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 20.3, the highest being 24.6 in Copenhagen; 14 of the 37 deaths in Christiania resulted from measles. The Paris death-rate was again equal to 27.2; no fewer than 60 deaths were referred to diphtheria and croup, and 29 to typhoid fever. The death-rate in Brussels did not exceed 21.5. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 24.1, the highest being 29.6 in Rotterdam; fevers caused 3 deaths in Amsterdam. The death-rate in Geneva was equal to 20.5. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 25.5, and ranged from 18.9 in Dresden, to 31.9 in Prague, and 30.5 in Buda Pesth. Small-pox caused 19 deaths in Vienna, 10 in Buda-Pesth, and 6 in Prague; and 45 fatal cases of diphtheria occurred in Berlin. The death-rate in the three Italian cities contributing to the table averaged 25.3, and were equal to 19.5 in Turin, 22.8 in Venice, and 25.7 in Naples; typhoid fever caused 12 deaths in Naples and 5 in Turin. No returns have been received from Rome for some time. In four large American cities, the death-rate averaged 24.2; it was 19.7 in Philadelphia, 20.6 in Brooklyn, 22.6 in Baltimore, and 29.3 in New York. Small-pox caused 16 deaths in Philadelphia and 7 in New York; 17 deaths from typhoid fever were returned in Baltimore, and excessive diphtheritic fatality was recorded in each of these four American cities.

LOCOMOTOR ATAXY FOLLOWING SMALL-POX.—At a general meeting of the Harveian Society of London, Dr. C. G. Henderson read the notes of a case of confluent small-pox followed by ataxy. The patient, George A., aged 36, was admitted to the St. Pancras Tent Hospital on May 27th, 1881. His temperature, which had ranged between 100° and 102° Fahr., rose suddenly on May 31st, reaching in a few hours 107.8° Fahr., and he was then immersed in a bath at a temperature of 68°, for fifteen minutes. His temperature was then 96°, but it rose gradually in the course of the next eighteen hours to 104.4°, and the bath was repeated. No hyperpyrexia or other complication followed, but convalescence was much protracted, large bullæ having formed on the soles of both feet, leaving scabs which separated very slowly. On the 18th of July, when he began to get up, he suffered from numbness and tingling of the feet, legs, and hands: the knee-jerk and ankle-clonus, as well as the skin reflexes, were absent, and he lost his balance when the eyes were closed. No myosis was present. After leaving the Tent Hospital, he attended as an out-patient at University College Hospital. He slowly gained power in his legs, but, when last seen, the knee-jerk was still absent. Dr. Henderson referred to similar cases recorded by Landouzy and others, and considered the lesions causing the patient's symptoms were probably analogous to those found in diphtheritic palsy, and other forms of paralysis noticed after acute diseases. They differed from those of true locomotor ataxy in the more favourable course which they took, ending, in the majority of cases, in recovery. Dr. Whipham and Dr. Broadbent spoke, and Dr. Henderson replied.

THE HOSPITAL FOR WOMEN.—Sir Rutherford Alcock, K.C.B., has recently unveiled, in the hall of the Women's Hospital, Soho Square, a marble bust of Dr. Protheroe Smith, the founder of this institution, which has been in existence for nearly forty years. Since that date, all the larger metropolitan hospitals have set apart separate wards for such cases, and similar institutions have been formed in the chief cities throughout the civilised world. The bust is intended as a public memorial to commemorate that to Dr. Protheroe Smith was due the merit of having originated and carried into effect the system of women's hospitals. Sir R. Alcock, in the course of his remarks, paid a hearty tribute to Dr. Smith, and testified warmly to the good work which he had done. The bust, which was said to be a striking likeness, is chiselled in white Carrara marble, standing upon a column of black marble, veined with white and chiselled, in a handsome screen of walnut wood. The pedestal bears the inscription, in gold letters, "Protheroe Smith, M.D., Founder of the First Hospital for Women, 1842." The cost of the memorial is said to be about £200.

MEDICAL ETHICS IN FRANCE.—The *Scalpel Medicale* [illegible] have drawn up a little code setting forth the relations which should prevail between medical men in consultation and in relation to each other's patients, which contains nothing particularly new, but is neatly and tersely expressed. The principles involved are clearly set forth, and they are such as would bear repetition, and are none the worse for being occasionally re-read and set forth anew for consideration. This code runs as follows. 1. Medical men honour their profession by honouring themselves in their confraternal relations, and, consequently by observing, in their mutual intercourse, the greatest courtesy in actions and in words. 2. Every medical man called in accidentally to a patient who is under treatment, in the absence of the usual medical man, should restrict himself to prescribing the medicines necessary for the moment, and not make any remarks upon the treatment which has been followed. 3. He should not call again upon the patient unless he be called in consultation by the medical man in attendance. 4. Medical men called in consultation should abstain, whilst in the presence of the patient and of his friends, from any expressions which may prejudice the usual medical attendant. In private consultations—that is to say, between the medical men only—any expressions which may throw discredit on either of the consultants is reprehensible. The treatment agreed upon between the consultants should be applied by the usual medical man. To him belongs the application of dressings, and the performance of the operations decided upon, unless he delegate this work to another medical man. 5. The consulting medical man [illegible] to see the patient unless he be again called in, or authorised to do so by the medical man in charge. 6. In any case, he [illegible] the succession of attendance in the same illness, whether acute or chronic. 7. The consulting-room of the medical man is a neutral territory, where he can give his advice to all who require it [illegible]

OPERATION DAYS AT THE HOSPITALS.

MONDAY ..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2 o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 2; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

CORRESPONDENTS who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

SCHOOLS FOR DAUGHTERS OF MEDICAL MEN.

SIR,—In your issue of December 3rd, Mr. E. D. Tomlinson of Burnley writes to know how he can best provide for the six orphan girls of a medical man. I took the trouble to write to that gentleman, pointing out that the St. Anne's Royal Asylum at Streatham, the office of which is at 56, Gracechurch Street, would exactly meet the case; but, as my letter has been returned through the Dead Letter Office, I must ask you to give him this information through your columns.—Yours obediently,

F.R.C.S.

THE PROPER DISPOSAL OF THE DEAD.

SIR,—How properly to dispose of the dead, in great cities especially, is one of the most pressing sanitary questions of the day. No one [illegible] the earliest and best method, and that of interment [illegible] to the first carriage of the dead body is a natural, and [illegible] instinct. The former was once the prevalent system [illegible] The unreasoning sentiment, however which [illegible] perishable, including even [illegible] a practice which [illegible] harmony with nature, but revolting to the senses and pernicious to the public health.

In the United States of America [illegible] receiving much attention. Medical writers of note express [illegible] death [illegible] ague, particularly as the city populations [illegible] increasing. Dr. Roger S. Tracy, in treating of public health [illegible] the [illegible] shows how the disposal of the dead must have [illegible] in the history of the human race; while he regards it as [illegible] it should remain an open question. Dr. William H. Ford, of Philadelphia, contends that cemeteries should be situated at convenient distances from towns, and that "in selecting the site, particular attention should be given to the character of the soil".

Between effective and non-effective burial, the difference is as wide as it is important. The one is salutary and sanitary, the other obnoxious and pestilential; the one is natural and respectful to the dead, the other unnatural and desecrating to "poor mortality". [illegible] Mr. Roger S. Tracy [illegible] will be found [illegible] It is simply [illegible] and perverted [illegible] both processes.

I shall endeavour, in another communication, to explain the "chemistry of death", and to show how consonant earth-to-earth burial is with the Divine ordinance, natural laws, and [illegible] Even Dr. Roger S. Tracy, who is a strong advocate of cremation, considers the earth-to-earth proposition "a very sensible one", and remarks that "there seems to be no valid objection to the plan". I am, etc.,

SANITAS.

SIR,—Having been attending a patient for some time who suffers from epilepsy and paralysis, I should be much obliged to any member if he would let me know how I could render the motions less bulky and less hard. It ought to be mentioned that she has a natural motion twice a week, but is much distressed and prostrated by the passage, which sometimes takes a day or more.—Yours truly,

A MEMBER.

A SOCIAL EVIL.

SIR,—I read with much satisfaction your leader on a Grave Social Problem, and I think all fathers should be grateful to you for having published such wise and prudent remarks on the subject. You say that the bad habit is often commenced very early. I know from several instances that it is sometimes even commenced at the earliest period by the abominable practices of impure nursemaids while nursing the infants. These [illegible]maids may be, and generally are, kind to and fond of, excellent young women, very fond of children, and liked by them. I have known instances where they have amused themselves with little boys from four to six years old.

With respect to your recommendations for a cure, I think they are excellent; but, when the habit is confirmed, I fear that the brain is affected—at least, that portion which supplies the nerves to the sexual organs. I believe also that, in some cases, the affection or weakness of the brain exists from birth, in which cases the slightest accident may be the cause of commencing the habit; it will then be found very difficult to effect a cure. Everyone must have observed that there are many boys who never have any inclination this way, though thrown into temptation as much as others. Hence it would appear that the conformation or structure of the brain and the temperament must have considerable influence from an early period. One great point, I believe, is for the mother to keep a strict watch over the nursemaid, over all her actions towards the child, and especially her manner of carrying or nursing it, and dismiss her at once at the first suspicious symptom, for which she may give any convenient reason she pleases. The nursemaid should never be allowed to sleep with a male child. After all, when the habit is confirmed, the safest and surest cure is a sincere and heartfelt piety—not religiousness, which, as you observe, often accompanies the habit. True Christian principles, thoroughly instilled into the child at an early period, so that the sense of God's presence is an ever controlling principle, will enable him to overcome every difficulty and temptation. But this is a very rare character among the young of the present day, who are too precocious, and want to be men before they are boys, and are ever ready to seize every pleasure in anticipation; cannot wait for the coming time, but, like the boys in the nutting season, must gather the fruit before it is ripe.—I am, etc.,

PATERFAMILIAS.

USE OF VAPOUR OF CARBOLIC ACID.

SIR,—Having read the able paper in your JOURNAL on "A Substitute for Carbolic Spray", I venture to send the following record of a case under treatment.

A child, aged 5, was attended by me for typhoid fever, and at the end of four weeks seemed convalescing; but peritonitis supervened, followed by great abdominal distension, so impeding the action of the heart and lungs that I resolved to tap. I did so with a small trocar, and three quarts of white inodorous pus were the result. The abdomen refilled in a week. I aspirated with a borrowed instrument, and ordered another. Whilst I was waiting for the new one there was another refilling, and the matter burst through the umbilicus. Twenty-four hours afterwards, the atmosphere of the room was unbearable, and I ordered a teaspoonful of pure carbolic acid to be burned in the room close to the bed, morning and evening; and whilst dressing the abdomen I burnt one tablespoonful, not beginning to remove the dressing until the room was filled with the fumes of the acid. On the second day, the matter had returned to its original inoffensive white condition. The abdomen has been syringed out with a one per cent. solution of carbolic acid, and for three weeks has never been offensive. The child has a clean tongue, and is rapidly getting better, eats well, and is gaining flesh. My reason for using the vapour whilst dressing the wound was, that the steam-spray which I used on the first syringing frightened the patient. The quantity of matter has fallen to little over a tablespoonful, as compared with half a pint a week previously. I have never omitted using the vapour twice daily, and a third time on the day that I syringe out the cavity and put on fresh dressings, which I do every other day. This has been a rough method of applying the vapour; but the result was most striking, and I thought might be of interest, as the subject has been just now brought before the profession.—I remain, sir, yours faithfully,

Strefford, Craven Arms, Salop, October 20th, 1881. EDWARD TREDINNICK.

SIR,—Mr. Justice Cave's dictum, that the surgeon who attends a duel is equally guilty with the principal who fires the shot, is on a par with the dictum that the surgeon who undertakes the cure of a primary syphilitic ulcer is equally guilty with the patient who contracts it.—Yours,

CAVE-AT DOCTOR.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

TREATMENT OF ECZEMA.

SIR,—Will some member who has had experience in obstinate cases of eczema kindly inform me how to treat the following case?

An adult of robust constitution and steady habits has been a martyr to eczema, attacking different parts of the body, for six years. He has consulted many medical men, and taken quantities of arsenic and cod liquor, etc., but without permanent benefit. His father and a brother are subject to gout; a sister and two of his children also suffer from eczema. At the fall of the year, there is usually an exacerbation; he is now recovering from an acute attack, involving the whole of the head, face, eyes, ears, and neck; he remains much disfigured, the face, etc., "peeling" freely (eczema squamosum), which, from previous experience, is likely to go on for an indefinite time. The hair has come out from the eyebrows and eyelids, and the unfortunate gentleman dreads the exposure his profession demands.

I may add that the acute attacks are attended with high fever, great mental and physical prostration; an intensely acid state of the urine, which is loaded with lithates; and the evacuations, after purging, consist of black offensive masses in large quantities.—I am, sir, your obedient servant, V. B. C.

British Columbia, November 10th, 1881.

TONSILLOTOME.

SIR,—In reference to the letter from Mr. Lennox Browne in the BRITISH MEDICAL JOURNAL of December 3rd, perhaps you will allow me to mention that I have used Dr. Morell Mackenzie's tonsillotome for the last six years, and that I have never found any difficulty in removing with it any portion of the tonsil that required excision. The pointed blade to which he refers was tried long ago, and has been given up generally. I believe, on account of its liability to get out of order. Messrs. Mayer and Meltzer have informed me that several pointed instruments have been brought to them to have the blade altered to one with a rounded edge. Mr. Browne is under a misapprehension in supposing that the slide of the instrument is made of German silver. I have ascertained from Messrs. Mayer and Meltzer that, since they made Dr. Mackenzie's first instrument in 1865, no other material than steel has been used. It is quite possible that Mr. Browne may have procured a so-called "Mackenzie's tonsillotome" from other makers, who have attempted to improve on the original pattern, and hence the want of rigidity complained of.—I am, sir, yours faithfully, T. MARK HOVELL.

3, Mansfield Street, Cavendish Square, W., December 13th, 1881.

VOLUNTEER HOSPITAL CORPS AND AMBULANCE SYSTEM.

SIR,—The paragraph in your issue of November 26th, headed a "Volunteer Hospital Corps", gives me reason to hope that the accomplishment of a scheme I ventured to outline in the *Volunteer Service Review* some months since, and to which I called your attention in July last, may not be far distant. I have from time to time drawn attention in other journals to the good work done by the volunteer ambulance department, to the number of men trained under its auspices to act as bearers; and occasionally I have had to remark upon the difficulties experienced by some medical officers who have desired to comply with the regulations now existing, and which state that two men per company shall be so trained. The fact is that commanding officers, as a rule, object to men being taken from the ranks for any purpose—that is, strictly speaking, non-combatant; and the question has suggested itself to me, and I believe to many others, whether the regimental medical system should not be modified to a considerable extent, and a "Volunteer Hospital Corps" established on the lines of the "Army Hospital Corps"? There are a considerable number of medical officers, in the prime of life, attached to volunteer corps as supernumeraries, who would gladly join in the furtherance of a movement which, with the addition of the proper complement of trained bearers, would make the volunteer medical service a reality.

It is not perhaps within the scope of this letter to call attention to the palpable inefficiency of the volunteer force as an army, owing to the absence of properly organised commissariat and transport departments; but it is certainly within my province to throw out a suggestion which may end in the formation of a corps, which would at least remove the stigma of so large an army being totally without necessary ambulance arrangements.

My general idea is, that in all large towns, particularly in those possessing medical schools, men should be specially enrolled for the purpose of being trained as bearers; and where the numbers are sufficient, that bearer, or half-bearer, companies should be formed, complete as to equipment and "materiel". The medical students of London, Edinburgh, Liverpool, Manchester, Newcastle, etc., would gladly, I fancy, respond to the call; and with the addition of others from the field, but who have a taste for ambulance work, I see no reason why a corps of from three to four thousand men should not be raised. The members of this corps should have a distinctive uniform, and be attached to the same training as their comrades of the Army Hospital Corps. If properly formed, they would become most useful auxiliaries to the latter when at present, pathetic sweeps to their absence, is incomplete and unfit for service. Let the same capitation grant be given as that allowed by Government for the combatants (thirty shillings a head), and I think the question of keeping up a corps of bearers would be solved. Those medical students who purpose entering the army would find in the new institution a healthy exercise, but a means of preparing themselves for the duties they would have to perform when in the service.

The question of "materiel" needs further consideration; and bearing in mind the complete absence of an ambulance system, either in London or the provinces, and the great necessity [illegible] with our large hospitals for proper means of conveying [illegible] patients injured in the street, I am sanguine that the hospital authorities might see their way open to furnish a number of ambulances [illegible] for this purpose. Dr. Benjamin Howard, in the JOURNAL of July 16th, drew attention to the New York Ambulance system, and I was surprised at the time that the article evoked neither comment nor discussion.

If my remarks serve the purpose of inducing further correspondence on a matter of such importance, I shall be [illegible] in the meantime, I would like to [illegible] governments of boroughs and [illegible] in the following, and their medical officers of the volunteer force, to take such steps as may ultimately lead to the establishment in this country of a volunteer hospital corps, and in connexion with it an efficient ambulance system in all large towns.—I remain, sir, your obedient servant,

WILLIAM H. PRICE, Surgeon-Major Honble. Artillery Brigade,
4, Upton Villas, Kilburn. Hon. Secretary Volunteer Ambulance Department.

THE CLINICAL THERMOGRAPH.

SIR,—It gave me great pleasure to see, in last Saturday's JOURNAL, a description of Mr. Bowdler Buckett's clinical thermograph; for, as I [illegible] making an instrument for the continuous record of the temperature of the human body. My idea at first was to get a Breguet's thermometer [illegible] dial, like the one used by Mr. Buckett, but [illegible] me that this was practicable, and suggested a modification of Breguet's as better suited. Several instrument makers to whom I then applied [illegible] do with the matter. About two or three years ago, [illegible] tube of one sort or another, and a dial [illegible] reader, would be a most desirable thing [illegible] having a stud at one end. Again I was not successful [illegible] maker to take up this idea. So far as I knew then, the last method, simple as it was after the principle had been used for other purposes [illegible] ing temperature. So far as I know now, it has been [illegible] Bowdler Buckett's instrument. In the process of evolution, mine [illegible] tion or form found in Mr. Buckett's instrument as represented [illegible] fessor Foster thought a ridged end would be better, that [illegible] dragging.—I am, etc.,

D. R. JONES.

Joint Counties Asylum, Carmarthen, December 7th, 1881.

A QUESTION OF FEE.

SIR,—Can any of your readers kindly inform me as to [illegible] the communication of [illegible] pleaded that [illegible] Parliamentary years.

*** It does not appear, from the law respecting the [illegible] justices of the peace, to what remuneration our correspondent would be entitled for the services he states he rendered; but we believe he could legally recover at least an ordinary attendance fee for the examination of the youth, [illegible] half a guinea for the report, which is, we are told, the usual sum directed to be paid by the metropolitan police magistrates for medical [illegible] evidence in, their courts. If he were engaged on behalf of the youth, it would be in the discretion of the magistrate before whom the case was brought to certify whether his fees or fees were to be paid by the master [illegible] side to pay the same for his service, if he was not [illegible] of his infancy or otherwise. From information, however, [illegible] one of the magistrates' clerks at a leading metropolitan police court, justices of the peace would not be likely, in cases of this kind, to order that [illegible] tices should pay medical witnesses the remuneration to which they are entitled, except in those instances in which their employers [illegible] proceeding against their apprentices for breaches of contract.

ANTISEPTIC RESPIRATOR.

SIR,—Some of your readers may be glad to know that a very [illegible] respirator may be made in the following manner. Take a two-ounce chip-box, cut two pieces out of the free margin—to correspond to the upper and lower lips—perforate the bottom in sixteen places by the aid of a red hot wire; also make two holes on the side of the box close to the bottom, to correspond to the angles of the mouth; remove the rim of the lid, and clip off enough to allow it to fit in easily within the box; perforate it in the same way as the bottom. Cover the sides and edge of the box with [illegible] the holes at the sides of the box, and tie the free ends, so that it can be fixed over the ears; place a piece of lint, charged with the antiseptic to be used, on the bottom of the box; fix it in position by the aid of the perforated lid, which is to be kept in its place by the elastic cord passing over it. I would suggest its use, not only in cases of pulmonary disease, but also in scarlatina when the throat is particularly involved.—I remain, yours, E. M. C. HOOKER.

East Retford, December 8th, 1881.

DR. RAJAGOPAUL ON VITAL STATISTICS.

SIR,—In the very interesting paper on the Duration of Human Life in England, which appears in your [illegible] of December 10th, Dr. Rajagopaul [illegible] the death-rate of the three years 1838-40 with that of the four years 1876-9, and points out that the average mortality [illegible] of the former years was [illegible] that of the latter was only 21 per 1000, which is tantamount to an average duration of life of 47·6 years, now as against 44 years then. But he [illegible] in our self-congratulations for two reasons: 1, because he finds that "the whole of the improvement recorded has been created in saving young lives [illegible] males above thirty-five years of age, and females above forty-five are dying at a greater rate than they used to do"; and, 2, because "the apparent lengthening of life can be more than accounted for by a diminution in the occurrences of, and the mortality from, zymotic diseases, and in the class of [illegible] human life can be shown to have actually shortened in this country during the last thirty years."

Allow me, therefore, to draw attention to a stern fact, which, though "all men think all men mortal but themselves", is fain liar to most of us, namely, that "it [illegible] to this proposition, [illegible] that "human [illegible] must one [illegible] that they do not die of one thing [illegible] another. Dr. [illegible] he would have seen how impossible it is to [illegible] the bill of mortality appear heavier towards the extremity devoted to the higher ages, and how impossible it is to lessen wealth from what are [illegible] causes, with [illegible] the proportion of deaths from other causes [illegible].

Dr. Rajagopaul has proved that infant mortality has greatly decreased in the last thirty years, and this is matter for congratulation without a doubt. The great desideratum is not to lengthen the life of our octogenarians and nonagenarians, but to give every human being born into the world a fair chance of enjoying life, and of being useful to his kind. The Spartan method of [illegible] children, rather at birth than at the exceptionally strong, was a [illegible] and had respect to the physical, rather than to the mental and [illegible] of man. How many great and useful men would have been lost to the world if this practice had been [illegible] How many great and useful men have we lost [illegible] in the early years of their manhood! Alexander, the great warrior, was [illegible] Aristotle, the great philosopher, was [illegible] Alexander the great conqueror, and Aristotle the great philosopher, [illegible] the world at the time of their death, would be was it not [illegible] for the world, to all [illegible] that the life of [illegible] should be lengthened [illegible] extremity, and that people should be [illegible] less exposed to death from casual accidents or [illegible]—I am, sir, yours faithfully,

D. PAGE.

Kingston-on-Thames, December 12th, 1881.

Factory Certifying Surgeons.

SIR,—I am inclined to ask the favour of your inserting a reply to the letter which appeared in your issue of November 12th, signed "Another Certifying Surgeon since 1878", because I find that the writer has committed himself to a practice not upheld by law.

Let me say that the Association of Certifying Surgeons alluded to was formed in 1878, and partook of a somewhat dictatorial turn, having for one of its objects the complete inspection of factories for themselves. In proof of my assertion, I would refer your readers to the *Birmingham Daily Post* of December 1st, 1876, wherein letters appeared, headed "Taxes on Manufacturers", and which were the outcome of the endeavours of the Association to arrogate to themselves certain undue powers.

It was during the early days of factory inspection that certifying surgeons did as they liked; for one of the inspectors had been a surgeon in Leeds, and largely contributed to the success of the system adopted by general consent of the surgeons, as he did in leading manufacturers on to a due appreciation of the blessings of factory legislation, in which he deservedly held so large a share. Sanctioned by him, the surgeons continued in their habit of charging fees proportionate to the capacity of the millowners to pay; for, be it borne in mind, there was no legal enactment defining what the scale was. It is true, a scale was introduced in a note to a former Act as suggestive, but it did not form any part of that Act; so, in Section 13 of the Factory Act, 1844, the inspector had the power of fixing the amount of fees and times of visits, if the occupier required him to do so; and the said section set forth the maximum amount of fees to be paid; but, where such application was not made (and in very few cases indeed was it made), the surgeon could charge whatever sum he pleased.

This state of things continued to 1878, when, in the Act 41 Vict., cap. 16, sec. 74, all doubt is removed, and the enactment passed that certain fees only shall be paid; so that now it is useless to quote the Association of Certifying Surgeons as exponents of what should be, or to give the practice of any one surgeon under the recognition of an inspector, for both are powerless to act contrary to law.

Now that I have cleared away a little, allow me to approach the subject as it is, and to reply *seriatim* to your correspondent's letter.

The half-crown fee for certificates up to five, as contended for, does not apply to such factories as have a periodical or weekly visit paid to them, nor to those factories whose occupiers send for the surgeon when several certificates are required. The Act says that, where no agreement is made between occupier and surgeon, the fees shall be those named in the following scale, viz.: "When the examination is made at the factory, not exceeding a mile from surgeon's residence, two shillings and sixpence shall be paid as a maximum amount for a visit, and sixpence extra for each person examined after the first five." Here is an absolute law; two shillings and sixpence to be paid for one or five certificates, no matter whether a visit be required to be made once a week or once a year. Of course, if hands be employed longer than the prescribed time, the inspector should find it out.

I, secondly, take exception to the practice of certifying young persons from their appearance, and without any proof of age. Such a practice would not be tolerated in the metropolis, for it is directly opposed to Section 27 of the afore-named Act, and every certificate so given can be cancelled by Her Majesty's inspector; in fact, it was the imperfections of the system obtaining before 1878, which led to the present enactment; and how can any surgeon state in the register that a boy's age is fifteen unless upon the boy's word? or how can a surgeon comply with the printed instructions in the register by giving date of birth and subscribing thereto, unless some documentary proof be given to him? In the third place, I am surprised to read that a half-time book is deemed sufficient evidence of the age of a child, when it is most particular that positive proof of age should be produced. I am inclined to think that the writer refers to the "livrêt", which contains all that is necessary for ascertaining particulars prior to employment, and not to a half-time book, which merely records the daily attendances at school.

Finally, as to mileage, your correspondent takes his view of the Act, by charging two shillings and sixpence a visit, and one shilling for each certificate, where the distance exceeds one mile. I pronounce this to be a flagrant violation of the law, which says: "Where the examination is at a factory more than one mile from surgeon's residence, the above fees (*i.e.*, those I quote above), and an additional sixpence for each half-mile over and above one mile. Now let me assume a case upon the charges so unwarrantably made. Eight persons are to be certified; distance from residence of surgeon, one mile and a quarter. The legal charge is, 2s. 6d. for five certificates, 6d. for each of the three remaining, and 6d. for extra half-mile; total 4s. 6d. Surgeon's fees, fixed by himself, 2s. 6d. for visiting the factory, and 1s. for every certificate; total 10s. 6d., or an exaction from the millowner of 6s. upon a single visit.

I ask you, sir, was there not need for the legalising of surgeons' fees, and for the prohibition of the custom by surgeons of "taxing manufacturers" *ad libitum*? One cannot envy the spirit which prompts the taking of 5s. for walking to a factory a few yards beyond the mile, as candidly confessed to by your correspondent.

Comment is made also upon the 6d. fee, "which is the worst of all, but not affecting the writer very much". If it did, I fancy we should have had a hard plea for abolishing so insignificant a sum for professional services; but why was the 6d. fee inserted in the Act?

As the Act of 1878 was extended to every place, however small, and therefore including many very poor occupiers, it was humanely settled that a 2s. 6d. fee should not be demanded, especially as the only lad employed might leave in a week; and, moreover, the surgeon is relieved from going to the factory. The system works well, and has been the means of inducing many to obey the law, when the exaction of 2s. 6d. would prompt them to evade it. I see no great difference between signing a book and looking at a boy in one's surgery for a minute, and taking 6d. for it, and pulling out a tooth for 1s.—an operation requiring skill and judgment, as well as the entailment of much longer time.

I have written a long letter; and, if you will be good enough to publish it, I hope it may produce the effect desired, that of convincing certifying surgeons that the law is now absolute, and so simple that no one can err in carrying it out.
—Your obedient servant,
J. B. LAKEMAN.
Home Office, Whitehall, S.W.

Vaccination.

SIR,—It was stated in the JOURNAL that the report of the Conference on Vaccination, held in July 1879, and published in this JOURNAL, has been published separately. Please say who is the publisher, or where the report may be had.—I am, etc.,
MEDICUS.

*** At the office of the JOURNAL, 161A, Strand; price, 1s.

Restoration of the Extensor Power of a Finger.

SIR,—Can any of your readers give information likely to be useful in the following case? A man had a severe contused wound on the back of his hand, amongst other things, partially detaching a portion of the extensor tendon of the ring-finger. It is impossible to bring the two ends together; and what I propose is, to unite the distal fragment to the neighbouring tendon of the ring-finger; and, if it should be too short to be brought in apposition, would it be justifiable to separate off a slip from the tendon of the ring-finger, and unite it to the ruptured end? I do not care to run the risk of possibly destroying the sound tendon if anyone should have tried and failed before. I can find no information on the subject in any of the books within my reach.—I am, etc.,
PETER TYTLER, M.D.
Manchester, December 11th, 1881.

Immediate Arrest of Bleeding from the Nose.: a Correction.

SIR,—An error in punctuation in my last week's Memorandum makes me seem untruthful. There ought to have been a comma after the word "country", and a full stop in the next line after the date. As a matter of fact, I have informed *private* correspondents of the names of probable makers of Dr. Rose's instrument, although adding that no one (so far as I am aware) has an exclusive property in it.—I am, etc.,
JOHN K. SPEARE, M.D.
Bath, December 20th, 1881.

SIR,—Will you kindly tell me where I can obtain the drugs you mention in the JOURNAL of December 10th; to wit, "Resorcin and its allies"?—Yours faithfully,
J. D.

*** Wholesale, of Zimmerman and Co.; or through Corbyn and Co., Allen and Hanbury, or Martindale.

Umbilical Hernia.

SIR,—I should feel much obliged if any of your correspondents would kindly give me their opinion of the value of the umbilical belts for infants in curing umbilical hernia. Also, can they recommend any better contrivance?—Yours faithfully,
Longtown, Abergavenny, December 14th, 1881. L. THAIN.

Women Doctors in Eastern Countries.

THE following extract from a letter received from a gentleman travelling the north of China, dated October 14th, 1881, has been sent to a contemporary for publication, by Miss Isabella Thorne, Secretary for the London School of Medicine for Women: "While at Tien-tsin I called on Miss Howard, M.D., the lady doctor who so successfully treated Lady Li, the wife of the viceroy Li Hung-Chang. I found her exceedingly pleasant, and she invited me to be present at the opening of her Hospital for Female Patients on the 8th inst. This was a grand affair. Li Hung-Chang, attended by many mandarins, came to take part in the ceremony. The Hon. A. Angell, the American Minister, was passing through Tien-tsin on his way home, and was asked to say a few words on the occasion. It was a curious coincidence that he had been president of the University in America where Miss Howard had studied, and he himself had signed her diploma. This made it exceedingly interesting to him, and he did not fail to allude to it in his speech. Ladies did not take part in the ceremony, but Miss Howard came into the reception-hall and by an efficient interpreter expressed to Li Hung-Chang her thanks for the support he and Lady Li were giving to her undertaking. Li stood while Miss Howard was there. She then retired to her own apartments and Dr. Mackenzie, of the London Mission, did the honours of the reception. After we had walked round, we returned and partook of tea, coffee, cakes, etc., and shortly afterwards Li retired also, and an interesting ceremony came to an end."

WE have received the first two sheets of a letter under the heading, "Has the Duration of Human Life in England increased during the last thirty years", from which the last sheet is missing, with the name of the author.

COMMUNICATIONS, LETTERS, etc., have been received from:—
Mr. George Sankey, Maidstone; Dr. Lewis Eisberg, New York; Dr. J. H. Aveling, London; G.; Mr. J. E. Ingpen, London; Mr. W. Prowse, Cambridge; Dr. Rabaghati, Bradford; Mr. W. J. Verrall, Brighton; Dr. H. L. Snow, London; Dr. John Whitlock, Luton; Mr. Charles Atken, Liverpool; F. P.; Dr. F. Dickinson, Exminster; A Member; Mr. A. Hallowes, Maidstone; An Hospital Physician; Mr. A. Creswell Rich, Liverpool; Mr. J. Neville Porter, London; Mr. Walter Whitehead, Manchester; Dr. Dowse, London; Dr. de Pietra Santa, Paris; Mr. W. Archer, Birmingham; Mr. H. E. Clark, Glasgow; Sir Henry Thompson, London; General Practitioner; Mr. Thomas Duke, Rugby; Dr Farquharson, London; A Provincial Surgeon; Mr. Alfred Baker, Birmingham; Dr. T. R. Armitage, London; Mr. G. Stillingfleet Johnson, London; Mr. W. F. Phillipps, Andover; Dr. Glascott, Manchester; Our Edinburgh Correspondent; F.R.C.S.; Mr. J. Wickham Barnes, London; Mr. A. Cooper, London; Dr. W. M. Kelly, Taunton; Mr. S. S. D. Wells, Gosport; Dr. Haddon, London; Dr. R. Bruce Low, Helmsley; Dr. Saundby, Birmingham; A Member of B. M. A.; Dr. James McNaught, Newchurch; Mr. W. Berry, Wigan; Mr. H. G. Cartwright, Narborough; Parish Medical Officer; Dr. J. Rogers, London; etc.

Scale of Charges for Advertisements in the "British Medical Journal".

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amount may be sent in postage stamps.

REMARKS
ON
COTTAGE HOSPITALS.*

By S. O. HABERSHON, M.D., F.R.C.P.,
Vice-President of the Metropolitan Counties Branch of the British Medical Association; late Senior Physician to Guy's Hospital; etc.

THE science of our profession continually advances. Since the last meeting of this District of the Metropolitan Counties Branch of the Association, the International Medical Congress has been held in our metropolis, and the members of our profession may justly be proud of its success; distinguished physicians and surgeons have been associated in the interchange of thought, in the expression of mutual good feeling, in the diffusion of knowledge, and in the furtherance of medical science. Medical knowledge has risen to a higher standard. It has been like the sea with the advancing tide: one wave after another may seem to rise only to recede; but the whole result is seen in the water reaching a higher level. Advance has been made, and with that advance the power for good has been increased. And, whatever branch of professional science may be regarded, it will be found that the communication of ideas and the interchange of thought has produced corresponding vigour; mistakes have been rectified, and fresh incentives have been given to push on still further the investigations of our predecessors. A mass of wealth has been accumulated, and each one has been invited to carry away as much as he can appropriate, resting assured that it will bear a goodly interest. A brilliant light has been brought to bear upon the fog of ignorance, and has dispelled some of its gloom. A more lofty eminence has been reached, from which a wider range of sight may be obtained. A rich harvest has been gathered in, and everyone may glean full ears; and, if he will sow, he will surely have fresh fruit in which he may rejoice. In the coming session, there is every prospect that good may be realised from the impetus given to professional science. It ought to be so. Medical men can never rest satisfied with present attainments. It is a characteristic of our profession, that it must diffuse its benefits to those around; hence hospitals are promoted, dispensaries are established, and all classes of the community are benefited. I am informed that there is some thought of forming a new hospital in the district in which we have met to-day. Hospitals abound, but there is room for others. They are of different kinds and varied sizes, from the immense establishments numbering hundreds of patients, to the small cottage hospital of six to twenty beds. For many years I have had experience of the large wards of a hospital richly endowed, and numbering its patients by many hundreds; but I have also seen the small cottage hospitals, and have known the inestimable benefits derived from them.

Cottage Hospitals, which a few years since were unknown, now number several hundreds throughout the country. The village hospital has been found to be of inestimable help to many of our profession in the treatment of the sick and especially of accidents, and a countless boon to the sufferer.

In referring to these village, or *cottage* hospitals, I am glad to learn that another Branch of this Association has shown its appreciation of the merit that is due to a most respected member of our profession who has been instrumental in founding and in advocating these benevolent institutions—Mr. Albert Napper of Cranleigh—and have resolved that a testimonial shall be given to him. I trust that many will unite in it, and that the testimonial may be worthy of its object.

The value of these small hospitals can scarcely be calculated; and have been well described by Mr. Burdett in his excellent work. Let me mention some of the advantages accruing from them, especially in a medical aspect.

1. I would refer to *their proximity*. In the country, it is sometimes impossible to remove the patient, who may have suffered from severe accident; and in other instances, although possible, the journey may be most disastrous. I will not speak of severe or compound fractures to limbs, and other injuries; but especially of some medical cases, where the shaking and jolting necessarily produced by a journey would take away the chance of recovery. Thus, in a person suddenly affected with perforation of the stomach, if there be *any* chance, it rests in the patient maintaining absolute rest and quietness; and, in any acute peritoneal affection, shaking is most injurious. So, again, in acute diseases of the cæcum, and its appendix; and it is painful to think of the suffering produced by the shaking and jolting endured by a patient affected with rheumatic fever. Again, some patients have diseases where time for treatment is measured by minutes, and where delay is death. In tracheotomy, unless the operation be performed at once, there is often no opportunity; and a cottage hospital may be the means of preserving life. I have not referred to the importance, in the cottage hospital, of removing disease from the home of a family, where proper care could not be taken to prevent its spread, and proper nursing could not be carried out. Cases of enteric fever might be saved by good nursing, which the crowded home renders impossible.

2. *Disease may be better treated.*—The small ward of a cottage hospital is often more suitable for the treatment of *acute* disease than the more roomy but more draughty ward of a large hospital. Let us take some of the acute diseases which are common amongst us. A case of acute inflammation of the lungs requires rest, and a warm but pure atmosphere; the large ward of some of our hospitals is most unsuitable for such a patient. Take, for instance, one of the wards of Guy's, with its fifty beds, and divided into its four sections. It is absolutely necessary to ventilate the ward; so that often, windows are opened top and bottom (it may be for half an hour or an hour at a time), and cold currents of air are produced. The patient in the next bed may have erysipelas or fever, or there may be a bad bed-sore, and fresh air is essential. It is true, that the physician may order a head to be placed over the bed, and direct the windows to be closed in the neighbourhood, allowing only an inch or so at the top for purification; too often, however, his back is no sooner turned, than the windows are again opened, and the patient is chilled. Warm air means rest to inflamed pulmonary apparatus; and it would be as reasonable to compel a patient with a broken limb to get up and walk as to compel a patient with inflamed bronchi and lungs to breathe a cold atmosphere. These remarks apply equally to cases of acute bronchitis. In private practice, the bronchitis-kettle may be used; but, in a ward of twenty or forty patients, such means cannot be employed. In acute renal disease, the chance of a patient is much greater in a small and suitable ward than in a large one; and, in the large wards of Guy's, I have often been thwarted and disappointed in the treatment of these cases. A patient may be kept in bed, and diaphoretic medicines given; but a cold air mars and stops the remedial treatment. In acute rheumatism, the same remarks hold good. The large ward requires cleansing, the floor must be washed; and what physician has not deplored, when he has paid his visit, to find that the floor round the bed is newly washed, and his patient lies in a damp atmosphere? The ward must be cleansed; and he is powerless. I speak of the hospital where I had more than thirty years' experience. In a small ward, there is not the same necessity for such indiscriminate washings, or at least different arrangements can be made. How often have I found nearly every patient, especially those recently admitted, affected with colds and sore-throats; and many of the poor patients bitterly complain of the cold chilling draughts. To a patient affected with phthisis, this chill means a renewal of congestion, a fresh attack of bronchitis, and an aggravation of the symptoms of disease.

3. *The Spread of Diseases* can be better prevented in small hospitals. The *large* wards of some hospitals are often very injurious. Smaller wards can be better ventilated. One great defect of our large hospital wards is, that there is no opportunity of classifying disease. A physician has all his cases placed together side by side—fever and pneumonia, bronchitis and erysipelas, brain-diseases and simple functional maladies of all kinds, rheumatism and cases where sloughy sores may be produced. I again have my old hospital and its wards before me. In the new wards of Guy's, there are fifty beds; in others, forty. Four rows of beds are placed in the ward; and the central rows are back to back, with partial separation of walls and arches. Cases of all kinds are placed in these adjoining beds, and the effects are sometimes most disastrous. The ventilation is imperfect over the central rows of beds. Some years ago, a case of typhus fever was inadvertently admitted into my ward at Guy's; and, unfortunately, it spread from bed to bed, till, in a few weeks, or rather days, the central rows of beds were all attacked, and nearly all the patients thus affected died. Heart-diseases, diabetes, patients affected with all kinds of maladies, were thus cut down. The effect [illegible] large and ill-ventilated ward. These would better have been in the small ward of a cottage hospital. When these new [illegible] any re[illegible] [illegible] but were [illegible] Act of [illegible] [illegible] and not [illegible] [illegible]

* Read at a meeting of the South London District of the Metropolitan Counties Branch.

governed and they built; and they have made wards most unsuitable for the treatment of disease. The previous Treasurer, Mr. Harrison, knew more of the needs of the patients; and a number of small rooms or wards were used, and were of great value to the physicians, like half-a-dozen cottage hospitals. These have been swept away; and, although, in the wards last built, a small room is arranged at the end of the ward, it is of little avail for ordinary patients. My late colleague, Dr. Addison, protested against the construction of the wards; Dr. Barlow, finding one day that a portion of the hospital property was let for a hop warehouse, asked whether "it was the new wards"; and the late Sir James Simpson, when I was taking him into the new wards of the hospital, and pointing out the four rows of beds, said with scorn, "They would not build their stables so". Thus large wards are often injurious to patients. There are draughts, and patients take cold; contagion is more likely to spread; effluvia distress those around them; and, if this be obviated by increasing the current of air, acute diseases of other kinds cannot be properly treated. Another disadvantage which we do not find in the small wards of a cottage hospital, as compared with the large wards of a general hospital, is, that one patient is more likely to disturb another. In a large ward of forty or fifty beds, one delirious patient will distract the whole ward. The loud voice, the midnight moan, or wild shriek, resounds from bed to bed; and the night is passed without sleep. The delirious fever patient, or one affected with acute brain-disease, is most trying to other patients; and a small ward is more suitable for such cases. Again, I have often found that patients with epilepsy, or with chorea, injuriously affect each other. The sight of another patient may determine a fresh attack in others disposed to similar disease. It is quite true that many of these injurious effects would be obviated by selection of cases, or rather by their classification. Whilst speaking thus, I should be very sorry to advocate special hospitals, for I think that they are injurious both to the doctors and to the patients. To see others affected with the same disease has a most depressing effect on the condition of patients; so much so that, when Dr. Bright, in investigating renal disease many years ago, had the clinical ward filled with these cases, the patients became so dejected, that the plan was discontinued, and was never resumed in my long period of service at Guy's Hospital. The mind of the physician runs on in the same groove if all his cases are the same malady, and he is less likely to investigate his cases thoroughly. The case is, as it were, diagnosed before it is admitted under his care, and the mind is apt to become warped. Other advantages of the small ward of a cottage hospital are, that there is less noise; patients are more quiet; the surroundings are more home-like; they are often more comfortable: and, while they would willingly pay for attendance in a small ward, they cannot endure the bustle of a large one, however nicely it may be managed.

The greatest advantage of a cottage hospital is, I believe, that many patients, especially those affected with the acute diseases to which I have alluded, have a better chance of recovery. So thoroughly have I often felt the truth of this remark, that I have been disposed to recommend that patients should go to their own homes, and forego the better nursing of the hospital, to secure warmth and quietness. Mr. Burdett, in his tables of patients treated in forty cottage hospitals, gives some interesting results. In one hundred cases of acute rheumatism, ninety-nine were cured or relieved, and only one died. In twenty-seven cases of pneumonia, only one was fatal; and so of other acute diseases. He writes: "It cannot be doubted that the cottage hospital not only saves many lives, and relieves the patient from much suffering, by placing a hospital within easy reach in severe cases of accident, but it serves as a feeder for the general hospital." I might add, also, that the cottage hospital is equally beneficial in severe *medical* cases; for a great many medical cases die a few hours after admission into hospital, the patients being so ill that they ought not to have been removed, and the fatigue of a long ride has hastened death.

A cottage hospital, properly built and conducted, with good drainage and efficient nurses, is a most valuable institution; and I should like to see many established in the outskirts of London. It has been said truly, by Mr. Burdett, that nearly all the large hospitals are centrally placed; therefore, there is the greater need to establish a circle of smaller ones around that centre. It might be supposed that the expense of cottage hospitals would be proportionately greater than that of larger institutions; but Mr. Burdett has shown that, when properly managed, this disadvantage is removed. There is a greater readiness amongst patients to pay something for their attendance, and the contributions from the wealthy in the neighbourhood are often more readily obtained than for distant hospitals; it is well also to encourage the self-respect that is produced by the payment for medical relief, and to encourage self-reliance.

Small cottage hospitals are less suitable, it is true, for clinical study and scientific observation; and a medical school, such as is connected with each of our large hospitals, is not only a benefit for the training of medical men, but the students are a comfort and a help to the patients themselves. It is a great mistake to suppose that students distress the patients; on the contrary, their kindness and attention are of the greatest service, and promote restoration to health and strength.

The large general hospitals will ever be the centres of medical education, and it will be found that, in them, the best medical and surgical skill is placed at the service of the patients; but their existence does not preclude the establishment of other and smaller hospitals near at hand, and maintained, in a great measure, by the direct help of those who receive benefit from them.

It is not necessary to add, that good management and right construction are essential to a hospital, whatever its size, if it is to be of value; and, as to the management and government, the medical and the nursing arrangements should be under the absolute control of the medical staff, as far as regards medical treatment. To set aside the repeated request of the whole of the medical staff of a hospital, in order to carry out any nursing scheme which the staff consider detrimental to their patients and find annoying to themselves, is to exalt unduly a subordinate agency which is only of value as long as it is kept in its proper place. Mr. Burdett says, as to the management of nurses by ladies, some "may be disposed to interfere in the medical arrangements, but this must be immediately checked by the medical officers; and such ladies must be given to understand that they have to limit themselves strictly to domestic arrangements".....'If any such tendency be quickly nipped in the bud, there will probably be no difficulty in the matter". (Page 187.) I trust that any new workers will take warning from the experience of the past at Guy's Hospital.

It may be asked: Is there need for any cottage hospitals in the suburban districts of London? I think there is ample room, and that they would often be found of great service. It is true that half an hour by rail will take a patient from Greenwich or Sydenham to Guy's or St. Thomas's Hospital; but, what is the number of their beds for the tens of thousands of the South of London? Their beds are fewer than they might be. I think that Guy's, with its reduced numbers, has only about one hundred and seventy-five strictly medical beds, and about twenty-five for diseases of women —St. Thomas's about the same number, or less; and the surgical beds are rather more numerous. I do not need to allude to special hospitals or the infirmaries of the workhouses; but, even if the large hospitals were twice their present size, there are reasons for the formation of cottage hospitals in outlying districts; and patients would, in them, often have a better chance of recovery. The funds required for them ought not to interfere with the necessary supplies of other most valuable institutions. To cripple other hospitals in any way would be most unfortunate. But that need not be; and the provident dispensary might have the cottage hospital as a neighbour and a help, although separate in its management and work. I trust that cottage hospitals will be multiplied greatly; and that this great metropolis may have the benefit, not only of the large general hospitals, as the centre of medical training and scientific advancement in our profession, but of numerous cottage hospitals, as places where disease can be effectively treated by the medical men in the immediate neighbourhood; and that these small hospitals may be made almost, if not entirely, to support themselves.

LAST week, an election took place for a medical officer to Termonfeckin Dispensary, Dundalk Union. There were two candidates, Messrs. Callan and McArdle, the former being elected by a majority of votes.

BEQUESTS AND DONATIONS.—Miss Louisa Barton, of Camden Road, has bequeathed £300 to the National Hospital for the Paralysed and the Epileptic.—The Corporation of the City of London have given two hundred guineas to the West London Hospital.—The Right Hon. John Parker, P.C., of Onslow Square, has bequeathed £200 to the Sheffield General Infirmary.—The East London Hospital for Children has received £105, the proceeds of an entertainment by the H Division of Police.—A member of the Court of Common Council has given a second fifty guineas to the Surgical Aid Society.—St. John's Hospital for Skin Diseases has received £51 18s. from Mr. G. H. Cook, being the result of a performance by the Nelson Dramatic Club on the 19th ult.—Miss M. McKellar and Miss L. McKellar have each given £50 to the National Hospital for Consumption, Ventnor.—Mr. J. H. Matthews has given thirty guineas to the Middlesex Hospital.—The Victoria Hospital for Sick Children has received £34 1s. 11d. from the churchwardens of St. Mary Abbotts, Kensington, the amount of the offertory collection in aid of the hospital.—The Belfast Royal Hospital has received £250, being the amount of a bequest by the late Mr. A. J. Macrory.

REMARKS
ON THE
CONTRACTION OF THE PALMAR AND PLANTAR FASCIÆ.

By H. A. REEVES,
Surgeon to the Royal Orthopædic Hospital, Assistant-Surgeon and Teacher of Practical Surgery at the London Hospital.

DR. MYRTLE'S interesting paper in the JOURNAL of December 3rd calls for a few observations at the hands of one who has had a not inconsiderable experience in similar cases; and the more so, as his experience seems to corroborate that of Mr. W. Adams in one or two important particulars, and to differ from it in others.

I entirely agree with Dr. Myrtle that gout and rheumatism are not nearly so frequent causes as they have been supposed to be of the contraction; but I differ *in toto* from the statement of Dr. Myrtle that "it is never met with among women". I can clearly recall five cases, and I am sure that I have seen at least seven or eight, in females. Two of these cases are comparatively recent, and in both instances the subjects are young ladies devoted to piano-playing; and I am inclined to think that the strain and irritation caused by the special exercise of the ring-finger (the digit affected in these cases), by placing the adjacent fingers on the notes, and trying to raise the ring-finger and bring it down with force, is the starting-point of the pathological change which produces the contraction. One patient is aged 17, and the other 25. The younger one has the ring-finger of both hands affected, and the little finger of the right is also slightly contracted. The fascial bands are not strongly marked as yet, although the disease has lasted two years; but this may be due to the treatment, which has been extension by splints and friction with oil. In this case, there is said to be a gouty taint on the maternal side, because the mother also suffers from this form of contraction; but I have not been able to ascertain any other evidence of gout in the mother, who firmly believes that she is gouty and comes of a gouty stock. It may be that she is right. The second and older patient has only the ring-finger of the left hand affected, and this is the hand with which she practised her piano-forte exercises most regularly. These cases prove not only that Dupuytren's contraction does occur in females, but that it may be regarded as not very uncommon in them.

Another point brought out by these cases and that of a gentleman aged 35, sent me by my friend Dr. Stephen, and on whom I have recently operated, is, that it may begin quite early in life. The gentleman first noticed it when about twenty-three years old, the first case mentioned above observed it when about fifteen, and the second when about twenty, although age is, as a rule, an important factor in the disease.

This male patient is undoubtedly gouty; and the comparatively simple operation on the left hand produced an acute attack of gout in all the fingers, which necessitated the removal of splints, and was so intractable, and left such tenderness of the joints, that the result is, at present, anything but satisfactory. I think it most important to ascertain if there be other reliable evidences of gout before operating. I undertook this operation without any fear, as I have operated on other cases which at some time or other had had unmistakable gout, and with the most satisfactory results; but the experience of this case will make me very cautious in future. I should add that I felt less compunction in operating, as the patient had been for some time under Dr. Stephen's treatment for gout, and continued this on the day of, and subsequently to, the operation; so that every precaution was taken to avoid an attack.

We know enough of this disease now to be able to recognise several causes, which may be stated thus; at any rate, this is the outcome of my experience: 1, the rheumatic and gouty diathesis; 2, injury; 3, occupation; 4, heredity; 5, neurosis. This may not be the exact order of their frequency as causes, which further experience will alone reveal; but that these are the chief causes, as at present ascertained, cannot be doubted; and they are safe guides to us in treatment. The first set of causes affects the fascia only, as a rule; the second may affect both fascia and tendons, according as the injury has been an incised or lacerated wound or a contusion. In the latter, only the fascia is usually affected; in the former, both fascia and tendon, or only the tendon, may be affected. Occupation may claim a large percentage of cases, as it is not uncommon in boatmen, coachmen, sailors, bootmakers, writers, and even in those who have for years carried a walking-stick and borne their weight on it. It is undoubtedly often hereditary, as in the case mentioned above and in others I have seen, and as in Dr. Myrtle's family. It will be very interesting if Dr. Myrtle will say at what age it first appeared in him and the other members of his family, and if pressure of a walking-stick or any other irritative cause set the action going. I believe in a neurosis, as yet undiscovered, but which the analogy of some cutaneous and other affections ending in contraction tends to make probable as a not very unfrequent cause. But it must be clearly borne in mind that nearly all these causes may be interdependent. Thus, occupation may only be the exciting cause in a rheumatic or gouty subject, or one with a hereditary tendency to this form of contraction; but that it may also be an entirely independent one I have little doubt. Again, the neurotic cases may be, and very often are, hereditary; and even gout and rheumatism may in themselves be neuroses. Then, again, the traumatic cases due to contusions or frictions may often be cases occurring in people with a hereditary or constitutional predisposition. Again, as, among the occupations, only some coachmen, etc., get it, it may in them be due to an acquired or hereditary general or merely local tendency; and the believers in a gouty diathesis as a general blood-disease (which means, if anything, a general tissue-disease) may argue that the diathesis only exposes itself locally in these cases.

Under the neurotic heading I include hysterical cases, which I do not see mentioned in any surgical work or paper on finger-contraction; and the so-called *spastic* cases; and these may affect the fascia and tendons. The fact of the affection being often symmetrical, affecting corresponding fingers of both hands, may be adduced as an argument in favour of the neurotic theory; although asymmetry is no argument against a neurosis, because we know that nerve-lesions are frequently, and in orthopædic practice especially, one-sided. I mean, that the majority of the cases of infantile paralysis I have seen have been one-sided, and several of the spastic cases also.

Dr. Myrtle does not seem to believe in inflammation as a cause. I ask him, why? Take the *occupation* cases, and let me grant that most of them have a diathetic or other hereditary tendency or predisposition; surely he will not deny that the irritation produced by the pressure or friction of their work starts a chronic inflammatory change, which ends in hyperplasia and subsequent contraction of the new material, which resembles the cicatricial tissue of burns in its tendency to great contraction. In the skin, we know that intermittent friction may produce an inflammation, a corn, or a subcutaneous bursa, which, inflaming and communicating with a joint, may result in a bunion; whereas continuous pressure would tend to produce absorption. In manual labour, the skin of the palm becomes much thickened; and the cause which is competent to produce this thickening, and by the only process known to us—viz., irritative hyperplasia—is competent to affect the fascia beneath it, with which it is intimately adherent. I am sure that in many cases there is no need to appeal to hidden causes, as the occupation of the patient is quite sufficient to produce it. Only a short time ago, I operated at the Royal Orthopædic Hospital on a coachman aged 50, whose left little finger was contracted. He attributed it—and I am sure quite correctly—to the dragging and rubbing of the reins, to the flexed position in which he was obliged to keep his hand, and to his having to lift heavy weights, often by the cord or rope attached to them.

I have also noticed the contraction of the middle and index fingers and thumb spoken of by Dr. Myrtle, and shall allude to them more fully on another occasion; but I may now mention that I have seen contraction of the palmar fascia quite independent of [illegible] from the same causes as above enumerated. One case was in a sailor, who [illegible] much in the rigging barefooted.

Priority dates by publication; but it is mere justice to myself to mention that eleven years ago I divided, and immediately extended and kept stretched, a case of Dupuytren's contraction; and, as most probably Mr. Adams had not heard of my operation, the credit of first drawing professional attention to it is due to him. For many years, I have made it a practice to treat cases of [illegible] by forcible breaking down and immediate rectification of the deformity, with or without previous tenotomy and division of fascia; and I have treated my finger-contraction cases according to the same plan; but I now think that, in cases in which there is a clear suspicion of gout, our treatment should be more gradual.

A few words as to after-treatment. The fingers and [illegible] of the palm operated on should be well rubbed night and morning with oil, and active and passive motion frequently [illegible], and a properly fitting instrument must be worn at night for some months.

NEW EAR-PROTECTOR FOR THE PREVENTION OF THE INJURIOUS EFFECTS OF COLD AND NOISE.

By JOHN WARD COUSINS, M.D.Lond., F.R.C.S.,
Surgeon to the Royal Portsmouth Hospital.

Exposure to cold or to any other noxious influence acts very variably upon different individuals, and the effect is regulated in a great measure by the inherent delicacy of the separate organs. There are individual qualities of refinement in the auditory sense arising from constitutional peculiarities and structural modifications of its several parts, just as there are individual characteristics in other complex organs. It is a fact of common observation that persons differ much in the sensibility of the ear to the effects of cold and noise. The sudden shock caused by an explosion is really painful to some; at the same time, others manifest a dread of cold air, and complain of aural uneasiness when exposed to rough weather, and the cutting easterly winds of our climate. Fortunately, serious injury of the organ does not often follow from these causes; still, it must be remembered, they are very commonly associated with many slight forms of disturbance, which may at length lay the foundation of chronic disease. Many persons manifest a dislike to the entrance of cold water into the external auditory canal, and others complain of irritation, and an unpleasant sensation of fulness in the head, after bathing. Plunging and diving in the sea are often followed by distress, giddiness, and temporary deafness, and many complain of aural disturbance lasting many days after taking a bath. These facts are very familiar to surgeons who reside on the coast, and who have frequent intercourse with those who indulge in the healthful exercise of swimming.

Again, sudden and violent noise is often injurious to the organ of hearing. A loud explosion may excite only temporary distress; but, when it is frequently repeated, the membrana tympani and chain of ossicles are often permanently disturbed. Hammermen, and artisans engaged in factories, are frequently injured in their ears from the incessant noise associated with their daily labour. The varying sensibility of the auditory apparatus is well exhibited among this class. Some appear altogether to escape, and they seem to become accustomed to the unnatural vibration; while, with others, the constant oscillations of the tympanum result in a permanent disturbance of the sensibility of the nervous structures. A loud explosion, especially when sudden and unexpected, is often followed by injury to the ear. The officers and men of the Royal Navy, who are exposed to the powerful concussion of the monster cannon of modern introduction, are frequently deaf and uneasy in their ears for many hours after gun-practice. Occasionally, the tympanum is ruptured, and medical officers have often recorded these accidents, and also cases of a more serious nature, which have been attended with hæmorrhage from the meatus, followed by otorrhœa and obstinate headache and vertigo.

The auditory apparatus, morever, is often sensitive and prone to injury in consequence of recent inflammation or chronic disease, and, under these conditions, the shock of noise and cold is especially injurious and painful. Ordinary nasal catarrh, associated with temporary disturbance of the middle ear, leaves behind it for a long time a delicate state of the organ, and this is just the kind of recurring disorder which is often neglected, and frequently terminates in chronic mischief within the tympanic cavity. At the onset, these affections of the ear are so slight, that they are treated with indifference; still, they are attended with increased susceptibility to all external influences. The organ is also especially delicate during early life, and some children are constitutionally liable to aural injury from careless exposure. It is particularly tender after acute disease, and in children convalescent from scarlatina or fever, though they may have been fortunate enough to escape destructive changes. The catarrhal inflammation of the external ear involving the integument and periosteum of the canal, and sometimes the tympanic membrane, is also followed by a sensitive condition of the organ, and the disease is very prone to recur on slight exposure to cold.

There exists, then, a large class of individuals labouring under slight and chronic forms of disease, which are often scarcely recognised, but at the same time they render the organ extremely liable to injury and inflammation; and therefore it is evident that the circumstances are very common and very variable in which the ear, like the organ of vision, demands special care and protection. The question of preventive treatment is one of great practical importance, and deserves more attention than it has hitherto received at the hands of aural surgeons. It includes attention to hygienic surroundings, to habits of temperance and regularity, to the selection of suitable occupations, and to careful avoidance of unnecessary exposure to noxious influences. The organ itself, however, often requires special protection; and the obvious method consists in the introduction of a suitable septum into the external auditory canal, for reducing the intensity of the sonorous undulations, and preventing the shock of cold air and water. A plug of cotton-wool has been almost universally employed for this purpose; and this material is both light and soft, and also admits of very easy application. Still its use is not free from many objections. In appearance, it is both conspicuous and unsightly, and is a very feeble protector against the entrance of water into the meatus. It readily becomes soiled, and is prone to be impacted in the auditory canal. Concretions, consisting of a mixture of cotton-wool, ceruminous matter, and exfoliated epidermis, are often removed by the syringe, which have become gradually matted together in the passage in the course of months or even years, causing at length great irritation and deafness. The ear-protector which I have now used for several months, with very great success and comfort, in a large number of cases of aural delicacy and susceptibility, is a very simple contrivance. It consists merely in a little conical cap of vulcanite, made of flesh-colour material, so that it is scarcely discernible under ordinary circumstances. (Fig.) The edge



Three sizes of the protector (enlarged).

is surrounded by a little flange, which prevents it from slipping into the meatus. At the same time, this edge assists in its introduction and removal. The special advantages of the vulcanite protector are very apparent. It is very durable, and admits of washing; it causes no tickling or irritation, and is both light and soft in the ear. At the same time, by its perfect elasticity, it becomes moulded at once to the shape of the canal. The protector is prepared for me by Messrs. Lynch and Co. of Aldersgate Street, in various sizes, to suit the varying capacity of different ears. It completely prevents the entrance of water to the tympanum, and this makes it a perfect protector for bathers and divers. It does not suspend the sense of hearing, but is only a modifier of sound, diminishing the intensity of sonorous vibration; and this effect can be regulated by the size of the shield selected and the degree of firmness with which it is introduced into the canal. It is also an excellent ear-protector during ordinary exposure to severe and rough weather, and it can be carried in the pocket by a timid patient ready for any emergency. It is adapted for a large number of cases of aural delicacy and chronic disease, and it will be found far more convenient and sightly than the old-fashioned plug of cotton-wool.

BULLET-WOUND OF ABDOMEN, WITH EXTENSIVE HÆMORRHAGE FROM LEFT KIDNEY: RECOVERY.*

By J. J. GORHAM, M.D.

William B., labourer, a man of small stature and cachectic appearance, aged about 50, was accidentally shot by a friend with a bulldog revolver, at a distance of not more than a few yards. The bullet entered the abdominal cavity on the left side, at a point midway on the vertical line drawn from the lower ribs to the iliac crest, one inch behind the anterior superior spine of the ilium. Immediately on receiving the injury, he fell to the ground, and unconsciously passed a considerable quantity of urine, normal in appearance. This was followed, or rather accompanied, by vomiting. Neither vomit nor urine contained any appearance of blood.

On my arrival about half an hour after the occurrence, I found the patient extremely collapsed, the pulse very rapid and scarcely perceptible—the frequency of its beat could not be ascertained—the skin moist and cold, face blanched, eyes sunken and glassy, and other symptoms of internal hæmorrhage, as well as of shock. Strong brandy and water was administered in small and frequent doses; and, on careful examination of the wound and clothing, it could at once be seen that the bullet had entered and remained in the abdominal cavity, and that no part of the clothing had been carried into the wound. The wound itself presented the usual appearance of "close quarters"; the neighbouring parts of the clothing were charred, and the skin inverted;

* Read before the West of Ireland Branch.

and, although the bullet was large, the wound would not easily admit the little finger.

On consultation with Staff-Surgeon Bell-Murray, R.N., who came soon after my arrival, we probed the wound slightly in order to have an idea of the direction of the bullet, and we ascertained that its course was almost directly inwards, and a little downwards and forwards. From the action of the bladder, which we looked upon as reflex, it was surmised that some part of the urinary apparatus was involved, especially as the wound was near the kidney, and was directed towards the distended bladder.

A few hours after the injury, he had rallied so much from the shock as to admit of his being removed to bed. The wound was dressed with simple carbolised dressing, a full hypodermic injection of morphia having been previously administered. I may here mention that he was kept fully under the influence of the morphia for ten days after the injury, as it was feared the intestines were injured.

On visiting him again in the evening, I found him more comfortable. Temperature 100°; pulse 105, weak, and slightly "thready"; mind quite clear, and complained of little pain. He had passed no urine in the meantime. On the following morning, there were decided symptoms of peritonitis; his urine was distinctly bloody, but was passed with little pain. His abdomen was distended and painful, and the pain was most marked between the umbilicus and symphysis pubis. Temperature 100.2°; pulse 105. During the succeeding three days, the symptoms did not vary much, but the tympanites was exceedingly troublesome. The pulse varied from 100 to 110, and the temperature from 100° to 101.5°.

The urine always contained blood. Turpentine stupes afforded relief to the tympanites, and tincture of the perchloride of iron (15 minims three times a day) and gallic acid were prescribed for the hæmaturia. His diet was composed of slops, excluding all preparations of animal food. He was allowed to drink large quantities of mineral waters mixed with milk.

The whole aim of treatment during this time, and for the first week, was to restrain peristaltic action by the hypodermic injection of morphia two or three times a day.

Beyond a little flatus, there were no indications of any action of the bowels until the fifteenth day, when he received an injection of thin gruel and an ounce of castor-oil. This injection was retained for thirty-six hours, until brought away by a further one of a pint and a half of tepid water, and with it came several hardened scybala, which caused a good deal of pain and disturbance.

On the eighteenth day, the morning temperature was 102°. He received an occasional enema for the succeeding few days, with little effect until the twentieth day, when I gave him internally an ounce of castor-oil, which was soon followed by a copious evacuation, almost normal in appearance. His temperature immediately fell to 99.8°, from 101° on the preceding day.

From the twenty-first to twenty-fifth day, the urine was gradually becoming clearer; but, on the afternoon of the latter day, I received an urgent summons to attend him, and on my arrival I found him extremely collapsed. He had just passed, by the urethra, about thirty ounces of arterial blood without any admixture of urine, doubtless from ulceration of one of the vessels of the kidney. His attendant told me that it came in a free stream, but immediately coagulated in the utensil, and that the patient fainted while the expulsive efforts of the bladder were being continued. His pulse was scarcely appreciable; temperature 98.1°; face perfectly colourless.

For the succeeding four days, his condition was extremely critical, from the large quantities of blood he had been passing daily, or rather hourly, for his bladder was very irritable. A large catheter was occasionally passed to wash out the bladder, and this process was unattended by pain. The gallic acid was increased to 10 grains every three hours, and the tincture of iron given as before.

From the thirtieth day, a gradual improvement was registered; and, on the thirty-fifth day, his urine was again normal, as were also his pulse and temperature.

Beyond a few accidental changes of temperature, his progress towards recovery was uninterrupted from this day. On the fiftieth day, he was allowed to leave his bed for an easy-chair; and, sixty-two days after the injury, he departed for his home, a distance of more than two hundred miles. The wound had perfectly healed up. Nothing remained but a hardened cicatrix, which was not tender to the touch.

Since this report was written, I have heard from the patient. His letter was dated more than six months after the injury. He is "regaining strength daily, but is not yet able for manual labour".

REMARKS.—There are some interesting points to be considered in connection with the foregoing case.

1. The man's future. What value, for instance, would an insurance office set on his life? He has a bullet in his abdomen, probably in or near the left kidney. The latter organ was certainly injured, for a wound of any other part of the urinary tract would not account for the large quantity of blood passed by the urethra on the twenty-fifth day. Is there any danger of the bullet being displaced by gravity, or muscular action, or some other cause, and giving further trouble?

2. The peritonitis resulting from the wound was comparatively slight, and did not give any trouble after the fourth day. The descending colon seemed to have escaped injury altogether.

3. I regard the vomiting after the injury as exceedingly fortunate, as he had just partaken of a hearty dinner of boiled beef and vegetables.

4. The *B. P.* hypodermic injection of morphia acted very satisfactorily, and effectually paralysed the action of the bowel for the first fortnight. As a rule, each hypodermic injection was succeeded by a comfortable sleep of some hours' duration.

RUPTURE OF THE HEART.

By NEIL MACLEOD, M.D., Shanghai.

THE following case, from the absence of symptoms during life, the well marked *post mortem* lesions, and the mode of termination, is, I think, worthy of record.

G. W. B., a short, stoutly built man aged 58, was seized, on July 4th, at 5 A.M., with a violent pain in the chest. When I saw him at 8.30 A.M., he had a very anxious look, and complained of intense pain, confined to the middle line, along the whole length of the sternum; also of a little difficulty of breathing, and weakness of voice. There was no lividity. The right pulse could scarcely be felt; the left was weak, but quite distinct. There was no impulse in the episternal notch, nor was there any abnormal dulness. The heart-sounds were feeble, and no *bruit* could be heard. The breathing was laboured and wheezy, and made the examination of the heart somewhat difficult. A quarter of a grain of sulphate of morphia was given hypodermically.

At noon he expressed himself as feeling better, his breathing as easier, and the pain as much less. The left pulse was fuller than in the morning, the right remaining as before. He did not know whether there was usually any difference in the wrist pulses; and added that he had been quite well up to the time of seizure. His heart had never been examined, and he had never felt anything unusual in that region.

He died suddenly at 6 P.M. A friend who had been sitting by him at the time stated that, after expressing himself as feeling much better, he laid his head down as if to sleep, became black in the face, and was dead—all in the interval between the first and the fourth guns of a salute which was then being fired, that is, in about two minutes. An hour after death, the face, and particularly the lips, were unusually pale.

Post mortem examination on the following morning at 7. Rigor mortis was well marked. The lungs, liver, spleen, and kidneys were healthy. Puncture of the pericardium was followed by the escape of bloody serum; and the heart lay embedded in a firm dark clot which, with the serum, filled a large breakfast cup. On the middle of the anterior wall of the left ventricle, a dark line, about one inch long, ran almost transversely; no distinct opening could be made out in it. The heart was then removed, the aorta slit down to its valves, and water, poured into the heart from above, slowly oozed through tiny openings in the dark line. The heart was well covered with fat except over the rent, and seemed of natural size. There were a few atheromatous plates in the aorta and at the attachments of the aortic valves. Hard nodules could be felt in the thickened mitral valves. The wall at the rent measured about one-and-a-half lines; at the apex half an inch thick. In the tissue surrounding the rent, extravasated blood was seen on section to extend for half an inch in every direction, and dark blood clot was firmly plastered over a corresponding area on the internal surface. On section of the apex, at some points, it was impossible to distinguish the inner limit of the fat covering, white patches shading off into the muscular tissue, firmer, however, than the fat, and offering resistance to the knife. There was no naked eye sign of fatty degeneration. The left coronary artery and its chief branch could be traced by the fingers among the fat, being atheromatous and in some places nodulated. On dissecting these vessels out, and slitting them up, at the nodules were small half decolorised clots filling up a much diminished lumen. The rent lay in the angle between the artery and its branch.

At a microscopic examination in the forenoon of the same day, specimens taken from a healthy-looking papillary muscle presented some of the muscular fibre perfectly striated; others had the striæ partially obscured by minute fatty granules; while the [illegible] were perfectly

distinct from one another. Specimens from the neighbourhood of the rent presented fibres with the striation in some absent, in others indistinct, all containing more or less fatty granules, the fibres themselves being much less distinct than in the more healthy specimens. Specimens from the whitish tissue of the apex, teazed with difficulty, presented no trace of muscular fibre, and consisted of fine white fibrous tissue with here and there fatty granules.

REMARKS.—This case then is a well marked example of five different pathological cardiac conditions, without any history of heart trouble till the day of death: 1. Atheroma of aorta, aortic valves, and coronary arteries; 2. Chronic myocarditis; 3. Chronic endocarditis; 4. Fatty degeneration, probably the result of the diseased coronary arteries; 5. Rupture of the left ventricle.

Living an easy life, in charge of an opium receiving ship, having no stairs to climb, no hill or even incline within thirty miles of Shanghai, it is probable that the patient's heart had never been severely tried. I may add that he told me he had had "a good stool the first thing in the morning as usual"; but whether this was before or after the onset of the pain, I neglected to inquire.

The microscopic specimens were mounted in Farrant's solution, and, on examination a week later, had almost ceased to be distinctive of fatty degeneration, having been perfect demonstrations when freshly put up. I understand that there is no known method of preserving the microscopic appearance of this change.

NOTES ON INTERMITTENT BREATHING.

By S. WILSON HOPE, L.R.C.P., Petworth.

IN the following notes, intermittent breathing is considered (*a*) as co-existent with senile bronchitis, (*b*) with hysteria, (*c*) with inhalation of anæsthetics, (*d*) with cardiac dropsy, and in view of its clinical importance—hardly second to that of intermittent heart. Some inquiry is made into its causation.

a. There is a lean old lady, upwards of eighty years old, whose pulse has rarely been regular any time when I have felt it during the past seven years, who caught a cold; and a bad cough, with spitting of a good deal of frothy, and later of sticky, mucus, came on, and great weakness. Before the attack, she used to spend her nights sitting more or less propped up in bed, till sleep overcame her, when she usually fell over to one side, lying sleeping with the head quite low. During the early part of her illness, her nights were very restless, as were the days too; but later, for many hours during the day, through many days and weeks, she lay, taking but little notice of anything or anybody, though showing at intervals by a remark that her mind was quite clear for the moment. Very early in her illness, her niece, who nursed her, had to remove the phlegm from her mouth when she coughed; medicine had to be given up, and threatening bed-sores to be treated by a water-bed. Soon the breathing became labouring and still by turns, rhythmically; the pauses, or quasi-pauses, growing so long, that once or twice her nurse thought she had ceased to live; and then food of all sorts began to be avoided, and death calmly awaited, indeed desired by her. So day after day passed, till at last a turn for the better took place; and now, though she is too weak to walk alone, her mind is as active as ever, and her breathing and pulse as before her illness.

In the same way, an old man of eighty-four or five had an illness marked in part by this peculiar intermittent breathing, which ended in recovery of his usual health; though he, too, had a very irregular and intermittent heart.

b. Many women and some men are occasionally seized in some way that they fall usually backwards, when, if watched, it will be seen that for a time the breathing is stopped, and there is quiet of muscles generally; then a period of struggling follows; then a deep drawn sigh, or several, along with incoherent talking, crying, etc.; and then either the person goes on breathing better till respiration is natural, and health is regained; or, more commonly, another pause occurs in the breathing, and a fresh attack often runs through a similar course. If we almost anticipate the pause in the breathing, and excite an inspiration, as by pouring or dashing cold water on the face just at the right time, we may often cut short an attack of this kind.

c. Again, it is curious to mark how closely this kind of fit mocks the early effects of inhaling chloroform or ether: there are the pauses, sometimes even fatal; the strugglings, and the incoherent talking, crying, etc. But the best of this class of cases is, that it seems to suggest a good working hypothesis for the whole, viz., that direct irritation of the terminal fibres of the superior laryngeal nerve is the cause of the temporary or permanent stoppage of the breathing during the inhalation of anæsthetics. But of this presently.

d. We often find cases of cardiac dropsy marked by this rhythmical succession of breath-pause and breath-struggle. On watching, it is seen that the first breath drawn is followed by a rising series, in which each breathing is deeper than the foregoing till a deepest is reached; then come a falling series of shallower and shallower breathings, till the respiratory movements cease for a while. These cases, too, end sometimes in the dropsy disappearing, and the patient's getting about again.

Now, with respect to the causation of intermittent breathing, it seems to me obscure, and in want of experiments; but, adopting the method of exclusion, we find, first, that it is not caused by the cardiac disturbance, though often associated with it, because an intermittent and irregular heart is often seen in trifling cases of indigestion, where the breathing is natural; and conversely, the pulse may be steady and regular, as in some cases of apoplexy, which become marked by pauses in the breathing, though never, so far as I know, of the same peculiar rhythm. Nevertheless, they go to show that no causal connection exists between the heart and breathing troubles.

Secondly, the pauses are clearly not instances of true apnœa, that is, in which for a time the blood is saturated with oxygen; as we have only to look at the lips of our patients to see that such an idea is absurd.

Thirdly, it does not seem to run with ordinary notions that this peculiar respiration, made up of pauses and hard breathings following each other in regular order, could be a sign of some organic change in the respiratory centre; inasmuch as such fundamental things as respiratory cardiac and vaso-motor centres, though thought liable to be stopped somehow at death, seem in themselves to be treated as above disease, just as they transcend in their effects common notions of matter and organisation.

Fourthly, it is not easy to hit upon a scheme of reflex nerve-action which will account for this breathing. Hering's experiments, showing that distending the lung with air excites fibres in the vagi, which so act on the respiratory centre as to stop respiration, hardly helps us to explain the pauses, much less their rhythm; because, though truly the hard breathings fill the lungs with air, they do not overfill them as in Hering's experiments.

Fifthly, the canon "that the activity of the respiratory movements varies inversely as their oxidating effect on the blood" does not enable us to see our way through the rhythmic hard breathings.

Enough has been said to show that the subject is obscure, and I shall be glad if this paper should lead someone to let in a little more light upon it.

A CASE OF ADDISON'S DISEASE, ASSOCIATED WITH TUBERCULOSIS OF THE LUNGS AND KIDNEY.

By HERBERT E. WRIGHT, M.R.C.S., L.R.C.P., etc.

HENRY C. B., aged 8, came under my care on April 17th, 1880. His father and mother were quite healthy; there were also six brothers and sisters in good health. His mother's family were remarkably phthisical—her mother, sisters, brothers, and one or two uncles having died of phthisis.

The patient had enjoyed good health up to three years ago, when he began to suffer from cough, night sweats, and loss of flesh, for which he was treated in Liverpool for about nine months, with little benefit. About two years ago, he began to suffer from pain in his right loin; shortly after a swelling appeared at this spot. This gradually increased in size, and became painful; on account of which the patient was taken to another medical man, who ordered the swelling to be poulticed, which was continued for three months, when the swelling burst, and discharged a considerable quantity of pus through four openings. Three of these sinuses healed up after about two months, but the fourth never healed completely, but still continued to discharge pus. The patient now began to improve considerably; his appetite returned; he regained flesh; and, with the exception of a slight cough and expectoration, he appeared to be quite well. His mother told me that the boy continued to improve in health until six weeks before he came under my charge, when he accidentally received a kick in his right loin, which reopened the sinuses, and caused them to discharge pus freely again. His urine at this time was thick, and offensive. His cough now became more troublesome, and he rapidly began to lose flesh. He never spat blood, but he had occasional attacks of diarrhœa.

When I saw the patient on April 17th, 1880, he was extremely emaciated, and very tubercular-looking. I noticed about a dozen small pigment-spots scattered over the face, which, the mother informed me, had made their appearance during the last three months. The skin of the face was not much darkened; but the neck, the backs of both hands

and wrists, and the ankles, were distinctly bronzed, though not to a very great extent. The discoloration presented no definite boundary, but gradually faded into the healthy skin. The areolæ of the nipples and the garter-lines were not materially darkened in colour. There were two sinuses, discharging thick caseous pus, immediately above the right twelfth rib. Bronchial breathing, with moist sounds and bronchophony, was heard at both apices, with some dulness on percussion. The urine was very much like that met with in chyluria, being of a milky colour, and sweetish slightly ammoniacal smell, but was loaded with pus. I considered the case to be one of Addison's disease, with scrofulous kidney discharging through the loin. The physical examination also clearly showed the coexistence of phthisis. The patient was ordered to take a teaspoonful of syrup of iodide of iron, with a like quantity of vinum ferri, three times a day; while carbolic dressings were applied to the sinuses in the loins. He gradually grew weaker, and the sinuses continued to discharge large thick masses of pus, sometimes as large as the finger of an adult. He died of asthenia on July 2nd, 1880.

On July 3rd, I made a *post mortem* examination, but I was allowed by the friends of the patient to open the abdomen only, so that I am sorry I was not able to confirm the diagnosis of phthisis; but I feel confident, from the physical examination, that phthisis did exist. The body was exceedingly emaciated. There were two large sinuses in the right lumbar region, about the position of the kidney, through which a long piece of caseous matter, about the size of one's finger, projected. The skin of the neck, ankles, back of the hands, and wrists, was of a distinctly brownish colour; the nipples also were pigmented. The left kidney was healthy, but considerably hypertrophied. The left suprarenal capsule appeared to be quite healthy. The right kidney was totally destroyed, and converted into a large irregular caseous abscess, which communicated freely with the sinuses in the loin. The abscess extended upwards to the back of the right lobe of the liver, forming a cavity in that viscus about the size of an orange. The right suprarenal capsule was found intimately adherent to the upper and front wall of the abscess; it was of irregular outline, enlarged, and in section presented numerous cavities formed by broken-down caseous tubercle; in other parts, the structure was more fibrous and firmer. The liver and spleen were enlarged, and distinctly lardaceous.

REMARKS.—The above case seems to me to present several points of interest. It is very rare to find this disease affecting so young a patient. I remember seeing a girl, aged 16, who was the subject of Addison's disease, when I was clinical assistant at Guy's Hospital; but I have never heard of its occurring in so young a patient as the one I have just recorded. Again: both capsules are usually affected; but in this case the left appeared to be quite healthy, and this may be the explanation of the bronzing being only slightly marked. The hypertrophy of the left kidney was, of course, compensatory to the destruction of the right. One would like to know, if it were possible, which was the primary seat of the tubercle—whether the lung, kidney, or capsule; my own impression is that the capsule was involved secondarily to, and as an extension from, the kidney.

CANCER OF THE THIGH REMOVED PAINLESSLY, WITHOUT CHLOROFORM OR ETHER-SPRAY.

BY JOHN F. LE PAGE, L.R.C.P.Ed., Durham.

J. J., AGED forty-three years, consulted me, on January 10th, 1879, respecting a tumour of his right thigh. On examination, I found a scirrhus, of the size of a small orange, on the anterior aspect. Ulceration had commenced several weeks previously, and extended over a surface measuring five and a half inches in circumference. It would appear that the nature of the tumour had not been clearly comprehended, for it had been poulticed for three or four weeks. Very extreme pain at times was complained of. I urged the importance of an early removal of the cancer; and, my patient being willing to submit to any mode of operating considered most advisable, I decided, having before had very good results from similar treatment, to destroy the malignant growth previous to its removal. And I did so, notwithstanding the opinion of many surgeons of considerable experience to the contrary, in the belief that some caustics exercise a specific action on the morbid structures of cancer; and that thus their action extends somewhat into surrounding tissues, infiltrated with cancer-cells or plasma, which are thus rendered at least unproductive, whilst the tissues themselves are not disorganised.

Although local anæsthesia was not used in the operation, I used, shortly before it, Richardson's ether-spray producer over the margins of the ulcerating surface, for a distance of about an inch from the edge. Pure nitric acid was then applied to the skin, destroying it for the breadth of half an inch all round. This preparation was necessary, as chloride of zinc, which was to be used, acts very slowly on organised skin.

The cancer was situated about two inches below the point where the middle cutaneous nerve pierces the fascia lata. Immediately above the new margin, I injected five-eighths of a grain of morphia with a long subcutaneous needle. One part of chloride of zinc was then mixed into a paste, with two parts of flour and a little water, and thickly plastered over the whole surface. After six hours, the caustic was removed, and poultices applied. On the seventh day the eschar separated, and careful inspection with a lens revealed, between the healthy granulations, on all sides *débris*, which, on microscopic examination, was found to contain cancer-cells. I decided to again apply the chloride; and, after injecting morphia as before, plastered the caustic freely over the surfaces, continuing the application for three hours. Poultices were again applied, and, on the fifth day, the eschar was easily removed. After sponging the cavity, the beautiful glistening fascia lata was seen quite clean at the bottom, whilst the sides were covered with perfectly healthy granulations. A carbolic acid lotion was used, and the cavity rapidly filled up. In eight weeks, the healing process was completed. On December 2nd, 1881, my patient called on me, that I might see that the cure was altogether radical. In every respect, the leg is practically as good as its fellow, and there is abundant evidence that every vestige of the malignant growth was removed.

My object in recording this case is, not so much to laud the use of escharotics—although, without doubt, in many cases of malignant disease, they are very far superior to the knife—but to note the advantages of the mode of operating which I adopted. The great drawback to the use of caustics is, of course, the intense and protracted torture they inflict, for hours and even days—a torture to which the "stoutest heart" can hardly submit. In this case, the chloride of zinc was twice applied, in all for nine hours; and, neither during that period, nor subsequently, was any pain whatever experienced. My patient conversed freely during the hour I remained with him after the first application of the chloride; and on my returning, five hours later, he told me that he had thoroughly enjoyed a substantial dinner, and had smoked a cigar. This great desideratum, the immunity from pain, was attained by temporarily abrogating, through the direct application of morphia, the power to transmit centripetal impulses of the middle, and perhaps also of a branch of the external cutaneous nerve.

SURGICAL MEMORANDA.

EARLY EXCISION OF THE KNEE-JOINT.

WITH reference to Professor Stokes's paper in the BRITISH MEDICAL JOURNAL of December 10th, it appears to me that much of the existing difference of opinion regarding the propriety of excising the knee-joint arises from the varying conditions under which our patients exist. In London, surgeons at the present time have almost unlimited opportunities for sending hospital patients to convalescent homes in the country. Many of these establishments are admirably managed, and situated in healthy seaside localities. Under these circumstances, the children of our poor suffering from the early stage of joint-disease have all the advantages enjoyed by their more wealthy neighbours. Most of these patients may be cured without excision of the affected joint.

For instance, some days ago, when going round the Westminster Hospital, two patients (one a boy aged 11, and the other a girl aged 9) came to visit me on their return from a residence respectively of nine and seven months in convalescent homes. Both patients had been under my care for pulpy degeneration or granular synovitis of the right knee-joint; and, in addition, the boy's hip-joint was similarly affected. His was almost as unpromising a case as it was possible to meet with; but he has returned a healthy lad, full of vigour, and with joints that will stand many a long day's work.

I cannot comprehend the necessity that exists for excising a slice from the ends of the bones in the early stages of pulpy degeneration of the knee, because the disease (unlike tuberculous ostitis) commences, as a rule, in the synovial membrane, the bones being subsequently implicated. It is true, after removing the ends of the bones, we can get [illegible] vial membrane. Nor can I understand the objection so strongly urged by Professor Stokes against the plan of treating these cases by incision and drainage, because of the danger incurred by suppuration. The [illegible], with results, so far as inflammation is concerned, as favourable as that attending his practice after resection of the joint. Before, however, [illegible] advocate treatment by incision and [illegible] Stokes

recommends resection; and, considering his justly high reputation, I believe that, whatever my own ideas and practice may be in London, he is right with reference to the class of cases he has to deal with in Dublin. The circumstances of these patients are admirably described by Professor Stokes in the second paragraph of his communication. At the same time, I am certain that, in the early stages of pulpy degeneration of the knee occurring among the children of our London poor, the disease may often be cured by well applied pressure, counterirritation, rest, and a prolonged residence in one of our many convalescent homes, where the children are well fed, kept warm and clean, and enjoy unlimited fresh air, and, last, but not least, as much sunlight as it is possible to have in this climate. C. MACNAMARA.

MULTIPLE EXOSTOSES.

IT may add to the interest of Dr. Shuttleworth's case, published in the JOURNAL of December 24th, to record the following.

The son, aged 19, of R. L., labourer, of the parish of Worth, in Sussex, was first seen by me twelve years ago. He then had exostoses on the bones of the upper extremities, especially on the humeri and scapulæ. He presented an idiotic appearance of countenance. Speech was very difficult. He was slow of comprehension, and consequently made but tardy progress at school. I visited him yesterday, and found that the exostoses of the upper extremities have considerably increased in size; but supination is impossible in both forearms. Bony growths (some as large as a small orange) have developed, and are increasing in size, upon the ribs, femora, tibiæ, and crest of the ilium. He has always suffered from constant headache, and continues slow in speech and dull in comprehension. The vacant look still exists, but he is not an idiot. His general health is delicate. The *external* configuration of the skull is normal; but it seems probable, as Dr. Shuttleworth suggests in his case, that some growth of bone has taken place internally. In respect to history and position of the exostoses, the case resembles Dr. Shuttleworth's. E. NOBLE SMITH, Queen Anne Street.

CURIOUS HORNY GROWTH REMOVED FROM THE EAR.

THE excrescence was situated at the upper part of the helix of the right auricle. The patient was about forty-five years of age, and could assign no reason for the appearance of the growth. He was by occupation a dock-labourer from Sunderland. The growth, on removal, measured one and a half inches, and was rather hollow at its base, presenting quite a horny appearance, and, indeed, feeling like horn to the touch. The patient stated that it had been two years in growing; but he was afraid to have it removed, as he was told "the ear would turn into a cancer". RICHARD ELLIS, F.R.C.S.Ed.,
Senior Surgeon, Newcastle-on-Tyne Throat and Ear Hospital.

CLINICAL MEMORANDA.

THE FROTHING OF URINE.

DR. KIRK, in his letter of December 17th, states that alcohol was not administered to his patients in whose albuminous urine no frothing could be observed; and, moreover, he finds that alcohol does not materially influence the "physalisability" of an ordinary albuminous solution. He makes a statement, however, which is of great interest, namely, that ether was found to have a marked influence in preventing the frothing of albuminous liquids. Now, as almost all wines and fermented liquors contain varying quantities of ethers—as, in fact, ether is almost always a concomitant of alcohol, this *might* explain the absence of frothing in some cases.

Dr. Kirk does not seem to lay much stress upon the reaction to vegetable colouring matters of the urine; but it seems to me that this is a matter of great importance. Lieberkühn long ago discovered a series of compounds of albumen with the alkalies, which he described as "alkaline albuminates". In these compounds the properties of the albumen were much modified.

It has fallen to my own lot to investigate the preparation and properties of a series of compounds which albumen forms with acids, and in these also the properties of the albumen were considerably altered. It was during the course of this investigation that I observed the action of alcohol in diminishing the viscosity of albuminous solutions so as to render them capable of filtration; and, as the frothing of a liquid when shaken with air is probably to a great extent dependent upon the degree of its viscosity, it occurred to me that probably the presence of alcohol in an albuminous urine would diminish its "physalisability".

Of course, in attempting to discover the cause of a newly observed phenomenon—and I believe Dr. Kirk's observation, that some albuminous urines do not possess the property of frothing with air, to be quite original—we can but offer suggestions, the value of which can be ascertained only by experiment.

Dr. Kirk's suggestion, that ether diminishes the frothing of urine by virtue of its volatility, has induced me to offer yet another possible solution of the difficulty. It may be that the substance, whatever it is, that prevents the albuminous urine from frothing is a volatile substance. Working upon this hypothesis, we should place a litre of the urine in a retort connected with a Liebig's condenser, and keep the liquid at a temperature of about 70°C. (158°F.), so that the albumen might not be coagulated. Any very volatile substance would thus be distilled off, collected in a suitable receiver, and examined. The liquid in the retort would then be restored to its original volume with distilled water, and its "physalisability" determined by Dr. Kirk's ingenious process. If the power of producing froth be lost or greatly diminished by such treatment, the volatile liquid would be accused as the froth producer. Whereas if, on the contrary, a previously non-physalisable urine be found to yield an abundant froth, after being submitted to distillation at 70° C., the volatile liquid would appear to prevent the formation of froth. The liquid in the retort might be easily kept at 70° C., by immersing it in a saucepan of hot water, kept warm by a lamp, a thermometer being passed through a cork in the tubulure of the retort, with its bulb immersed in the liquid.

If Dr. Kirk's hypothesis, that fatty or oily matter in the urine prevents frothing, be correct, we might restore the power of frothing to such urine by shaking it up with ether, separating the etherial solution and renewing the ether two or three times, and then removing the dissolved ether in the manner above suggested; when the urine should yield as abundant a froth as an ordinary albuminous solution of equal strength. G. STILLINGFLEET JOHNSON.

SCIATIC NERVE-STRETCHING IN LOCOMOTOR ATAXY.

READING Dr. Cavafy's paper on the above subject in the BRITISH MEDICAL JOURNAL for December 10th and 17th has led me to publish the following case.

J. S., aged 63, a widower, was admitted into the Ashton-under-Lyne Infirmary on November 1st, 1881, under Mr. Hamilton's care, with well-marked symptoms of locomotor ataxy. He was a very healthy-looking, well-nourished, and muscular man, with all his internal organs sound. With the exception of an attack of rheumatic fever about twenty-six years ago, he has never had a day's illness. There is no history of any injury to his back, no syphilitic taint, and no nervous affections in the family, as far as he knows. For fifty-five years he has worked in coal-pits; and his occupation during the past twenty years has necessitated his exposure to wet, his clothes from his feet to his buttocks being constantly damp, and having to remain on the whole day. The symptoms commenced about twenty years ago with shooting pains in both legs, worse at nights; then he had difficulty in walking. There have been no pains in the stomach, back, or head; nor any affections of the bladder and rectum. The above symptoms have gradually become worse. There is no loss of muscular power in the legs, which are well developed; sensations to pain, heat, cold, etc., are normal; the shooting pains at night keep him awake. His walk is very jerky and unsteady, and he brings his heels down to the ground with great force. He is unable to stand with his feet together when his eyes are closed. Tendon-reflex is absent. His arms are slightly affected, and there are also the shooting pains in them. Sight, hearing, etc., are normal. Having been under medical treatment for months as an out-patient without any benefit, Mr. Hamilton thought it advisable to try nerve-stretching. Accordingly, he was admitted; and on November 9th the left sciatic nerve was exposed, with antiseptic precautions, at the lower border of the gluteus maximus, by a longitudinal incision; the nerve was raised from its bed with the finger, and stretched with such force as to raise the limb off the operating-table; it was also dragged down away from its origin. The wound was healed in a fortnight, without much discharge or any rise in the general temperature; but the temperature taken in the popliteal space of the operated leg showed a degree higher of heat than in the opposite leg. The patient is now going about.

REMARKS.—Since the operation, the patient has had no shooting pains; but there has been no improvement in the other symptoms. Sensation has been somewhat impaired as a result of the operation, the muscular power remaining as before. From this case, together with others of a similar nature that I have seen operated upon, I am forced to agree with Dr. Cavafy that nerve-stretching is only beneficial in relieving the pains from which these patients constantly suffer thereby, enabling them to get a good night's rest without the use of opiates, and so improving their general condition and well-being.

HENRY PAYNE, M.D., M.R.C.S.,
House-Surgeon at the Ashton-under-Lyne Infirmary.

REPORTS
OF
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN AND IRELAND.

YORK COUNTY HOSPITAL.

COMPOUND FRACTURE OF SKULL: TREPHINING: DEATH.

(Under the care of Mr. JALLAND.)

[FOR the notes we are indebted to Mr. F. H. WEEKES, House-Surgeon.]

March 11th, 1881. Charles B., aged 8, was hit violently on the side of his head by a pointed piece of wood. He was knocked down, but did not lose his senses. Beyond a slight wound, he was apparently none the worse for the accident, and was playing about until the day of his admission.

March 25th (fourteen days after the receipt of injury). On that morning, he had fallen down in a fit; he was admitted, at 11 A.M., in a state of collapse, very pale, and quite unconscious. His right arm and leg were in a condition of clonic convulsion. On the left side of his head, near the parietal eminence, was a small wound, and a probe, being passed down into this, came upon bare irregular bone. Mr. Jalland enlarged the wound, and found a small portion of the bone underneath fractured and depressed; he then applied the trephine, and, as soon as the skull was sawn through, a small quantity of pus welled up. A circular piece of bone being removed, the dura mater was found perforated by a minute spiculum of bone, which was bent into it from the inner table of the skull; through this opening in the dura mater the pus came.

The operation was conducted under Listerian precautions, and the wound dressed with gauze. Almost immediately after the pus escaped, the convulsions, which had been going on previously, ceased; and, about three hours afterwards, the child awoke as from sleep, and was sensible, asking for his mother, etc. No anæsthetic was used. The child's temperature upon admission was a little over 98°.

March 26th. The patient had passed rather a restless night, but was now conscious, and very irritable if awakened from the sleepy condition he was in. He lay on his face; he took milk well; there was no vomiting, and no convulsions.

March 27th. He slept well the previous night, was conscious, and could answer questions.

March 29th. Since the date of the above note, the child had been apparently well; the head was dressed, and the wound was smaller and healthy.

On April 9th, the wound was dressed for the second time. The dura mater covering brain protruded through the opening in the skull. The patient ate and slept well, answered questions rationally, but was very soon made to cry.

April 10th. During the previous night, the gauze dressing had slipped off the head. The area of the wound was much smaller, but the protuberance of the brain was larger. The wound was dressed with a lotion of sulphate of zinc. His general health was good.

On April 12th, the child was sleepy, and had vomited once after dinner.

On April 13th, the face was very pale; he had vomited once, and took but little notice of surroundings.

April 14th. At 4 A.M., he was unconscious, vomiting, and very pale. At 9 A.M., he was still unconscious, and there were occasional slight clonic convulsions on the right side. Temperature 103°. There was no redness round the wound, but through the bony aperture was protruding a mass of brain-material about the size of a walnut covered with dura mater. This being pressed upon, pulsated synchronously with the brain. The Listerian method was again made use of, and Mr. Jalland passed a knife about half an inch into this protruding mass, and then a[illegible] A small tube was passed into the abscess-cavity, and the wound dressed with gauze. At 12 P.M., no convulsions had recurred since the operation, and consciousness was beginning to return. At 4 P.M., he was very peevish, and [illegible] not been ill. At [illegible] had been screaming incessantly.

April 15th [illegible] For the last two days, he had [illegible] conscious, with widely dilated pupils, clonic convulsions on the left side, and complete hemiplegia on the right. Into the cerebral hernia a knife was passed for about half an inch, but without finding pus. The child never regained consciousness, but continued much the same until he died at midnight.

NECROPSY (sixteen hours after death).—When the calvarium was removed, the dura mater was found attached to the brain on the left side at the seat of injury, which was situated at the anterior superior angle of the left parietal bone. There was some recent lymph upon the base, and scattered over the surface of the brain. On opening the left lateral ventricle, the roof and outer wall were found to be diffluent, and in the cavity was a quantity of pus. Running into the cavity was a sinus, which ended externally in the portion of brain which was outside the skull. The central part of this sinus was dilated into an abscess-cavity, the size of a large walnut; this had a distinct wall, and contained pus. This cavity had not been reached by the knife, although its outer wall appeared to be not more than a sixth of an inch from the general surface of the cerebrum. The other ventricles (except the fifth) contained pus, and this had trickled down to the base of the skull beneath the membranes.

REMARKS.—The interesting points in this case are: the long time which elapsed from the receipt of the injury before any brain-symptoms arose—viz., fourteen days; also the marked relief (unfortunately, only temporary) which followed the operation of trephining, and again when the dura mater was opened a second time.

ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

OVARIAN DROPSY: REMOVAL OF BOTH OVARIES: DEATH.

(Under the care of Mr. WILLIAM BERRY).

MRS. M., a married woman, aged 42, who had borne three children, had enjoyed pretty good health until about two years ago, when she noticed a swelling in the left side. This swelling increased rapidly during the two months before admission, on May 2nd, 1881. She had menstruated regularly, and came into hospital immediately after the last period. The cervix uteri was drawn upwards and backwards, the os was patulous, and the sound passed four and a half to five inches; the abdomen was very large, and more so on the left. A wave of fluctuation could easily be made out; still deeper, the tumour had a more solid feel.

May 12th. With the assistance of my colleagues, chloroform was administered, and I proceeded to remove the tumour under the carbolic antiseptic spray. After cutting through the abdominal wall, I found the sac very thin, and much adherent to the peritoneum. A small hole being made, the fluid rent up the thin wall of the cyst, and a quantity escaped before I could introduce the cannula. After fixing this, the omentum was found slightly adherent; this was ligatured with catgut, and separated. The lateral adhesions were of little consequence, and the sac, when emptied, was easily got through the abdominal wound. The pedicle was readily clamped and firmly ligatured with catgut, and divided. The pelvis was now filled by the right ovary, about the size of a large orange, and solid. The pedicle was small; it was ligatured with catgut, divided, and returned. All fluid was now carefully sponged from the abdominal cavity, and a few bleeding points twisted. The pedicle of the left ovary was now returned, and the edges of the wound brought carefully together by deep button-sutures, and superficial sutures of catgut were inserted. Antiseptic gauze and a flannel roller were applied.

After the operation, the patient seemed in a state of collapse, but rallied after a little brandy was given. At 12 P.M., she had taken some soda-water and milk, and expressed herself as comfortable. A hypodermic injection of morphia was administered, and she slept well [illegible] by the stomach. Another morphia injection was ordered, together with ice, iced brandy, and soda-water, and soda-water and milk; but everything failed to relieve the sickness or ward off collapse. She died exhausted twenty-seven hours after the operation.

After death, we were permitted to examine the abdomen. The [illegible] herent; the peritoneal surface of the bowels was adherent slightly in places, and congested. The stumps of the pedicles looked well; no [illegible] containing fluid, and a solid tumour inside this, about the size of two [illegible] the same consistency.

ASHTON-UNDER-LYNE INFIRMARY.

CASE OF DOUBLE VERTICAL FRACTURE OF PELVIS, WITH RECOVERY.

(Under the care of Mr. ROBINSON.)

[FOR the notes of this case we are indebted to Mr. R. W. GREENISH.]

John M., aged 20, was admitted into the infirmary January 3rd, 1881, having fallen about ten yards from a scaffolding. He states that the plank on which he was working broke in the middle, and he alighted on the ground with his legs separated, and a portion of the plank between them. On admission, he complained of great pain in the left knee and hip, was unable to walk, and could only move himself very slightly in bed. Examination detected nothing wrong in the knee; the hip-joint appeared uninjured; flexion and extension gave rise to no pain, but inversion did. On rolling him over on to the right side, some swelling was noticed over the left sacro-iliac articulation, and a loud crepitating noise was heard during the attempt. Pressing the hips together gave rise to great pain. The left leg was half an inch shorter than the right, and Bryant's line (the distance of the tip of the trochanter from a vertical line drawn from the anterior superior iliac spine) gave a quarter of an inch less than on the right side. The perinæum was much bruised and very tender, and, on pressing the ramus of the ischium, it could be felt to move up with a loud grating feel, evidently that of a fractured bone. He had passed urine twice before admission without pain or difficulty, and that passed after admission contained at first a little blood, which was recognised only by the microscope. He was treated at first with a binder, but, on the second day, Bryant's parallel splint was applied, which completely relieved him of all pain. For the first three days, he had a good deal of abdominal pain and tenderness. On February 23rd, the splint was removed, and he began to get up. On March 14th, he was able to walk about without crutches, and had complete movement in the hip-joint. There was then half an inch of shortening of the left side, whether measured from the iliac or the pubic spine, and some tenderness with slight thickening over ramus the of the ischium and pubes. He had no pain, except a little on the left side when sitting.

REMARKS.—There seems to be no doubt that this was a case of fractured pelvis, and to be the form described by Lösen in the *Deutsche Chirurgie* as Malgaigne's double vertical fracture, that is to say, a fracture through the horizontal ramus of the pubes, and through its descending ramus or the ascending of the ischium, and another through the narrowest part of the ilium, just behind the acetabulum, the piece thus loosened being driven up more or less, but usually not to any great extent. Erichsen mentions a double form of fracture (*Science and Art of Surgery*), but states that the posterior line of fracture is most frequently close to the sacro-iliac articulation, in which case there would be no shortening, if measured from the anterior superior spine. Bryant, Birkett in Holmes's *System*, and Hamilton in his work on fractures, do not mention it as a distinct form. This case differs from those usually described, in the mode of its production, viz., violence acting directly on the perinæum, apparently on the ischial tuberosity; and, in the absence of a very constant symptom, that of injury to the urethra.

THE ESCAPE FROM A LUNATIC ASYLUM.—It is stated that the visiting justices of the County Lunatic Asylum, Barming Heath, Maidstone, from which the escape of a lunatic named Elliott was effected by outside connivance, have decided to petition the Lunacy Commissioners to promote an alteration of the Lunacy Laws, rendering it a penal offence to aid and abet the escape of an inmate of an asylum, and thus procure release in any other than a legal way.

TRAINED NURSES AT WORKHOUSE INFIRMARIES.—A conference of the supporters of the Association for Promoting Trained Nursing in Workhouse Infirmaries was held on Thursday, December 8th, in the board-room of the new Marylebone Infirmary, Notting Hill; Mr. E. Boulnois in the chair. Papers in support of the objects of the association were read by Messrs. Walsh, S. Benton (late resident medical officer at Highgate Infirmary), and Percy Potter, medical superintendent at Kensington Infirmary, and by Miss L. Scanning. The discussion which followed showed perfect unanimity of opinion as to the necessity of educated nursing in workhouse infirmaries, permanent schools for instruction being strongly advocated. A course of lectures to the infirmary nurses was commenced on Tuesday, December 6th, by Mr. J. R. Lunn (medical superintendent) and Mr. Percy Potter (medical superintendent at Kensington Infirmary). The subject was the Outlines of Nursing, Anatomy, Practical Bandaging, etc.

REPORTS OF SOCIETIES.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.

MONDAY, DECEMBER 5TH.

THOMAS ARNOLD ROGERS, M.R.C.S.Eng., President, in the chair.

Poisoning by Arsenical Paste.—Mr. W. E. HARDING (Shrewsbury) related a remarkable case of poisoning by arsenical paste. A lady came to him, complaining of acute pain in a lower molar. Finding the pulp exposed, Mr. Harding applied a small quantity of a preparation known as Baldock's nerve-killing paste, closing the cavity with cotton-wool and sandarack. Within a few hours, the patient was seized with symptoms of poisoning by arsenic—burning pain at the epigastrium, vomiting, etc.—and a rash appeared resembling measles, but slightly raised, and which was followed by desquamation. The stopping was at once removed; but the patient was very ill for several days, and did not altogether regain her health for a fortnight. A remarkable feature in the case was, that this lady had suffered in the same way three times previously; once from arsenic used by another dentist, and twice from prescriptions containing it ordered by medical practitioners.—The PRESIDENT remarked that it was very important that patients, who were the subject of such idiosyncrasies, should mention them when they came to a stranger for treatment; and any practitioner, discovering such peculiarities, should impress upon the patient the necessity of doing this.

Economical Processes of Preparing and Administering Nitrous Oxide.—Mr. ALFRED COLEMAN read a paper on this subject. In proof of the importance of the subject to hospitals and large consumers, Mr. Coleman mentioned that the one item of nitrous oxide gas cost the Dental Hospital of London over £70 a-year. After describing various ways in which the gas could be obtained, he said that he believed it could be manufactured on a large scale most cheaply by the action of dilute nitric acid on zinc. As a plan for making nitrous oxide alone, this method would be extravagant, since only about one-third as much gas could be obtained by this means, compared with that which could be obtained for the same money by the decomposition of nitrate of ammonia. But, by treating the residual nitrate of zinc with sulphuric acid, the nitric acid could be recovered, and sulphate of zinc obtained, which was a well-known article of commerce. By making this the main object of the manufacture, he believed that the gas could be obtained as a by-product at an almost nominal cost. Mr. Coleman then described various devices for securing economy in administration. He hoped, however, that these might be superseded in large institutions by a plan for saving all the products of respiration during the administration of the gas, and then separating the latter for use over again. This might be effected by conducting the respired air and gas into a closed vessel, containing a certain quantity of water, in which a little caustic potash had been dissolved. This would fix the carbonic acid, the nitrous oxide would be absorbed by the water, and the remaining air might then be allowed to escape. Heat being applied, the gas would be driven off again from the water, and re-collected in another gasometer. The process was much facilitated by agitating the vessel containing the mixture of air, gas, and water, and by reducing the temperature of the latter as low as possible in the first instance. It would be attended with some expense; but might probably be found to pay in the case of large institutions, and where circumstances were favourable for its application.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, DECEMBER 9TH, 1881.

J. TUFNELL, F.R.C.S.I., in the chair.

Removal of Entire Scapula with Tumour.—Mr. F. ALCOCK NIXON exhibited a large tumour which he had removed, together with the entire scapula, from a boy aged 13, in Mercer's Hospital, a few weeks previously. The growth of the tumour was extremely rapid; it involved the entire scapula below and in front of the glenoid cavity, and protruded into the axilla. The supraspinatus muscle was displaced and degenerated, and the fasciæ and sheaths of the other wasted muscles formed a kind of capsule for the tumour. The new growth was about the size of a cocoa-nut, and weighed four pounds. On section, it appeared mottled and lobulated, and seemed to consist of two distinct kinds of growth, one soft and brain-like, the other considerably more dense. Below the spine the bone had disappeared, except some small isolated osseous plates. Some of the lobules were of a deep orange colour in their centre. The microscope showed the tumour to belong to the small round-celled sarcomata. On the fifth day after the operation the boy could eat solid food, and on the thirteenth day left his bed,

and had since been doing well. A cast showing the appearances of the limb and joint before operation was exhibited also.

The Therapeutic and Poisonous Effects of Carbolic Acid. — Dr. F. W. WARREN read a paper on this subject, in which he said he purposed drawing attention to the use of carbolic acid as an internal and local remedy. In typhoid fever he had employed carbolic acid in twenty cases with encouraging results; only two died, and these were cases of extreme severity, in which the patients sank into "the putrid state" of the old writers. To be efficacious, carbolic acid must be given in large doses freely diluted; small doses were nearly useless. Mr. Warren then read the notes of some of the cases which he had treated with the acid; and, after quoting the experiences of other writers, referred to the efficacy of tar water, and of inhalations of carbolic acid atomised, in catarrh of the larynx, pharynx, and bronchi, but deprecated its use in acute cases, or in phthisis. To have the air of the room impregnated with the vapour was often useful, and might be effected by hanging up a sheet wet with the solution. In malarial fevers it was valuable as a prophylactic; and in purpuric small-pox he considered that its administration had been attended with benefit. In hæmorrhoids, the use of strong carbolic acid as an injection had been found successful; three to six minims of the glacial acid, liquefied by heat, were to be injected into the pile. He did not think that this method was applicable to cases of internal piles when bleeding, or for hard external ones; but was to be used in the inflamed pile whether internal or external. In fatal cases of carbolic acid poisoning, the symptoms came on very quickly. Mr. Warren read the notes of a case which had come under his care. It was that of a fireman in a distillery, aged 48, who drank a glass of the crude commercial acid by mistake for whiskey. When brought into Steevens's Hospital, he was unconscious, pale, with fixed pupils, and in a state of deep depression. There was no erosion of the mucous membrane of the mouth. The probable nature of the case being suspected from the smell of his breath, a turpentine enema was administered, and the stomach washed out with dilute saccharated solution of lime, ammonia was applied to the nostrils, etc. Next morning he was conscious, and complained of pain in the epigastrium, passed eight ounces of clear, dark, acid urine, free from albumen or blood, and finally recovered entirely. Some authorities stated that the change in the colour of the urine only occurred in cases where the acid was applied externally; this was disproved by the case just read. There was no known specific antidote for carbolic acid; the best was a solution of the alkalies in great excess, and, of the alkalies, perhaps lime in the saccharated solution was the best. The toxic effects of the drug not unfrequently showed themselves when it was employed as an antiseptic agent by the surgeon. In one case death, with cerebral congestion and other signs of poisoning, resulted in twenty minutes from the use of the spray on the patient's back. Toxic effects were most frequently produced in those who were anæmic from loss of blood, because in them absorption took place more rapidly. Idiosyncracy was also an important factor in the development of toxic symptoms. Poisoning came on either suddenly or insidiously; in the latter case, it was not unfrequently regarded as incipient septicæmia, and treated by a more rigorous application of the acid. The best guide in such cases was the condition of the urine: the most reliable test being, not its colour, but the quantity of sulphates in any given specimen (Sonnenberg's test). Strong solutions of the acid were less dangerous than the weaker ones, as the latter were more readily absorbed, the former coagulating the albumen in the tissues prevented that. In conclusion, he recommended more care in watching cases where carbolic acid was being used, and a more general recognition of the premonitory symptoms of chronic poisoning. It was a dangerous poison, and should not be placed in the hands of the ignorant and unskilled.—Dr. MAPOTHER mentioned that, about three years ago, he injected a small nævus on the cheek of a child with carbolic acid; in two seconds after the injection the child was deadly pale and almost pulseless, and seemed about to die, but finally recovered. This he considered to be due to the physiological action of the drug exerting its poisonous effects upon the child's system, rather than to any embolic clot which could have escaped into the general circulation, for he carefully isolated the tumour by making pressure round its base before using the injection.—Mr. BALL considered that, when long continued, carbolic acid acted as a local irritant. Men engaged in distilling carbolic acid were particularly liable to warty growths of the scrotum, etc., resembling those found amongst chimney-sweeps; out of sixteen men employed in the distillery, three suffered from warty growths requiring removal. In operating on such cases, Mr. Ball used eucalyptus instead of carbolic spray and dressings.—Mr. FRANKS said that there were two important therapeutic uses of carbolic acid which Mr. Warren had omitted to mention, namely, in diphtheria, as a spray played into the throat at intervals until the urine became very dark; and as a local anæsthetic in throat-affections where it was necessary to apply painful caustics, as in the case of new growths requiring to be destroyed. Mr. Franks had employed the ordinary glycerine of carbolic acid of the Pharmacopœia to brush on immediately after the use of such caustics as London or Vienna paste, and found that it greatly relieved the pain consequent upon their use.—Mr. FITZGIBBON said that everybody must allow that carbolic acid was a dangerous poison, and as such required the most careful use. Most of the accidents or ill-results that followed its use were traceable to the rashness of those who employed it, as in a case which he witnessed, in which a solution of 1 in 20 was freely sprayed over the exposed peritoneal cavity. He had nearly killed a patient in his own study by injecting the pleural cavity with a solution of 1 in 30, though he had repeatedly done so before, using the same solution with the same patient, with impunity; but, owing to some change in the condition of the pleural cavity, he supposed, it more readily absorbed the acid into the system and produced symptoms of carbolic poisoning. Nevertheless, he regarded carbolic acid as a most valuable agent.—Dr. WALTER G. SMITH thought that, regarding the poisonous effects of carbolic acid, there were three points of special importance; the colour of the urine, the chemical test for carbolic acid, and the antidotes to be employed. The key to the understanding of these lay in the comprehension of the mode of elimination of the acid, and the changes it underwent in the system. He alluded to the results of the most recent investigations on its elimination; one half broke up and could not be traced at all, because it became oxidised and formed probably oxalic, carbonic and other acids. The other half went to make phenol-forming substances, and was eliminated as phenol sulphuric ether, etc. A trace only of free carbolic acid was to be found in the urine. As regards the colouring matter, nothing was certainly known as to its nature, but the colour was the same whether produced by administration of the acid externally or internally. As to the barium chloride test, alluded to by Mr. Warren, it might be remarked that, owing to the solubility of barium sulphocarbolate, the alleged deficiency of sulphates in the urine was only an apparent one. Perhaps the best test was bromine water (Landolt), which formed with the acid a crystaline deposit of tribromphenol. The best antidotes were the soluble sulphates or dilute sulphuric acid, which formed with carbolic acid innocuous conjugated compounds.—Dr. BEVERLY COLE (San Francisco). was an enemy of Listerism. In his experience of ovariotomy, out of 16 cases on which he operated, in three he used the carbolic spray (1 in 40) all three died, and he believed that it was the carbolic acid that killed them.—Mr. BENNETT never saw ill results from the topical application of carbolic acid, except when employed in a careless way by unskilled people for the cure of burns, etc. Within the last month he saw two such cases in which symptoms of poisoning followed the use of carbolic oil to extensive burns of the arm in children. Both recovered when the carbolic treatment was discontinued. Carbolic dressings often retarded the healing of wounds by being too stimulating.—Drs. H. Kennedy, Byrne, Darby, Stoker, and Wheeler, also took part in the discussion, the completion of which was postponed till the next meeting.

OBSTETRICAL SOCIETY OF DUBLIN.

SATURDAY, [illegible] 1881.

JOHN A. BYRNE, M.D., President, in the Chair.

DR. BEVERLY COLE (San Francisco) exhibited a number of instruments which had been invented or modified by him.

Vaginal Speculum. — This was declared by Dr. COLE to be the lightest instrument of the kind yet invented; it weighed only two ounces, was made of vulcanite with glass reflectors inside, which were movable at will; each half, being independent of the other, could be removed and replaced without altering the other. The instrument consisted of two blades or valves, which, moved by means of screws, possessed three distinct motions—an antero-posterior, a divarication of the apex, and a divarication of the base. By means of these various motions, the instrument would be found suitable for any vagina, gave a larger field for applying local remedies, and more illumination than any of the bivalve specula in the market; and, moreover, possessed the advantage over all metallic instruments, that it was not acted on by any acid application.

[illegible] poses, to tupulo or sea-tangle. Tupulo, a porous substance much used in America, and sea-tangle, had both been used by him, but had been [illegible] he considered, after thirty years' experience, to be the best of all dilators [illegible] apothecaries were [illegible] for himself. They were [illegible] sponge, and were unmanageable. He then demonstrated the method

which he had for some time adopted with satisfactory results. Having selected a medium sized fine surgical sponge, he melted some white wax in a capsule, and, having soaked the sponge in it, squeezed it dry and flat in a copying press. The flat sponge-cake which resulted could then be cut with a scissors into tents of any required size or shape. They were applied by means of a forceps; a thread through their base enabled them to be removed at will.

Midwifery Forceps.—A modification of Hodge's forceps was also exhibited, and its peculiarities and advantages explained. The fenestræ were of the same width at the heel as at the point of the blade, thus giving a better grasp of the head at the heel, where in many forceps a narrowing occurred which tended to allow the head to slip. The shank of the instrument was curved and rounded, and very long. The American method of applying the forceps, which, like the French, required the woman to lie on her back, was demonstrated, and the relative merits of the two methods were discussed.—A debate ensued, in which the merits of the speculum and the ingenuity of its mechanism were praised, and the instrument regarded as likely to prove a valuable addition to obstetrics. The ingenious method of preparing sponge-tents, though not novel, was regarded as valuable, and, should sponge-tents be required, might render their use less objectionable than when the ordinary apothecaries' conical tent was employed; but sponge-tents were no real substitutes for the sea-tangle tents. After some debate upon the relative merits of the various forms of forceps, the Society adjourned.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 10TH, 1881.

WILLIAM STOKES, M.D., President, in the Chair.

Pericarditis.—Dr. J. M. FINNY showed a specimen of pericarditis, in a man aged 42, a discharged soldier of ten years' service, who had suffered severely from scarlet fever six or seven years ago. Chest-symptoms set in a year ago. The patient was intemperate. There were great dyspnœa, cyanosis, and ultimately evidences of pleuropneumonia and capillary suffocative bronchitis. The feet were œdematous, and a triple murmur was heard at the base of the heart. After death, both pleuræ were found adherent. There was œdema and hepatisation of the right lung. In the left lung, there was a hæmorrhagic infarction. Four ounces of reddish fluid escaped from the pericardium, which was the seat of a recent dry pericarditis. The heart, with the pericardium and vessels, weighed thirty-two and a half ounces. The left ventricle was excentrically hypertrophied. The mitral orifice was dilated. One of the aortic valves was incompetent. Cretaceous matter was deposited in the aorta. There was a small aneurysm of the descending aorta. The liver showed the nutmeg appearance, and commencing cirrhosis. The kidneys were enlarged and firm. The left kidney weighed nine and a half ounces, the right ten ounces. The spleen was hard and firm.

Vesical Calculi.—Mr. H. G. CROLY exhibited a series of four vesical calculi: the first from a boy aged 9, who had presented symptoms of stone for three years. This was an uric acid calculus. The second was from a boy aged 3; it also consisted of uric acid. The third specimen was from a man aged 75. It consisted of two stones, one facetted, chiefly composed of triple phosphate. The fourth was of a similar nature.

Cruveilhier's Disease.—Mr. W. T. STOKER showed the right upper extremity, portion of the thorax, and of the spinal column and spinal cord of a cabman, aged 60, who presented a five years' history of progressive muscular atrophy. The patient had been obese, but of temperate habits. Nearly all the muscles supplied by the branches of the brachial plexus, below the clavicle, were much wasted, and in advanced fatty degeneration—the latissimus dorsi, deltoid, triceps, and the two teretes were all fatty; there were fatty streaks in the biceps. The muscles of the front of the forearm were much altered, with the exception of the pronator quadratus, which was spared. The muscles on the back of the forearm had suffered to a less degree. The interossi and lumbricales, with the muscles of the thumb and little finger, were much atrophied. An exostosis engaged the fourth, fifth, sixth, and seventh cervical vertebræ, causing ankylosis of the last three. The anterior nerve-roots on the right side were atrophied; and Mr. P. S. Abraham, who examined the cord microscopically, reported that two portions near the anterior horns of grey matter stained more deeply with picrocarmine than elsewhere. Mr. Stoker pointed out that, probably, all the assigned causes of Cruveilhier's paralysis—viz., overwork, exposure, and injury—were present in this case.—An interesting discussion followed, in which Dr. R. McDonnell, Dr. H. Kennedy, and Professor Bennett took part.

Jacob's Rodent Ulcer.—Mr. H. G. CROLY exhibited a specimen of the rodent ulcer described by the late Dr. Arthur Jacob, in the *Dublin Hospital Reports*, volume iv, in 1827. The subject of the disease was a man aged fifty-eight years. The new growth had been of thirteen years' standing, and, as is usual in these cases, it had commenced as a little pimple near the inner canthus.—A discussion ensued, in which most of the speakers maintained the epitheliomatous nature of the neoplasm. Mr. Abraham, who had examined the present specimen, described it as a cylindroma.

SATURDAY, DECEMBER 17TH, 1881.

WILLIAM MOORE, M.D., Vice-President, in the chair.

Myoma Uteri.—Dr. LOMBE ATTHILL showed two large uterine fibroids, which were removed from the body of an unmarried woman, aged 40, who had suffered from profuse uterine hæmorrhage for several years. A solution of ferric chloride, in the proportion of one part to four, was injected into the uterus. The patient did well for some days, but sank and died suddenly within a fortnight. On removal of the sternum, the right lung did not collapse, being the seat of a septicæmic or metastatic pneumonia. It was firmly adherent to the pleura. The heart was large; it contained a firm decolorised clot of considerable size in the right auricle. This clot extended into the right ventricle. The liver was probably fatty; the gall-bladder contained 150 small-sized gall-stones. The kidneys were fatty. A small submucous tumour lay between the vagina and the bladder. The cervix uteri was elongated. The cavity of the uterus was encroached upon by a large intramural myoma, situated at the fundus. This tumour measured four inches and a half in its vertical, and three inches and a half in its transverse, diameter. There was also a subperitoneal tumour, of the size of a small pear, attached to the lower portion of the uterus posteriorly by a broad pedicle. On the left anterior surface of the uterus there was a dark soft place, from which, on section, a dark green purulent fluid exuded. This was probably an abscess, the contents of which were coloured by the solution of ferric chloride, and which perhaps gave rise to a fatal embolic pneumonia. The ovaries were healthy.

Intracapsular Fracture of Neck of Femur.—Mr. W. F. STOKER presented two specimens of intracapsular fracture of the neck of the femur. The first had occurred not very long before the patient's decease, for no ligamentous union had taken place. In the second case—one of fracture of the right femur—partial ligamentous union had occurred. There was considerable absorption of the head and neck, and erosion of the head on its articular surface. Large exostoses had grown from the anterior intertrochanteric line, and developed so as to articulate with, and give support to, the anterior edge of the acetabulum, thus giving colour to the theory of Vidal that such bony outgrowths were designed to support the weight of the body carried through the acetabulum.—Dr. BENNETT suggested that the cause of the exostoses was the fact that the fracture passed through the capsular ligament, and became partly extracapsular.

Ovarian Cyst.—Dr. LOMBE ATTHILL showed a large ovarian cyst from a married woman, aged 30, mother of two children, the younger between three and four years old. The tumour was irregular in outline, and a clear viscid fluid escaped on tapping. There were no adhesions, although persistent pain and immobility of the umbilicus seemed to point to their presence before operation. The patient was progressing favourably, and indeed was convalescent.

Fracture of a Phalanx.—Mr. W. T. STOKER exhited a rare specimen—a skeleton of the index finger illustrating union of fracture of the second phalanx. The first phalanx was entire and healthy. The articulation between the first and second phalanges had disappeared, and there was firm osseous union between these bones. Strong ligamentous union existed between the second and third phalanges.

Necrosis of Lower Jaw.—Dr. BENNETT laid on the table portions of the lower jaw of a strong, previously healthy country girl, aged 25, who fell ill of typhoid fever in August 1879. During convalescence her hair was cut close; she caught cold, her face swelled, and necrosis set in. Large sequestra were removed from the lower jaw, and an attempt was made to save her perfectly healthy teeth; but after a month or two they became a nuisance, owing to their looseness in their soft bed, and they had to be removed one by one. Mr. Skey has reported a like case.

THE Paris Academy of Medicine has just inherited 30,000 francs (£1,200), bequeathed to it by Mme. Laval de Serrières, in memory of the eminent surgeon M. Jobert de Lamballe. The interest already accumulated on the sum is invested in Government securities, and forms a prize fund for offering a prize to the medical student considered by the Academy judges to be the most deserving.

REVIEWS AND NOTICES.

ALGIS FROID ET TUBERCULOSE OSSEUSE. By Dr. LANNELONGUE, Surgeon at the Trousseau Hospital, and Agrégé at the Paris Faculty of Medicine. Paris: Abbelin. 1881.

DR. LANNELONGUE, at the commencement of his book, explains that he considers chronic or cold abscesses and tuberculosis to be nearly allied. Cold abscesses are tuberculous tumours, and belong to this category during the whole period of their development. Tuberculous bone-lesion, in the majority of cases, is attended by suppuration; this suppuration presents characteristics identical with those of chronic or cold abscesses.

Dr. Lannelongue reminds us that in the works of Thompson, Simpson, Morgan, and Delpech, there are passages which lead to the belief that these authors consider chronic or cold abscesses to be tumours; Hunter also insisted on the presence of a membrane presenting an aspect comparable to a layer of fleshy wound-granulations. The author describes how, after using Esmarch's ligature to induce anæmia of the limb operated on, and opening the abscess, he was able to dissect the membrane, to follow it throughout its track along a bone, or a layer of fascia, between muscles, etc. The upper surface of this membrane examined in a small abscess is generally smooth; later on, this smoothness is broken by a small spot of conical elevations, which penetrates between the tissues, and generally follows the track of the vessels. This fact, added to many others observed by the author, appears to demonstrate that chronic or cold abscesses are not a passive product, in accordance with the constantly repeated opinion, but an active tumour.

At the request of Dr. Lannelongue, M. Vignal made a microscopical examination of the membrane in the histological laboratory of the College de France. Thirty-two membranes were histologically studied. They presented a general structure identical with that of fleshy granulations. Embryonic elements were present, but the distinguishing characteristic of the membrane was the presence of nodules or tubercular follicles, with those little pits which distinguish the form of lupus called tubercular. This membrane can be divided into several zones. The layer that is in contact with the cavity of the abscess is formed of small masses of dead embryonic cells and fibrine, almost detached and ready to fall into the cavity of the abscess. This layer is followed by another, composed of embryonic cells on the point of decay, of giant-cells either isolated or contributing to the formation of tubercular follicles, often caseous in the centre, little cheesy masses, and hæmorrhagic foci. The next zone is formed of embryonic cells in full activity, of small tubercles in process of formation, and of several embryonic cells. The cells of the external part of the membrane penetrate among the neighbouring tissues, proliferate there, and in most cases destroy them. These cells, under the influence of the adjacent connective tissue, often change into connective tissue cells. These facts, and those furnished by clinical teaching, lead M. Lannelongue to insist on the necessity, not only of opening the abscess, but of destroying the membrane by injecting caustic fluid into its cavity. In this form of treatment Dr. Lannelongue finds many surgeons to agree with him; Lister, among others, whose dressing in all cases he recommends.

Dr. Lannelongue prefers decortication of the membrane. This is done, he tells us, with the greatest ease by using a spatula or scraper with blunt edges. Not only the principal cavity ought to be destroyed, but also the secondary cavities. The slight hæmorrhage which follows will be stopped by injecting alcohol diluted with water, and afterwards diluted carbolic acid. The wound must not be dressed as if union by first intention were desired; it must be borne in mind that the neighbouring tissues are infiltrated by embryonic elements, and even with small tubercles. The destruction or re-absorption of these elements must be facilitated by a drainage-tube, which, added to the Listerian dressing, avoids all chance of relapse or sequelæ.

The author next studies chronic abscesses of bone and abscesses by congestion. He shows that the pathological anatomy of these abscesses indicate tubercle as the primary cause of osseous lesions. In such lesions, the membrane invariably lines the walls of the abscess, and presents a structure identical with that of cold abscesses unconnected with lesion of bone. Dr. Lannelongue therefore argues that all curative methods ought to aim at opening the abscess and destroying the membrane; establishing a fistula is not sufficient. In every case where it is possible, the origin of the lesion ought to be sought for, and treated according to its nature, either by simple rasping, or by resection if the lesion occupies a large area. The surgeon should always bear in mind that frequently a slight superficial osseous lesion is the origin of an enormous abscess; whilst, on the other hand, deeply seated and widely extended lesions are often attended by small abscesses. But in all cases the sac should be opened and the membrane destroyed. If the seat of the osseous lesion cannot be ascertained, strong solutions of carbolic acid should be injected, which, in many instances, cure not only the abscess, but also the lesion of the bone. This treatment, admirable for non-pedunculated abscesses, is not applicable—although it seems thoroughly rational—to abscesses by congestion. It must be remembered that the seat of the osseous lesion is far removed from abscesses by congestion, and although often very limited, is in connection with a very extensive wall surface. Thus it is an important factor. Added to these considerations there is the mobility of the surrounding organs, which render difficult the bringing together and final adhesion of the walls of the sac.

Dr. Lannelongue, whilst fully aware of the gravity of the prognosis, opposes the opinion of those surgeons who advise non-interference. Like many other authors, he divides abscesses into two classes. One class consists of those in which the origin of the disease has its seat in the bone of one of the extremities, including the ilium and the clavicle. Dr. Lannelongue here advises the same treatment as for non-pedunculated abscesses, even in many cases when it is difficult to decide whether the articulation be attacked or not. Should the patient not be cured, the destructive tendency of the abscess is lessened, and more active treatment is made easier. The second class comprises abscesses by congestion, which have their seat in the abdomen, and result from disease of a bone of the trunk.

Dr. Lannelongue is a warm partisan of the Listerian treatment, and is quite opposed to the practice of waiting until the abscess appears under the skin after having attained a considerable development.

In the third part of his work, Dr. Lannelongue studies the pathological anatomy of osseous tubercle, which he believes to be the primary cause of caries and chronic osteitis. How otherwise, he asks, can the presence of tuberculous meningitis, of local tuberculosis, pulmonary phthisis, tuberculous broncho-pneumonia, observed in patients attacked by osseous lesion, be explained? To instance the debilitating effect of long-continued suppuration as a sufficient explanation, would often be an error; inasmuch as Dr. Lannelongue tells us that these sequelæ are generally observed in patients with a slight osseous lesion, a small "spina ventosa" in some of the smallest bones, and who have not been confined to bed for a single day; suddenly an acute form of tuberculosis declares itself, and the patient dies in a few days.

Up to the present time, many tuberculous affections have not been diagnosed as such, because, previous to death, active surgical treatment had been adopted, the lesion presented a succession of phases which masked the primary affection. But, if the parts last attacked be examined, it is rare that tubercles are not found. Some parts of the bone are attacked by rarefying ostitis, resulting from the presence of tubercles, and directly determined by them. In others a proliferating ostitis occurs, which might induce an eburnation or a new bony growth surrounding and imprisoning the old bone in the cavities excavated by rarefying ostitis. The primary osseous tubercle also determines an inflammation of the medullary substance of the bone. It is easily conceived that a source of irritation in such a soil, rich in vessels and young cells, should result in the development of those numerous abscesses which are always the sequelæ of osseous lesion.

The author passes in review the whole series of osseous affections which he considers to be in relation with tuberculosis. He then quotes a considerable number of observations relating to this subject and to chronic or cold abscesses. It is impossible for us to follow the eminent surgeon of the Trousseau Hospital in all these questions. We will, therefore, conclude this short analysis of this excellent and original work, by expressing our belief that it will inaugurate a fresh era in the pathology of the osseous human frame, reveal new facts, and throw light on what hitherto has been obscure.

[illegible]

It is otherwise with the lower sub-kingdoms, which include almost endless [illegible] technicalities, with regard to limbs and other appendages. The student who knows a little of the osteology of the mammalia, need not feel "at sea"—in any sense of the term—when he begins to study the skeleton of the cod-fish. He finds the vertebræ and their processes, and the cranial bones, merely modified from the familiar higher type; whilst embryology will smooth over any difficulties about the recognition of the curious chains of bone developed along the visceral clefts in fishes. It is quite otherwise with the invertebrata. Their respiratory and circulatory systems vary to an almost infinite extent. The limbs, wings, and tails are mere analogues of the same parts in other groups; claws, mandibles, and maxillæ often partake of the nature of limbs. Hence we have to learn about pedi-palpi, cheliceræ, telsons, galeæ, cardines, stipites, and scores of terms, which it would be tedious to name at length, as the author of the Eton Latin Grammar would say; reference to such a work is particularly necessary, under the circumstances, for these technical terms require considerable knowledge of Latin genders and plurals. The fatigue of mastering such technicalities is much lessened by Mr. M'Alpine's Atlas. The first part is a luxury to the student of the vertebrata; this second portion is almost a necessity to those who wish to hold clear ideas concerning the anatomy of lower types. It must be understood that, by a necessity, we mean a necessary help, and not an indispensable groundwork of knowledge. The right way of making use of this Atlas is, to employ each plate as an aid to the dissection of an invertebrate animal, just as the pictorial works of Leveillé, Ellis, and others are turned to use in dissecting-rooms at medical schools.

NOTES ON BOOKS.

SMITH'S *Physicians' and Surgeons' Visiting-List* (J. Smith and Co., 52, Long Acre) has now reached its thirty-sixth year of publication. It is a diary, almanack, and book of engagements for 1882. A table of the principal poisons and their antidotes is added, which is intended as a guide on a sudden emergency. A table showing the equivalents of different thermometric scales is incorporated in this edition, and will be very useful, in view of the increasing use of the metric system in this country and abroad, and of the frequent necessity for converting Fahrenheit into Centigrade, and *vice versâ*. A table is also given of the period of incubation of the eruptive fevers of our climate. These additional features will serve to maintain the increasing popularity of this useful publication.

Ophthalmoscopie Clinique. Par L. DE WECKER et J. MASSELON. (Paris: Octave Doin. 1881.)—It is impossible to speak of this book in any terms but of praise. The text is easy to read, and easy of comprehension by those possessing even a moderate knowledge of the French language. Though professing to treat solely of ophthalmoscopic appearances, yet it explains these, when necessary to their full comprehension, by a statement of the pathological conditions upon which they depend. The views of pathology thus introduced are clear and common-sense. The photographic plates by which the book is abundantly illustrated are extremely well executed reproductions of drawings from nature; they lack only colour to be perfect. But, as explained by the authors in their preface, the delicate colours of nature too often evade the draughtsman; and, if caught by him, they may lose the perfection of their tint before their final reproduction on the chromo-lithographic plate. In conclusion, we may say decidedly that it is the best book at present in existence on the subject, though naturally it requires to be supplemented by clinical and pathological treatises.

REPORTS AND ANALYSES
AND
DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

TRACHEOTOMY-RESPIRATOR.

THIS respirator (designed by Dr. W. C. Arnison, Senior Surgeon to the Newcastle-on-Tyne Infirmary) is calculated to obviate the risk of pneumonia, one of the most fertile causes of death after tracheotomy, caused, probably, by breathing air which has not been warmed and moistened by traversing the natural air-passages on its way to the lungs. It is on the principle of the ordinary respirator, and is composed of six plates of fine wire gauze enclosed in a cylindrical box. The box slides into a rim which projects from the front of the neck-plate; and it is so made as to be easily removed, not only by the surgeon or nurse, but also by the patient himself, if he should find any impediment to breathing through fouling of the plates. The lid of the box (a mere circular rim) takes off, and the plates can be taken out and cleaned, being quite free, and not attached to each other. It has been tried on a patient of Dr. Drummond, in the Newcastle-on-Tyne Infirmary; and it was not found necessary to clean the plates oftener than once in two or three days. A disc of carbolised gauze under the plates catches any discharge coughed up, and so prevents fouling.

It is evident that the respirator cannot be used where there is persistent cough and expectoration, and that it is only adapted to a case of tracheotomy, where the cough, which always occurs on the opening of the trachea, has become comparatively quiet. The respirator is made by Messrs. Weiss and Sons.

DILATOR OF THE URETHRA.



THE accompanying figure represents Mr. Reginald Harrison's modification of Holt's dilator for stretching the urethra in cases of stricture.

Mr. Harrison has added a pilot bougie, which he finds of great value in cases of tight or tortuous stricture. He has increased the number of dilating rods to eight, in order that the process of stretching may be gradual; and, to avoid jerking when the several rods are introduced, the separation of the two portions of the instrument is controlled by a spiral spring instead of a screw. The dilator, before a rod is introduced, is No. 3 English gauge; the largest dilating rod brings it up to rather over No. 12.

A description of the manner of using the instrument was given by Mr. Harrison in the BRITISH MEDICAL JOURNAL for December 10th. The object which Mr. Harrison has in view in the use of this instrument is to gradually stretch the strictured portion of the urethra, not to rupture it. He compares the process to that to which new gloves are submitted; the stretcher is introduced into each finger of the glove, and, if the process be properly carried out, there is no tearing or splitting.

In the figure, 1 represents the dilating rod; 2, a fine stylet for the catheter; 3, the dilator with a movable pilot bougie and spiral controlling spring.

The instrument was shown by Messrs. Krohne and Sesemann at the International Medical and Sanitary Exhibition.

AMERICAN SOLUBLE PILLS AND GRANULES.

W. H. SCHIEFFELIN & Co., of New York, are the most recent among those American firms who have lately shown their enterprise by extending their agencies to this country. We have before noted the energy and skill displayed by more than one American drug house in the direction of ameliorating the forms in which drugs are administered. We have more than once of late years called attention to the tardy recognition by English prescribers of the advances made in practical pharmacy by our continental and transatlantic brethren. For a long time it seemed as though English physicians and practitioners were of opinion that there was only one form in which medicines could be legitimately administered, and that was in six or eight ounce mixtures, which were alike costly, bulky, and nauseous; or sticky pills lying in a loose powder. This form of prescribing, although it has the advantage

of being extemporaneous, has so many disadvantages that it should obviously only be resorted to when no other means are at hand for lessening the disagreeable incident attaching to the habitual consumption of a wine-glass full of nauseous fluid several times a day. To this want of consideration of the tastes of mankind, and to the adherence to old-fashioned forms of nauseous and bulky mixtures, on the part of practitioners generally, may be ascribed no small part of the popularity of what is often quite erroneously called "homœopathic" practice, since it is often only "globulism". One step in advance was made when, by the introduction of alkaloids and active principles, it was found possible to prescribe, in tasteless granules, many medicines which had been previously prescribed in bulky and nauseous resins, powder, or infusion. A further advance was achieved by the introduction of methods of compressing certain powders, such as quinine, chlorate of potash, etc., into firm pellets, which are at once portable and easily swallowed, as those of Messrs. Wyeth & Co.; and, again, a considerable progress was achieved by the introduction of improved processes of pill-coating. Of these improvements, many of our English houses have not been slow to take advantage. But, it must be confessed, that some of the leading American firms have attained a conspicuous degree of excellence in their methods of pill-coating; and in the enterprise, skill, and conscientiousness with which they have applied this improved method in pharmacy to the production of a great variety of formulæ of pills, and to the excellence and care with which they are compounded. We have spoken of several of these more than once, specially of the pills of Warner and Co., the admirable ovoid pills and granules of McKesson and Robbins introduced here by Messrs. Burroughs and Welcome. Messrs. Schieffelin and Co., whose products are now before us, with reports of their action from medical men, to whom they have been entrusted by us for trial, take in America an honorable place among pharmaceutists; and in England they have secured what will be generally recognised as an endorsement of the high class for the truthfulness and merit of their products. Messrs. Allen and Hanburys, Plough Court, have a long-established reputation for conscientious care and skill in the conduct of their business, and in the scrutiny and preparation of their medicines. They have accepted the agency of Messrs. Schieffelin and Co.'s pills and granules, and guarantee the truthfulness of what is claimed for them: that the materials used are of the finest quality; that the various pills contain precisely the articles designated in the formulæ; that they are correct in the quantity of materials stated, and prepared with scrupulous exactness as to weight, and accuracy as to subdivision. It is obviously of importance to have such a guarantee, inasmuch as pills thus coated, although they may be from time to time examined critically, must, in the main, be taken on the good faith, and with the guarantee of manufacture, as to their accurate dispensing and faithful composition. The guarantee of Messrs. Allen and Hanburys is important, therefore, in this connection. These pills of Messrs. Schieffelin are coated while soft; they are not injured by heat in manufacture—neither are the vegetable and organic matters charred, nor are the volatile principles lost. The coating, which is single, inert, and soluble, is also tasteless, transparent, and colourless. The coating being transparent, each pill has its distinctive colour—thus affording a safeguard against the mistakes which may occur where the pills have an uniform opaque white coating. The thinness of this coating, the soluble condition of the contained mass, will be readily observed on trial; and the result of reports made to us, after practical use of a variety of formulæ, is: that the coating is most readily soluble; and that the pills have been found, in all instances, to have a rapid and effective action, according to their composition. The number of formulæ supplied is very considerable, amounting to some hundreds; and we cannot doubt that Schieffelin pills, aided by the satisfactory circumstances under which they are introduced, will become very popular, and have an extensive sphere of usefulness. It is much to be desired that our leading pharmaceutists would study with some care rapid methods of coating extemporaneous formulæ in a similar manner to that employed by McKesson and Robbins, Schieffelin and other large firms; for, with the increasing resources of modern pharmaceutical skill, there seems no reason why nauseous pills and bulky, costly, and disagreeable mixtures, should be so largely inflicted upon patients as they still are. The subject of improved methods of prescribing is one which is certainly not undeserving a good deal of attention from physicians and medical practitioners, and one which we should be glad to see treated in a practical sense by lecturers on materia medica and clinical physicians, who would take the trouble to investigate, a little more fully and generally than at present, the existing resources of improved pharmacy.

LAST year 26,588 inquests were held, at an expense of £80,842 13s. 5d., being an average of £3 5s. 3d. each.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1881.

SUBSCRIPTIONS to the Association for 1881 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to the General Secretary, 161A, Strand, London. Post Office Orders should be made payable at the West Central District Office, High Holborn.

The British Medical Journal.

SATURDAY, DECEMBER 31ST, 1881.

FERMENTATION AND DISEASE.

THE relation between the action of micro-organisms on suitable fermentescible materials, and their effects when introduced into the living body, is one of the most important aspects of the great question of the bacteric origin of disease; but, owing to the great difficulty of the problem, comparatively little has been made out regarding it. Dr. Cameron has given an excellent *résumé* of the principal facts at present known, in an address which he delivered before the Glasgow Philosophical Society on December 14th.

Dr. Cameron deals chiefly with two of the analogies between the action of these ferments in fluids and tissues and in the living body. The first of these is, that a similar association may be observed between the presence of micro-organisms and the occurrence of fermentation as is now known regarding their relations to various diseases. That micro-organisms are the causes of fermentation, with the exception of some cases which are really instances of double decomposition or merely chemical phenomena, has now been thoroughly established. The instance of the yeast-plant converting sugar into alcohol and carbonic acid is especially brought forward by Dr. Cameron, and is the best known case, though not by any means the only one of which complete proof has been furnished. Anything which interferes with the growth of the yeast-plant interferes with the occurrence of the alcoholic fermentation. Heat destroys the torula; heat arrests the fermentation. Pound the cells in a mortar so as to destroy them, and the formation of alcohol will not follow the introduction of the bruised yeast. Retard the growth of the plant by cold, and the alcoholic fermentation is retarded; aid its development by heat, and the chemical changes go on with correspondingly increased rapidity. The living cell is constantly present, and a vigorous and healthy condition of the plant is necessary for the proper occurrence of the fermentation. The lactic fermentation has like relations to a small oval bacterium, which has hence been called by Mr. Lister the *bacterium lactis*. The butyric fermentation, the decomposition of urea, the viscous change in fluids, and other fermentative processes, have been also traced to the agency of living cells belonging to the lowest forms of plant-life.

The demonstration that a fatal infective disease can be induced by the inoculation of micro-organisms on the healthy living body, has in like manner been clearly demonstrated in several instances, the chief of which is splenic fever. It has now been amply proved that the *Bacillus anthracis* found in the blood of the animals which have died of that disease is the active agent or cause of all the phenomena, and not merely accidentally present. Inoculate a healthy animal with a minute quantity of blood from another individual which has died of splenic fever, and the individual inoculated dies in a short time, its blood being full of the characteristic rods. Introduce the blood, with proper precautions against accidental contamination, into a suitable cultivating fluid, and this organism alone develops. Cultivate it outside the body for a series of generations, till no constituent of the original blood can possibly be present, and then inoculate the animal with this fluid, and again splenic fever is obtained in all its virulence, and with the presence of the same micro-organisms. Filter the blood or the cultivating fluid through plaster, and the [illegible]

be found to be innocuous; boil it long enough, and the same thing results. As in the alcoholic fermentation, so here, the presence and vitality of the plant are necessary for the development of the characteristic phenomena.

The analogy between fermentative processes and infective diseases is, perhaps, even more strikingly shown in the case of chicken-cholera, which has been thoroughly investigated by M. Pasteur. The organism which produces this disease is an oval bacterium, which, when unstained, is said by Pasteur to resemble a figure of 8. These bacteria have been cultivated outside the body, and the same facts have been made out with regard to them as we have just mentioned in the case of splenic fever. But it has been further shown that, while inside the body it flourishes, and in some way or other, as yet unknown, causes the death of the animal, it also, when grown in chicken-broth, causes fermentation and produces an alkaloid, in this resembling the other organisms which we have previously mentioned. Here, then, we have the two facts; viz., an organism growing outside the body causes a particular fermentative change in the medium in which it grows; the same organism, growing inside the living body, gives rise to certain changes which result in the death of the animal. In what way the fatal result is brought about—whether by the production of the same alkaloid as is formed outside, and which is poisonous to the animal, or by the removal of oxygen or of some necessary nutritious substance from the blood, or mechanically—is as yet quite undetermined. In the case of yeast, also, somewhat analogous facts have been made out. When the torula is grown in the blood outside the body, it deprives the red blood-corpuscles of their oxygen, and decomposes the sugar of the blood into alcohol and carbonic acid. If a sufficient quantity (more than two grammes) be introduced into the circulation, the result is always fatal; the chief *post mortem* appearances being inflammation and ulceration of Peyer's patches.

The second point by which Dr. Cameron illustrates this analogy is the life-history of these organisms, especially their relation to oxygen. Here, however, he is entering on very debatable ground, the majority of the statements on this point being based on little more than theoretical considerations. The only instances which have a moderate basis in facts are the behaviour of the *Torula cerevisiæ* on the one hand, and of the organism causing chicken-cholera, and possibly also of the *Bacillus anthracis* on the other. The yeast-plant, when freely exposed to air, grows luxuriantly, but causes very little fermentative change in the wort. Diminish its supply of oxygen, and its fermentative power increases; and hence we have the view that it causes the alcoholic fermentation by abstracting oxygen from the chemical combinations in which it grows, provided that it cannot get sufficient free oxygen from the air. This view is apparently supported by the fact that other plants will cause alcoholic fermentation when similarly deprived of oxygen: and also that in ripening fruit, kept in an atmosphere of carbonic acid, the cells which are still active and require oxygen, produce alcohol apparently by the decomposition of the sugar which they have already produced. The experiments of Pasteur on chicken-cholera are well known. In the hope of diminishing the infective power of this organism, he grew it in oxygen for a long time, and then found, not only that it produced a modified disease, but that this attack in most cases protected the animal from the effects of the organism in its most virulent state. He therefore concluded, from analogy with the yeast-plant, that the result was due to the fact that the organism had been supplied with a large quantity of oxygen. The further extension of this principle to the *Bacillus anthracis* has led to the extensive adoption of protecting inoculation of animals. Before, however, we can accept this oxygen-theory, we must have many more facts, and the experiments must be repeated and extended by other observers.

In Dr. Cameron's attempted comparison between putrefaction and septicæmia, we fail to see the analogy. Though putrefaction be the complex process described by Dr. Cameron—and it is doubtful whether this be the correct description of that process—the forms of septicæmia produced by it are simple processes, each caused by its own organism. These organisms are, further, not essentially present in the putrefying materials; indeed, it is but rarely that they can be obtained from blood or other putrefying substances. The alleged increasing virulence of septicæmic blood, on which Dr. Cameron lays considerable stress, is not merely doubtful, but may now be looked on as entirely erroneous. We cannot enter into these and other interesting points raised by this paper; and it is the less necessary for us to do so at the present time, as we hope shortly to be able to publish a series of articles dealing with the most recent investigations on the subject of infective diseases. Sufficient has been said to show that a strong and undoubted analogy exists between fermentative changes and infective diseases.

THE SPECIAL INSTRUCTION TO YOUNG NAVAL MEDICAL OFFICERS AT HASLAR HOSPITAL.

We have been favoured with a communication descriptive of the system of special instruction given to young naval medical officers at Haslar. We have already given expression to our opinion, and, we believe, that also of competent teachers in the metropolitan schools, that to remove the candidates for commissions in the Medical Department of the Navy from the Netley School was a grave mistake. Ostensibly, the official reason for this measure was that it was better, in the interest of the service, that they should be instructed in a naval, instead of a military, hospital. Naval executive officers, not being Admiralty officials, never concealed the real reason, which was, that young naval medical officers, coming at Netley into close communion with their military brethren, were apt to draw comparisons between their condition afloat with that of the more happy circumstances of service in the army. About this there can be no dispute; by the measure under notice, the young naval doctor lost all the advantages of a real and regularly constituted school, supplied with all the necessary "teaching plant"; with a staff of professors with twenty years' experience in teaching, among them Inspector-General Macdonald, F.R.S., as we remarked on a previous occasion, the most scientific medical officer the naval service has had at its disposal in our time. At Netley, the naval medical officer was taught the science of hygiene, after the manner of Parkes, by his able successor, and its practical application to naval purposes, by Dr. Macdonald; military surgery, which is naval surgery also, by a teacher of European reputation in this essential branch of knowledge for military and naval surgeons; hospital administration, as essential for naval as for military medical officers; pathology, by a professor who is *facile princeps* in his own subject, and an authority of high repute at home and abroad; and tropical medicine by one whose business in India and at home has been to teach the diseases of hot climates after long practical acquaintance with them. We have said enough to show what young naval medical officers have lost, even without pointing to the admirable manner in which the Netley *élèves* have done their duty in all our late "little wars". Whatever may be said about the conduct of military operations in the Transvaal, the medical profession may reflect with pride on the fact that the Medical Department of the Army set a noble example as soldiers, and did their duty as surgeons on every field.

If we dwell on all this, it is not for the purpose of drawing invidious distinctions between the teachers at Netley and those at Haslar, who, we doubt not, have done their duty to the utmost of their means and ability; but to show, once more, how little wisdom is to be found in official arrangements which, professing to be carried out for one purpose, have another and, as in this instance, a very inferior end in view.

THE MILK-EPIDEMIC AT ABERDEEN.

It will be within the recollection of our readers that, in the early spring of this year, a very remarkable epidemic occurred in Aberdeen, affecting 322 persons within little more than nine days, and presenting special points of interest, which have hardly attracted the interest they deserve. The sufferers were usually attacked by symptoms resembling an ordinary feverish cold; but the temperature ran up to 100.5°,

delirium early set in, and a peculiar sensation of fulness was felt in the throat, with pain and stiffness at the angle of the jaw, the glands there and in the neck undergoing marked enlargement, and suppurating in one or two instances. Great prostration was invariably noted, causing three deaths, and a condition of impaired health from which several of the victims have hardly even now fully recovered. Little difficulty was experienced in connecting this strange outbreak of illness with the milk supplied from the Old Mill reformatory near Aberdeen, which was proved by Professor Cossar Ewart to contain, during its period of infective activity, poisonous organisms similar to those also abundantly detected in a neighbouring tank. To quote the conclusions arrived at by Mr. Rutherford and Dr. Littlejohn, the special commissioners appointed by the Board of Supervision to investigate the matter: "1. The epidemic was caused by poisonous organic matter contained in the milk supplied to customers from the dairy at Old Mill. 2. The milk, when taken from the cow, was innocuous, and it subsequently acquired its hurtful properties. 3. Poisonous organisms were contained in the cistern in the byre at Old Mill, and in the water passing through that cistern, and were thence communicated to the milk, but by what means there is no evidence to show."

It will be observed that this report leaves off at the very point where information is most urgently required; and, whilst amply proving that the epidemic was caused by adulterated milk, and that the adulterating agent reposed in a neighbouring tank, entirely failed to show how the innocent and the guilty fluids were brought together. Those members of the community of Aberdeen who had suffered in pocket and in health from the carelessness of some person or persons unknown, were not disposed to remain content with the distinction of having given the profession the opportunity of studying a new disease, but were naturally desirous that some effectual guarantee should be given against the recurrence of such disasters.

It is not many years since a serious outbreak of typhoid fever was traced to the milk-supply of Old Mill reformatory; and the dairy-operations of that somewhat unfortunate establishment have now been resumed on the original scale. Two hundred and twenty of those who have themselves passed through the epidemic have, therefore, sent a very temperate but forcibly worded memorial to the Home Secretary, praying for further inquiry on the following grounds. That no cross-examination of witnesses was made, but that the dairy-servants were allowed to give their evidence in the presence of Mr. Bain, the farm overseer; and that no one was directly asked whether he or she had added water to the milk. It is also pointed out that, just before the outbreak, the milk was observed to be thin and poor in quality, no sufficient explanation being given, and that the amount consumed by customers and inmates was daily in excess of the actual yield by ninety-six imperial pints.

It is quite evident that, unless the deficiency in the chain of evidence concerning the cause of this very serious occurrence be made good, the reformatory milk can hardly hope to retain the confidence of the city of Aberdeen; and it is due to the directors, who include many able and experienced citizens, to leave no stone unturned to aid those who are striving after the attainment of scientific truth. Although the first application to the Home Secretary has failed, it is hoped, and confidently believed, that he may yet be induced to reconsider his decision, and to remove the uneasy impression of failure which remains after the official, and in many respects ably conducted, proceedings, which have already taken place. When we add that the memorial in question has received the special sanction of the British Medical Association, as well as of the other medical societies of Aberdeen, we feel sure that no apology is needed for bringing the subject once more under the notice of our readers.

THE Health Officer at Oldham is inquiring into an epidemic of typhoid fever there, which is attributed either to a faulty water-supply or to impure milk. Most of the cases have been treated in the Corporation Hospital.

THE Merthyr Tydfil guardians have determined, by a majority of eleven, to continue the prosecution of the Dowlais antivaccinators.

M. PASTEUR has been nominated member of the French Academy in place of M. Littré, by twenty votes out of thirty-three.

WE understand that Lord Pembroke has made the liberal donation of £500, spreading over two years, for researches at the Brown Institute on the cause and treatment of distemper.

THE telephone is to be brought into use in the Paris Institut des Sciences, thus establishing an useful method of communication between the various sections of that collective but separated body of scientists.

M. VIAULT, *agrégé* of the Medical Faculties, has been appointed Professor of General Anatomy and of Histology in the Combined Medical and Pharmaceutical Faculty of Bordeaux.

FROM 1810 to 1881, the different Paris Faculties have granted 76.60 per cent. of doctors' degrees in pure science, and 75.50 per cent. of doctors' degrees in medicine.

IN the course of an inquest held last week by Mr. C. C. Lewis, upon a woman who died from syncope, resulting from excessive drinking, the coroner remarked that this was the fifth death from excessive drinking that he had investigated in six days.

M. DEBRAY, Director of the Chemical Laboratory, and President of Conferences *(Maître de Conférences)* at the Superior Normal School, also member of the *Institut*, has been appointed Professor of Chemistry in the Paris Faculty of Sciences.

A NOTABLE decrease is reported in the mortality of the district of the Aberdare local board. During the third quarter of the present year there were 127 deaths registered, being a decrease of 48 as compared with the corresponding quarter of the year 1880, and equal to the low death-rate of 14 per 1,000 *per annum*.

WE regret to hear that Captain Douglas Galton, C.B., met with a severe accident on December 23rd at Victoria Station, when about to start for the South of France. He was walking on the continental platform, when, in the darkess, he fell on to the rails of a siding, breaking his leg and bruising his back.

SURGEON D. L. HUNTINGTON, of the United States Army, has been appointed to the charge of the Army Medical Museum at Washington, and to complete those portions of the surgical history of the war of the Rebellion (1851-65) which were left unfinished by the late Surgeon Otis.

DR. BRIERRE DE BOISMONT, the celebrated "alienist", has just died at his residence in Paris, at the advanced age of eighty-three. He was the author of several works on mental and nervous affections, that on suicidal mania and on hallucinations being the most remarkable, and for many years the best work on those subjects.

SCARLATINA still continues prevalent in the Carlisle urban district, where, of the total patients in the Fever Hospital (twenty-five), no fewer than twenty-two are cases of this disease. At a recent meeting of the urban sanitary authority, the death-rate was reported to be as high as 24.0 per 1,000; while in the corresponding period last year, the rate was only 10.5 per 1,000 *per annum*.

M. LAVALLÉE DE LAMARCK, Professor of Natural History in the Sorbonne, and Member of the Academy of Sciences, has been elected Member of the Council of Superior Education. M. Wurtz, Professor of Chemistry in the Sorbonne, and in the Paris Medical Faculty, Member of the Academy of Sciences, was also a candidate. The nomination of M. Lavallée Delamarck has been sanctioned by the Minister of Public Instruction.

A COMPLETE history of the case of the late President Garfield has been officially prepared for publication by Surgeon J. J. Woodward, United States Army, the compiler of the medical portion of the *Medical and Surgical History of the War of the Rebellion in the United States*, and keeper of the records in the Surgeon-General's Office at Washington.

GENERAL HOSPITAL, BIRMINGHAM.

AT the meeting of governors, held on Wednesday, the 28th inst., to elect a surgeon to the General Hospital, in place of Mr. Alfred Baker, who has resigned, the choice fell upon Mr. Thomas F. Chavasse. Mr. Chavasse is well known to our readers as the author of several valuable papers on surgical subjects; and we have no doubt that his appointment will serve to maintain and extend the high reputation of the Birmingham General Hospital.

COTTAGE HOSPITALS AND PROVIDENT DISPENSARIES.

THE improvement of our present system of hospital management, it will be remembered, was the subject of discussion in the Metropolitan Counties Branch some months ago. Two kindred subjects have lately been brought under notice at meetings of Districts of the Branch. At a recent meeting of the South London District, Dr. Habershon, Vice-President, read a valuable paper on Cottage Hospitals, which was published in last week's number of the JOURNAL; and, at a meeting of the East London and South Essex District, on December 15th (Dr. Bridgwater, President-elect, in the Chair), Mr. Timothy Holmes read a paper on Provident Dispensaries, which led to an animated discussion. A report of the proceedings of the latter meeting will appear in an early number of the JOURNAL.

THE STUDY OF AURAL SURGERY.

AT the annual meeting of the British Medical Association held at Ryde in August last, the following resolution was unanimously passed by the Otological Subsection:

"That a committee be appointed to consider, and report on, at the next annual meeting of the Association, the best means of promoting the study of aural surgery, especially in regard to compulsory examination in this subject by the various examining bodies.

"That the committee consist of the chairman and honorary secretaries of this subsection; and, with their consent, of all the teachers of otology in the United Kingdom, with power to add to their number."

It was further resolved, at a meeting of the Committee of Council of the British Medical Association on October 12th, 1881,

"That the application of the Subsection of Otology be adopted, and the committee, as asked for, be appointed to report to the Committee of Council."

It is proposed that the first meeting shall be held at 3, George Street, Hanover Square, London, on Wednesday, January 11th, at 4 P.M.; and it will be of service if any members of the committee who are unable to attend the meeting, will send a short written account of their views on the subject. As, in accordance with the resolution of the Subsection, others besides otological teachers are eligible, the secretary will be pleased to receive the names of any medical practitioners interested in aural surgery whom it may be desired to propose for election to the committee. Such gentlemen are invited to take part in the meeting on January 11th. Communications on the subject should be sent to the honorary secretary of the Subsection, E. Cresswell Baber, Esq., 4, Preston Street, Brighton.

THE PULPIT AND EXPERIMENTAL SCIENCE.

WE are informed that the Rev. Richard Hill, M.A., will deliver a sermon in favour of legitimate vivisection, on Sunday evening, January 8th, 1882, at St. Barnabas Church, Guilford Road, Stockwell. The subject will be: "Scientific Experiments on Organic Life—a Necessity, no Sin!" Service will begin at seven o'clock. Seats will be set apart for the medical faculty and those interested in the question. There will be full choral service, and an anthem suitable for the occasion.

THE CHRISTMAS APPEAL OF THE ROYAL MEDICAL BENEVOLENT COLLEGE.

THE Council of the Royal Medical Benevolent College are making a special appeal to the medical profession throughout England and Wales for aid in meeting expenses which have recently been incurred for, it is hoped, the permanent benefit of the institution. The Council would also be glad to be able to report such an increase in the regular annual subscriptions to the College, as would permit the continuance on the present scale, and even the enlargement, of its beneficent operations. It has been found, as might be expected, that the drainage and sanitary arrangements of the College, which were planned and executed more than twenty-five years ago, though fairly good, were susceptible of improvement, according to more recent sanitary science. The expenditure on the necessary works for this purpose has amounted to £1,565. The water-supply has also been increased and improved, both in relation to consumption and to the safety of the College in case of fire. Here, again, considerable though wise expenditure has been incurred. The balance-sheet before us shows an annual deficit of nearly £700, without any extraordinary expenses; and this deficit has hitherto been met by the expenditure of such legacies as were not bequeathed for defined purposes, and by selling out £200 stock. It is, therefore, stated that, unless increased subscriptions can be obtained, the number of pensioners or foundation scholars must be reduced—a contingency much to be deprecated. We therefore hope that the profession will prevent this restriction of the benefits of the Royal Medical Benevolent College by donations in liquidation of the debt incurred for the sanitary improvements already noted, and by subscriptions helping to support an institution in which the medical profession is deeply interested.

"THE MICROCOCCUS OF TUBERCLE."

DR. CREIGHTON, under this heading, has addressed the following letter to *Nature*, in reply to an article on "Disease-Germs", by Dr. W. B. Carpenter, which appeared in the current number of the *Nineteenth Century*. He says: "Another line of inquiry which has obviously the most important bearing upon human welfare is the propagability of the micrococcus of tubercle by the milk of cows affected with tuberlosis, a question in regard to which some very striking facts have been brought before the Medical Congress by a promising young pathologist"—naming myself; and I hope that I am sufficiently grateful to a veteran in science for his complimentary if not altogether accurate reference to my work. What I did say at the recent Medical Congress, and at much greater length in a small volume, entitled *Bovine Tuberculosis in Man* (London, 1881)—Dr. Carpenter will find it, I think, among his books—was not anything about "the micrococcus of tubercle", but about a variety of somewhat technical morphological details in respect to which certain cases of tuberculosis in man resembled the tuberculosis or "pearl disease" of the bovine species. I did, indeed, introduce half a page at the end of my essay to show how clear was the issue between my view of tuberculosis communicated from the cow and the view which Dr. Carpenter has been expounding, and I hope you will have room for the passage, 'The doctrine of a tuberculous virus was stated by Klebs in 1868, and has been advocated by him, as well as by Cohnheim in recent writings. In its latest form this doctrine asserts the existence of a specific minute organism to whose agency the infection is due. The minute organism is called by Klebs *Monas tuberculosum*. The method of proof which I have followed in this work makes it impossible that the infective agency of a minute organism should in any way come into my view of the communication of bovine tuberculosis to man. I have rested the whole case upon certain minute identities of form and structure in the infected body, due to the mimicry of infection. Among other points, there were the leaf-like and cord-like outgrowths of the pleura and peritoneum, these being the early stages of the lentil-like or pearl-like nodules and their connecting threads; the lymphatic glands, with distinct nodular formations in their substance; the lungs, with smooth-walled closed vomicæ, or with encapsuled nodules. In the new formations generally

there was a particular pattern of microscopic structure, in which giant-cells and epithelial-like cells figure largely; and there was a relatively high degree of vascularity. In all these points, the disease in man is a mimicry of the parent disease in the bovine animal. That mimicry is not only in single features, but it is of the whole disease. It is possible to conceive of the juices and particles of the primarily diseased body acquiring a kind of spermatic virtue which gave them the power to communicate the specific disease as a whole and in all its several manifestations to another body in which they should happen to lodge. But it is hardly possible to think of a neutral living organism being charged with the power of conveying so complex details of form and structure from one body to another.' (*Bovine Tuberculosis in Man*, pp. 103, 104.)"

THE INSANE IN WORKHOUSES.

THE number of lunatics, idiots, and persons of unsound mind, detained in workhouses in England and Wales, on the 1st of January 1881, was 16,811—an increase of 347 on the number so detained on the corresponding day of the previous year. Of this number, however, 4718 were inmates of the Metropolitan District Asylums at Leavesden, Caterham, and Darenth, which are in the legal position of workhouses within the meaning of the Lunacy Acts; so that 12,093 lunatics or weak-minded persons were detained in workhouses proper. It was said authoritatively, on a recent occasion, that the inspection of the insane in workhouses by the Commissioners in Lunacy was a mere farce; but the statement does not seem to have been well founded, as it appears that, during 1880, the Commissioners visited two hundred and sixteen workhouses, and actually saw 12,705 of their lunatic inmates. All workhouses having separate lunatic wards were subjected to inspection, as well as a large number of workhouses in which no separate accommodation for lunatics exists; and indeed only a few of the smaller houses, where one or two imbeciles are scattered among the ordinary pauper inmates, were left unvisited. The duty of inspecting workhouses obviously entails a large amount of labour on the Commissioners; but it is one which cannot be remitted: for the Inspectors of the Local Government Board do not possess that special knowledge which would enable them to decide whether the lunatic inmates of workhouses are properly detained there, and whether their comforts and safety are suitably attended to. It is no uncommon occurrence for the Commissioners to find acute and curable cases of insanity kept in workhouses, greatly to the detriment of their prospects of recovery. They have constantly to interfere for the removal of such cases, to asylums where they may have the benefit of suitable medical and moral treatment; and they have also, from time to time, to insist on the transference, from workhouses to asylums, of patients whose delusions or propensities are likely to put their own lives or those of others in jeopardy. Then some workhouses are, to all intents and purposes, asylums; and need skilled supervision quite as much as recognised asylums do. The Manchester New Workhouses contained, at the beginning of this year, 401 lunatic inmates; the Birmingham Workhouse contained 339; the Chorlton Workhouse 239; and the Bolton Workhouse 175. Establishments, with such large lunatic populations, even although these populations are composed almost entirely of harmless and chronic cases, still require many special adaptations, and a system of management more akin to that of a lunatic hospital than to that of an union or parish workhouse; and thus it is eminently desirable that they should have the benefit of the same skilled supervision with recognised lunatic hospitals. Legal questions connected with the liberty of the subject are not likely to arise in workhouses; and it might very properly be arranged, therefore, that their ordinary visitation should be undertaken by the medical commissioners, a barrister commissioner being only required to visit them under special circumstances, or at the request of his medical colleagues. A medical commissioner, acting singly, is quite equal to do all that is requisite in the routine visitation of workhouses. What is wanted is the immediate addition of two medical commissioners to the Board at Whitehall Place, and a rearrangement of the work of the office so that expert query labour may be avoided, and the strictly medical work, amongst which we should class the inspection of workhouses, may be undertaken only by those who, by training and experience, render them fully equal to it. It is highly objectionable that, as now sometimes happens, a barrister with no knowledge of sanitary science or mental disease beyond what is possessed by every educated man, should be sent alone to judge of the ventilation, drainage, water-supply, dietary, and nursing, of what is practically an hospital, and of the conditions and treatment of some hundreds of sick persons. The Metropolitan District Asylums are visited by two commissioners, a medical man and a barrister; and the verdict passed on these institutions, in the long and careful reports presented on their condition and management, is favourable upon the whole. Defects are pointed out and improvements suggested, but the general state of the establishments is spoken of with commendation. There is one subject which, somewhat to our surprise, the commissioners pass over in silence, and that is, the obvious insufficiency of the medical staffs of all the asylums. At Caterham, where there are 2,039 patients, there are three medical officers; at Leavesden, where there are 1,990 patients, there are three medical officers; at Darenth, where there are 687 patients, there are two medical officers. Now, not much acquaintance with lunatic asylum administration is required to perceive that a medical superintendent and two assistants are quite unequal to cope in a satisfactory manner with the strictly professional duties that must devolve on them in an hospital of two thousand beds, all occupied by sick and infirm patients requiring constant attention, to say nothing of their multifarious labours in connection with the discipline of the staff, the keeping of records, and the general regulation of household arrangements, correspondence with and attendance on friends of patients, committees, and Government officials. A coroner's jury at Birmingham has lately expressed a strong opinion that the medical service was inadequate in an asylum in which the medical staff was stronger in proportion to the number of inmates than in any of the Metropolitan District Asylums; and no time should, we think, be lost in increasing the number of resident assistants in these establishments. Another point in their arrangements requiring prompt attention, has reference to the precautions taken against fire. A very little negligence in this direction might readily, in such buildings, inhabited by crowds of feeble and helpless beings, lead to a catastrophe as appalling as that at the Ring Theatre at Vienna; and it is not surprising, therefore, to find the commissioners expressing their regret that there is no fire-drill at Caterham, and that the female attendants do not know how to attach the hose to the hydrants which have been provided on each floor and in each block, and that they have no keys to turn on the water. They justly express their conviction that it is absolutely essential for the protection of such a building that there should be a fire-alarm signal, a fire-brigade formed by the attendants, and that drills should take place frequently, but at uncertain intervals, the brigade being occasionally called out unexpectedly by signal. The nurses, also, should be taught how to attach the hose to the hydrant, and one length to another, and how to turn on the water.

AN ANTIDOTE TO COBRA POISON.

DR. VINCENT RICHARDS, who is experimenting on the efficacy of permanganate of potash as an antidote to cobra-poisoning, reports in the *Indian Medical Gazette* that he has obtained some very remarkable results. When permanganate was mixed with cobra poison and hypodermically injected, no fatal result followed, although a fatal dose of cobra poison was used, and the mixture injected into the vein. He adds, however, that, before any definite opinion can be formed, many experiments will have to be performed, not only with cobra, but also with viper poison, the latter of which is a septic poison.

DEATH AFTER THE USE OF AN ANÆSTHETIC.

DR. DANFORD THOMAS this week held an inquest on the body of Henry Peny, aged 19. The deceased, who suffered from an ingrowing nail of the left great toe, went to the Great Northern Hospital with a view to being cured. As it was necessary to remove the nail,

an ounce of chloroform and ether combined was administered to him prior to the operation. He was under the influence of the anæsthetic about ten minutes, during which time the nail was removed. After the operation, he died. Dr. A. W. Wharry stated that only two patients in the hospital in the course of twenty-five years had died under the influence of anæsthetics; and the coroner remarked that generally only one in every six thousand thus treated died. The jury returned a verdict of "Death from misadventure".

POISONING BY CARBOLIC ACID.

A SPINNER named Cotton, aged 16, met with his death on Saturday last from the effect of a dessert-spoonful of carbolic acid, given him as a medicine by his brother in mistake. The bottle in which the carbolic acid was contained was stated at the inquest not to have been labelled "poison". The jury returned a verdict of "Death by misadventure".

SCARLET FEVER AND MEASLES AT LEEDS.

AN epidemic of scarlet fever and measles is reported at Leeds. In his report for October, the health-officer states that these diseases have broken out in the town, and are spreading with alarming rapidity; and that the whole of his time and skill have been occupied in visiting those sick of scarlet fever and measles. Amongst the precautions adopted for the prevention of the spread of these diseases is one worthy of special mention. The health-officer has ordered the posting of three thousand large bills containing instructions to householders how to act in the event of zymotic disease appearing in their houses. Excellent as this plan may be, Dr. Goldie regards it as beginning at the wrong end; and he thinks that local authorities will never be able to stop the wide spread of infectious and contagious diseases until they are in possession of some system requiring the compulsory notification of such diseases to the health-officer. All practicable precautions appear to be taken by the sanitary authority; and Dr. Goldie states that, during the month of October, no fewer than 1,735 articles of clothing, bedding, etc., were disinfected free of cost.

AN UNUSUAL CAUSE OF INTESTINAL OBSTRUCTION.

AT the last monthly meeting of the Northumberland and Durham Medical Society, an interesting case of obstruction of the bowels was recorded by Dr. Drummond as having occurred in his hospital practice. The patient, a male, aged 54, was admitted into the Newcastle-on-Tyne Infirmary for constipation, vomiting, and suppression of urine. The first symptoms—constipation, with pain in the right hypochondrium, especially after eating—had been noticed eight weeks before; and, for nearly three weeks, there had been occasional vomiting and complete obstruction. The usual therapeutical manœuvres failing to give relief, and the patient's condition becoming urgent, it was deemed expedient to explore the abdominal cavity; and this Dr. Arnison, the senior surgeon to the hospital, proceeded to do by abdominal section. An incision was made to expose a mass which could be felt through the abdominal walls, occupying the position of the ascending colon. The peritoneum covering the mass was livid, and, from its appearance and relations, was taken for intestine and opened. There was found a tubular cavity containing dark loose blood-clot, of offensive odour; and, contained also within this cavity, at about the position of the hepatic flexure of the colon, was a calculus, of the size and shape of a large nutmeg. The condition of the patient, who was observed to be sinking, and who shortly afterwards died, prevented further exploration. At the *post mortem* examination, Dr. Drummond discovered an aneurysm of the hepatic artery which had ruptured its walls, and the contents of which, on becoming diffused, had passed down behind the mesentery, and, pressing upon the ileum a few inches above the cæcum, had thus brought about complete occlusion of the gut. The calculus, a biliary one, was evidently derived either directly from the gall-bladder, or from one of the hepatic ducts. A circular space, two-and-a-half inches in diameter, was absorbed on the under surface of the liver, corresponding to the position of the gall-bladder, which at the *post mortem* examination could not be found. The case, we believe, is almost unique in the annals of abdominal surgery, and we trust Dr. Drummond will favour the profession with the full details.

QUARANTINE REGULATIONS.

THE Egyptian Marine Sanitary Council of Quarantines has annulled the regulation of the 23rd of July, and issued a new one, which decrees that every vessel coming from the port of Hedjaz, or from any other Arabian port on the Red Sea coast, carrying pilgrims or a similar freight, bound for Suez or a port on the Mediterranean Sea, is forced to undergo quarantine at El-Wish. All goods on board vessels are to be detained at Tor to be disinfected. This rule is to hold good, whether or not pilgrims are the passengers. After undergoing fifteen days' quarantine, the pilgrims travel to Tor, where they undergo ten days quarantine. At Suez, they are examined by a medical man. Pilgrims, if not Egyptians, on leaving El-Wish and Tor, cannot land at an Egyptian port. Captains of vessels are warned that it is forbidden to land foreign pilgrims at Suez, Port Said, or Alexandria. Egyptian pilgrims undergo fifteen days' quarantine at El-Wish; then they are conveyed to the Source of Moses, where they are in quarantine for ten days. After this they and their clothes are disinfected, and if the opinion of the examining doctor is favourable they are free to return to their Egyptian home.

GORED BY A COW.

M. MIGNEN, of Montaigu, records, in the *Concours* of the 23rd July, a case illustrating frightful injury from the blow of a horn of an infuriated cow. A peasant woman, aged 32, and six months' pregnant, was employed in pasturing a cow which she was feeding, when she received a violent blow from its horn full in the abdomen, and fell fainting, crying that her entrails were coming out. When Dr. Mignen arrived, he found the patient half-seated on a hurdle; she declared herself incapable of making any movement. Her clothing was untorn, and it was necessary to cut it away to examine the parts. It was then found that the anterior wall of the abdomen was entirely torn away, the intestines and the gravid uterus projecting. The great omentum had been torn away with the abdominal wall. The gravid uterus was inclined to the left; the transverse colon had already a violet tint, and the small intestine had lost its polish. By palpation, the fœtal parts could be felt, and the mother could feel her child move. The pulse was 96, the temperature 37.2° Cent. (nearly 99 Fahr.). The patient had lost little blood, but more than once fainted. The indication, however, intervening seemed to be imperious, and Cæsarean operation was performed without exciting, on the part of the patient, any expression of further pain. The placenta presented first, then the fœtus six months old, breathing feebly; two hours afterwards, it died. The uterus retracted energetically, and the hæmorrhage was almost insignificant; but in spite of all efforts to sew up the abdominal cavity, it was impossible to do so for want of tissue. The wall of the abdomen, from the lower border of the thorax to the pelvis, and from the iliac spine to the false ribs, had completely disappeared, except a fringe forming a floating flap about two to two-and-a-half inches long by four wide. Dr. Mignen had to be content with applying a bandage around the body. The pulse rose to 125, and the temperature fell to 36.8° Cent. (97.25 Fahr.). Death took place thirty-six hours after the accident, the patient preserving full consciousness to the end. The author explains the mechanism of the eventration in the following way. The horn of the animal, attacking the thin abdominal wall from without inwards, and finding it tense and inflexible in consequence of the development of the uterus, had pierced it in its whole thickness; then rising and penetrating the flesh in the opposite direction on the other side, it had torn away all the parts behind which it had penetrated, just as a wild boar does when it tears open a dog, chasing it. The late hour (it was in the middle of the night) did not allow the narrator to look for the *débris* of the integuments, which had disappeared. Such an example of complete eventration has, so far as we are aware, never been published.

CREMATION ABROAD.

THE French Society for the Propagation of Cremation has been in existence a year. The subscriptions amount to 7,000 francs (£280). At the present moment, the amount in hand is 2,000 francs (£80). M. Kœchlin-Schwartz, the President of the Society, has petitioned M. Constans, the Minister for Home Affairs, to sanction cremation, and believes the Government will accede; the cost of cremation will be three francs for each operation. The Society is composed of titular members, subscribers, honorary members, and a class of members paying one franc *per annum*.

SCOTLAND.

COMBE LECTURES IN THE NORTH OF SCOTLAND.

THE sixth lecture was delivered by Dr. Stirling on Tuesday evening, in Arbroath. The subject of the lecture was the "Heart", and again the audience filled every part of the hall. The chief features of the lecture were the large number of experiments, the ingeniously constructed models of the valves and their action, and a very large paper model of the heart, whereby its structure was made perfectly plain to every member of the audience. The literary allusions to the intuitional physiological knowledge of Shakspeare—as set forth in *Julius Cæsar*, *Macbeth*, and other plays—formed a rare intellectual, as well as a physiological, discourse. The well known works of Oliver Wendell Holmes were also laid under contribution; and his fine literary fancy, as well as his adaptation of physiological references to everyday life, were aptly illustrated. The lecturer dwelt specially on the influence of the nervous system upon the heart, and he pointed out that it was the business of education to restrain the emotions.

SCIENCE LECTURES IN ABERDEEN.

IN his last Thomson lecture, Professor Macalister spoke about rock-forming animals—such as Foraminiferæ, and the coral-forming group—and gave a short description of the common earth-worm, and its work, as recently investigated by Mr. Darwin. After describing what is meant by a "type", Dr. Macalister gave a *résumé* of the leading characters of the Mollusca.—Dr. Alex. Ogston gave a lecture on Bacteria to the Philosophical Institution, in which he showed the great importance of these lowly organisms in the production of disease, and in the removal and disintegration of noxious materials. The lecture was illustrated by microscopic specimens.—Dr. Stevenson Macadam delivered a lecture upon the "Chemistry of Sanitation", under the auspices of the Philosophical Association.

SMALL-POX AT DUNBAR.

SMALL-POX is happily so rare in Scotland now, that each case almost deserves to be chronicled. At a meeting of the Public Health Committee of Dunbar held on Tuesday, it was reported that a woman who works at a rag-store had become affected with small-pox. As the disease was too far advanced to permit removal of the patient, it was agreed that the other members of the family should be removed to the hospital, under the care of a nurse.

THE DESTITUTE SICK SOCIETY, EDINBURGH.

THE annual meeting of the Edinburgh Destitute Sick Society (one of the most useful and unostentatious of Edinburgh medical charities) was held on December 22nd in the Royal Hotel there. The report submitted showed that 1,449 persons had applied for assistance, as compared with 1,417 during the previous year; and it was stated that the Society had carefully abstained from aiding those who were able to help themselves; and its aim and work had been to aid those who had been industrious, but who, through sickness, had become temporarily unable for work; it was also stated that in very few instances had there been any attempted cases of deception. Dr. Littlejohn, medical officer of health for the city, spoke highly of the Society from his personal experience of its usefulness; and said he knew no society for relieving the industrious poor that deserved more encouragement. The treasurers' report showed that the income for the year had been: subscriptions, £1,768; legacies, £430; dividends, £556; interest, etc., £137; and the expenditure £2,248, which included money given £1,993; meat, £133; coal, £94; and clothing, £26. During the year, sixty-two donations were given to the Society, and amounted to over £220. There can be no doubt that this Society most materially aids the dispensaries, by enabling the patients to procure the diet, etc., prescribed; and it is a pity that each dispensary could not have attached to it a branch of the Destitute Sick Society.

GLASGOW DISTRICT BOARD OF LUNACY.

A COMMITTEE of the Glasgow District Board of Lunacy has been appointed to examine lands at Gartloch, Eastfield, and Mauldslie, in order that a site for a large county asylum may be selected. The cost of the Kirkland's Asylum at Bothwell, which accommodates 95 male, and 85 female, patients, is stated to have been over £30,000. In the meantime, temporary accommodation has been arranged for at Paisley and Greenock, and an effort is being made for the purchase of Govan Parochial Asylum.

IRELAND.

WE announce with deep regret the death from typhus fever, on Wednesday last, of Dr. Reuben Harvey, Physician to the Cork Street Fever Hospital, Dublin, and Lecturer on Physiology at the Carmichael School of Medicine.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

NOTICE has been given that on Thursday, the 26th of January next, at three o'clock P.M., the President, Vice-President, and Council will proceed, according to the provisions of the Supplemental Charter, to elect a Professor of Practical and Descriptive Anatomy, in place of the late Dr. Bevan. The Professor elected will be required to devote his entire time to the duties of the office. We referred in last week's JOURNAL to the proposed new arrangements in connection with the filling up of this chair.

SMALL-POX IN CORK WORKHOUSE.

A CASE of small-pox was last week admitted, and placed in the detached shed on the grounds attached to the workhouse. The patient had recently been sent from the workhouse to act as a temporary nurse in the Intercepting Hospital at Queenstown, and there contracted the disease. Dr. Wall, under whose care she is, has suggested that, for the future, no inmate of the house should be permitted to act as temporary nurse in any case of infectious disease outside. Suitable precautions have been adopted to prevent the disease spreading among the other inmates.

THE COMPULSORY VACCINATION ACT.

AT the Belfast Court last week, a person named Strain was summoned for the sixth time, at the instance of the Belfast Board of Guardians, for having neglected to have his child, born in May 1880, vaccinated, as required by the Act of Parliament. It was argued on his behalf, that the statutory term, inside which prosecutions could be brought, had lapsed, and attention was directed to the Petty Sessions (Ireland) Act, 1851. In regard to this it was, however, shown that the prosecution was brought under the Vaccination Amendment (Ireland) Act, 1879, by which proceedings of neglect to have a child vaccinated might be taken during the continuance of the neglect. The presiding magistrate decided that there had been no direct proof of the continuance of the neglect, but even if there had been proof, he considered that the acts mentioned should be examined conjointly, and as Mr. Strain objected on conscientious grounds to have his child vaccinated, he was entitled to get the benefit of the joint exposition of those Acts. He therefore dismissed the case, and gave 12s. 6d. costs against the guardians. It is to be desired that an appeal in this case should be lodged, so as to decide the matter without any unnecessary delay.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

Consultations with Homœopaths.

An extraordinary meeting of the College was held on Tuesday, December 27th; Sir William Jenner, Bart., K.C.B., President, in the Chair.

The President announced that Dr. George Johnson had consented to deliver the Harveian Oration in the ensuing year.

The Registrar read a report from the Council relative to the question of the College examinations. The suggested modifications of the present rules had mainly reference to the times of the examinations; providing (1) that the examinations shall take place at equal intervals of three month, viz., in January, April, July, and October; and (2) that the third examination for the licence shall not be passed till the expiration of two years after the passing of the first and second examinations, so as to leave two clear years for clinical work undisturbed by examinations. It was further recommended that students should qualify to pass the first examination as soon after registration as possible.

Dr. Wilks brought forward the following resolution:

"That the College considers it desirable to express its opinion that the assumption or acceptance by members of the profession of designations implying the adoption of special modes of treatment, is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public.

"The College therefore expects that all its Fellows, Members, and Licentiates will uphold these principles by discountenancing those who trade upon such designations."

Dr. Wilks said that the immediate reason for the bringing forward of the resolution was evident—viz., the recent well-known consultation between a Fellow of this College and a gentleman believed to be a homœopath. With regard to this matter, the opinions of leading members of the profession had been taken, and the conduct of the Fellow in this case had been completely justified. With this opinion Dr. Wilks cordially concurred. But the whole matter was of great importance. Medical men had raised the question, "Is the College of Physicians going to offer any opinion on the matter for the guidance of the weaker brethren?" The medical papers and the daily press had discussed, and were still discussing, the subject from time to time. Some Fellows had thought of proposing a distinctly disqualifying resolution, forbidding professional intercourse with homœopaths, etc. But this could not be carried out; there were no pains and penalties to support it; and the position of the College would be ridiculous if it passed a resolution which might be immediately broken by some of its distinguished Fellows. Again, looking at home, some of the members and licentiates of the College were homœopaths. There was also a legal difficulty in the way: it was imperative by Act of Parliament to grant licences to anyone, irrespective of his opinions. As the College could not deal with the greater criminal in its ranks, so it must leave the lesser one alone, as far as definite rules are concerned. These clauses in the Act of Parliament were undoubtedly introduced in favour of homœopaths; and, after a time, the practice sprang up of meeting homœopathic practitioners on equal terms. Nearly all the arguments hitherto brought against meeting homœopaths in consultation, Dr. Wilks thought, were bad; it was generally made a question of *doctrine*. He utterly repudiated any medical *doctrine* in a question of therapeutics; none was possible now, nor probably ever would be. But the theory that the whole question was one of difference of doctrine was maintained by the homœopaths, by the daily, and even by the medical press. He would, of course, repudiate the word "allopathy"; anybody might hold any doctrine he liked. The question at issue was far different; it was not one of liberality or illiberality in opinion. The word "liberal" should not be used in relation to a scientific subject. We should endeavour to carry out, in the spirit of Harvey, the "investigation of nature" quite apart from theory or doctrine. There should be no restrictions—all should think and say what they liked. Was it not true that some Fellows of the College had started quite as extraordinary opinions as homœopaths? The real question was one of *morals*. Professions differed from trades. A professional man, whether parson, lawyer, or doctor, was one who had the care or guidance of those who sought his advice in matters of mind, body, or estate. A tradesman simply catered for the public—supplied a demand. Fashions might change; there might be high art or low art; the tradesman simply gave people what they wanted; but the professional man guided them, from superior knowledge; and a good deal of this knowledge must necessarily be kept back, being the product of special study. It was to be noted that, in proportion as the subject of "treatment" was by itself prominently brought before the public, so a nearer advance was made towards quackery. The charlatan had to do with treatment only. He issued his advertisements for pills, and that was all; there was nothing behind the advertisement. Homœopathy was the very quintessence of quackery, bringing, as it did, a system of treatment only before the public. It cared not for, nor wanted, anatomy or physiology. The homœopaths abused everybody else, and brought forward wonderful cases which no one else could cure. This was the general character of homœopathic literature. It was a homœopath who was now most abusing our profession, attacking the study of physiology and traducing vivisection, and putting a musty metaphysical jargon in the place of scientific statements. The greatest authority of the day on charlatanism—Barnum of New York—had said that it did not consist in robbing, or cheating directly, but in blowing one's trumpet loudly, and proclaiming one's superiority to other people. Dr. Wilks had had a patient with heart-disease and dropsy, who was afterwards seen by a homœopath. The patient got better. The prescription was what Dr. Wilks might have written himself; but the homœopath was preferred, "because he had principles, and explained them". Here was the difference, and the point at issue. It must be clearly understood that the question is one, not of doctrine, but of morals. The whole ground, indeed, seemed to be covered, strangely enough, in a letter written to the *Times* by a homœopathic practitioner a few years ago, pleading for freedom of opinion and action, and the abolition of sectarianism in medicine. "No theory or practice", it was said, "ought to exclude a man from the profession, *provided he did not trade on a distinctive name.*" Dr. Wilks went on to urge that the College should utter some opinion on this matter, mentioning, among other reasons, that it would help to remove difficulties from the way of hesitating students, some of whom, more worldly-minded than others, were induced to start as homœopaths from motives of trade more than anything else. He summed up his reasons for bringing forward the resolution as follows: 1. The inadvisability of passing a *strong* resolution, as some were inclined to do, because we are not our own masters; 2. The necessity for a definition of the reasons why we decline to meet homœopaths—it being a moral, not a doctrinal, question; 3. The advantage of the College placing its opinion hereon on record.

Dr. Lionel Beale seconded the resolution.

Dr. Alexander (Halifax) made some remarks adverse to the resolution, and ultimately moved the previous question. The motion, however, was not seconded.

Dr. Andrew Clark considered that Dr. Wilks had failed to justify his resolution by his own argument. The moral question was different from that raised by Dr. Wilks, being really this: when two men, a homœopath and an allopath, met in so-called "consultation", the medicines proposed would be different, as well as the doses and the object in giving them. The consultation, therefore, would be false; and consequently the participation in it would be immoral.

Dr. Bucknill thought that the resolution was too wide, as it would include men who were known chiefly for special methods of treating certain diseases; and instanced Dr. Althaus and Professor Lister. He wished that the matter should be treated more definitely, and proposed as an amendment—

"That this College, considering that competent medical men cannot honestly practise the system of medicine called homœopathy, is of opinion that any Fellow, Member, or Licentiate may properly decline to meet homœopaths in consultation."

This amendment was seconded without further remarks.

Sir William Gull said that the College was treading on serious ground, and that the question was one of individual conviction. We should do what was best for our patients, and co-operate frankly, if at all. He would not meet anyone who gave purgatives in peritonitis, or who treated a patient with aneurysm by making him walk out in all weathers. He once knew a homœopath who gave this latter piece of advice, saying that if there were bleeding, it would do good by unloading the chest. But the question should be discussed only *intra muros;* no resolution should be published. If the most respected Fellows disagreed, none should be put into a difficulty. It should go forth to the profession, however, that the College could not trifle with a system that was false.

Dr. Wilson Fox said that he was most decidedly of opinion that Dr. Wilks's remarks covered the whole ground, and answered all objections that had been raised. Professional men must certainly claim for themselves the right of accepting or refusing a consultation on the sole ground of the good of the patient. But the Fellows of the College had been publicly told that they were wrong in doing this, and had been abused as a "privileged" class. Dr. Wilks had laid down broad

lines of conduct which were definite and clear. It was absolutely right and proper for a man to form any opinion he liked, and to start any line of treatment, but not to adopt a nomenclature applicable to himself as a special inventor of any particular process. With regard to Dr. Bucknill's criticism of the resolution, the gentlemen to whom he referred had not assumed or accepted any such names. The question raised by Dr. Wilks was the only one with which the College could deal. It could not deal with homœopaths as such; and certainly could not accept Dr. Bucknill's amendment. What could not a man honestly believe? It was well that some opinion should be expressed by the College. The medical public were asking for guidance in the matter. Surely it was no argument to say that, because it was not possible to meet all forms of quackery, no endeavour should be made to meet some. The College was pre-eminently a guide in professional ethics. It had already many excellent rules; and the addition proposed by Dr. Wilks was one of great value. There was no cause of fear from the public; and the freedom of the profession was upheld rather than curtailed by the resolution.

Dr. PRIESTLEY considered that really the most important part of the resolution was the latter clause, containing the word "trade"; and suggested that some words, to the effect that the College did not think it desirable to fetter the opinions of its members, should be inserted in the resolution.

Sir WILLIAM JENNER said he believed it was known that his own opinion was very strong against meeting homœopaths. Medicine had no business with anything else, but that the best thing possible should be done for the patient. But the homœopath did hold a fixed doctrine and principle. It was not possible to consult them; for evil would result. He did not put the matter on the moral ground, as Dr. Wilks did. He had once met a homœopathic doctor in consultation, without knowing him to be such; on a second occasion, he asked him whether he was a homœopath. His answer was that, when it was suitable, he used homœopathic treatment; at other times, the ordinary treatment. Sir William Jenner declined to act with him, on the ground that, at any moment during the course of the case, homœopathic treatment might be deemed suitable. He doubted the wisdom of the College sanctioning Dr. Bucknill's amendment, and hoped he would withdarw it. He did not agree with all that Dr. Wilks said, but hoped that his resolution would pass. The profession looked to the College for some expression of opinion, and this resolution would satisfy most.

Dr. BUCKNILL withdrew his amendment.

Dr. WILKS said a few words in reply to some of the speakers, especially mentioning that his resolution obviously did not apply to specialists, as such, but to those who professed special systems of treatment.

The resolution (with the prefix as follows) was then put, and carried unanimously.

"That, while the College thinks it desirable not to fetter the action of the fellows, members, and licentiates, with reference to any opinions they may adopt, it nevertheless expresses its opinion, that the assumption or acceptance, by members of the profession, of designations implying the adoption of special modes of treatment, is opposed to those principles of the freedom and dignity of the profession which should govern the relations of its members to each other and to the public; the College, therefore, expects that all its fellows, members, and licentiates will uphold these principles by discountenancing those who trade upon such designations."

LIFE-ASSURANCE COMPANIES.

IN the BRITISH MEDICAL JOURNAL for December 3rd was a letter from a subscriber, asking for the names of a few of the leading and reliable offices where a man could, with some amount of safety, invest his money by way of insurance. Our correspondent asked for this information on behalf of a medical man, who had twice suffered through insurance offices, and who appealed to us in consequence of his utter want of confidence in insurance agents as a class. This is rather a sweeping, not to say unjust, opinion against a class of most useful and deserving persons. With few exceptions, life-insurance offices must depend upon branch offices, or agencies, for such business as is not within very easy reach of the head-office. To many would-be insurers, the smallest amount of correspondence is hateful, and the proximity of an intelligent branch manager or agent is a great advantage. As in other cases, there are "insurance agents and insurance agents". Many, no doubt, consider it their duty to promote the business of their office pure and simple, without inquiring too closely into their financial conditions. But there are many both able and willing to give the fullest information, not only as to their own, but any other office. It must be borne in mind that, in the case of all well established life offices, there is now much agent competition and mutual accommodation, in advertising, to a certain amount of healthy rivalry. There was no difficulty in our giving our correspondent the names of ten leading and thoroughly reliable offices; but, in justice to other offices, it is only fair to say that the list might be greatly extended. Long lists are given in the *Post Office* and *Medical Directories;* but these are, of course, complete lists given without selection. In Whittaker's *Almanack*, a selection is made of more than seventy offices, which comprises the best, though, as is stated, many not included are good offices; and many young offices are healthy and strong, and will, in due course, be added to the list. Of these offices, three have been established more than a century and a half, another nearly one hundred and twenty years; in addition, thirty-two have existed more than half a century, and the remainder fifteen years and upwards. It may be fairly laid down that, if any man whose life is a fair average one for insurance, is (to use our correspondent's word) bitten, it is his own fault. Those offices which are at all weak or doubtful are well known to be so, and no difficulty can be experienced in ascertaining the fact. The disasters consequent upon the failures of the Albert and European Offices were anticipated long before their occurrence, and created no surprise to those well versed in life insurance work. Again: there are well-established and thoroughly sound offices where invalid lives are accepted, though of course at higher rates, and on certain conditions. The older offices are so well secured and their yearly business is so large, that their managers are less desirous of pushing their business than those of younger offices. Several of them employ no agents, have no branch offices, and pay no commissions; thus reducing their expenditure. But all are perfectly willing to insure good lives, and it is open to anyone who possesses the necessary qualification and means to be a policy-holder in the oldest and richest life insurance office. At present, the number of offices is more than sufficient for healthy competition; though this would not be the case if every man and woman whose duty it was to insure would do so. The profession might well set an example in this respect more than it has hitherto done, as a more general adoption of this admirable means of providing for wife and family would render less frequent the piteous appeals so often made for widows and orphans in these columns. The younger members might well consider the advantages of effecting insurance, for however small an amount, while they are young and in robust health. It would need but a small amount of self-denial to pay the premium on a policy of £100, and the possessor of such would be in a position to leave a legacy, to father, mother, brother, or sister, in the event of falling a victim to the many casualties incidental to our profession. The reflection that such was the case would smooth many a dying pillow, now haunted with the sad reflection that the only legacy is a legacy of debts. And if, to take a brighter view, the policy-holder lives—if a good office has been selected, and the system of insurance with profits has been adopted—each succeeding year makes the policy more and more valuable. Some parents adopt the practice of insuring their sons' lives at an early age, paying the premiums and retaining the policies until the insurer comes of age, or is in a position to take up the policy himself. This practice, which is well calculated to insure steadiness, and to inculcate habits of thrift and prudence, might also be extended with great advantage.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held on Wednesday, the 18th day of January next, 1882, in the Council Room, Exeter Hall, Strand, London, at 2 o'clock in the afternoon.

FRANCIS FOWKE, *General Secretary.*

161A, Strand, London, December 13th, 1881.

BRANCH MEETINGS TO BE HELD.

[illegible]

Grand Pump Room Hotel, Esq., President.—R. S. FOWLER, E. MARKHAM SKERRITT, M.D., Honorary Secretaries.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE third meeting of the present session was held at the Medical Institute on Thursday, December 8th, 1881; the chair being taken by the President, Mr. BARTLEET.

New Members.—Mr. T. De Denne (Cradley) and Mr. V. Jones (Birmingham) were elected members of the Branch.

Excision of Lower Jaw.—Mr. Bennett May showed a patient from whom he had removed part of the lower jaw, tongue, and floor of the mouth, for epithelioma of four or five weeks' duration.

Clinical Instruction in Mental Diseases.—It was proposed by Dr. WADE, and seconded by Dr. BODINGTON, that the authorities be asked to permit, in future, clinical instruction at the lunatic asylum. This was unanimously carried.

Hip-Disease.—Mr. William Thomas read a paper entitled "Remarks on the Diagnosis and Treatment of Morbus Coxæ. Dr. Thursfield, Mr. Furneaux Jordan, Mr. Bennett May, Mr. Jordan Lloyd, Mr. West, Dr. Campbell, Mr. A. Harvey, Mr. Tait, and the President joined in the discussion which followed. Mr. Thomas replied.

CORRESPONDENCE.

THE COLLECTIVE INVESTIGATION COMMITTEE.

SIR,—It is a great pleasure to see that Professor Humphry's excellent proposition, that some means shall be taken for the collective investigation of medical problems, is now really likely to be carried into effect.

Morbid pathology and the ends of serious diseases have been most admirably observed and collated in our large hospitals; but living pathology, in its early beginnings, as expressed by the clinical term "symptom", and the relation of pathology to family and other surroundings, can only be thoroughly investigated by the family doctor, who sees the beginnings of all maladies, and even the beginning of life; as an eminent physician once expressed it in conversation with me on this subject, "the pathology of the future is in the hands of the general practitioner".

I think former attempts of this kind have failed for want of what is now proposed—"local registrars". Many practitioners, very capable indeed of observing and drawing deductions from their observations, from want of time, from diffidence, and the want of the literary habit, absolutely decline committing their thoughts to paper, valuable as they would have been to medical science. On this point, I speak from experience; for, in our efforts to increase the value of our district medical meetings in East Kent, these very difficulties have been our stumbling-block, and we have had to deplore the loss of much valuable knowledge in consequence. Now, if we have a registrar for a district of which he knows the various practitioners; if he have the love of science in him; if he will act like a Christian gentleman, and "love the brotherhood" (for there will be much that requires tact and delicacy), and if he have time at his command, he will remove this stumbling-block, by keeping up communication with the general secretary, by arousing and keeping alive the interest of his neighbours in collective medical work, by co-ordinating their observations, and in all ways facilitating and smoothing their literary difficulties. In this way, not only will he do work which must be of real service to the profession, but which will be of solid advantage to himself; and the busy and able practitioner will be lifted from the slough of routine so deadening to the faculties of even the best of men.—I am, sir, your obedient servant,

ROBERT L. BOWLES.

SIR,—In the BRITISH MEDICAL JOURNAL for December 17th, all members of the association who take an interest in the medical investigation of diseases, will be pleased to notice the very prompt action of the Collective Investigation Committee, in appointing a secretary, and taking steps for forming their plans for the purpose of carrying into effect the resolutions proposed by them and adopted at the annual meeting of the association.

Dr. Robert Smith has a task in front of him which will be of an arduous nature, but which may be much lightened by help from members of the association, and I feel sure he will receive every encouragement at their hands. The work of this committee bids fair to be one of the grandest, if not *the* grandest, of any undertaken by the British Medical Association. Referring to Resolution 4, it states that the secretary will attend meetings of the various branches of the association. This is certainly a very important and invaluable step to take; for, from the statements he will make, and the course of action he will no doubt indicate as the best to follow, our members will get some idea what investigation they shall start with, and how best to carry it out to a useful or successful result.

The gains to medical knowledge from this committee's work will not be immediately appreciable; nevertheless, let us patiently await them and help, by every means in our power, to bring them nearer. The goal may appear far distant, but when reached, how short will the distance seem; and we shall be able to congratulate ourselves on what will, no doubt, have turned out to be, a very quick and lasting reward of our labour.—I am, Sir, your obedient servant,

G. ARTHUR CARDEW, Honorary Medical Officer, Branch Dispensary of Cheltenham General Hospital and Dispensary.

HAS THE DURATION OF HUMAN LIFE IN ENGLAND INCREASED DURING THE LAST THIRTY YEARS?

III.

SIR,—The causes of the increased adult mortality, shown in the previous letters to have occurred in the last thirty years, offer ground for speculation. The increased adult mortality may be thought to be an indirect effect of sanitation, since many children who now grow up, but who would have died under the insanitary conditions which formerly prevailed, will become sickly adults, and so, it may be thought, deteriorate the average health of adults. But, there are reasons for the opinion that this is not a main part of the cause, as the following considerations will show.

A comparison must be made of the results on the health of the survivors of two sets of conditions: sanitary and unsanitary, favourable and unfavourable. When this is done, it becomes clear that, under both sets of circumstances, some children cannot be reared at all; some survive and are delicate, and some survive and are strong. Supposing, now, that the conditions are changed from insanitary to sanitary, it is clear that some of those who would not have survived may be reared; and it is often assumed that such would become sickly or delicate adults. Let us, for the sake of argument, admit this. But the effects of sanitation on those who would have grown up delicate under the former *régime* would surely be to improve their physical condition; while those who grew up strong under unsanitary conditions would, at least, be no less so under improved sanitary regulations. There are, therefore, three sets of persons to be considered: those who cannot be reared; those who are reared, but are delicate; and those who are reared, and are strong. Under improved conditions, some of the first set would be reared, and might add to the number of those who grow up delicate; but, on the other hand, the delicate would tend to become strong, and the strong would become stronger. It, therefore, appears that the average health of the community should be benefited by improved sanitation, since it gains by the strengthening both of its delicate and of its strong members. I have admitted, for the sake of argument, what is doubtful, or, at least, not proved: the assumption, namely, that those children who would be saved by sanitation are the most weakly of the population. This may be so to some extent; but, on the other hand, the strongest children may be killed by unsanitary conditions, while they may, under good sanitation, develop into healthy adults. Therefore, it does not follow that sanitation saves only the weakly.

One more consideration may be advanced here. The increased mortality, as we have seen, takes place among adults. But sanitation, if good for children, must also be good for adults; and, as they show the higher mortality, it is evident that the causes must be some that act on adults, but not on children and young persons, or at least not to the same extent. It cannot, therefore, be sanitation which is to blame, since that affects children and adults equally.

Is the increase due to intemperance or to syphilis? The Registrar-General, in his report for 1879, discusses this question, and concludes that these are not a main part of the cause. It is difficult to get at a correct statement of the proportion of deaths due to intemperance, because its effects do not appear under this heading in the returns, but are entered as due to affections of this, that, or the other organ. According to the Registrar-General, the deaths from delirium tremens, intemperance, and gout have only increased by about 12 to 16 per million of the population in thirty years. In syphilis, the increase is only 49 per million in the same period; and, of these, a very large proportion may be taken as due to a better diagnosis. Adding these two figures together, the increase is only 61 to 65 per million; while the whole increase in mortality to be accounted for is 403 per million and a large proportion, at least of the syphilitic increase, is due to im-

proved diagnosis. The main causes of the increase are not, therefore, to be found under these heads. It ought to be said here, that the national returns of deaths from intemperance are far too low. In place of the 1610 deaths returned by the Registrar-General as due to intemperance in 1879, some authorities estimate them as high as 88,000; and these figures are so widely different from one another, that no good will arise from the attempt to approach the question from this standpoint. Two remarks may, however, be made about the effects of alcohol on our population. First: even according to the statements of the teetotallers, who would not at any rate be likely unduly to diminish the effects of alcohol on the public health, the consumption of alcohol has recently diminished. In proportion to the population, the diminished use is even more appreciable. A cause whose influence is diminishing cannot account for an increasing effect; and, therefore, it seems impossible to attribute a constantly rising mortality to a diminishing consumption of alcoholic liquors. Secondly: if the influence of alcohol were felt as an increasing one on the death-rate, we ought to find, among other effects, an increasing mortality from affections of the liver; but the deaths from hepatitis, jaundice, and liver-disease combined, have only increased from 368 to 380 per million in thirty years, or 3 per cent. For these reasons, it seems to me that alcohol is not a main part of the cause of the increased mortality of the last thirty years.

If the main cause, then, is not sanitation, syphilis, or alcohol, what is it? or, is there any clue by which we may find it out? We have seen that it is something which is increasing in potency, because its effects are always increasing; we have seen that it is acting on adults, but not on children; and, lastly, that it is acting less on women than on men. Now, it is a little curious that worry, or anxiety, answers to all these conditions. Children do not suffer from it, and, consequently, sanitation has its full power over them; and they, and young persons, have a higher value of life than they had thirty years ago. Further: is there any doubt that worry is more powerful than it was thirty years ago? I think there can be none. Life is carried on in so much more complex a way; there is so much more haste and pressure; the competition, business men say, is so much keener; the speed of railway trains, and the urgency of telegraphic and telephonic communications, is so much more pressing, that the general opinion cannot be very far wrong, that there is much more worry or anxiety than there used to be. I do not think, therefore, that there is any need to spend more time in the attempt to show that worry is a *vera causa*. That women are, on the whole, less subjected to the influence of worry than men, seems also to require no proof.

If, then, these things are so, how does worry act? Most medical men would say that, if it acts at all, worry will show itself directly in its effects on the nervous system, on the heart, and on the kidneys, and indirectly, no doubt, by effects on other organs. Let us examine the figures for these three sets of diseases. Taking apoplexy, paralysis, insanity, and brain-disease together, it appears that deaths from these causes have risen from 1116 per million, in the five years 1850-4, to 1400 per million in 1875-9. As showing that the rise has been continuous, it may be mentioned that, in 1860-4, the numbers were 1239 per million. The increase in these diseases has, therefore, been 25 per cent. in thirty years. From diseases of the circulation, we lost 700 persons per million *per annum* of the population thirty years ago, and we now lose 1405. This is an increase of 100 per cent. Here, also, the increase has been continuous, quinquenniad by quinquenniad, as any one may see on referring to the figures, which are 969 in 1860-4, and 1196 in 1870-4. Some of this increase may be due to alteration of nomenclature, because deaths from dropsy have diminished, in thirty years, from 549 to 145 per million, showing a decrease of 404 per million. Of the deaths formerly certified as due to dropsy (besides those now certified as caused by heart-disease), some are now, of course, returned as deaths from kidney-disease, others as deaths from liver-disease, and still others as deaths from ovarian-disease. But, even on the extreme supposition that all the diminution now shown under the heading of dropsy is due to the increase in deaths certified as due to heart-disease, it is still clear that all the increase in deaths from heart-disease (705 per million) is not accounted for by the diminution of deaths certified as due to dropsy (404 per million).

In order to be well within the mark, let us say that heart-disease has increased 50 per cent. in thirty years. Lastly: as to disease of the kidneys. There occurred thirty years ago, on the average, 137 deaths per million of the population from nephritis, Bright's disease, and kidney-disease combined. Ten years later, 211 deaths per million occurred; and, in 1875-9, 340 deaths per million *per annum*. This is an increase of 148 per cent. in the diseases which Drs. Allbutt, Dickinson, and others, think are most emphatically caused by worry.

I think, therefore, that I have shown that, while there has been an increase, on the average, to human life in this country in the last thirty years, that increase is entirely due to the better management and to the prevention of fevers; that, if the deaths from fever be deducted, the present rate of mortality is higher than it was thirty years ago; and that, if the value of the lives of children and young persons has increased, that of males above thirty-five, and of females above forty-five years of age, has diminished. I have also advanced strong reasons for the opinion, that a main part of the cause of the increased mortality among adults is worry or anxiety. With the remark, that all this is the case, notwithstanding the better results we obtain in the treatment of many diseases, and in spite of operative procedures, some of which have immensely increased the length of human life in this country, and which were unknown thirty years ago, I now leave the consideration of this subject with your readers.—I am, faithfully yours,

A. Rabagliati, M.A., M.D., Surgeon, Bradford Infirmary.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Liverpool.—The statistics of this enormous city, which at the recent census contained nearly five hundred and fifty thousand people, are naturally of considerable interest from a statistical point of view. Dr. Stopford Taylor reports that, during the ten years 1871-80, the total deaths in the city were 147,605, whilst in the ten previous years (1861-70) there were 156,205. This shows a decrease of 8,600 deaths, notwithstanding the increase of population, and reduces the death-rate from 33.0 per 1,000 in the previous decade to 28.5 for that just ended. The decrease has been progressive, and must be regarded as a satisfactory evidence of the improved health of the people. During the year (1880), there were 20,783 births and 14,811 deaths, equal to rates of 38.2 and 27.2 per 1,000 respectively. Of the total deaths, no fewer than 3,173 were due to zymotic causes. Dr. Taylor devotes considerable attention to the prevalence of diarrhœa, which accounted for 1,028 deaths; and gives a variety of minute statistical details to show that the variation of the date of maximum death-rate from this disease is concurrent with the greatest heat. There was a slight increase in the deaths registered as due to fever, 141 being returned as typhoid, gastric, and enteric fever; whilst in the previous year the deaths from the same causes were 129. Typhus caused 87 deaths, being 4 less than in 1879; the remaining 40 deaths being from "fever", continued fever, and febricula. The deaths from scarlatina (465) and measles (283) were below the average, and fewer than in 1879. Whooping-cough was fatal in 663 cases, croup in 180, and diphtheria in 58. Tubercular diseases accounted for 2,007 deaths, phthisis alone claiming 1,337. The tables appended to Dr. Taylor's report are most elaborate and exhaustive, and represent a vast amount of patient tabulation and careful arrangement. They show in detail not only the localities, periods, ages, and similar information, as to each class of disease, but also give particulars as to the working of the sanitary department which abundantly testify to the vigilance of the staff which Dr. Taylor so ably directs.

Hendon.—This rising district, which now possesses a population of about 9,299 souls, is still without any isolation accommodation for infectious cases, and the absence of a mortuary is far from satisfactory. On this latter point Dr. Cameron observes, "the want of some kind of public accommodation for the reception of dead bodies is very much felt in the parish, especially in cases of suicide, death by drowning, violence, or otherwise, when the body has to be removed to the nearest public-house, or deposited in some stable or outhouse, until the coroner's inquest can be held." The necessity for an infectious hospital is sufficiently obvious; but the health officer gives in his report a striking instance of the mischief arising from the absence of such accommodation. At one house he found a family of eight persons sleeping in one small room, which allowed only 130 cubic feet of space for each. Three cases of scarlet fever had occurred in this house. During the illness of the third patient, the mother went to work at a neighbouring house where three children were seized with the fever, and one died. Neither of these cases were reported to the authority until a death had taken place, when it was too late to isolate those first attacked. Indeed, it would have been quite impossible to perfectly isolate a patient in either house with their limited accommodation. Dr. Cameron also draws attention to the pressing need for some scheme of drainage for the Mill Hill ward, where all the sewage matter finds its way into the river Brent. During the year 1880 there were 327 births, and 154 deaths in the district, as nearly as possible half the deaths were those of children

under five years of age, diseases of the lungs being a prominent factor in this mortality. Zymotic diseases were fatal in 20 cases, 8 of which were from diarrhœa, and three from small-pox. A total of 20 cases from this last disease occurred in the early part of the year, the disease being introduced into the district by two tramps in search of work. Dr. Cameron's minute researches into the infecting agency in each of the cases of zymotic disease coming under his note deserve a word of praise.

WILLESDEN.—Dr. G. Danford Thomas, the recently elected coroner for Central Middlesex, gives an excellent account of his stewardship, as health-officer for Willesden, in his annual report for 1880. He reports the occurrence of 667 births and 471 deaths, which, based upon an estimated population of 27,397, represent rates of 38.3 and 18.6 per 1000 respectively. Of the 471 deaths, 277 were of children under five years of age—a number considerably in excess of that recorded in the previous year, being equal to 50.8 per cent. of the total deaths, as compared with 44.4 in 1879, and 55.7 in 1878. The principal causes of deaths amongst children were: measles 19, scarlet fever 15, whooping-cough 25, diarrhœa 27, tubercular diseases 40, diseases of the nervous system 21, and of the respiratory organs 60, while 13 deaths were attributed to "special diseases of children". The fatal prevalence of infantile diarrhœa is a subject to which Dr. Thomas has devoted considerable attention, and his experience teaches him that the disease is more prevalent and fatal amongst artificially fed children than amongst those who are entirely nursed by their mothers. From zymotic diseases 119 deaths were registered, no fewer than 100 occurring in children under five years of age. Alluding to the main-drainage question, Dr. Thomas records, regretfully, that no progress has been made, although, in each of his annual reports, he has spoken in no measured terms on the subject. The summarised statement of the mortality, during 1880, in the kingdom generally and in the metropolis, is a useful feature of the report.

DISEASES DANGEROUS TO HEALTH?

SIR,—I have lately been requested to visit and report on cases of persons suffering from itch, and children stated to be infested with lice. The complaint has been made by a non-professional, and in no case have the persons complained of been under medical treatment.

These cases do not appear to me to come under the class of "dangerous to health" mentioned in the instructions; and, if they are to come under the supervision of the medical officer of health, I should like to know where he is to stop. Is the medical officer to inspect all supposed cases of parasitic skin-diseases, as the various forms of ringworm, pediculi capitis, corporis, and pubis, and possibly the various species of the flea-tribe? Would venereal diseases come under his notice in the contagious stage of their existence? I presume the necessary remedies, the "bug-powder", and the "syringe" or "white precipitate", would be supplied by "the local authority", and possibly the inspector of nuisances might be entrusted with the application thereof.

Seriously, it becomes a matter of much importance to me if I am to be hurried off on a journey of twenty-five miles to inspect a case of this character. If it be my duty to inspect such cases, who would be responsible for the treatment? and must I visit and report on cases of ringworm or itch in the families of the well-to-do? or only in the case of poor persons?—Yours, etc.,

MEDICAL OFFICER OF HEALTH.

*** A medical officer of health is not required by the Public Health Act or the Instructions to report upon cases of itch, or other skin-disease, or in persons infested with lice. The disease on which he has to report must be dangerous to life. The following are those ordinarily inquired into by a medical officer of health, viz., small-pox, scarlet fever, diphtheria, typhus and typhoid fevers. If he were called upon to report upon an endemic of measles, whooping-cough, or diarrhœa, he would not be justified in refusing, although, except the last named disease, he is rarely required to do so. A medical officer of health is in no case required to treat persons affected with disease, unless by special contract; indeed, it has been decided by the Local Government Board that he is not justified in going into a patient's room to verify the diagnosis of another medical practitioner, except at the request of the patient or practitioner.

NOTIFICATION OF INFECTIOUS DISEASES IN EDINBURGH.

SIR,—In your impression of November 26th, Dr. Littlejohn says: "I regret that your correspondent did not mention a note which appeared in the *Scotsman* newspaper, in which I said that the sanitary inspector was not sent to make a diagnosis, but to ascertain the name of the medical attendant, to whom I at once wrote. The evidence I received from that gentleman was the basis of the prosecution—not any evidence afforded by the sanitary official." I here send the note referred to, with another note from me which appeared in the *Scotsman* of the following day. He dare not venture a reply. He likewise errs in saying I gave him evidence which formed the basis of the prosecution. He wrote me on the 20th of October the following letter:

"Dr. Bowie, Dear sir,—I am informed of the existence of fever at 6, Caledonian Crescent. You are, I understand, the medical attendant. By the late municipal Act, you are bound to report all such cases at this office. Will you inform me why you did not send a report?"

I answered to the following effect: "Dr. Littlejohn, Dear sir,—I am not aware that medical practitioners are bound by any Act of Parliament to report to you all cases of fever occurring in their practice. Kindly inform me where I may see the Act, or send a copy of the Act, which compels physicians to do as you say. I have many reasons for not communicating all such cases to the medical officer of health, but if the law of the land makes it obligatory, I shall do so, but not unless. I am, truly yours, JOHN BOWIE."

The [illegible] was [illegible], and November 1st, to answer for contravening the Edinburgh Municipal and Police Act, 1879. None of the patients suffered from typhoid fever. The [illegible] Dr. Littlejohn never visited the patients until they were convalescent, yet affirmed in the witness-box that they had typhoid fever. Nay, more, he stated in evidence that [illegible] Dr. Littlejohn [illegible] that the fever [illegible]

SIR,—Kindly give me your opinion on the following. I am [illegible] parochial medical officer, a pauper belonging to another parish, but residing in my [illegible] district. The [illegible] without my knowledge, to satisfy a whim of the inspector of poor of the parish. Firstly, Is it legal for him to do so? Secondly, Is it medical etiquette?—Yours, [illegible]

*** Under the circumstances detailed in our correspondent's letter, we are decidedly of opinion that the [illegible] not of any illegality, but of a breach of professional etiquette in visiting the patient without apprising the medical attendant of his intention so to do. We think that the wisest course to follow is to ignore the procedure.

MILITARY AND NAVAL MEDICAL SERVICES.

THE NAVAL MEDICAL SERVICE.

SIR,—If you would allow the following to appear in your paper, perhaps some naval surgeon would kindly take the trouble to enlighten me, and at the same time other young medical men who have no opportunity of getting any other information about the service beyond what is contained in the warrant. I should be glad to know: (*a*) What amount of leave a naval surgeon gets in the course of the year. Is there anything equivalent to the army two months' leave? (*b*) What mess does he belong to on board ship, and when on hospital duty ashore? And generally, what position does the junior surgeon take among other officers? (*c*) Is there any roster or principle regulating service in unpleasant stations or in small ships? And what proportion of land (naval hospital or dockyard) service may a medical officer expect to get? (*d*) What, roughly speaking, are a surgeon's duties on board ship: (1) when he is the only medical officer; (2) when he is under a senior medical officer?

I trust this is not trespassing too much on your space. I think there are a good many men who would be glad to get some definite information on the above points from the right source, as one hears such conflicting statements from the half-informed. I enclose my card, and remain, yours obediently, TEREDO.

UNIVERSITY INTELLIGENCE.

CAMBRIDGE, DECEMBER 22ND.

THE following have passed the second part of the third examination for the degree of Bachelor of Medicine:—Class 1. Burgess, M.A., Corpus Christi; Griffiths, M.A., Trinity; Hill, M.A., Downing. Class 2. Bagshaw, M.A., St. John's; Bernays, B.A., non-collegiate; Coutts, B.A., Emmanuel; W. Foster, B.A., St. Johns; J. E. Howe, B.A., Clare; G. S. Johnson, M.A., Gonville and Caius; Lane, B.A., St. Johns; Marshall, B.A., Clare; Roe, B.A., Downing. Examiners, G. E. Paget, M.D., Caius, Regius Professor of Physic; Reginald Edward Thompson, M.D., Trinity.

PRESENTATION.—An interesting ceremony took place at Colney Hatch Asylum on Friday evening, December 23rd. This consisted in the presentation, by the committee and staff of the asylum, to Dr. Edgar Sheppard, medical superintendent of the male department, of six silver candlesticks in a handsome oak case. The latter also contained an album, in which was inscribed an address to Dr. Sheppard, signed by the two hundred and fourteen contributors to the testimonial. A beautiful hand-painted fan was at the same time presented to Mrs. Sheppard. The presentation was made by Sir William Wyatt, chairman of the Committee of Visitors, in an eloquent and appropriate speech, in the course of which he alluded to the admirable manner in which Dr. Sheppard had conducted his department during the twenty years of his service, and expressed the unanimous regret of the staff at his approaching retirement. Mr. Marshall, medical superintendent of the female department, and the Rev. H. Hawkins, chaplain to the asylum, also spoke in similar terms. Dr. Sheppard, who was evidently much moved, replied in feeling terms, and, while bearing testimony to the support he had received from the committee and the other officers of the asylum, congratulated his hearers that they possessed in his successor, Dr. Seward, a man who would, with experience, make a better superintendent than himself. The presentation took place in the presence of the great majority of the staff and about a thousand of the patients during the interval between the first and second parts of a miscellaneous entertainment, which was provided in the recreation-hall.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—M.B. Examination, 1881. Examination for Honours.—Medicine.

First Class.

Maguire, Robert (Scholarship and Gold Medal), Owens College.
Lane, Walters Arbuthnot (Gold Medal), Guy's Hospital.
Ballance, Charles Alfred, St. Thomas's Hospital.
Rake, Beaven Neave, Guy's Hospital. } equal.
Rice, Bernard, St. Bartholomew's Hospital.
Brown, Percival, Royal Free Hospital and Guy's Hospital. } equal.
Maudsley, Henry, University College.
Mott, Frederick Walker, University College.
Walters, Frederick Rufenacht, St. Thomas's Hospital.

Second Class.

Barron, Alexander, Liverpool Royal Infirmary.

Third Class.

Horsley, Victor Alexander Haden, University College.
Atmaram, Anundrao, B.Sc., University College } equal.
Bennett, Henry Thomas, Guy's Hospital.
Clark, Charles Alfred Dagnall, St. Bartholomew's Hospital.

Obstetric Medicine.

First Class.

Collins, William John, B.S. (Scholarship and Gold Medal), St. Bartholomew's Hospital.
Maguire, Robert (Gold Medal), Owens College.
Stonham, Thomas George, London Hospital.
Ballance, Charles Alfred, St. Thomas's Hospital.

Second Class.

Rake, Beaven Neave, Guy's Hospital.
Horsley, Victor Alexander Haden, University College.
Brown, Percival, Royal Free Hospital and Guy's Hospital. } equal.
Davidson, John, King's College.
Walters, Frederick Rufenacht, St. Thomas's Hospital.

Third Class.

Clark, Charles Alfred Dagnall, St. Bartholomew's Hospital. } equal.
Silk, John Frederick William, King's College.
Heath, William Lenton, St. Bartholomew's Hospital.
Harper, James, St. Bartholomew's Hospital.
Savill, Thomas Dixon, St. Thomas's Hospital.

Forensic Medicine.

First Class.

Mott, Frederick Walker (Scholarship and Gold Medal), University College.
*Maguire, Robert (Gold Medal), Owens College.
†Ballance, Charles Alfred, St. Thomas's Hospital.
Lane, William Arbuthnot, Guy's Hospital.
†Maudsley, Henry, University College.
Collins, William John, St. Bartholomew's Hospital.
Tait, Edward, Sabine St. Bartholomew's Hospital.

Second Class.

Barron, Alexander, Liverpool Royal Infirmary } equal.
Horsley, Victor Alexander Haden, University College }
Walters, Frederick, Rufenacht St. Thomas's Hospital.
Crisp, Thomas, St. Thomas's Hospital.
Heath, William Lenton, St. Bartholomew's Hospital.
Marsh, George Ryding, Guy's Hospital.

Third Class.

Rake, Beaven Neave, Guy's Hospital.
Collier, Mark Purcell Mayo, St. Thomas's Hospital.
Hoole, Henry, Charing Cross Hospital.
Lane, William Arbuthnot, Guy's Hospital.
Silk, John Frederick William, King's College.
Swale, Harold, St. Thomas's Hospital.

* Obtained the number of marks qualifying for the University Scholarship.
† Obtained the number of marks qualifying for a Gold Medal.

B.S. Examination. Pass List.

First Division.

Ballance, Charles Alfred, St. Thomas's Hospital.
Collier, Mark Purcell Mayo, St. Thomas's Hospital.
Horsley, Victor Alexander Haden, University College.
Lane, William Arbuthnot, Guy's Hospital.
Maudsley, Henry, University College.
Mott, Frederick Walker, University College.

Second Division.

Collins, William John, St. Bartholomew's Hospital.
Griffiths, Philip Rhys, University College.
Heath, William Lenton, St. Bartholomew's Hospital.
Rice, Bernard, St. Bartholomew's Hospital.

B.S. Examination. Examination for Honours.—Surgery.

First Class.

Horsley, Victor Alexander Haden, University College, Gold Medallist in Forensic Medicine.
Ballance, Charles Alfred, St. Thomas's Hospital.

Second Class.

Collier, Mark Purcell Mayo, St. Thomas's Hospital.
Maudsley, Henry, University College.
Heath, William Lenton, St. Bartholomew's Hospital.

Third Class.

Collins, William John, B.S., St. Bartholomew's Hospital.
Lane, William Arbuthnot, Guy's Hospital.

Examination in Subjects relating to Public Health. Pass List.

Castle, Hutton, St. Thomas's Hospital.
Willoughby, Edward Francis, University College.

M.D. Examination. Pass List.

Batterbury, Richard Legg, King's College.
Beevor, Charles Edward, University College.
Benham, Frederick Lucas, B.S., University College.
Bond, James William, B.S., University College.
Herschell, George Arieh, St. Thomas's Hospital.
Lendon, Alfred Austin, University College and Middlesex Hospital.
Money, Angel, B.S., University College.
*Newsholme, Arthur, St. Thomas's Hospital.
Paddle, James Isaac, B.A., B.Sc., University College.
Prowse, Arthur Bancks, St. Mary's Hospital.
Ryley, James, University College.
Shaw, John, St. Thomas's Hospital.
Sheppard, Charles Edward, B.S. (Gold Medal), St. Thomas's Hospital.
Smith, Robert Percy, B.S., St. Thomas's Hospital.
Tirard, Nestor Isidore Charles, King's College.
Whitelegge, Benjamin Arthur, B.Sc., University College.
*Williams, Dawson, B.S., University College.

Logic and Psychology only.

Buckell, Arthur Edward, University College.
Claremont, Claude Clarke, B.S., University College.
Dalton, Norman, King's College.
Evans, Charles Walter, University College.
Faulkner, John Thomas, Owens College.
Lamb, William Henry, Guy's Hospital.
Permewan, Arthur Edward, University College.
Railton, Thomas Carleton, Manchester and St. Bartholomew's Hospital.
Sayer, Mark Feetham, University College.
Wainewright, Rober Spencer, Guy's Hospital.
Whittle, Edward George, University College.
*Obtained the number of marks qualifying for the Medal.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted as licentiates on December 27th, 1881.

Aikins, William Henry, M.B.Toronto, 51, Lambeth Palace Road, S.E.
Allen, William Arthur, M.B.Toronto, 40, St. Mary's Square, S.E.
Benoly, Nathaniel, M.D.Wurzburg, 6, Church Crescent, Victoria Park, E.
Casson, Harwood, Wylye, Bath.
Cowan, Frederick Samuel, 5, St. James's Square, W.
Dunmere, Howard Howse, 74, Victoria Dock Road, E.
Foxwell, William Arthur, Weston-super-Mare.
Gilder, Sherrington Ernest Alfred, Walsham-le-Willows, Bury St. Edmunds.
Hawksworth, Herbert, Eddington, Canterbury.
Morton, Charles Alexander, 6, Alwyne Villas, N.
Pilkington, Frederick William, 18, Merrick Square, S.E.
Thornton, Bertram, 24, Fulham Place, W.
Wallace, Alfred Cyprian, Magdalen, Streatham, S.W.
Warner, Percy, Guy's Hospital, S.E.

APOTHECARIES' HALL.—The following gentlemen passed their Examination in the Science and Practice of Medicine, and received certificates to practise, on Thursday, December 22nd.

Clark, Matthew Gunning, 294, King's Road, Chelsea.
Dester, William Parker, Clifton Road, Bristol.
Faunce, Charles Edmund, Victoria Road, Guernsey.
Greenway, John Henry, Lessness Heath, Belvedere.
Hamilton, George Clarendon, 45, Finsbury Square.
Hathaway, Harold George, Chatham.
McMillan, John Furce, 161, Adelaide Road, N.W.
Mason, Arthur Edwin, Leicester.
Martin, Joseph Henderson, Northampton.
Rice, Bernard, Stratford-on-Avon.

The following gentlemen also on the same day passed their Primary Professional Examination.

Graham, George Hubert, Guy's Hospital.
Hitchcock, Alfred John, London Hospital.
Serres, John James, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners, held on the 12th of December and following days, the under-named gentlemen passed their final examinations for the letters testimonial of the College, and having taken the declaration and signed the roll, were admitted Licentiates.

MEDICAL VACANCIES.

THE following vacancies are announced :—

BIRMINGHAM WORKHOUSE—Resident Second Assistant Medical Officer. Salary, £[illegible] per annum. Applications to the Guardians of the Poor, Paradise Street, by January 4th, 1882.

CHARING CROSS HOSPITAL, West Strand.—Medical and Surgical Registrar. Applications to W. Steadman, Secretary, by 1st instant.

CORPORATION OF LIVERPOOL.—Surgeon. Salary, £[illegible] per annum. Applications to I. Rayne, Town Clerk, Liverpool, by January 2nd, 1882.

COUNTY LUNATIC ASYLUM, Sneinton, Notts—Assistant Medical Officer. Salary, £[illegible] per annum. Applications to the Chairman of the Committee of Visitors by the 6th January, 1882.

DONAGHMORE UNION—Medical Officer. Salary, £60 per annum. Applications, endorsed "Medical Officer," by twelve o'clock, January 6th, 1882.

GRAVESEND DISPENSARY AND INFIRMARY—House-Surgeon and Dispenser. Salary, £100 per annum. Applications to the Honorary Secretary by January 10th, 1882.

HOSPITAL FOR INFECTIOUS DISEASES, Sheffield—Resident Medical Officer. Salary, £200 per annum. Applications to John Yeomans, Town Clerk, by January 3rd, 1882.

HOSPITAL FOR WOMEN AND CHILDREN, 3 and 4, Vincent Square, S.W.—Assistant Medical Officer and Chloroformist (Honorary). Applications to the Chairman of the General Committee by January 10th, 1882.

HUDDERSFIELD INFIRMARY—Senior House-Surgeon. Salary, £80 per annum. Applications to F. Eastwood by January 21st, 1882.

HUDDERSFIELD INFIRMARY—Junior House-Surgeon. Salary, £40 per annum. Applications to F. Eastwood by January 21st, 1882.

LEEDS AMALGAMATED FRIENDLY SOCIETIES MEDICAL AID ASSOCIATION—Two Medical Officers. Salary, £160 per annum each. Applications to G. Hackett, 3, Artillery Terrace, Roundhay Road, Leeds, by January 3rd, 1882.

LINCOLN COUNTY HOSPITAL—House-Surgeon. Salary, £100 per annum. Applications to Mr. Danby, Secretary.

LONDON LOCK HOSPITAL, Male and Out-Patient Department, 91, Dean Street, Soho, W.—House-Surgeon. Salary, £50 per annum. Applications by January 21st, 1882.

MEDICAL MISSIONARY DISPENSARY, Liverpool—Medical Officer. Salary between £200 and £300 per annum. Applications to Dr. H. Taylor, 1, Percy Street, Liverpool, by January 15th, 1882.

METROPOLITAN FREE HOSPITAL, 81, Commercial Street, Spitalfields, E.—Assistant House-Surgeon. Applications to George Croxton, Secretary.

MULLINGAR DISTRICT LUNATIC ASYLUM, Ireland—Resident Medical Superintendent. Applications by January 4th, 1882.

NATIONAL DENTAL HOSPITAL, 149, Great Portland Street, W.—Dental Surgeon. Applications by January 10th, 1882.

OWENS COLLEGE, Manchester—Demonstrator and Assistant-Lecturer in Physiology. Salary, £150 per annum. Applications to the Registrar by January 7th, 1882.

OWENS COLLEGE, Manchester—Medical Museum: an Assistant of Pathology. Applications to Professor Dreschfeld, 292, Oxford Road, Manchester.

PARISHES OF KILDONAN AND LOTH—Medical Officer. Salary from the two parishes, £73 per annum. Applications to Jas. Campbell, Inspector of Poor, Helmsdale, by 9th January, 1882.

QUEEN'S HOSPITAL, Birmingham—Non-resident Member of the Staff. Applications to the General Superintendent by January 3rd, 1882.

ROYAL COLLEGE OF SURGEONS IN IRELAND—Professor of Practical and Descriptive Anatomy. Application to John Brennen, Registrar, by January 21st, 1882.

UNIVERSITY OF EDINBURGH—Examinerships in Clinical Medicine, Surgery, Physiology, Materia Medica, and Pathology. Applications to the Secretary of the University by January 16th, 1882.

UNIVERSITY OF LONDON—Assistant Registrar. Salary, £500 per annum. Applications to A. Milman, Registrar, University of London, Burlington Gardens, W., by January 31st, 1882.

VICTORIA HOSPITAL FOR CHILDREN, Queen's Road, Chelsea, S.W.—Medical and Surgical Registrar. An honorarium of £63. Applications to the Secretary by January 10th, 1882.

WORKSOP DISPENSARY—Resident Surgeon. Salary, £120 per annum. Applications to J. Easterfield, Honorary Secretary, Gateford Road, Worksop.

MEDICAL APPOINTMENTS.

BERNAYS, Herbert L., M.R.C.S., appointed Medical Officer of Health for Charlton, *vice* R. Finch, M.D., deceased.

CHAVASSE, Thomas F., M.D., appointed Honorary Surgeon to the Birmingham General Hospital, *vice* Alfred Baker, F.R.C.S., resigned.

DICKINSON, T. Vincent, M.B.Lond., L.R.C.P.L., appointed Resident Obstetric Assistant to St. George's Hospital.

HERN, W., L.D.S., appointed House-Surgeon to the Dental Hospital, Leicester Square.

HENTY, George, M.D., appointed Physician to the Aged Pilgrims' Friends' Asylum, Hornsey Rise, N., *vice* W. H. Kesteven, M.R.C.S., resigned.

TAYLOR, James, L.R.C.S., appointed Assistant House-Surgeon to the Darlington Hospital, *vice* J. Hern, M.B.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcements.

BIRTH.

GREATHEAD.—On the 21st November, at Grahamstown, Cape of Good Hope, the wife of John B. Greathead, M.B. Edin., of a son.

DEATH.

NEALE.—On the 18th ult., at Klipfontein, Little Namaqualand, S. Africa, Nellie (*née* Carstens), wife of John Edward Neale, Esq., J.P., surgeon, aged 25 years.

VACCINATION.—Mr. W. F. Sheard has received an award of £14 7s. for efficient vaccination in the Putney subdistrict of the Wandsworth and Clapham Union.—Dr. John Shives, of Liversedge, has received the Government grant a second time for efficient vaccination.

HEALTH OF FOREIGN CITIES.—Trustworthy indications of the recent health and sanitary condition of various foreign and colonial cities are afforded by the following facts and figures, derived from a table in the Registrar-General's last weekly return. According to the most recently received weekly returns, the death-rate in the three principal Indian cities averaged 35.6 per 1000; it was equal to 26.9 in Bombay, 35.5 in Madras, and 40.3 in Calcutta. Cholera caused 62 deaths in Calcutta and 6 in Bombay, while the fatal cases of small-pox in Madras had declined to 5; "fever" fatality was, as usual, excessive in each of these three cities, and showed the largest proportional excess in Calcutta. The death-rate in Alexandria was equal to 40.4, and 8 deaths were referred to typhus and typhoid fever. According to the most recent weekly returns, the average annual death-rate in twenty-one European cities was equal to 27.3 per 1000 of their aggregate population, showing a further increase upon the rates in recent weeks, and exceeding by 3.2 the average rate in twenty of the largest English towns during last week. The rate in St. Petersburg was equal to 42.2, and was considerably higher than in the previous week; the deaths included 35 from "fever", and 25 from diphtheria. In three other northern cities—Copenhagen, Stockholm, and Christiania—the rate did not average more than 19.5, the highest being 25.1 in Christiania, where 22 of the 58 deaths resulted from measles. The Paris death-rate was equal to 28.5, 34 deaths being referred to diphtheria and croup, 30 to typhoid fever, and 9 to small-pox. The Brussels death-rate was 23.1, the deaths including 3 from "fever" and 3 from scarlet fever. The table does not contain the usual return from Geneva. In the three principal Dutch cities—Amsterdam, Rotterdam, and the Hague—the death-rate averaged 24.1, the highest being 24.9 in Rotterdam; whooping-cough appears to be somewhat prevalent in each of those three cities. The Registrar-General's table includes eight German and Austrian cities, in which the death-rate averaged 26.4, and ranged from 21.5 in Hamburg, to 30.2 in Prague and 33.8 in Buda-Pesth. Small-pox caused 11 deaths in Vienna, 8 in Buda-Pesth, and 4 in Prague; diphtheria caused 43 deaths in Berlin and 17 in Munich. The death-rate in the three Italian cities contributing to the table averaged 25.7, and was equal to 20.6 in Turin, 25.8 in Venice, and 28.4 in Naples. The return from Rome is again absent from the table. In four of the largest American cities, the death-rate averaged 25.3; it was 21.3 in Philadelphia, 22.0 in Brooklyn, 28.0 in Baltimore, and 28.7 in New York. Small-pox caused 14 deaths in Philadelphia and 8 in New York; 14 deaths were referred to typhoid fever in Philadelphia.

NORTHAMPTON.—Last year, 1,954 births and 1,011 deaths, exclusive of those in public institutions, occurred in this borough, giving rates of 38.6 and 20.0 per 1,000 respectively. The death-rate shows an increase of 1.1 for 1,000 upon that returned for 1879. Of the total deaths, 390, or 38.7 per cent., were those of infants, a number considerably in excess of previous years. In alluding to this alarmingly high rate, the health-officer observes that "though the excessive diarrhœal fatality was the chief cause of the great increase in infantile deaths, the fact cannot be disguised that yearly a vast and needless sacrifice of infant life occurs; and those who are at all familiar with the habits of our working population can without difficulty arrive at conclusions explaining this grievous state of things. . . . For remedial measures, general sanitary reforms, no matter how zealously carried out, must not be looked to, whilst parental mismanagement, or rather the non-observance of all hygienic teachings for the preservation of health, stands pre-eminent (and in the present day hopelessly so) as the most important prevailing influence to which young children are exposed." Attention is also called to the common and dangerous practice of dosing young children with narcotising drugs known as "soothing syrups"; though we doubt whether Mr. Cogan's suggestion—that they should be subjected to a much higher duty, so as to place them beyond the reach of many—would meet the difficulty. The zymotic deaths were unusually numerous, the rate being equal to 3.8 per 1,000, or 2.2 higher than in 1879. Of the total zymotic deaths (193), 176 were those of children under five years of age, 124 of which had not completed their first year of existence. This excess was entirely due to the great prevalence of diarrhœa, from which no less than 147 deaths (or 76 per cent. of the total zymotic mortality) were registered. Whooping-cough was fatal in 33 cases, but only three deaths were from measles. No deaths were registered from typhus fever. During the year an important sewer extension was completed; but there is need of efficient flushing of the sewers, and of improvement in house-drainage.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—St. Mark's, 9 A.M.—Cancer Hospital, Brompton, 3 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.—National Orthopædic, 10 A.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 P.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—London, 2 P.M.—North-west London, 2.30 P.M.

FRIDAY..... King's College, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.—St. Thomas's (Ophthalmic Department), 2 P.M.—East London Hospital for Children, 2 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.—London, 2 P.M.

HOURS OF ATTENDANCE AT THE LONDON HOSPITALS.

CHARING CROSS.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; Skin, M. Th.; Dental, M. W. F., 9.30.

GUY'S.—Medical and Surgical, daily, exc. Tu., 1.30; Obstetric, M. W. F., 1.30; Eye, M. Th., 1.30; Tu. F., 12.30; Ear, Tu. F., 12.30; Skin, Tu., 12.30; Dental, Tu. Th. F., 12.

KING'S COLLEGE.—Medical, daily, 2; Surgical, daily, 1.30; Obstetric, Tu. Th., S., 2; o.p., M. W. F., 12.30; Eye, M. Th., 1; Ophthalmic Department, W., 1; Ear, Th., 2; Skin, Th.; Throat, Th., 3; Dental, Tu. F., 10.

LONDON.—Medical, daily exc. S., 2; Surgical, daily, 1.30 and 2; Obstetric, M. Th., 1.30; o.p., W. S., 1.30; Eye, W. S., 9; Ear, S., 9.30; Skin, W., 9; Dental, Tu., 9.

MIDDLESEX.—Medical and Surgical, daily, 1; Obstetric, Tu. F., 1.30; o.p., W. S., 1.30; Eye, W. S., 8.30; Ear and Throat, Tu., 9; Skin, F., 4; Dental, daily, 9.

ST. BARTHOLOMEW'S.—Medical and Surgical, daily, 1.30; Obstetric, Tu. Th. S., 2; o.p., W. S., 9; Eye, Tu. W. Th. S., 2; Ear, M., 2.30; Skin, F., 1.30; Larynx, W., 11.30; Orthopædic, F., 12.30; Dental, Tu. F., 9.

ST. GEORGE'S.—Medical and Surgical, M. Tu. F. S., 1; Obstetric, Tu. S., 1; o.p., Th., 2; Eye, W. S., 2; Ear, Tu., 2; Skin, Th., 1; Throat, M., 2; Orthopædic, W., 2; Dental, Tu. S., 9; Th., 1.

ST. MARY'S.—Medical and Surgical, daily, 1.15; Obstetric, Tu. F., 9.30; o.p., Tu. F., 1.30; Eye, M. Th., 1.30; Ear, M. Th., 2; Skin, Th., 1.30; Throat, W. S., 12.30; Dental, W. S., 9.30.

ST. THOMAS'S.—Medical and Surgical, daily, except Sat., 2; Obstetric, M. Th., 2; o.p., W. F., 12.30; Eye, M. Th., 2; o.p., daily, except Sat., 1.30; Ear, Tu., 12.30; Skin, Th., 12.30; Throat, Tu., 12.30; Children, S., 12.30; Dental, Tu. F., 10.

UNIVERSITY COLLEGE.—Medical and Surgical, daily, 1 to 2; Obstetric, M. Tu. Th F., 1.30; Eye, M. Tu. Th. F., 2; Ear, S., 1.30; Skin, W., 1.45; S., 9.15; Throat, Th., 2.30; Dental, W., 10.3.

WESTMINSTER.—Medical and Surgical, daily, 1.30; Obstetric, Tu. F., 3; Eye M. Th., 2.30; Ear, Tu. F., 9; Skin, Th., 1; Dental, W. S., 9.15.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Pathological Society of London, 8.30 P.M. Annual General Meeting. Dr. Stephen Mackenzie: Anomalous Structure of Intestine. Dr. Lowler: Intestinal Obstruction. Mr. Bathoe: 1. Squamous Epithelioma of Upper Jaw; 2. Mixed-celled Sarcoma of Phalanx of Thumb. Mr. James Startin: 1. Naxthelasma; 2. Maculæ Albæ. Dr. Carrington: Hour-glass Contraction of the Stomach. Mr. W. H. Kesteven: Disease of the Stomach. Dr. Zacharel (of Alexandria): Bilharzia Hæmatobia *v.* Cobbold. Election of Officers and Annual Report of the Council.

WEDNESDAY.—Epidemiological Society of London, 7.30 P.M., Council Meeting. 8 P.M., Surgeon-General Ewart: Is the Climate of the Indian Hill Sanitaria beneficial in Scrofula, Tuberculosis, and Phthisis?

THURSDAY. Harveian Society of London, 8.30 P.M. Mr. Lloyd: Cases of Removal of Osseous Tumour from the Auditory Canal. Mr. Knowsley Thornton: On Encysted Purulent Peritonitis, with Cases.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

COMMUNICATIONS respecting editorial matters should be addressed to the Editor, 161, Strand, W.C., London; those concerning business matters, to the delivery of the JOURNAL, etc., should be addressed to the Manager, at the Office, 161, Strand, W.C., London.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the Manager, 161A, Strand, W.C.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

CONFIDENTIAL COMMUNICATIONS TO MEDICAL MEN.

SIR,—The question, relating to confidential communications to medical men, which you have brought to the notice of the profession in No. [illegible] of the BRITISH MEDICAL JOURNAL, carries with it such importance that I may be excused for saying a few words upon the subject. The law [illegible] upon this question, has a deteriorating influence upon the medical profession; it assails the honour of its members, and detracts from the confidence that should be given to the profession; it [illegible] which has come before him [illegible] to deliver up to a court of justice information obtained, whilst exercising his profession, from his patient, who [illegible] to give every information with a view of aiding in the more ready solution of the difficulties which surround his case) divulges secrets which in health would have remained locked within his breast, but which, publicly proclaimed, will affect his honour and bring contumely upon his name. A confidence given under such circumstances is given [illegible] that purpose, should, under the whisperings of a common-sense justice, be bound never again to serve another end. The sick are confided to the care of a medical man as pledges to be guarded, consoled, and restored to health; whatever confidences are revealed during their illness should simply serve the object for which they were intended at the time, and having served that object, then to be allowed to die at the bedside of the patient. A sanctity and a reverence should prevail within the precincts of a sick-room, and the weary should be encouraged to throw off the burden of their griefs, and confide them—for their good—to the sacred trust of their medical adviser. But the law, by forcing the seal of secrecy, is antagonistic to the exercise of these sacred duties; by its obligations, it detracts from the dignity of the profession; and by its exactions, saddles it with a seeming of treachery. That [illegible] before the operation of the law as it is now constituted.

When the celebrated French surgeon Baron Dupuytren was asked by the officers of the law (after the riots in Paris of the 5th and 6th June, 1832), whether there were any insurgents among the wounded patients under his care at the Hôtel Dieu, his answer was: "I know of no insurgents; I only know of wounded men, who demand my care."

The penal code of Portugal is more merciful to the profession than is the English. It exempts the members of the medical profession, among others, from revealing information obtained in the exercise of their profession. The Art. 966 of this code says: "Os Advogados, Confessores, Medicos, Cirurgiões e Parteiras não são obrigados, depondo, a revelar os segredos, que houverem obtido em razão de sua profissão." (Advocates, Confessors, Physicians, Surgeons, and Midwives, are not obliged, when giving evidence, to reveal secrets which they may have discovered in the exercise of their calling.) The English law might, in this respect, take a leaf from the Portuguese "codigo penal", and protect British medical men in the future from the obloquy to which the present state of the law exposes them.—I am, sir, yours faithfully, JAMES S. L. DONNETT, M.D., R.N., Inspector-General of Hospitals and Fleets, Honorary Surgeon to the Queen.

Dover, December 26th, 1881.

MEDICAL MEN AND CORONERS.

SIR,—Can any correspondent possessed of legal knowledge say whether a medical man can refuse the demand of the coroner to perform a *post mortem* examination?—I am, etc., WILLIAM SQUARE.

Plymouth, December 20th, 1881.

*** By the Medical Witnesses at Coroners' Inquests Act, 6 and 7 William IV, c. 89, passed in 1836, a coroner is empowered, either in his order for the attendance of a medical witness at an inquest, or at any time between the issuing of the order and the end of the inquiry, to direct a *post mortem* examination to be performed, with or without an analysis of the contents of the stomach or intestines, by the medical witness or witnesses who may be summoned to attend the inquest. If, however, a sworn statement be made of the belief of the deponent that the death of the person ordered to be examined was wholly or partially caused by the improper or negligent treatment of any medical practitioner or other person, neither of them is to perform or assist at the examination. It is also enacted by the second section of the statute that, when it shall appear to the majority of the jury that the cause of death has not been satisfactorily explained by the medical practitioner or other witnesses in the first instance, this portion of the jury may, in writing, name to the coroner any other legally qualified medical practitioner or practitioners as a witness or witnesses, or for a *post mortem* examination, and with or without an analysis of the contents of the stomach or intestines, even if such an examination has been previously performed. Now, although medical witnesses are liable to be fined £5 for neglecting to obey coroners' orders for attendance at inquests, it does not appear from this or any other statute, or Jervis's [illegible] upon Public Act[illegible] fourth edition, 1880, or in the digests of reported cases since described in our courts, that a coroner can compel a medical man to perform a *post mortem* examination, or that he is liable to be fined for refusing to perform it. We are, therefore, much surprised that so eminent an authority upon inquests as the late Dr. A[illegible] edition, 1879), lead his readers to infer that the [illegible] disobedience of the coroner's order for making the examination, as he undoubtedly does by stating, "A fee of two guineas is the [illegible] this order, except for reasonable cause". Again, while we agree [illegible] titioners have properly declined, from want of experience, to [illegible] the query of our correspondent, we are of opinion that a medical man can lawfully [illegible]

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to advertisements, changes of address, and other business matters, should be addressed to the Manager, at the Journal Office, 161A, Strand, London, and not to the Editor.

HYDROPHOBIA.

SIR,—Had I intended to call in question Mr. Ruxton's diagnosis, I should have done so in direct terms, adducing all possible reasons for this is the way to attain truth. To hint at a doubt is of no good purpose. Mr. Ruxton knows [illegible] to have been one of Dr. Lyttleton's, and, from his description, to be [illegible] quite certainly cannot be and to be present; hence my cautious expression. My letter was written for a different purpose. In it was especially noted the failure of treatment in a number of cases, and the success in one; also the failure of cannabis indica in a former case, and its success in the present one. In Mr. Cæsar Hawkins's case, a boy aged 12, extract of cannabis indica was first given in doses of one grain, repeated in an hour; afterwards, two grains, repeated in an hour, again in another hour; followed then by delirium and diminution of throat spasm. Two grains more in an hour and a half, repeated at the like interval, and again the same. Now came foaming at the mouth, and violent mania, but less spasm. After an hour and a half, three grains were given; in an hour, three grains; in another hour, two grains, repeated in three hours, again in two hours, again in one hour. After some fits of spasm with opisthotonos, he was now more quiet and collected, free from spasm and alarm, and took eggs, bread and butter, and beef-tea, without apparent difficulty, talked sensibly, and slept for a few minutes. But the pulse was weaker, the expression more careworn, and he had some retching. In an hour, three grains more hemp, again in another hour; and now we find weaker pulse, cold extremities, eyes hollow and staring, expression of countenance horrible; complete delirium, constant vomiting of black matter. Three hours after the last dose, he was furiously delirious, weaker, the pupils dilated, the eyes wild and prominent, the extremities colder, hands more blue, pulse not perceptible at wrist, heart's action exceedingly feeble; no spasms since the dose before last. In another hour, he died. Such were the doses given and the symptoms following. Mr. Cæsar Hawkins's commentaries are full, able, and interesting. He enters into all points; refers to a table of 130 cases of the disease, with reference to the time of incubation, the longest period named being nineteen months, in a patient of Edward Nourse, F.R.S., formerly surgeon to St. Bartholomew's Hospital; and speaks of the different caustics which have been employed. This paper will be found in vol. i of his *Contributions to Pathology*, page 73; also in the *Medical Gazette*, vol. xxxiv, page 417.

I quite concur in the opinion of "C. J. H." about dogs; and am only surprised, considering the number of deaths from hydrophobia on record, that a fixed tax of ten shillings a year has not long ago been established, strictly enforced for every dog in the United Kingdom. The suggestion, too, that each dog should have a collar with his owner's name, and that any dog found without one should be destroyed, should be fully carried out. But all citizens are equally interested in these preventive measures. Medical men only advocate them because they, more than others, see the evils caused through want of them. We gain nothing, as doctors, by the prevention; it is no more to us than to any other person. Let us be clear and decided in advocating preventive measures on fit occasions, but not too urgent. Our profession has been treated of late with more than disrespect; our position will be all the stronger if, fully doing our duty, we keep within our own lines, where there is ample work for us.—I am, sir, yours faithfully,

Exeter, December 17th, 1881. W. E. C. NOURSE, F.R.C.S.

MEDICAL ETIQUETTE.

SIR,—Will you, with your usual impartiality, kindly express your opinion on the following case?

A. and B., two physicians practising at the same place, entered into an agreement that, in their absence, one should act as *locum tenens* for the other, and divide the fees equally. In the month of August last A.'s family doctor met with an accident (fracture of the leg), was brought to an hotel, of which B. is the recognised physician. B. was sent for, but, being away from home, the messenger knowing that A. was his *locum tenens*, went and fetched him. The young man got quite well, and returned home; but the *locum tenens* has not offered to divide the fees, although, under other circumstances, he had always done so. Now, I should like to know whether B. is or is not entitled to his share in this instance. I may mention that a case occurred under almost similar circumstances with another physician and B., but in which B. was the *locum tenens*; and, although he had the entire management of it, he made over half the fees to the physician for whom he had been acting, as he had invariably done whenever he acted for A.

It is to be regretted that such cases should be brought to notice, as their publication cannot contribute to the dignity of the profession; but I see no alternative for the present; and the exposure of such conduct will, I trust, serve as a check upon future offenders. I enclose my card; and remain, yours very obediently,

MEMBER OF THE B. M. A.

THE DRY-EARTH SYSTEM.

SIR,—The dry-earth system has been in use at the St. Saviour's Home for Orphan Boys, Taunton, which contains twenty boys (under 15), a master and matron, for more than a year, and affords complete satisfaction. It was adopted in consequence of frequent and grave [illegible] stopped drains, and the nuisance of an ordinary urinal.

A wooden closet for the master and matron, and two seats, with backs and sides, for the boys, were put up on a shed in September last, at a cost of about £5. A passage behind them admits of the iron buckets, made to fit under the seats, being daily taken out and emptied.

For a urinal, a shallow trough is conveniently placed with some earth at the bottom; and its careful use is found to be unattended with the stench always observable in the ordinary water urinal. Boxes containing dry-earth and a scoop are placed so that a little may be shaken into the utensils every time they are used. Earth from the garden is stored when it can be taken up dry; with it, coal-ashes are mixed, and there have also been added some spent lime given by the gas company, as an experiment with a view to making better manure; the mixture is sifted, and it is found best to be a little damp for using. The spoiled earth is moved to a short distance from the closets, and under cover, to be remixed if needed, before being taken to the garden and used as manure.

N.B.—If earth in proper quantity be not shaken over the droppings whether liquid or solid, every time a utensil is used a nuisance will follow. The same applies when the utensils are emptied; earth should be shaken over all the damp inside of each utensil after all its contents have been carefully removed.—I am, etc., W. M. KELLY, M.D.

Taunton, December 21st, 1881.

[illegible]

[illegible] Maclagan has mentioned. Dr. Pagan's is the case to which Hennen refers in his *Principles of Military Surgery* [illegible] Edition, London, 1829, p. 252), where he writes: "I have had a case where the external ear was completely [illegible] by a cannon-ball, and yet the [illegible] hearing [illegible] as ever [illegible] Dr. John Thomson, then Regius Professor of Military Surgery in the University of Edinburgh, alludes to his [illegible] Dr. Pagan [illegible] Surgery, p. [illegible]; and Guthrie, [illegible] Hall, in [illegible] mentioning one of the strongest proofs against the [illegible] any truth in the popular notion of the dangerous and destructive effects of windage from heavy projectiles. It is curious what [illegible] which have been published [illegible] Dr. Pagan [illegible] Surgeon [illegible] Dr. Pagan [illegible] case to a visitor who was [illegible] with him at the [illegible] afterwards. "Dr. Pagan", he said, "at that time a lieutenant in a foot regiment, was standing talking to two other officers on the [illegible] when a round shot took off his ear, and killed both the officers with whom he was conversing. Dr. [illegible] was [illegible] and the wound soon healed [illegible] portion of the ear was [illegible] unfortunately [illegible] most. So much for the military surgery of that day!" Dr. Pagan, however, in his own report of his wound, writes: "I was treated most skilfully"; and, from the care taken to prevent the small opening into the external auditory canal from becoming occluded during the process of cicatrisation of the wound, and from other observations, although the cure was delayed for nearly six months, owing to exfoliations from the zygoma and malar bone, I think there is sufficient evidence that the wound was treated carefully and *secundum artem*. No stitches or sutures appear to have been employed in dressing the wound.

I regret that Dr. Pagan's account of his case is too long for me to transcribe here; but I will quote the part which leaves no doubt in my mind that the wound was caused by a "cannon-ball", and also what he writes regarding the [illegible] of hearing left after its infliction. As to the shot, Dr. Pagan writes: "Late in the afternoon of the 18th—our third day—we were standing or sitting, as ordered, between the charges of the French cavalry, when a ricochet shot plunged into the company I was commanding, and [illegible] a good deal of havoc. A number of our Grenadiers had his arm shot away, striking him near the shoulder-joint, and killing him at once. Several men in the same group also were killed, as I afterwards learned. For myself, in the stupefaction of the moment, I thought the half of my face was smashed", etc. It is obvious that neither a grape-shot or musket-bullet, which are alluded to by Professor Maclagan, could have effected such damage as is here described. And regarding the auditory acuteness, Dr. Pagan writes: "It is quite evident the mechanism of the internal ear is quite uninjured, but it is putting the matter rather too strongly to say that the hearing was not at all impaired. It would have been more correct to say that the hearing was duller, but not destroyed; and that from the rima, which admits the undulations of the air, having its opening rather backward, I hear a voice from behind better than when face to face. I have at all times, also, a singing on the left side, which ceases to disturb now, but, no doubt, has the effect of confusing my hearing to a slight degree." As Dr. Pagan's case has become one of historical interest, the particulars I have mentioned seem to be worthy of preservation.—Yours, etc.,

Netley, December 12th, 1881. [illegible]

FELLOWSHIP EXAMINATIONS.

SIR,—Twenty-five "good men and true" presented themselves at the recent examination for the Fellowship of the College of Surgeons, and seventeen, or more than two-thirds, have been referred for twelve months. Where, I would ask in all sincerity, does the fault lie? Surely, sir, not in the candidates! It is not to be credited. I, for one, dare to believe that seventeen earnest, hardworking, and intelligent men, who have each been striving to emulate one another in the knowledge and love of their profession for eight or ten years, are so far wanting in the fundamental knowledge of the science and art of surgery as not to deserve the highest honour which the College can confer. The question naturally arises, Are these examinations prepared and carried out with sufficient care to insure certitude as to results? From all that I know, and all that I have heard, about this particular examination, I have not the least hesitation in saying that the pre-arrangement was altogether faulty, and that a great injustice has been done to the majority of the men who were rejected. The examinations at the University of London are conducted with quiet order and precision, and the candidates are treated with the regard and respect which is due to all scientific men. Thus much cannot be accorded to the examiners at the College, where roughness and hurry were apparently the order of the day.

This subject is a very serious one for the profession; and I trust enough has been said to arouse the attention of all those who are interested in medical education and the general welfare of the profession.—Yours truly, HUMANITAS.

TREATMENT OF ECZEMA.

SIR,—In answer to "V. B. C.", I would recommend him to try thirty-grain doses of acetate of potash three times a day, internally; and to dust the affected parts with tannic acid, as often as may be required for drying up the discharges. If the linen cloths with which the sores are dressed should adhere to the skin, they may, prior to application, be smeared with calamine ointment. If the bowels be confined, and if they should not be rendered sufficiently open by the acetate of potash, they might be kept open by cream of tartar, or Epsom salts and infusion of senna. This treatment, faithfully adopted, and carried out for two or three weeks, may be expected to prove beneficial. Yours [illegible] ALEX. RAT, surgeon.

Stonehouse, N.B., December 26th, 1881.

TREATMENT OF EPILEPSY BY RUE.

SIR,—I should feel much obliged if any of your readers can give me any information on the subject of the treatment of epilepsy by rue. Are any well authenticated cases cured or benefited by its use reported? In what class of cases, and in what form and dose, is it best administered?

I should also be glad to know what examining bodies in England and Scotland grant licences similar to those of the Pharmaceutical Society of Ireland? Is there any licence or examination open to dispensers? and what privileges does it confer on them?—Yours faithfully, F.R.C.S.

The Position of Dental Surgery in the Medical Profession.

Sir,—It seems almost absurd to have to draw attention to the above subject; but personal experience convinces me that there is, perhaps, more need to do so now than ever before; because the proper line of demarcation between legitimate medical practice and that of dental surgery seems to be becoming more and more [illegible]. In the first instance, both the fault and the misfortune of [illegible] who practise surgery, and general practitioners seem to regard [illegible] as a [illegible]. As these cases almost invariably arise from [illegible] I will [illegible] to which they rarely proceed before; to the prejudice of dental surgery, but doctors hardly ever think of sending a patient to a dentist until they have dosed and treated them for months, or perhaps years. The cause of [illegible] is frequently a difficult matter to discover; the ordinary practitioner does not, as a rule, possess the necessary appliances for the investigation and treatment of these cases; and, therefore, it is due to the patient that he should be advised to consult the specialist first; if he fail, then, but not till then, the doctor should take the case in hand. Again, in chronic dyspepsia, the condition of the teeth does not often receive from the ordinary medical man the attention due to its importance; a casual glance, perhaps, when the tongue is examined, is considered quite sufficient; and, if a gap here or there be noticed, nothing is said. I have seen such cases, in which there was not a tooth in the head capable of performing its proper functions, and the patients were perfectly cured after being fitted with a serviceable set of false teeth. In these and similar ways our speciality is [illegible] with [illegible] of the most influential medical men seem to ignore all the claims of education, and send their patients to those whose only claim to professional status is the fact that they are [illegible], to say the least of it, unsatisfactory, and in which we [illegible] test, lest we should seem to be contented with the low position of equality to which the [illegible]. I am, sir, faithfully yours,

Norman Smith.

On Vaccination.

Sir, In reference to your [illegible] on the above subject, I would [illegible] whether the time has not come when the profession should no longer act on the defensive, but should carry the war into the enemy's camp, and leave no stone unturned [illegible] be abolished or modified in accordance with the [illegible] supported by Dr. Wallace.

Meanwhile, among many other arguments, there is one which I have not seen used [illegible] which, I think, should no longer be kept in the background—I mean the tortures inflicted by animals on themselves. In an Appeal to the Ministers of Religion of all Denominations, signed by G. R. Jesse, and issued by the Society for the Abolition of Vivisection, I find such passages as the following. "A more dreadful iniquity, a greater sin against God, has never degraded and polluted the human race, or is, unless [illegible] to certain [illegible] the moral [illegible] again: "Knowledge, even if it could be so obtained—*i.e.*, by vivisection—may not be bought at such an awful price as the infliction of agonising torture and death on the unoffending and the dumb; for, though they cannot proclaim their wrongs and appeal to an earthly tribunal, yet their cry is heard, and their Avenger is mighty."

May I ask Mr. Jesse how he can reconcile the above extracts from his appeal with the fact that the Creator, whose name he invokes, has called into existence a whole class of birds, beasts, reptiles, and fishes—to say nothing of teeming myriads of lower organisms—which subsist solely by preying on other animals, inflicting on the latter far more "agonising tortures and death" than the vivisector ever inflicts in his experiments? The victims of the latter can scarcely be counted by hundreds; the victims to man's wants, luxuries, and amusements, by millions; while those that fall a prey to the devouring instincts of the carnivora are innumerable, and beyond computation. I cannot tell why such things should be, and no doubt Mr. Jesse and his coadjutors would have ordered matters differently, yet so it has been ordained. With the above facts, then, staring them in the face, is it not monstrous that we, who devote our lives to the mitigation of the many "ills that flesh is heir to", should be persecuted and held up to obloquy because, in the pursuit of our benevolent purpose, we are occasionally obliged to inflict [illegible] on a few of the lower animals?

So [illegible] this "evil" without knowledge, agitation against vivisection [illegible] death, to the application, we dare not inoculate a mouse without the sanction of the Home Secretary, though a cat may inflict on it an amount of refined cruelty which our humanity would shrink from. Can [illegible] be carried further, and are our legislators to be permitted to make the [illegible] laughing-stock of the civilised world? To what a pitiable [illegible] have they and modest they have [illegible] brought us!

I am, etc., C. Hollingham.

Vaccination.

Sir, Near where I am practising, there is an anti-vaccinationist who has not a yet [illegible] vaccinated. He has never been before the magistrates; the reason being that the vaccinator is afraid of the [illegible] and the [illegible] vaccinator is guardian; therefore, [illegible] the [illegible] of the matter. It would be [illegible] know how [illegible] and [illegible] Yours etc.,

[illegible]

Sir, [illegible] the [illegible] League, I was informed that certain medical men, who disbelieved in vaccination, [illegible]

[illegible]

Sir, [illegible]

[illegible]

[illegible]

[

Attendance on Families of Medical Men.

Sir,—Will you allow me to express my surprise at the few answers to Mr. H. Thorne's query as to the above important matter. Surely, if charging is objected to in the unwritten etiquette of the profession, that is settled; if it is, "that medical men, their wives and families should not be charged, unless they wish to be", I imagine that there are few who do not accept this idea; and if so, does it not follow that their widows, whose position by the change (from wife to widow) must have altered for the worse, should be treated at least as liberally?

The plan suggested by J. M. B., M.D., seems more unsatisfactory than charging a regular scale of reduced fees; and, if carried out, will produce much inconvenience, and many heartburnings. I beg to submit that the case of Dr. James Edmunds does not apply to the present question. He was, to put it quite plainly, cheated by the relative; and, as desired by his late friend and patient, should have sent in his account in the regular way, in spite of the present, which he could have returned or kept as he thought fit. If doctors or their widows are "well off", and wish to pay, of course there can be no objection to charging them; and it should be understood that, if a medical man for good reasons object to attend his professional brother or his widow, he will be at liberty to refuse. The whole subject of medical attendance and fees no doubt requires investigation, but "reform" should aim at preventing people who can pay "provident" fees from getting advice at hospitals and dispensaries for nothing, and those who can pay regular fees from getting theirs for nominal ones.

A short time since, I heard of a lady, the wife of a solicitor of good position, who was in the habit of driving from one of the suburbs to Soho, alighting, and then walking to the Women's Hospital, where she was attended as a poor patient. This abuse is of the kind that should be altered; another is the gratuitous services of medical officers to hospitals and dispensaries. Reform should begin here, and should not be directed to changing the custom of attending, "for love", the young orphans and the widows of those who have finished their struggle in a noble, but badly remunerated, profession.—Yours obediently,

W. Cheetle James, M.D.

11, Marloes Road, Kensington, W., December 21st, 1881.

The Charting of Zymotic Disease.

Sir,—I should like to be allowed to state in the columns of the Journal that, after I sent you a copy of chart and circular on zymotic disease—its detection, etc., by charting—and not until then, it came to my knowledge that Dr. Taylor, medical officer of health for Scarborough, had had for a few years past a system of charting in operation, his own invention, and which, for places like that health-resort, appears to serve its purpose well. Dr. Taylor marks his chart in hieroglyphics to distinguish six complaints, using black ink in preference to colours, which, in an interesting correspondence I have had with him, he informs me he has tried. His is an annual chart only. It is due to him that I should make that statement, but due to myself to say that, neither in Scarborough nor elsewhere, is there any system in operation so complete as mine, and I will add so thorough. I propose monthly charting, the classification of seven diseases, illness and death being alike recorded, and the regular copying of those charts every month on to "half-yearly" or "yearly" maps, to be kept for reference by the Sanitary Committee, and, if need be, by the Medical Department of the Local Government Board.—I am, sir, yours faithfully,

W. W. Yates.

P.S.—It has been suggested that my system would fail where a medical officer happened to be colour-blind. In such a case, let the marking be done by the registrar of births and deaths, or by the clerk to the sanitary authority. As to illness, power to compel notification has been obtained by certain urban sanitary authorities by means of Improvement Acts. I hope similar powers will be given to all others.

The Opium Habit.

Sir,—In the Journal of October 29th last, p. 716, there is a paragraph on the Opium Habit, and the means to be adopted for its cure. This consists in a gradual reduction of the morphia, and a gradual increase of the amount of bromides to be given. In the article, there is no indication of the proportionate doses of morphia and of the bromides: that is to say, suppose a patient has been taking six or seven grains of morphia *per diem*, what quantity of the bromides should he commence with, and how should he go on gradually reducing the morphia and the bromides, so as to keep up the requisite proportions between the two drugs to produce the desired effect? An answer from yourself, or from any member of the Association, will much oblige yours truly,

Malwa.

Surgeons at Duels.

Sir,—Your correspondent "Cave-at Doctor" says: "Mr. Justice Cave's dictum, that the surgeon who attends a duel is equally guilty with the principal who fires the shot, is on a par with the dictum that the surgeon who undertakes the cure of a primary syphilitic ulcer is equally guilty with the patient who contracts it". To my mind, the two cases are not, as the lawyers would say, "on all fours". Without accepting Mr. Justice Cave's judgment as to surgeons who attend duels, I should consider myself guilty of gross unprofessional conduct if a man were to apprise me that he was about to incur the risk of contracting syphilis, and I were to agree beforehand to do my best to cure him.—I am, sir, yours faithfully,

December 27th, 1881. Cave Canem.

Gluten or Bran Bread.

Sir,—I shall be very pleased if any member of the medical profession will inform me of the easiest, best, and cheapest way of making either of the above articles of diet for diabetic patients. Also how the materials can be prepared for making it at home, and the place they can be obtained. I am asking this because I have one or two patients with diabetes who cannot afford to pay the price of London manufacturers, and to whom I think the above articles of diet are necessary for their recovery.—I am, etc.,

Enquirens.

Displacement of the Uterus and Dysmenorrhœa.

Sir,—With respect to the communication of Dr. Lombe Atthill, published in your Journal of December 24th, will you permit me to point out that his remarks upon a paper of mine are based upon an abstract only? In an abstract results alone can be given; it is not possible to describe fully how they have been reached. Dr Atthill will doubtless have an opportunity of reading the paper in question when the forthcoming volume of the Obstetrical *Transactions* appears; and he will then find that I have not "built up a theory upon the anatomical examination of the uterus ....omitting to study the cases during life"; but that, on the contrary, my estimate of the comparative value of *post mortem* and clinical evidence in the determination of the question at issue, is much in accord with his own. I would, therefore, respectfully ask him to suspend his judgment, so far as my paper is concerned, until he has read it.—I am, sir,

G. Ernest Herman.

7, West Street, Finsbury Circus, December 26th, 1881.

Unqualified Assistants.

Sir,—I have noticed, from time to time, letters in the Journal concerning unqualified assistants; some from medical men in favour of continuing to employ them as heretofore customary now; others expressing a contrary view. Having occasion to look over the Apothecaries' Act of 1815, I came across the following section, which, according to my interpretation, renders the practice of an unqualified person as an assistant distinctly illegal, and, as I have never seen any reference to it anywhere, I thought it might interest some of your readers who are unaware of its existence.

"Section xvii. And be it further enacted, that, from and after the first day of August 1815, it shall not be lawful for any person or persons (except the persons then acting as assistant to any apothecaries as aforesaid, and except any person who have actually served an apprenticeship of five years to an apothecary, to act as an assistant to any apothecary, in compounding or dispensing medicines without undergoing an examination by the said court of examiners, or the major part of them, or by five apothecaries, to be appointed as hereinafter is mentioned; and obtaining a certificate of his or their qualification to act as such assistant from the said court of examiners, or the major part of them, or from the said five apothecaries, who are hereby authorised and empowered to examine all persons applying to them for that purpose, and to grant a certificate of such fitness and qualifications."

Section xx fixes the penalty for every such offence at £5.—Yours faithfully,

James M. Naught, M.D., M.R.C.S.

Newchurch-in-Rossendale, December 20th, 1881.

Fees.

Sir,—I have twice, in your pages, advocated fee-payments instead of bills, as far as possible. In the Journal for December 21st, 1872, page 703, is one letter about it. The plan of taking fees whenever practicable has been carried into effect by me, and by others at my suggestion, to our direct gain, remuneration having been thus received which would otherwise have been lost, and patients retained for years, who, if they had an unpaid account, would never have shown their face again. Of course, the fee-system cannot be applied to all patients in general practice; we must discriminate. In the case of substantial ratepayers, heads of families, it would hardly do; but in the case of persons in lodgings, birds of passage, those who are not ratepayers, and many *employés*, it is very applicable; also in the case of doubtful people, and invariably in venereal cases.

Furthermore—1. In giving evidence in any law-court, we should always obtain our fees beforehand. We have no redress afterwards. 2. We should give no life-assurance information without a proper fee. The same with various certificates (excepting club, hospital, and parish matters) demanded by all sorts of people. 3. Chemical analyses, sanitary inspections, personal examinations, and other professional inquiries, should all be paid for beforehand, or before the result is communicated to the parties. 4. When called to a sudden emergency in the case of a stranger, we are often left without the slightest acknowledgment of our services. Here I can only suggest that, when we have done all we can for the sufferer, if the fee remain unpaid, should he or his friends want a certificate, or an answer to a question, our compliance should always be prefaced by a request for our fee. 5. When summoned to a case of fatal accident or sudden death, it is well to answer no question about the case, no matter by whom put, lest we frustrate a necessary inquest.

All these precautions, most requisite for our own protection, are perfectly consistent with every possible attention, kindness, consideration, and urbanity, towards our patient and those belonging to him. Every well-trained and right-feeling medical man will keep in view what is thus due from him to others; but that is quite a distinct affair from what is due from others to him. They are entirely separate matters, and it is our duty to attend properly to both. The other point named in my former letter I will not repeat, but merely refer to.—I am, sir, your obedient servant,

A Provincial Surgeon.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. De Berdt Hovell, Clapton; Dr. Sanctuary, Hayle; Mr. Beaumont, Bath; K. T.; Dr. Gorham, Letterfrack; Mr. Reginald Harrison, Liverpool; Dr. C. S. Cobbold, Colney Hatch; Sir William Mac Cormac, London; Dr. R. Farquharson, London; Mr. C. Orton, Newcastle-under-Lyme; M. B. M. A.; Mr. R. Clement Lucas, London; Dr. Bowles, Folkestone; Mr. Herbert Page, London; Justitia; L.K.Q.C.P.; Mr. Lennox Browne, London; Dr. Crichton Browne, London; Dr. J. Hirschberg, Berlin; Medical Officer of Health; Dr. Ireland, Broadmoor; Dr. S. O. Habershon, London; Mr. W. P. Mears, Newcastle-on-Tyne; Dr. Herman, London; Mr. Biddle, Kingston-on-Thames; Dr. G. Henty, London; Mr. G. A. Cardew, Cheltenham; Junior Member; Mr. T. Drapes, Enniscorthy; Our Paris Correspondent; Veritas; Our Dublin Correspondent; Mr. H. L. Bernays, Old Charlton; Mr. T. Dickinson, London; Mr. Walter Whitehead, Manchester; Dr. T. G. Stewart, Edinburgh; Dr. John Bassett, Birmingham; Mr. F. Wallace, London; Mr. J. K. Burt, Kendal; Teredo; Mr. W. J. Land, Tunbridge; Dr. C. F. Brookhouse, London; Mr. J. Bruce Ronaldson, Haddington; Dr. Robert Ramsay, Lochwinnoch; Dr. E. Markham Skerritt, Clifton; Inquirer; Dr. Coats, Glasgow; A Perplexed Member; Dr. Saundby, Birmingham; Mr. Creswell Baber, Brighton; Dr. G. W. Potter, London; Elector; Dr. Ashby, Manchester; Mr. W. W. Yates, Dewsbury; Dr. Julius Althaus, London; Dr. W. Latter, Southam; Major Duncan, Woolwich; Dr. C. R. Drysdale, London; etc.

Scale of Charges for Advertisements in the "British Medical Journal"

Seven lines and under	£0 3 6
Each additional line	0 0 4
A whole column	1 15 0
A page	5 0 0

An average line contains eight words.

When a series of insertions of the same advertisement is ordered, a discount is made on the above scale in the following proportions, beyond which no reduction can be allowed.

For 6 insertions, a deduction of	10 per cent.
,, 12 or 13 ,, ,,	20 ,,
,, 26 ,, ,,	25 ,,
,, 52 ,, ,,	30 ,,

Advertisements should be delivered, addressed to the Manager, at the Office, not later than Twelve o'Clock on the Wednesday preceding publication; and, if not paid for at the time, should be accompanied by a reference.

Post-Office Orders should be made payable to the British Medical Association, at the West Central Post-Office High Holborn. Small amounts may be sent in postage stamps.

MAILING LIST JUN 1 1962

R
31
B93
1881
v.2
cop.2

British medical journal
1881, v.2

Biological
& Medical
Serials

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

STORAGE